Environmental Review Record (ERR) PR-CRP-000262

ER Form of the Housing Department of Puerto Rico

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

espanol.hud.gov

Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5

Pursuant to 24 CFR 58.35(a)

Project Information

Project Name: Public Lightning Infrastructure Rehabilitation Affected by Hurricane Maria at Caguas Urban Center, Main Avenues and Streets (PR-CRP-000262)

Responsible Entity: Puerto Rico Department of Housing (PRDOH)

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

State/Local Identifier: Puerto Rico

Preparer: Carol M. Márquez Colón

Certifying Officer Name and Title: Guillermo Rivera Cruz
Environmental Affairs Director

Consultant (if applicable):

Direct Comments to: Guillermo Rivera Cruz- Municipality of Caguas
Certifying Officer
guillermor@caguas.gov.pr
787-653-8833 ext. 1719

Project Location: The Project sites are mainly located along the Luis Muñoz Marín Avenue latitude 18.2287644517512, longitude-66.02419249860569. It also includes Leoncio Vázquez Boulevard area latitude 18.25413087256423, longitude -66.03734820179972; Rafael Cordero Avenue up to Vizcarrondo Street latitude 18.232958738945854, longitude -66.03158223900671; Road PR-156 between José Mercado Avenue and Sara Bridge latitude 18.234553023255643, longitude -66.03839022604858; Road PR-34 segment between Luis Muñoz Marín Avenue and San Alfonso Estates latitude 8.22832508232118, longitude -66.05350434412603. Gautier Benítez Avenue latitude 18.22723 longitude -66.03452. The Pueblo Ward includes the following streets: Acosta, Goyco, Padial, Muñoz Rivera, Cristóbal Colón, Baldorioty, Betances, Rafael Cordero, Ruiz Belvis including Georgetti Avenue.

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

After the pass of Hurricane María and other atmospheric events, the city infrastructure has suffered serious damages, including the public lightning infrastructure. The destruction caused by the hurricane was evaluated by the Federal Emergency Management Agency (FEMA) and other authorities. The results allowed the President of the United States to declare Puerto Rico a Disaster Zone, including our city. This project is subsidized by FEMA and Community Development Block Grant – Direct Relief Program (CDBG- DR) funds. The project was evaluated by FEMA who assigned funds after completing a Record of Environmental Consideration (REC). However, because CDBG-DR funds are greater than FEMA, the environmental review report is charge of CDBG-DR jurisdiction.

The Project main objective is the rehabilitation of public luminaries in public streets and avenues of the city with a more resilient structure using technologies that reduce energy consumption. These avenues and streets provide access from urban areas to different rural and urban communities across the city. The rehabilitation project includes the following:

- Replacement of luminaries affected by Hurricane María.
- Replacement of electric poles to meet the standards to be wind resistant.
- Replacement of poles and bases with LED technology luminaries to reduce energy consumption.
- Repair of wiring and any other electrical components necessary for the proper operation of the luminaries.

-Gautier Benítez Avenue (from PR -33 to PR-52 Bridge)
-Degetau Avenue, Pino Avenue and San Carlos Street

- Repair the roads lightning system with the existing footprint
- Removal and replacement of ornamental luminaries and posts in both locations

-Luis Muñoz Marín Avenue& Leoncio Velázquez Boulevard

- Replacement and /or removing of lightning pole lamps and ornamental posts
- Removal and replacement of recessed step floor lights, wiring and copper lightning pole fuses
- Replacement of lighting poles open type contactor electrical panel and electrical base meter.

-PR-156

- Remove and replace ornamental luminaries and posts.
- Repair the roads lightning system with the existing footprint

-Pueblo Ward, Rafael Cordero Avenue and Gautier Benitez Avenue

- Replacement and /or removing of lightning pole lamps and ornamental posts
- Removal and replacement of recessed step floor lights, wiring and copper lightning pole fuses

The initial estimated costs for this project in February 2022 were about 3,753,895.00. These costs changed, and the actual estimate costs in July 2025 are 19,252,614.75. The information related to

the estimated costs was provided by the Secretariat of Infrastructure, Ornamentation, and Conservation of our Municipality.

Exhibit A Memorial Public Lightning Memorial
Exhibit A1 Schematic Plans
Exhibit 1a Aerial Map of Avenues Aerial Avenues and streets
Exhibit 1b Aerial Map of Pueblo Ward Streets
Exhibit 1c Public Lightning Avenues and Streets Photos

Level of Environmental Review Determination:
Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at §58.5:_____

Funding Information

Grant Numbers	HUD Program	Funding Amount
B-17-DM-72-001	Community Development Block Grant –	$1,507,179,000.00
B-18-DP-72-0001	Direct Relief Program (CDBG-DR)	$1,700,000,000.00
Another funds allocation	Federal Emergency Management Agency (FEMA)	$10,666,653.47

Estimated Total HUD Funded Amount:
$3,757,895.00

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:
$3,757,895.00

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 contact, and page references. Attach additional documentation as appropriate.

Rehabilitation of public facilities and improvements other than buildings 24 CFR 58.35(a)(1): This activity is CEST if the facilities and improvements are in place and retained in the same use without change in size or capacity of more than 20 percent. Acceptable activities include the replacement of water or sewer lines, reconstruction of curbs and sidewalks, and repaving of streets.

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Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations **Mitigation is required for this project.**
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	The Municipality of Caguas does not have a military or civilian airport in its territorial jurisdiction. The nearest civilian or military airport is the Luis Muñoz Marín International Airport (LMMIA) in San Juan. The closest runaway is at the northern side from Caguas, which serves both civil and military flights. The project is not within 2,500 feet of a civil airport or 15,000 feet of the military. The LMMIA is located 66,792 feet (12.65 miles) from the project. That means it is not located within a Runaway Potential Zone/Clear Zone (RPZ/CZ) or potential Zone (APZ). Therefore, the project is in compliance with HUD's Airport Hazard Requirements. **Exhibit 2 Airport Hazards Map**
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Puerto Rico is one of the areas with Coastal Barrier Resources Systems (CBRS). However, the project is located 67,584 ft (12.80 miles) away from the nearest CBRS (Punta Vacia Talega). The project location is outside the coastal zone limits and /or is not expected to affect natural resources, land uses, or water uses in the Puerto Rico coastal zone. The project is not located in CBRS Unit. Consequently, the project has no potential to impact on a CBRS unit and is in compliance with the Coastal Barrier Resource Act. There are no anticipated adverse effects due to the project's development. **Exhibit 3 Coastal Barrier Map**
Flood Insurance	Yes ☐ No ☒	According to the Federal Emergency Management Agency's (FEMA) Flood

Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]		Insurance Rate Map (FIRM), the location of the project activities are located near areas of "Minimal Flood Hazard" [FIRM panel 72000C1210J] Zone X, with active date:11/18/2009. These zones are near Rafael Cordero Avenue, PR-34 and Gautier Benítez Avenue. Other areas (Muñoz Marín Avenue, Leoncio Velázquez Blvd, PR 156) will be adjacent to 100- yr floodplain, [FIRM Panel 72000C0745J] (Zone AE), with active date:11/18/2009. These floodplains are areas subject to a 1% annual chance of flood. The project will take place on avenues and state streets that does not require flood insurance. Adjacent structures are not anticipated to be adversely affected by the project's implementation, as the stormwater management infrastructure in the area will remain unchanged. Given the nature of the project (rehabilitation of public lightning infrastructure), obtaining insurance for the project is not necessary. The project is in compliance with Flood Insurance requirements. **Exhibit 4 FEMA Flood Map**
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	The Municipality of Caguas is classified as an attainment area. The project location is not currently listed as a nonattainment area. Also included the Greenbook list for nonattainment counties for Air Quality. However, during the rehabilitation of public lightning infrastructure, the contractor must implement measures to prevent dust from becoming a nuisance to neighboring areas. Based on the project description (rehabilitation of public lightning infrastructure), this project will have no impact and does not include activities that would require further evaluation under the Clean Air Act. The project is in compliance

		with the Clean Air Act with no further evaluation. **Exhibit 5 Caguas Nonattainment Map** **Exhibit B PR Air Quality Attainments 2025**
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The proposed project is not located, nor does it affect the coastal zone. The Municipality of Caguas does not have any coastal zone. The nearest coast is 18 miles away; consequently, it is not defined as a Coastal Municipality by the Puerto Rico Coastal Zone Management Program (PRCZM). This project is located outside the area identified as Coastal Zone Line Boundary; thus, it does not affect Coastal Zone Management Plan. There are no anticipated adverse effects related to the project's development in a coastal zone. The project is in compliance with the Coastal Zone Management Act. **Exhibit 6 PMZC Map of Puerto Rico**
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☒ No ☐	Using NEPA Assist Tool and establishing a midpoint in each avenue with one mile buffer radius; we analyze the compliance at sites under the EPA facilities. **Rafael Cordero Avenue and Pueblo Ward Streets** Based on the results there are three sites identified, two of them are in compliance and one site is inoperant. The nearest operating site is Mova Pharmaceutical Corp located at a distance of 0.93 miles. The farthest operating site, UltraLumber Corp, is located at a distance of 0.99 miles. **Luis Muñoz Marín Avenue** Based on the results there are two sites identified. The nearest site, Searle Corp, is inoperant located at a distance of 0.35 miles. The farthest operating site is UltraLumber Corp located at a distance of 0.88 miles in compliance. **José Gautier Benítez Avenue** Based on the results there are two sites identified. The nearest site is Arbrook MFG Corp at 0.64 miles in compliance. Rattan Industries Inc is the farthest, inoperant at 0.92 miles.

		PR-156 Based on the results there are five sites identified. The nearest sites are Bull Bond MFG and Rattan Industries at 0.22 miles; the first is unknown and the other is inoperant. Quality Electroplating Corp is the farthest site at 0.88 miles in compliance. **PR-34** Based on the results there are three sites identified. The nearest site is Arbrook MFG Corp at 0.43 miles. Bull Bond MFG is the farthest site at 0.89 miles its status is unknown. **Leoncio Velázquez Boulevard** The results identified four sites. The nearest site is Ultra lumber Corp at 0.39 miles. Manufacturing Technology Service at 0.81 miles is the farthest site. Both sites are in compliance. The uses in the project area are mostly commercial with some housing units around in populated areas. The areas where the project will take place were inspected and no landfills, dumps or substations were identified in the surroundings. RCRA and TRI data were included in the exhibits. In ECHO reports, no violations were recorded for sites within a radius of one mile of the project. Due to the project not being linked to a building, property, or any structure there is no need to proceed with the radon test. No investigations or citizens' complaints about chemical accidents or hazardous situations have been reported or notified to our Office. Using EPA UTS's Finder tools to evaluate the location and compliance for the sites, there are many located near the project area. The locations found are classified as unknown. Due to the project not being linked to a building, property, or any structure, there is no need to proceed with the radon test. The project is in compliance with contamination and toxic substances requirements. Please refer to the attached memorandum detailing the situation related to lead-based paint presence at the project site and the

		corresponding mitigation process. Site contamination was evaluated and inspected on December 2022 by DNER certified contractor, where findings showed that in Road PR-34 intersection with Degetau Avenue the concrete light pole bases and the metal light pole bases on the right and left side of the intersection were covered with lead based paint. In addition, in Road PR-156 intersection with PR-33 the concrete light pole bases and the metal light pole bases on the right and left side were covered with lead based paint. Furthermore, in José Gautier Benítez Avenue intersection there is one pole covered with lead based paint as referred in the site contamination inspection evaluated by DNER certified contractor on February 28,2023. It is acknowledged that similar conditions may arise in other sectors, including Rafael Cordero Avenue, Luis Muñoz Marín Avenue, and the Pueblo Ward. Should such circumstances be identified, corresponding mitigation actions will be undertaken in accordance with established environmental protocols. Due to the presence of an elevated concentration of LBP, mitigation measures will be conducted by a certified DNER contractor before doing any paint work to prevent Lead dust hazards during the project. Mitigation measures would include controlled removal and proper disposal by a licensed professional recommendation following applicable regulations. Based on the EPA regulations lead based paint, and asbestos materials are classified as non-hazardous materials. However, they are special management materials. Under HUD regulations, lead is classified as a hazardous material. Although the proposed project is focused on infrastructure, mitigation measures will be implemented due to the rehabilitation of existing structures.

		Exhibit 7a Bull Bond MFG Map **Exhibit 7b Neolpharma Inc Map** **Exhibit 7c Quality Electroplating Corp** **Exhibit 7d Ultralumber Map** **Exhibit 7e UST Finder Caguas** **Exhibit E1 RCRA Contamination and Toxic** **Exhibit E2 TRI Contamination and Toxic** **Exhibit E3 Pictures of Lead Based Paint poles with bases Degetau Avenue and PR 156** **Exhibit E4 Lead Based Paint Report-Gautier Benítez Avenue** **Exhibit E5 Lead Based Paint Report Degetau Avenue and PR 156** **Exhibit E6 Detailed Facility Report – ECHO US EPA Mova Pantheon Pharmaceuticals** **Exhibit E7 Detailed Facility Report – ECHO US EPA Bull Bond** **Exhibit E8 Detailed Facility Report – ECHO US EPA Neolpharma Inc** **Exhibit E9 Detailed Facility Report – ECHO US EPA Quality Electroplating Corp** **Exhibit E10 Detailed Facility Report – ECHO US EPA Ultralumber** **Exhibit E11 Lead Based Paint Contamination Memorial**
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ■	USFW issued a Blanket Clearance Letter for HUD federally sponsored projects on March 20,2025. Our Project Complies with criteria # 1& #2 of this clearance letter. According to the USFW Puerto Rico Field Office, the Municipality Self Certification for Compliance with Blanket Letter dated in April 2025, will be included in the case documentation to comply with the Endangered Species Act.

		USFW concur with our determination on communication issued on April 29, 2025. This project, for this evaluation, was aggregated with PR-CRP-000252, will have NO EFFECT on listed species based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by the local HUD office. This project is in compliance with the Endangered Species Act. **Exhibit F FWS Documentation Tract**
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ■	The project does not include any hazardous facilities either or a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries). The project activities will not increase residential densities or convert other uses into residential ones. Based on project description, rehabilitation of public lightning infrastructure in avenues and streets, the project does not include activities that would require further evaluation under this section. The project is in compliance with explosive and flammable hazard requirements. ***No documentation attached**
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ■	The project area has been impacted previously. The proposed project consists in the rehabilitation of public lightning infrastructure in existing streets and avenues of the city. The project is out of agricultural reserves, experimental stations, and soils classified with agricultural capacity or classified as prime agricultural land, according to the Soil Survey from NRCS. Caguas does not have protected areas covered by the Farmlands Protection Policy Act. This project does not include any activities that could potentially convert agricultural land to non-agricultural use. Furthermore, the soil in the area are not identified as Farmland of Statewide Importance. This project is in

		compliance with the Farmland Protection Policy Act. **Exhibit G Soil Report Complete**
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	The proposed project is situated in combined zones. According to Puerto Rico Advisory Base Flood Elevations (ABFE'S) part of the project is located near floodplain areas. Floodway portion of the Luis Muñoz Marín Avenue is over Cagüitas River. Vehicular and pedestrian transit in this section is directed over a bridge. Furthermore, the Leoncio Velázquez Boulevard is near Bairoa River. Based on 24 CFR part 55 there are many articles that can be applied to this project. This project has areas that can be described as a functionally dependent use. Functionally dependent uses, as defined in 55.2 (b) (7) means "land use that must necessarily be conducted in close proximity to water (*e.g.,* a dam, marina, port facility, water-front park, and many types of bridges)". The public lightning infrastructure rehabilitation project potential impacts to the floodplain will be limited due to rehabilitation occurring within the previously impacted area, in this case, a bridge crossing Cagüitas River. This project includes the rehabilitation of public lightning damaged by Hurricane María during its impact in our city, that was declared a disaster zone as part of Puerto Rico declaration of disaster by the President of the United States in September 2017. The article of 55.8 (a) (1) (ii), "Any rehabilitation, including reconstruction in the case of properties affected by Presidentially declared disasters, that does not expand the footprint of the buildings or the number of units on the site would be allowed within the FFRMS floodplain outside of the floodway." Based on this article the rehabilitation can take place near a floodplain area included in this project based on this article.

		Article 55.13 (f) states "Special projects for the purpose of improving the energy or water efficiency of utilities or installing renewable energy that involve the repair, rehabilitation, modernization, weatherization, or improvement of existing structures or infrastructure, do not meet the thresholds for "substantial improvement" under 55.12 (b) (12), and do not include the installation of equipment below the FFRMS floodplain elevation". This explains the inapplicability of the 8 steps decision making process for this project. The project includes the installation of public lightning using LED technologies to reduce energy consumption and do not meet the thresholds for "substantial improvement as established in the article. Areas adjacent to the 100-yr floodplain Zone AE, are located at Muñoz Marín Avenue, Leoncio Velázquez Blvd, PR 156) [FIRM Panel 72000C0745J] (Zone AE), with active date:11/18/2009. Thus, zones outside the 100-yr floodplain, "Minimal Flood Hazard" [FIRM panel 72000C1210J] Zone X, with active date:11/18/2009 are near Rafael Cordero Avenue, PR-34 and Gautier Benítez Avenue. These floodplains are areas subject to a 1% annual chance of flood. Based on the information provided, this project complies with HUD's Floodplain Management Regulations of 24 CFR Part 55. **Exhibit 8 Flood Hazard Map Caguas** **Exhibit 8a Floodplain Map Leoncio Velázquez Boulevard** **Exhibit 8b Floodplain Map Luis Muñoz Marín Avenue** **Exhibit 8c Floodplain Map PR 156** **Exhibit 8d Floodplain Map Rafael Cordero Avenue**

		Exhibit 8e Floodplain Gautier Benitez Avenue **Exhibit H1 Caguas PR CRP 000262 Flood Zone Notification Letter** **Exhibit H2 24 CFR 55.12** **Exhibit H3 24 CFR 55.13** **Exhibit H4 24 CFR Part 55**
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	SHPO communication dated on May 23,2025, determined to support our findings of **no historic properties affected** in the areas of Luis Muñoz Marín Avenue, Rafael Cordero Avenue, Boulevard Leoncio Vázquez, PR-156, PR-34, José Gautier Benítez Avenue and Pueblo Ward related with this project. Based on Section 106 consultation, there are No Historic Properties Affected, because there are no historic properties in the areas of this project. The project is in compliance with Section 106. **Exhibit I SHPO Letter**
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	Based on the project description (rehabilitation of public lightning infrastructure in existing streets and avenues of the city), this project includes no activities that would require further evaluation under HUD's Noise Regulation. The project **does not include**: • New construction for residential use • Rehabilitation of an existing residential property • A research demonstration project which does not result in new construction or reconstruction • An interstate land sales registration The project is in compliance with HUD's Noise Regulation. ***No documentation attached**

Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	Puerto Rico is included in Region II of the USA EPA designated sole - source aquifer regions. There are no designated Sole Source Aquifers in Puerto Rico. According to EPA Sole Source Aquifers Map, the project is not located in a sole source aquifer area. The project is limited to rehabilitation of public lightning infrastructure in existing streets and avenues of the city. The project consists of activities that are unlikely to have an adverse impact on groundwater resources. The project is not served by designated sole source aquifers nor is it located within a sole source aquifer watershed. The project is in compliance with Sole Source Aquifer requirements without any further evaluation. **Exhibit J Sole Source Aquifers**
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	This project does not involve new construction as defined in Executive Order 11990. The proposed action (rehabilitation of public lightning infrastructure in existing streets and avenues) does not involve new construction in a wetland. The project does not require draining, dredging, channelizing, filling, diking, impounding or related activities on a wetland area as defined in Executive Order 11990. Furthermore, a permit will not be required as per section 404 of the Clean Water Act, because the project will not require the discharge of dredger or filing materials into wetlands. Despite the proximity of wetlands, the project does not include activities that would require further evaluation under this section. The project is in compliance with Executive Order 11990. **Exhibit K Wetlands Inventory Map**
Wild and Scenic Rivers	Yes ☐ No ☒	Puerto Rico has approximately 5,385 river miles, but only 8.9 miles of three rivers are designated as wild & scenic. The areas of this

Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)		project are not within proximity to National Wild and Scenic Rivers (NWSRS). The Municipality of Caguas does not have any river registered as a Wild and Scenic River, Study River, or listed in the Nationwide Rivers Inventory (NRI). There are no surrounding rivers that qualify as wild and scenic rivers in Caguas jurisdiction. The project is in compliance with the Wild and Scenic Rivers Act. **Exbibit L1 Puerto Rico WSR** **Exhibit L2 WSR Inventory** **Exhibit L3 Puerto Rico WSR Map with distance**

Field Inspection (Date and completed by):

A visual field inspection for this project was conducted on April 7, 2021, by the Eng. José J. Rivera González, Public Works Director of the Municipality of Caguas. A field inspection for this project area (PR-34 Int. Degetau Avenue) was conducted to examine the presence of asbestos and lead-based paint on December 3, 2022, by Elis J. Morales, state certified lead-based paint inspector for Global Environmental Services LLC. On February 21 and 22, 2023, inspections were carried out in (Gautier Benítez Avenue and San Carlos Street) to examine for the presence of asbestos and lead- based paint by Grace Berríos and Erick Pagán, state certified inspectors for Share Tech Group. In both inspections, lead-based paint was found in few lightning poles. Refer to Exhibit E4 and E5 for Field Inspections Reports.

Summary of Findings and Conclusions:

The activities involved in this project are public lightning rehabilitation activities on existing main avenues streets in

Caguas, a populated area. After completing the other portions of the environmental review, we determined that neither the project sites nor

The surrounding neighborhood suffered from adverse environmental conditions. The project is out: (a) of the airport hazard zones, (b) out of flood zone (according to FEMA FIRM Maps), (c) out of coastal barrier zones (according to Puerto Rico Coastal Zone Management Program) (d) compliance with Clean Air Act/ (e) no violations on RCRA permits are found in sites surrounding the project area (according to NEPA

Assist & ECHO reports) (f) the project will not result in an increased number of people in the area, (g) there are not AST'S in the project surroundings; (h) doesn't impact a farmland/ sole aquifer/ wild rivers or wetlands areas (according to location map)/ (i) is not a hazardous or flammable facility (j) is not a new construction that exceeds the building footprint, (k) no noise abatement needed, (1) SHPO determined that the project have no impact on historical properties in the area and (m) comply with USFW Blanket Clearance Letter for HUD funding projects and concur with our determination.

In terms of contamination and toxic, lead based paint has been found in a few areas of the project. Due to the presence of an elevated concentration of LBP, mitigation measures will be conducted by a certified DNER contractor before doing any paint work to prevent lead dust hazards during the project. Mitigation measures would include controlled removal and proper disposal by a licensed professional recommendation following applicable regulations.

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

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

Law, Authority, or Factor	Mitigation Measure
Contamination & Toxic	**Lead Based Paint Presence** Due to the presence of an elevated concentration (more than 1mg/cm^2) of LBP, mitigation measures will be conducted by a certified DNER contractor before doing any paint work to prevent Lead dust hazards during the project. Mitigation measures would include controlled removal and proper disposal by a licensed professional recommendation following applicable regulations.

Project Mitigation Plan

The DNER-certified consultant will obtain a permit to initiate the mitigation process. The structures will be mitigated, proper disposal will be carried out, and a closure report will be drafted in accordance with the requirements and applicable regulations.

Determination:

☐ This categorically excluded activity/project converts to Exempt, per 58.34(a)(12) because there are no circumstances which require compliance with any of the federal laws and authorities cited at §58.5. **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project, OR

☒ This categorically excluded activity/project cannot convert to Exempt because there are circumstances which require compliance with one or more federal laws and authorities cited at §58.5. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain**

"Authority to Use Grant Funds" (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds, OR

☐ This project is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Preparer Signature: Carol M. Márquez Date: 08/14/2025

Name/Title/Organization: **Carol M. Márquez Colón - Environmental Specialist**
Municipality Caguas

Responsible Entity Agency Official Signature (Certifying Officer):

_____ Date: 8/14/2025

Name/Title: **Guillermo Rivera Cruz – Environmental Affairs Director**

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).

ER Form of the U.S. Department of Housing and Urban Development (HUD)

U.S. Department of Housing and Urban Development
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Washington, DC 20410
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Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5

Pursuant to 24 CFR 58.35(a)

Project Information

Project Name: Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262

HEROS Number: 900000010485803

Start Date: 07/23/2025

State / Local Identifier:

Project Location: Various locations, Caguas, PR 00725

Additional Location Information:
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Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:
After the pass of Hurricane Maria and other atmospheric events, the city infrastructure has suffered serious damages, including the public lightning infrastructure. The destruction caused by the hurricane was evaluated by the Federal Emergency Management Agency (FEMA) and other authorities. The results allowed the President of the United States to declare Puerto Rico a Disaster Zone, including our city. This project is subsidized by FEMA and Community Development Block Grant - Direct Relief Program (CDBG- DR) funds. The project was evaluated by FEMA who assigned funds ($10,666,653.47) after completing a Record of Environmental Consideration (REC). However, because CDBG-DR funds are greater than FEMA funds allocation, the environmental review report is in charge of CDBG-DR jurisdiction. The Project main objective is the rehabilitation of public luminaries in public streets and avenues of the city with a more resilient structure using technologies that reduce energy consumption. These avenues and streets provide access from urban areas to different rural and urban communities across the city. This rehabilitation don't included extension of the existing Right of Way (ROW) or land acquisitions. The rehabilitation project includes the following: *Replacement of luminaries affected by Hurricane Maria. *Replacement of electric poles to meet the standards to be wind resistant. *Replacement of poles and bases with LED technology luminaries to reduce energy consumption. *Repair of wiring and any other electrical components necessary for the

proper operation of the luminaries. -Gautier Benitez Avenue (from PR -33 to PR-52 Bridge) -Degetau Avenue, Pino Avenue and San Carlos Street *Repair the roads lightning system with the existing footprint *Removal and replacement of ornamental luminaries and posts in both locations -Luis Munoz Marin Avenue& Leoncio Velazquez Boulevard *Replacement and /or removing of lightning pole lamps and ornamental posts *Removal and replacement of recessed step floor lights, wiring and copper lightning pole fuses *Replacement of lighting poles open type contactor electrical panel and electrical base meter. -PR-156 *Remove and replace ornamental luminaries and posts. *Repair the roads lightning system with the existing footprint -Pueblo Ward, Rafael Cordero Avenue and Gautier Benitez Avenue *Replacement and /or removing of lightning pole lamps and ornamental posts *Removal and replacement of recessed step floor lights, wiring and copper lightning pole fuses The initial estimated costs for this project, in February 2022, were about $3,753,895.00. These costs changed, and the actual estimate costs in July 2025 are $19,252,614.75. The information related to the estimated costs was provided by the Secretariat of Infrastructure, Ornamentation, and Conservation of our Municipality.

Level of Environment Review Determination:

Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at §58.5:

Funding Information

Grant Number	HUD Program	Program Name	
B-17-DM-72-001	Community Planning and Development (CPD)	Community Development Block Grants (Disaster Recovery Assistance)	$1,507,179,000.00
B-18-DP-72-0001	Community Planning and Development (CPD)	Community Development Block Grants (Disaster Recovery Assistance)	$1,700,000,000.00

Estimated Total HUD Funded Amount: $3,757,895.00

Estimated Total Project Cost [24 CFR 58.2 (a) (5)]: $3,757,895.00

Mitigation Measures and Conditions [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 or Condition	Comments on Completed Measures	Complete
Contamination and Toxic Substances	The certified DNER contractor will mitigate the lead-based paint presence in the area before the rehabilitation tasks begins.	N/A	

Determination:

☐	This categorically excluded activity/project converts to **EXEMPT** per Section 58.34(a)(12), because it does not require any mitigation for compliance with any listed statutes or authorities, nor requires any formal permit or license; **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project; OR
☒	This categorically excluded activity/project cannot convert to Exempt status because one or more statutes or authorities listed at Section 58.5 requires formal consultation or mitigation. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain "Authority to Use Grant Funds"** (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR
☐	This project is not categorically excluded OR, if originally categorically excluded, is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Preparer Signature: Carol M. Márquez **Date:** 8/14/25

Name / Title/ Organization: Carol M. Márquez / / CAGUAS

Responsible Entity Agency Official Signature: _____ **Date:** 8/14/25

Name/ Title: Guillermo Rivera Cruz, Certifying Officer COBA-DR

Original

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

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

Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5

Pursuant to 24 CFR 58.35(a)

Project Information

Project Name: Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262

HEROS Number: 900000010485803

Start Date: 07/23/2025

Responsible Entity (RE): CAGUAS, BOX 907 CAGUAS MUNICIPIO PR, 00726

State / Local Identifier:

RE Preparer: Carol M. Márquez

Certifying Officer: Guillermo Rivera Cruz

Grant Recipient (if different than Responsible Entity):

Point of Contact:

Point of Contact:
Consultant (if applicable):

40 CFR 1506.5(b)(4): The lead agency or, where appropriate, a cooperating agency shall prepare a disclosure statement for the contractor's execution specifying that the contractor has no financial or other interest in the outcome of the action. Such statement need not include privileged or confidential trade secrets or other confidential business information.

- ✓ By checking this box, I attest that as a preparer, I have no financial or other interest in the outcome of the undertaking assessed in this environmental review.

Project Location: Various locations, Caguas, PR 00725

Additional Location Information:
The Project sites are mainly located along the Luis Munoz Marin Avenue latitude 18.2287644517512, longitude-66.02419249860569. It also includes Leoncio Velazquez Boulevard area latitude 18.25413087256423, longitude -66.03734820179972; Rafael Cordero Avenue up to Vizcarrondo Street latitude 18.232958738945854, longitude -66.03158223900671; Road PR-156 between Jose Mercado Avenue and Sara Bridge latitude 18.234553023255643, longitude -66.03839022604858; Road PR-34 segments between Luis Munoz Marin Avenue and San Alfonso Estates latitude 8.22832508232118, longitude -66.05350434412603. Gautier Benitez Avenue latitude 18.22723 longitude -66.03452. The Pueblo Ward includes the following streets: Acosta, Goyco, Padial, Munoz Rivera, Cristobal Colon, Baldorioty, Betances, Rafael Cordero, Ruiz Belvis including Georgetti Avenue.

Direct Comments to:

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

After the pass of Hurricane Maria and other atmospheric events, the city infrastructure has suffered serious damages, including the public lightning infrastructure. The destruction caused by the hurricane was evaluated by the Federal Emergency Management Agency (FEMA) and other authorities. The results allowed the President of the United States to declare Puerto Rico a Disaster Zone, including our city. This project is subsidized by FEMA and Community Development Block Grant - Direct Relief Program (CDBG- DR) funds. The project was evaluated by FEMA who assigned funds ($10,666,653.47) after completing a Record of Environmental Consideration (REC). However, because CDBG-DR funds are greater than FEMA funds allocation, the environmental review report is in charge of CDBG-DR jurisdiction. The Project main objective is the rehabilitation of public luminaries in public streets and avenues of the city with a more resilient structure using technologies that reduce energy consumption. These avenues and streets provide access from urban areas to different rural and urban communities across the city. This rehabilitation don't included extension of the existing Right of Way (ROW) or land acquisitions. The rehabilitation project includes the following: *Replacement of luminaries affected by Hurricane Maria. *Replacement of electric poles to meet the standards to be wind resistant. *Replacement of poles and bases with LED technology luminaries to reduce energy consumption. *Repair of wiring and any other electrical components necessary for the proper operation of the luminaries. -Gautier Benitez Avenue (from PR -33 to PR-52 Bridge) -Degetau Avenue, Pino Avenue and San Carlos Street *Repair the roads lightning system with the existing footprint *Removal and replacement of

ornamental luminaries and posts in both locations -Luis Munoz Marin Avenue& Leoncio Velazquez Boulevard *Replacement and /or removing of lightning pole lamps and ornamental posts *Removal and replacement of recessed step floor lights, wiring and copper lightning pole fuses *Replacement of lighting poles open type contactor electrical panel and electrical base meter. -PR-156 *Remove and replace ornamental luminaries and posts. *Repair the roads lightning system with the existing footprint -Pueblo Ward, Rafael Cordero Avenue and Gautier Benitez Avenue *Replacement and /or removing of lightning pole lamps and ornamental posts *Removal and replacement of recessed step floor lights, wiring and copper lightning pole fuses The initial estimated costs for this project, in February 2022, were about $3,753,895.00. These costs changed, and the actual estimate costs in July 2025 are $19,252,614.75. The information related to the estimated costs was provided by the Secretariat of Infrastructure, Ornamentation, and Conservation of our Municipality.

Maps, photographs, and other documentation of project location and description:

Exhibit 1b Aerial map of Pueblo Ward Streets.pdf
Exhibit 1a Aerial map of streets and avenues.pdf
Exhibit A Public Lightning Infrastructure Memorial.pdf
Exhibit 1c Public Lightning Avenues and Streets Photos.pdf

Level of Environmental Review Determination:

Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at 58.5:

Determination:

	This categorically excluded activity/project converts to **EXEMPT** per Section 58.34(a)(12), because it does not require any mitigation for compliance with any listed statutes or authorities, nor requires any formal permit or license; **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project; OR
✓	This categorically excluded activity/project cannot convert to Exempt status because one or more statutes or authorities listed at Section 58.5 requires formal consultation or mitigation. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain "Authority to Use Grant Funds"** (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR
	This project is not categorically excluded OR, if originally categorically excluded, is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Approval Documents:

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262 | Caguas, PR | 900000010485803

7015.15 certified by Certifying Officer on:

7015.16 certified by Authorizing Officer on:

Funding Information

Grant / Project Identification Number	HUD Program	Program Name	Funding Amount
B-17-DM-72-001	Community Planning and Development (CPD)	Community Development Block Grants (Disaster Recovery Assistance)	$1,507,179,000.00
B-18-DP-72-0001	Community Planning and Development (CPD)	Community Development Block Grants (Disaster Recovery Assistance)	$1,700,000,000.00

Estimated Total HUD Funded, Assisted or Insured Amount: $3,757,895.00

This project anticipates the use of funds or assistance from another federal agency in addition to HUD in the form of:

Estimated Total Project Cost: $3,757,895.00

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

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §50.4, §58.5, and §58.6	Are formal compliance steps or mitigation required?	Compliance determination (See Appendix A for source determinations)
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.6		

Airport Hazards Clear Zones and Accident Potential Zones; 24 CFR Part 51 Subpart D	☐ Yes ☑ No	The Municipality of Caguas does not have a military or civilian airport in its territorial jurisdiction. The nearest civilian or military airport is the Luis Munoz Marin International Airport (LMMIA) in San Juan. The closest runaway is at the northern side from Caguas, which serves both civil and military flights. The project is not within 2,500 feet of a civil airport or 15,000 feet of the military. The LMMIA is located 66,792 feet (12.65 miles) from the project. That means that the project is not located within a Runaway Potential Zone/Clear Zone (RPZ/CZ) or potential Zone (APZ). Therefore, the project is in compliance with HUD's Airport Hazard Requirements.
Coastal Barrier Resources Act Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	☐ Yes ☑ No	Puerto Rico is one of the areas with Coastal Barrier Resources Systems (CBRS). However, the project is located 67,584 ft (12.80 miles) away from the nearest CBRS (Punta Vacia Talega). The project location is outside the coastal zone limits and /or is not expected to affect natural resources, land uses, or water uses in the Puerto Rico coastal zone. The project is not located in CBRS Unit. There are no anticipated adverse effects due to the project's development. Consequently, the project has no potential to impact on a CBRS unit and is in compliance with the Coastal Barrier Resource Act.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	☐ Yes ☑ No	According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the location of the project activities is located near areas of ''Minimal Flood Hazard'' [FIRM panel 72000C1210J] Zone X, with active date:11/18/2009. These zones are near Rafael Cordero Avenue, PR-34 and Gautier Benitez Avenue. Other areas (Munoz Marin Avenue, Leoncio

		Velazquez Blvd, PR 156) will be adjacent to 100- yr floodplain, [FIRM Panel 72000C0745J] (Zone AE), with active date:11/18/2009. These floodplains are areas subject to a 1% annual chance of flood. The project will take place on avenues and state streets that does not require flood insurance. Adjacent structures are not anticipated to be adversely affected by the project's implementation, as the stormwater management infrastructure in the area will remain unchanged. Given the nature of the project (rehabilitation of public lightning infrastructure), obtaining insurance for the project is not necessary. The project is in compliance with Flood Insurance requirements.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §50.4 & § 58.5		
Air Quality Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	☐ Yes ☑ No	The Municipality of Caguas is classified as an attainment area based on EPA list of NAAQS criteria pollutants for Puerto Rico Municipalities. The project location is not currently listed as a nonattainment area. Also included the Greenbook list for nonattainment counties for Air Quality. However, during the rehabilitation of public lightning infrastructure, the contractor must implement measures to prevent dust from becoming a nuisance to neighboring areas. Based on the project description (rehabilitation of public lightning infrastructure), this project will have no impact and does not include activities that would require further evaluation under the Clean Air Act. The project is in compliance with the Clean Air Act with no further evaluation.
Coastal Zone Management Act Coastal Zone Management Act, sections 307(c) & (d)	☐ Yes ☑ No	The proposed project is not located, nor does it affect the coastal zone. The Municipality of Caguas does not have any coastal zone. The nearest coast is 18

		miles away; consequently, it is not defined as a Coastal Municipality by the Puerto Rico Coastal Zone Management Program (PRCZM). This project is located outside the area identified as Coastal Zone Line Boundary; thus, it does not affect Coastal Zone Management Plan. There are no anticipated adverse effects related to the project's development in a coastal zone. The project is in compliance with the Coastal Zone Management Act.
Contamination and Toxic Substances 24 CFR 50.3(i) & 58.5(i)(2)]	☑ Yes ☐ No	Using NEPA Assist Tool and establishing a midpoint in each avenue with one mile buffer radius; we analyze the compliance at sites under the EPA facilities. 1) Rafael Cordero Avenue: based on the results there are three sites identified, two of them are in compliance and one site is inoperant. The nearest operating site is Mova Pharmaceutical Corp located at a distance of 0.93 miles. The farthest operating site, UltraLumber Corp, is located at a distance of 0.99 miles. 2) Luis Munoz Marin Avenue: based on the results there are two sites identified. The nearest site, Searle Corp, is inoperant located at a distance of 0.35 miles. The farthest operating site is UltraLumber Corp located at a distance of 0.88 miles in compliance. 3) Jose Gautier Benitez Avenue: based on the results there are two sites identified. The nearest site is Arbrook MFG Corp at 0.64 miles in compliance. Rattan Industries Inc is the farthest, inoperant at 0.92 miles. 4) PR-156: based on the results there are five sites identified. The nearest sites are Bull Bond MFG and Rattan Industries at 0.22 miles; the first is unknown and the other is inoperant. Quality Electroplating Corp is the farthest site at 0.88 miles in compliance.

		5) PR-34: based on the results there are three sites identified. The nearest site is Arbrook MFG Corp at 0.43 miles. Bull Bond MFG is the farthest site at 0.89 miles its status is unknown. 6) Leoncio Velazquez Boulevard: the results identified four sites. The nearest site is Ultra lumber Corp at 0.39 miles. Manufacturing Technology Service at 0.81 miles is the farthest site. Both sites are in compliance. The uses in the project area are mostly commercial with some housing units around in populated areas. The areas where the project will take place were inspected and no landfills, dumps or substations were identified in the surroundings. RCRA and TRI data were included in the exhibits. In ECHO reports, no violations were recorded for sites within a radius of one mile of the project. Due to the project not being linked to a building, property, or any structure there is no need to proceed with the radon test. No investigations or citizens' complaints about chemical accidents or hazardous situations have been reported or notified to our Office. Using EPA UTS's Finder tools to evaluate the location and compliance for the sites, there are many located near the project area. The locations found are classified as unknown. Please refer to the attached memorandum (Exhibit E11) detailing the situation related to lead - based paint contamination at the project site and the corresponding mitigation process. Due to the project not being linked to a building, property, or any structure, there is no need to proceed with the radon test. The project is in compliance with contamination and toxic substances requirements. Under HUD regulations, lead is classified as a hazardous material. Although the

		proposed project is focused on infrastructure, mitigation measures will be implemented due to the rehabilitation of existing structures.
Endangered Species Act Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	☐ Yes ☑ No	USFW issued a Blanket Clearance Letter for HUD federally sponsored projects on March 20,2025. Our Project Complies with criteria 1 and 2 of this clearance letter. According to the USFW Puerto Rico Field Office, the Municipality Self Certification for Compliance with Blanket Letter dated in April 2025, will be included in the case documentation to comply with the Endangered Species Act. USFW concur with our determination on communication issued on April 29, 2025. This project, for this evaluation, was aggregated with PR-CRP-000252, will have NO EFFECT on listed species based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by the local HUD office. This project is in compliance with the Endangered Species Act.
Explosive and Flammable Hazards Above-Ground Tanks)[24 CFR Part 51 Subpart C	☐ Yes ☑ No	The project does not include any hazardous facilities either or a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries). The project activities will not increase residential densities or convert other uses into residential ones. Based on project description, rehabilitation of public lightning infrastructure in avenues and streets, the project does not include activities that would require further evaluation under this section. The project is in compliance with explosive and flammable hazard requirements.
Farmlands Protection Farmland Protection Policy Act of	☐ Yes ☑ No	The project area has been impacted previously. The proposed project

1981, particularly sections 1504(b) and 1541; 7 CFR Part 658		consists in the rehabilitation of public lightning infrastructure in existing avenues and streets in the city. The project is out of agricultural reserves, experimental stations, and soils classified with agricultural capacity or classified as prime agricultural land, according to the Soil Survey from NRCS. Caguas does not have protected areas covered by the Farmlands Protection Policy Act. This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. Furthermore, the soil in the area is not identified as Farmland Statewide Importance. The project is in compliance with the Farmland Protection Policy Act.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	☐ Yes ☑ No	The proposed project is situated in combined floodplain zones. According to Puerto Rico Advisory Base Flood Elevations (ABFE'S) part of the project is located near floodplain areas. Floodway portion of the Luis Munoz Marin Avenue is over Caguitas River. Vehicular and pedestrian transit in this section is directed over a bridge. Furthermore, the Leoncio Velazquez Boulevard is near Bairoa River. Based on 24 CFR part 55 there are many articles that can be applied to this project: 1)This project has areas that can be described as a functionally dependent use. Functionally dependent uses, as defined in 55.2 (b) (7) means ''land use that must necessarily be conducted in close proximity to water (e.g., a dam, marina, port facility, water-front park, and many types of bridges)''. The public lightning infrastructure rehabilitation project potential impacts to the floodplain will be limited due to rehabilitation occurring within the previously impacted area, in this case, a bridge

		crossing Caguitas River. 2) This project includes the rehabilitation of public lightning damaged by Hurricane Maria during its impact in our city, that was declared a disaster zone as part of Puerto Rico declaration of disaster by the President of the United States in September 2017. The article of 55.8 (a) (1) (ii), ''Any rehabilitation, including reconstruction in the case of properties affected by Presidentially declared disasters, that does not expand the footprint of the buildings or the number of units on the site would be allowed within the FFRMS floodplain outside of the floodway.'' Based on this article the rehabilitation can take place near a floodplain area included in this project based on this article. 3) Article 55.13 (f) states ''Special projects for the purpose of improving the energy or water efficiency of utilities or installing renewable energy that involve the repair, rehabilitation, modernization, weatherization, or improvement of existing structures or infrastructure, do not meet the thresholds for ''substantial improvement'' under 55.12 (b) (12), and do not include the installation of equipment below the FFRMS floodplain elevation''. This explains the inapplicability of the 8 steps decision making process for this project. The project includes the installation of public lightning infrastructure using LED technologies to reduce energy consumption and do not meet the thresholds for ''substantial improvement as established in the article. 4) Areas adjacent to the 100-yr floodplain Zone AE, are located at Munoz Marin Avenue, Leoncio Velazquez Blvd, PR 156) [FIRM Panel 72000C0745J] (Zone AE), with active date:11/18/2009. Thus, zones outside

		the 100-yr floodplain, ''Minimal Flood Hazard'' [FIRM panel 72000C1210J] Zone X, with active date:11/18/2009 are near Rafael Cordero Avenue, PR-34 and Gautier Benitez Avenue. These floodplains are areas subject to a 1% annual chance of flood. These areas of the project are functionally dependent. The project will take place on avenues and municipal streets that are already developed. This project complies with HUD's Floodplain Management Regulations of 24 CFR Part 55.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	☐ Yes ☑ No	SHPO communication dated on May 23,2025, determined to support our findings of no historic properties affected in the areas of Luis Munoz Marin Avenue, Rafael Cordero Avenue, Boulevard Leoncio Vazquez, PR-156, PR-34, Jose Gautier Benitez Avenue and Pueblo Ward related with this project. Based on Section 106 consultation, there are No Historic Properties Affected, because there are no historic properties in the areas of this project. The project is in compliance with Section 106.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	☐ Yes ☑ No	Based on the project description (rehabilitation of public lighting infrastructure in existing streets and avenues in the urban zone in the City), the project includes no activities that would require further evaluation under this section. HUD's noise regulation is not applicable to this project per 24 CFR 51.101(a)(3).
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	☐ Yes ☑ No	Puerto Rico is included in Region II of the USA EPA designated sole-source aquifer regions. There are no designated Sole Source Aquifers in Puerto Rico. According to EPA Sole Source Aquifers Map, the project is not located in a sole source aquifer area. The project is limited to rehabilitation of public

		lightning infrastructure in existing streets and avenues of the city. The project consists of activities that are unlikely have an adverse impact on groundwater resources. The project is not served by a designated sole source aquifer nor is located within a sole source aquifer watershed. The project is in compliance with Sole Source Aquifer requirements without any further evaluation.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	☐ Yes ☑ No	This project does not involve new construction as defined in Executive Order 11990. The proposed action (rehabilitation of public lightning infrastructure in existing streets and avenues) does not involve new construction in a wetland. The project does not require draining, dredging, channelizing, filling, diking, impounding or related activities on a wetland area as defined in Executive Order 11990. Furthermore, a permit will not be required as per section 404 of the Clean Water Act, because the project will not require the discharge of dredger or filing materials into wetlands. Despite the proximity of wetlands, the project does not include activities that would require further evaluation under this section. The project is in compliance with Executive Order 11990.
Wild and Scenic Rivers Act Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	☐ Yes ☑ No	Puerto Rico has approximately 5,385 river miles, but only 8.9 miles of three rivers are designated as wild & scenic. The areas of this project are not within proximity to National Wild and Scenic Rivers (NWSRS). The Municipality of Caguas does not have any river registered as a Wild and Scenic River, Study River, or listed in the Nationwide Rivers Inventory (NRI). There are no surrounding rivers that qualify as wild and scenic rivers in Caguas jurisdiction.

		The project is in compliance with the Wild and Scenic Rivers Act.
HUD HOUSING ENVIRONMENTAL STANDARDS		
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	☐ Yes ☑ No	The activities involved in this project are public lightning rehabilitation activities on existing main avenues streets in Caguas, a populated area. After completing the other portions of the environmental review, we determined that neither the project sites nor The surrounding neighborhood suffered from adverse environmental conditions. The project is out: (a) of the airport hazard zones, (b) out of flood zone (according to FEMA FIRM Maps), (c) out of coastal barrier zones (according to Puerto Rico Coastal Zone Management Program) (d) compliance with Clean Air Act/ (e) no violations on RCRA permits are found in sites surrounding the project area (according to NEPA Assist & ECHO reports) (f) the project will not result in an increased number of people in the area, (g) there are not AST'S in the project surroundings; (h) doesn't impact a farmland/ sole aquifer/ wild rivers or wetlands areas (according to location map)/ (i) is not a hazardous or flammable facility (j) is not a new construction that exceeds the building footprint, (k) no noise abatement needed, (1) SHPO determined that the project have no impact on historical properties in the area and (m) comply with USFW Blanket Clearance Letter for HUD funding projects and concur with our determination. In terms of contamination and toxic, lead based paint has been found in a few areas of the project. Due to the presence of an elevated concentration of LBP, mitigation measures will be conducted

		by a certified DNER contractor before doing any paint work to prevent lead dust hazards during the project. Mitigation measures would include controlled removal and proper disposal by a licensed professional recommendation following applicable regulations.

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 or Condition	Comments on Completed Measures	Mitigation Plan	Complete
Contamination and Toxic Substances	The certified DNER contractor will mitigate the lead-based paint presence in the area before the rehabilitation tasks begins.	N/A		

Project Mitigation Plan

The DNER-certified consultant will obtain a permit to initiate the mitigation process. The structures will be mitigated, proper disposal will be carried out, and a closure report will be drafted in accordance with the requirements and applicable regulations.

Supporting documentation on completed measures

APPENDIX A: Related Federal Laws and Authorities

Airport Hazards

General policy	Legislation	Regulation
It is HUD's policy to apply standards to prevent incompatible development around civil airports and military airfields.		24 CFR Part 51 Subpart D

1. To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?

✓ **No**

Based on the response, the review is in compliance with this section. Document and upload the map showing that the site is not within the applicable distances to a military or civilian airport below

Yes

Screen Summary

Compliance Determination

The Municipality of Caguas does not have a military or civilian airport in its territorial jurisdiction. The nearest civilian or military airport is the Luis Munoz Marin International Airport (LMMIA) in San Juan. The closest runaway is at the northern side from Caguas, which serves both civil and military flights. The project is not within 2,500 feet of a civil airport or 15,000 feet of the military. The LMMIA is located 66,792 feet (12.65 miles) from the project. That means that the project is not located within a Runaway Potential Zone/Clear Zone (RPZ/CZ) or potential Zone (APZ). Therefore, the project is in compliance with HUD's Airport Hazard Requirements.

Supporting documentation

Exhibit 2 Airport Hazard Map.pdf

Are formal compliance steps or mitigation required?

Yes

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

- ✓ No

Coastal Barrier Resources

General requirements	Legislation	Regulation
HUD financial assistance may not be used for most activities in units of the Coastal Barrier Resources System (CBRS). See 16 USC 3504 for limitations on federal expenditures affecting the CBRS.	Coastal Barrier Resources Act (CBRA) of 1982, as amended by the Coastal Barrier Improvement Act of 1990 (16 USC 3501)	

1. Is the project located in a CBRS Unit?

✓ No

Document and upload map and documentation below.

Yes

Screen Summary

Compliance Determination

Puerto Rico is one of the areas with Coastal Barrier Resources Systems (CBRS). However, the project is located 67,584 ft (12.80 miles) away from the nearest CBRS (Punta Vacia Talega). The project location is outside the coastal zone limits and /or is not expected to affect natural resources, land uses, or water uses in the Puerto Rico coastal zone. The project is not located in CBRS Unit. There are no anticipated adverse effects due to the project's development. Consequently, the project has no potential to impact on a CBRS unit and is in compliance with the Coastal Barrier Resource Act.

Supporting documentation

Exhibit 3Coastal Barrier Map.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Flood Insurance

General requirements	Legislation	Regulation
Certain types of federal financial assistance may not be used in floodplains unless the community participates in National Flood Insurance Program and flood insurance is both obtained and maintained.	Flood Disaster Protection Act of 1973 as amended (42 USC 4001-4128)	24 CFR 50.4(b)(1) and 24 CFR 58.6(a) and (b); 24 CFR 55.1(b).

1. Does this project involve financial assistance for construction, rehabilitation, or acquisition of a mobile home, building, or insurable personal property?

✓ No. This project does not require flood insurance or is excepted from flood insurance.

Based on the response, the review is in compliance with this section.

Yes

4. While flood insurance is not mandatory for this project, HUD strongly recommends that all insurable structures maintain flood insurance under the National Flood Insurance Program (NFIP). Will flood insurance be required as a mitigation measure or condition?

Yes

✓ No

Screen Summary

Compliance Determination

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the location of the project activities is located near areas of ''Minimal Flood Hazard'' [FIRM panel 72000C1210J] Zone X, with active date:11/18/2009. These zones are near Rafael Cordero Avenue, PR-34 and Gautier Benitez Avenue. Other areas (Munoz Marin Avenue, Leoncio Velazquez Blvd, PR 156) will be adjacent to 100- yr floodplain, [FIRM Panel 72000C0745J] (Zone AE), with active date:11/18/2009. These floodplains are areas subject to a 1% annual chance of flood. The project will take place on avenues and state streets that does not require flood insurance. Adjacent structures are not anticipated to be adversely affected by the project's implementation, as the stormwater management infrastructure in the area will remain unchanged. Given the nature of the project (rehabilitation of public

lightning infrastructure), obtaining insurance for the project is not necessary. The project is in compliance with Flood Insurance requirements.

Supporting documentation
Exhibit 4 Caguas FEMA Flood Map.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Air Quality

General requirements	Legislation	Regulation
The Clean Air Act is administered by the U.S. Environmental Protection Agency (EPA), which sets national standards on ambient pollutants. In addition, the Clean Air Act is administered by States, which must develop State Implementation Plans (SIPs) to regulate their state air quality. Projects funded by HUD must demonstrate that they conform to the appropriate SIP.	Clean Air Act (42 USC 7401 et seq.) as amended particularly Section 176(c) and (d) (42 USC 7506(c) and (d))	40 CFR Parts 6, 51 and 93

1. Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?

Yes

✓ No

Based on the response, the review is in compliance with this section.

Screen Summary

Compliance Determination

The Municipality of Caguas is classified as an attainment area based on EPA list of NAAQS criteria pollutants for Puerto Rico Municipalities. The project location is not currently listed as a nonattainment area. Also included the Greenbook list for nonattainment counties for Air Quality. However, during the rehabilitation of public lightning infrastructure, the contractor must implement measures to prevent dust from becoming a nuisance to neighboring areas. Based on the project description (rehabilitation of public lightning infrastructure), this project will have no impact and does not include activities that would require further evaluation under the Clean Air Act. The project is in compliance with the Clean Air Act with no further evaluation.

Supporting documentation

Exhibit B PR Air Quality Attainments 2025.pdf
Exhibit 5 Caguas Nonattainment Map.pdf

Are formal compliance steps or mitigation required?

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Yes

✓ No

Coastal Zone Management Act

General requirements	Legislation	Regulation
Federal assistance to applicant agencies for activities affecting any coastal use or resource is granted only when such activities are consistent with federally approved State Coastal Zone Management Act Plans.	Coastal Zone Management Act (16 USC 1451-1464), particularly section 307(c) and (d) (16 USC 1456(c) and (d))	15 CFR Part 930

1. Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?

Yes

✓ No

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

The proposed project is not located, nor does it affect the coastal zone. The Municipality of Caguas does not have any coastal zone. The nearest coast is 18 miles away; consequently, it is not defined as a Coastal Municipality by the Puerto Rico Coastal Zone Management Program (PRCZM). This project is located outside the area identified as Coastal Zone Line Boundary; thus, it does not affect Coastal Zone Management Plan. There are no anticipated adverse effects related to the project's development in a coastal zone. The project is in compliance with the Coastal Zone Management Act.

Supporting documentation

Exhibit 6 PMZC Map Puerto Rico.pdf

Are formal compliance steps or mitigation required?

Yes

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- ✓ No

Contamination and Toxic Substances

General Requirements	Legislation	Regulations
It is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of the occupants or conflict with the intended utilization of the property.		24 CFR 58.5(i)(2) 24 CFR 50.3(i)
Reference		
https://www.onecpd.info/environmental-review/site-contamination		

1. How was site contamination evaluated?* Select all that apply.

ASTM Phase I ESA

ASTM Phase II ESA

Remediation or clean-up plan

ASTM Vapor Encroachment Screening.

✓ None of the above

* HUD regulations at 24 CFR § 58.5(i)(2)(ii) require that the environmental review for multifamily housing with five or more dwelling units or non-residential property include the evaluation of previous uses of the site or other evidence of contamination on or near the site.
For acquisition and new construction of multifamily and nonresidential properties HUD strongly advises the review include an ASTM Phase I Environmental Site Assessment (ESA) to meet real estate transaction standards of due diligence and to help ensure compliance with HUD's toxic policy at 24 CFR §58.5(i) and 24 CFR §50.3(i). Also note that some HUD programs require an ASTM Phase I ESA.

2. Were any on-site or nearby toxic, hazardous, or radioactive substances* (excluding radon) found that could affect the health and safety of project occupants or conflict with the intended use of the property? (Were any recognized environmental conditions or RECs identified in a Phase I ESA and confirmed in a Phase II ESA?)

Provide a map or other documentation of absence or presence of contamination** and explain evaluation of site contamination in the Screen Summary at the bottom of this screen.

No

Explain:

✓ Yes

* This question covers the presence of radioactive substances excluding radon. Radon is addressed in the Radon Exempt Question.
** Utilize EPA's Enviromapper, NEPAssist, or state/tribal databases to identify nearby dumps, junk yards, landfills, hazardous waste sites, and industrial sites, including EPA National Priorities List Sites (Superfund sites), CERCLA or state-equivalent sites, RCRA Corrective Action sites with release(s) or suspected release(s) requiring clean-up action and/or further investigation. Additional supporting documentation may include other inspections and reports.

3. Evaluate the building(s) for radon. Do all buildings meet any of the exemptions* from having to consider radon in the contamination analysis listed in CPD Notice CPD-23-103?

✓ Yes

Explain:

The project proposed activity is not related to the buildings or structures. The project objective is the rehabilitation of public lightning infrastructure in main avenues and streets. This means that radon testing is not required.

No

* Notes:
- Buildings with no enclosed areas having ground contact.
- Buildings containing crawlspaces, utility tunnels, or parking garages would not be exempt, however buildings built on piers would be exempt, provided that there is open air between the lowest floor of the building and the ground.
- Buildings that are not residential and will not be occupied for more than 4 hours per day.
- Buildings with existing radon mitigation systems - document radon levels are below 4 pCi/L with test results dated within two years of submitting the application for HUD assistance and document the system includes an ongoing maintenance plan that includes periodic testing to ensure the system continues to meet the current EPA recommended levels. If the project does not require an application, document test results dated within two years of the date the environmental review is certified. Refer to program office guidance to ensure compliance with program requirements.

- Buildings tested within five years of the submission of application for HUD assistance: test results document indoor radon levels are below current the EPA's recommended action levels of 4.0 pCi/L. For buildings with test data older than five years, any new environmental review must include a consideration of radon using one of the methods in Section A below.

8. Mitigation

Document the mitigation needed according to the requirements of the appropriate federal, state, tribal, or local oversight agency. If the adverse environmental impacts cannot be mitigated, then HUD assistance may not be used for the project at this site.

For instances where radon mitigation is required (i.e. where test results demonstrated radon levels at 4.0 pCi/L and above), then you must include a radon mitigation plan*.

Can all adverse environmental impacts be mitigated?

No, all adverse environmental impacts cannot feasibly be mitigated. Project cannot proceed at this location.

✓ Yes, all adverse environmental impacts can be eliminated through mitigation, and/or consideration of radon and radon mitigation, if needed, will occur following construction.
Provide all mitigation requirements** and documents in the Screen Summary at the bottom of this screen.

* Refer to CPD Notice CPD-23-103 for additional information on radon mitigation plans.
** Mitigation requirements include all clean-up requirements required by applicable federal, state, tribal, or local law. Additionally, please upload, as applicable, the long-term operations and maintenance plan, Remedial Action Work Plan, and other equivalent documents.

9. Describe how compliance was achieved. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls*, or use of institutional controls.**

The certified DNER contractor will mitigate the lead-based paint presence in the area before the rehabilitation tasks begins.

If a remediation plan or clean-up program was necessary, which standard does it follow?

- ✓ Complete removal

Risk-based corrective action (RBCA)

Other

* Engineering controls are any physical mechanism used to contain or stabilize contamination or ensure the effectiveness of a remedial action. Engineering controls may include, caps, covers, dikes, trenches, leachate collection systems, radon mitigation systems, signs, fences, physical access controls, ground water monitoring systems and ground water containment systems including, slurry walls and ground water pumping systems.
** Institutional controls are mechanisms used to limit human activities at or near a contaminated site, or to ensure the effectiveness of the remedial action over time, when contaminants remain at a site at levels above the applicable remediation standard which would allow for unrestricted use of the property. Institutional controls may include structure, land, and natural resource use restrictions, well restriction areas, classification exception areas, deed notices, and declarations of environmental restrictions.

Screen Summary

Compliance Determination

Using NEPA Assist Tool and establishing a midpoint in each avenue with one mile buffer radius; we analyze the compliance at sites under the EPA facilities. 1) Rafael Cordero Avenue: based on the results there are three sites identified, two of them are in compliance and one site is inoperant. The nearest operating site is Mova Pharmaceutical Corp located at a distance of 0.93 miles. The farthest operating site, UltraLumber Corp, is located at a distance of 0.99 miles. 2) Luis Munoz Marin Avenue: based on the results there are two sites identified. The nearest site, Searle Corp, is inoperant located at a distance of 0.35 miles. The farthest operating site is UltraLumber Corp located at a distance of 0.88 miles in compliance. 3) Jose Gautier Benitez Avenue: based on the results there are two sites identified. The nearest site is Arbrook MFG Corp at 0.64 miles in compliance. Rattan Industries Inc is the farthest, inoperant at 0.92 miles. 4) PR-156: based on the results there are five sites identified. The nearest sites are Bull Bond MFG and Rattan Industries at 0.22 miles; the first is unknown and the other is inoperant. Quality Electroplating Corp is the farthest site at 0.88 miles in compliance. 5) PR-34: based on the results there are three sites identified. The nearest site is Arbrook MFG Corp at 0.43 miles. Bull Bond MFG is the farthest site at 0.89 miles its status is unknown. 6) Leoncio Velazquez Boulevard: the results identified four sites. The nearest site is Ultra lumber Corp at 0.39 miles. Manufacturing Technology Service at 0.81 miles is the farthest site. Both

sites are in compliance. The uses in the project area are mostly commercial with some housing units around in populated areas. The areas where the project will take place were inspected and no landfills, dumps or substations were identified in the surroundings. RCRA and TRI data were included in the exhibits. In ECHO reports, no violations were recorded for sites within a radius of one mile of the project. Due to the project not being linked to a building, property, or any structure there is no need to proceed with the radon test. No investigations or citizens' complaints about chemical accidents or hazardous situations have been reported or notified to our Office. Using EPA UTS's Finder tools to evaluate the location and compliance for the sites, there are many located near the project area. The locations found are classified as unknown. Please refer to the attached memorandum (Exhibit E11) detailing the situation related to lead - based paint contamination at the project site and the corresponding mitigation process. Due to the project not being linked to a building, property, or any structure, there is no need to proceed with the radon test. The project is in compliance with contamination and toxic substances requirements. Under HUD regulations, lead is classified as a hazardous material. Although the proposed project is focused on infrastructure, mitigation measures will be implemented due to the rehabilitation of existing structures.

Supporting documentation

Exhibit E11 Lead based paint contamination memorial.pdf
Exhibit 7a Bull Bong MFG Map.pdf
Exhibit E10 Detailed Facility Report _ ECHO _ US EPA UltraLumber.pdf
Exhibit E9 Detailed Facility Report _ ECHO _ US EPA Quality Electroplating Corp.pdf
Exhibit E8 Detailed Facility Report _ ECHO _ US EPA Neolpharma Inc.pdf
Exhibit E7 Detailed Facility Report _ ECHO _ US EPA Bull Bond.pdf
Exhibit E6 Detailed Facility Report _ ECHO _ US EPA Mova Pantheon Pharamaceuticals.pdf
Exhibit E5 Lead Based Paint Report Degetau Ave and PR 156.pdf
Exhibit E4 Lead Based Paint Report - Gautier Benitez Avenue.pdf
Exhibit E3 Pictures of Lead Based Paint Poles with bases Degetau Avenue and PR 156.pdf
Exhibit E2 TRI CONTAMINATION AND TOXIC.pdf
Exhibit E1 RCRA CONTAMINATION AND TOXIC.pdf
Exhibit 7e UST finder Caguas.pdf
Exhibit 7d ULTRA LUMBER MAP.pdf
Exhibit 7c QUALITY ELECTROPLATING CORP Map.pdf
Exhibit 7b NEOLPHARMA INC Map.pdf

Are formal compliance steps or mitigation required?

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✓ Yes

No

Endangered Species

General requirements	ESA Legislation	Regulations
Section 7 of the Endangered Species Act (ESA) mandates that federal agencies ensure that actions that they authorize, fund, or carry out shall not jeopardize the continued existence of federally listed plants and animals or result in the adverse modification or destruction of designated critical habitat. Where their actions may affect resources protected by the ESA, agencies must consult with the Fish and Wildlife Service and/or the National Marine Fisheries Service ("FWS" and "NMFS" or "the Services").	The Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq*.); particularly section 7 (16 USC 1536).	50 CFR Part 402

1. Does the project involve any activities that have the potential to affect specifies or habitats?

No, the project will have No Effect due to the nature of the activities involved in the project.

✓ No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office

Explain your determination:

The project main objective is the rehabilitation of public lightning infrastructure in the main avenues and streets of the city. These areas are already impacted, meaning that activities involved in the project has no effect in species or habitats.

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Yes, the activities involved in the project have the potential to affect species and/or habitats.

Screen Summary
Compliance Determination

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USFW issued a Blanket Clearance Letter for HUD federally sponsored projects on March 20,2025. Our Project Complies with criteria 1 and 2 of this clearance letter. According to the USFW Puerto Rico Field Office, the Municipality Self Certification for Compliance with Blanket Letter dated in April 2025, will be included in the case documentation to comply with the Endangered Species Act. USFW concur with our determination on communication issued on April 29, 2025. This project, for this evaluation, was aggregated with PR-CRP-000252, will have NO EFFECT on listed species based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by the local HUD office. This project is in compliance with the Endangered Species Act.

Supporting documentation

Exhibit F FWS Documentation tract.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Explosive and Flammable Hazards

General requirements	Legislation	Regulation
HUD-assisted projects must meet Acceptable Separation Distance (ASD) requirements to protect them from explosive and flammable hazards.	N/A	24 CFR Part 51 Subpart C

1. Is the proposed HUD-assisted project itself the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?

✓ No

Yes

2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?

✓ No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

The project does not include any hazardous facilities either or a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries). The project activities will not increase residential densities or convert other uses into residential ones. Based on project description, rehabilitation of public lightning infrastructure in avenues and streets, the project does not include activities that would require further evaluation under this section. The project is in compliance with explosive and flammable hazard requirements.

Supporting documentation

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

Are formal compliance steps or mitigation required?

Yes

✓ No

Farmlands Protection

General requirements	Legislation	Regulation
The Farmland Protection Policy Act (FPPA) discourages federal activities that would convert farmland to nonagricultural purposes.	Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.)	7 CFR Part 658

1. Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?

Yes

✓ No

If your project includes new construction, acquisition of undeveloped land or conversion, explain how you determined that agricultural land would not be converted:

The project does not include any activities that includes new construction, acquisition of undeveloped land or conversion that changes the agricultural land to non-agricultural. The project objective is the rehabilitation of the public lightning infrastructure in main avenues and streets that are populated areas.

Based on the response, the review is in compliance with this section. Document and upload all documents used to make your determination below.

Screen Summary

Compliance Determination

The project area has been impacted previously. The proposed project consists in the rehabilitation of public lightning infrastructure in existing avenues and streets in the city. The project is out of agricultural reserves, experimental stations, and soils classified with agricultural capacity or classified as prime agricultural land, according to the Soil Survey from NRCS. Caguas does not have protected areas covered by the Farmlands Protection Policy Act. This project does not include any activities that could potentially convert agricultural land to a non-agricultural use. Furthermore, the soil in the area is not identified as Farmland Statewide Importance. The project is in compliance with the Farmland Protection Policy Act.

Supporting documentation

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

Exhibit G Soil Report Complete.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Floodplain Management

General Requirements	Legislation	Regulation
Executive Order 11988, Floodplain Management, requires Federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable.	Executive Order 11988 * Executive Order 13690 * 42 USC 4001-4128 * 42 USC 5154a * only applies to screen 2047 and not 2046	24 CFR 55

1. Does this project meet an exemption at 24 CFR 55.12 from compliance with HUD's floodplain management regulations in Part 55?

✓ Yes

(a) HUD-assisted activities described in 24 CFR 58.34 and 58.35(b).

(b) HUD-assisted activities described in 24 CFR 50.19, except as otherwise indicated in § 50.19.

(c) The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition of such floodplain and wetland property, where a permanent covenant or comparable restriction is place on the property's continued use for flood control, wetland projection, open space, or park land, but only if:
(1) The property is cleared of all existing buildings and walled structures; and
(2) The property is cleared of related improvements except those which:
(i) Are directly related to flood control, wetland protection, open space, or park land (including playgrounds and recreation areas);
(ii) Do not modify existing wetland areas or involve fill, paving, or other ground disturbance beyond minimal trails or paths; and
(iii) Are designed to be compatible with the beneficial floodplain or wetland function of the property.

(d) An action involving a repossession, receivership, foreclosure, or similar acquisition of property to protect or enforce HUD's financial interests under previously approved loans, grants, mortgage insurance,

or other HUD assistance.

(e) Policy-level actions described at 24 CFR 50.16 that do not involve site-based decisions.

(f) A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland.

✓ (g) HUD's or the responsible entity's approval of a project site, an incidental portion of which is situated in the FFRMS floodplain (not including the floodway, LiMWA, or coastal high hazard area) but only if: (1) The proposed project site does not include any existing or proposed buildings or improvements that modify or occupy the FFRMS floodplain except de minimis improvements such as recreation areas and trails; and (2) the proposed project will not result in any new construction in or modifications of a wetland .

(h) Issuance or use of Housing Vouchers, or other forms of rental subsidy where HUD, the awarding community, or the public housing agency that administers the contract awards rental subsidies that are not project-based (i.e., do not involve site-specific subsidies).

(i) Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

Describe:

The project main objective is the rehabilitation of the public lightning infrastructure in main avenues and streets. This means that does not involve any new construction, neither modification of wetlands.

No

Screen Summary

Compliance Determination

The proposed project is situated in combined floodplain zones. According to Puerto Rico Advisory Base Flood Elevations (ABFE'S) part of the project is located near floodplain areas. Floodway portion of the Luis Munoz Marin Avenue is over Caguitas River. Vehicular and pedestrian transit in this section is directed over a bridge.

Furthermore, the Leoncio Velazquez Boulevard is near Bairoa River. Based on 24 CFR part 55 there are many articles that can be applied to this project: 1)This project has areas that can be described as a functionally dependent use. Functionally dependent uses, as defined in 55.2 (b) (7) means ''land use that must necessarily be conducted in close proximity to water (e.g., a dam, marina, port facility, water-front park, and many types of bridges)''. The public lightning infrastructure rehabilitation project potential impacts to the floodplain will be limited due to rehabilitation occurring within the previously impacted area, in this case, a bridge crossing Caguitas River. 2) This project includes the rehabilitation of public lightning damaged by Hurricane Maria during its impact in our city, that was declared a disaster zone as part of Puerto Rico declaration of disaster by the President of the United States in September 2017. The article of 55.8 (a) (1) (ii), ''Any rehabilitation, including reconstruction in the case of properties affected by Presidentially declared disasters, that does not expand the footprint of the buildings or the number of units on the site would be allowed within the FFRMS floodplain outside of the floodway.'' Based on this article the rehabilitation can take place near a floodplain area included in this project based on this article. 3) Article 55.13 (f) states ''Special projects for the purpose of improving the energy or water efficiency of utilities or installing renewable energy that involve the repair, rehabilitation, modernization, weatherization, or improvement of existing structures or infrastructure, do not meet the thresholds for ''substantial improvement'' under 55.12 (b) (12), and do not include the installation of equipment below the FFRMS floodplain elevation''. This explains the inapplicability of the 8 steps decision making process for this project. The project includes the installation of public lightning infrastructure using LED technologies to reduce energy consumption and do not meet the thresholds for ''substantial improvement as established in the article. 4) Areas adjacent to the 100-yr floodplain Zone AE, are located at Munoz Marin Avenue, Leoncio Velazquez Blvd, PR 156) [FIRM Panel 72000C0745J] (Zone AE), with active date:11/18/2009. Thus, zones outside the 100-yr floodplain, ''Minimal Flood Hazard'' [FIRM panel 72000C1210J] Zone X, with active date:11/18/2009 are near Rafael Cordero Avenue, PR-34 and Gautier Benitez Avenue. These floodplains are areas subject to a 1% annual chance of flood. These areas of the project are functionally dependent. The project will take place on avenues and municipal streets that are already developed. This project complies with HUD's Floodplain Management Regulations of 24 CFR Part 55.

Supporting documentation

Exhibit H4 24 CFR Part 55.pdf
Exhibit H3 24 CFR 55 13.pdf
Exhibit H2 24 CFR 55 12.pdf
Exhibit H1 Caguas PR CRP 000262Flood Zone Notification Letter.pdf

Exhibit 8e Floodplain Map Gautier Benitez Avenue.pdf
Exhibit 8d Floodplain Map Rafael Cordero Avenue.pdf
Exhibit 8c Floodplain Map PR 156.pdf
Exhibit 8b Floodplain Map Luis Muñoz Marín Avenue.pdf
Exhibit 8a Floodplain Map Leoncio Velazquez Boulevard.pdf
Exhibit 8 Flood Hazard Map Caguas.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Historic Preservation

General requirements	Legislation	Regulation
Regulations under Section 106 of the National Historic Preservation Act (NHPA) require a consultative process to identify historic properties, assess project impacts on them, and avoid, minimize, or mitigate adverse effects	Section 106 of the National Historic Preservation Act (16 U.S.C. 470f)	36 CFR 800 "Protection of Historic Properties" https://www.govinfo.gov/content/pkg/CFR-2012-title36-vol3/pdf/CFR-2012-title36-vol3-part800.pdf

Threshold

Is Section 106 review required for your project?

No, because the project consists solely of activities listed as exempt in a Programmatic Agreement (PA). (See the PA Database to find applicable PAs.)
No, because the project consists solely of activities included in a No Potential to Cause Effects memo or other determination [36 CFR 800.3(a)(1)].
✓ Yes, because the project includes activities with potential to cause effects (direct or indirect).

Step 1 – Initiate Consultation

Select all consulting parties below (check all that apply):

✓ State Historic Preservation Offer (SHPO) Completed

✓ Advisory Council on Historic Preservation Not Required

✓ Indian Tribes, including Tribal Historic Preservation Officers (THPOs) or Native Hawaiian Organizations (NHOs)

Other Consulting Parties

Describe the process of selecting consulting parties and initiating consultation here:

In compliance with Section 106 because HUD federal funds will be used for this project and after our determination that this project doesn't affected historic properties in the APE, we want SHPO concur with our determination.

Document and upload all correspondence, notices and notes (including comments and objections received below).

Was the Section 106 Lender Delegation Memo used for Section 106 consultation?

Yes
No

Step 2 – Identify and Evaluate Historic Properties

1. **Define the Area of Potential Effect (APE), either by entering the address(es) or uploading a map depicting the APE below:**

   Caguas Central Urban Area (Pueblo, Bairoa, Tomas de Castro, Turabo, Canabon & Canaboncito wards)

   In the chart below, list historic properties identified and evaluated in the APE. Every historic property that may be affected by the project should be included in the chart.

   Upload the documentation (survey forms, Register nominations, concurrence(s) and/or objection(s), notes, and photos) that justify your National Register Status determination below.

Address / Location / District	National Register Status	SHPO Concurrence	Sensitive Information

   Additional Notes:

   The Municipality prepared a historical determination for the property using information from SHPO and Puerto Rico Cultural Institute that indicated the rehabilitation activities have not impact on historic properties or the property isn't a historical property.

2. **Was a survey of historic buildings and/or archeological sites done as part of the**

project?

Yes

✓ No

Step 3 –Assess Effects of the Project on Historic Properties

Only properties that are listed on or eligible for the National Register of Historic Places receive further consideration under Section 106. Assess the effect(s) of the project by applying the Criteria of Adverse Effect. (36 CFR 800.5)] Consider direct and indirect effects as applicable as per guidance on direct and indirect effects.

Choose one of the findings below - No Historic Properties Affected, No Adverse Effect, or Adverse Effect; and seek concurrence from consulting parties.

✓ No Historic Properties Affected

Based on the response, the review is in compliance with this section. Document and upload concurrence(s) or objection(s) below.

Document reason for finding:

✓ No historic properties present.

Historic properties present, but project will have no effect upon them.

No Adverse Effect

Adverse Effect

Screen Summary

Compliance Determination

SHPO communication dated on May 23,2025, determined to support our findings of no historic properties affected in the areas of Luis Munoz Marin Avenue, Rafael Cordero Avenue, Boulevard Leoncio Vazquez, PR-156, PR-34, Jose Gautier Benitez Avenue and Pueblo Ward related with this project. Based on Section 106 consultation, there are No Historic Properties Affected, because there are no historic properties in the areas of this project. The project is in compliance with Section 106.

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Supporting documentation

Exhibit I SHPO Letter.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Noise Abatement and Control

General requirements	Legislation	Regulation
HUD's noise regulations protect residential properties from excessive noise exposure. HUD encourages mitigation as appropriate.	Noise Control Act of 1972 General Services Administration Federal Management Circular 75-2: "Compatible Land Uses at Federal Airfields"	Title 24 CFR 51 Subpart B

1. What activities does your project involve? Check all that apply:

New construction for residential use

Rehabilitation of an existing residential property

A research demonstration project which does not result in new construction or reconstruction

An interstate land sales registration

✓ Any timely emergency assistance under disaster assistance provision or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster

None of the above

Screen Summary

Compliance Determination

Based on the project description (rehabilitation of public lighting infrastructure in existing streets and avenues in the urban zone in the City), the project includes no activities that would require further evaluation under this section. HUD's noise regulation is not applicable to this project per 24 CFR 51.101(a)(3).

Supporting documentation

Are formal compliance steps or mitigation required?

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

Yes

✓ No

Sole Source Aquifers

General requirements	Legislation	Regulation
The Safe Drinking Water Act of 1974 protects drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health.	Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300f et seq., and 21 U.S.C. 349)	40 CFR Part 149

1. Does the project consist solely of acquisition, leasing, or rehabilitation of an existing building(s)?

Yes

✓ No

2. Is the project located on a sole source aquifer (SSA)?

A sole source aquifer is defined as an aquifer that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. This includes streamflow source areas, which are upstream areas of losing streams that flow into the recharge area.

< No

✓

Based on the response, the review is in compliance with this section. Document and upload documentation used to make your determination, such as a map of your project (or jurisdiction, if appropriate) in relation to the nearest SSA and its source area, below.

Yes

3. Does your region have a memorandum of understanding (MOU) or other working agreement with Environmental Protection Agency (EPA) for HUD projects impacting a sole source aquifer?

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

Yes

No

Screen Summary

Compliance Determination

Puerto Rico is included in Region II of the USA EPA designated sole-source aquifer regions. There are no designated Sole Source Aquifers in Puerto Rico. According to EPA Sole Source Aquifers Map, the project is not located in a sole source aquifer area. The project is limited to rehabilitation of public lightning infrastructure in existing streets and avenues of the city. The project consists of activities that are unlikely have an adverse impact on groundwater resources. The project is not served by a designated sole source aquifer nor is located within a sole source aquifer watershed. The project is in compliance with Sole Source Aquifer requirements without any further evaluation.

Supporting documentation

Exhibit J Sole source aquifers.pdf

Are formal compliance steps or mitigation required?

Yes

✓ No

Wetlands Protection

General requirements	Legislation	Regulation
Executive Order 11990 discourages direct or indirect support of new construction impacting wetlands wherever there is a practicable alternative. The Fish and Wildlife Service's National Wetlands Inventory can be used as a primary screening tool, but observed or known wetlands not indicated on NWI maps must also be processed Off-site impacts that result in draining, impounding, or destroying wetlands must also be processed.	Executive Order 11990	24 CFR 55.20 can be used for general guidance regarding the 8 Step Process.

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance? The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order

✓ No

Based on the response, the review is in compliance with this section.

Yes

Screen Summary

Compliance Determination

This project does not involve new construction as defined in Executive Order 11990. The proposed action (rehabilitation of public lightning infrastructure in existing streets and avenues) does not involve new construction in a wetland. The project does not require draining, dredging, channelizing, filling, diking, impounding or related activities on a wetland area as defined in Executive Order 11990. Furthermore, a permit will not be required as per section 404 of the Clean Water Act, because the project will not require the discharge of dredger or filing materials into wetlands. Despite the proximity of wetlands, the project does not include activities that would require further evaluation under this section. The project is in compliance with Executive Order 11990.

Supporting documentation

Exhibit K Wetlands Inventory Maps.pdf

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

Are formal compliance steps or mitigation required?

Yes

✓ No

Wild and Scenic Rivers Act

General requirements	Legislation	Regulation
The Wild and Scenic Rivers Act provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS) from the effects of construction or development.	The Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), particularly section 7(b) and (c) (16 U.S.C. 1278(b) and (c))	36 CFR Part 297

1. Is your project within proximity of a NWSRS river?

✓ No

Yes, the project is in proximity of a Designated Wild and Scenic River or Study Wild and Scenic River.
Yes, the project is in proximity of a Nationwide Rivers Inventory (NRI) River.

Screen Summary

Compliance Determination

Puerto Rico has approximately 5,385 river miles, but only 8.9 miles of three rivers are designated as wild & scenic. The areas of this project are not within proximity to National Wild and Scenic Rivers (NWSRS). The Municipality of Caguas does not have any river registered as a Wild and Scenic River, Study River, or listed in the Nationwide Rivers Inventory (NRI). There are no surrounding rivers that qualify as wild and scenic rivers in Caguas jurisdiction. The project is in compliance with the Wild and Scenic Rivers Act.

Supporting documentation

Exhibit L3 Puerto Rico WSR Map with distance.pdf
Exhibit L2 WSR Inventory.pdf
Exhibit L1 PUERTO RICO WSR.PDF

Are formal compliance steps or mitigation required?

Yes

✓ No

Environmental Justice

General requirements	Legislation	Regulation
Determine if the project creates adverse environmental impacts upon a low-income or minority community. If it does, engage the community in meaningful participation about mitigating the impacts or move the project.	Executive Order 12898	

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1. Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?

✓ Yes

No

2. Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?

Yes

✓ No

Explain:

Lead Base Paint was founded in some of the public lighting to be removed, as part of the project. Professional mitigation measures will be developed to remove the lead paint material from these infrastructure, before the proper removal and disposal of the old lighting. These actions will not affect high or low income communities in the area.

Based on the response, the review is in compliance with this section. Document and upload any supporting documentation below.

Screen Summary

Public-Lightning-Rehabilitation-Main-Avenues-PR-CRP-000262	Caguas, PR	900000010485803

Compliance Determination

The activities involved in this project are public lightning rehabilitation activities on existing main avenues streets in Caguas, a populated area. After completing the other portions of the environmental review, we determined that neither the project sites nor The surrounding neighborhood suffered from adverse environmental conditions. The project is out: (a) of the airport hazard zones, (b) out of flood zone (according to FEMA FIRM Maps), (c) out of coastal barrier zones (according to Puerto Rico Coastal Zone Management Program) (d) compliance with Clean Air Act/ (e) no violations on RCRA permits are found in sites surrounding the project area (according to NEPA Assist & ECHO reports) (f) the project will not result in an increased number of people in the area, (g) there are not AST'S in the project surroundings; (h) doesn't impact a farmland/ sole aquifer/ wild rivers or wetlands areas (according to location map)/ (i) is not a hazardous or flammable facility (j) is not a new construction that exceeds the building footprint, (k) no noise abatement needed, (1) SHPO determined that the project have no impact on historical properties in the area and (m) comply with USFW Blanket Clearance Letter for HUD funding projects and concur with our determination. In terms of contamination and toxic, lead based paint has been found in a few areas of the project. Due to the presence of an elevated concentration of LBP, mitigation measures will be conducted by a certified DNER contractor before doing any paint work to prevent lead dust hazards during the project. Mitigation measures would include controlled removal and proper disposal by a licensed professional recommendation following applicable regulations.

Supporting documentation

Are formal compliance steps or mitigation required?

Yes

✓ No

EXHIBITS LIST CASE PR-CRP-00262

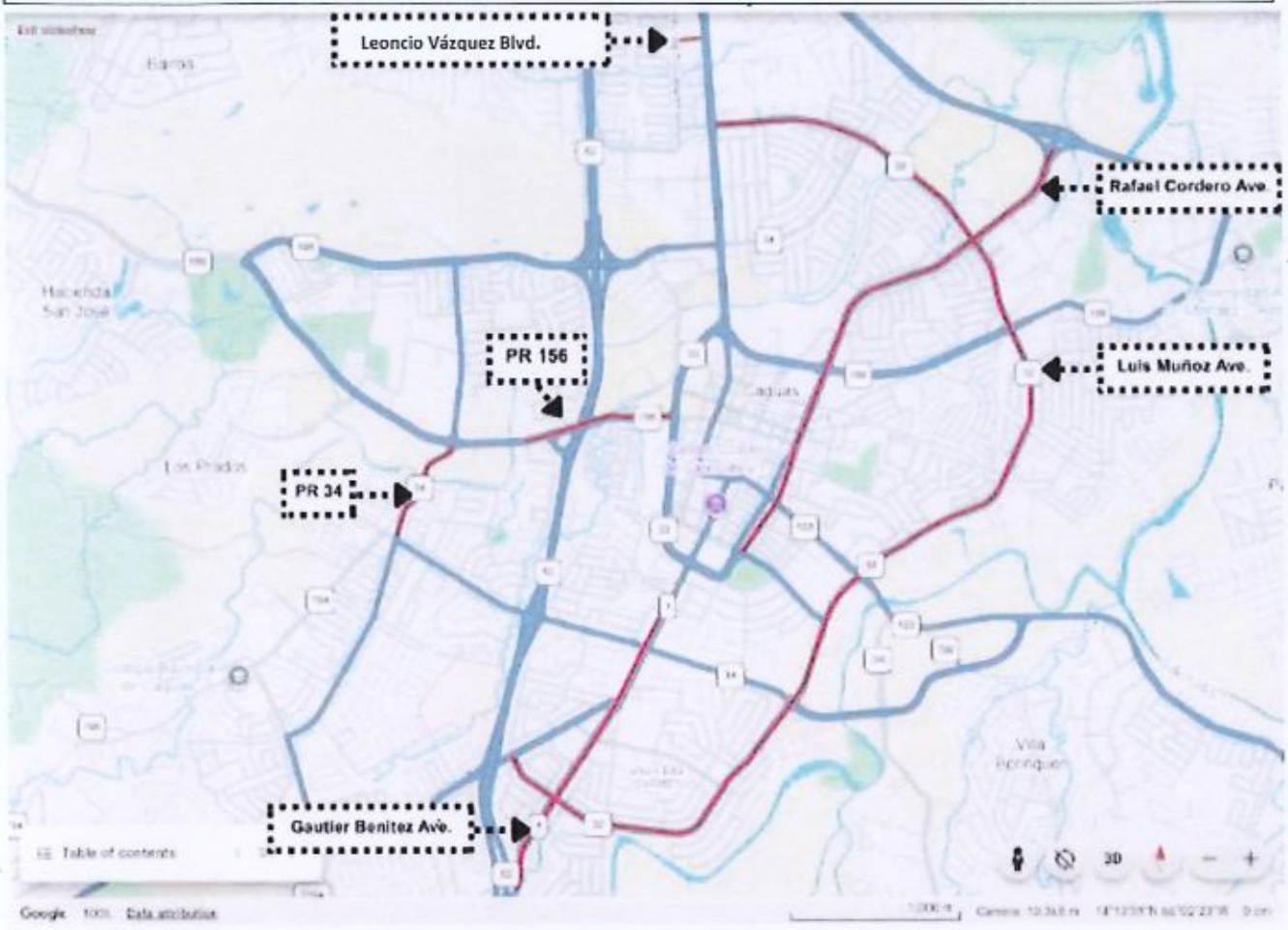
- Exhibit1 Project Description
  - Exhibit 1a Aerial Map of Avenues Aerial Avenues and streets
  - Exhibit 1b Aerial Map of Pueblo Ward Streets
  - Exhibit 1c Public Lightning Avenues and Streets Photos
  - Exhibit A Memorial Public Lightning Memorial
  - Exhibit A1 Schematic Plans
- Exhibit 2 Airport Hazards
  - Airport Hazards Map
- Exhibit 3 Coastal Barrier Resources
  - Coastal Barrier Map
- Exhibit 4 Flood Insurance
  - FEMA Flood Map
- Exhibit 5 Clean Air
  - Caguas Nonattainment Map
  - Exhibit B PR Air Quality Green Book 2025
- Exhibit 6 Coastal Zone Management
  - PMZC Map of Puerto Rico
- Exhibit 7 Contamination and Toxic
  - Exhibit 7a Bull Bond MFG Map
  - Exhibit 7b Neolpharma Inc Map
  - Exhibit 7c Quality Electroplating Corp
  - Exhibit 7d Ultralumber Map
  - Exhibit 7e UST Finder Caguas
  - Exhibit E1 RCRA Contamination and Toxic
  - Exhibit E2 TRI Contamination and Toxic
  - Exhibit E3 Pictures of Lead Based Paint poles with bases Degetau Avenue and PR 156
  - Exhibit E4 Lead Based Paint Report- Gautier Benítez Avenue
  - Exhibit E5 Lead Based Paint Report Degetau Avenue and PR 156
  - Exhibit E6 Detailed Facility Report – ECHO US EPA Mova Pantheon Pharmaceuticals
  - Exhibit E7 Detailed Facility Report – ECHO US EPA Bull Bond
  - Exhibit E8 Detailed Facility Report – ECHO US EPA Neolpharma Inc
  - Exhibit E9 Detailed Facility Report – ECHO US EPA Quality Electroplating Corp
  - Exhibit E10 Detailed Facility Report – ECHO US EPA Ultralumber
  - Exhibit E11 Lead Based Paint Contamination Memorial
- Exhibit F Endangered Species
  - FWS Documentation Tract
- Exhibit G Farmlands Protection
  - Soil Report Complete
- Exhibits H Floodplain Management
  - Exhibit H1 Caguas PR CRP 000262 Flood Zone Notification Letter
  - Exhibit H2 24 CFR 55.12
  - Exhibit H3 24 CFR 55.13
  - Exhibit H4 24 CFR Part 55
  - Floodplain Maps
  - Exhibit 8 Flood Hazard Map Caguas
  - Exhibit 8a Floodplain Map Leoncio Velázquez Boulevard
  - Exhibit 8b Floodplain Map Luis Muñoz Marín Avenue

    - Exhibit 8c Floodplain Map PR 156
    - Exhibit 8d Floodplain Map Rafael Cordero Avenue
    - Exhibit 8e Floodplain Gautier Benitez Avenue
- Exhibit I Historic Preservation
    - SHPO Letter
- Exhibit J Sole Source Aquifers
    - Sole Source Aquifers List
- Exhibit K Wetlands Protection
    - Wetlands Inventory Map
- Exhibit L Wild and Scenic Rivers
    - Exhibit L1 Puerto Rico WSR
    - Exhibit L2 WSR Inventory
    - Exhibit L3 Puerto Rico WSR Map with distance

Exhibit 1
Project Description

Exhibit 1a

Aerial Map for Road Lightning Rehabilitation at Luis Muñoz Ave., Gautier Benítez Ave., Rafael Cordero Ave., Leoncio Vázquez Blvd. PR-156 and PR -34



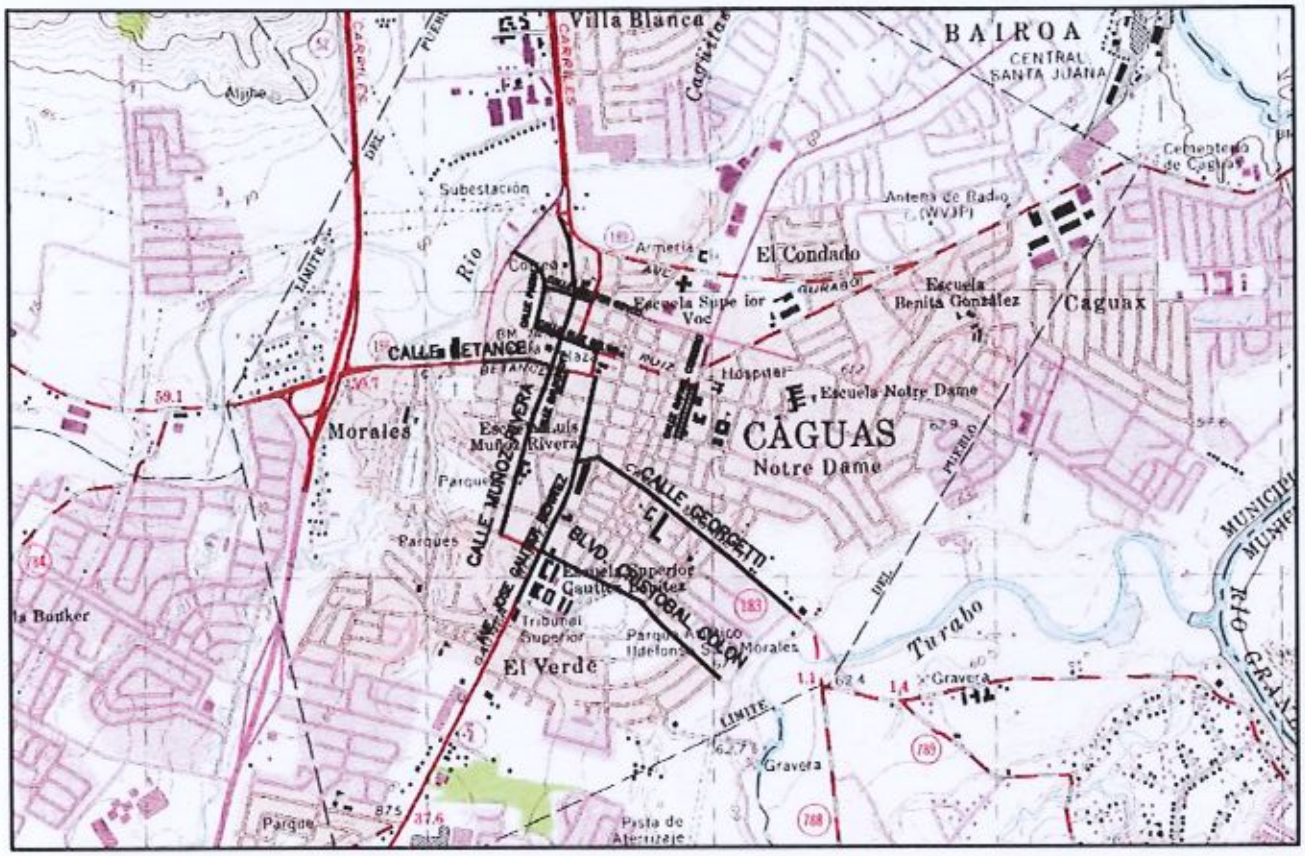
May 29, 2025

Google Earth

Legend:

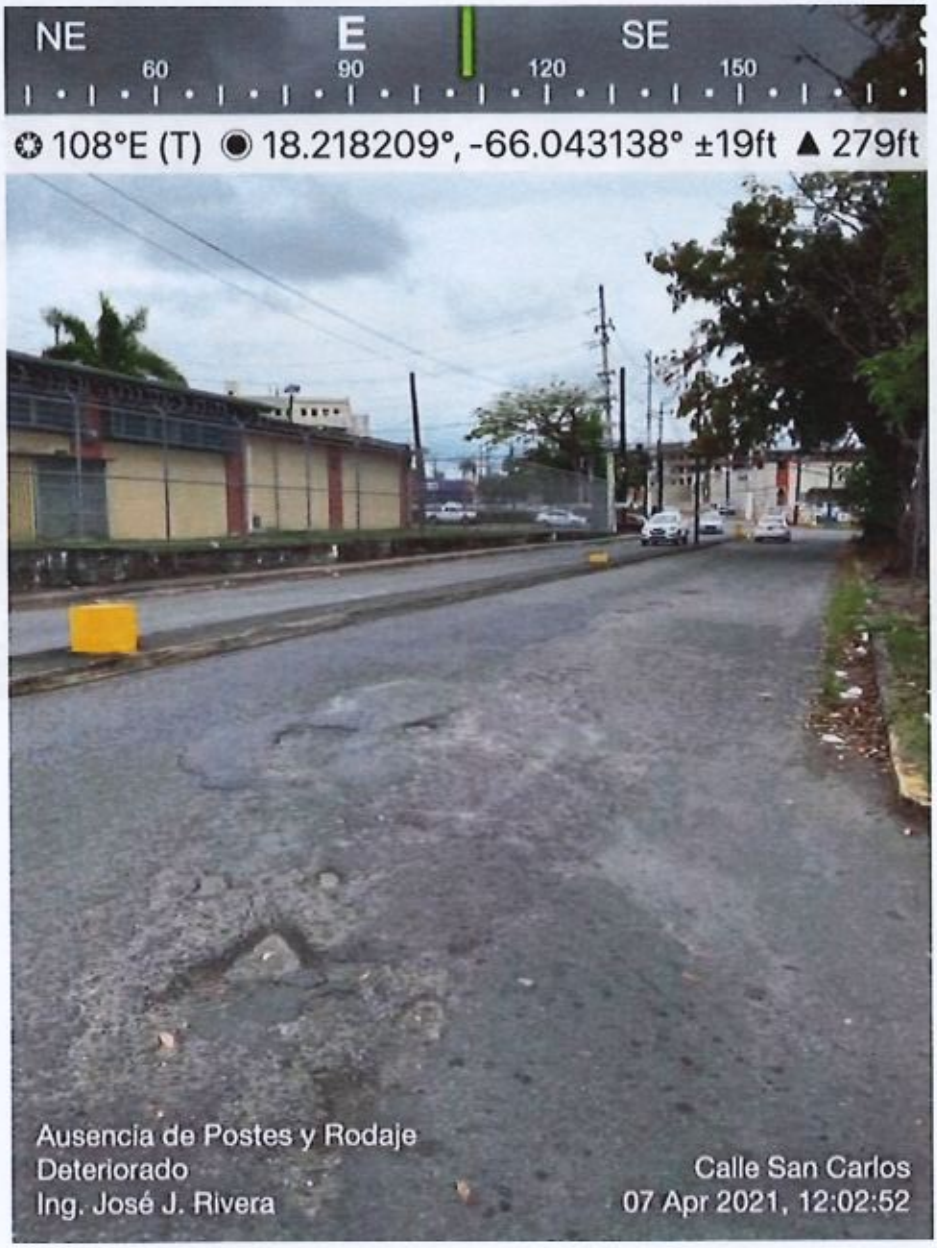
Road Lightning Rehabilitation at Luis Muñoz Ave., Gautier Benítez Ave., Rafael Cordero Ave., Leoncio Vázquez Blvd. PR-156 and PR -34

Exhibit 1. Aerial Map of Pueblo Ward Streets



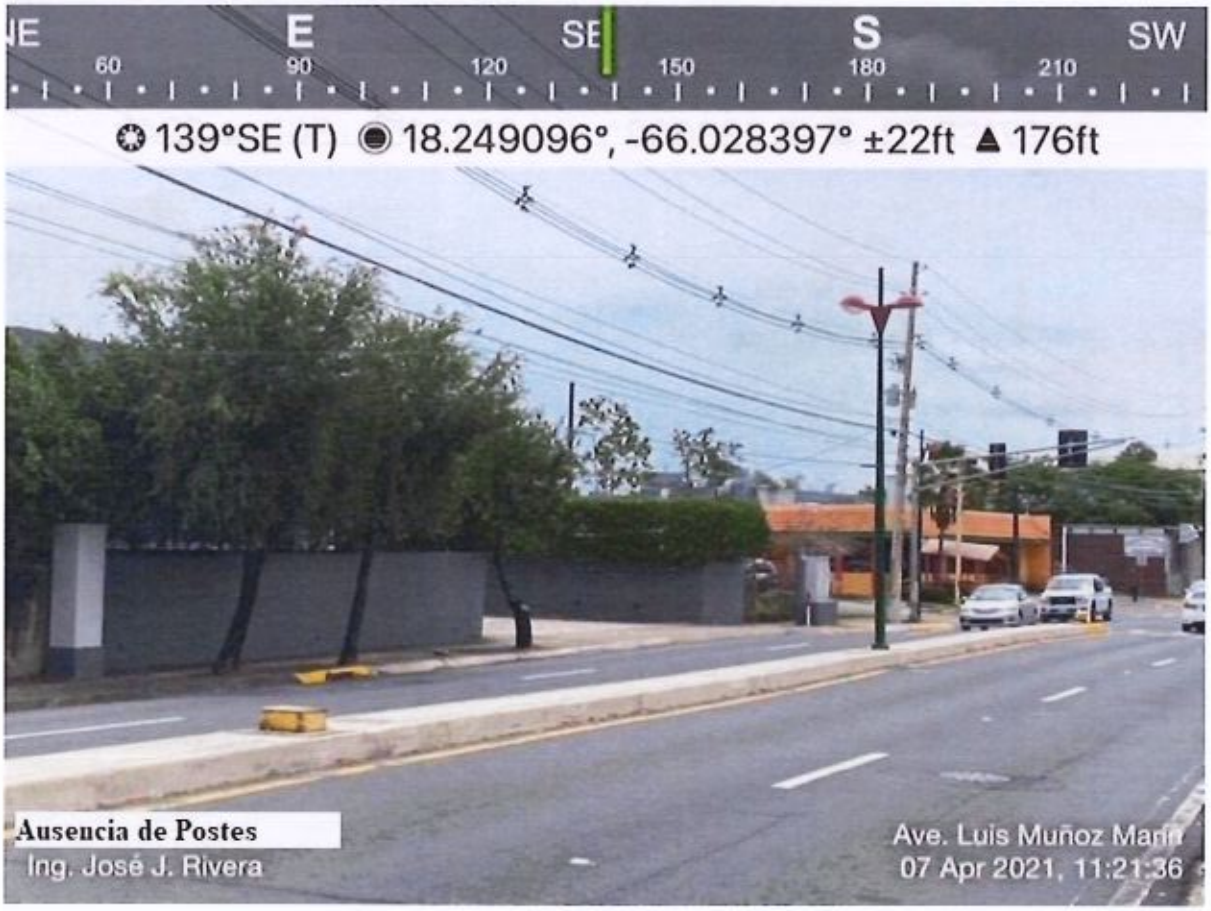
Streets included in the Project

Exhibit 1c Public Lightning Avenues and Streets Photos




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NE
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30
60
90
120
150
64°NE (T) 18.249472°, -66.037268° ±29ft 205ft
Ausencia de Alumbrado
Ing. José J. Rivera
Ave. Luis Muñoz Marin
07 Apr 2021, 11:13:53


NE
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S
SW
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90
120
150
180
210
137°SE (T) 18.233603°, -66.031345° ±36ft ▲ 224ft
Ausencia de Postes
Ing. José J. Rivera
Ave. Rafael Cordero
07 Apr 2021, 11:47:21


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210
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Ausencia de Postes
Ing. José J. Rivera
Ave. Luis Muñoz Marín
07 Apr 2021, 11:21:36


S
SW
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180
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240
270
300
330
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199ft
Alumbrado Afectado
Ing. José J. Rivera
Bulevar Leoncio Velázquez
07 Apr 2021, 11:03:19


SE
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SW
W
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210
240
270
195°S (T)
18.217575°, -66.042847° ±19ft
272ft
Ausencia de Postes
Ing. José J. Rivera
Ave. Gautier Benítez
07 Apr 2021, 12:05:07


NE
E
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90
120
150
180
95°E (T) 18.220876°, -66.034647° ±19ft 243ft
Ausencia de Postes
Ing. José J. Rivera
Ave. Degetau
07 Apr 2021, 12:14:55

Apartado 907 Caguas, PR 00726
Tel. (787) 653-5400 ext. 3224

14 de julio de 2021

Rehabilitación Alumbrado Afectado por Huracan Maria
en Avenidas del Centro Urbano (PR-CRP-000262)

ALCANCE DEL PROYECTO

Con el paso del huracán María esta avenida sufrió serios daños en cuanto a su infraestructura de alumbrado público, cuya responsabilidad y mantenimiento corresponde al Municipio. El proyecto en referencia propone no solo la reparación de dicho alumbrado, sino el reemplazo de esta infraestructura por una más resiliente, y de tecnologías que reduzcan el consumo de electricidad.

Para la realización de los trabajos se requerirá lo siguiente:

- Áreas a Considerarse con Alumbrado Público bajo el Mantenimiento del Municipio:
  - Bulevar Leoncio Velázquez
  - Ave. Muñoz Marín, desde la Ave. Los Trovadores en Bairoa, hasta la Ave. Pino (PR-172)
  - Estacionamiento Monumento Luis Muñoz Marín
  - Ave. Georgetti, desde la Ave. Muñoz Marín hasta después del residencial Brisas del Turabo
  - Estacionamientos instalaciones recreativas Villa del Rey I
  - Calle Windsor Villa del Rey I, desde la Ave. Muñoz Marín hasta el final
  - Ave. Gautier Benítez, entre la Ave. José Mercado (PR-33) y el puente de la PR-52
  - Ave. Degetau, entre la Ave. Muñoz Marín y la Urb. San Alfonso
  - Ave. Pino
  - Calle San Carlos, frente a Plaza del Carmen Mall
  - Ave. Rafael Cordero, entre la entrada de Plaza Centro a la Calle Vizcarrondo
  - PR-156, entre Ave. José Mercado (PR-33) y Puente Sara
  - PR-1, entre Puente Las Damas y la intersección con la Mujer Indígena
  - Centro Urbano: Calles Muñoz Rivera, Padial, Betances, Acosta, Goyco, Baldorioity, Georgetti, Gautier Benítez incluyendo el Pasco.

- Trabajos de Arquitectura e Ingeniería:
  - Revisión de las condiciones del alumbrado actual.
  - Propuesta de poste y luminaria que cumpla con los nuevos códigos de viento y que reduzca consumo energético.
  - Diseño y especificaciones del alumbrado propuesto.
  - Permisología y documentos para proceso de subasta

- Trabajos de Construcción
  - Remoción de postes existentes y bases existentes.
  - Reparación de alambrado y cualquier otro componente eléctrico necesario para el funcionamiento adecuado del alumbrado.
  - Instalación de nuevos postes, con sus respectivas bases y luminaria led.

José J. Rivera González, PE
Director
Departamento de Obras Públicas
Secretaría de Infraestructura, Ornato y Conservación

SCHEMATIC PLANS:

RESTORATION OF ROAD LIGHTINGS (PROYECTO # 182616 - PW 09325)

MUNICIPALITY OF CAGUAS

VARIES ROADS AND AVENUES

MUNICIPALITY OF CAGUAS
HON. WILLIAM MIRANDA TORRES, MAYOR

Vazquez Associates
Engineers • Architects • Project Managers

P.O. BOX 6689 CAGUAS, PUERTO RICO 00726
TEL:(787) 258-1758/FAX: (787) 258-176
Email: vazquezassociates@live.com

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03	C-02	EXISTING CONDITION PLAN SITE - CALLE MARGOT RIVERA 2
04	C-03	EXISTING CONDITION PLAN SITE - BLVD. CRISTOBAL COLON
05	C-04	EXISTING CONDITION PLAN SITE - AVE. JOSE GAUTIER BENITEZ
06	C-05	EXISTING CONDITION PLAN SITE - CALLE GEORGETTI
07	C-06	EXISTING CONDITION PLAN SITE - CALLE PADIAL
08	C-07	EXISTING CONDITION PLAN SITE - CALLE DOCTOR GOYCO
09	C-08	EXISTING CONDITION PLAN SITE - CALLE RUIZ BELVIS
10	C-09	EXISTING CONDITION PLAN SITE - CALLE BALDORIOTY
11	C-10	EXISTING CONDITION PLAN SITE - CALLE RAFAEL CORDERO
12	C-11	EXISTING CONDITION PLAN SITE - CALLE BETANCE
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42	LT-06	PRIMARY DISTRIBUTION SITE PLAN - CALLE RUIZ BELVIS
43	LT-07	PRIMARY DISTRIBUTION SITE PLAN - CALLE PADIAL
44	LT-08	PRIMARY DISTRIBUTION SITE PLAN - CALLE DOCTOR GOYCO
GENERAL DETAILS:		
45	GD-01	GENERAL DETAILS
46	GD-02	GENERAL DETAILS



LOCATION PLAN
SCALE 1:20,000
N NAD83 COORDINATES x: 240332.1222, y: 244660.2280



FEMA FLOOD MAP
SCALE 1:15,000
N NAD83 COORDINATES x: 240332.1222, y: 244660.2280



AERIAL VIEW
SCALE 1:10,000
N NAD83 COORDINATES x: 240332.1222, y: 244660.2280

GS-01
DECEMBER 2024

RESTORATION OF ROAD BEGINNINGS
CALLE MUÑOZ RIVERA (PR-1)
CITY: CAGUAS PUERTO RICO

Vazquez Associates

PROPOSED PLAN

C-20
SHEET 21 OF 46

RESTORATION OF ROAD LIGHTINGS
(CALLE MUÑOZ RIVERA JPR-1)

CITY, CAGUAS PUERTO RICO

Velazquez Associates

PROPOSED PLAN

C-21

22 of 46

CONTROL STATIONS

LEGEND

LEGEND

REGRADACIÓN DE ROAD IZQUIERDOS
CALLE CRISTÓBAL COLÓN
CUYO CAGUAS PUERTO RICO

Vazquez Associates

PROPOSED PLAN

SCALE: 1:50 DATE: [illegible]

DRAWING NO. C-22
SHEET NO. 23 OF 46

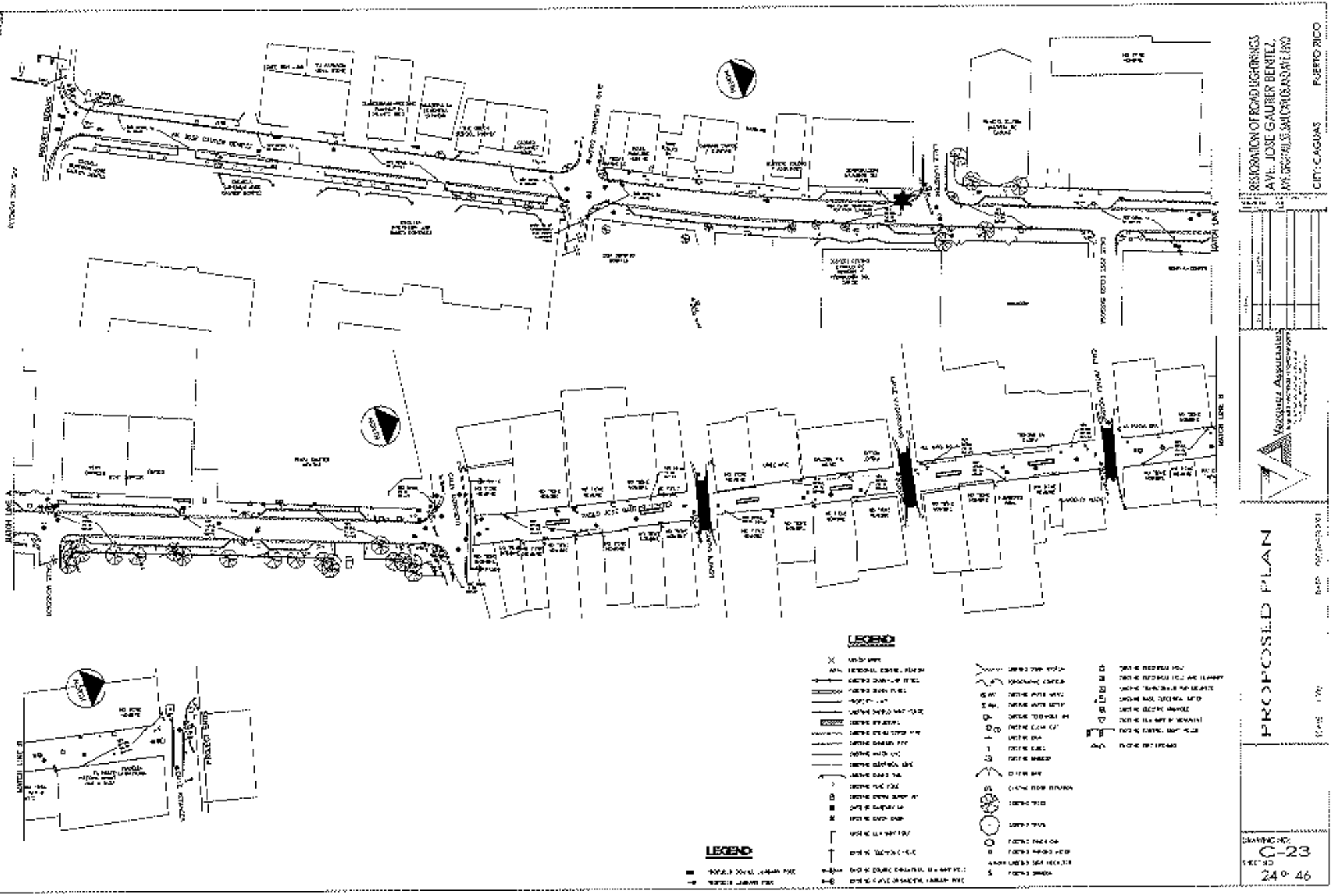
LEGEND

MAIN USE A

MAIN USE B

MAIN USE C

LEGEND

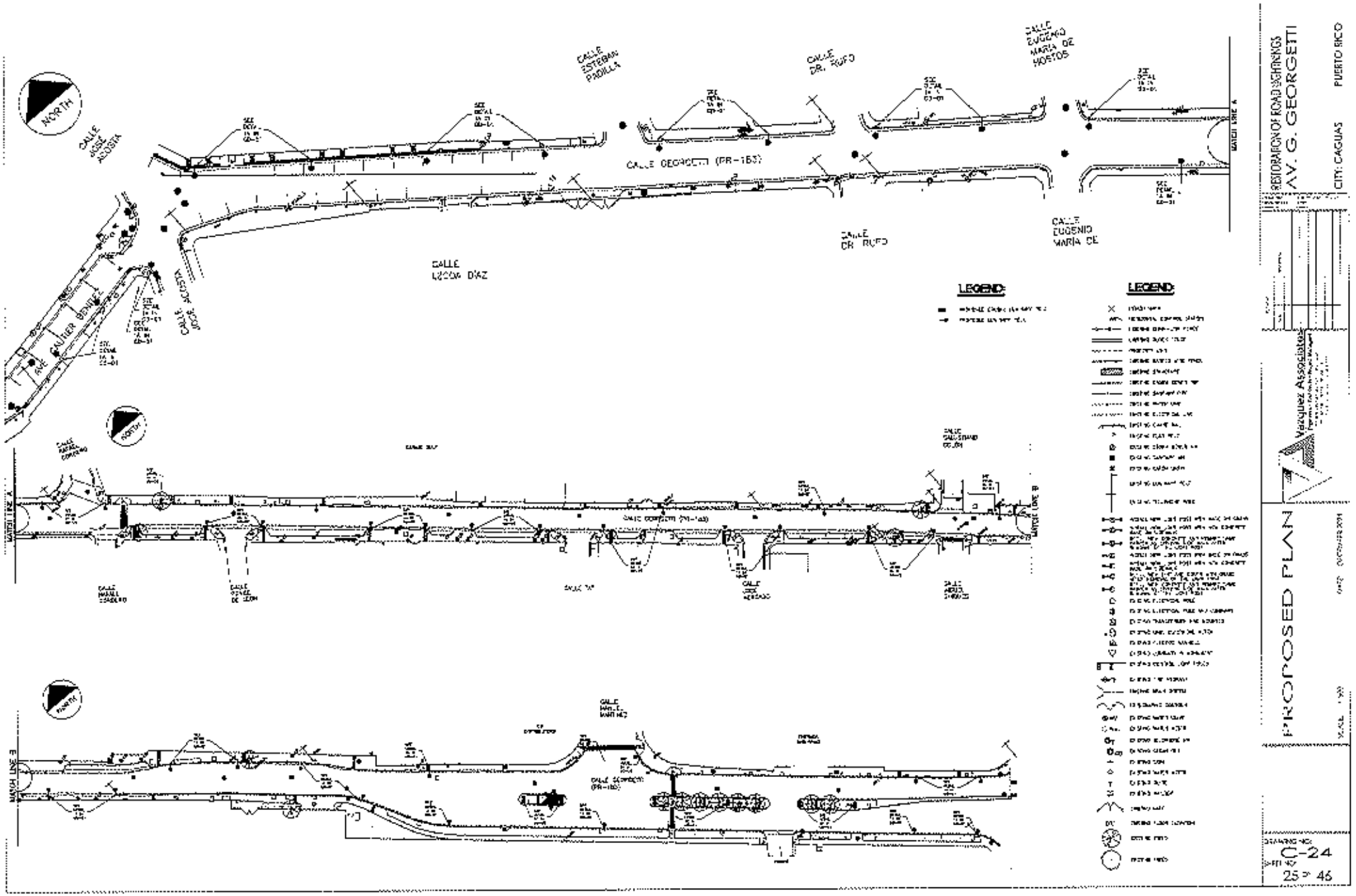


REHABILITATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. GONZALO MARIN (CARIOLA) AND AVE. ORO

CITY: CAGUAS PUERTO RICO

PROPOSED PLAN

DRAWING NO.
C-23
SHEET NO.
24 of 46



RESTORATION OF ROAD WORKINGS
AV. G. GEORGETTI
CITY: CAGUAS PUERTO RICO

Vazquez Associates

PROPOSED PLAN

SCALE: 1"=50'

DRAWING NO.
C-24
SHEET NO.
25 OF 46

REHABILITATION OF ROAD LIGHTINGS
CAGUAS

CITY: CAGUAS PUERTO RICO

Vazquez Associates

PROPOSED PLAN

SCALE: 1:500 DATE: 04/09/2008

SHEET NO. C-25
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PROPOSED PLAN
RESTORATION OF ROAD LIGHTINGS
CALLE DE SOCO
CITY OF CACUAS
PUBLIC WORKS
C-26
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REHABILITATION OF ROAD LIGHTINGS
CALLE BOLIVIA
CITY OF CAGUAS PUERTO RICO

Vazquez Associates

PROPOSED PLAN

DRAWING NO.
C-27
SHEET NO.
28 OF 46



LOCATION MAP
SCALE 1:20,000

EXHIBIT - C

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D.F-2	FEMA AND AMC DAMAGES COMPARISON DRAWINGS	4
D.F-3	FEMA AND AMC DAMAGES COMPARISON DRAWINGS	5
D.F-4	FEMA AND AMC DAMAGES COMPARISON DRAWINGS	6
D.F-5	FEMA AND AMC DAMAGES COMPARISON DRAWINGS	7
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AERIAL PHOTOGRAPHY
"Google Earth"

AUTONOMOUS MUNICIPALITY OF CAGUAS
WILLIAM MIRANDA TORRES - MAYOR

LUIS MUÑOZ MARIN AVE. (P.R.-32) & LEONCIO VELAZQUEZ BOULEVARD
PUBLIC ROAD LIGHTING - PW8842:MCAG166

DETERMINATION & EVALUATION OF FEMA AND AMC DAMAGES COMPARISON DRAWINGS 2133

CAGUAS
Municipio Autonomo de Caguas
William Miranda Torres
MAYOR

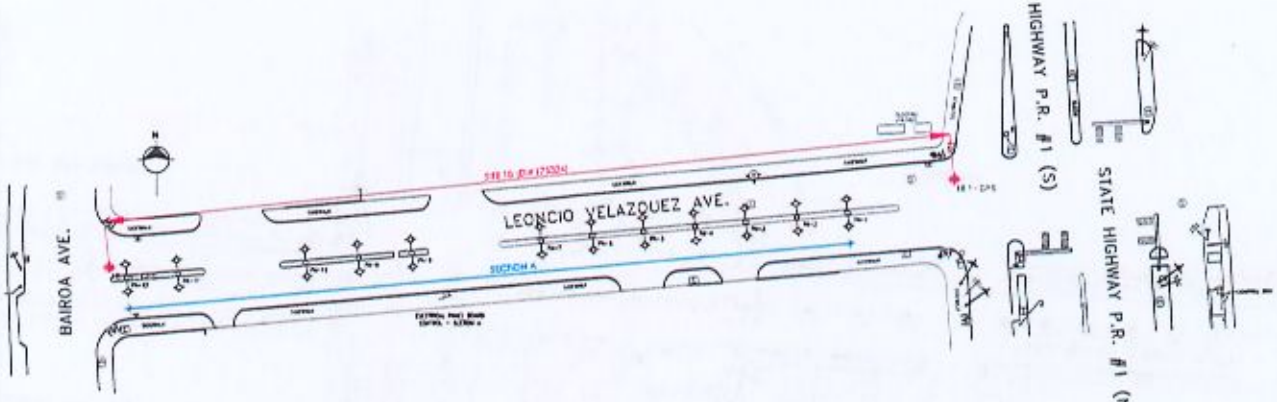
RIVERA & ALEJANDRO, PSC
architects - engineers
P.O. BOX 8954 SANTURCE STA SAN JUAN, P.R. 00910 (787) 783-5408 (787) 783-5674

elwood m. caseiles bord, pe
electrical consulting engineer
lic. no. 10897

LandSurvey, Caribe
SurveyorsGrouP
Luis Burgos Colon, PLS./Alvin V. Rivera, BSLS, MBA-IT

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EXISTING GENERAL SITE PLAN
(LEONIDO VAZQUEZ AVE. & LUIS MUÑOZ MARIN AVE.)



EXISTING SITE PLAN (LEONICIO VAZQUEZ AVE.)

0 10 20 30 40 50
GRAPHIC SCALE

LEGEND:

- SINGLE LUMINARY POLE
- DOUBLE LUMINARIES POLE
- FOUR LUMINARIES POLE
- ELECTRIC OR POWER POLE
- PA-11 — POLE IDENTIFICATION NUMBER
- TRAFFIC LIGHTING STRUCTURE
- UNDERGROUND UTILITY BOX
- FEMA REPORT DAMAGE COORDINATE
- SITE 6 — FEMA REPORT DAMAGE COORDINATE
- SECTION — RIVERA & ALEJANDRO/ELWOOD CASELLAS DAMAGE EVALUATION SECTION

IMPORTANT NOTES:

1. FOR LIGHTING POLES EXISTING CONDITION DESCRIPTION REFER TO DRAWINGS SC-18 & SC-20
2. FOR SECTION DESCRIPTION REFER TO DRAWINGS SC-19 & SC-20

RIVERA-ALEJANDRO
ARCHITECTS - ENGINEERS

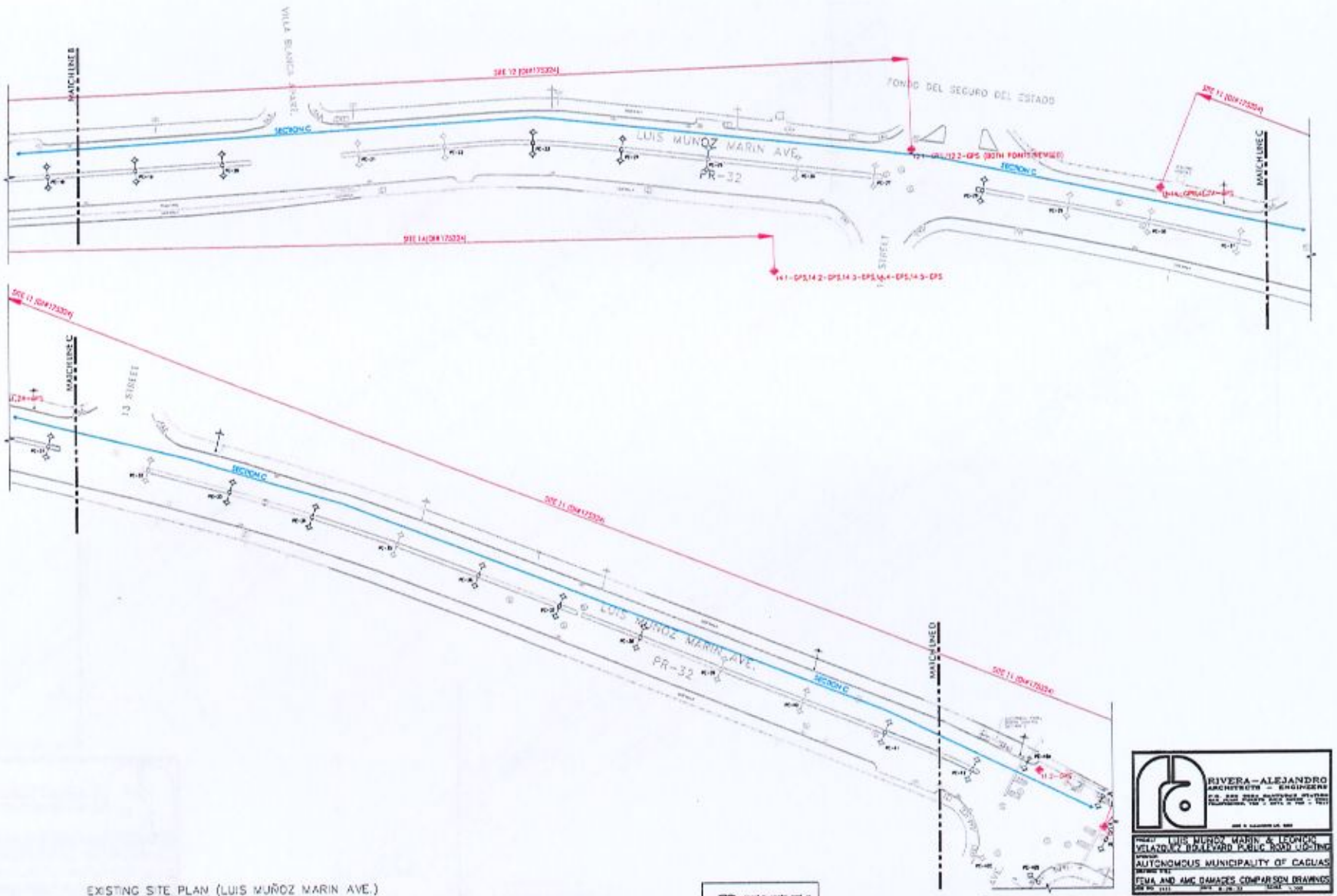
LUIS MUÑOZ MARIN & LEONICIO VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

AUTONOMOUS MUNICIPALITY OF CAGUAS

FEMA AND AMC DAMAGES COMPARISON DRAWINGS

SF-1

EXISTING SITE PLAN (LUIS MUNOZ MARIN AVE.)
GRAPHIC SCALE
0
10
20
30
40
50
MATCHLINE A
MATCHLINE B
LUIS MUNOZ MARIN AVE.
PR-32
DIAMANTE STREET
CORAL STREET
BAIROA AVE.
LUIS MUNOZ MARIN AVE.
EMPTY LOT
WALGREENS
STATE HIGHWAY P.R. #1 (S)
STATE HIGHWAY P.R. #1 (N)
SHELL GAS STATION
ADVANCE AUTO PARTS
SECTION C
SECTION D
SECTION E
SECTION F
SECTION G
SECTION H
SECTION I
SECTION J
SECTION K
SECTION L
SECTION M
SECTION N
SECTION O
SECTION P
SECTION Q
SECTION R
SECTION S
SECTION T
SECTION U
SECTION V
SECTION W
SECTION X
SECTION Y
SECTION Z
RIVERA-ALEJANDRO
ENGINEERS
SF-2
2 of 2



EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

GRAPHIC SCALE

RIVERA-ALEJANDRO
ARCHITECTS - ENGINEERS

PROJECT: LUIS MUÑOZ MARIN & LEONIDA VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

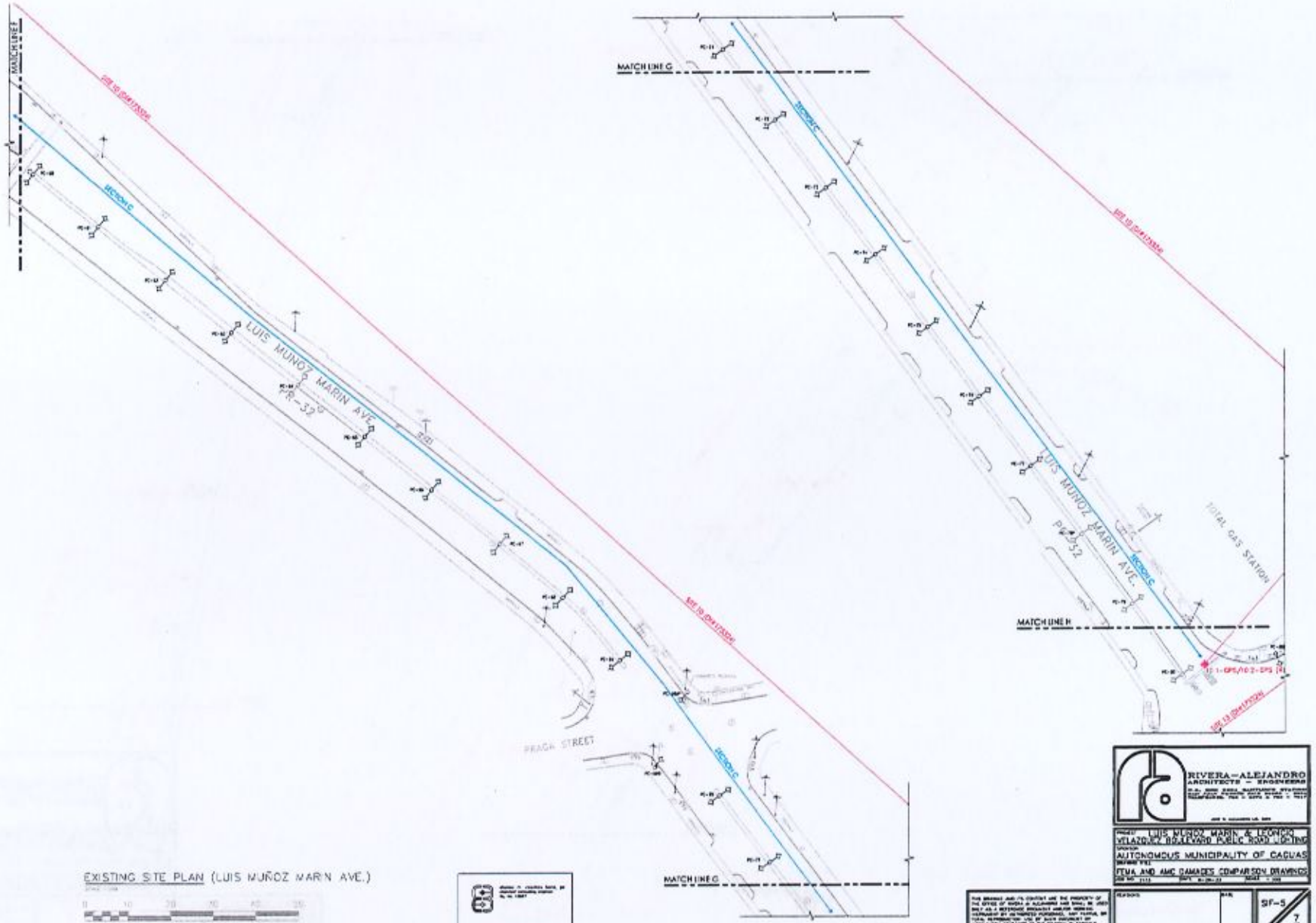
OWNER: AUTONOMOUS MUNICIPALITY OF CAGUAS

DRAWING TITLE: FEMA AND AMC DAMAGES COMPARISON DRAWINGS

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SF-3

EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)



EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

GRAPHIC SCALE

RIVERA-ALEJANDRO
ARCHITECTS — ENGINEERS

PROJECT: LUIS MUÑOZ MARIN & LEONIDA VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

LOCATION: AUTONOMOUS MUNICIPALITY OF CAGUAS

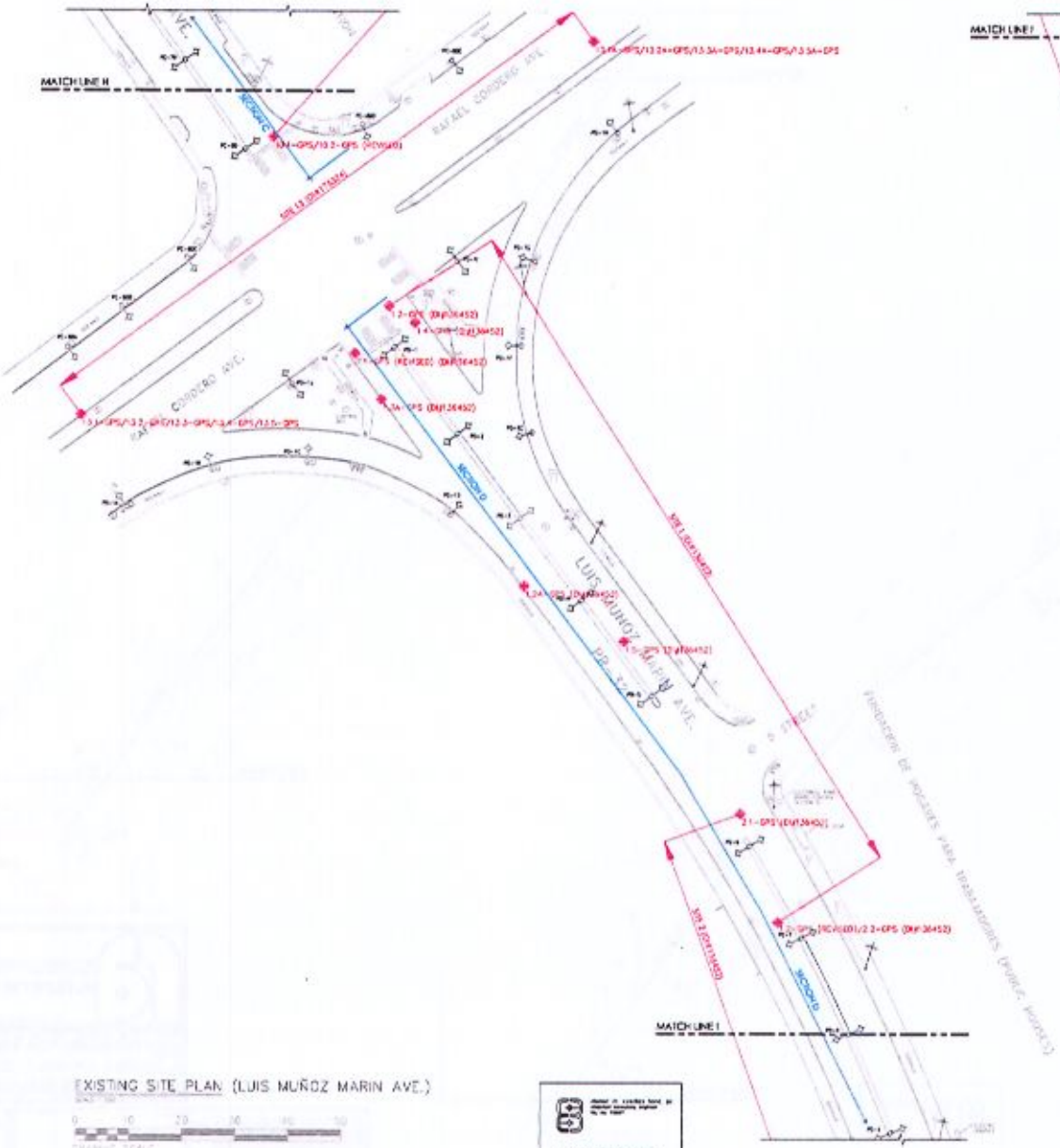
DRAWING TITLE: FEMA AND AMC DAMAGES COMPARISON DRAWINGS

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REVISIONS | DATE

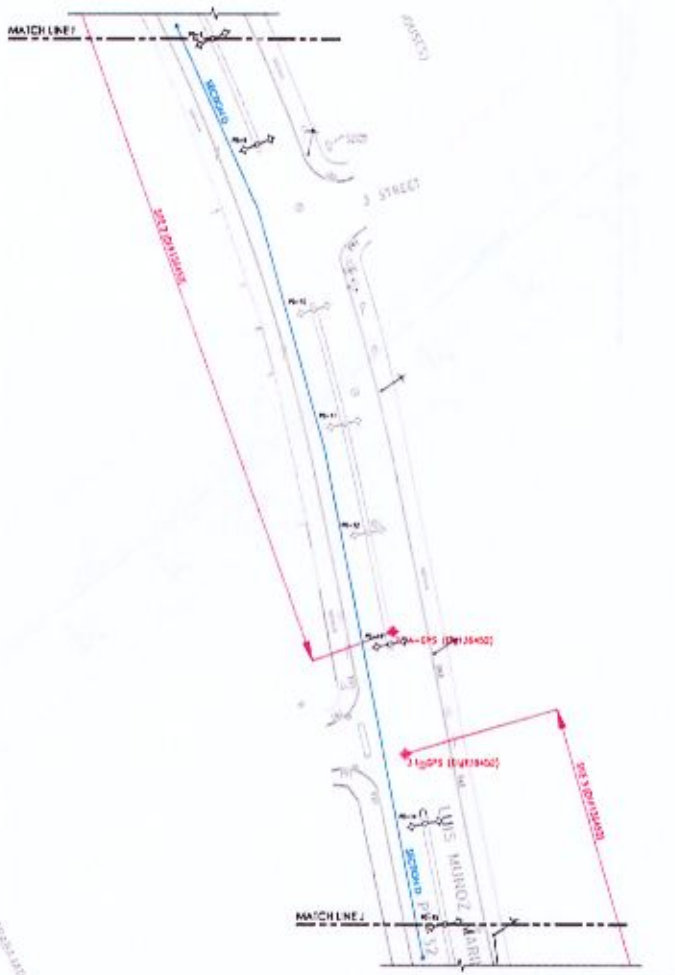
SF-5

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EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

GRAPHIC SCALE



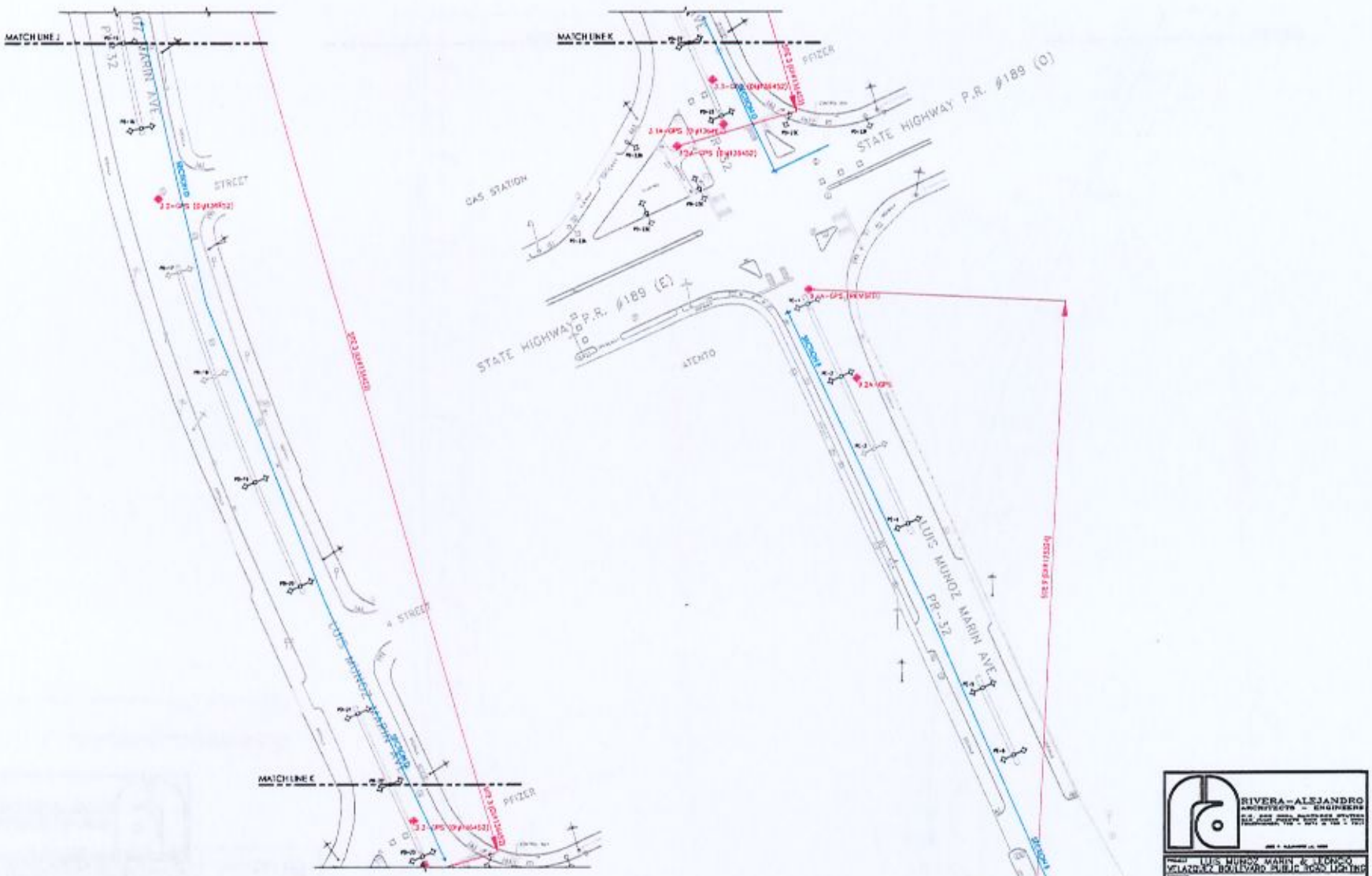
RIVERA – ALEJANDRO
ARCHITECTS – ENGINEERS

PROJECT: LUIS MUÑOZ MARIN & TEODORO VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

SPONSOR: AUTONOMOUS MUNICIPALITY OF CAGUAS

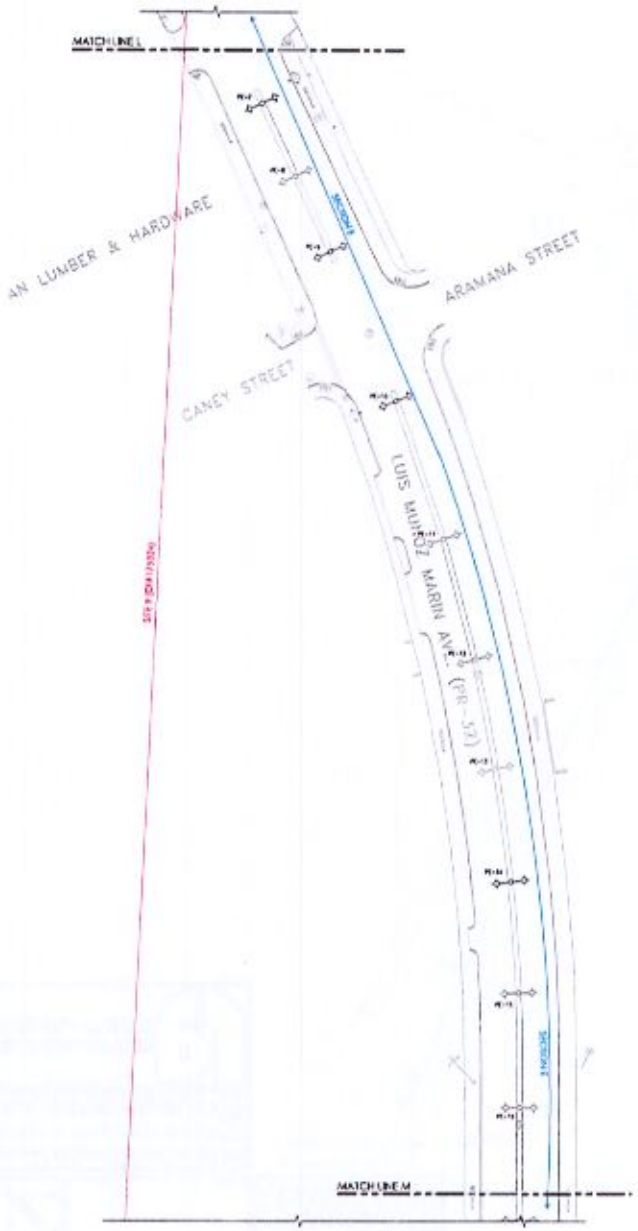
DETAILS: FEMA AND AWC DAMAGES COMPARISON DRAWINGS

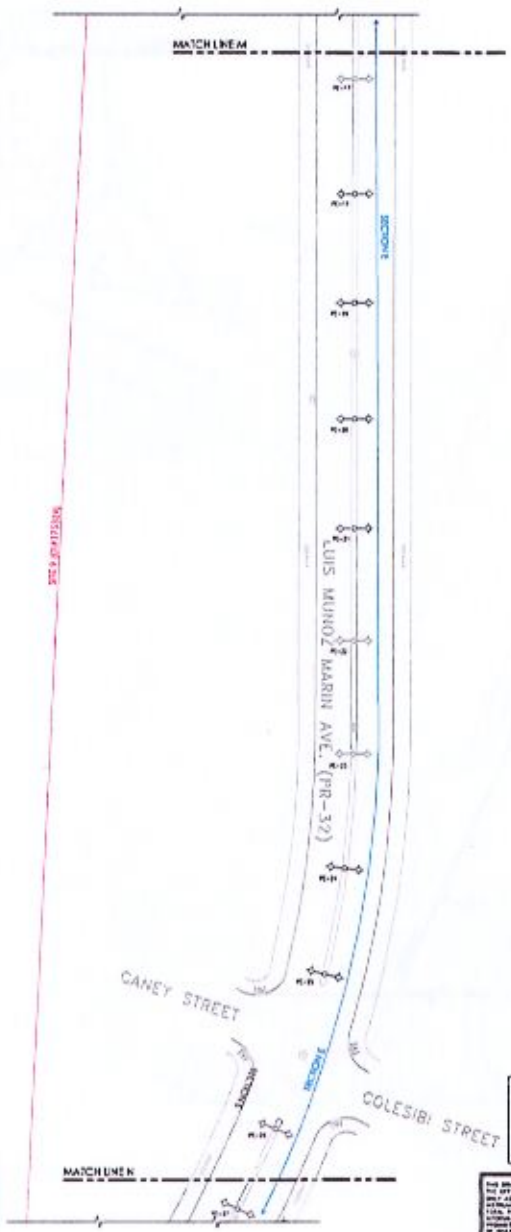
SHEET 5 OF 21



EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

GRAPHIC SCALE





EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

GRAPHIC SCALE

RIVERA-ALEJANDRO
ARCHITECTS - ENGINEERS

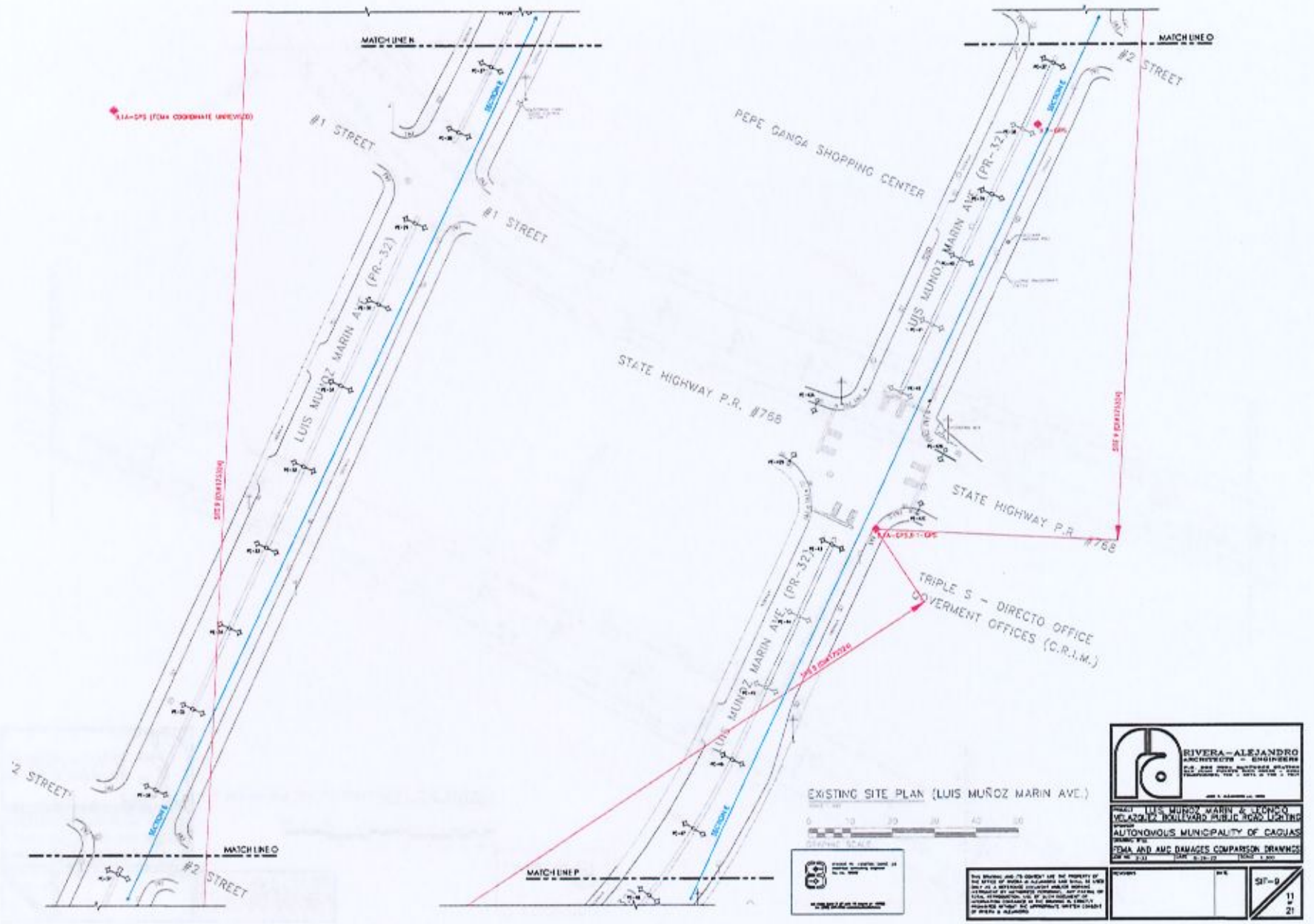
LUIS MUÑOZ MARIN & PONCE DE VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

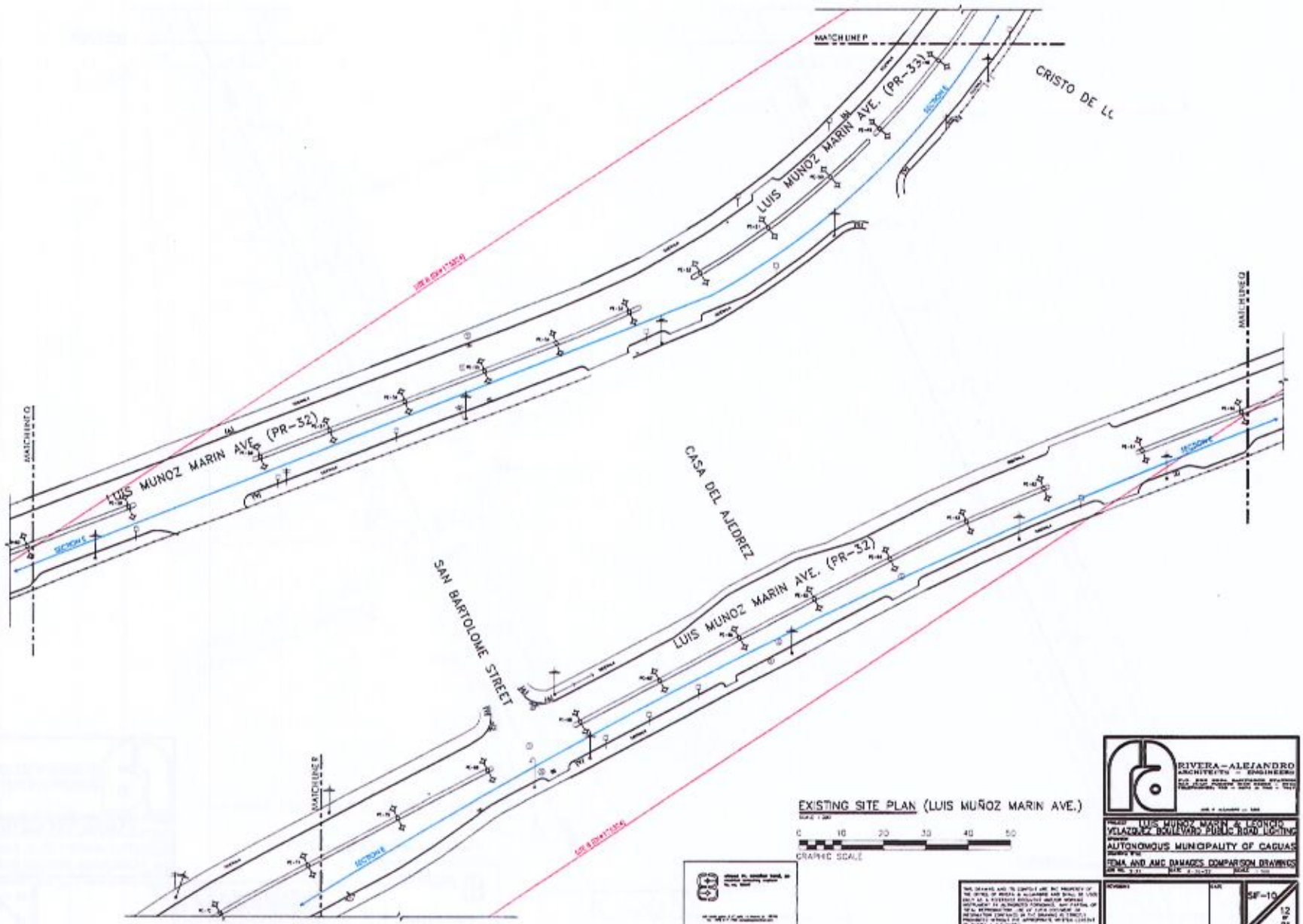
AUTONOMOUS MUNICIPALITY OF CAGUAS

FEMA AND AMC DAMAGES COMPARISON DRAWINGS

SIF-8

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MATCH LINE N
MATCH LINE O
MATCH LINE P
#1 STREET
#2 STREET
LUIS MUÑOZ MARIN AVE. (PR-32)
PEPE GANGA SHOPPING CENTER
STATE HIGHWAY P.R. #768
TRIPLE S - DIRECTO OFFICE
GOVERMENT OFFICES (C.R.I.M.)
SECTION E
SITE BOUNDARIES
EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)
RIVERA-ALEJANDRO
ARCHITECTS - ENGINEERS
LUIS MUÑOZ MARIN & TONCO
VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING
AUTONOMOUS MUNICIPALITY OF CAGUAS
FEMA AND AHC DAMAGES COMPARISON DRAWINGS
SIT-9
11
21



EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

0 10 20 30 40 50

GRAPHIC SCALE

RIVERA – ALEJANDRO
ARCHITECTS – ENGINEERS

PROJECT: LUIS MUNOZ MARIN & FRONCIO VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

OWNER: AUTONOMOUS MUNICIPALITY OF CAGUAS

SHEET TITLE: FEMA AND AMC DAMAGES COMPARISON DRAWINGS

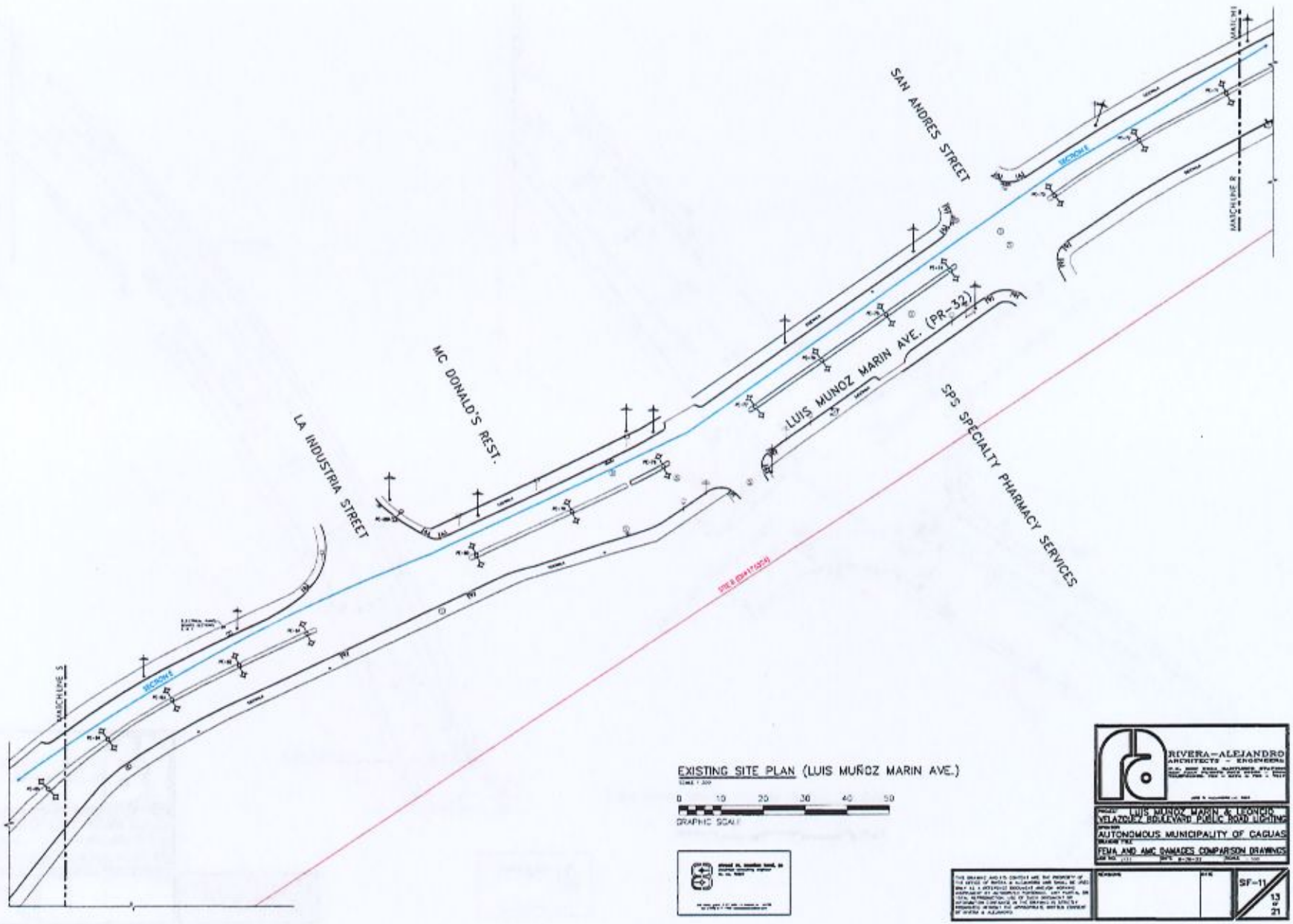
JOB NO. 3-21 DATE 4-26-22 SCALE

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REVISIONS | DATE

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EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)

0 10 20 30 40 50

GRAPHIC SCALE

RIVERA-ALEJANDRO
ARCHITECTS - ENGINEERS

LUIS MUNOZ MARIN & LEONCIO VELAZQUEZ BOULEVARD PUBLIC ROAD LIGHTING

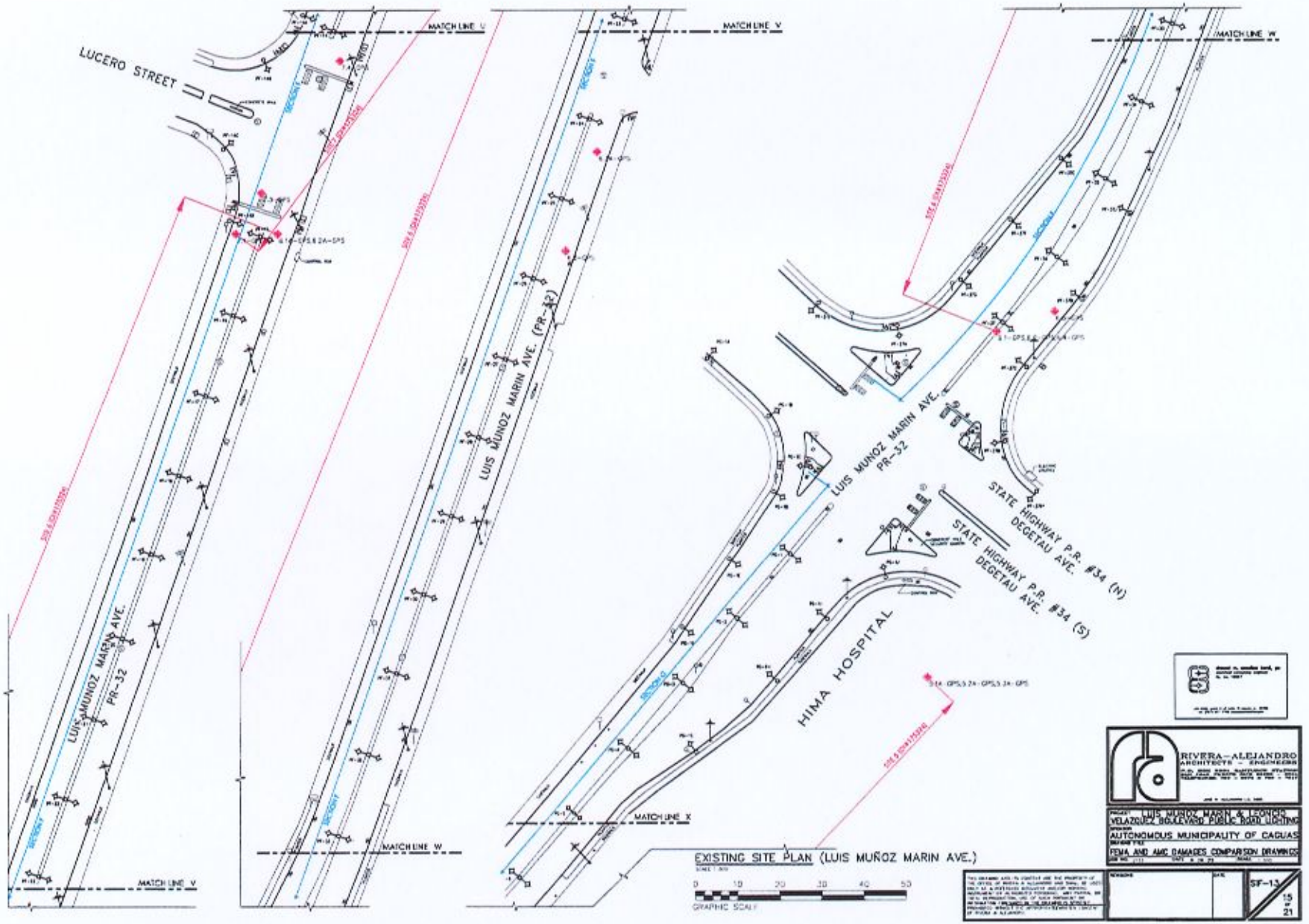
AUTONOMOUS MUNICIPALITY OF CAGUAS

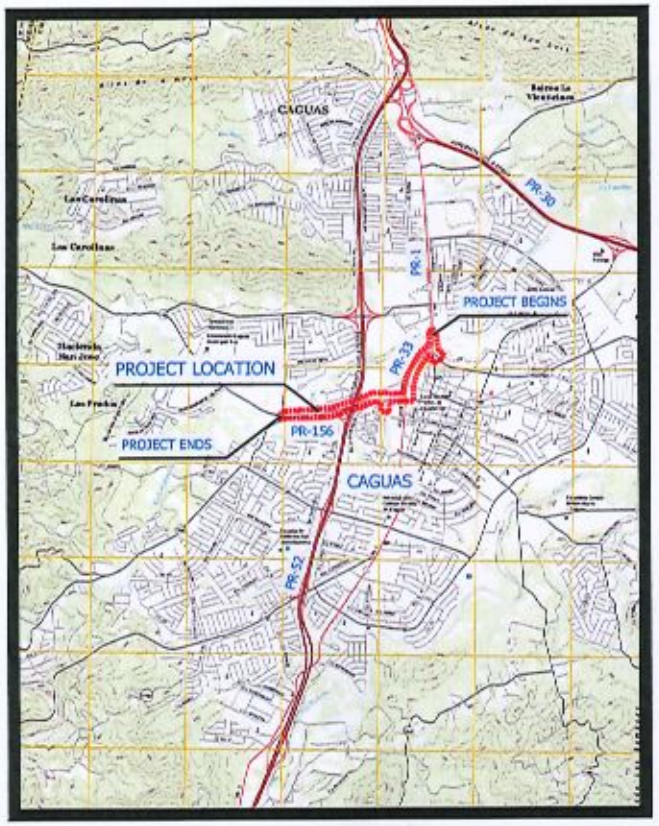
FEMA AND AMC DAMAGES COMPARISON DRAWINGS

SF-11

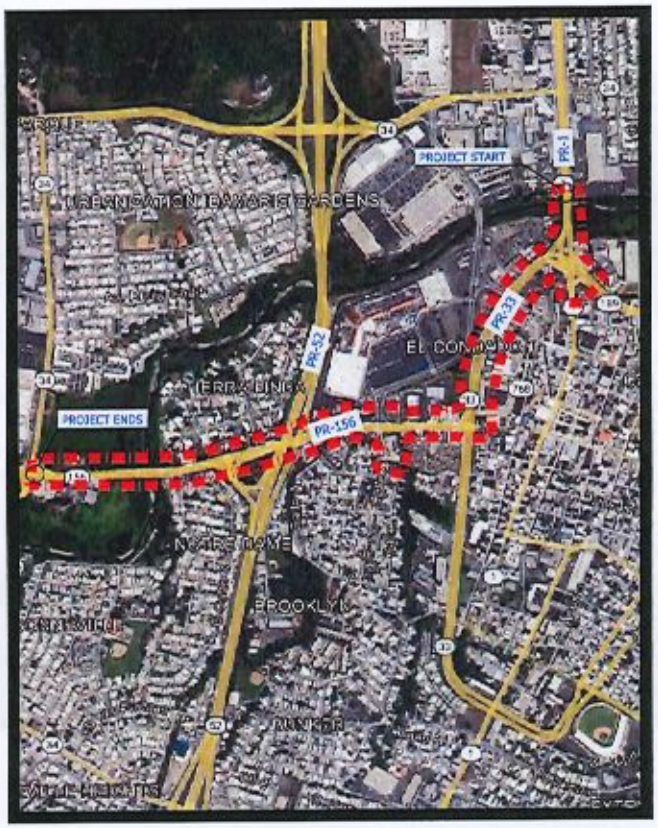
13 of 21

EXISTING SITE PLAN (LUIS MUNOZ MARIN AVE.)
GRAPHIC SCALE
0
10
20
30
40
50
OSCAR CASH & CARR
STATE HIGHWAY P.R. #183
STATE HIGHWAY P.R. #183 (S)
STATE HIGHWAY P.R. #183 (N)
LUIS MUNOZ MARIN AVE. (PR-32)
MATCH LINE 5
MATCH LINE 7
SALT SPRAY ZONE
MICRONET


LUCERO STREET
MATCH LINE U
MATCH LINE V
MATCH LINE W
MATCH LINE X
LUIS MUÑOZ MARIN AVE. (PR-32)
LUIS MUÑOZ MARIN AVE. PR-32
STATE HIGHWAY P.R. #34 (N) DEGETAU AVE.
STATE HIGHWAY P.R. #34 (S) DEGETAU AVE.
HIMA HOSPITAL
EXISTING SITE PLAN (LUIS MUÑOZ MARIN AVE.)
GRAPHIC SCALE
RIVERA - ALEJANDRO
ARCHITECTS - ENGINEERS
AUTONOMOUS MUNICIPALITY OF CAGUAS
FEMA AND AWC DAMAGES COMPARISON DRAWINGS
SF-13
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LOCATION MAP
SCALE 1:20,000



AERIAL PHOTOGRAPHY
"Google Earth"

index:

SHEET NO.	TITLE	PAGE

AUTONOMOUS MUNICIPALITY OF CAGUAS

WILLIAM MIRANDA TORRES - MAYOR

SARA BRIDGE, PR-33, PR-156 & LAS DAMAS BRIDGE

DI 136443 & DI 136445

PRELIMINARY DRAWINGS

2205-A

CAGUAS

Municipio Autonomo de Caguas

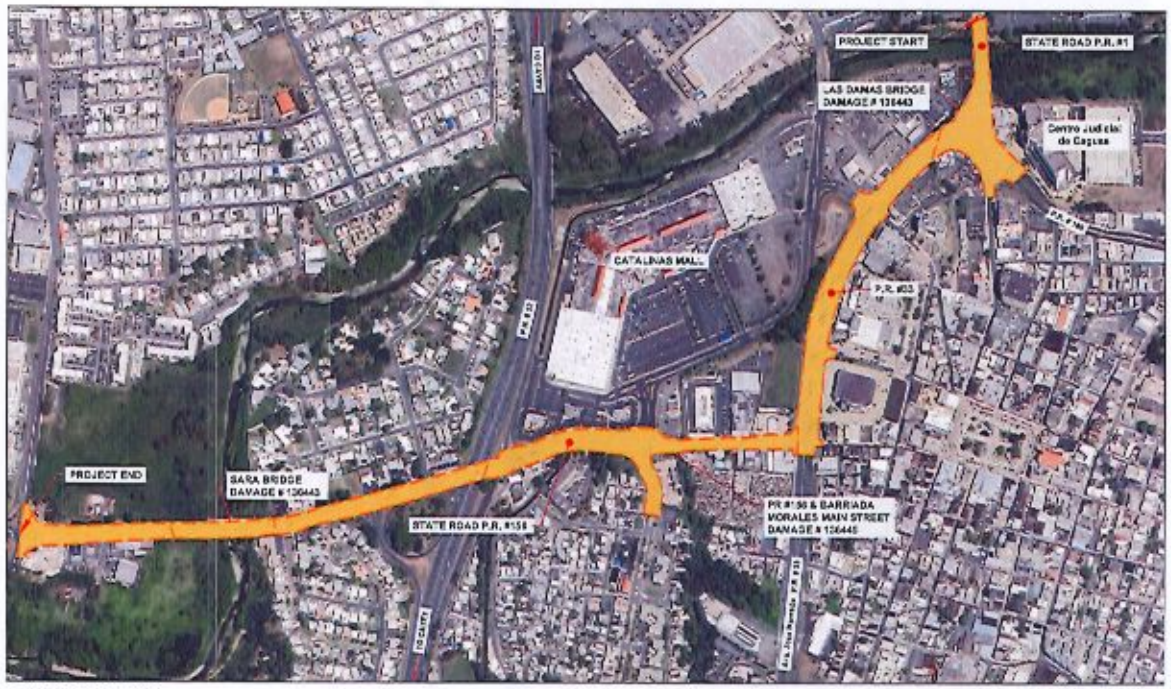
William Miranda Torres
MAYOR

RIVERA & ALEJANDRO, PSC

architects - engineers

P.O. BOX 9964 SANTURCE STA. SAN JUAN, P.R. 00908 (787) 783-5106 (787) 783-5074

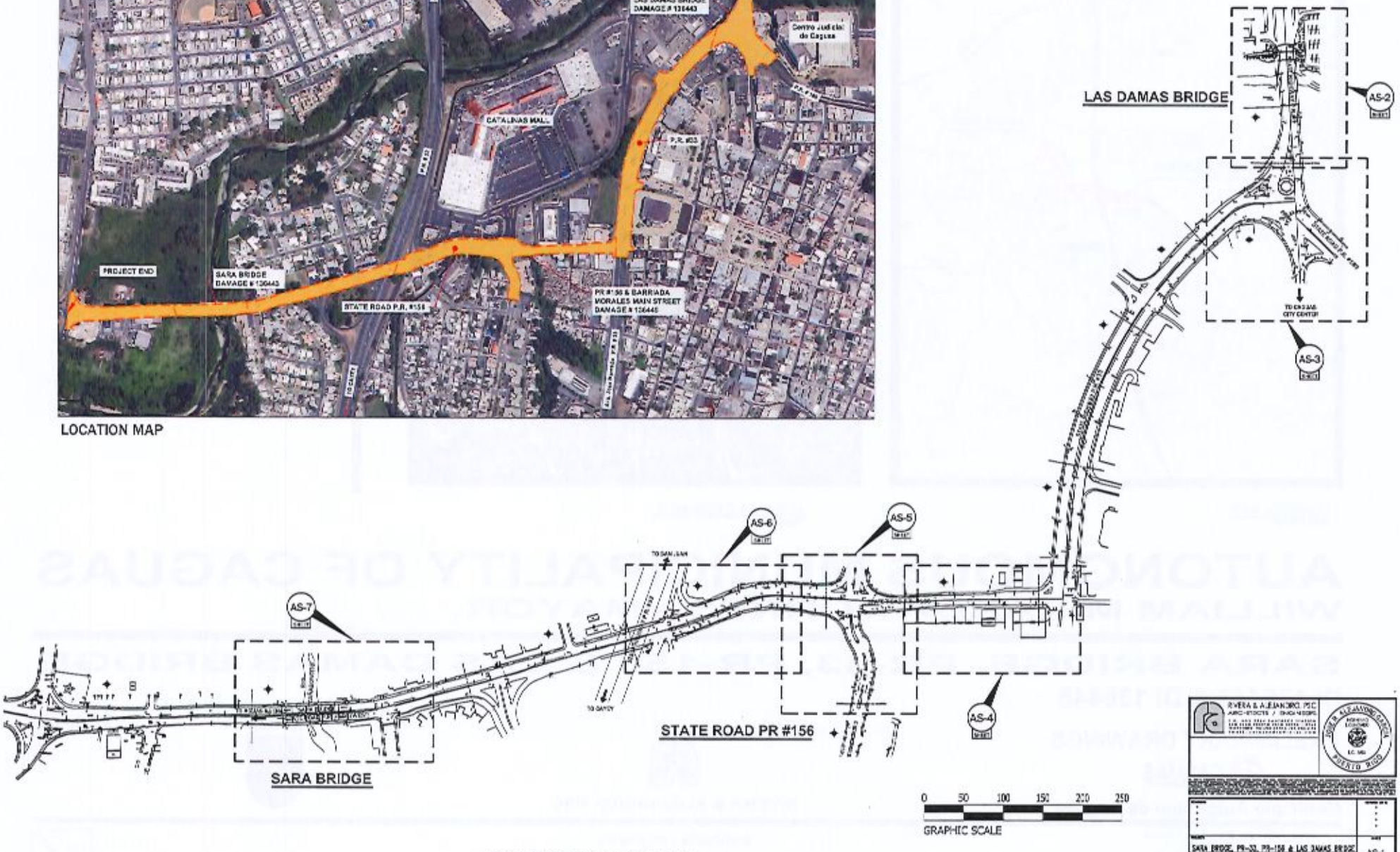
T-1 | 1 OF 1



LOCATION MAP

LEGEND:

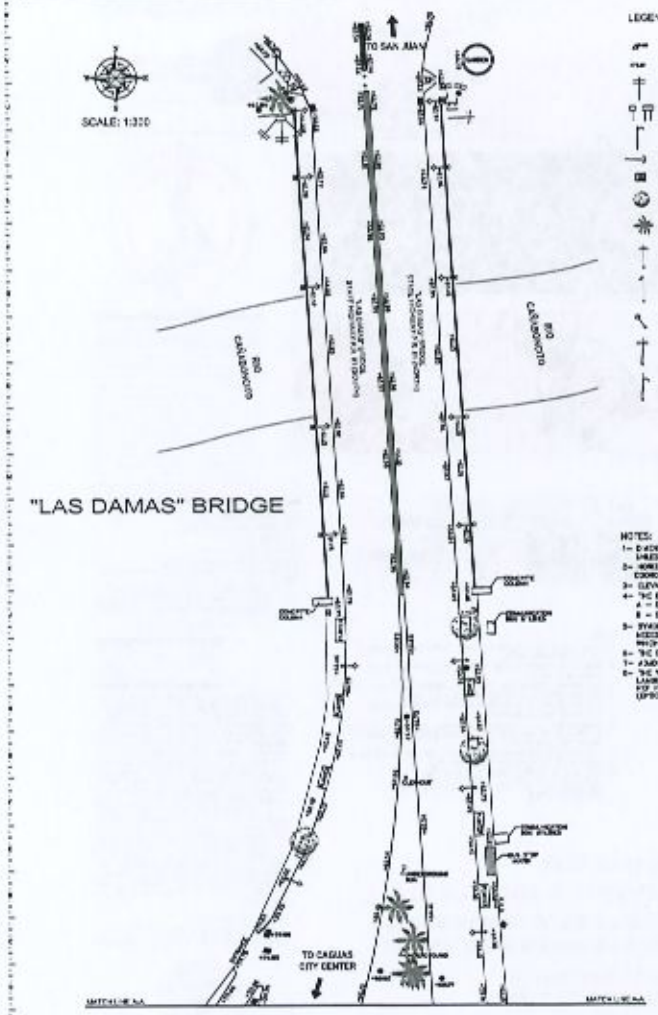
AS-0 SECTION IDENTIFICATION



AS BUILT GENERAL SITE PLAN

RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

SARA BRIDGE, PR-32, PR-156 & LAS DAMAS BRIDGE
AUTONOMOUS MUNICIPALITY OF CAGUAS
AS BUILT GENERAL SITE PLAN
AS-1



LEGEND:





LOCATION TOPOGRAPHY MAP 1:20,000



AERIAL PHOTOGRAPHY (NOT TO SCALE)



FLOOD PANEL 72080012H

CLIENTS NAME & PROJECT LOCATION:





NOTES:

1- ELEVATIONS ARE REFERRED TO A N.G.V.D. "VERTICAL" ELEVATIONS SYSTEM.

2- HORIZONTAL CONTROLS ARE REFERRED TO A N.A.D. 83 "HORIZONTAL" COORDINATE SYSTEM.

3- ELEVATIONS ARE REFERRED TO A N.G.V.D. "VERTICAL" ELEVATIONS SYSTEM.

4- THE EQUIPMENT USED TO OBTAIN FIELD DATA WAS:
A – ELECTRONIC TOTAL STATION WITH AN "ES FOCUS DATA
B – G.N.S.S. GPS INSTRUMENT.

5- SYMBOLS ARE FOR ILLUSTRATIVE PURPOSES ONLY, THEY ARE NOT NECESSARILY OF THE SAME TYPE AND/OR SIZE OF THE OBJECT WHICH THEY REPRESENT.

6- THE DIGITAL DWG DRAWING IS IN NAD 83 COORDINATES SYSTEM BASE.

7- ADDITIONAL POINTS ARE EXISTING IN THE FIELD.

8- THE WORK IS REFERENCED TO THE SYSTEM LANDMARK NAD 83 + N.G.V.D. (MEAN SEA LEVEL) FOR EVERY KM. AS IT EXISTS UPON SITE (UPON SITE CHECK UPON ASSIGNMENT).

NAD 83 CONTROL STATIONS

PO Nº	N (NORTH)	E (EAST)	ELEVATION	OBSERVATION
N-1	244,814.3748	240,029.8128	77.70	NAIL
N-2	244,853.1515	240,022.8592	77.43	NAIL
1-GRID	240,112.2660	239,777.1165	66.00	PK NAIL - INTERSEC
2-GRID	240,337.3460	239,583.5132	76.00	PK NAIL MARKER
N-3	244,641.2040	240,408.4610	56.01	NAIL

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

WILLIAM MIRANDA TORRES, MAYOR
MUNICIPALITY OF CAGUAS, PUERTO RICO

SURVEYORS GROUP
OFICINA DE CONTACTO
PO BOX, 1223
AGUAS BUENAS PR, 00703
Tel. (787) 720-4147 Movil (787) 507-2102

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

DECEMBER, 27, 2022

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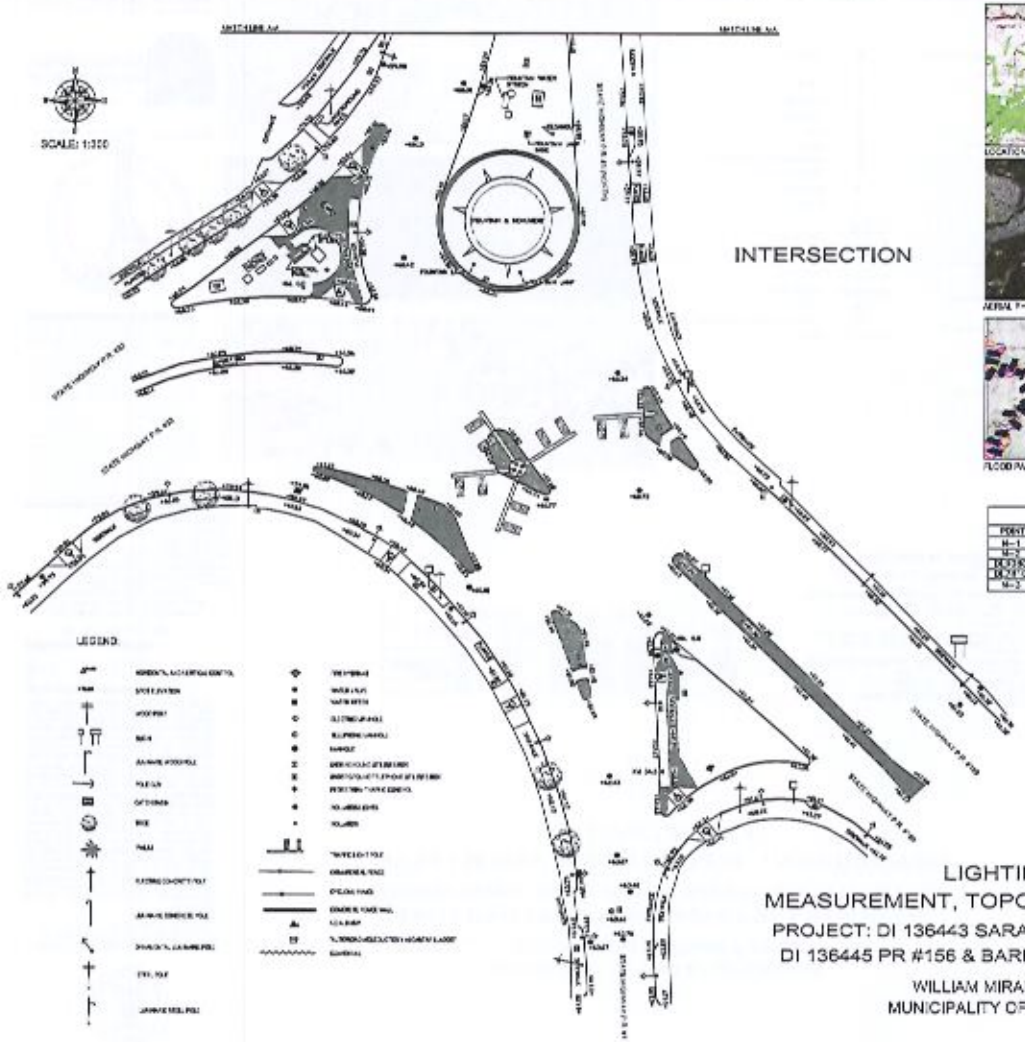
CERTIFICO CORRECTO:
LUIS BURGOS COLON, P.L.S.
AGRIMENSOR LICENCIADO, LIC. #2019



0 10 20 40 60
GRAPHIC SCALE

RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

SARA BRIDGE, PR-33, PR-156 & LAS DAMAS BRIDGE — AS-2
AUTONOMOUS MUNICIPALITY OF CAGUAS
AS BUILT SITE PLAN





LOCATION TOPOGRAPHY MAP



AERIAL PHOTOGRAPHY (NOT TO SCALE)



FLOOD PANEL 72003C1213J

CLIENT'S NAME & PROJECT LOCATION

RIVERA–ALEJANDRO



NAD 83 CONTROL STATIONS					
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	
M–1	244,994.37348	240,529.80126	77.20	NAIL	
M–2	244,805.57315	240,523.79503	77.63	NAIL	
DI 136443	245,110.23390	239,777.11100	66.70	PK NAIL & WASHER	
DI 136445	245,053.81490	240,515.29300	18.93	PK NAIL WASHER	
M–3	244,940.23340	242,415.46100	56.01	NAIL	

NOTES:
1– DIMENSIONS AND/OR ELEVATIONS ARE SHOWN IN METRIC SYSTEM, UNLESS OTHERWISE NOTED.
2– HORIZONTAL CONTROLS ARE REFERENCE TO A NAD 83 "METER" COORDINATE SYSTEM.
3– ELEVATIONS ARE REFERRED TO A M.S.L. "METER" ELEVATIONS SYSTEM.
4– THE EQUIPMENT USED TO OBTAIN FIELD DATA WAS:
A – ELECTRONIC TOTAL STATION WITH AN "ES" FIELD DATA
B – TRIMPS GPS INSTRUMENT.
5– SYMBOLS ARE FOR ILLUSTRATING PURPOSES ONLY, THEY ARE NOT NECESSARILY OF THE SAME TYPE, MEASURE SIZE OF THE OBJECT THEY REPRESENT.
6– THE ORIGINAL DWG DRAWING IS IN NAD 83 COORDINATES SYSTEM BASE.
7– ASBUILT POINTS ARE EXISTING IN THE FIELD.
8– THE WORK IS DESCRIPTION USED TO THE SYSTEM LANDMARK WAS TO F.M.S.L. DATUM NGA LEVEL

SURVEYORS GROUP
OFICINA DE CONTACTO
PO BOX. 1223
[illegible]
Tel. (787) 732-0707 Fax: (787) 621-2803

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET
WILLIAM MIRANDA TORRES, MAYOR
MUNICIPALITY OF CAGUAS, PUERTO RICO

DECEMBER, 27, 2022

P-2

CERTIFICO CORRECTO:
LUIS BURGOS COLON, P.L.S.
AGRIMENSOR LICENCIADO, LIC. #4243529

0 10 20 40 60
GRAPHIC SCALE

RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

SARA BRIDGE, PR-22, PR-156 & LAS DAMAS BRIDGE — AS-3
AUTONOMOUS MUNICIPALITY OF CAGUAS
AS BUILT SITE PLAN

LEGEND:

NOTES:

SCALE: 1:200

CLIENT'S WAVE & PROJECT LOCATION

LOCATION TOPOGRAPHY MAP 1:20,000

AERIAL PHOTOGRAPHY (NOT TO SCALE)

FLOOD PANEL 72000127KJ

NAD 83 CONTROL STATIONS					
POINT	ST.NORTH	EASTING	ELEVATION	DESCRIPTION	
N-1	244,584.3748	240,029.8125	17.70	NAIL	
N-2	244,453.1513	240,032.8137	17.43	NAIL	
D-EPE	240,112.2660	236,772.1182	68.70	PK NAIL & WASHER	
D-1616	239,931.3460	236,393.2373	16.83	PK NAIL&WASHER	
N-3	244,845.2340	240,438.4612	58.01	NAIL	

P.R. #156

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

WILLIAM MIRANDA TORRES, MAYOR
MUNICIPALITY OF CAGUAS, PUERTO RICO

SURVEYORS GROUP
OFICINA DE CONTACTO
PO BOX, 1223

DECEMBER, 27, 2022

P-5

CERTIFICO CORRECTO:
LUIS BURGOS COLON, P.L.S.

0 10 20 40 60
GRAPHIC SCALE

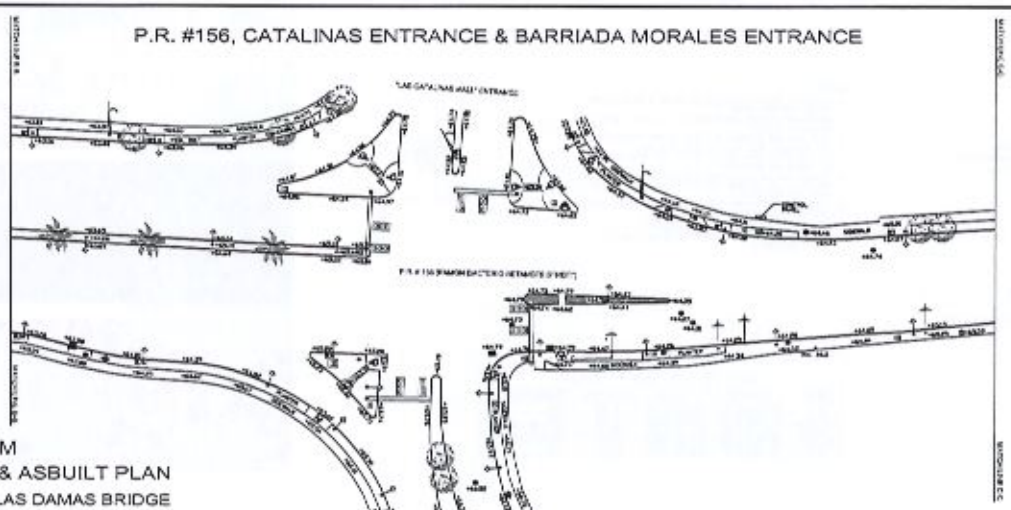
RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

SARA BRIDGE, PR-33, PR-156 & LAS DAMAS BRIDGE — AS-4
AUTONOMOUS MUNICIPALITY OF CAGUAS
AS BUILT SITE PLAN

P.R. #156, CATALINAS ENTRANCE & BARRIADA MORALES ENTRANCE

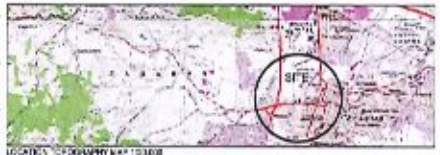
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LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

WILLIAM MIRANDA TORRES, MAYOR
MUNICIPALITY OF CAGUAS, PUERTO RICO



LOCATION TOPOGRAPHY MAP 1:3,000



AERIAL PHOTOGRAPHY (NOT TO SCALE)



FLOOD PANEL 72000C1210J

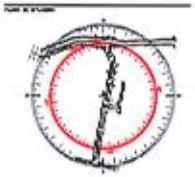
SCALE 1:500

NAD 83 CONTROL STATIONS				
POINT	(N) NORTH	(E) EAST	ELEVATION	DESCRIPTION
N-1	244,934.3748	240,606.8126	77.72	NAIL
N-2	244,933.1515	240,622.2950	77.43	NAIL
B-1815	245,107.8331	239,770.1160	98.73	PK NAIL PETERS
B-1812	245,031.2483	239,565.2650	116.83	PK NAIL
N-3	244,943.2343	242,408.4610	99.21	NAIL

NOTES:
1- BEARINGS AND/OR ELEVATIONS ARE SHOWN IN METER SYSTEM, UNLESS OTHERWISE NOTED.
2- HORIZONTAL CONTROLS ARE REFERRED TO A NAD 83 "METER" COORDINATE SYSTEM.
3- ELEVATIONS ARE REFERRED TO A M.S.L. "METER" ELEVATIONS SYSTEM.
4- THE EQUIPMENT USED TO OBTAIN FIELD DATA WAS:
A - ELECTRONIC TOTAL STATION WITH AN EDM RECOM DATA
B - SOKKIA GPS INSTRUMENT.
5- SYMBOLS ARE FOR ILLUSTRATIVE PURPOSES ONLY, THEY ARE NOT NECESSARILY OF THE SAME TYPE AND/OR SIZE OF THE OBJECT WHICH THEY REPRESENT.
6- THE DIGITAL DWG DRAWING IS IN NAD 83 COORDINATES SYSTEM BASE.
7- ALL ON 10 POINTS ARE EXISTING IN THE FIELD.
8- THE WORK IS REFERENCED TO THE SYSTEM (SURVEY NAD 83 "METER" (MEAN SEA LEVEL) DATUM) NAD 83 (1991) (EPOCH 2010.0000) PROJECTION: 20400=0.0000.0000.

CLIENT'S NAME & PROJECT LOCATION

RIVERA & ALEJANDRO



SURVEYORS GROUP
OFICINA DE CONTACTO
P.O BOX. 1222
[illegible]
TEL. (787) 720-4747 FAX (787) 720-2109

LIST OF SHEETS
ESTABLISHMENT TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

DATE: DECEMBER, 27, 2020

P-4

CERTIFICO CORRECTO:
LUIS BURGOS COLON, P.L.S.
AGRIMENSOR Y LICENCIADO, LIC. NUM.XXXX





GRAPHIC SCALE

RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

SARA BRIDGE, PR-22, PR-156 & LAS DAMAS BRIDGE	AS-5
AUTONOMOUS MUNICIPALITY OF CAGUAS	
AS BUILT SITE PLAN	

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

WILLIAM MIRANDA TORRES, MAYOR
MUNICIPALITY OF CAGUAS, PUERTO RICO



LOCATION TOPOGRAPHY MAP 1:20,000



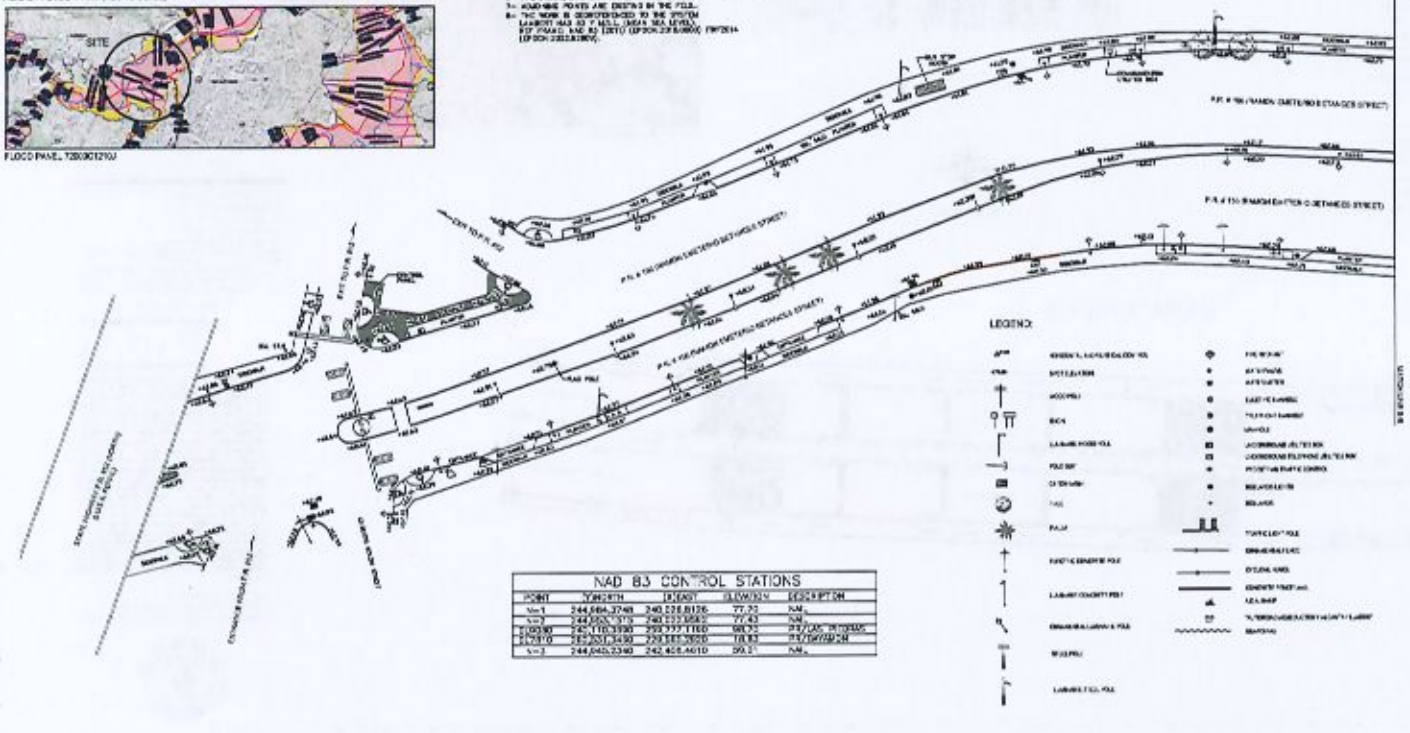
AERIAL PHOTOGRAPHY (NOT TO SCALE)

FLOOD PANEL 72000C0210J

SCALE: 1:200

NOTES:
1- BASIS FOR HORIZONTAL AND/OR ELEVATIONS ARE SHOWN IN METRIC SYSTEM, UNLESS OTHERWISE NOTED.
2- HORIZONTAL CONTROLS ARE REFERRED TO A NAD 83 "METER" COORDINATE SYSTEM.
3- ELEVATIONS ARE REFERRED TO A MSL "METRIC" ELEVATIONS SYSTEM.
4- THE EQUIPMENT USED TO OBTAIN FIELD DATA WAS:
a - ELECTRONIC TOTAL STATION WITH AN "ER FECOM DATA
b - TRIMBLE GPS UNITS R8 GNT.
5- SYMBOLS ARE FOR ILLUSTRATIVE PURPOSES ONLY, THEY ARE NOT NECESSARILY OF THE SAME TYPE AND/OR SIZE OF THE OBJECT THEY REPRESENT.
6- THE DIGITAL DWG DRAWING IS IN NAD 83 COORDINATES SYSTEM (MSE, LAMBERT NAD 83 Y MSL (MEAN SEA LEVEL), DATUM NAD 83 (1970) (EPSON 2391&5500) (WKT2018 (EPSON 2391&5500).
7- ASBUILTING POINTS ARE EXISTING ON THE FIELD.
8- THE WORK IS GEOREFERENCED TO THE SYSTEM

P.R. #156


P.R. #156 (RAMON DIETZ/NICO ESTANCIOS STREET)

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

WILLIAM MIRANDA TORRES, MAYOR
MUNICIPALITY OF CAGUAS, PUERTO RICO

NOTES:
1- DIMENSIONS AND/OR ELEVATIONS ARE SHOWN IN METER SYSTEM, UNLESS OTHERWISE NOTED.
2- HORIZONTAL CONTROLS ARE REFERRED TO A NAD 83 "METER" COORDINATE SYSTEM.
3- ELEVATIONS ARE REFERRED TO A M.S.L. "METER" ELEVATIONS SYSTEM.
4- THE EQUIPMENT USED TO OBTAIN FIELD DATA WAS:
A = ELECTRONIC TOTAL STATION WITH AN RS 232 PORT DATA
D = SOUTH GPS INSTRUMENT
5- SYMBOLS ARE FOR ILLUSTRATIVE PURPOSES ONLY, THEY ARE NOT NECESSARILY OF THE SAME TYPE AND/OR SIZE OF THE OBJECT WHICH THEY REPRESENT.
6- THE DIGITAL DWG DRAWING IS A NAD 83 COORDINATES SYSTEM BASE.
7- ABUNDANT POINTS ARE OBSERVED IN THE FIELD.
8- THE WORK IS GEOREFERENCED TO THE SPCS83 (LAMBERT NAD 83 FIPS ZONE 5200, INTERNATIONAL FOOT) AND NAD 83 (2011) EPOCH 2010.0000 (EPOCH 2010.0000).

LEGEND:



NAD 83 CONTROL STATIONS

POINT	NORTHING	EASTING	ELEVATION	OTHER ITEMS
M-1	244,084.3748	240,039.8128	77.03	NAIL
M-2	244,053.7913	240,127.6567	77.43	NAIL
DI 2183	242,110.3990	239,777.1165	66.20	PK NAIL & WASHER
DI 2184	242,037.3440	239,883.2822	66.83	PK NAIL&WASHER
M-3	244,045.2360	242,408.4612	58.01	NAIL



LOCATION TOPOGRAPHY MAP 1/2500


AERIAL PHOTOGRAPHY (NOT TO SCALE)



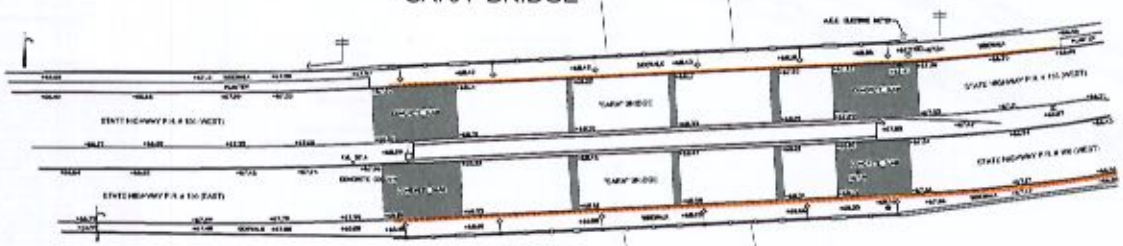
1/1,000 PANEL 2508D-218J

CLIENTS NAME & PROJECT LOCATION



SCALE: 1:200

"SARA" BRIDGE



0 10 20 40 60
GRAPHIC SCALE

SURVEYORS GROUP
OFICINA DE CONTACTO
PO BOX, 1223

LIGHTING SYSTEM
MEASUREMENT, TOPOGRAPHY & ASBUILT PLAN
PROJECT: DI 136443 SARA BRIDGE & LAS DAMAS BRIDGE
DI 136445 PR #156 & BARRIADA MORALES MAIN STREET

DECEMBER 21, 2022

P-9

YO, LUIS BURGOS COLON, AGRIMENSOR LICENCIADO, LICENCIA NÚM. 5031 CERTIFICO QUE SOY Y PREPUESTO BAJO JURAMENTO QUE LOS PLANOS Y ESPECIFICACIONES CUMPLEN CON LAS DISPOSICIONES APLICABLES DEL REGLAMENTO VIGENTE Y LAS REGULACIONES APLICABLES DE LAS ISLAS. AVISO RELACIONADO E ENTENDIENDO PUBLICAS SIN ANOMALIAS. CERTIFICO ADEMÁS, QUE EN LA PREPARACIÓN DE ESTOS PLANOS Y ESPECIFICACIONES SE HA CUMPLIDO CON LO DISPUESTO EN LA LEY NÚM. 76 DE 5 DE AGOSTO DE 2004, SEGÚN ENMENDADA, CONOCIDA COMO LA "LEY PARA LA DIVISIÓN POR LA INDUSTRIA PROFESIONAL" Y EN LA LEY NÚM. 236 DE 30 DE MAYO DE 2008, SEGÚN ENMENDADA, EN CASO DE SER ALGUNA DE TALES DISPOSICIONES FALSA E FALSIFICACIÓN DE LOS HECHOS QUE SE HAYA PERMITIDO POR DOCUMENTO O POR VIOLACIÓN DE TALES POR LA MISMA, SERÁ RESPONSABLE DE CUALQUIER ACCIÓN JUDICIAL Y DISCIPLINARIA POR LA MISMA.

CERTIFIED CORRECTO:
LUIS BURGOS COLON, P.L.S.
AGRIMENSOR LICENCIADO, LIC. NÚM.5031

RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

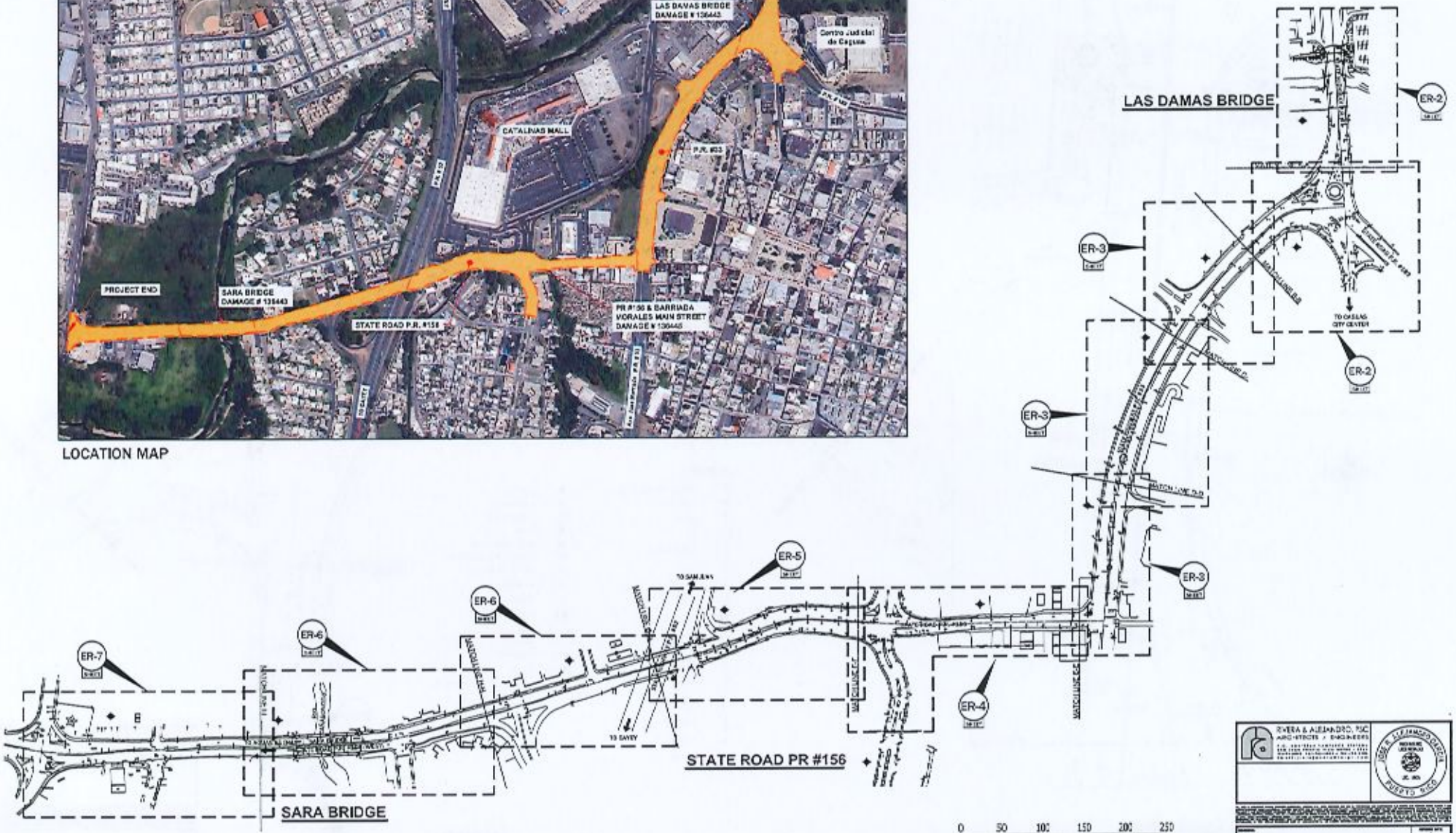
SARA BRIDGE, PR-33 PR-156 & LAS DAMAS BRIDGE	AS-7
AUTONOMOUS MUNICIPALITY OF CAGUAS	
AS BUILT SITE PLAN	



LOCATION MAP

LEGEND:

ER-0 SECTION IDENTIFICATION



0 50 100 150 200 250

GRAPHIC SCALE

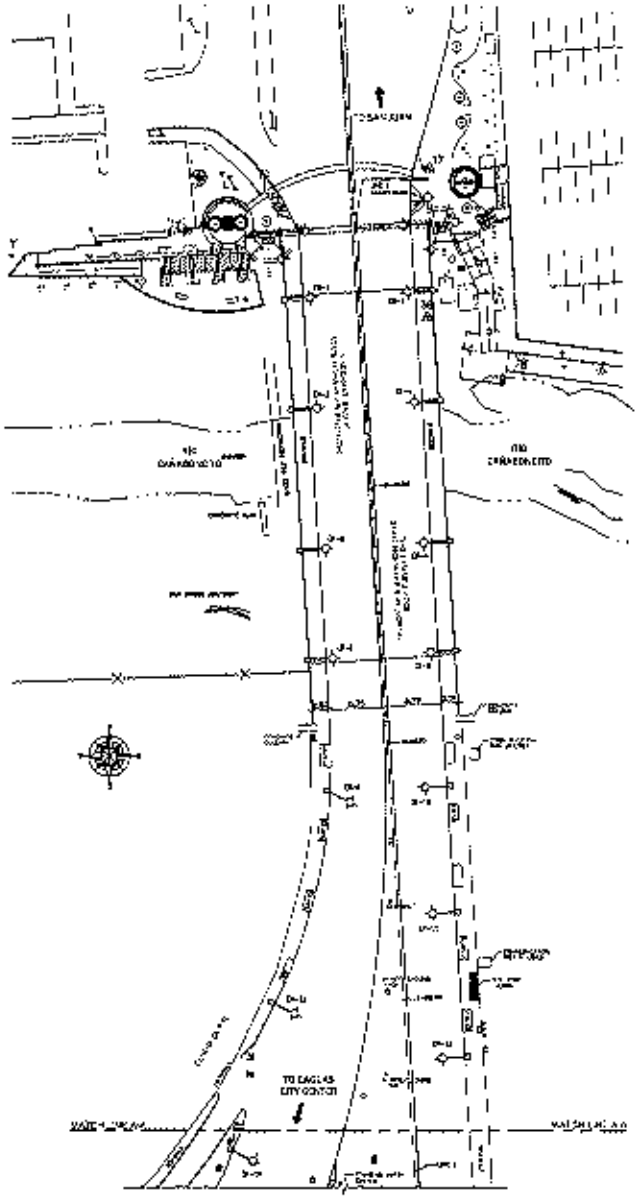
EXISTING CONDITION GENERAL SITE PLAN

RIVERA & ALEJANDRO, PSC
ARCHITECTS / ENGINEERS

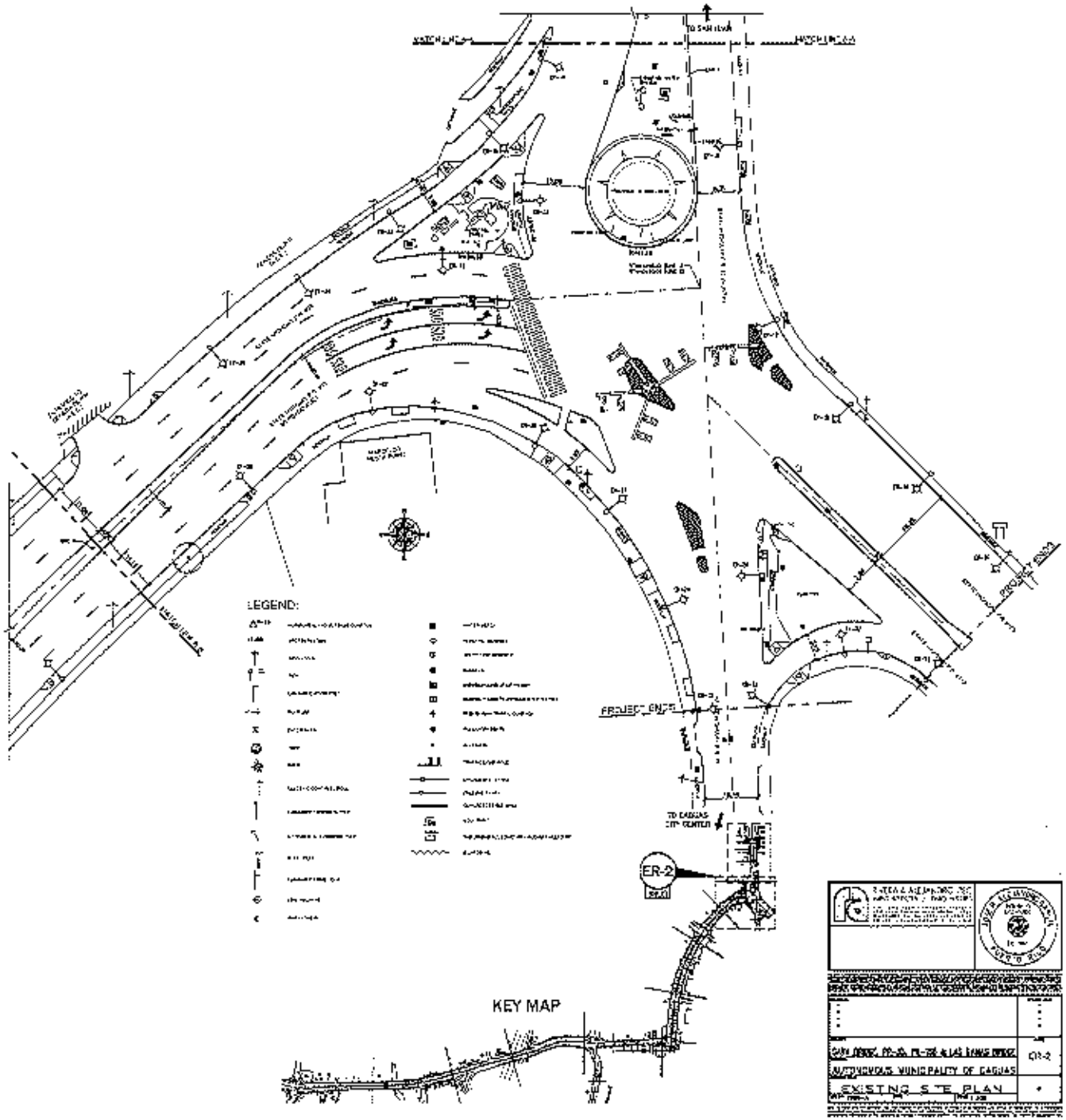
SARA BRIDGE, PR-33, PR-156 & LAS DAMAS BRIDGE — ER-1

AUTONOMOUS MUNICIPALITY OF CAGUAS

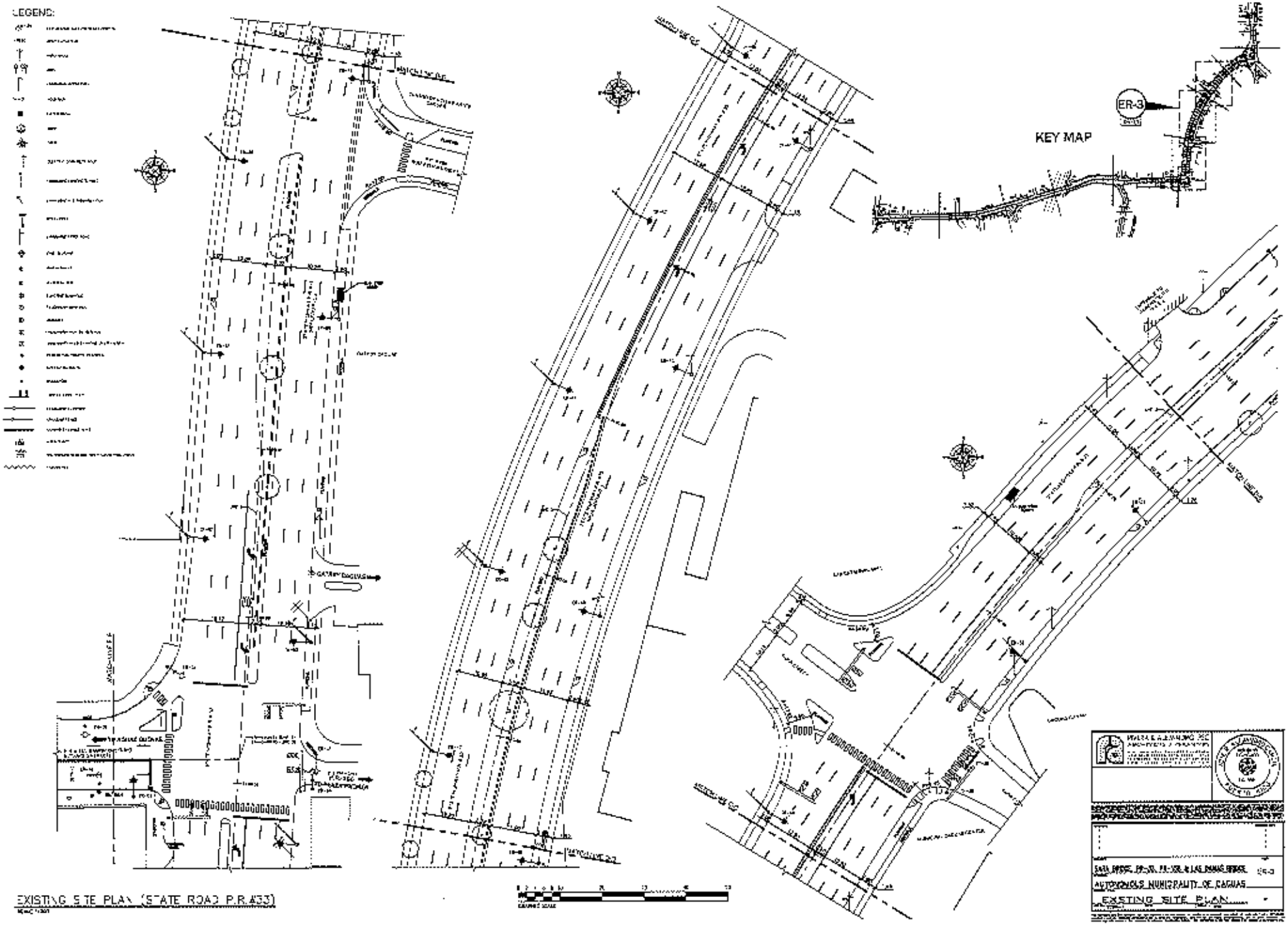
EXISTING GENERAL SITE PLAN

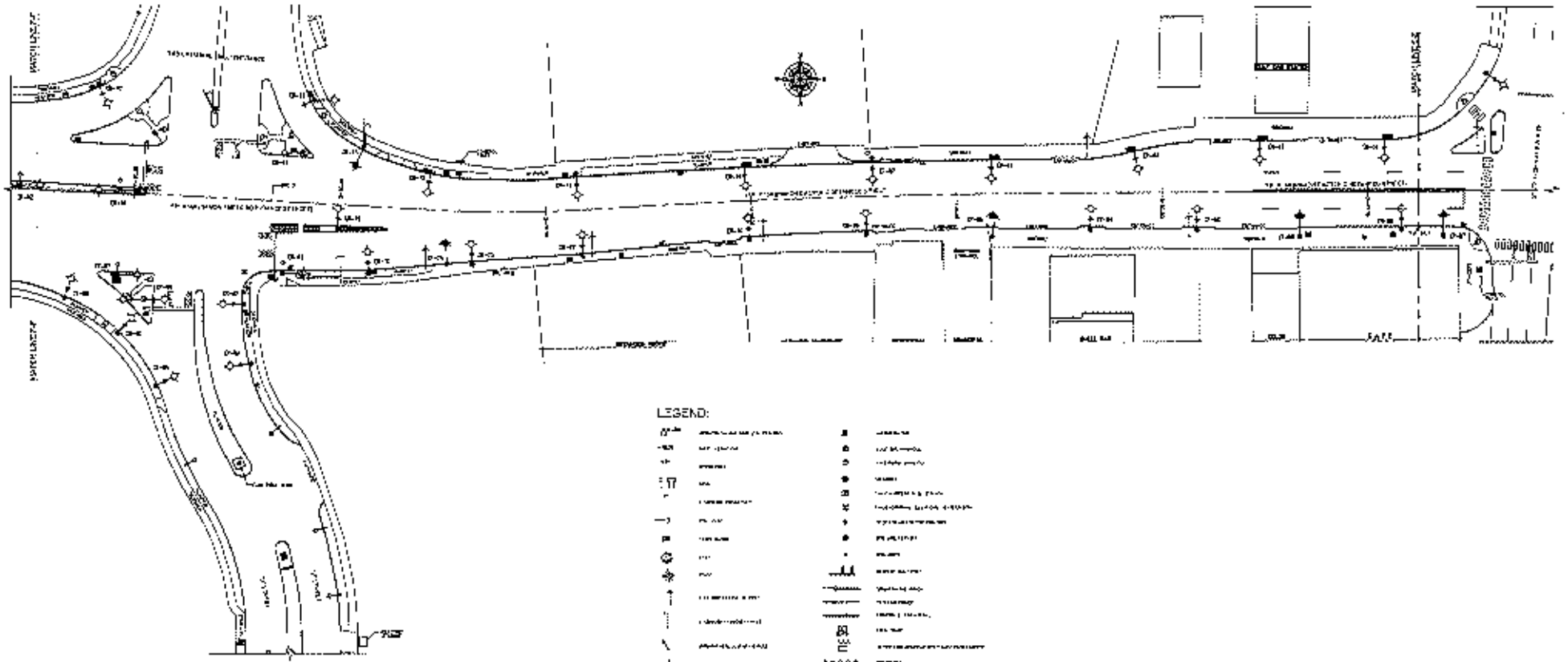


EXISTING SITE PLAN (LAS DAMAS BRIDGE)



CONSTRUCTION OF PB-28 at LAS DAMAS BRIDGE	ER-2
MUNICIPALITY OF EAGLAS	
EXISTING SITE PLAN	

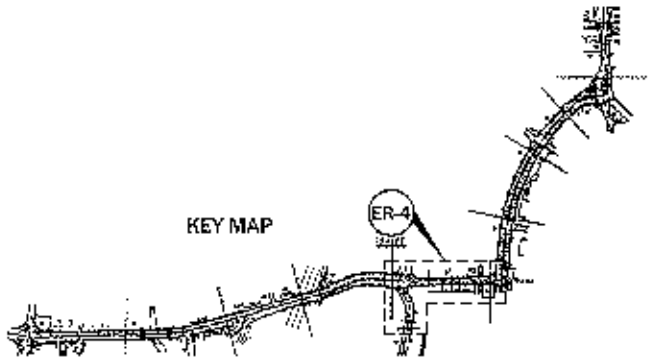

LEGEND:
KEY MAP
ER-3
EXISTING SITE PLAN (STATE ROAD P.R.#33)
AUTONOMOUS MUNICIPALITY OF CAGUAS
EXISTING SITE PLAN



LEGEND:

EXISTING SITE PLAN (STATE ROAD P.R.#155)

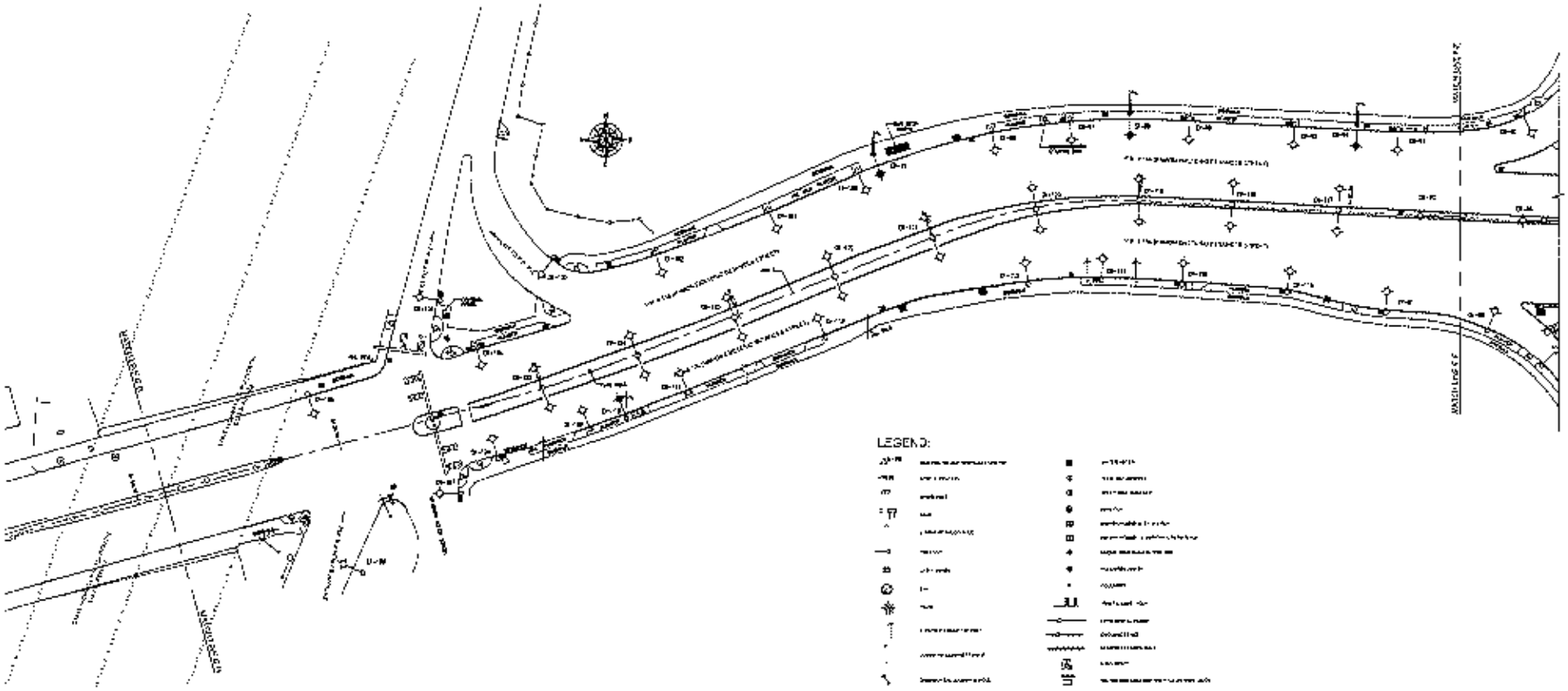
KEY MAP



AUTONOMOUS MUNICIPALITY OF CAGUAS

EXISTING SITE PLAN

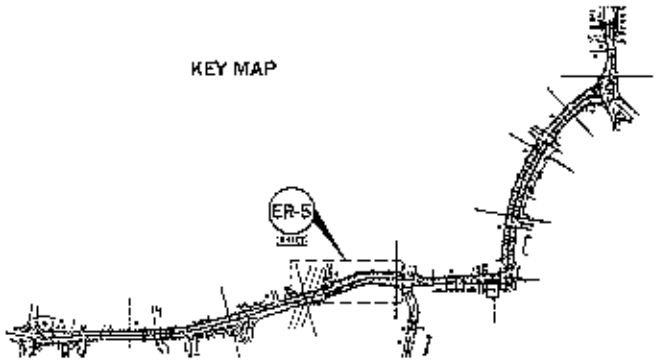
ER-4



LEGEND:

EXISTING SITE PLAN (STATE ROAD P.R.#156)

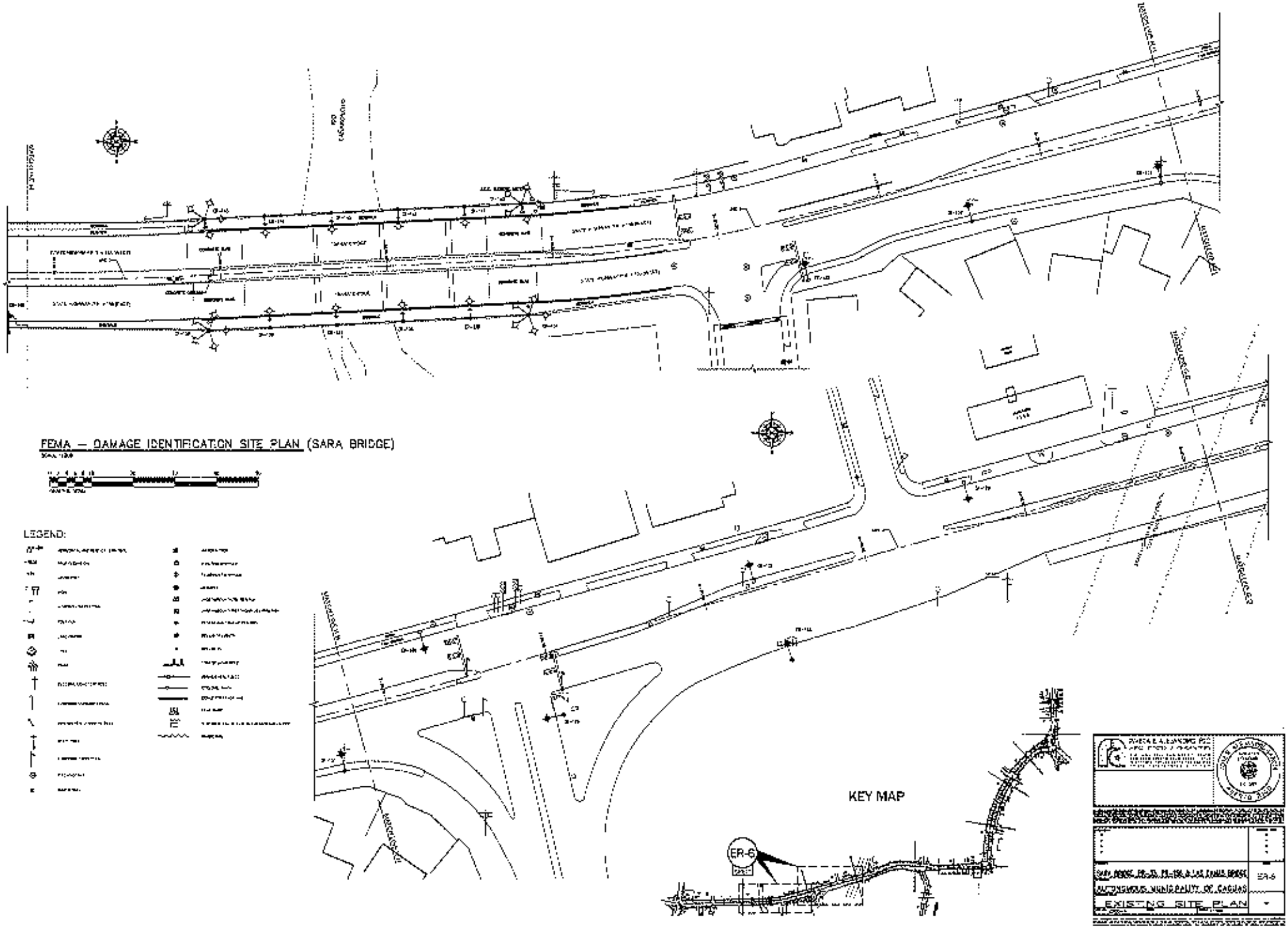
KEY MAP

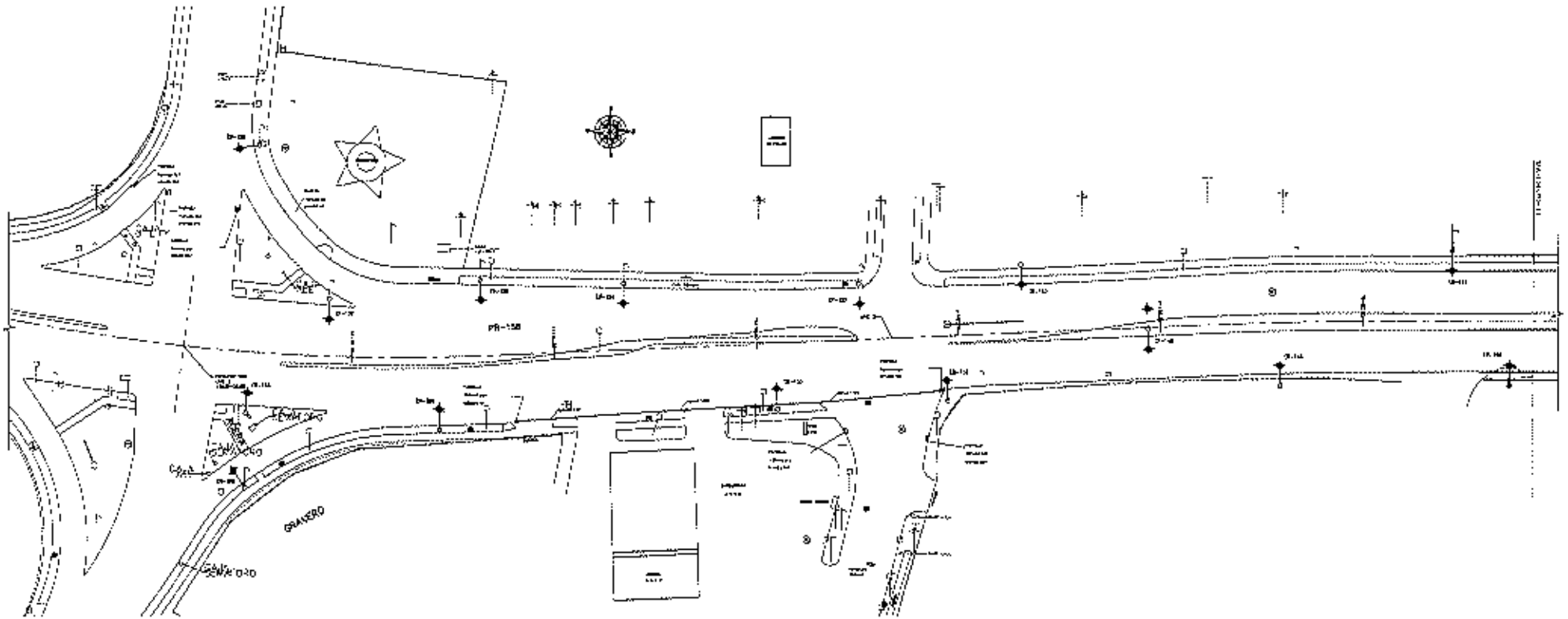


SAN JOSE, PR-30, PR-156 & LAS PALMAS BRIDGE ER-5

AUTONOMOUS MUNICIPALITY OF CAGUAS

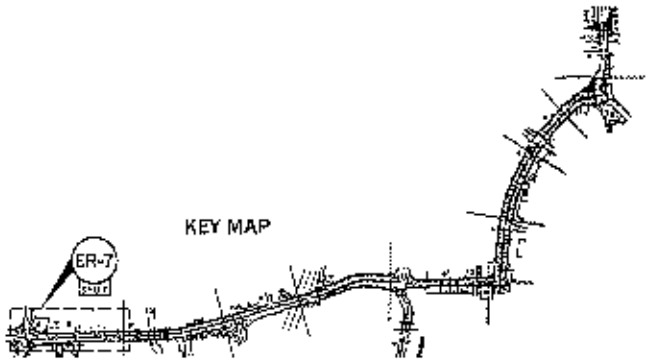
EXISTING SITE PLAN


FEMA – DAMAGE IDENTIFICATION SITE PLAN (SARA BRIDGE)
LEGEND:
KEY MAP
ER-6
EXISTING SITE PLAN
ER-6



EXISTING CONDITION SITE PLAN (SARA BRIDGE)

LEGEND:

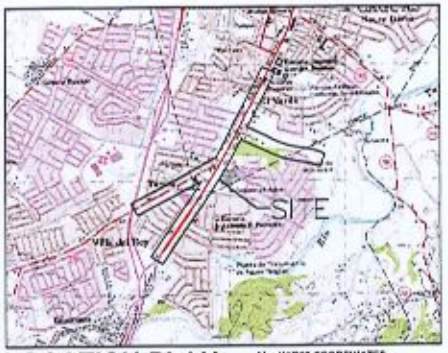


ER-7

EXISTING CONDITION SITE PLAN

CONSTRUCTION DRAWINGS: 100%

RESTORATION OF ROAD LIGHTINGS AVE. JOSE GAUTIER BENITEZ, AVE. DEGETAU, ST. SAN CARLOS AND AVE. PINO



LOCATION PLAN
SCALE 1:20,000

N NAD83 COORDINATES
X = 241387.7280 Y = 243858.7176

MUNICIPALITY OF CAGUAS
MAYOR: WILLIAM MIRANDA TORRES
HON. WILLIAM MIRANDA TORRES, MAYOR

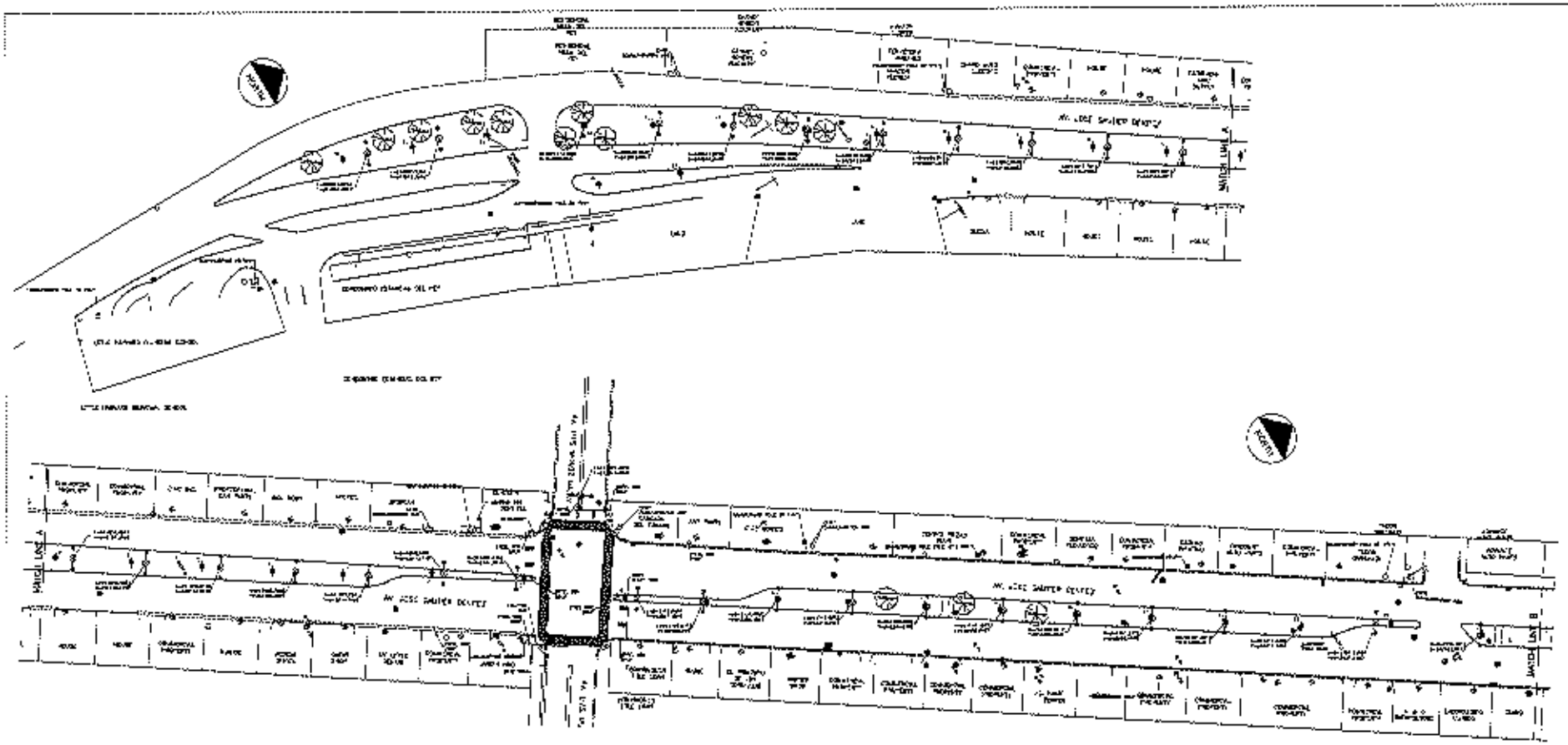
Vazquez Associates
Engineers • Architects • Project Managers

P.O. BOX 6689 CAGUAS, PUERTO RICO 00726
TEL:(787) 258-1758/FAX: (787) 258-1761
Email: vazquezassoc.ptel@hotmail.com

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03	V-101	EXISTING CONDITION PLAN (AVE. JOSE GAUTIER BENITEZ)
04	V-102	EXISTING CONDITION PLAN (AVE. JOSE GAUTIER BENITEZ)
05	V-103	EXISTING CONDITION PLAN (AVE. DEGETAU)
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14	C-202	PROPOSED SITE PLANS (AVE. JOSE GAUTIER BENITEZ)
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32	LT-04	LIGHTING SYSTEM SITE PLAN (AVE. DEGETAU)
33	LT-05	LIGHTING SYSTEM SITE PLAN (AVE. PINO)
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35	GD-101	DEMOLITION GENERAL DETAILS
36	GD-102	DEMOLITION GENERAL DETAILS
37	GD-103	DEMOLITION GENERAL DETAILS
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44	GD-201	PROPOSED GENERAL DETAILS
45	GD-202	PROPOSED GENERAL DETAILS
46	GD-203	PROPOSED GENERAL DETAILS
47	GD-204	PROPOSED GENERAL DETAILS
48	GD-205	PROPOSED GENERAL DETAILS
49	GD-206	PROPOSED GENERAL DETAILS
50	GD-207	PROPOSED GENERAL DETAILS
51	GD-208	PROPOSED GENERAL DETAILS
52	GD-209	PROPOSED GENERAL DETAILS

GS-100
APRIL, 2023



LEGEND

RESTORATION OF ROADS & CHANNELS
AVE. JOSE CAUTHER BENITEZ /
AVE. JOSE DE DIEGO, SAN CARLOS AND AVE. PINO

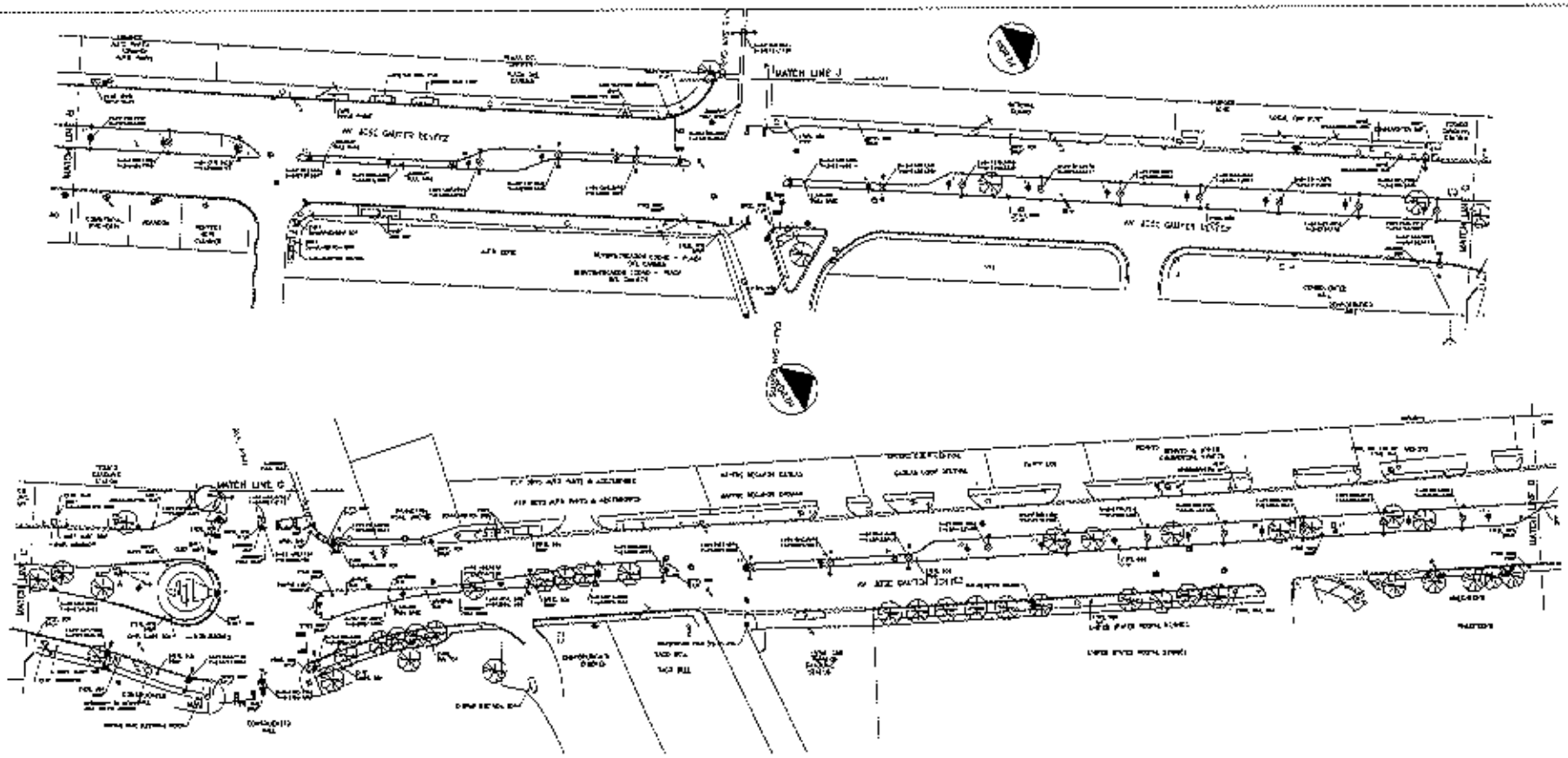
PUERTO RICO

Vazquez Associates

EXISTING PLANS
AVE. JOSE CAUTHER BENITEZ

V-100

02 OF 52



LEGEND

REHABILITATION OF ROAD SIGNINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. RAFAEL S. SANCHEZ & AVE. PMS

CITY: CAGUAS PUERTO RICO

Vazquez Associates

EXISTING PLANS
AVE. JOSE GAUTIER BENITEZ

SCALE: 1:500 DATE: APRIL 2023

DRAWING NO.
V-101

SHEET NO.
33 OF 52

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. GIOVANI EL SAN CARLOS AND AVE. PRO

CITY: CAGUAS PUERTO RICO

Valdivieso Associates

EXISTING PLANS
AVE. JOSE GAUTIER BENITEZ

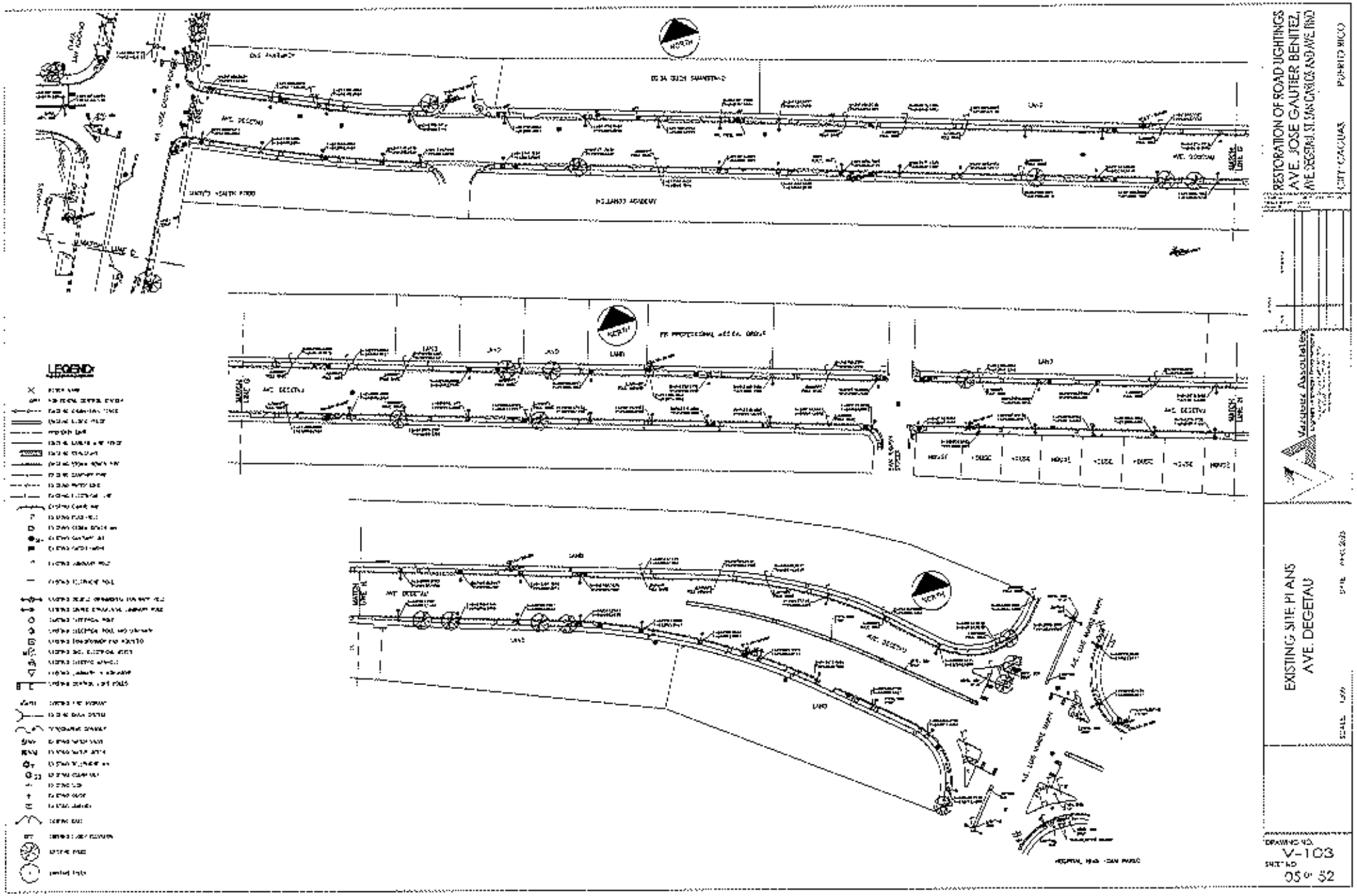
SCALE: 1:500 DATE: APRIL 2023

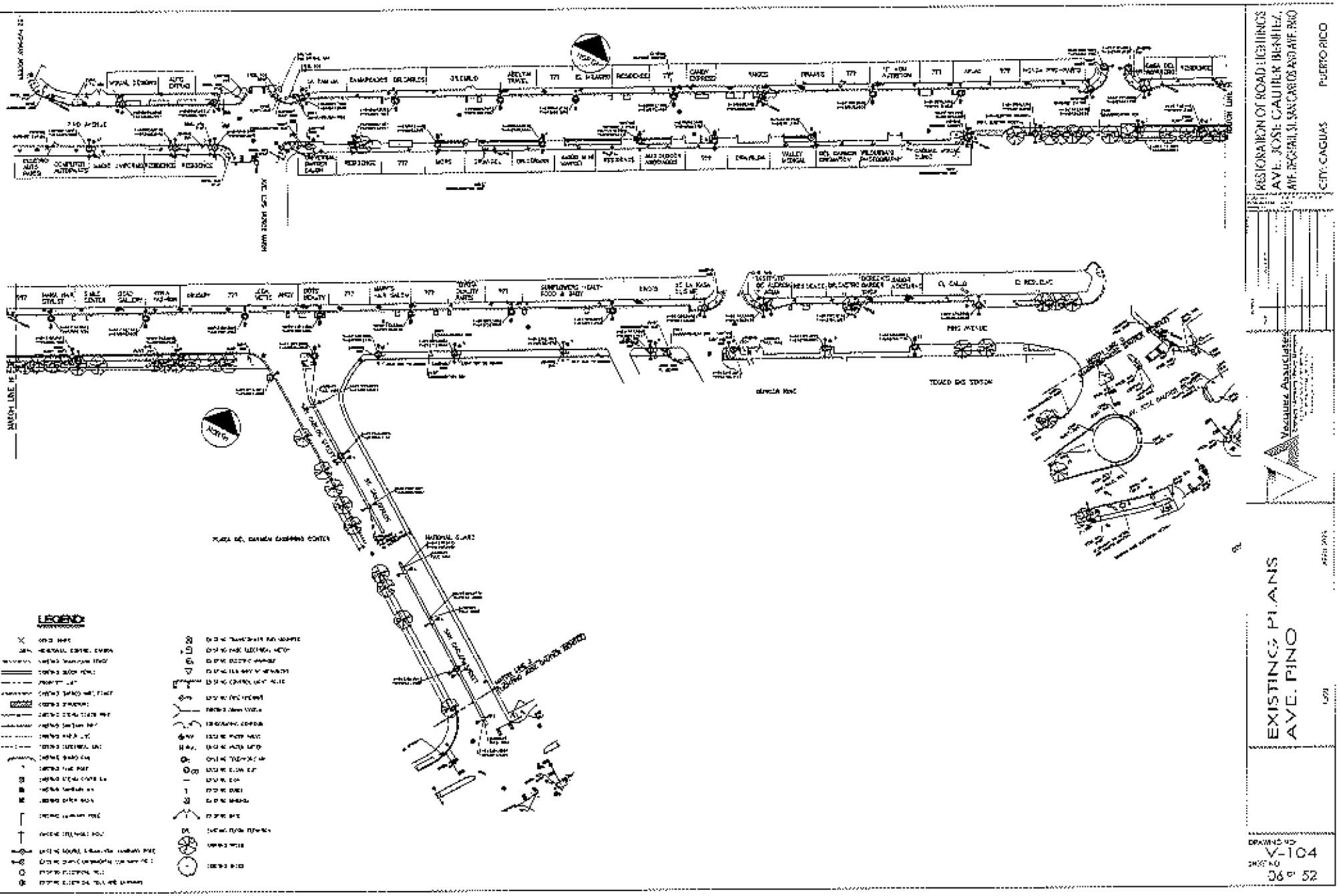
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SHEET NO 04 of 52

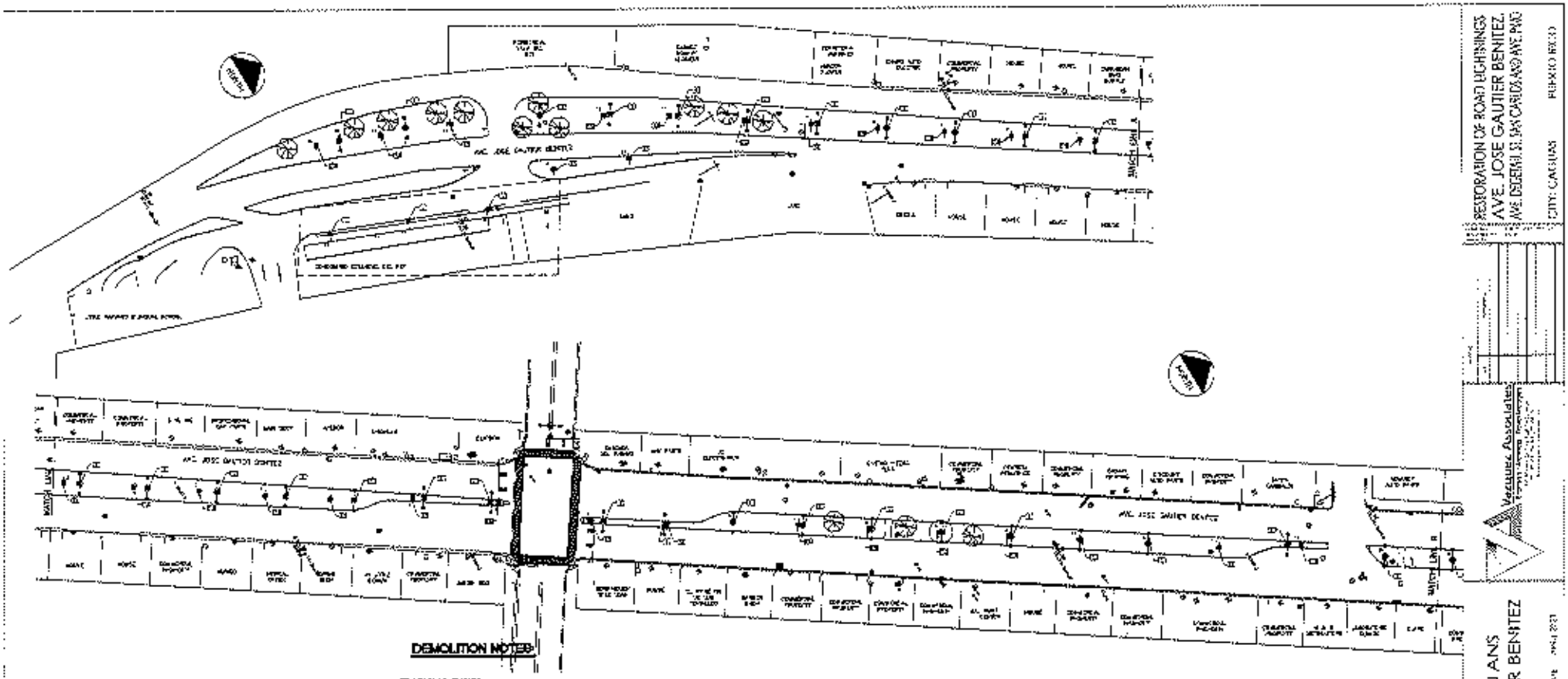
LEGEND

NORTH

NORTH


LEGEND
NORTH
AVE. DEGETAU
LAND
EXISTING SITE PLANS
AVE. DEGETAU
RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. DEGETAU, ST. MARGARITA AND AVE. RMD
CITY: CAGUAS
PUERTO RICO
Vazquez Asociados
DRAWING NO.
V-103
SHEET NO.
35 of 52


REHABILITATION OF ROAD LIGHTINGS
AVE. JOSE CALIXTO BENITEZ,
AVE. REGIMENTAL SAN CARLOS AND AVE. PINO
CITY: CAGUAS
PUERTO RICO
EXISTING PLANS
AVE. PINO
LEGEND
DRAWING NO.
V-104
SHEET NO.
36 OF 52



DEMOLITION NOTES:

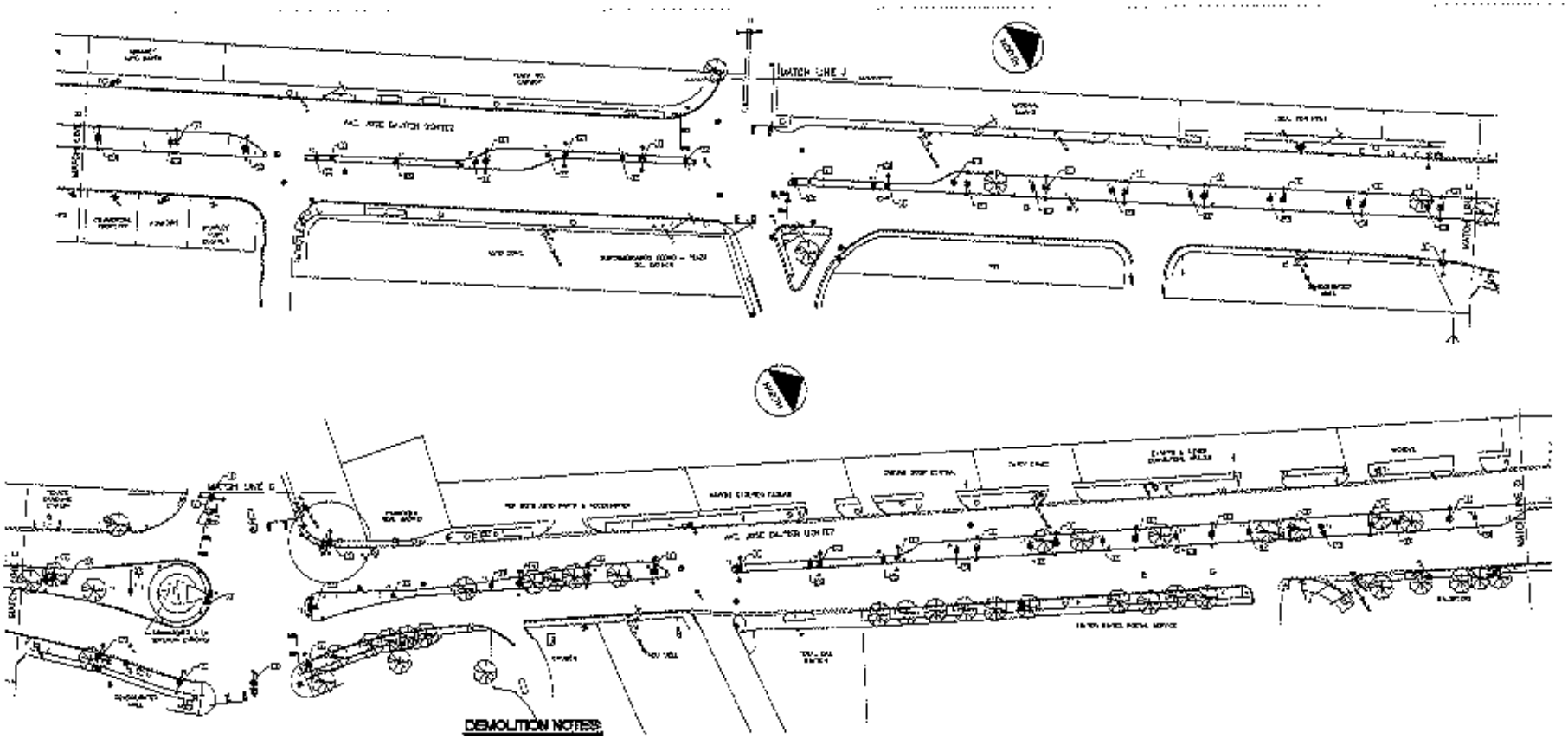
LEGEND:

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ
AVE. DEGETAU ST. TO AVE. CARLOS A. CHARDON
CITY: CAGUAS PUERTO RICO

Vazquez Associates

DEMOLITION PLANS
AVE. JOSE GAUTIER BENITEZ

DRAWING NO.
D-100
SHEET NO.
07 OF 52



DEMOLITION NOTES:

LEGEND

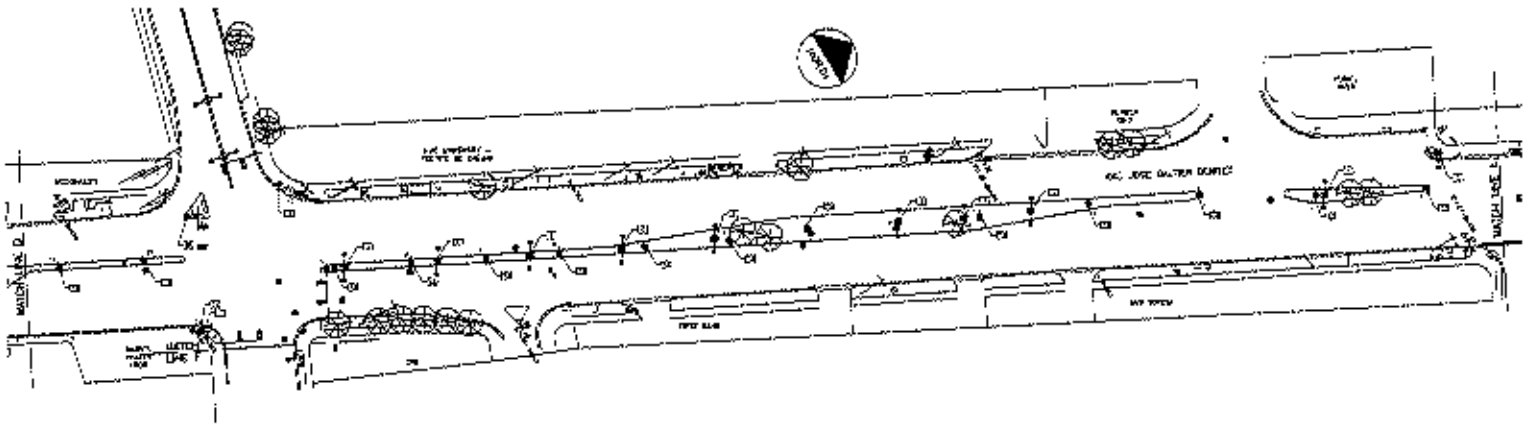
RESTORATION OF ROAD INTERSECTIONS
AVE. JOSE GAUTIER BENITEZ,
AVE. DEGETAU, ST. SANTIAGOS AND AVE. RIO

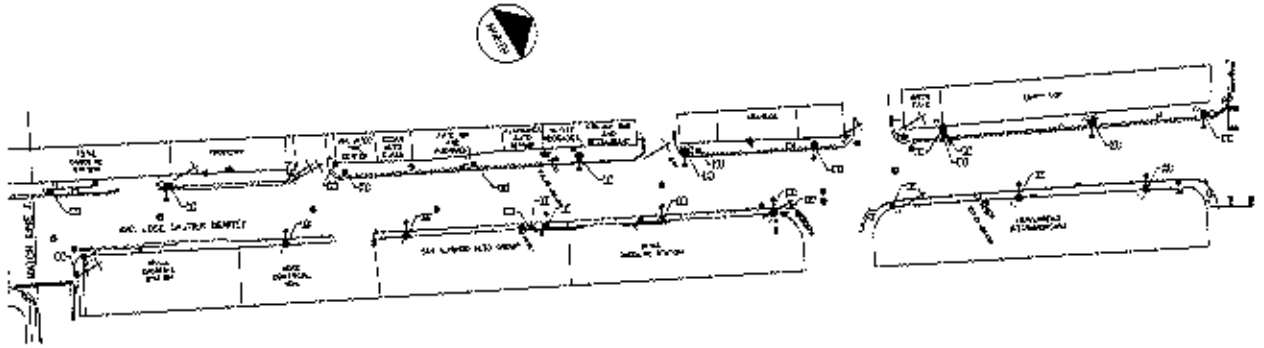
LUIS CONSTAS — PUERTO RICO

Vazquez Associates

DEMOLITION PLANS
AVE. JOSE GAUTIER BENITEZ

DRAWING NO.
C-101
SHEET NO.
08 OF 52





LEGEND

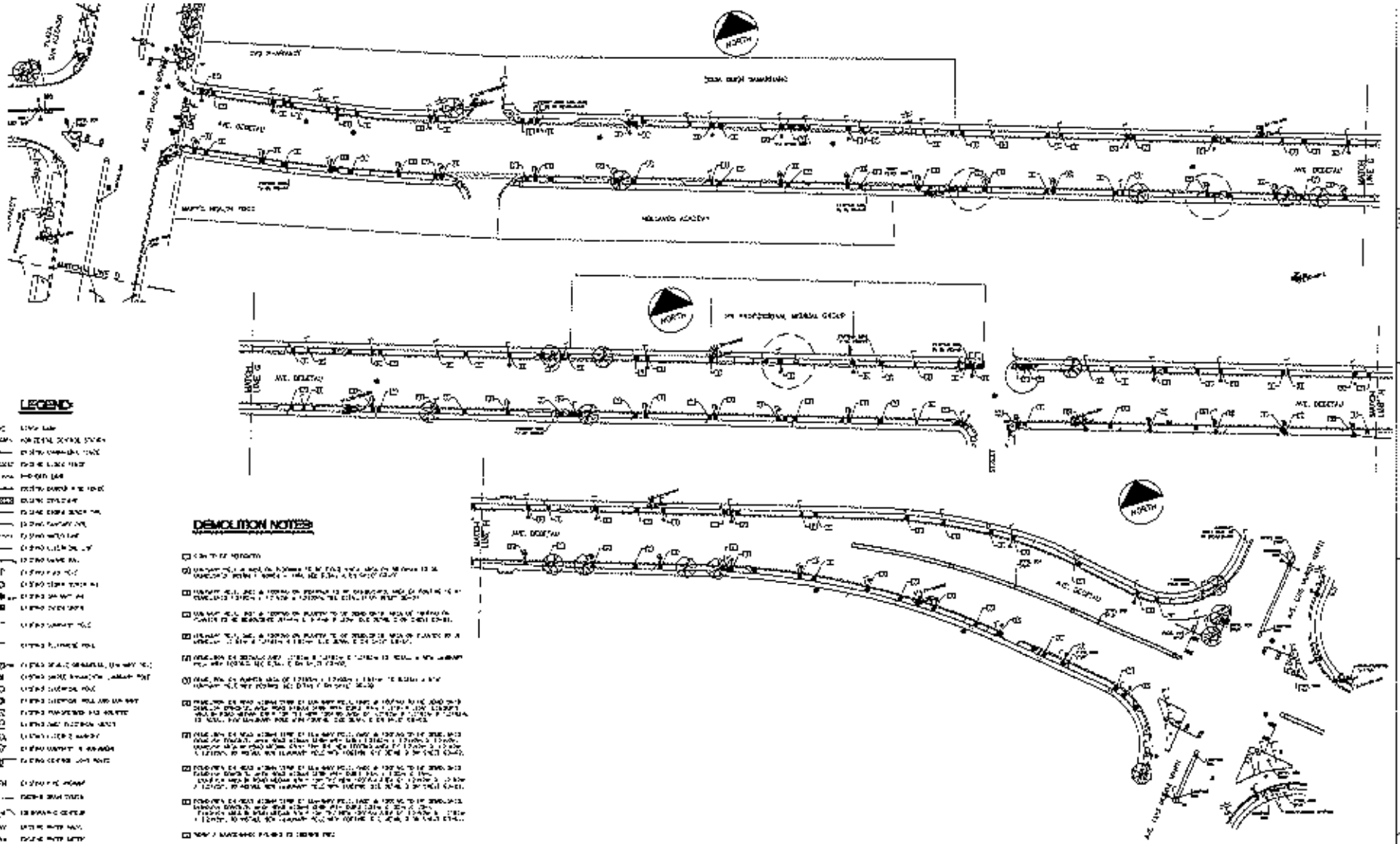
DEMOLITION NOTES:

RESTORATION OF ROAD INTERSECTIONS
AVE. JOSE GAUTIER BENITEZ,
AVE. ESTEBAN PADILLA, AVE. LUIS MUÑOZ RIVERA AND AVE. PINO

CITY: CAGUAS PUERTO RICO

DEMOLITION PLANS
AVE. JOSE GAUTIER BENITEZ

DRAWING NO.
C-102
SHEET NO.
09 OF 52



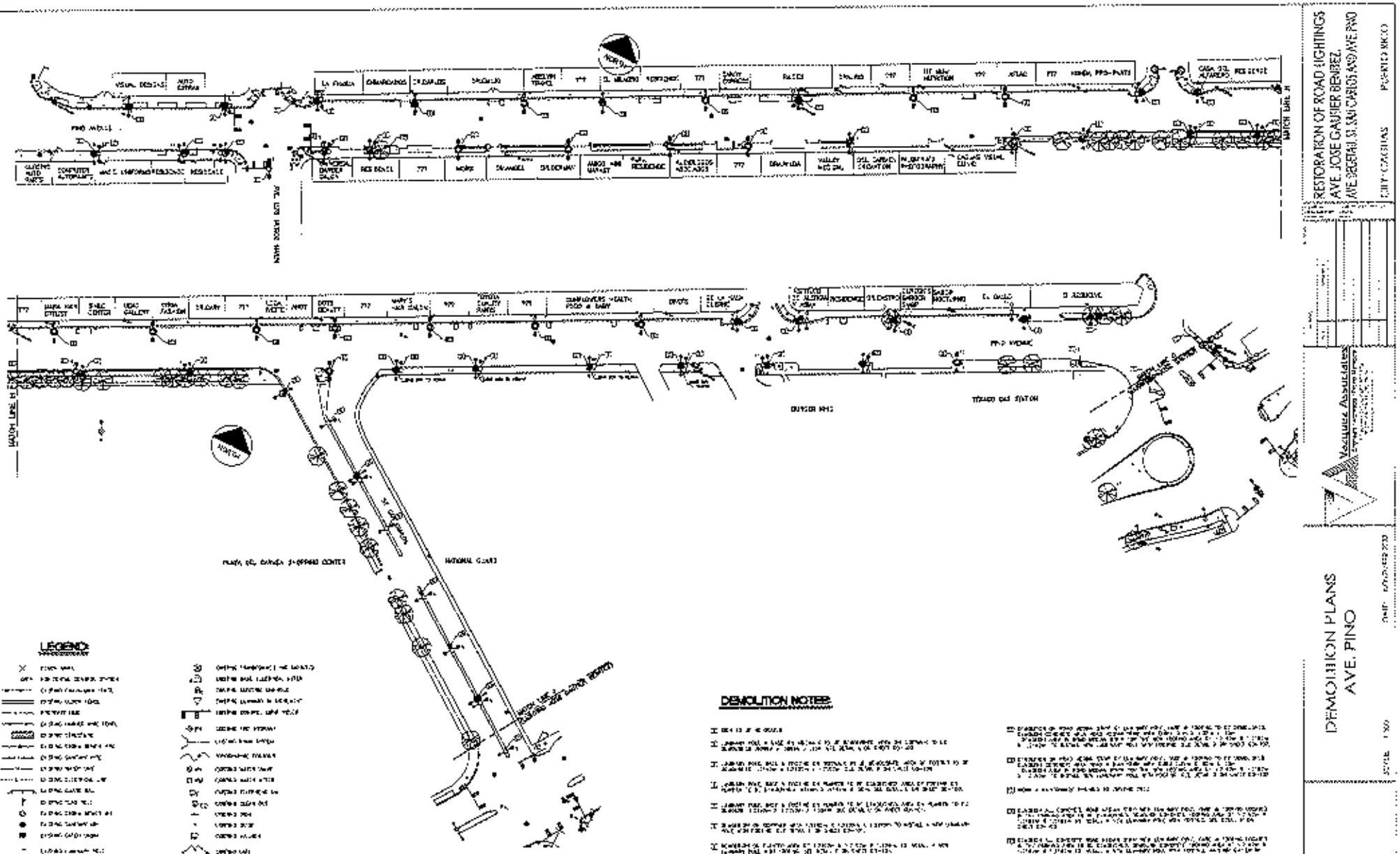
LEGEND

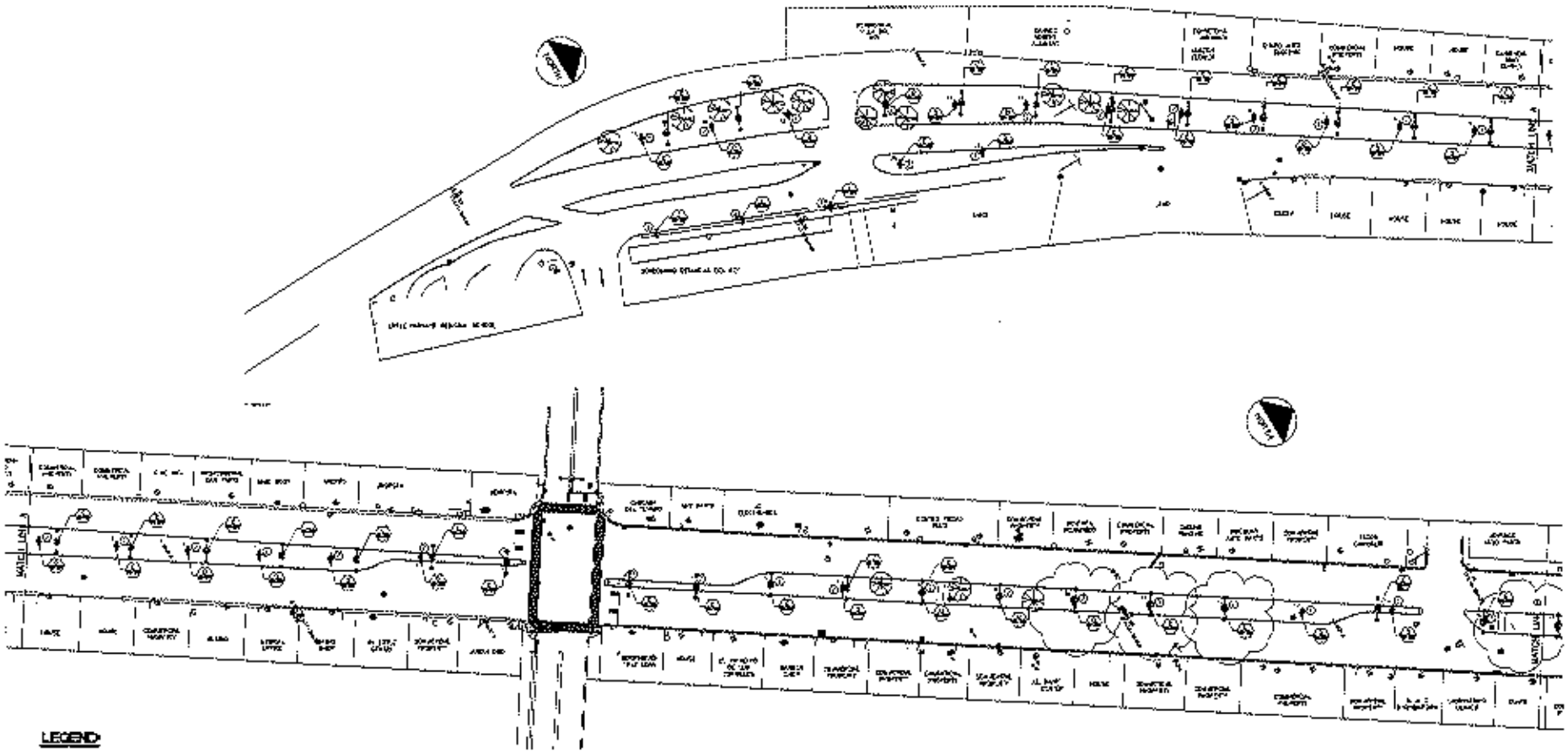
DEMOLITION NOTES

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ
AVE. DEGETAU, ST. SAN CARLOS AND AVE. PMD
CITY: CAGUAS

DEMOLITION PLANS
AVE. DEGETAU

DRAWING NO.
C-103
SHEET NO.
10 of 52


AVE. PINO
AVE. JOSE GAUDIER BENITEZ
AVE. SEGUNDO S. SANCHEZ
AVE. PINO
AVE. JOSE GAUDIER BENITEZ
AVE. PINO
AVE. JOSE GAUDIER BENITEZ
AVE. PINO
AVE. JOSE GAUDIER BENIT



LEGEND

PROPOSED NOTES

PROPOSED POSTS

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. BIGGIE AL ST. SAN CARLOS AND AVE. PINO

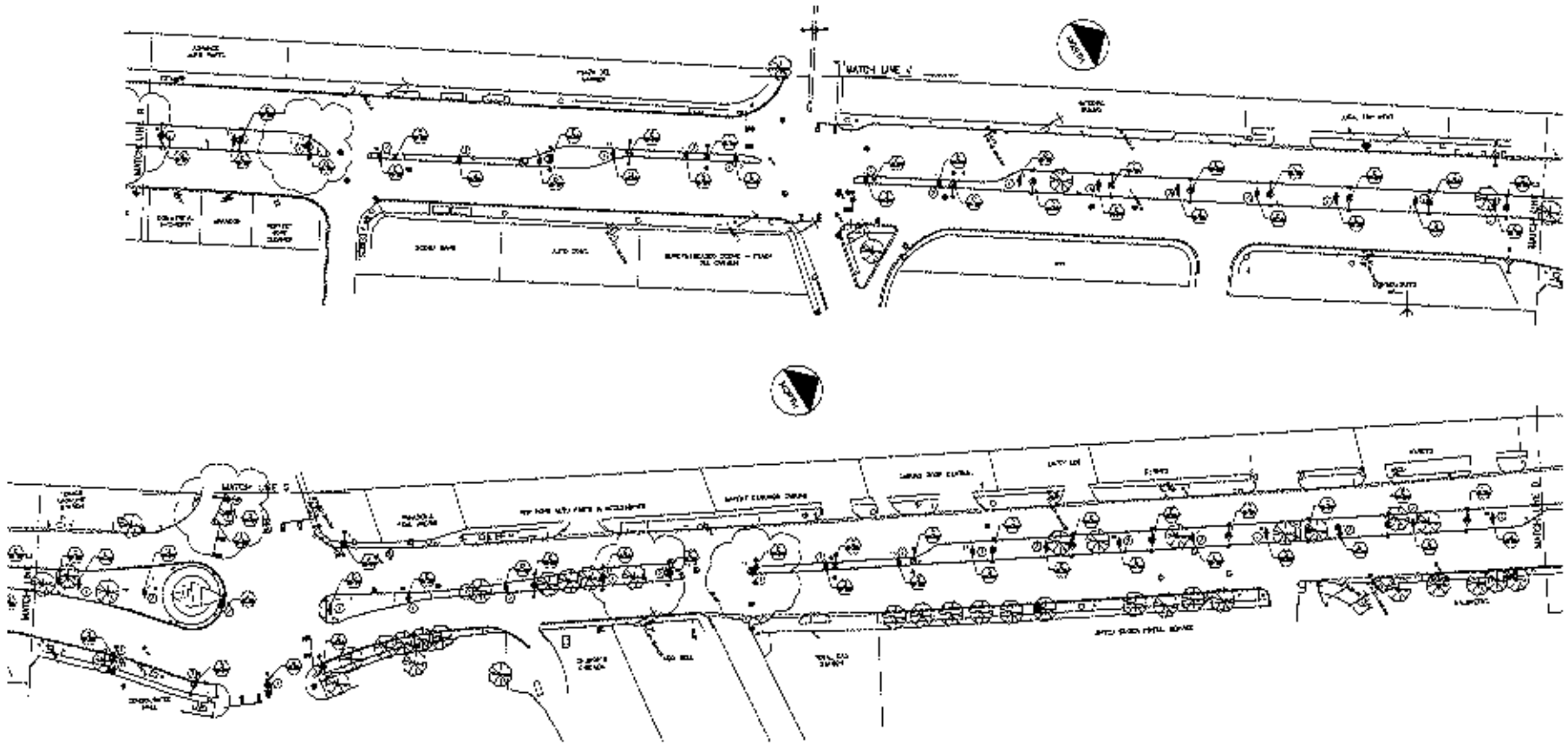
CITY: CAGUAS PUERTO RICO

Vaquerizo Associates

PROPOSED SITE PLANS
AVE. JOSE GAUTIER BENITEZ

SCALE: 1:175 DATE: APR. 2023

DRAWING NO.
C-200
SHEETS:
12 of 52



LEGEND

PROPOSED POSTS

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. DIEGO M. ST. SAN CARLOS AND AVE. PONCE

CITY: CAGUAS PUERTO RICO

Vazquez Associates

PROPOSED SITE PLANS
AVE. JOSE GAUTIER BENITEZ

DRAWING NO:
C-201

SHEET NO
13 OF 52

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE GERENAI ST. SAN CARLOS AND AVE PINO

CITY OF CAGUAS PUERTO RICO

Valuuua Associates

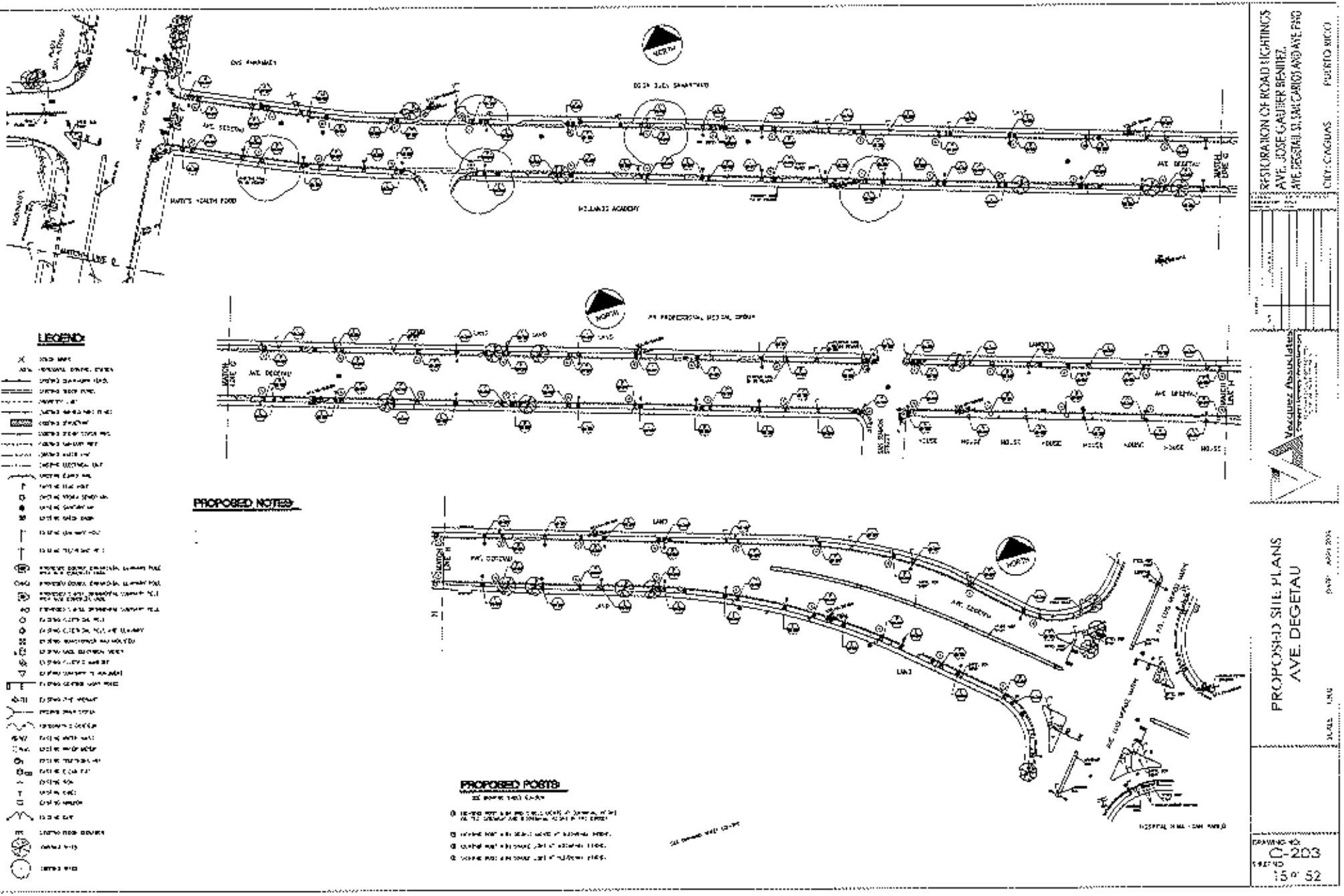
PROPOSED SITE PLANS
AVE. JOSE GAUTIER BENITEZ

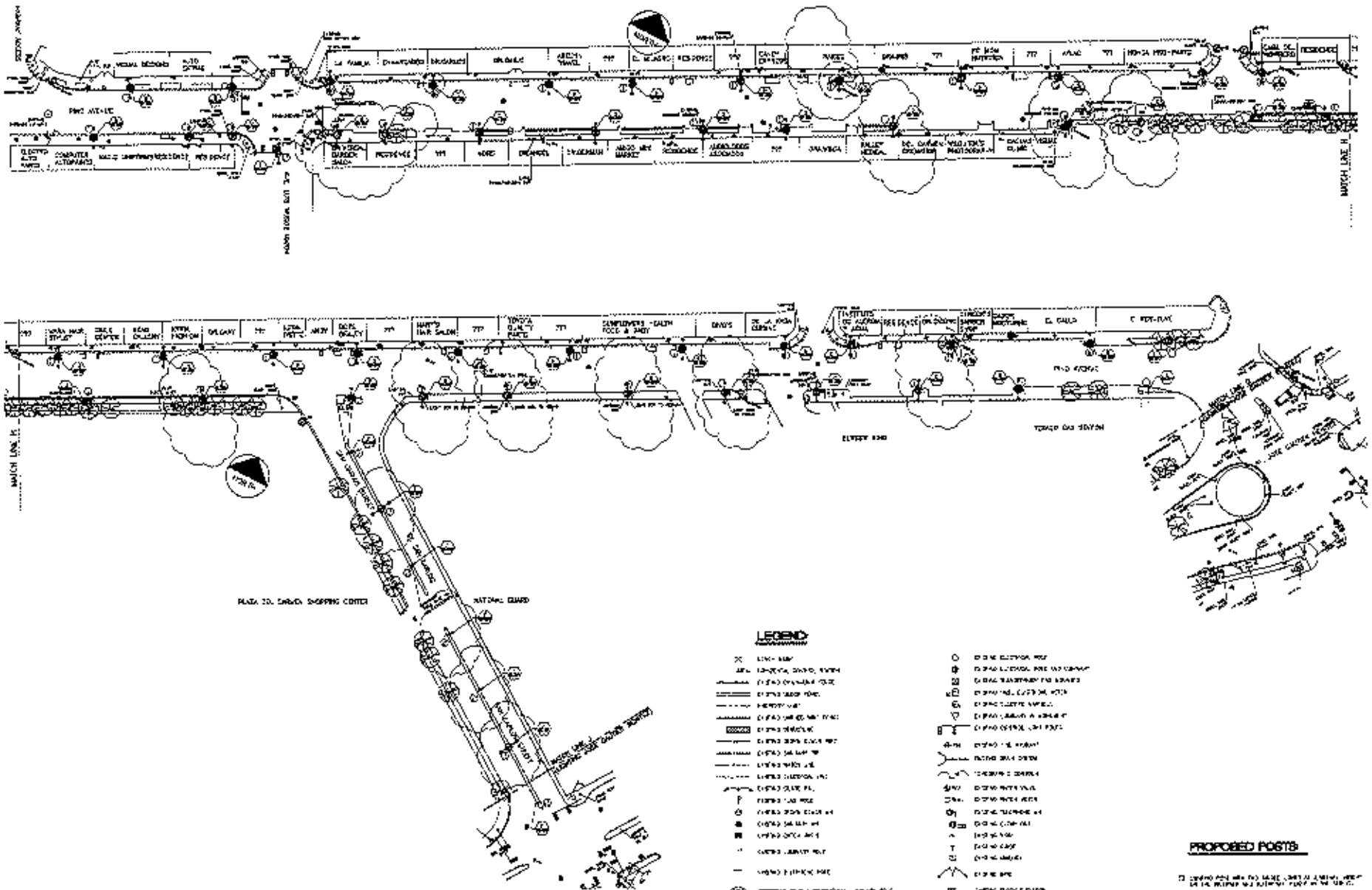
SCALE: 1:40 DATE: APRIL 2020

DRAWING NO. C-202
SHEET NO. 14 of 52

PROPOSED POSTS:

LEGEND:


LEGEND:
PROPOSED NOTES:
PROPOSED POSTS:
RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. DEGETAU, SAN CARLOS AND AVE. PINO
CIDRA, CAGUAS PUERTO RICO
Vazquez Associates
PROPOSED SITE PLANS
AVE. DEGETAU
DRAWING #:
C-203
SHEET #:
15 of 52



RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. DEGETAU, II, SAN CARLOS AND AVE. PINO

CITY: CAGUAS PUERTO RICO

PROPOSED PLANS AVE. PINO

DRAWING NO.
C-204
SHEET NO.
16 OF 52

RESTORATION OF ROAD LIGHTINGS
AVE. JOSE CAUTER BENITEZ,
AVE. GENERAL SANCARIOS AND AVE. RIO

CITY OF CAGUAS PUERTO RICO

Vazquez Associates

VERTEX DATA SITE PLANS
AVE. JOSE CAUTER BENITEZ

SCALE: 1:50 DATE: APRIL 2021

DRAWING NO. C-300
SHEET NO. 7 of 52

VERTEX DATA SITE PLANS
AVE. JOSE GAUTIER BENITEZ
C-301
18 x 24
RESTORATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ
AVE. ROSTAND, EL SAN CARLOS AND AVE. PRO
CITY: CAGUAS
PUERTO RICO
LEGEND
MATCH LINE
TOP PIT
WATER LINE

REHABILITATION OF ROAD LIGHTINGS
AVE. JOSE GAUTIER BENITEZ,
AVE. BOSEMA, ST. SAN CARLOS AND AVE. RMS

CITY OF CAGAYAN DE ORO

Vazquez Associates

VERTEX DATA SITE PLANS
AVE. JOSE GAUTIER BENITEZ

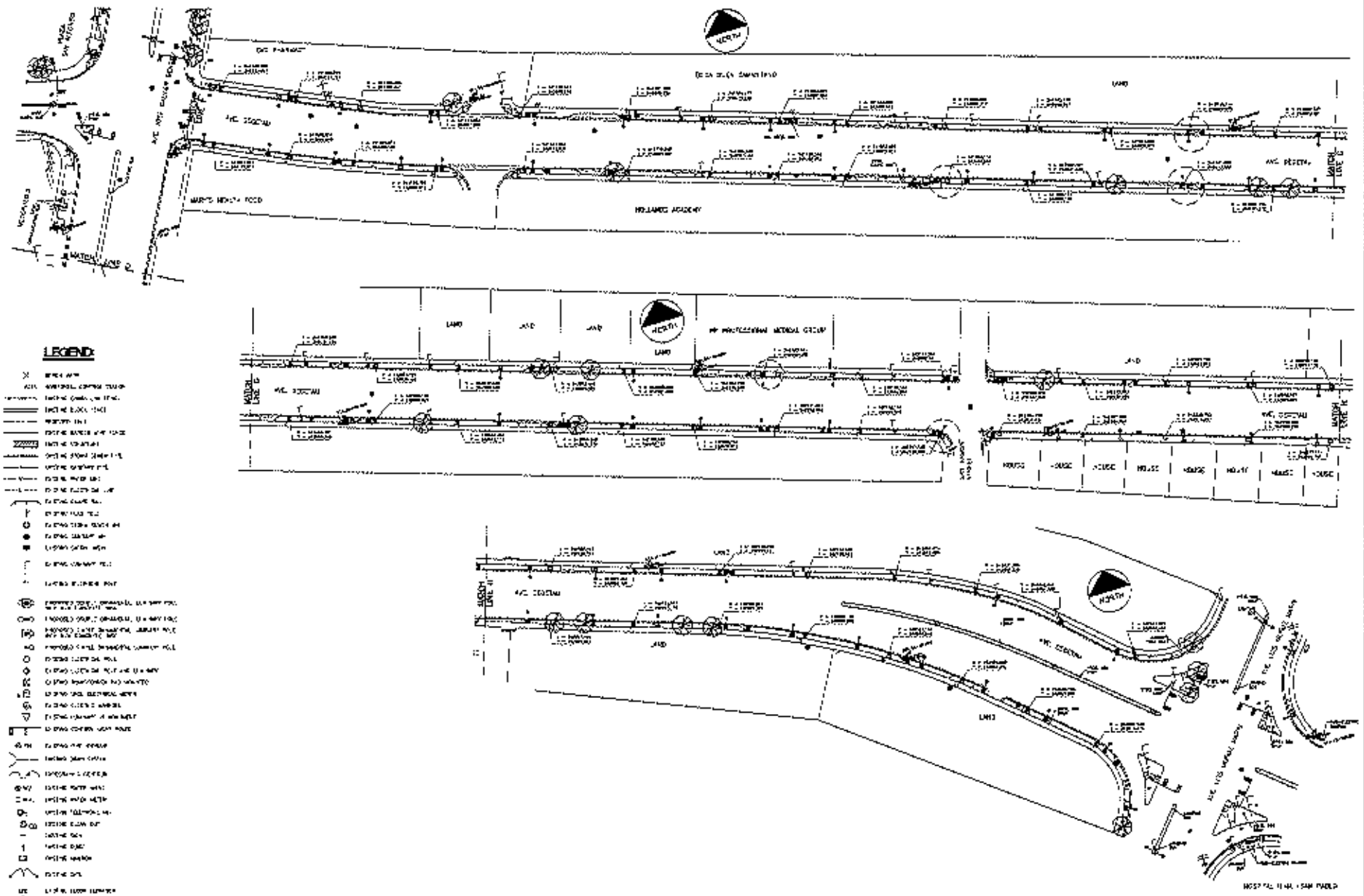
SCALE: 1:500 DATE: APRIL 2023

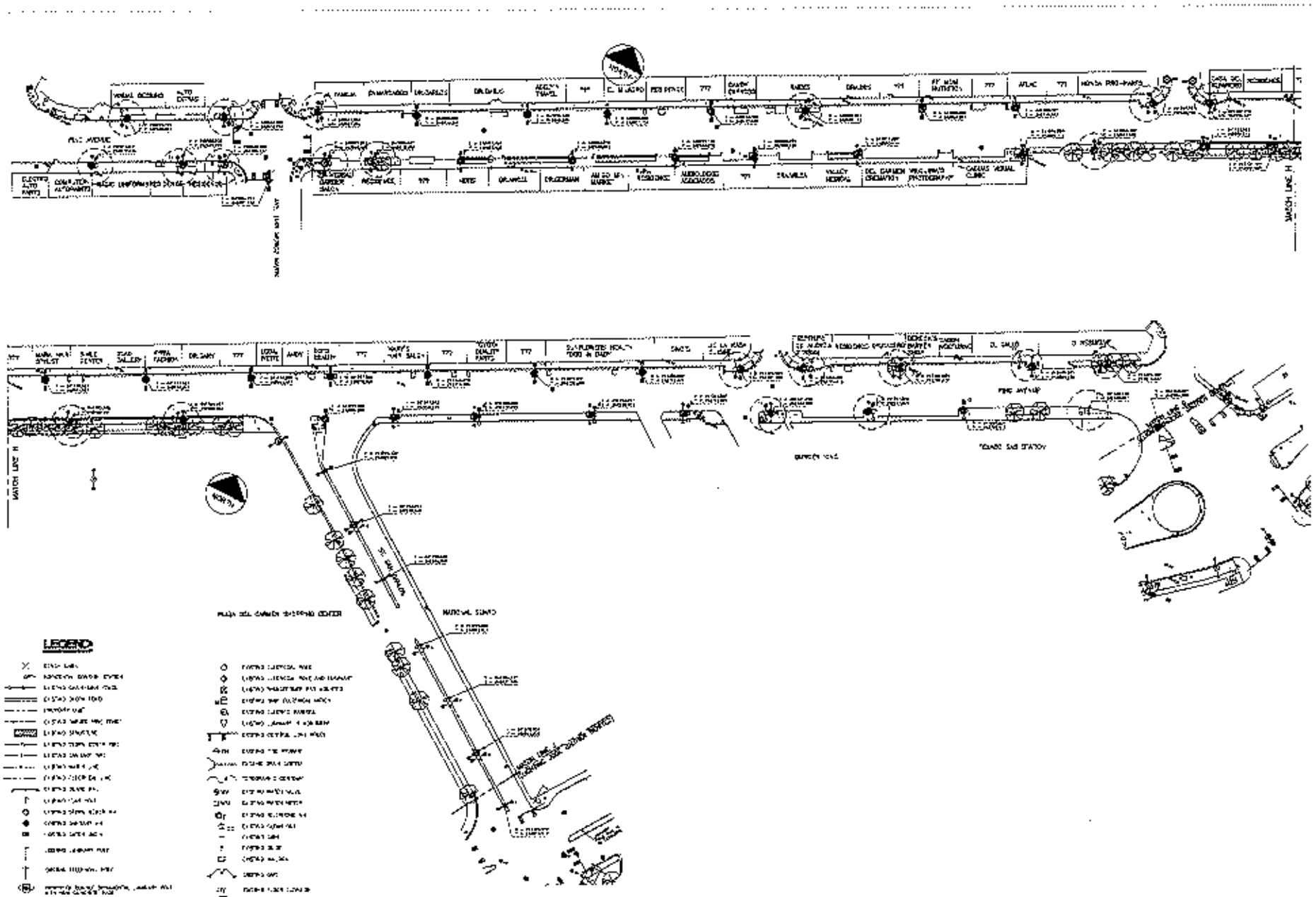
DRAWING NO. C-302
SHEET NO. 19 OF 52

LEGEND

NORTH

NORTH


LEGEND:
AVE. DEGETAU
AVE. JOSÉ CAUDER BENÍTEZ
AVE. DIGNIDAD DE LOS CASEROS
AVE. PINO
CITY: CAGUAS
PUERTO RICO
VERTEX DATA SHEET PLANS
AVE. DEGETAU
DRAWING NO:
C-303
SHEET NO:
20 of 52



RESTORATION OF ROAD LIGHTINGS
AVE. JOSE CARTER BLVD.,
AVE. RODRIGUEZ SANCHEZ AND AVE. PINO
CITY: CAGUAS PUERTO RICO

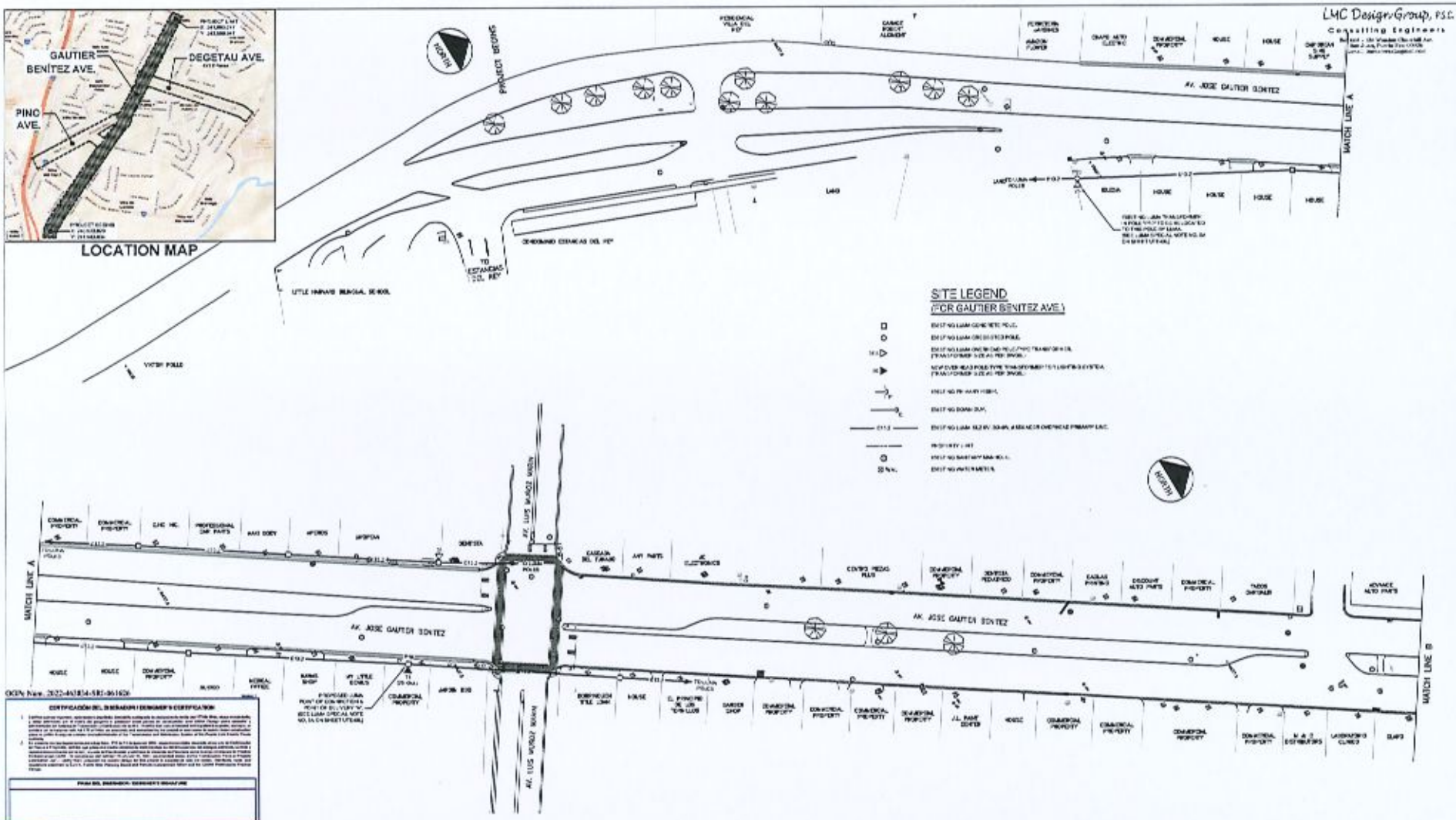
Vazquez Associates

VERTEX DAJA SITE PLANS
AVE. PINO

DATE: APRIL 2013

DRAWING NO:
C-304
SHEET NO:
21 of 52

LOCATION MAP



LMC Design Group, P.S.C.
Consulting Engineers

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
JOSE GAUTIER BENITEZ AVENUE (PR-1) (PR-1)
CITY: CAGUAS PUERTO RICO

Vazquez Associates

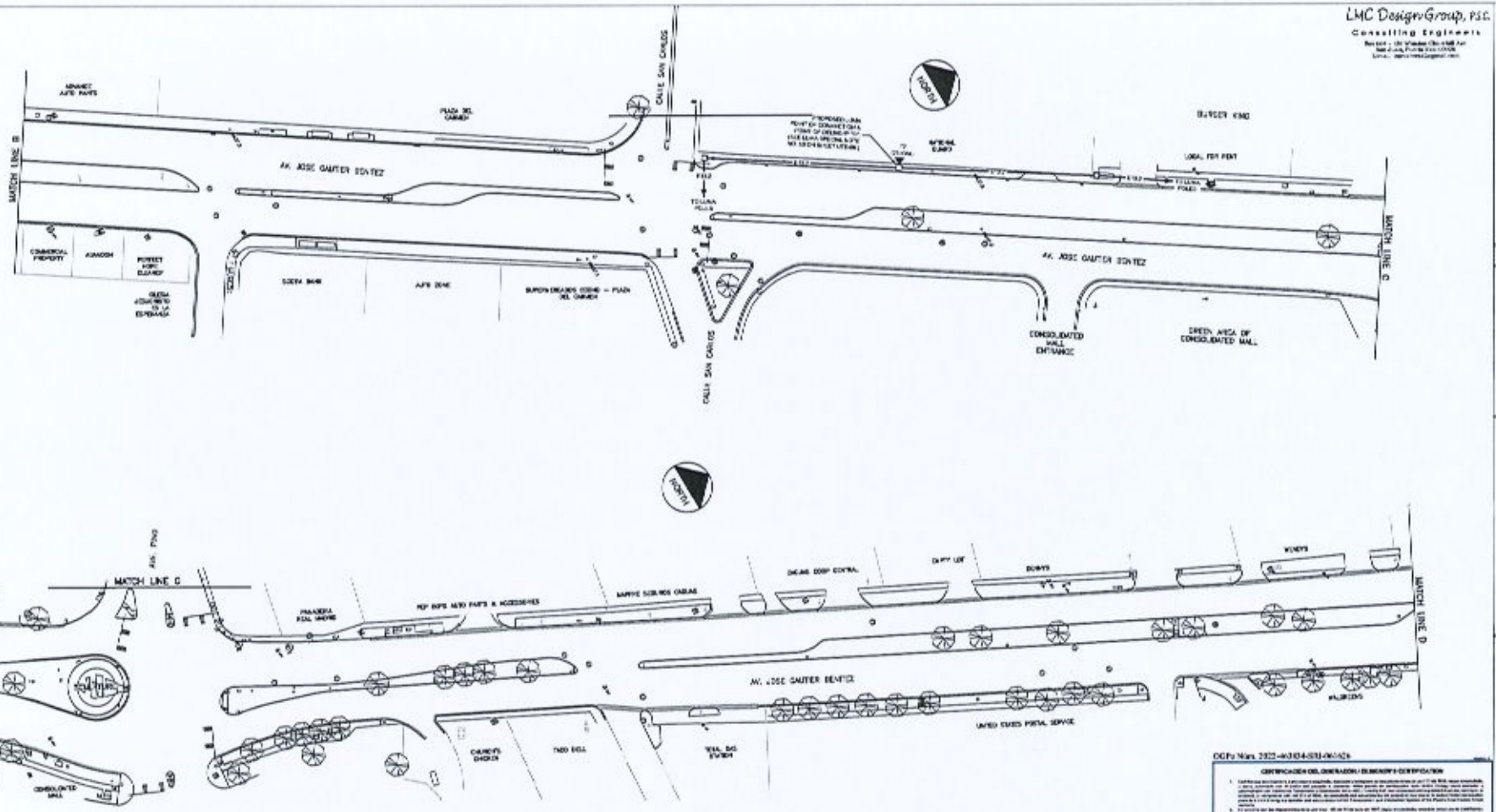
PRIMARY DISTRIBUTION SITE PLAN

DATE: APRIL 2023
SCALE: 1:500

LUIS M. CABRERA VELEZ
LICENSED ENGINEER
LIC. #17174
PUERTO RICO

DRAWING NO:
UTE-01
SHEET NO:
22 OF 53

LUMA



LMC Design Group, P.S.C.
Consulting Engineers

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
JOSE GAUTIER BENITEZ AVENUE (PR 1)
CITY: CAGUAS PUERTO RICO

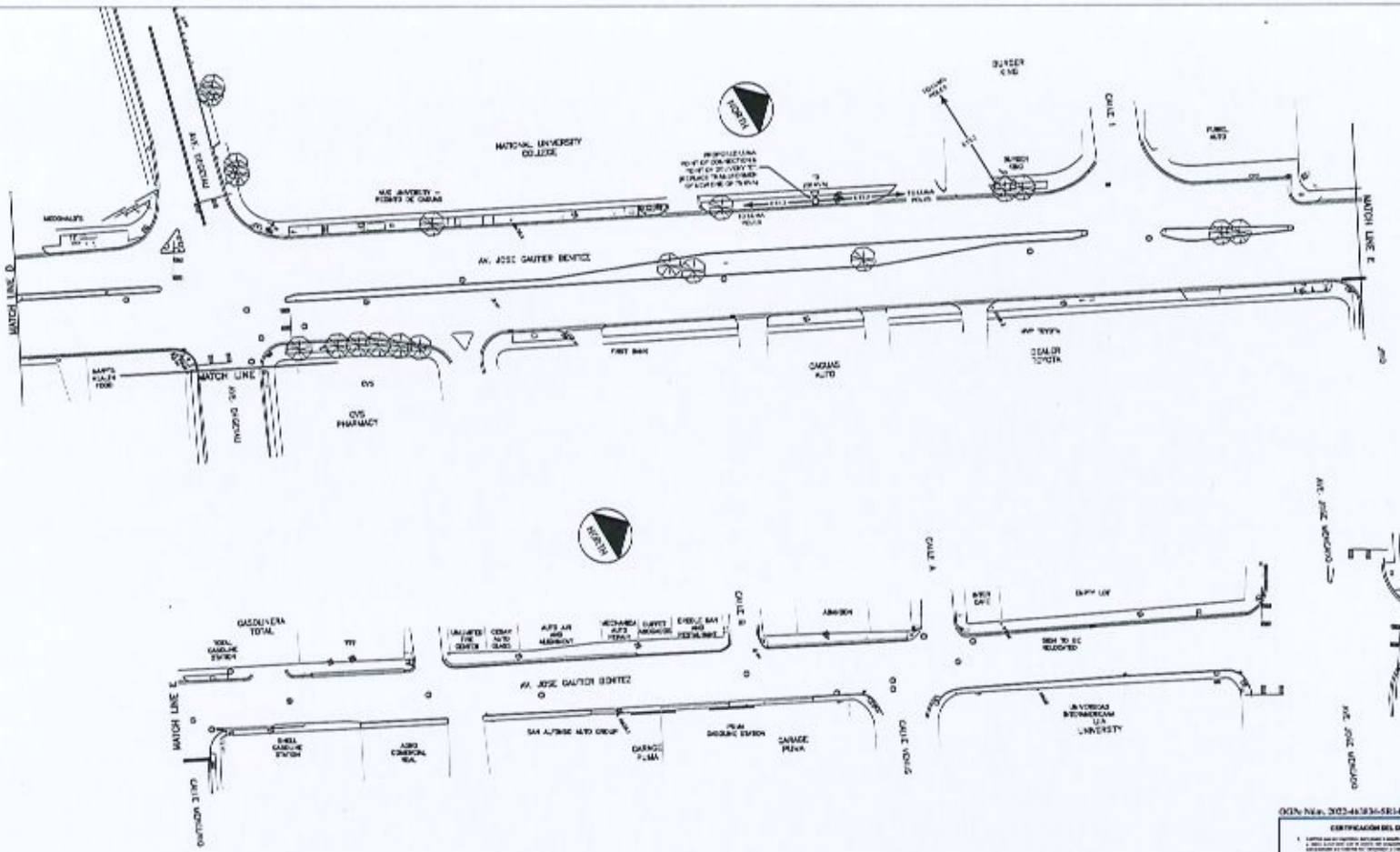
Vazquez Associates
Consulting Engineers

PRIMARY DISTRIBUTION SITE PLAN

SCALE: 1:500 DATE: APRIL 2023

LUIS M. CABRERA VELEZ
INGENIERO LICENCIADO
PUERTO RICO

DRAWING NO:
UTE-02
SHEET NO:
23 OF 52



LMC Design Group, P.S.C.
Consulting Engineers

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
JOSE GAUTIER BENITEZ AVENUE (PR-1)
CITY: CAGUAS PUERTO RICO

Vazquez Associates
Engineers · Architects · Planners

PRIMARY DISTRIBUTION SITE PLAN

SCALE: 1:300 DATE: APRIL 2023

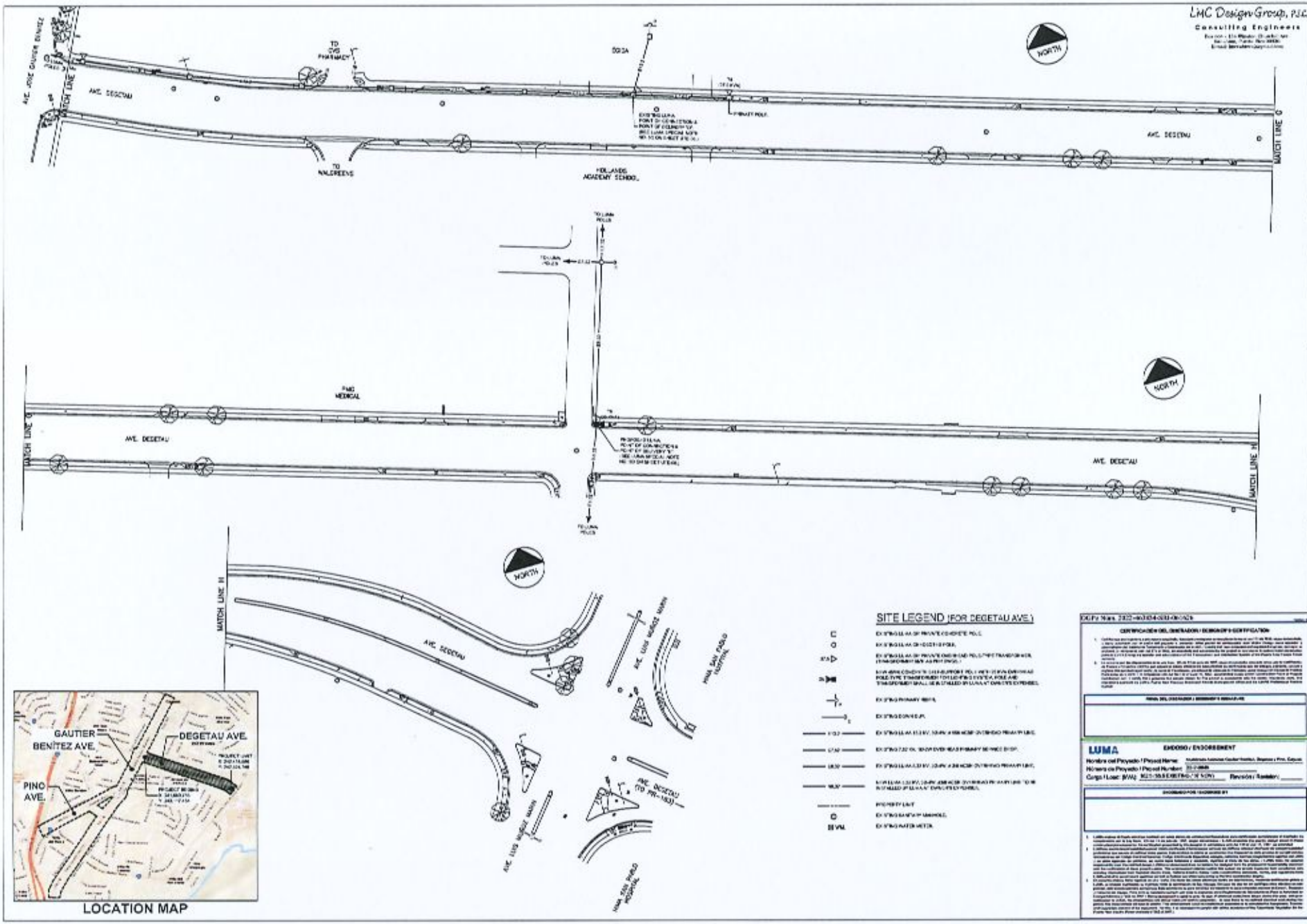
LUIS M. CABRERA TELLEZ
NUMERO DE LICENCIA
PUERTO RICO

DRAWING NO:
UTE-03
SHEET NO:
24 OF 52

OGPe Núm. 2023-463836-SIR-041626

CERTIFICACIÓN DEL DISEÑADOR / DESIGNER'S CERTIFICATION

LUMA ENDOSO / ENDORSEMENT



LOCATION MAP

SITE LEGEND (FOR DEGETAU AVE.)

- EX. 37.5/12.5 kV 3Ø PRIVATE CONCRETE POLE
- EX. 37.5/12.5 kV 3Ø CROSSTIE POLE
- EX. 37.5/12.5 kV 3Ø PRIVATE OVERHEAD POLE TYPE TRANSFORMER (TRANSFORMER SEE AS PER DWG.)
- EX. 37.5/12.5 kV 3Ø CONCRETE CUT-OUT SUPPORT POLE WITH 37.5 kV OVERHEAD POLE TYPE TRANSFORMER TO FEED PRIVATE SYSTEM, POLE AND TRANSFORMER SHALL BE DETAILED BY LUMA AT DIRECTED EXPENSES.
- EX. 37.5kV PRIMARY WIRE
- EX. 37.5kV DOWN WIRE
- EX. 37.5/12.5 kV, 3Ø, 4W, 336 MCM ACSR OVERHEAD PRIMARY LINE
- EX. 37.5/12.5 kV, 3Ø, 4W, 336 MCM ACSR OVERHEAD PRIMARY SERVICE DROP
- EX. 37.5/12.5 kV, 3Ø, 4W, 336 MCM ACSR OVERHEAD PRIMARY LINE
- EX. 37.5/12.5 kV, 3Ø, 4W, 336 MCM ACSR OVERHEAD PRIMARY LINE TO BE INSTALLED BY LUMA AT DIRECTED EXPENSES.
- PROPERTY LINE
- EX. STREET LIGHTING UNIT
- EX. STREET LIGHTING METER

LUMA ENDORSEMENT / ENDORSEMENT

Nombre del Proyecto / Project Name:
Número de Proyecto / Project Number:
Carga / Load: (kVA)
Revisión / Revision:

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
DEGETAU AVENUE (PR-34)
CITY: CAGUAS PUERTO RICO

Vazquez Associates

PRIMARY DISTRIBUTION SITE PLAN

SCALE: 1:500 DATE: APRIL 2023

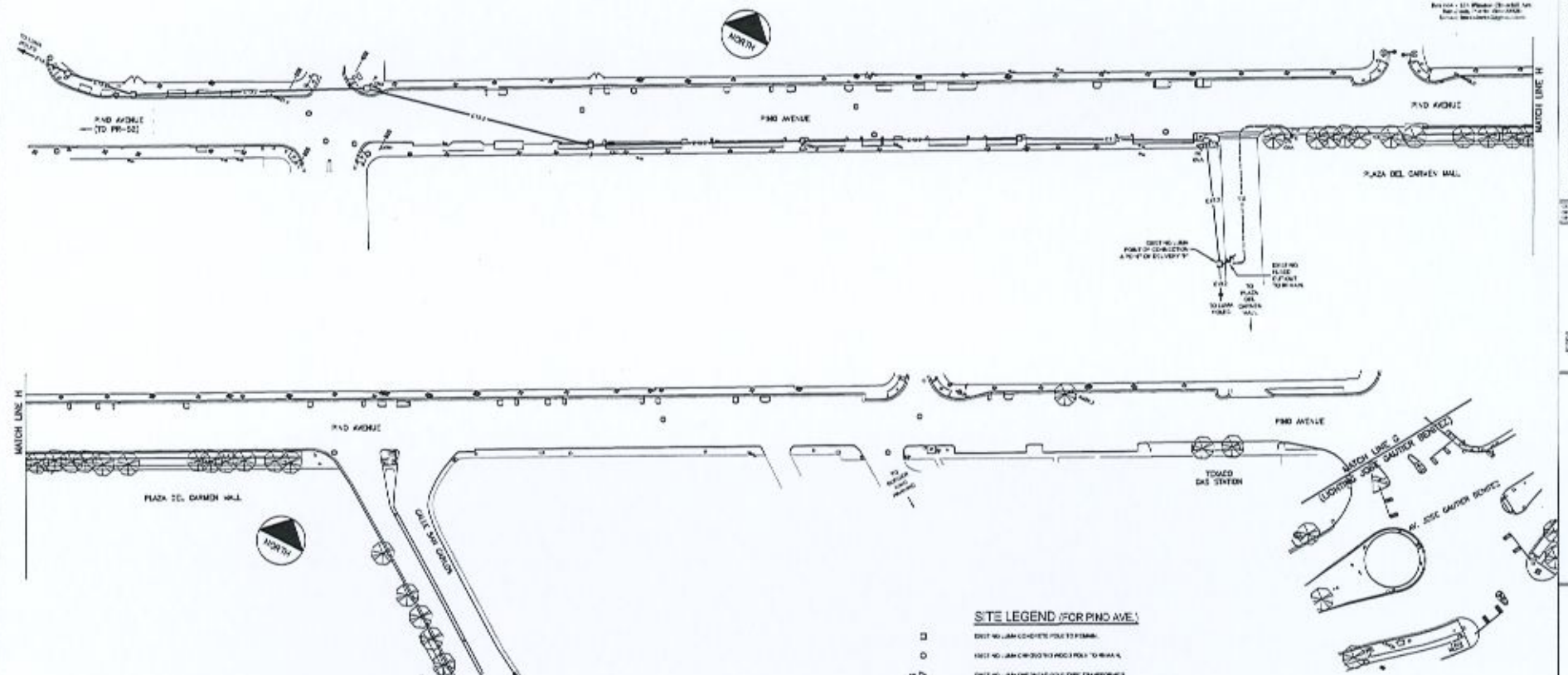
LUIS M. CARRERA VELEZ
LICENSED ENGINEER
PUERTO RICO
LIC. # 11174

DRAWING NO: UTE-04
SHEET NO: 25 OF 53

LMC DesignGroup, P.S.C.
Consulting Engineers

IMPROVEMENTS LIGHTING BO. TURABO URB. VILLA DEL REY PINO AVENUE (PR-172)

CITY: CAGUAS PUERTO RICO



SITE LEGEND (FOR PINO AVE.)



LOCATION MAP

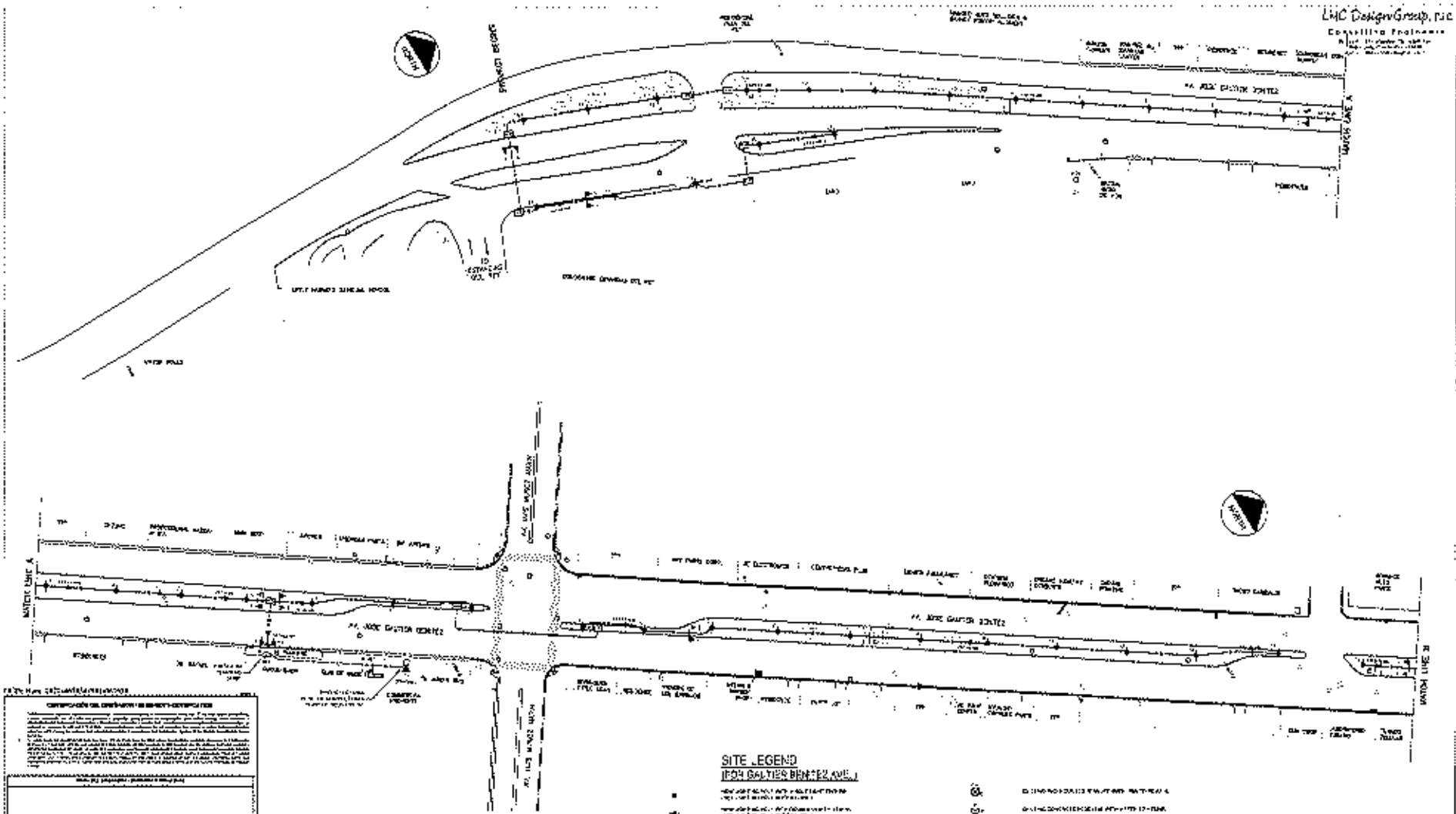
Vazquez Associates

PRIMARY DISTRIBUTION SITE PLAN

SCALE: 1:300 DATE: APRIL 2023

LUIS M. CABRERA VELEZ LICENSED ARCHITECT PUERTO RICO

DRAWING NO: UTE-05
SHEET NO: 26 OF 52



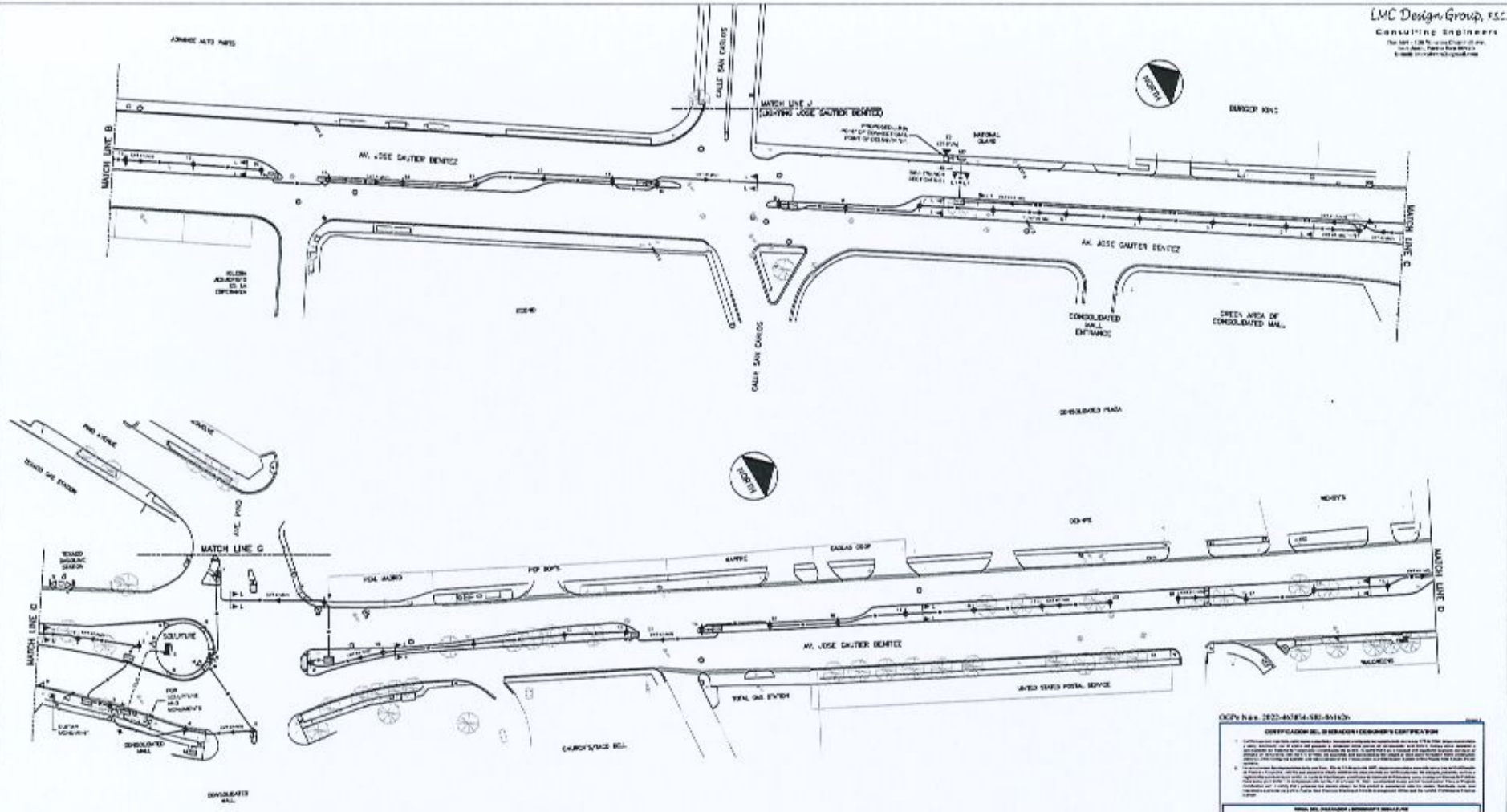
LHC DesignGroup, P.S.C.
Consulting Engineers

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
JOSE GAUTIER BENITEZ AVENUE (FR-1)
CITY: CAGUAS PUERTO RICO

Vazquez Associates

LIGHTING SYSTEM SITE PLAN

DRAWING NO:
LT-01
SHEET:
29 OF 52



LMC Design Group, P.S.C.
Consulting Engineers

OCPN Num. 2022-467854-SRI-841626

CERTIFICACION DEL DISEÑADOR / DESIGNER'S CERTIFICATION

LUMA

ENDOSO / ENDORSEMENT

Nombre del Proyecto / Project Name:

Número de Proyecto / Project Number: 2243-0948

Carga / Load: (kVA): 403.61 | EXISTING | 67 NEW

Revisión / Revision:

ENDOSADO POR / ENDORSED BY

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
JOSE GAUTIER BENITEZ AVENUE (PR-1)
CITY: CAGUAS PUERTO RICO

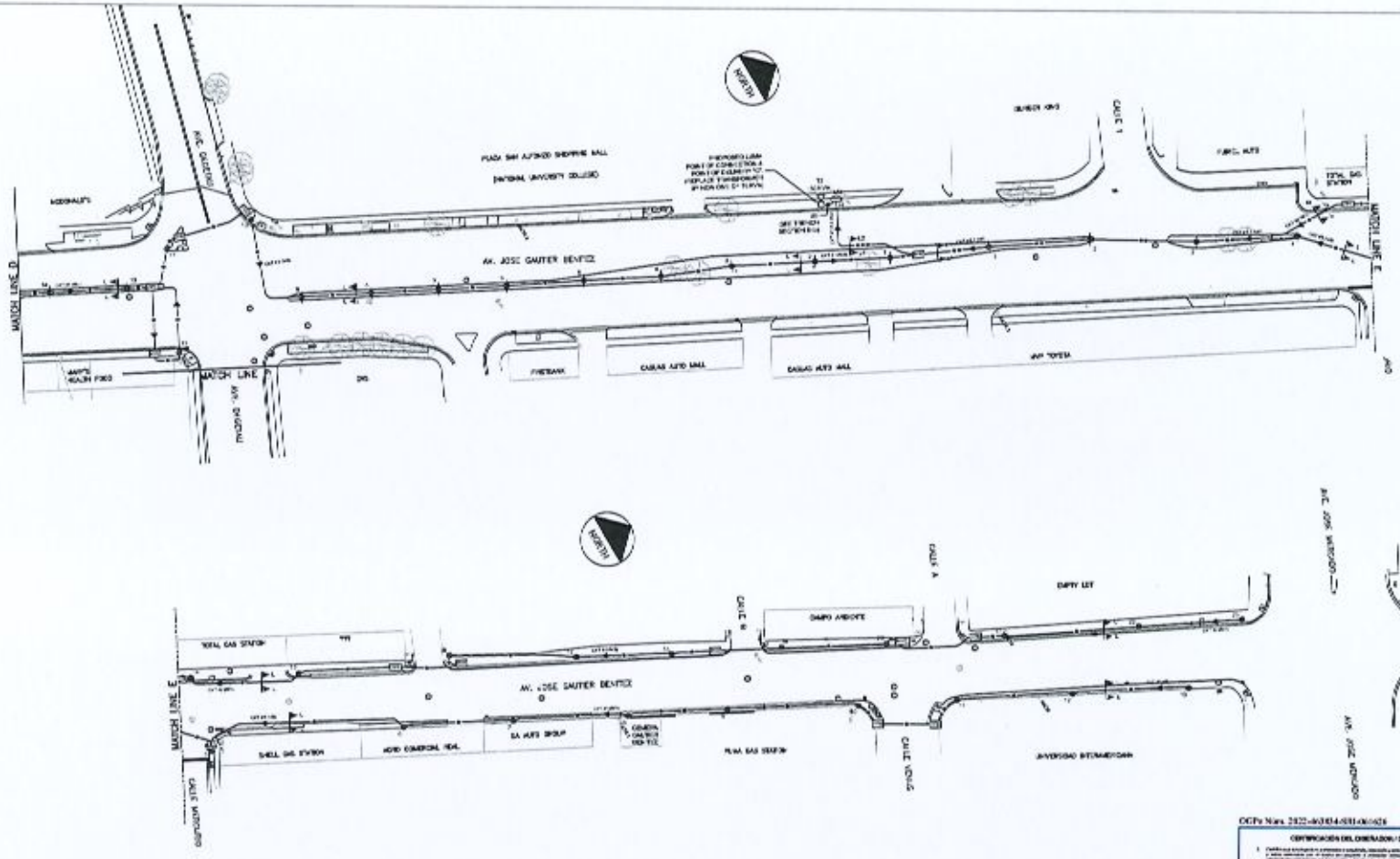
Vazquez Associates

LIGHTING SYSTEM SITE PLAN

SCALE: 1:500 DATE: APRIL 2023

LUIS M. CABRERA VELEZ
MECANICO ELECTRICISTA
LIC. #8674
PUERTO RICO

DRAWING NO: LT-02
SHEET NO: 30 OF 52



LMC Design Group, P.S.C.
Consulting Engineers

OGPe Núm. 2022-xx3134-MIA-xxxx26

CERTIFICACIÓN DEL DISEÑADOR / DESIGNER'S CERTIFICATION

FIRMA DEL DISEÑADOR / DESIGNER'S SIGNATURE

LUMA ENDOSO / ENDORSEMENT

Nombre del Proyecto / Project Name: Autoridad Acueductos Estados Aledaños (Residencial Pino, Depósito

Número de Proyecto / Project Number: 2022-0045

Carga / Load: 3kVA 182.6/0.5 EXISTING / 17.1kVA Revisión / Revision: ____

ENDOSADO POR / ENDORSED BY

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
JOSE GAUTIER BENITEZ AVENUE (PR-1)
CITY: CAGUAS PUERTO RICO

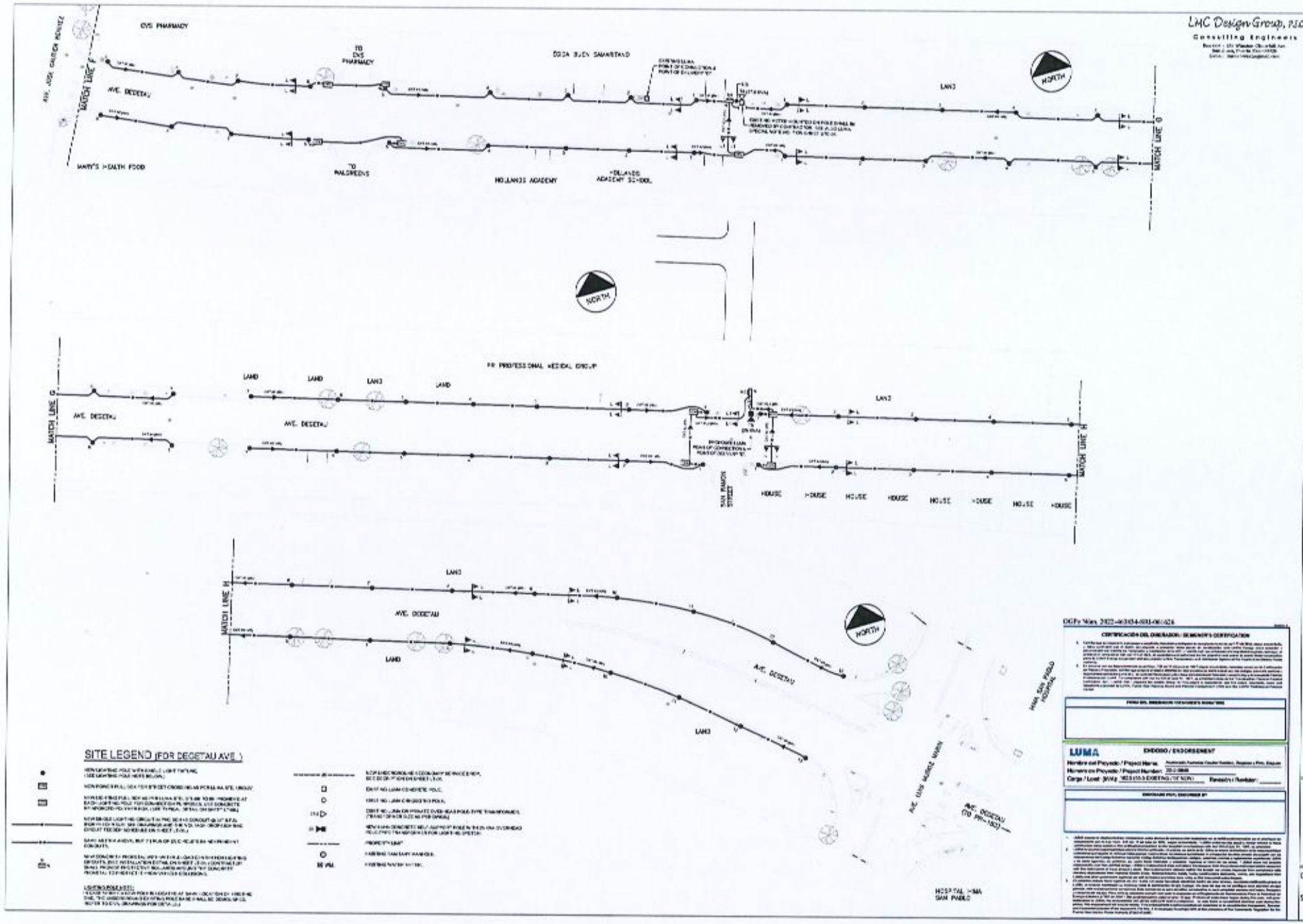
Vazquez Associates
Engineers | Architects | Project Managers

LIGHTING SYSTEM SITE PLAN

SCALE: 1:500 DATE: APRIL 2023

LUIS M. CABRERA VELEZ
NUM. 19,705
PUERTO RICO

DRAWING NO:
LT-03
SHEET NO:
31 OF 52



SITE LEGEND (FOR DEGETAU AVE.)

LMC Design Group, P.S.C.
Consulting Engineers

IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
DEGETAU AVENUE (PR-34)
CITY: CAGUAS PUERTO RICO

Vazquez Associates

LIGHTING SYSTEM SITE PLAN

SCALE: 1:500 DATE: APRIL 2023

LUIS R. CABRERA TEJEDA
LICENSED ENGINEER
LIC. #11114
PUERTO RICO

DRAWING NO.
LT-04
SHEET NO.
32 OF 52

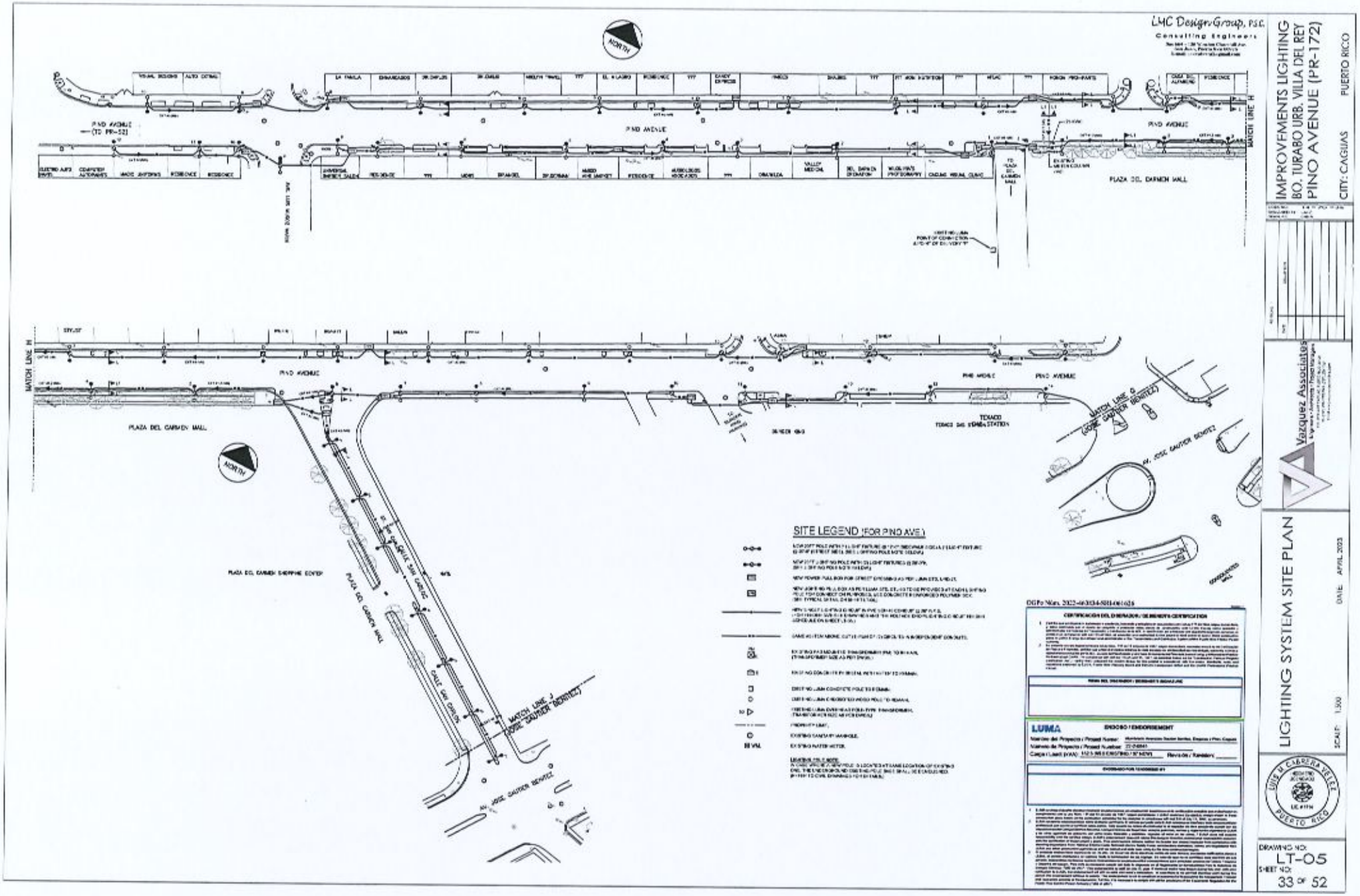

LMC Design Group, P.S.C.
Consulting Engineers
IMPROVEMENTS LIGHTING
BO. TURABO URB. VILLA DEL REY
PINO AVENUE (PR-172)
CITY: CAGUAS PUERTO RICO
PINO AVENUE
(TO PR-52)
PLAZA DEL CARMEN MALL
MATCH LINE H
MATCH LINE G
(JOSE DAUVER BENITEZ)
TEXACO
PLAZA DEL CARMEN SHOPPING CENTER
CALLE SAN CARLOS
CALLE SAN CARLOS
CALLE SAN CARLOS
CALLE SAN CARLOS
AV. JOSE DAUVER BENITEZ
MATCH LINE J
(JOSE DAUVER BENITEZ)
NORTH
SITE LEGEND (FOR PINO AVE.)
PROPERTY LINE
EXISTING SANITARY MANHOLE
EXISTING WATER METER
Vazquez Associates
LIGHTING SYSTEM SITE PLAN
SCALE: 1:300
DATE: APRIL 2023
LUIS M. CARRERA VELEZ
LICENSED ENGINEER
PUERTO RICO
DRAWING NO:
LT-05
SHEET NO:
33 OF 52

Exhibit 2
Airport Hazards

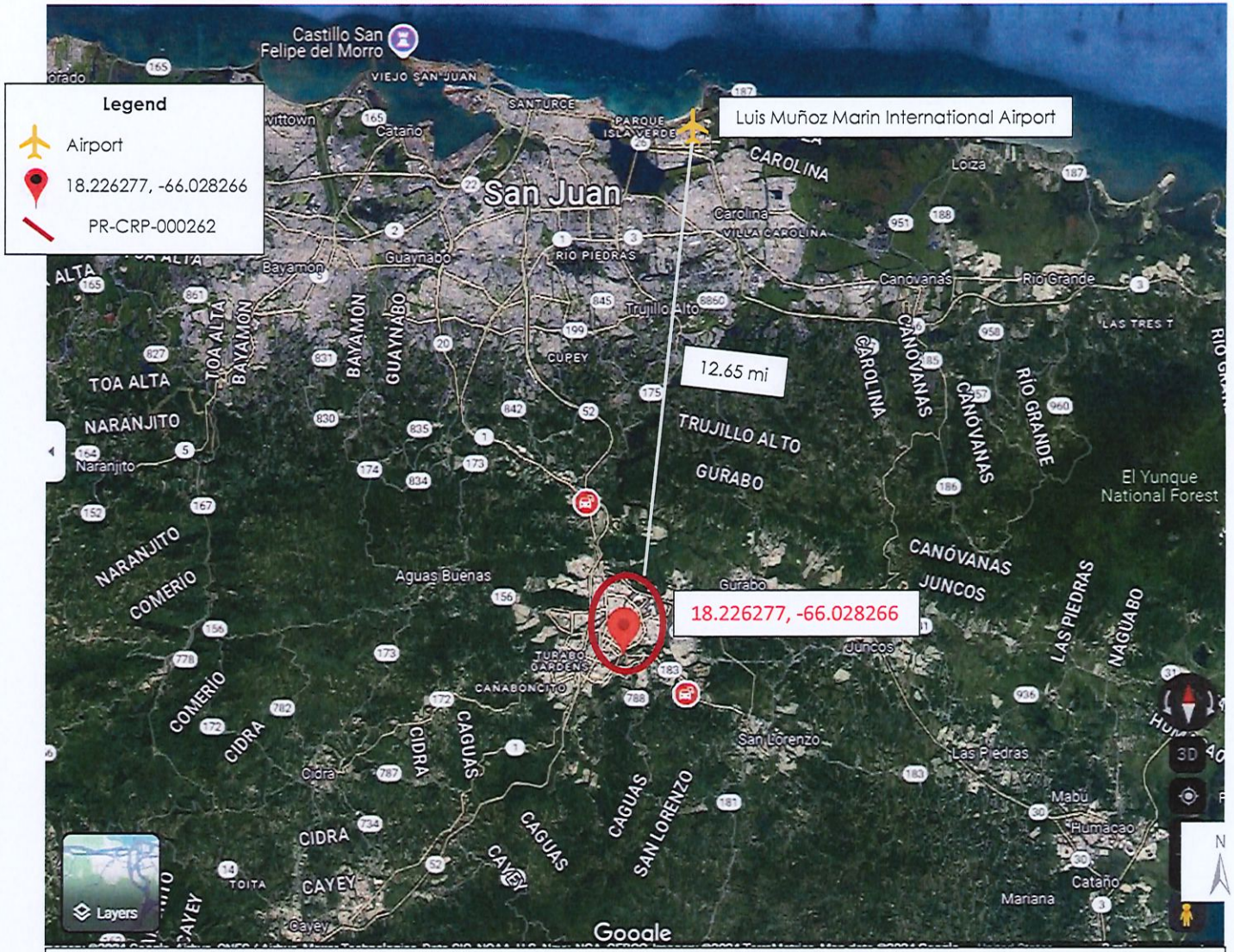
Airport Hazards – Civilian and Military Map

PR-CRP-000262 – Public Road Luminaries

Exhibit 2

Coord: 18.226277, -66.028266

Address: Rafael Cordero Ave., Luis Muñoz Marín Ave., Gautier Benítez Ave., Leoncio Vázquez Blvd., PR-156, and PR-34, Caguas, PR



Source: Google Earth (Spatial Reference: WGS84) at URL https://earth.google.com/. Accessed September 18, 2024.

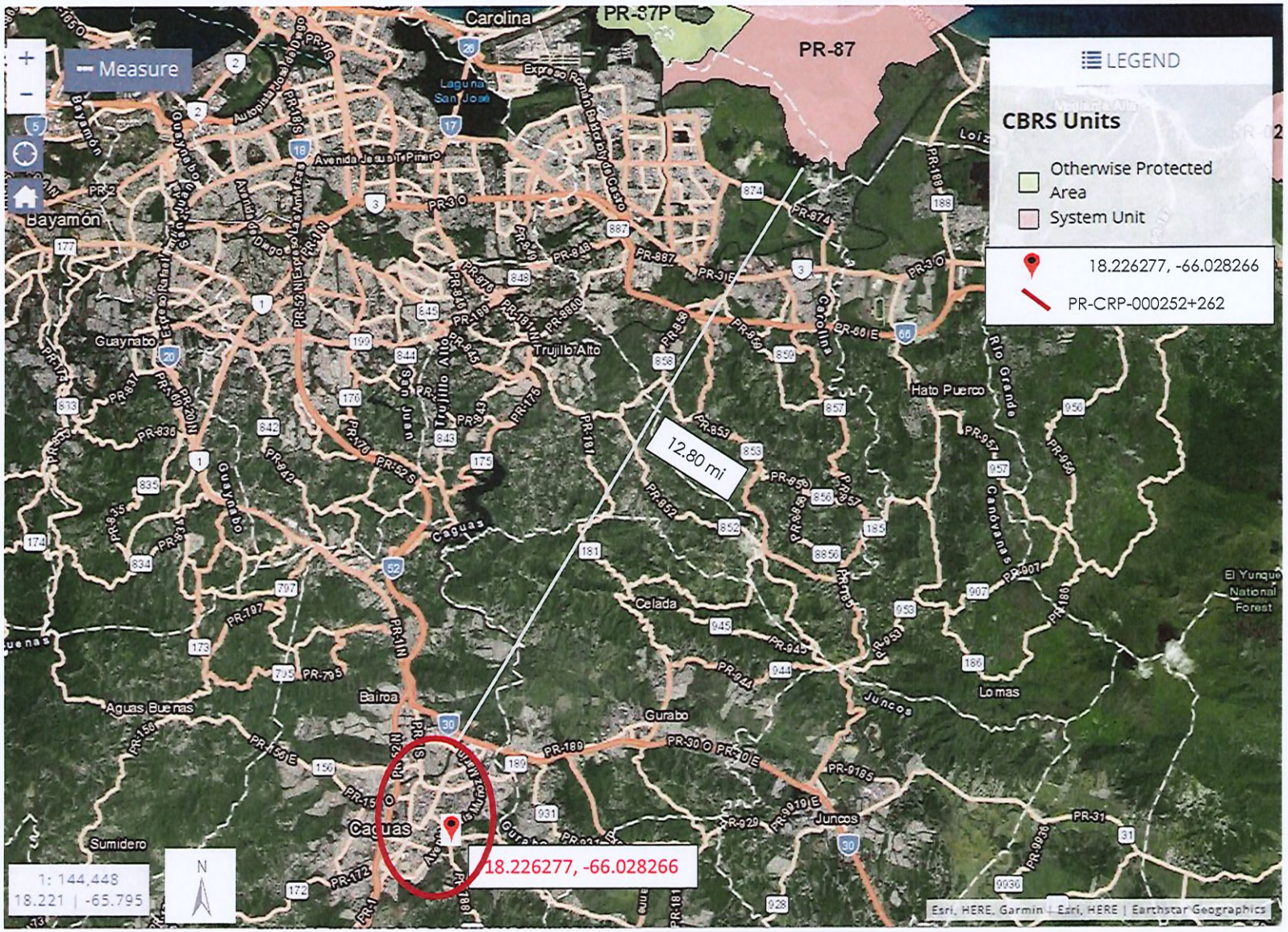
Prepared by ICF

Exhibit 3
Coastal Barrier Resources

Exhibit 3

Coastal Barrier Resources Map
PR-CRP-000262 – Public Road Luminaries

Coord: 18.226277, -66.028266
Address: Ave. Rafael Cordero, Ave. Luis Muñoz Marín, Gautier Benítez Avenue, Leoncio Vázquez Blvd, PR-156, and PR-34, Caguas, PR

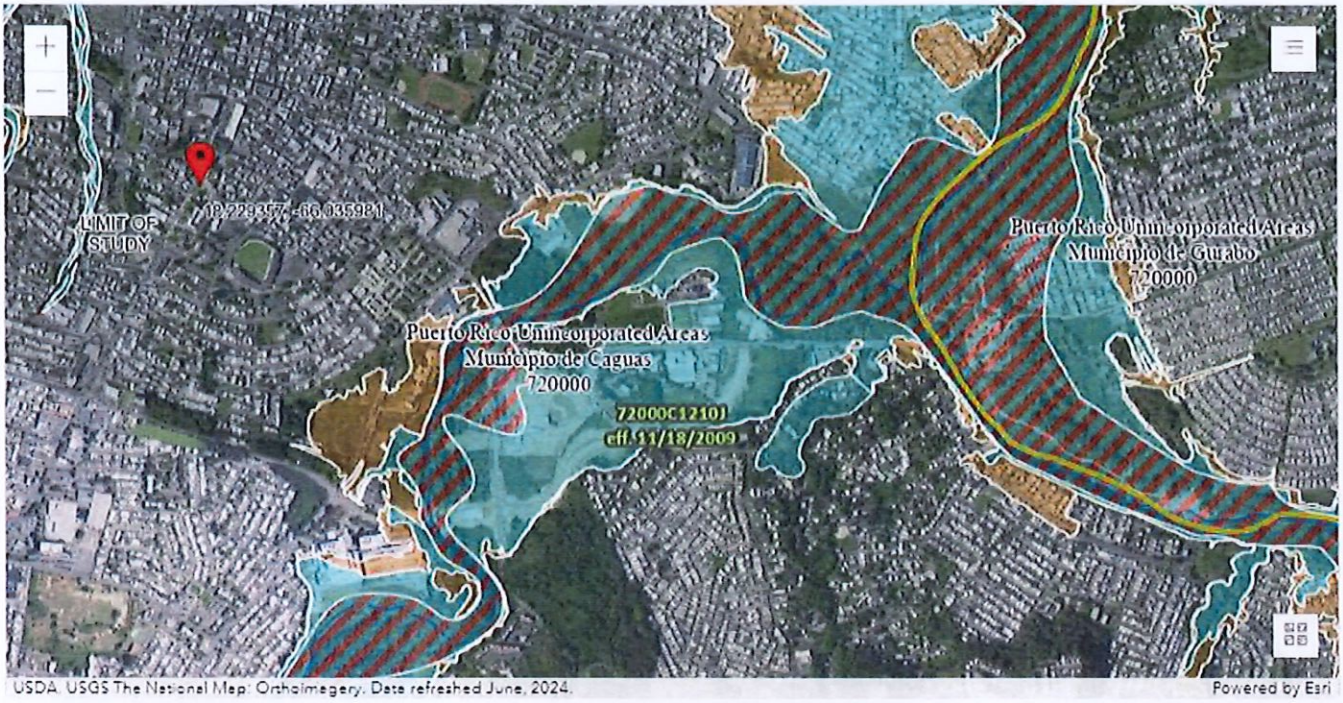


Source: U.S. Fish and Wildlife (USFWS) Coastal Barrier Resources System Mapper (Spatial Reference: WGS84) at URL https://fwsprimary.wim.usgs.gov/CBRSMapper-v2/. Accessed September 18, 2024.

Prepared by

Exhibit 4
Flood Insurance

Exhibit 4 Caguas Municipality FEMA Flood Map



PIN
Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
Selected FloodMap Boundary
Digital Data Available
No Digital Data Available
Unmapped

NO SCREEN Area of Minimal Flood Hazard Zone X
Effective LOMRs
Area of Undetermined Flood Hazard Zone D
OTHER AREAS Otherwise Protected Area

SPECIAL FLOOD HAZARD AREAS
Without Base Flood Elevation (BFE) Zone A, V, A99
With BFE or Depth
Regulatory Floodway Zone AE, AO, AH, VE, AR

OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee. See Notes. Zone X
Area with Flood Risk due to Levee Zone D

OTHER FEATURES
Cross Sections with 1% Annual Chance
Water Surface Elevation
Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

GENERAL STRUCTURES
Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall

Exhibit 5
Clean Air

Exhibit 5 Nonattainment Map

PR-CRP-000262- Public Lightning

Coord.: 18.226277, -66.028266
Address: Ave. Rafael Cordero, Ave. Luis Muñoz Marín, Gautier Benítez Avenue, Leoncio Vázquez Blvd, PR-156, and PR-34, Caguas, PR



Source: U.S. Environmental Protection Agency (EPA) NEPAssist (Spatial Reference: GRS80) at URL https://nepassisttool.epa.gov/nepassist/nepamap.aspx, Accessed September 18, 2024.

This content is from the eCFR and is authoritative but unofficial.

Title 40 —Protection of Environment
Chapter I —Environmental Protection Agency
Subchapter C —Air Programs
Part 81 —Designation of Areas for Air Quality Planning Purposes
Subpart C —Section 107 Attainment Status Designations

Authority: 42 U.S.C. 7401, *et seq.*
Source: 43 FR 8964, Mar. 3, 1978, unless otherwise noted.
Authority: 42 U.S.C. 7401, *et seq.*
Source: 36 FR 22421, Nov. 25, 1971, unless otherwise noted.

§ 81.355 Puerto Rico.

Puerto Rico—1971 Sulfur Dioxide NAAQS
[Primary and Secondary]

Designated area	Does not meet primary standards	Does not meet secondary standards	Cannot be classified	Better than national standards
Puerto Rico AQCR				X

Puerto Rico—2010 Sulfur Dioxide NAAQS
[Primary]

Designated area [1]	Designation	
	Date [2]	Type
San Juan, PR:		
Cataño Municipality		Nonattainment.
Toa Baja Municipality (part)		Nonattainment.
Palo Seco Ward.		

[1] *Includes any Indian country in each county or area, unless otherwise specified. The EPA is not determining the boundaries of any area of Indian country in this table, including any area of Indian country located in the larger designation area. The inclusion of any Indian country in the designation area is not a determination that the state has regulatory authority under the Clean Air Act for such Indian country.*

[2] *This date is April 9, 2018, unless otherwise noted.*

Designated area [1]	Designation	
	Date [2]	Type
Sabana Seca Ward.		
San Juan Municipality (part)		Nonattainment.
San Juan Antiguo Ward.		
Santurce Ward.		
Hato Rey Norte Ward.		
Gobernador Pinero Ward.		
Guaynabo Municipality (part)		Nonattainment.
Pueblo Viejo Ward.		
Bayamón Municipality (part)		Nonattainment.
Juan Sánchez Ward.		
Guayama-Salinas, PR:		
Salinas Municipality (part)		Nonattainment.
Aguirre Ward.		
Lapa Ward.		
Rest of Territory		Attainment/Unclassifiable.

[1] *Includes any Indian country in each county or area, unless otherwise specified. The EPA is not determining the boundaries of any area of Indian country in this table, including any area of Indian country located in the larger designation area. The inclusion of any Indian country in the designation area is not a determination that the state has regulatory authority under the Clean Air Act for such Indian country.*

[2] *This date is April 9, 2018, unless otherwise noted.*

Puerto Rico—Carbon Monoxide

Designated Area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Statewide		Unclassifiable/Attainment		
Adjuntas Municipio				
Aguada Municipio				
Aguadilla Municipio				
Aguas Buenas Municipio				
Aibonito Municipio				
Anasco Municipio				
Arecibo Municipio				

[1] *This date is November 15, 1990, unless otherwise noted.*

Designated Area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Arroyo Municipio				
Barceloneta Municipio				
Barranquitas Munic.				
Bayamon County				
Caba Rojo Municipio				
Caguas Municipio				
Camuy Municipio				
Canovanas Municipio				
Carolina Municipio				
Catano County				
Cayey Municipio				
Ceiba Municipio				
Ciales Municipio				
Cidra Municipio				
Coama Municipio				
Comeria Municipio				
Corozal Municipio				
Culebra Municipio				
Dorado Municipio				
Fajardo Municipio				
Florida Municipio				
Guanica Municipio				
Guayama Municipio				
Guayanilla Municipio				
Guaynabo County				
Gurabo Municipio				
Hatillo Municipio				
Hormigueros Municipio				
Humacao Municipio				
Isabela Municipio				
Jayuya Municipio				
Juana Diaz Municipio				
Juncos Municipio				
Lajas Municipio				
Lares Municipio				
Las Marias Municipio				
Las Piedras Municipio				

[1] *This date is November 15, 1990, unless otherwise noted.*

Designated Area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Loiza Municipio				
Luquillo Municipio				
Manati Municipio				
Maricao Municipio				
Maunabo Municipio				
Mayaguez Municipio				
Moca Municipio				
Morovis Municipio				
Naguabo Municipio				
Naranjito Municipio				
Orocovis Municipio				
Patillas Minicipio				
Penuelas Municipio				
Ponce Municipio				
Quebradillas Municipio				
Rincon Municipio				
Rio Grande Municipio				
Sabana Grande Municipio				
Salinas Municipio				
San German Municipio				
San Juan Municipio				
San Lorenzo Municipio				
San Sebastian Municipio				
Santa Isabel Municipio				
Toa Alta Municipio				
Toa Baja County				
Trujilla Alto Municipio				
Utuado Municipio				
Vega Alta Municipio				
Vega Baja Municipio				
Vieques Municipio				
Villalba Municipio				
Yabucoa Municipio				

[1] *This date is November 15, 1990, unless otherwise noted.*

Designated Area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Yauco Municipio				

[1] *This date is November 15, 1990, unless otherwise noted.*

PUERTO RICO—OZONE (1-HOUR STANDARD)[2]

Designated area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Statewide		Unclassifiable/Attainment		
Adjuntas Municipio				
Aguada Municipio				
Aguadilla Municipio				
Aguas Buenas Municipio				
Aibonito Municipio				
Anasco Municipio				
Arecibo Municipio				
Arroyo Municipio				
Barceloneta Municipio				
Barranquitas Munic.				
Bayamon County				
Cabo Rojo Municipio				
Caguas Municipio				
Camuy Municipio				
Canovanas Municipio				
Carolina Municipio				
Catano County				
Cayey Municipio				
Ceiba Municipio				
Ciales Municipio				
Cidra Municipio				
Coamo Municipio				
Comerio Municipio				
Corozal Municipio				
Culebra Municipio				

[1] *This date is October 18, 2000, unless otherwise noted.*

[2] *The 1-hour ozone standard is revoked effective June 15, 2005 for all areas in Puerto Rico.*

Designated area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Dorado Municipio				
Fajardo Municipio				
Florida Municipio				
Guanica Municipio				
Guayama Municipio				
Guayanilla Municipio				
Guaynabo County				
Gurabo Municipio				
Hatillo Municipio				
Hormigueros Municipio				
Humacao Municipio				
Isabela Municipio				
Jayuya Municipio				
Juana Diaz Municipio				
Juncos Municipio				
Lajas Municipio				
Lares Municipio				
Las Marias Municipio				
Las Piedras Municipio				
Loiza Municipio				
Luquillo Municipio				
Manati Municipio				
Maricao Municipio				
Maunabo Municipio				
Mayaguez Municipio				
Moca Municipio				
Morovis Municipio				
Naguabo Municipio				
Naranjito Municipio				
Orocovis Municipio				
Patillas Minicipio				
Penuelas Municipio				
Ponce Municipio				
Quebradillas Municipio				
Rincon Municipio				
Rio Grande Municipio				

[1] *This date is October 18, 2000, unless otherwise noted.*

[2] *The 1-hour ozone standard is revoked effective June 15, 2005 for all areas in Puerto Rico.*

Designated area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Sabana Grande Municipio				
Salinas Municipio				
San German Municipio				
San Juan Municipio				
San Lorenzo Municipio				
San Sebastian Municipio				
Santa Isabel Municipio				
Toa Alta Municipio				
Toa Baja County				
Trujillo Alto Municipio				
Utuado Municipio				
Vega Alta Municipio				
Vega Baja Municipio				
Vieques Municipio				
Villalba Municipio				
Yabucoa Municipio				
Yauco Municipio				

[1] *This date is October 18, 2000, unless otherwise noted.*

[2] *The 1-hour ozone standard is revoked effective June 15, 2005 for all areas in Puerto Rico.*

Puerto Rico—PM-10

Designated Area	Designation		Classification	
	Date	Type	Date	Type
Municipality of Guaynabo	1/12/2010	Attainment.		

Designated Area	Designation		Classification	
	Date	Type	Date	Type
Rest of Commonwealth	11/15/1990	Unclassifiable		

Puerto Rico—1997 Annual $PM_{2.5}$ NAAQS [Primary and Secondary]

Designated area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Statewide:				
Adjuntas Municipio		Unclassifiable/Attainment		
Aguada Municipio		Unclassifiable/Attainment.		
Aguadilla Municipio		Unclassifiable/Attainment.		
Aguas Buenas Municipio		Unclassifiable/Attainment.		
Aibonito Municipio		Unclassifiable/Attainment.		
Añasco Municipio		Unclassifiable/Attainment.		
Arecibo Municipio		Unclassifiable/Attainment.		
Arroyo Municipio		Unclassifiable/Attainment.		
Barceloneta Municipio		Unclassifiable/Attainment.		
Barranquitas Municipio		Unclassifiable/Attainment.		
Bayamón County		Unclassifiable/Attainment.		
Cabo Rojo Municipio		Unclassifiable/Attainment.		
Caguas Municipio		Unclassifiable/Attainment.		
Camuy Municipio		Unclassifiable/Attainment.		
Canóvanas Municipio		Unclassifiable/Attainment.		
Carolina Municipio		Unclassifiable/Attainment.		
Cataño County		Unclassifiable/Attainment.		
Cayey Municipio		Unclassifiable/Attainment.		
Ceiba Municipio		Unclassifiable/Attainment.		
Ciales Municipio		Unclassifiable/Attainment.		
Cidra Municipio		Unclassifiable/Attainment.		
Coamo Municipio		Unclassifiable/Attainment.		
Comerío Municipio		Unclassifiable/Attainment.		
Corozal Municipio		Unclassifiable/Attainment.		
Culebra Municipio		Unclassifiable/Attainment.		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Designated area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Dorado Municipio		Unclassifiable/Attainment.		
Fajardo Municipio		Unclassifiable/Attainment.		
Florida Municipio		Unclassifiable/Attainment.		
Guánica Municipio		Unclassifiable/Attainment.		
Guayama Municipio		Unclassifiable/Attainment.		
Guayanilla Municipio		Unclassifiable/Attainment.		
Guaynabo County		Unclassifiable/Attainment.		
Gurabo Municipio		Unclassifiable/Attainment.		
Hatillo Municipio		Unclassifiable/Attainment.		
Hormigueros Municipio		Unclassifiable/Attainment.		
Humacao Municipio		Unclassifiable/Attainment.		
Isabela Municipio		Unclassifiable/Attainment.		
Jayuya Municipio		Unclassifiable/Attainment.		
Juana Díaz Municipio		Unclassifiable/Attainment.		
Juncos Municipio		Unclassifiable/Attainment.		
Lajas Municipio		Unclassifiable/Attainment.		
Lares Municipio		Unclassifiable/Attainment.		
Las Marías Municipio		Unclassifiable/Attainment.		
Las Piedras Municipio		Unclassifiable/Attainment.		
Loíza Municipio		Unclassifiable/Attainment.		
Luquillo Municipio		Unclassifiable/Attainment.		
Manatí Municipio		Unclassifiable/Attainment.		
Maricao Municipio		Unclassifiable/Attainment.		
Maunabo Municipio		Unclassifiable/Attainment.		
Mayagnez Municipio		Unclassifiable/Attainment.		
Moca Municipio		Unclassifiable/Attainment.		
Morovis Municipio		Unclassifiable/Attainment.		
Naguabo Municipio		Unclassifiable/Attainment.		
Naranjito Municipio		Unclassifiable/Attainment.		
Orocovis Municipio		Unclassifiable/Attainment.		
Patillas Municipio		Unclassifiable/Attainment.		
Peñuelas Municipio		Unclassifiable/Attainment.		
Ponce Municipio		Unclassifiable/Attainment.		
Quebradillas Municipio		Unclassifiable/Attainment.		
Rincón Municipio		Unclassifiable/Attainment.		
Río Grande Municipio		Unclassifiable/Attainment.		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Designated area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Sabana Grande Municipio		Unclassifiable/Attainment.		
Salinas Municipio		Unclassifiable/Attainment.		
San Germán Municipio		Unclassifiable/Attainment.		
San Juan Municipio		Unclassifiable/Attainment.		
San Lorenzo Municipio		Unclassifiable/Attainment.		
San Sebastián Municipio		Unclassifiable/Attainment.		
Santa Isabel Municipio		Unclassifiable/Attainment.		
Toa Alta Municipio		Unclassifiable/Attainment.		
Toa Baja Municipio		Unclassifiable/Attainment.		
Trujillo Alto Municipio		Unclassifiable/Attainment		
Utuado Municipio		Unclassifiable/Attainment		
Vega Alta Municipio		Unclassifiable/Attainment		
Vega Baja Municipio		Unclassifiable/Attainment		
Vieques Municipio		Unclassifiable/Attainment		
Villalba Municipio		Unclassifiable/Attainment		
Yabucoa Municipio		Unclassifiable/Attainment		
Yauco Municipio		Unclassifiable/Attainment		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Puerto Rico—2012 Annual $PM_{2.5}$ NAAQS [Primary]

Designated area [1]	Designation		Classification	
	Date [2]	Type	Date [2]	Type
Territory wide:				
Adjuntas Municipio		Unclassifiable		
Aguada Municipio		Unclassifiable		
Aguadilla Municipio		Unclassifiable		
Aguas Buenas Municipio		Unclassifiable		
Aibonito Municipio		Unclassifiable		
Añasco Municipio		Unclassifiable		
Arecibo Municipio		Unclassifiable		

[1] *Includes areas of Indian country located in each county or area, except as otherwise specified.*

[2] *This date is April 15, 2015, unless otherwise noted.*

Designated area [1]	Designation		Classification	
	Date [2]	Type	Date [2]	Type
Arroyo Municipio		Unclassifiable		
Barceloneta Municipio		Unclassifiable		
Barranquitas Municipio		Unclassifiable		
Bayamón County		Unclassifiable		
Cabo Rojo Municipio		Unclassifiable		
Caguas Municipio		Unclassifiable		
Camuy Municipio		Unclassifiable		
Canóvanas Municipio		Unclassifiable		
Carolina Municipio		Unclassifiable		
Cataño County		Unclassifiable		
Cayey Municipio		Unclassifiable		
Ceiba Municipio		Unclassifiable		
Ciales Municipio		Unclassifiable		
Cidra Municipio		Unclassifiable		
Coamo Municipio		Unclassifiable		
Comerío Municipio		Unclassifiable		
Corozal Municipio		Unclassifiable		
Culebra Municipio		Unclassifiable		
Dorado Municipio		Unclassifiable		
Fajardo Municipio		Unclassifiable		
Florida Municipio		Unclassifiable		
Guánica Municipio		Unclassifiable		
Guayama Municipio		Unclassifiable		
Guayanilla Municipio		Unclassifiable		
Guaynabo County		Unclassifiable		
Gurabo Municipio		Unclassifiable		
Hatillo Municipio		Unclassifiable		
Hormigueros Municipio		Unclassifiable		
Humacao Municipio		Unclassifiable		
Isabela Municipio		Unclassifiable		
Jayuya Municipio		Unclassifiable		
Juana Díaz Municipio		Unclassifiable		
Juncos Municipio		Unclassifiable		
Lajas Municipio		Unclassifiable		
Lares Municipio		Unclassifiable		
Las Marías Municipio		Unclassifiable		

[1] *Includes areas of Indian country located in each county or area, except as otherwise specified.*

[2] *This date is April 15, 2015, unless otherwise noted.*

Designated area [1]	Designation		Classification	
	Date [2]	Type	Date [2]	Type
Las Piedras Municipio		Unclassifiable		
Loíza Municipio		Unclassifiable		
Luquillo Municipio		Unclassifiable		
Manatí Municipio		Unclassifiable		
Maricao Municipio		Unclassifiable		
Maunabo Municipio		Unclassifiable		
Mayagnez Municipio		Unclassifiable		
Moca Municipio		Unclassifiable		
Morovis Municipio		Unclassifiable		
Naguabo Municipio		Unclassifiable		
Naranjito Municipio		Unclassifiable		
Orocovis Municipio		Unclassifiable		
Patillas Municipio		Unclassifiable		
Peñuelas Municipio		Unclassifiable		
Ponce Municipio		Unclassifiable		
Quebradillas Municipio		Unclassifiable		
Rincón Municipio		Unclassifiable		
Río Grande Municipio		Unclassifiable		
Sabana Grande Municipio		Unclassifiable		
Salinas Municipio		Unclassifiable		
San Germán Municipio		Unclassifiable		
San Juan Municipio		Unclassifiable		
San Lorenzo Municipio		Unclassifiable		
San Sebastián Municipio		Unclassifiable		
Santa Isabel Municipio		Unclassifiable		
Toa Alta Municipio		Unclassifiable		
Toa Baja County		Unclassifiable		
Trujillo Alto Municipio		Unclassifiable		
Utuado Municipio		Unclassifiable		
Vega Alta Municipio		Unclassifiable		
Vega Baja Municipio		Unclassifiable		
Vieques Municipio		Unclassifiable		
Villalba Municipio		Unclassifiable		
Yabucoa Municipio		Unclassifiable		

[1] *Includes areas of Indian country located in each county or area, except as otherwise specified.*

[2] *This date is April 15, 2015, unless otherwise noted.*

Designated area [1]	Designation		Classification	
	Date [2]	Type	Date [2]	Type
Yauco Municipio		Unclassifiable		

[1] *Includes areas of Indian country located in each county or area, except as otherwise specified.*

[2] *This date is April 15, 2015, unless otherwise noted.*

Puerto Rico—1997 24-Hour $PM_{2.5}$ NAAQS [Primary and Secondary]

Designated area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Territory wide:				
Adjuntas Municipio		Unclassifiable/Attainment		
Aguada Municipio		Unclassifiable/Attainment		
Aguadilla Municipio		Unclassifiable/Attainment		
Aguas Buenas Municipio		Unclassifiable/Attainment		
Aibonito Municipio		Unclassifiable/Attainment		
Añasco Municipio		Unclassifiable/Attainment		
Arecibo Municipio		Unclassifiable/Attainment		
Arroyo Municipio		Unclassifiable/Attainment		
Barceloneta Municipio		Unclassifiable/Attainment		
Barranquitas Municipio		Unclassifiable/Attainment		
Bayamón County		Unclassifiable/Attainment		
Cabo Rojo Municipio		Unclassifiable/Attainment		
Caguas Municipio		Unclassifiable/Attainment		
Camuy Municipio		Unclassifiable/Attainment		
Canóvanas Municipio		Unclassifiable/Attainment		
Carolina Municipio		Unclassifiable/Attainment		
Cataño County		Unclassifiable/Attainment		
Cayey Municipio		Unclassifiable/Attainment		
Ceiba Municipio		Unclassifiable/Attainment		
Ciales Municipio		Unclassifiable/Attainment		
Cidra Municipio		Unclassifiable/Attainment		
Coamo Municipio		Unclassifiable/Attainment		
Comerío Municipio		Unclassifiable/Attainment		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Designated area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Corozal Municipio		Unclassifiable/Attainment		
Culebra Municipio		Unclassifiable/Attainment		
Dorado Municipio		Unclassifiable/Attainment		
Fajardo Municipio		Unclassifiable/Attainment		
Florida Municipio		Unclassifiable/Attainment		
Guánica Municipio		Unclassifiable/Attainment		
Guayama Municipio		Unclassifiable/Attainment		
Guayanilla Municipio		Unclassifiable/Attainment		
Guaynabo County		Unclassifiable/Attainment		
Gurabo Municipio		Unclassifiable/Attainment		
Hatillo Municipio		Unclassifiable/Attainment		
Hormigueros Municipio		Unclassifiable/Attainment		
Humacao Municipio		Unclassifiable/Attainment		
Isabela Municipio		Unclassifiable/Attainment		
Jayuya Municipio		Unclassifiable/Attainment		
Juana Díaz Municipio		Unclassifiable/Attainment		
Juncos Municipio		Unclassifiable/Attainment		
Lajas Municipio		Unclassifiable/Attainment		
Lares Municipio		Unclassifiable/Attainment		
Las Marías Municipio		Unclassifiable/Attainment		
Las Piedras Municipio		Unclassifiable/Attainment		
Loíza Municipio		Unclassifiable/Attainment		
Luquillo Municipio		Unclassifiable/Attainment		
Manatí Municipio		Unclassifiable/Attainment		
Maricao Municipio		Unclassifiable/Attainment		
Maunabo Municipio		Unclassifiable/Attainment		
Mayagnez Municipio		Unclassifiable/Attainment		
Moca Municipio		Unclassifiable/Attainment		
Morovis Municipio		Unclassifiable/Attainment		
Naguabo Municipio		Unclassifiable/Attainment		
Naranjito Municipio		Unclassifiable/Attainment		
Orocovis Municipio		Unclassifiable/Attainment		
Patillas Municipio		Unclassifiable/Attainment		
Peñuelas Municipio		Unclassifiable/Attainment		
Ponce Municipio		Unclassifiable/Attainment		
Quebradillas Municipio		Unclassifiable/Attainment		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Designated area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Rincón Municipio		Unclassifiable/Attainment		
Río Grande Municipio		Unclassifiable/Attainment		
Sabana Grande Municipio		Unclassifiable/Attainment		
Salinas Municipio		Unclassifiable/Attainment		
San Germán Municipio		Unclassifiable/Attainment		
San Juan Municipio		Unclassifiable/Attainment		
San Lorenzo Municipio		Unclassifiable/Attainment		
San Sebastián Municipio		Unclassifiable/Attainment		
Santa Isabel Municipio		Unclassifiable/Attainment		
Toa Alta Municipio		Unclassifiable/Attainment		
Toa Baja County		Unclassifiable/Attainment		
Trujillo Alto Municipio		Unclassifiable/Attainment		
Utuado Municipio		Unclassifiable/Attainment		
Vega Alta Municipio		Unclassifiable/Attainment		
Vega Baja Municipio		Unclassifiable/Attainment		
Vieques Municipio		Unclassifiable/Attainment		
Villalba Municipio		Unclassifiable/Attainment		
Yabucoa Municipio		Unclassifiable/Attainment		
Yauco Municipio		Unclassifiable/Attainment		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Puerto Rico—2006 24-Hour $PM_{2.5}$ NAAQS [Primary and Secondary]

Designated Area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Territory wide:				
Adjuntas Municipio		Unclassifiable/Attainment.		
Aguada Municipio		Unclassifiable/Attainment.		
Aguadilla Municipio		Unclassifiable/Attainment.		
Aguas Buenas Municipio		Unclassifiable/Attainment.		
Aibonito Municipio		Unclassifiable/Attainment.		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 30 days after November 13, 2009, unless otherwise noted.*

Designated Area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Añasco Municipio		Unclassifiable/Attainment.		
Arecibo Municipio		Unclassifiable/Attainment.		
Arroyo Municipio		Unclassifiable/Attainment.		
Barceloneta Municipio		Unclassifiable/Attainment.		
Barranquitas Municipio		Unclassifiable/Attainment.		
Bayamón County		Unclassifiable/Attainment.		
Cabo Rojo Municipio		Unclassifiable/Attainment.		
Caguas Municipio		Unclassifiable/Attainment.		
Camuy Municipio		Unclassifiable/Attainment.		
Canóvanas Municipio		Unclassifiable/Attainment.		
Carolina Municipio		Unclassifiable/Attainment.		
Cataño County		Unclassifiable/Attainment.		
Cayey Municipio		Unclassifiable/Attainment.		
Ceiba Municipio		Unclassifiable/Attainment.		
Ciales Municipio		Unclassifiable/Attainment.		
Cidra Municipio		Unclassifiable/Attainment.		
Coamo Municipio		Unclassifiable/Attainment.		
Comerío Municipio		Unclassifiable/Attainment.		
Corozal Municipio		Unclassifiable/Attainment.		
Culebra Municipio		Unclassifiable/Attainment.		
Dorado Municipio		Unclassifiable/Attainment.		
Fajardo Municipio		Unclassifiable/Attainment.		
Florida Municipio		Unclassifiable/Attainment.		
Guánica Municipio		Unclassifiable/Attainment.		
Guayama Municipio		Unclassifiable/Attainment.		
Guayanilla Municipio		Unclassifiable/Attainment.		
Guaynabo County		Unclassifiable/Attainment.		
Gurabo Municipio		Unclassifiable/Attainment.		
Hatillo Municipio		Unclassifiable/Attainment.		
Hormigueros Municipio		Unclassifiable/Attainment.		
Humacao Municipio		Unclassifiable/Attainment.		
Isabela Municipio		Unclassifiable/Attainment.		
Jayuya Municipio		Unclassifiable/Attainment.		
Juana Díaz Municipio		Unclassifiable/Attainment.		
Juncos Municipio		Unclassifiable/Attainment.		
Lajas Municipio		Unclassifiable/Attainment.		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 30 days after November 13, 2009, unless otherwise noted.*

Designated Area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Lares Municipio		Unclassifiable/Attainment.		
Las Marías Municipio		Unclassifiable/Attainment.		
Las Piedras Municipio		Unclassifiable/Attainment.		
Loíza Municipio		Unclassifiable/Attainment.		
Luquillo Municipio		Unclassifiable/Attainment.		
Manatí Municipio		Unclassifiable/Attainment.		
Maricao Municipio		Unclassifiable/Attainment.		
Maunabo Municipio		Unclassifiable/Attainment.		
Mayagnez Municipio		Unclassifiable/Attainment.		
Moca Municipio		Unclassifiable/Attainment.		
Morovis Municipio		Unclassifiable/Attainment.		
Naguabo Municipio		Unclassifiable/Attainment.		
Naranjito Municipio		Unclassifiable/Attainment.		
Orocovis Municipio		Unclassifiable/Attainment.		
Patillas Municipio		Unclassifiable/Attainment.		
Peñuelas Municipio		Unclassifiable/Attainment.		
Ponce Municipio		Unclassifiable/Attainment.		
Quebradillas Municipio		Unclassifiable/Attainment.		
Rincón Municipio		Unclassifiable/Attainment.		
Río Grande Municipio		Unclassifiable/Attainment.		
Sabana Grande Municipio		Unclassifiable/Attainment.		
Salinas Municipio		Unclassifiable/Attainment.		
San Germán Municipio		Unclassifiable/Attainment.		
San Juan Municipio		Unclassifiable/Attainment.		
San Lorenzo Municipio		Unclassifiable/Attainment.		
San Sebastián Municipio		Unclassifiable/Attainment.		
Santa Isabel Municipio		Unclassifiable/Attainment.		
Toa Alta Municipio		Unclassifiable/Attainment.		
Toa Baja County		Unclassifiable/Attainment.		
Trujillo Alto Municipio		Unclassifiable/Attainment.		
Utuado Municipio		Unclassifiable/Attainment.		
Vega Alta Municipio		Unclassifiable/Attainment.		
Vega Baja Municipio		Unclassifiable/Attainment.		
Vieques Municipio		Unclassifiable/Attainment.		
Villalba Municipio		Unclassifiable/Attainment.		
Yabucoa Municipio		Unclassifiable/Attainment.		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 30 days after November 13, 2009, unless otherwise noted.*

Designated Area	Designation [a]		Classification	
	Date [1]	Type	Date	Type
Yauco Municipio		Unclassifiable/Attainment.		

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 30 days after November 13, 2009, unless otherwise noted.*

Puerto Rico—NO_2 (1971 Annual Standard)

Designated area	Does not meet primary standards	Cannot be classified or better than national standards
Puerto Rico AQCR		X

Puerto Rico—NO_2 (2010 1-Hour Standard)

Designated area	Designation [a]	
	Date [1]	Type
Adjuntas Municipio		Unclassifiable/Attainment.
Aguada Municipio		Unclassifiable/Attainment.
Aguadilla Municipio		Unclassifiable/Attainment.
Aguas Buenas Municipio		Unclassifiable/Attainment.
Aibonito Municipio		Unclassifiable/Attainment.
Añasco Municipio		Unclassifiable/Attainment.
Arecibo Municipio		Unclassifiable/Attainment.
Arroyo Municipio		Unclassifiable/Attainment.
Barceloneta Municipio		Unclassifiable/Attainment.
Barranquitas Municipio		Unclassifiable/Attainment.
Bayamón County		Unclassifiable/Attainment.
Cabo Rojo Municipio		Unclassifiable/Attainment.
Caguas Municipio		Unclassifiable/Attainment.
Camuy Municipio		Unclassifiable/Attainment.
Canóvanas Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after October 31, 2011, unless otherwise noted.*

Designated area	Designation [a]	
	Date [1]	Type
Carolina Municipio		Unclassifiable/Attainment.
Cataño County		Unclassifiable/Attainment.
Cayey Municipio		Unclassifiable/Attainment.
Ceiba Municipio		Unclassifiable/Attainment.
Ciales Municipio		Unclassifiable/Attainment.
Cidra Municipio		Unclassifiable/Attainment.
Coamo Municipio		Unclassifiable/Attainment.
Comerío Municipio		Unclassifiable/Attainment.
Corozal Municipio		Unclassifiable/Attainment.
Culebra Municipio		Unclassifiable/Attainment.
Dorado Municipio		Unclassifiable/Attainment.
Fajardo Municipio		Unclassifiable/Attainment.
Florida Municipio		Unclassifiable/Attainment.
Guánica Municipio		Unclassifiable/Attainment.
Guayama Municipio		Unclassifiable/Attainment.
Guayanilla Municipio		Unclassifiable/Attainment.
Guaynabo County		Unclassifiable/Attainment.
Gurabo Municipio		Unclassifiable/Attainment.
Hatillo Municipio		Unclassifiable/Attainment.
Hormigueros Municipio		Unclassifiable/Attainment.
Humacao Municipio		Unclassifiable/Attainment.
Isabela Municipio		Unclassifiable/Attainment.
Jayuya Municipio		Unclassifiable/Attainment.
Juana Díaz Municipio		Unclassifiable/Attainment.
Juncos Municipio		Unclassifiable/Attainment.
Lajas Municipio		Unclassifiable/Attainment.
Lares Municipio		Unclassifiable/Attainment.
Las Marías Municipio		Unclassifiable/Attainment.
Las Piedras Municipio		Unclassifiable/Attainment.
Loíza Municipio		Unclassifiable/Attainment.
Luquillo Municipio		Unclassifiable/Attainment.
Manatí Municipio		Unclassifiable/Attainment.
Maricao Municipio		Unclassifiable/Attainment.
Maunabo Municipio		Unclassifiable/Attainment.
Mayagnez Municipio		Unclassifiable/Attainment.
Moca Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after October 31, 2011, unless otherwise noted.*

Designated area	Designation [a]	
	Date [1]	Type
Morovis Municipio		Unclassifiable/Attainment.
Naguabo Municipio		Unclassifiable/Attainment.
Naranjito Municipio		Unclassifiable/Attainment.
Orocovis Municipio		Unclassifiable/Attainment.
Patillas Municipio		Unclassifiable/Attainment.
Peñuelas Municipio		Unclassifiable/Attainment.
Ponce Municipio		Unclassifiable/Attainment.
Quebradillas Municipio		Unclassifiable/Attainment.
Rincón Municipio		Unclassifiable/Attainment.
Río Grande Municipio		Unclassifiable/Attainment.
Sabana Grande Municipio		Unclassifiable/Attainment.
Salinas Municipio		Unclassifiable/Attainment.
San Germán Municipio		Unclassifiable/Attainment.
San Juan Municipio		Unclassifiable/Attainment.
San Lorenzo Municipio		Unclassifiable/Attainment.
San Sebastián Municipio		Unclassifiable/Attainment.
Santa Isabel Municipio		Unclassifiable/Attainment.
Toa Alta Municipio		Unclassifiable/Attainment.
Toa Baja County		Unclassifiable/Attainment.
Trujillo Alto Municipio		Unclassifiable/Attainment.
Utuado Municipio		Unclassifiable/Attainment.
Vega Alta Municipio		Unclassifiable/Attainment.
Vega Baja Municipio		Unclassifiable/Attainment.
Vieques Municipio		Unclassifiable/Attainment.
Villalba Municipio		Unclassifiable/Attainment.
Yabucoa Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after October 31, 2011, unless otherwise noted.*

Designated area	Designation [a]	
	Date [1]	Type
Yauco Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after October 31, 2011, unless otherwise noted.*

Puerto Rico—1997 8-Hour Ozone NAAQS
[Primary and Secondary]

Designated area	Designation		Category/classification	
	Date [1]	Type	Date [1]	Type
Statewide		Unclassifiable/Attainment		
Adjuntas Municipio				
Aguada Municipio				
Aguadilla Municipio				
Aguas Buenas Municipio				
Aibonito Municipio				
Añasco Municipio				
Arecibo Municipio				
Arroyo Municipio				
Barceloneta Municipio				
Barranquitas Municipio				
Bayamón County				
Cabo Rojo Municipio				
Caguas Municipio				
Camuy Municipio				
Canóvanas Municipio				
Carolina Municipio				
Cataño County				
Cayey Municipio				
Ceiba Municipio				
Ciales Municipio				
Cidra Municipio				
Coamo Municipio				
Comerío Municipio				
Corozal Municipio				

[1] *This date is June 15, 2004, unless otherwise noted.*

Designated area	Designation		Category/classification	
	Date [1]	Type	Date [1]	Type
Culebra Municipio				
Dorado Municipio				
Fajardo Municipio				
Florida Municipio				
Guánica Municipio				
Guayama Municipio				
Guayanilla Municipio				
Guaynabo County				
Gurabo Municipio				
Hatillo Municipio				
Hormigueros Municipio				
Humacao Municipio				
Isabela Municipio				
Jayuya Municipio				
Juana Díaz Municipio				
Juncos Municipio				
Lajas Municipio				
Lares Municipio				
Las Marías Municipio				
Las Piedras Municipio				
Loíza Municipio				
Luquillo Municipio				
Manatí Municipio				
Maricao Municipio				
Maunabo Municipio				
Mayagüez Municipio				
Moca Municipio				
Morovis Municipio				
Naguabo Municipio				
Naranjito Municipio				
Orocovis Municipio				
Patillas Municipio				
Peñuelas Municipio				
Ponce Municipio				
Quebradillas Municipio				
Rincón Municipio				
Río Grande Municipio				

[1] *This date is June 15, 2004, unless otherwise noted.*

Designated area	Designation		Category/classification	
	Date [1]	Type	Date [1]	Type
Sabana Grande Municipio				
Salinas Municipio				
San Germán Municipio				
San Juan Municipio				
San Lorenzo Municipio				
San Sebastián Municipio				
Santa Isabel Municipio				
Toa Alta Municipio				
Toa Baja County				
Trujillo Alto Municipio				
Utuado Municipio				
Vega Alta Municipio				
Vega Baja Municipio				
Vieques Municipio				
Villalba Municipio				
Yabucoa Municipio				

[1] *This date is June 15, 2004, unless otherwise noted.*

Designated area	Designation		Category/classification	
	Date [1]	Type	Date [1]	Type
Yauco Municipio				

[1] *This date is June 15, 2004, unless otherwise noted.*

Puerto Rico—2008 8-Hour Ozone NAAQS
[Primary and Secondary]

Designated area [1]	Designation		Classification	
	Date [2]	Type	Date [2]	Type
All of Puerto Rico AQCR 244		Unclassifiable/Attainment		

[1] *Includes any Indian country in each county or area, unless otherwise specified.*

[2] *This date is July 20, 2012, unless otherwise noted.*

Puerto Rico—2015 8-Hour Ozone NAAQS
[Primary and Secondary]

Designated area [1]	Designation		Classification	
	Date [2]	Type	Date	Type
All of Puerto Rico AQCR 244		Attainment/Unclassifiable		

[1] *Includes any Indian country in each county or area, unless otherwise specified. EPA is not determining the boundaries of any area of Indian country in this table, including any area of Indian country located in the larger designation area. The inclusion of any Indian country in the designation area is not a determination that the state has regulatory authority under the Clean Air Act for such Indian country.*

[2] *This date is January 16, 2018, unless otherwise noted.*

PUERTO RICO—$PM_{2.5}$ (ANNUAL NAAQS)

Designated area	Designation [a]	
	Date [1]	Type
Statewide:		
Adjuntas Municipio		Unclassifiable/Attainment.
Aguada Municipio		Unclassifiable/Attainment.
Aguadilla Municipio		Unclassifiable/Attainment.
Aguas Buenas Municipio		Unclassifiable/Attainment.
Aibonito Municipio		Unclassifiable/Attainment.
Añasco Municipio		Unclassifiable/Attainment.
Arecibo Municipio		Unclassifiable/Attainment.
Arroyo Municipio		Unclassifiable/Attainment.
Barceloneta Municipio		Unclassifiable/Attainment.
Barranquitas Municipio		Unclassifiable/Attainment.
Bayamón County		Unclassifiable/Attainment.
Cabo Rojo Municipio		Unclassifiable/Attainment.
Caguas Municipio		Unclassifiable/Attainment.
Camuy Municipio		Unclassifiable/Attainment.
Canóvanas Municipio		Unclassifiable/Attainment.
Carolina Municipio		Unclassifiable/Attainment.
Cataño County		Unclassifiable/Attainment.
Cayey Municipio		Unclassifiable/Attainment.
Ceiba Municipio		Unclassifiable/Attainment.
Ciales Municipio		Unclassifiable/Attainment.
Cidra Municipio		Unclassifiable/Attainment.
Coamo Municipio		Unclassifiable/Attainment.
Comerío Municipio		Unclassifiable/Attainment.
Corozal Municipio		Unclassifiable/Attainment.
Culebra Municipio		Unclassifiable/Attainment.
Dorado Municipio		Unclassifiable/Attainment.
Fajardo Municipio		Unclassifiable/Attainment.
Florida Municipio		Unclassifiable/Attainment.
Guánica Municipio		Unclassifiable/Attainment.
Guayama Municipio		Unclassifiable/Attainment.
Guayanilla Municipio		Unclassifiable/Attainment.
Guaynabo County		Unclassifiable/Attainment.
Gurabo Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Designated area	Designation [a]	
	Date [1]	Type
Hatillo Municipio		Unclassifiable/Attainment.
Hormigueros Municipio		Unclassifiable/Attainment.
Humacao Municipio		Unclassifiable/Attainment.
Isabela Municipio		Unclassifiable/Attainment.
Jayuya Municipio		Unclassifiable/Attainment.
Juana Díaz Municipio		Unclassifiable/Attainment.
Juncos Municipio		Unclassifiable/Attainment.
Lajas Municipio		Unclassifiable/Attainment.
Lares Municipio		Unclassifiable/Attainment.
Las Marías Municipio		Unclassifiable/Attainment.
Las Piedras Municipio		Unclassifiable/Attainment.
Loíza Municipio		Unclassifiable/Attainment.
Luquillo Municipio		Unclassifiable/Attainment.
Manatí Municipio		Unclassifiable/Attainment.
Maricao Municipio		Unclassifiable/Attainment.
Maunabo Municipio		Unclassifiable/Attainment.
Mayagnez Municipio		Unclassifiable/Attainment.
Moca Municipio		Unclassifiable/Attainment.
Morovis Municipio		Unclassifiable/Attainment.
Naguabo Municipio		Unclassifiable/Attainment.
Naranjito Municipio		Unclassifiable/Attainment.
Orocovis Municipio		Unclassifiable/Attainment.
Patillas Municipio		Unclassifiable/Attainment.
Peñuelas Municipio		Unclassifiable/Attainment.
Ponce Municipio		Unclassifiable/Attainment.
Quebradillas Municipio		Unclassifiable/Attainment.
Rincón Municipio		Unclassifiable/Attainment.
Río Grande Municipio		Unclassifiable/Attainment.
Sabana Grande Municipio		Unclassifiable/Attainment.
Salinas Municipio		Unclassifiable/Attainment.
San Germán Municipio		Unclassifiable/Attainment.
San Juan Municipio		Unclassifiable/Attainment.
San Lorenzo Municipio		Unclassifiable/Attainment.
San Sebastián Municipio		Unclassifiable/Attainment.
Santa Isabel Municipio		Unclassifiable/Attainment.
Toa Alta Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Designated area	Designation [a]	
	Date [1]	Type
Toa Baja County		Unclassifiable/Attainment.
Trujillo Alto Municipio		Unclassifiable/Attainment.
Utuado Municipio		Unclassifiable/Attainment.
Vega Alta Municipio		Unclassifiable/Attainment.
Vega Baja Municipio		Unclassifiable/Attainment.
Vieques Municipio		Unclassifiable/Attainment.
Villalba Municipio		Unclassifiable/Attainment.
Yabucoa Municipio		Unclassifiable/Attainment.
Yauco Municipio		Unclassifiable/Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *This date is 90 days after January 5, 2005, unless otherwise noted.*

Puerto Rico—2008 Lead NAAQS

Designated area	Designation for the 2008 NAAQS [a]	
	Date [1]	Type
Arecibo, PR:		
Arecibo Municipio (part)		Nonattainment.
Area bounded by 4 km from the boundaries of the Battery Recycling Company facility.		
Rest of State		Unclassifiable/ Attainment.

[a] *Includes Indian Country located in each county or area, except as otherwise specified.*

[1] *December 31, 2011 unless otherwise noted.*

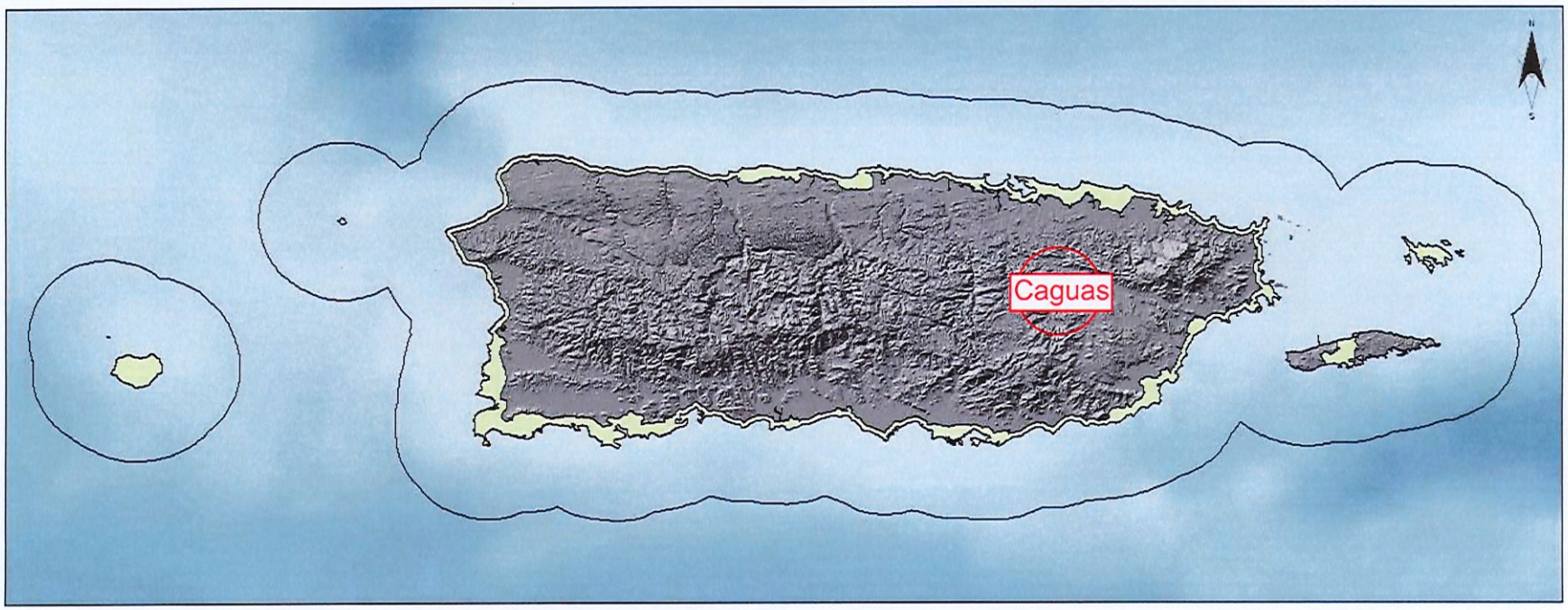
[44 FR 5131, Jan. 25, 1979]

Editorial Note: For Federal Register citations affecting § 81.355, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at *www.govinfo.gov*.

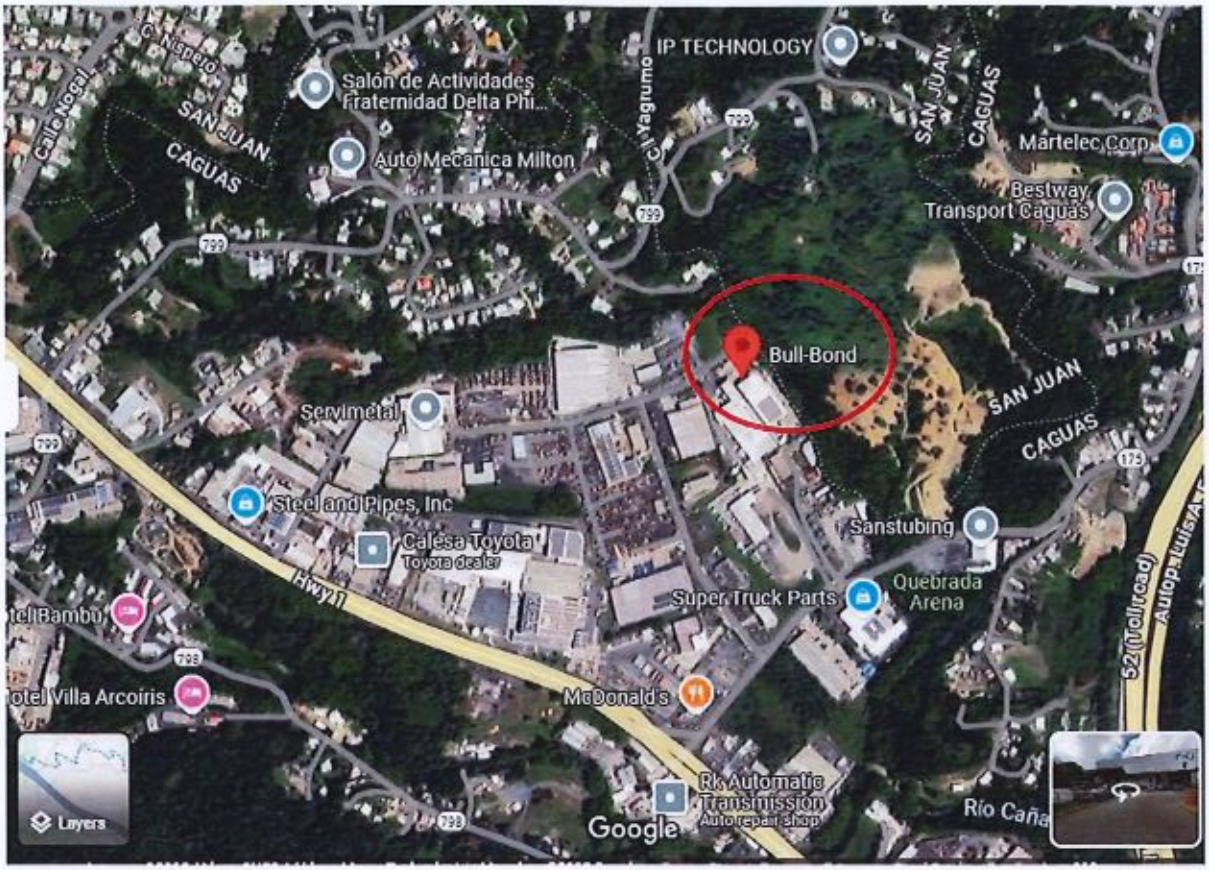
Exhibit 6
Coastal Zone Management

Exhibit 6

ÁMBITO DE APLICACIÓN DEL PROGRAMA DE MANEJO DE LA ZONA COSTANERA DE PUERTO RICO

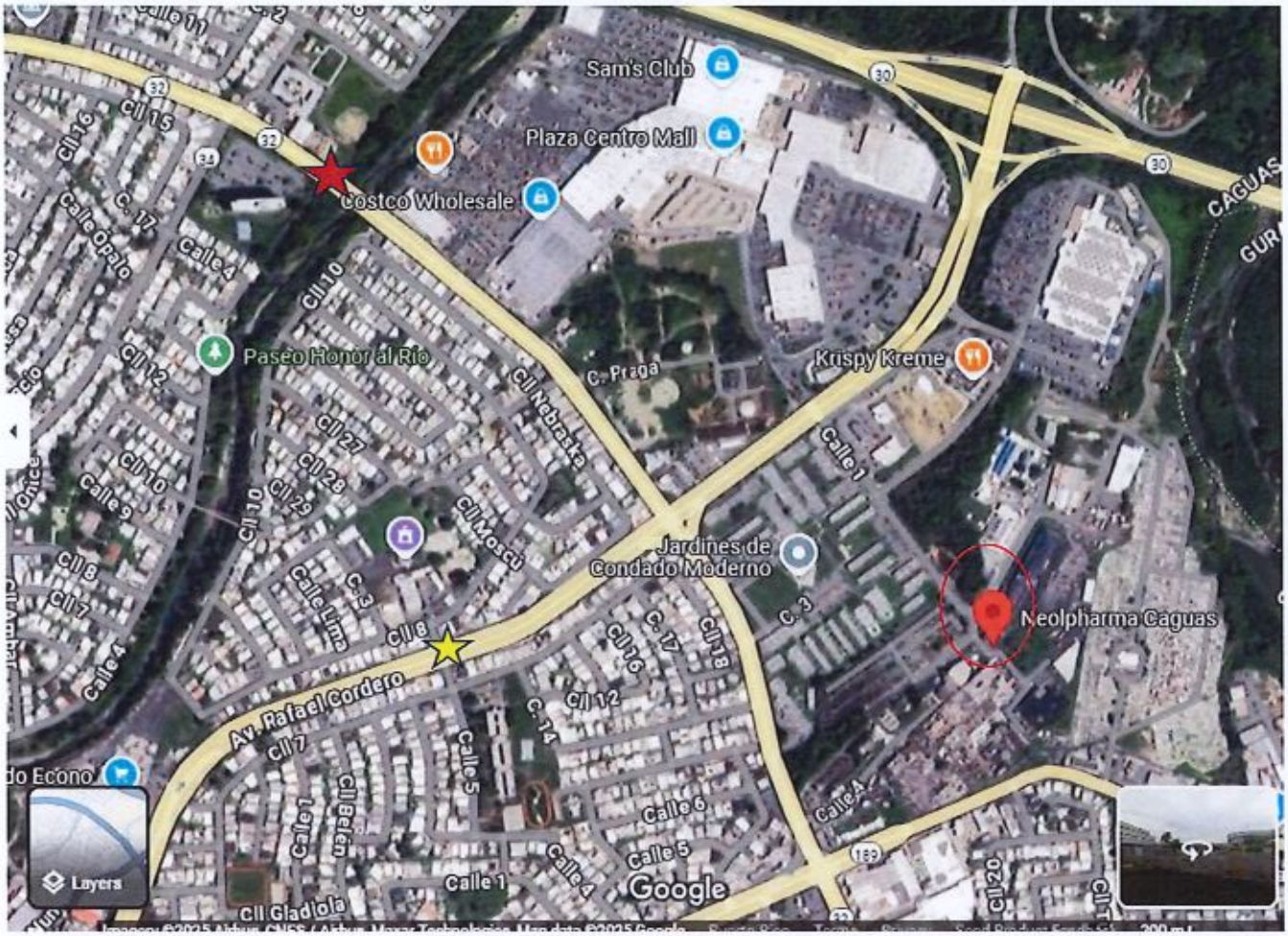


TRI Facility Report: BULL BOND MFG (0072WBLLBNRICAN)



The facility is located farther away, about 0.95 miles from the project. The closest road is PR-799 and Highways 1 and 52.

TRI Facility Report: NEOLPHARMA, INC.

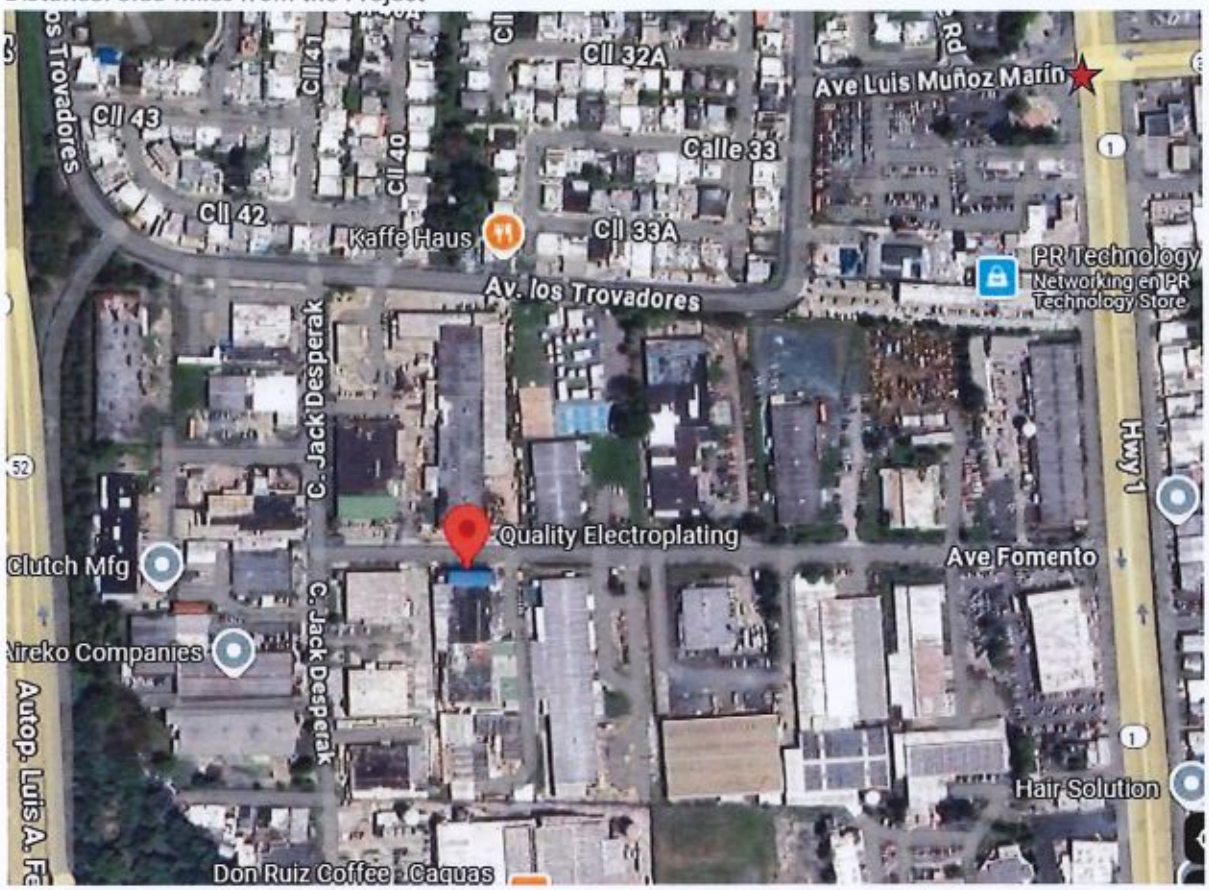


★ **Luis Muñoz Marín Ave.**

★ **Rafael Cordero Ave.**

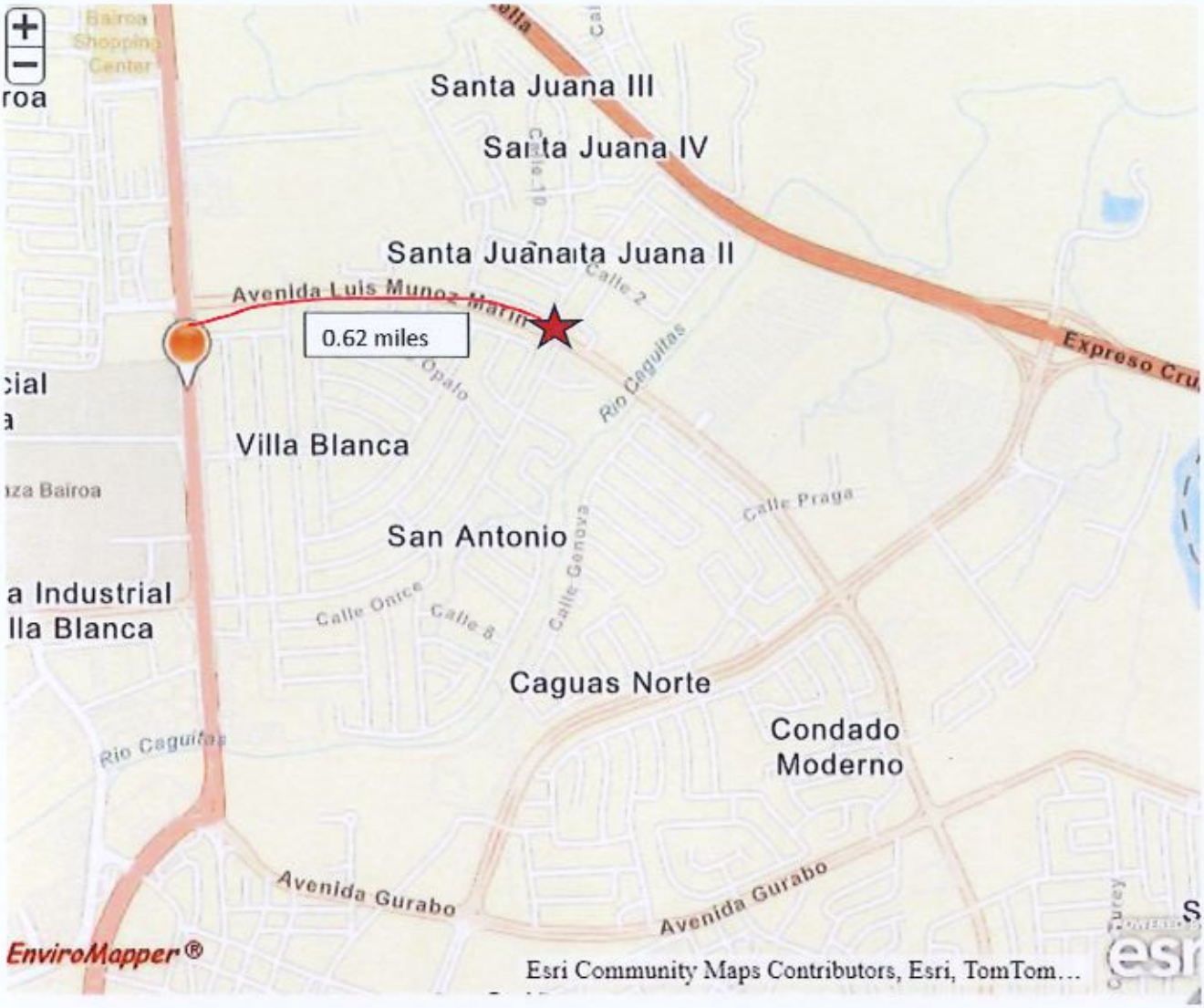
TRI Facility Report: QUALITY ELECTROPLATING CORP (00626QLTYLSTATE)

Distance: 0.89 miles from the Project



Luis Muñoz Marín Ave.

TRI Facility Report: ULTRALUMBER CORP (00625LTRLM6AURB)

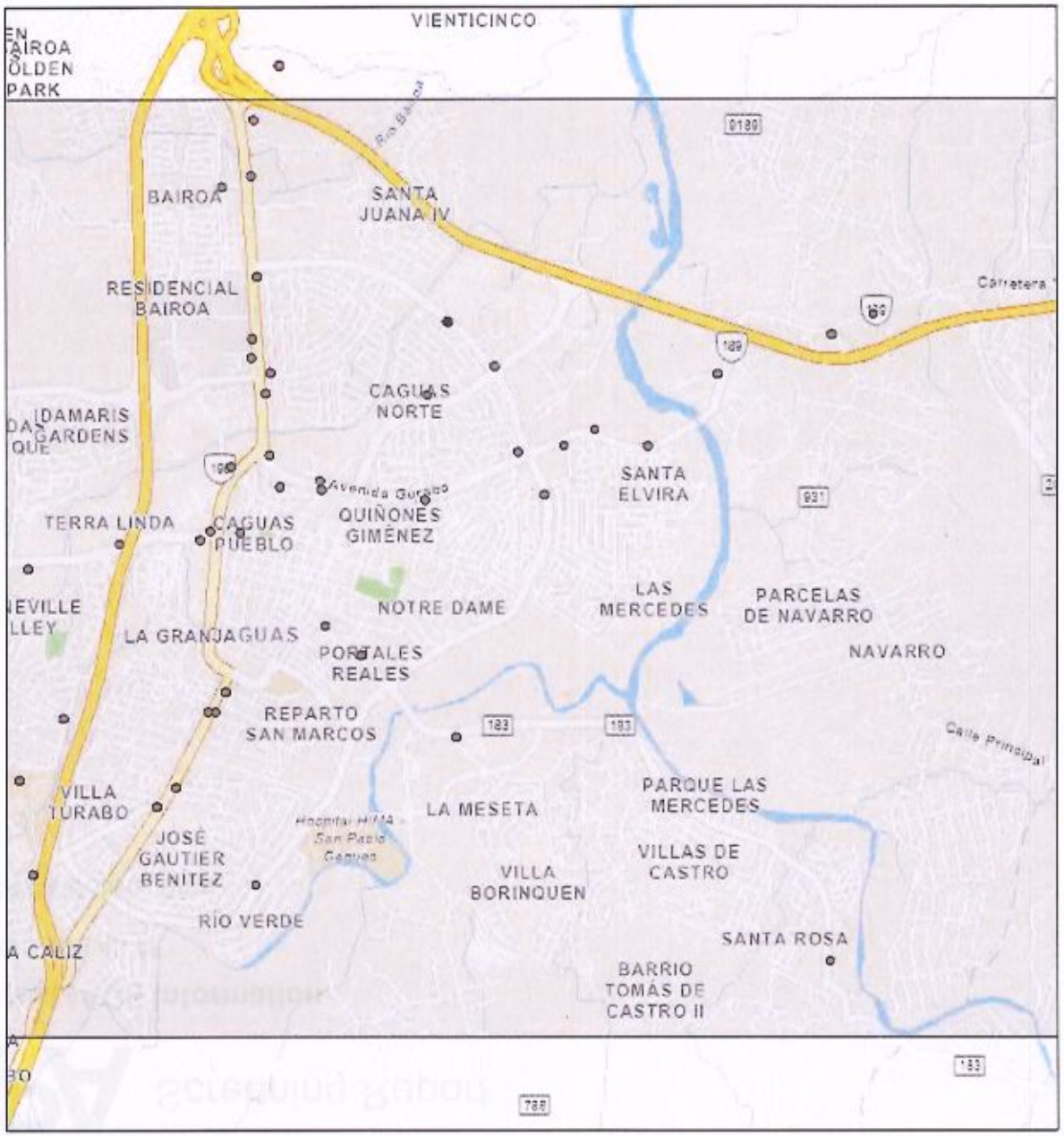


EPA Screening Report

Area of Interest (AOI) Information

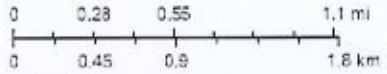
Area : 1,347,395,106.43 ft²

Jul 2 2025 8:44:04 Bolivia Time


VIENTICINCO
BAIROA
SANTA JUANA IV
RESIDENCIAL BAIROA
CAGUAS NORTE
DAMARIS GARDENS
SANTA ELVIRA
TERRA LINDA
CAGUAS PUEBLO
QUIÑONES GIMÉNEZ
NOTRE DAME
LAS MERCEDES
PARCELAS DE NAVARRO
NAVARRO
LA GRANJA
PORTALES REALES
REPARTO SAN MARCOS
VILLA TURABO
JOSÉ GAUTIER BENITEZ
LA MESETA
PARQUE LAS MERCEDES
VILLAS DE CASTRO
VILLA BORINQUEN
RÍO VERDE
SANTA ROSA
BARRIO TOMÁS DE CASTRO II
Avenida Gurabo
Calle Principal
Carretera
1:36,112

Facilities

- Unknown



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Summary

Name	Count	Area(ft²)	Length(ft)
Releases	21	N/A	N/A
Facilities	61	N/A	N/A

Releases

#	Facility_ID	LUST_ID	Name	Address	City
1	*No Data*	93-0064	Juan Delgado Betancourt	Carr 189 km 4.1	Gurabo
2	*No Data*	94-0171	Maaco (S-265-0-55)	Carr. 1 km. 34.2 Bo. Bairoa	Caguas
3	*No Data*	98-0116	Defensa Civil Caguas	Brasil #1 Urb. Bunker	Caguas
4	*No Data*	98-0115	Municipio de Carolina	Carr. 1 km. 37.0	Caguas
5	*No Data*	86-0168	Gulf #147	Carr. 156 Km. 57.7	Caguas
6	*No Data*	86-0204	Gulf # 602 (Antes #186)	Carr 189 km 0.6	Caguas
7	*No Data*	86-0405	Sr. Jose Sánchez/Coqui	Carr 189 km 1.7	Caguas
8	*No Data*	86-1025	Shell 3611	Carr 181 km 22.6	Gurabo
9	*No Data*	86-1093	Esso CO-240	Carr 183 km 4.6	Caguas
10	*No Data*	86-1098	Jose Mendoza	Carr. 172 km 0.5, Urb. Villanueva	Caguas
11	*No Data*	86-1728	Texaco S/S 321	Carr 784 km 2.5	Caguas
12	*No Data*	91-0136	GPR #5225	Carr 183 km 2.6	San Lorenzo
13	*No Data*	86-1667	John Grazel-Graco, Inc.	Carr 181 km 28	Trujillo Alto
14	*No Data*	86-1729	Adán Caraballo S/S #318	Calle Andres A. Rivera Carr 189 Bo. Mamey #125	Gurabo
15	*No Data*	86-0256	Gulf #025	Carr 1 & 172	Caguas
16	*No Data*	86-0266	Gulf s/s 038	Calle Georgetti 3	Caguas
17	*No Data*	86-0346	Gulf #328	Carr. 181 Km. 23.1	Gurabo
18	*No Data*	86-1088	Esso # CO-235	Gautier Benitez # 360	Caguas
19	*No Data*	86-1090	Antonio del Valle Co-237	Carr 189 Int. 768	Caguas
20	*No Data*	86-1094	Esso CO-241	Carr 189 Km 2.6	Caguas
21	*No Data*	86-1089	Esso Hungry Tiger	Carr 1 Esq. Carr. 189 Urb. Paradis	Caguas

#	County	Zip_Code	State	Latitude	Longitude
1	*No Data*	*No Data*	Puerto Rico	18.2460	-66.0028
2	*No Data*	*No Data*	Puerto Rico	18.2435	-66.0338
3	*No Data*	*No Data*	Puerto Rico	18.2267	-66.0425
4	*No Data*	*No Data*	Puerto Rico	18.2181	-66.0424
5	*No Data*	*No Data*	Puerto Rico	18.2334	-66.0463
6	*No Data*	*No Data*	Puerto Rico	18.2370	-66.0301
7	*No Data*	*No Data*	Puerto Rico	18.2389	-66.0201
8	*No Data*	*No Data*	Puerto Rico	18.2722	-65.9661
9	*No Data*	*No Data*	Puerto Rico	18.2071	-65.9992
10	*No Data*	*No Data*	Puerto Rico	18.2112	-66.0614
11	*No Data*	*No Data*	Puerto Rico	18.2163	-66.0721
12	*No Data*	*No Data*	Puerto Rico	18.2181	-66.0076
13	*No Data*	*No Data*	Puerto Rico	18.2327	-65.9642
14	*No Data*	*No Data*	Puerto Rico	18.2544	-65.9701
15	*No Data*	*No Data*	Puerto Rico	18.2197	-66.0413
16	*No Data*	*No Data*	Puerto Rico	18.2274	-66.0295
17	*No Data*	*No Data*	Puerto Rico	18.2681	-65.9652
18	*No Data*	*No Data*	Puerto Rico	18.2108	-66.0466
19	*No Data*	*No Data*	Puerto Rico	18.2366	-66.0251
20	*No Data*	*No Data*	Puerto Rico	18.2395	-66.0122
21	*No Data*	*No Data*	Puerto Rico	18.2387	-66.0352

#	Coordinate_Source	Address_Match_Type	Reported_Date	Status	Substance
1	Geocode	DistanceMarker	*No Data*	Open	*No Data*
2	Geocode	PointAddress	*No Data*	Open	*No Data*
3	Geocode	StreetAddressExt	*No Data*	Open	*No Data*
4	Geocode	DistanceMarker	*No Data*	Open	*No Data*
5	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
6	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
7	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
8	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
9	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
10	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
11	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
12	Geocode	DistanceMarker	*No Data*	No Further Action	*No Data*
13	Geocode	DistanceMarker	*No Data*	Open	*No Data*
14	Geocode	PointAddress	*No Data*	Open	*No Data*
15	Geocode	StreetInt	*No Data*	Open	*No Data*
16	Geocode	PointAddress	*No Data*	Open	*No Data*
17	Geocode	DistanceMarker	*No Data*	Open	*No Data*
18	Geocode	StreetAddress	*No Data*	Open	*No Data*
19	Geocode	StreetAddressExt	*No Data*	Open	*No Data*
20	Geocode	DistanceMarker	*No Data*	Open	*No Data*
21	Geocode	StreetInt	*No Data*	Open	*No Data*

#	Population_within_1500ft	DomesticWells_within_1500ft	LandUse	Within_SPA	SPA_PWS_FacilityID
1	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
2	*No Data*	*No Data*	*No Data*	No	*No Data*
3	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
4	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
5	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
6	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
7	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
8	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
9	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
10	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
11	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
12	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
13	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
14	*No Data*	*No Data*	*No Data*	No	*No Data*
15	*No Data*	*No Data*	*No Data*	No	*No Data*
16	*No Data*	*No Data*	*No Data*	No	*No Data*
17	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
18	*No Data*	*No Data*	*No Data*	No	*No Data*
19	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
20	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
21	*No Data*	*No Data*	*No Data*	No	*No Data*

#	SPA_Water_Type	SPA_Facility_Type	SPA_HUC12	Within_WHPA	WHPA_PWS_FacilityID
1	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
2	*No Data*	*No Data*	*No Data*	No	*No Data*
3	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
4	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
5	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
6	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
7	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
8	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
9	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
10	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
11	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
12	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
13	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
14	*No Data*	*No Data*	*No Data*	No	*No Data*
15	*No Data*	*No Data*	*No Data*	No	*No Data*
16	*No Data*	*No Data*	*No Data*	No	*No Data*
17	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
18	*No Data*	*No Data*	*No Data*	Yes	PR0613046_1808
19	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
20	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
21	*No Data*	*No Data*	*No Data*	No	*No Data*

#	WHPA_Water_Type	WHPA_Facility_Type	WHPA_HUC12	Within_100yr_Floodplain	Closed_With_Residual_Contaminat
1	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
2	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
3	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
4	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
5	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
6	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
7	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
8	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
9	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
10	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
11	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
12	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
13	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
14	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
15	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
16	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
17	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
18	GW	WL	210100050403	*No Data*	*No Data*
19	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
20	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
21	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

#	EPA_Region	NFA_Letter	Tribe	Count
1	2		*No Data*	1
2	2		*No Data*	1
3	2		*No Data*	1
4	2		*No Data*	1
5	2		*No Data*	1
6	2		*No Data*	1
7	2		*No Data*	1
8	2		*No Data*	1
9	2		*No Data*	1
10	2		*No Data*	1
11	2		*No Data*	1
12	2		*No Data*	1
13	2		*No Data*	1
14	2		*No Data*	1
15	2		*No Data*	1
16	2		*No Data*	1
17	2		*No Data*	1
18	2		*No Data*	1
19	2		*No Data*	1
20	2		*No Data*	1
21	2		*No Data*	1

Facilities

#	Facility_ID	Name	Address	City	County
1	PR_24891-24622	TOTAL SS 861740	CARR 861 KM 0.4	GURABO	*No Data*
2	PR_24893-24662	TEXACO SS CERRADA	CARR 189 (CALLE ANDRES A RIVERA)	GURABO	*No Data*
3	PR_24859-24665	EL AHORRO SS CERRADA	CALLE ANDRES RUIZ 107	GURABO	*No Data*
4	PR_24842-24660	SHELL #804851 SS 860623	CARR 189 ESQ CALLE MATADERO	GURABO	*No Data*
5	PR_24751-24606	TEXACO #861725 SS 861725	CARR 189 KM 6.1	GURABO	*No Data*
6	PR_24588-24582	FRANCISCO VEGA OTERO INC	CARR 189 KM 4.5 BO NAVARRO	GURABO	*No Data*
7	PR_24563-24570	TORAL SS 930064	CARR 189 KM 4.1 BO NAVARRO	GURABO	*No Data*
8	PR_25039-24645	BORINQUEN METALS SCRAP	CARR 189 KM 9.1 BO MAMEY	GURABO	*No Data*
9	PR_24947-24831	GARAJE DOBLE L (ANTES LUCAS GAS #328)	CARR 181 KM 23.0 BO CELADA	GURABO	*No Data*
10	PR_24947-24854	MASSA SS	CARR 181 KM 22.6	GURABO	*No Data*
11	PR_24183-24660	ROGELIO GAS STATION	AVE BAIROA ESQ BONSO VELAZQUEZ	CAGUAS	*No Data*
12	PR_24202-24555	GULF SS#017	CARR 1 KM 34.5	CAGUAS	*No Data*
13	PR_24189-24487	AEE GAS+DIESEL	CARR 1 ESQ JOSE MERCADO	CAGUAS	*No Data*
14	PR_24213-24495	TOTAL SS #115932	CARR 1 ESQ CARR 189	CAGUAS	*No Data*
15	PR_24210-24533	TEXACO VILLA BLANCA SS #315	CENTRO COMERCIAL VILLA BLANCA	CAGUAS	*No Data*
16	PR_24213-24546	GULF #155	CALLE PEDRO J COLLAZO DEL VALLE	CAGUAS	*No Data*
17	PR_24219-24735	OPM CAGUAS	INDUSTRIAL BAIROA CARR 1 KM 32.5	CAGUAS	*No Data*
18	PR_24205-24605	SHELL #000701	URB VILLA BLANCA 86 CALLE ACUAMARINA	CAGUAS	*No Data*

19	PR_24201-24667	NATIONAL PETROLEUM CORP	CARR 1 KM 33.3 BO BAIROA	CAGUAS	*No Data*
20	PR_24203-24701	PRTC CENTRO OPERACIONES	CARR 1 KM 32.7 BO BAIROA	CAGUAS	*No Data*
21	PR_24143-24278	GULF SS # 025	CARR 1 INT CARR 172	CAGUAS	*No Data*
22	PR_24155-24290	TOTAL SS #304130	CARR 1 KM 37.5	CAGUAS	*No Data*
23	PR_24179-24336	SHELL #00248	AVE GAUTIER BENITEZ	CAGUAS	*No Data*
24	PR_24174-24337	TOTAL #115977	AVE GAUTIER BENITEZ #160	CAGUAS	*No Data*
25	PR_24185-24349	TEXACO	AVE GAUTIER BENITEZ #136	CAGUAS	*No Data*
26	PR_24247-24390	TEXACO SS GEORGETTI	CALLE GEORGETTI #46	CAGUAS	*No Data*
27	PR_24270-24372	GULF #036	CALLE GEORGETTI #3	CAGUAS	*No Data*
28	PR_24219-24475	SANTA PAULA OIL	URB PARADISE CALLE BALDORIOTY #3 FINAL	CAGUAS	*No Data*
29	PR_24245-24473	SHELL SS #804827	DESVIO GURABO ESQ ACOSTA	CAGUAS	*No Data*
30	PR_24244-24479	GULF	CARR 189 KM 0.5 AVE JOSE VILLARES ESQ ACOSTA	CAGUAS	*No Data*
31	PR_24309-24467	TOTAL SS #115880	AVE JOSE VILLARES #124	CAGUAS	*No Data*
32	PR_24367-24497	TEXACO #302	CARR 189 KM 1.7	CAGUAS	*No Data*
33	PR_24396-24501	TEXACO #229	CARR 189 KM 2.0	CAGUAS	*No Data*
34	PR_24415-24511	GULF #469	CARR 189 KM 2.3	CAGUAS	*No Data*
35	PR_24449-24500	TOTAL #115727	CARR 189 KM 2.6	CAGUAS	*No Data*
36	PR_24492-24545	GULF #177	CARR 189 KM 3.3	GURABO	*No Data*
37	PR_24066-24237	SHELL SS #003042	CARR 487 VILLA DEL REY	CAGUAS	*No Data*
38	PR_23977-24194	TOTAL SS #115040	CARR 172 KM 0.5 BO TURABO	CAGUAS	*No Data*
39	PR_23951-24192	CORREA SS	CARR 172 KM 0.3	CAGUAS	*No Data*

40	PR_24035-24089	SHELL SS #804916	CARR 1 KM 39.8 BO TURABO	CAGUAS	*No Data*
41	PR_24119-24440	TOTAL SS #115664	CARR 156 SALIDA CAGUAS-AGUAS BUENAS	CAGUAS	*No Data*
42	PR_23954-24496	GULF SS #147	CARR 156 KM 57.7 BO CAÑABON	CAGUAS	*No Data*
43	PR_24063-24425	TOTAL SS #115690	CARR 156 KM 59.0 BO CAÑABONCITO	CAGUAS	*No Data*
44	PR_24170-24442	SHELL SS #804835	CALLE BETANCES #113	CAGUAS	*No Data*
45	PR_24176-24448	GULF SS #011	CALLE BETANCES #90	CAGUAS	*No Data*
46	PR_24195-24447	PRTC CAGUAS PUEBLO	CALLE PADIAL #19	CAGUAS	*No Data*
47	PR_24353-24550	TOTAL SS #115589	URB JARDINES CONDADO AVE RAFAEL CORDERO ESQ LUIS MUÑOZ MARIN	CAGUAS	*No Data*
48	PR_24384-24470	GULF SS #162	URB CAGUAX CALLE 1 INT AVE CAGUAX	CAGUAS	*No Data*
49	PR_24204-24231	SHELL SS	AVE LUIS MUÑOZ MARIN 32 CALLE SAN CARLOS BO TURABO	CAGUAS	*No Data*
50	PR_24085-24332	SHELL SS #002941	URB BONEVILLE HEIGHTS CARR 1 KM 27.5	CAGUAS	*No Data*
51	PR_24329-24321	SHELL SS #002976	CARR 183 KM 1.5 BO TOMAS DE CASTRO	CAGUAS	*No Data*
52	PR_24562-24185	GULF BELTRAN SS	CARR 183 KM 4.6 BO TOMAS DE CASTRO	CAGUAS	*No Data*
53	PR_24311-24532	GULF SS #097	URB CAGUAS NORTE CALLE LA PAZ	CAGUAS	*No Data*
54	PR_24058-24294	HOSPITAL REGIONAL CAGUAS	CARR 172 KM 0.2 VILLA DEL REY	CAGUAS	*No Data*
55	PR_24046-24306	SHELL SS #002909	CENTRO COMERCIAL TURABO GARDENS	CAGUAS	*No Data*

56	PR_23887-24270	BLUE POINT	CARR 784 KM 2.4 BO CAÑABONCITO	CAGUAS	*No Data*
57	PR_23989-24144	GULF SS #463	URB VILLA NUEVA CALLE 4 ESQ 5	CAGUAS	*No Data*
58	PR_24202-24567	GARAJE JUANO	CARR 1 KM 34.0	CAGUAS	*No Data*
59	PR_24943-23980	GULF #18	CARR 181 KM 30	SAN LORENZO	*No Data*
60	PR_24906-24012	GULF #149	CARR 183 KM 3.9	SAN LORENZO	*No Data*
61	PR_24736-24094	GARAJE SAN LORENZO	CARR 183 KM 7.3 BO HATO	SAN LORENZO	*No Data*

#	State	Zip_Code	Latitude	Longitude	Coordinate_Source
1	Puerto Rico	*No Data*	18.2504	-65.9708	State
2	Puerto Rico	*No Data*	18.2540	-65.9706	State
3	Puerto Rico	*No Data*	18.2543	-65.9738	State
4	Puerto Rico	*No Data*	18.2538	-65.9754	State
5	Puerto Rico	*No Data*	18.2490	-65.9840	State
6	Puerto Rico	*No Data*	18.2469	-65.9994	State
7	Puerto Rico	*No Data*	18.2458	-66.0018	State
8	Puerto Rico	*No Data*	18.2525	-65.9568	State
9	Puerto Rico	*No Data*	18.2693	-65.9655	State
10	Puerto Rico	*No Data*	18.2713	-65.9654	State
11	Puerto Rico	*No Data*	18.2540	-66.0378	State
12	Puerto Rico	*No Data*	18.2445	-66.0360	State
13	Puerto Rico	*No Data*	18.2384	-66.0372	State
14	Puerto Rico	*No Data*	18.2391	-66.0350	State
15	Puerto Rico	*No Data*	18.2425	-66.0352	State
16	Puerto Rico	*No Data*	18.2437	-66.0349	State
17	Puerto Rico	*No Data*	18.2607	-66.0343	State
18	Puerto Rico	*No Data*	18.2490	-66.0357	State
19	Puerto Rico	*No Data*	18.2546	-66.0360	State
20	Puerto Rico	*No Data*	18.2577	-66.0359	State
21	Puerto Rico	*No Data*	18.2195	-66.0416	State
22	Puerto Rico	*No Data*	18.2206	-66.0405	State
23	Puerto Rico	*No Data*	18.2248	-66.0382	State
24	Puerto Rico	*No Data*	18.2248	-66.0386	State
25	Puerto Rico	*No Data*	18.2259	-66.0376	State
26	Puerto Rico	*No Data*	18.2296	-66.0317	State
27	Puerto Rico	*No Data*	18.2279	-66.0296	State

28	Puerto Rico	*No Data*	18.2373	-66.0344	State
29	Puerto Rico	*No Data*	18.2371	-66.0319	State
30	Puerto Rico	*No Data*	18.2376	-66.0320	State
31	Puerto Rico	*No Data*	18.2365	-66.0258	State
32	Puerto Rico	*No Data*	18.2392	-66.0203	State
33	Puerto Rico	*No Data*	18.2396	-66.0176	State
34	Puerto Rico	*No Data*	18.2405	-66.0158	State
35	Puerto Rico	*No Data*	18.2395	-66.0127	State
36	Puerto Rico	*No Data*	18.2436	-66.0086	State
37	Puerto Rico	*No Data*	18.2158	-66.0489	State
38	Puerto Rico	*No Data*	18.2119	-66.0573	State
39	Puerto Rico	*No Data*	18.2118	-66.0598	State
40	Puerto Rico	*No Data*	18.2025	-66.0518	State
41	Puerto Rico	*No Data*	18.2341	-66.0438	State
42	Puerto Rico	*No Data*	18.2392	-66.0594	State
43	Puerto Rico	*No Data*	18.2328	-66.0492	State
44	Puerto Rico	*No Data*	18.2343	-66.0390	State
45	Puerto Rico	*No Data*	18.2348	-66.0384	State
46	Puerto Rico	*No Data*	18.2347	-66.0367	State
47	Puerto Rico	*No Data*	18.2440	-66.0217	State
48	Puerto Rico	*No Data*	18.2368	-66.0188	State
49	Puerto Rico	*No Data*	18.2152	-66.0358	State
50	Puerto Rico	*No Data*	18.2244	-66.0471	State
51	Puerto Rico	*No Data*	18.2234	-66.0240	State
52	Puerto Rico	*No Data*	18.2110	-66.0020	State
53	Puerto Rico	*No Data*	18.2424	-66.0257	State
54	Puerto Rico	*No Data*	18.2210	-66.0497	State
55	Puerto Rico	*No Data*	18.2220	-66.0507	State

56	Puerto Rico	*No Data*	18.2188	-66.0658	State
57	Puerto Rico	*No Data*	18.2074	-66.0562	State
58	Puerto Rico	*No Data*	18.2456	-66.0360	State
59	Puerto Rico	*No Data*	18.1924	-65.9660	State
60	Puerto Rico	*No Data*	18.1953	-65.9695	State
61	Puerto Rico	*No Data*	18.2028	-65.9854	State

#	Address_Match_Type	Open_USTs	Closed_USTs	TOS_USTs	Facility_Status
1	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
2	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
3	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
4	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
5	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
6	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
7	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
8	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
9	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
10	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
11	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
12	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
13	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
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16	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
17	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
18	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
19	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
20	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
21	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
22	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
23	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
24	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
25	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
26	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
27	*No Data*	*No Data*	*No Data*	*No Data*	Unknown

28	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
29	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
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31	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
32	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
33	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
34	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
35	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
36	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
37	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
38	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
39	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
40	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
41	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
42	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
43	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
44	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
45	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
46	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
47	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
48	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
49	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
50	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
51	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
52	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
53	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
54	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
55	*No Data*	*No Data*	*No Data*	*No Data*	Unknown

56	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
57	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
58	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
59	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
60	*No Data*	*No Data*	*No Data*	*No Data*	Unknown
61	*No Data*	*No Data*	*No Data*	*No Data*	Unknown

#	LandUse	Population_1500ft	Private_Wells_1500ft	Within_SPA	SPA_PWS_FacilityID
1	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
2	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
3	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
4	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
5	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
6	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
7	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
8	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
9	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
10	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
11	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
12	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
13	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
14	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
15	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
16	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
17	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
18	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
19	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
20	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
21	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
22	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
23	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
24	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
25	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
26	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
27	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

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29	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
30	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
31	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
32	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
33	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
34	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
35	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
36	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
37	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
38	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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41	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
42	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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44	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
45	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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52	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
53	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
54	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
55	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

56	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
57	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
58	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
59	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
60	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
61	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

#	SPA_Water_Type	SPA_Facility_Type	SPA_HUC12	Within_WHPA	WHPA_PWS_FacilityID
1	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
2	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
3	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
4	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
5	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
6	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
7	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
8	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
9	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
10	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
11	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
12	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
13	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
14	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
15	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
16	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
17	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
18	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
19	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
20	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
21	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
22	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
23	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
24	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
25	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
26	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
27	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

28	No Data	No Data	No Data	No Data	No Data
29	No Data	No Data	No Data	No Data	No Data
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31	No Data	No Data	No Data	No Data	No Data
32	No Data	No Data	No Data	No Data	No Data
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37	No Data	No Data	No Data	No Data	No Data
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41	No Data	No Data	No Data	No Data	No Data
42	No Data	No Data	No Data	No Data	No Data
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44	No Data	No Data	No Data	No Data	No Data
45	No Data	No Data	No Data	No Data	No Data
46	No Data	No Data	No Data	No Data	No Data
47	No Data	No Data	No Data	No Data	No Data
48	No Data	No Data	No Data	No Data	No Data
49	No Data	No Data	No Data	No Data	No Data
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56	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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59	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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61	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

#	WHPA_Water_Type	WHPA_Facility_Type	WHPA_HUC12	Within_100yr_Floodplain	Date_of_Last_Inspection
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2	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
3	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
4	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
5	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
6	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
7	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
8	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
9	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
10	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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14	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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16	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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19	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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21	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
22	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
23	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
24	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
25	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
26	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

27	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
28	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
29	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
30	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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33	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
34	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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42	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
43	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
44	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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51	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
52	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
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60	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*
61	*No Data*	*No Data*	*No Data*	*No Data*	*No Data*

#	EPA_Region	Tribe	Count
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5	2	*No Data*	1
6	2	*No Data*	1
7	2	*No Data*	1
8	2	*No Data*	1
9	2	*No Data*	1
10	2	*No Data*	1
11	2	*No Data*	1
12	2	*No Data*	1
13	2	*No Data*	1
14	2	*No Data*	1
15	2	*No Data*	1
16	2	*No Data*	1
17	2	*No Data*	1
18	2	*No Data*	1
19	2	*No Data*	1
20	2	*No Data*	1
21	2	*No Data*	1
22	2	*No Data*	1
23	2	*No Data*	1
24	2	*No Data*	1
25	2	*No Data*	1
26	2	*No Data*	1
27	2	*No Data*	1

28	2	*No Data*	1
29	2	*No Data*	1
30	2	*No Data*	1
31	2	*No Data*	1
32	2	*No Data*	1
33	2	*No Data*	1
34	2	*No Data*	1
35	2	*No Data*	1
36	2	*No Data*	1
37	2	*No Data*	1
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39	2	*No Data*	1
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41	2	*No Data*	1
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43	2	*No Data*	1
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52	2	*No Data*	1
53	2	*No Data*	1
54	2	*No Data*	1
55	2	*No Data*	1

56	2	*No Data*	1
57	2	*No Data*	1
58	2	*No Data*	1
59	2	*No Data*	1
60	2	*No Data*	1
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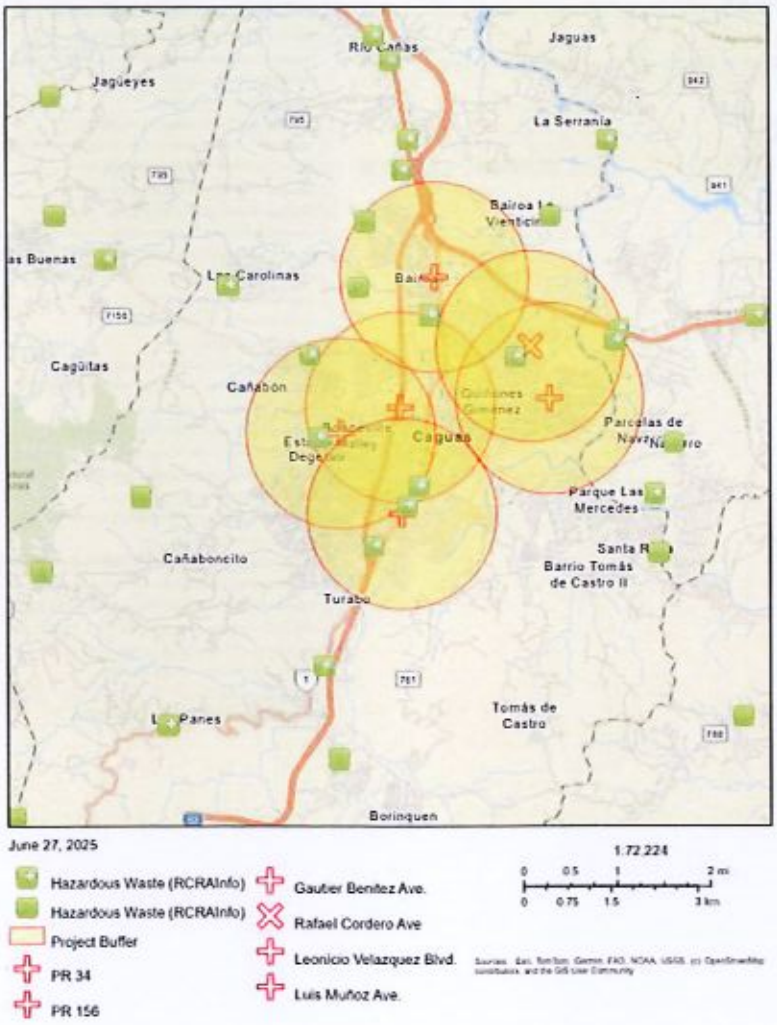
Contamination and Toxic Substances: Hazardous Waste Site List

Using the NEPAssist Tool, we established a midpoint on each avenue:

- Luis Muñoz Avenue: 18.235605, -66.018577
- Gautier Benitez Avenue: 18.217993, -66.042476
- Rafael Cordero Avenue: 18.243567, -66.021692
- Leonicio Velazquez Boulevard: 18.254106, -66.037167
- PR 156 Road: 18.234232, -66.042690
- PR 34 Road: 18.230256, -66.052290

From there, one (1) mile of buffer was added for each one to analyze the compliance at sites under the RCRA permit.

Aerial map



Rafael Cordero Avenue

NEPAssist

Home | Help EPA US Environmental Protection Agency



Report question: Within 1 undefined of a Hazardous waste site? yes

Modify question by entering a new buffer distance and unit for the selected study area:

1 | miles | Submit

Name	Distance
ULTRALUMBER CORP (CAGUAS,PR)	0.00 mile
DEPARTAMENTO DE SANEAMIENTO (CAGUAS,PR)	0.51 mile
SHELL CO PR LTD VILLA BLANCA SS 6701 (CAGUAS,PR)	0.99 mile
VILAR TRUCKING INC (CAGUAS,PR)	0.96 mile
LUNA TRANSPORT INC (CAGUAS,PR)	0.06 mile
TEXACO PR INC WILLIAM ALVERIO (CAGUAS,PR)	0.14 mile
UNIDE PR INC (CAGUAS,PR)	0.97 mile
PATHEON PUERTO RICO INC (CAGUAS,PR)	0.68 mile
D H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.95 mile
NEWBRIDGE NETWORKS INTL CORP (CAGUAS,PR)	0.92 mile
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.92 mile
VEOLIA ES TECHNICAL SOLUTIONS LLC (GURABO,PR)	0.91 mile
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.85 mile
PEP BOYS MANNY MOE JACK THE 512 (CAGUAS,PR)	0.19 mile
ESSO STANDARD OIL CO PR CO 237 (CAGUAS,PR)	0.13 mile
WALGREENS 338 (CAGUAS,PR)	0.13 mile
SHELL CO PR LTD SS 804627 PARADIS (CAGUAS,PR)	0.78 mile
EUROTHORITY (CAGUAS,PR)	0.06 mile
CAGUAS EQUIPMENT RENTAL INC (CAGUAS,PR)	0.94 mile
COSTCO WHOLESALE 165 (CAGUAS,PR)	0.16 mile
PREMIER CLEANERS LAUNDRY DRY CLEANING (CAGUAS,PR)	0.49 mile
PREMIER CLEANERS (CAGUAS,PR)	0.48 mile
GARAJE JUANO (CAGUAS,PR)	0.51 mile
CHARNECO EUROPEAN HAUS (CAGUAS,PR)	0.51 mile
MEADWESTVACO HEALTHCARE PACKAGING PR LLC (CAGUAS,PR)	0.99 mile
DIESEL ENGINE TECHNICIAN (CAGUAS,PR)	0.51 mile
RENTEZ PAINT BODY SHOP (CAGUAS,PR)	0.51 mile
GREKORY SOUP CORP (CAGUAS,PR)	0.51 mile
UNIVERSIDAD ANA G MENDEZ UNIDE GURABO CAMPUS (GURABO,PR)	0.01 mile
FARMACIA EL AMAL 12 (CAGUAS,PR)	0.91 mile
ONE HOUR PROFESSIONAL CLEANER (CAGUAS,PR)	0.46 mile
LABEL MASTERS (CAGUAS,PR)	0.42 mile
ROJAS GEORGE (CAGUAS,PR)	0.51 mile
GREENWAY (GURABO,PR)	0.91 mile
IMPRESSION ASSOCIATES INC (CAGUAS,PR)	0.51 mile
JANSSEN ORTHO LLC EXTERNAL WHSE (CAGUAS,PR)	0.94 mile
OIL RECYCLERS INC (CAGUAS,PR)	0.19 mile
CARIBBEAN CV JOINTS AXLE CO (CAGUAS,PR)	0.94 mile
WALMART SUPERCENTER 2418 (CAGUAS,PR)	0.19 mile
HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.84 mile
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.80 mile
CAGUAS BLOOD CANCER CENTER (CAGUAS,PR)	0.51 mile
NEOLPHARMA INC (CAGUAS,PR)	0.32 mile
TOTAL PETROLEUM PUERTO RICO CORP SERVICE STATION 30430 (CAGUAS,PR)	0.51 mile
CENTRO AMBULATORIO HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.97 mile
CARIBBEAN PETROLEUM LP SS GULF 460 (CAGUAS,PR)	0.44 mile
APR UNLIMITED GENERAL CONTRACTORS (CAGUAS,PR)	0.24 mile
MULTIPAK POSTAL SERVICE (GURABO,PR)	0.89 mile
UNITED PARCEL SERVICE (CAGUAS,PR)	0.97 mile
UPS (CAGUAS,PR)	0.97 mile
BANFIELD PET HOSPITAL 2188 (CAGUAS,PR)	0.14 mile

Name *Hazardous waste site* at Rafael Cordero Avenue	Distance	Status
ULTRALUMBER CORP (CAGUAS,PR)	0.99 mile	In compliance
DEPARTAMENTO DE SANEAMENTO (CAGUAS,PR)	0.51 mile	In compliance
SHELL CO PR LTD VILLA BLANCA SS 0701 (CAGUAS,PR)	0.99 mile	In compliance
VILAR TRUCKING INC (CAGUAS,PR)	0.96 mile	In compliance
LUIMA TRANSPORT INC (CAGUAS,PR)	0.96 mile	In compliance
TEXACO PR INC WILLIAM ALVERIO (CAGUAS,PR)	0.34 mile	In compliance
U M I DE PR INC (CAGUAS,PR)	0.97 mile	In compliance
PATHEON PUERTO RICO INC (CAGUAS,PR)	0.93 mile	Inoperant
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.95 mile	Inoperant
NEWBRIDGE NETWORKS INTL CORP (CAGUAS,PR)	0.97 mile	Inoperant
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.92 mile	In compliance
VEOLIA ES TECHNICAL SOLUTIONS LLC (GURABO,PR)	0.91 mile	In compliance
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.65 mile	In compliance
PEP BOYS MANNY MOE JACK THE 912 (CAGUAS,PR)	0.19 mile	In compliance
ESSO STANDARD OIL CO PR CO 237 (CAGUAS,PR)	0.53 mile	In compliance
WALGREENS 338 (CAGUAS,PR)	0.19 mile	In compliance
SHELL CO PR LTD SS 804827 PARADIS (CAGUAS,PR)	0.78 mile	In compliance
EUROTHORITY (CAGUAS,PR)	0.66 mile	In compliance
CAGUAS EQUIPMENT RENTAL INC (CAGUAS,PR)	0.94 mile	In compliance
COSTCO WHOLESALE 365 (CAGUAS,PR)	0.16 mile	In compliance

Name *Hazardous waste site* at Rafael Cordero Avenue	Distance	Status
PREMIER CLEANERS LAUNDRY DRY CLEANING (CAGUAS,PR)	0.48 mile	In compliance
PREMIER CLEANERS (CAGUAS,PR)	0.48 mile	In compliance
GARAJE JUANO (CAGUAS,PR)	0.51 mile	In compliance
CHARNECO EUROPEAN HAUS (CAGUAS,PR)	0.51 mile	In compliance
MEADWESTVACO HEALTHCARE PACKAGING PR LLC (CAGUAS,PR)	0.99 mile	Inoperant
DIESEL ENGINE TECHNICIAN (CAGUAS,PR)	0.51 mile	In compliance
BENITEZ PAINT BODY SHOP (CAGUAS,PR)	0.51 mile	In compliance
GREKORY EQUIP CORP (CAGUAS,PR)	0.51 mile	Exceeds one (1) mile radius
UNIVERSIDAD ANA G MENDEZ UAGM GURABO CAMPUS (GURABO,PR)	0.91 mile	In compliance
FARMACIA EL AMAL 12 (CAGUAS,PR)	0.81 mile	Inoperant
ONE HOUR PROFESSIONAL CLEANER (CAGUAS,PR)	0.46 mile	In compliance
LABEL MASTERS (CAGUAS,PR)	0.42 mile	Exceeds one (1) mile radius
ROJAS GEORGE (CAGUAS,PR)	0.51 mile	Unknown
GREENWAY (GURABO,PR)	0.91 mile	In compliance
IMPRESSION ASSOCIATES INC (CAGUAS,PR)	0.51 mile	In compliance
JANSSEN ORTHO LLC EXTERNAL WHSE (CAGUAS,PR)	0.94 mile	Exceeds one (1) mile radius
OIL RECYCLERS INC (CAGUAS,PR)	0.19 mile	Inoperant
CARIBBEAN CV JOINTS AXLE CO (CAGUAS,PR)	0.94 mile	In compliance
WALMART SUPERCENTER 2449 (CAGUAS,PR)	0.19 mile	In compliance

Name *Hazardous waste site* at Rafael Cordero Avenue	Distance	Status
HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.84 mile	In compliance
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.80 mile	Inoperant
CAGUAS BLOOD CANCER CENTER (CAGUAS,PR)	0.51 mile	In compliance
NEOLPHARMA INC (CAGUAS,PR)	0.32 mile	In compliance
TOTAL PETROLEUM PUERTOR ICO CORP SERVICE STATION 304130 (CAGUAS,PR)	0.51 mile	In compliance
CENTRO AMBULATORIO HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.97 mile	In compliance
CARIBBEAN PETROLEUM LP SS GULF 469 (CAGUAS,PR)	0.44 mile	In compliance
APR UNLIMITED GENERAL CONTRACTORS (CAGUAS,PR)	0.34 mile	In compliance
MULTI PAK POSTAL SERVICE (GURABO,PR)	0.89 mile	In compliance
UNITED PARCEL SERVICE (CAGUAS,PR)	0.97 mile	In compliance
UPS (CAGUAS,PR)	0.97 mile	In compliance
BANFIELD PET HOSPITAL 2188 (CAGUAS,PR)	0.16	In compliance

Luis Muñoz Marin Avenue

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Report question: *Within 1 undefined of a Hazardous waste site?* yes

Modify question by entering a new buffer distance and unit for the selected study area:

1 | miles | Submit

Name	Distance
TRANSPORTE SANCHEZ INC (CAGUAS,PR)	0.93 mile
TEXACO PR INC WILLIAM ALVERIO (CAGUAS,PR)	0.25 mile
MATSUSHITA ELECTRIC OF PR INC (CAGUAS,PR)	0.68 mile
VEOLIA ES TECHNICAL SOLUTIONS LLC (GURABO,PR)	0.93 mile
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.67 mile
PEP BOYS MANNY MOE JACK THE 912 (CAGUAS,PR)	0.57 mile
ESSO STANDARD OIL CO PR CO 237 (CAGUAS,PR)	0.48 mile
WALGREENS 338 (CAGUAS,PR)	0.52 mile
SHELL CO PR LTD SS 2976 TOMAS DE CASTRO (CAGUAS,PR)	0.94 mile
SHELL CO PR LTD SS 804827 PARADIS (CAGUAS,PR)	0.86 mile
EUROTHORITY (CAGUAS,PR)	0.47 mile
COSTCO WHOLESALE 365 (CAGUAS,PR)	0.65 mile
PREMIER CLEANERS LAUNDRY DRY CLEANING (CAGUAS,PR)	0.37 mile
PREMIER CLEANERS (CAGUAS,PR)	0.37 mile
UNIVERSIDAD ANA G MENDEZ UAGM GURABO CAMPUS (GURABO,PR)	0.93 mile
ELECTRICAL CONTROL EQUIPMENT MFG CORP (CAGUAS,PR)	0.99 mile
ONE HOUR PROFESSIONAL CLEANER (CAGUAS,PR)	0.37 mile
LABEL MASTERS (CAGUAS,PR)	0.36 mile
GREENWAY (GURABO,PR)	0.93 mile
COOPERHEAT MQS INC (CAGUAS,PR)	0.90 mile
SIKA MBCC PUERTO RICO CORPORATION (CAGUAS,PR)	0.82 mile
OIL RECYCLERS INC (CAGUAS,PR)	0.57 mile
WALMART SUPERCENTER 2449 (CAGUAS,PR)	0.57 mile
HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.30 mile
NEOLPHARMA INC (CAGUAS,PR)	0.33 mile
CARIBBEAN PETROLEUM LP SS GULF 469 (CAGUAS,PR)	0.38 mile
WALGREENS 0036 (CAGUAS,PR)	0.91 mile
APR UNLIMITED GENERAL CONTRACTORS (CAGUAS,PR)	0.25 mile
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	0.99 mile
MULTI PAK POSTAL SERVICE (GURABO,PR)	0.89 mile
BANFIELD PET HOSPITAL 2188 (CAGUAS,PR)	0.65 mile

Name *Hazardous waste site* at Luis Muñoz Marin Avenue	Distance	Status
TRANSPORTE SANCHEZ INC (CAGUAS,PR)	0.93 mile	In compliance
TEXACO PR INC WILLIAM ALVERIO (CAGUAS,PR)	0.25 mile	In compliance
MATSUSHITA ELECTRIC OF PR INC (CAGUAS,PR)	0.88 mile	In compliance
VEOLIA ES TECHNICAL SOLUTIONS LLC (GURABO,PR)	0.93 mile	In compliance
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.67 mile	In compliance
PEP BOYS MANNY MOE JACK THE 912 (CAGUAS,PR)	0.57 mile	In compliance
ESSO STANDARD OIL CO PR CO 237 (CAGUAS,PR)	0.48 mile	In compliance
WALGREENS 338 (CAGUAS,PR)	0.57 mile	In compliance
SHELL CO PR LTD SS 2976 TOMAS DE CASTRO (CAGUAS,PR)	0.94 mile	In compliance
SHELL CO PR LTD SS 804827 PARADIS (CAGUAS,PR)	0.86 mile	In compliance
EUROTHORITY (CAGUAS,PR)	0.47 mile	In compliance
COSTCO WHOLESALE 365 (CAGUAS,PR)	0.65 mile	In compliance
PREMIER CLEANERS LAUNDRY DRY CLEANING (CAGUAS,PR)	0.37 mile	In compliance
PREMIER CLEANERS (CAGUAS,PR)	0.37 mile	In compliance
UNIVERSIDAD ANA G MENDEZ UAGM GURABO CAMPUS (GURABO,PR)	0.93 mile	In compliance
ELECTRICAL CONTROL EQUIPMENT MFG CORP (CAGUAS,PR)	0.99 mile	In compliance
ONE HOUR PROFESSIONAL CLEANER (CAGUAS,PR)	0.37 mile	In compliance
LABEL MASTERS (CAGUAS,PR)	0.36 mile	Exceeds one (1) mile radius

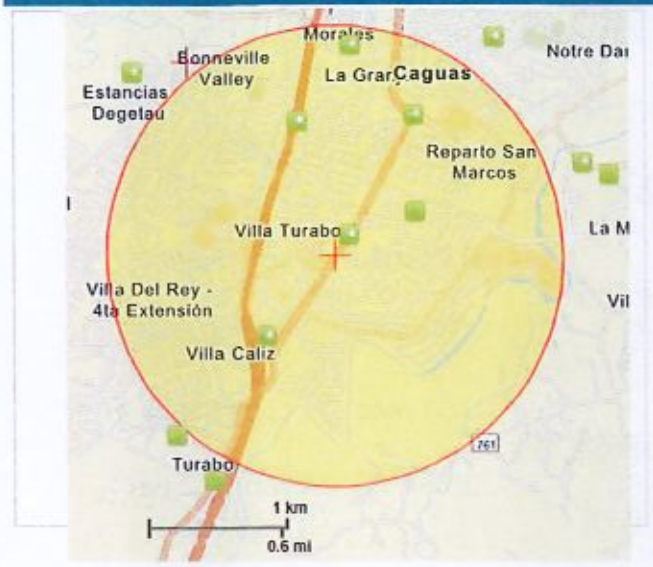
Name *Hazardous waste site* at Luis Muñoz Marin Avenue	Distance	Status
GREENWAY (GURABO,PR)	0.93 mile	In compliance
COOPERHEAT MQS INC (CAGUAS,PR)	0.90 mile	In compliance
SIKA MBCC PUERTO RICO CORPORATION (CAGUAS,PR)	0.82 mile	Inoperant
OIL RECYCLERS INC (CAGUAS,PR)	0.57 mile	Inoperant
WALMART SUPERCENTER 2449 (CAGUAS,PR)	0.57 mile	In compliance
HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.30 mile	In compliance
NEOLPHARMA INC (CAGUAS,PR)	0.35 mile	In compliance
CARIBBEAN PETROLEUM LP SS GULF 469 (CAGUAS,PR)	0.38 mile	In compliance
WALGREENS 0038 (CAGUAS,PR)	0.91 mile	In compliance
APR UNLIMITED GENERAL CONTRACTORS (CAGUAS,PR)	0.25 mile	In compliance
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	0.99 mile	In compliance
MULTI PAK POSTAL SERVICE (GURABO,PR)	0.89 mile	In compliance
BANFIELD PET HOSPITAL 2188 (CAGUAS,PR)	0.65 mile	In compliance

Gautier Benitez Avenue

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Report question: *Within 1 undefined of a Hazardous waste site?* yes

Modify question by entering a new buffer distance and unit for the selected study area:

1 | miles | Submit

Name	Distance
LUMA CAGUAS MECHANICAL SHOP (CAGUAS,PR)	0.58 mile
TEXACO PR INC JOSE TORRES SS (CAGUAS,PR)	0.14 mile
USARC MSG DIONISIO M CLAUDIO (CAGUAS,PR)	0.03 mile
DEPT OF ED LUIS RAMOS GONZALEZ (CAGUAS,PR)	0.70 mile
RHEEM PUERTO RICO INC (CAGUAS,PR)	0.25 mile
SURGIKOS (CAGUAS,PR)	0.64 mile
ARBROOK MANUFACTURING CORP (CAGUAS,PR)	0.64 mile
SHELL CO PR LTD SS 2941 BONNEVILLE (CAGUAS,PR)	0.76 mile
TROPICOLOR (CAGUAS,PR)	0.70 mile
SHELL CO PR LTD SHELL RATTAN IND (CAGUAS,PR)	0.92 mile
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.92 mile
SAM S CLUB 8689 (CAGUAS,PR)	0.40 mile
CARIBBEAN PETROLEUM LP SS GULF 196 (CAGUAS,PR)	0.91 mile
PR PUBLIC HOUSING VILLAS DEL REY (CAGUAS,PR)	0.46 mile
PERIODICO LA SEMANA (CAGUAS,PR)	0.83 mile
LEI SEMONA (CAGUAS,PR)	0.83 mile
ESSO STANDARD OIL CO PR CO 236 (CAGUAS,PR)	0.58 mile
ESCUELA MEDICINA SAN JUAN BAUTISTA (CAGUAS,PR)	0.09 mile
NIWAY AUTO (CAGUAS,PR)	0.61 mile
AMIGO SUPERMARKET 3678 (CAGUAS,PR)	0.43 mile
WATER TECHNOLOGIES CORP (CAGUAS,PR)	0.11 mile
MVP TOYOTA CAGUAS (CAGUAS,PR)	0.53 mile
ESSO STAND OIL CO PR SS CO 235 (CAYEY,PR)	0.61 mile
ESSO STANDARD OIL CO PR CO 235 (CAGUAS,PR)	0.61 mile
MUNICIPIO AUTONOMO DE CAGUAS SECRETARI (CAGUAS,PR)	0.98 mile
BECKMAN COULTER PR INC (CAGUAS,PR)	0.58 mile
LUMA CAGUAS DISTRICT OFFICE LINES OPERATIONS (CAGUAS,PR)	0.71 mile
CVS PHARMACY 7959 (CAGUAS,PR)	0.39 mile
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	1.00 mile
WALGREENS 403 (CAGUAS,PR)	0.24 mile
CONSOLIDATED PHARMACY (CAGUAS,PR)	0.97 mile

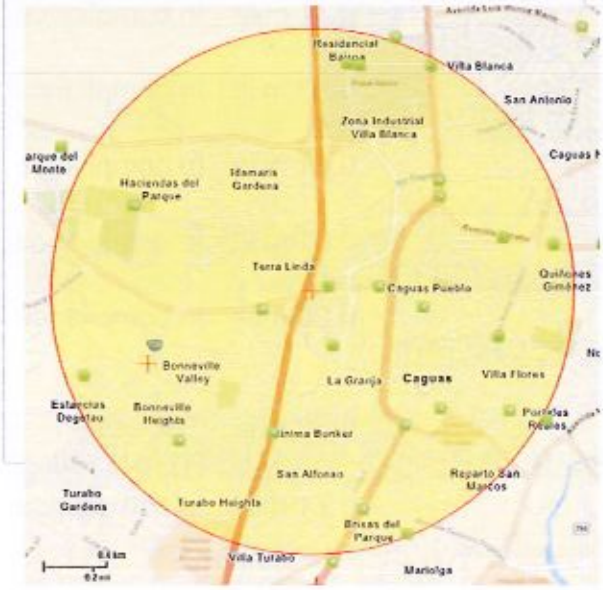
Name *Hazardous waste site at Gautier Benitez Avenue*	Distance	Status
LUMA CAGUAS MECHANICAL SHOP (CAGUAS,PR)	0.98 mile	In compliance
TEXACO PR INC JOSE TORRES SS (CAGUAS,PR)	0.14 mile	In compliance
USARC MSG DIONISIO M CLAUDIO (CAGUAS,PR)	0.03 mile	In compliance
DEPT OF ED LUIS RAMOS GONZALEZ (CAGUAS,PR)	0.70 mile	In compliance
RHEEM PUERTO RICO INC (CAGUAS,PR)	0.25 mile	In compliance
SURGIKOS (CAGUAS,PR)	0.64 mile	In compliance
ARBROOK MANUFACTURING CORP (CAGUAS,PR)	0.64 mile	In compliance
SHELL CO PR LTD SS 2941 BONNEVILLE (CAGUAS,PR)	0.76 mile	In compliance
TROPICOLOR (CAGUAS,PR)	0.70 mile	Inoperant
SHELL CO PR LTD SHELL RATTAN IND (CAGUAS,PR)	0.92 mile	Inoperant
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.92 mile	Inoperant
SAM S CLUB 6689 (CAGUAS,PR)	0.40 mile	In compliance
CARIBBEAN PETROLEUM LP SS GULF 196 (CAGUAS,PR)	0.91 mile	In compliance
PR PUBLIC HOUSING VILLAS DEL REY (CAGUAS,PR)	0.46 mile	In compliance
PERIODICO LA SEMANA (CAGUAS,PR)	0.83 mile	In compliance
LEI SEMONA (CAGUAS,PR)	0.83 mile	In compliance
ESSO STANDARD OIL CO PR CO 236 (CAGUAS,PR)	0.58 mile	In compliance
ESCUELA MEDICINA SAN JUAN BAUTISTA (CAGUAS,PR)	0.09 mile	Exceeds one (1) mile radius

Name *Hazardous waste site at Gautier Benitez Avenue*	Distance	Status
NIWAY AUTO (CAGUAS,PR)	0.61 mile	Inoperant
AMIGO SUPERMARKET 3678 (CAGUAS,PR)	0.43 mile	Incompliance
WATER TECHNOLOGIES CORP (CAGUAS,PR)	0.11 mile	In compliance
MVP TOYOTA CAGUAS (CAGUAS,PR)	0.93 mile	In compliance
ESSO STAND OIL CO PR SS CO 235 (CAYEY,PR)	0.61 mile	In compliance
ESSO STANDARD OIL CO PR CO 235 (CAGUAS,PR)	0.61 mile	In compliance
MUNICIPIO AUTONOMO DE CAGUAS SECRETARI (CAGUAS,PR)	0.98 mile	In compliance
BECKMAN COULTER PR INC (CAGUAS,PR)	0.58 mile	Exceeds one (1) mile radius
LUMA CAGUAS DISTRICT OFFICE LINES OPERATIONS (CAGUAS,PR)	0.71 mile	In compliance
CVS PHARMACY 7969 (CAGUAS,PR)	0.39 mile	Inoperant (change of administration)
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	1.00 mile	In compliance
WALGREENS 403 (CAGUAS,PR)	0.34 mile	In compliance
CONSOLIDATED PHARMACY (CAGUAS,PR)	0.57 mile	In compliance

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Report question: Within 1 undefined of a Hazardous waste site? yes

Modify question by entering a new buffer distance and unit for the selected study area.

1 miles Submit

Name	Distance
AUTOMECA TECHNICAL COLLEGE (CAGUAS,PR)	0.51 mile
SUPERSTATION BONNEVILLE SHELL (CAGUAS,PR)	0.53 mile
SEARS 2915 (CAGUAS,PR)	0.53 mile
CARIBBEAN PETROLEUM LP SS GULF 011 (CAGUAS,PR)	0.55 mile
LUMA CAGUAS MECHANICAL SHOP (CAGUAS,PR)	0.54 mile
CARIBBEAN PHOTO IMAGING (CAGUAS,PR)	0.54 mile
FARMACIA EL AMAL 26 (CAGUAS,PR)	0.59 mile
DEPT OF ED LUIS RAMOS GONZALEZ (CAGUAS,PR)	0.62 mile
UNITED PARCEL SERVICE (CAGUAS,PR)	0.43 mile
RHEEM PUERTO RICO INC (CAGUAS,PR)	0.88 mile
PATHEON PUERTO RICO INC (CAGUAS,PR)	0.61 mile
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.97 mile
SURGIKOS (CAGUAS,PR)	0.76 mile
ARBROOK MANUFACTURING CORP (CAGUAS,PR)	0.76 mile
KODAK CARIBBEAN INC (CAGUAS,PR)	0.49 mile
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.64 mile
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.54 mile
ESSO STANDARD OIL CO PR CO 100 (CAGUAS,PR)	0.29 mile
PEP BOYS 516 (CAGUAS,PR)	0.54 mile
SHELL CO PR LTD SS 2041 BONNEVILLE (CAGUAS,PR)	0.76 mile
SHELL CO PR LTD SS 804927 PARADIS (CAGUAS,PR)	0.76 mile
TROPICOLOR (CAGUAS,PR)	0.62 mile
SHELL CO PR LTD SHELL RATTAN IND (CAGUAS,PR)	0.22 mile
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.22 mile
SAM S CLUB 6589 (CAGUAS,PR)	0.99 mile
PRASA CAGUAS CENTRAL LAB (CAGUAS,PR)	0.25 mile
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.86 mile
ELECTRICAL CONTROL EQUIPMENT MFG CORP (CAGUAS,PR)	0.81 mile
CARTAGENA PRINTING (CAGUAS,PR)	0.20 mile
PERIODICO LA SEMANA (CAGUAS,PR)	0.66 mile
LEI SEMONA (CAGUAS,PR)	0.66 mile
ESSO STANDARD OIL CO PR CO 236 (CAGUAS,PR)	0.69 mile
AMIGO SUPERMARKET 3681 (CAGUAS,PR)	0.45 mile
MARY AUTO (CAGUAS,PR)	0.96 mile
MVP TOYOTA CAGUAS (CAGUAS,PR)	0.55 mile
ESSO STAND OIL CO PR SS CO 235 (CAYEY,PR)	0.66 mile
ESSO STANDARD OIL CO PR CO 235 (CAGUAS,PR)	0.66 mile
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.86 mile
ST JUDE MEDICAL PUERTO RICO LLC (CAGUAS,PR)	0.76 mile
MUNICIPIO AUTONOMO DE CAGUAS SECRETARI (CAGUAS,PR)	0.54 mile
BECKMAN COULTER PR INC (CAGUAS,PR)	0.69 mile
LUMA CAGUAS DISTRICT OFFICE LINES OPERATIONS (CAGUAS,PR)	0.61 mile
CAMERA MUNDI INC (CAGUAS,PR)	0.93 mile
CENTRO AMBULATORIO HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.55 mile
CVS PHARMACY 7969 (CAGUAS,PR)	0.51 mile
WALGREENS 8038 (CAGUAS,PR)	0.73 mile
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	0.88 mile
WALGREENS 403 (CAGUAS,PR)	0.55 mile
HALCON BAKER INC (CAGUAS,PR)	0.20 mile
CONSOLIDATED PHARMACY (CAGUAS,PR)	0.65 mile
CARIBE WATER TECHNOLOGY INC (CAGUAS,PR)	0.86 mile
OREILLY AUTO ENTERPRISES LLC 6498 (CAGUAS,PR)	0.26 mile
ESCUELA OSCAR BUNKER (CAGUAS,PR)	0.84 mile

Name *Hazardous waste site at PR-156*	Distance	Status
AUTOMECA TECHNICAL COLLEGE (CAGUAS,PR)	0.51 mile	In compliance
SUPERSTATION BONNEVILLE SHELL (CAGUAS,PR)	0.93 mile	In compliance
SEARS 2915 (CAGUAS,PR)	0.53 mile	Inoperant
CARIBBEAN PETROLEUM LP SS GULF 011 (CAGUAS,PR)	0.35 mile	In compliance
LUMA CAGUAS MECHANICAL SHOP (CAGUAS,PR)	0.54 mile	In compliance
CARIBBEAN PHOTO IMAGING (CAGUAS,PR)	0.54 mile	In compliance
FARMACIA EL AMAL 26 (CAGUAS,PR)	0.59 mile	Inoperant
DEPT OF ED LUIS RAMOS GONZALEZ (CAGUAS,PR)	0.62 mile	In compliance
UNITED PARCEL SERVICE (CAGUAS,PR)	0.43 mile	In compliance
RHEEM PUERTO RICO INC (CAGUAS,PR)	0.88 mile	In compliance
PATHEON PUERTO RICO INC (CAGUAS,PR)	0.61 mile	Inoperant
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.97 mile	Inoperant
SURGIKOS (CAGUAS,PR)	0.76 mile	In compliance
ARBROOK MANUFACTURING CORP (CAGUAS,PR)	0.76 mile	In compliance
KODAK RAHOLA INC (CAGUAS,PR)	0.49 mile	Inoperant

Name *Hazardous waste site at PR-156*	Distance	Status
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.64 mile	In compliance
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.94 mile	In compliance
ESSO STANDARD OIL CO PR CO 160 (CAGUAS,PR)	0.29 mile	In compliance
PEP BOYS 916 (CAGUAS,PR)	0.54 mile	Inoperant
SHELL CO PR LTD SS 2941 BONNEVILLE (CAGUAS,PR)	0.76 mile	In compliance
SHELL CO PR LTD SS 804827 PARADIS (CAGUAS,PR)	0.76 mile	In compliance
TROPICOLOR (CAGUAS,PR)	0.62 mile	Inoperant
SHELL CO PR LTD SHELL RATTAN IND (CAGUAS,PR)	0.22 mile	Inoperant
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.22 mile	Inoperant
SAM S CLUB 6689 (CAGUAS,PR)	0.99 mile	In compliance
PRASA CAGUAS CENTRAL LAB (CAGUAS,PR)	0.25 mile	In compliance
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.88 mile	In compliance
ELECTRICAL CONTROL EQUIPMENT MFG CORP (CAGUAS,PR)	0.81 mile	In compliance
CARTAGENA PRINTING (CAGUAS,PR)	0.20 mile	Exceeds one (1) mile radius
PERIODICO LA SEMANA (CAGUAS,PR)	0.66 mile	In compliance

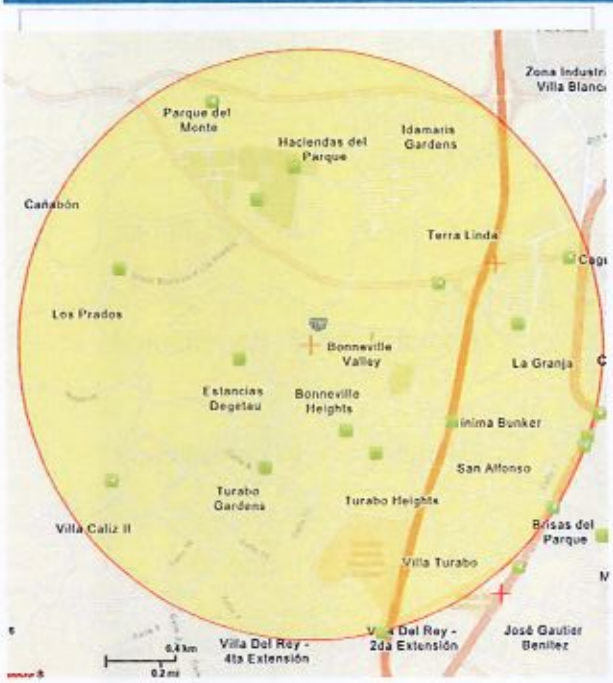
Name *Hazardous waste site at PR-156*	Distance	Status
LEI SEMONA (CAGUAS,PR)	0.66 mile	In compliance
ESSO STANDARD OIL CO PR CO 236 (CAGUAS,PR)	0.69 mile	In compliance
AMIGO SUPERMARKET 3681 (CAGUAS,PR)	0.45 mile	In compliance
NIWAY AUTO (CAGUAS,PR)	0.56 mile	Inoperant
MVP TOYOTA CAGUAS (CAGUAS,PR)	0.55 mile	In compliance
ESSO STAND OIL CO PR SS CO 235 (CAYEY,PR)	0.66 mile	In compliance
ESSO STANDARD OIL CO PR CO 235 (CAGUAS,PR)	0.66 mile	In compliance
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.86 mile	Inoperant
ST JUDE MEDICAL PUERTO RICO LLC (CAGUAS,PR)	0.76 mile	Exceeds one (1) mile radius
MUNICIPIO AUTONOMO DE CAGUAS SECRETARI (CAGUAS,PR)	0.54 mile	In compliance
BECKMAN COULTER PR INC (CAGUAS,PR)	0.69 mile	Exceeds one (1) mile radius
LUMA CAGUAS DISTRICT OFFICE LINES OPERATIONS (CAGUAS,PR)	0.61 mile	In compliance
CAMERA MUNDI INC (CAGUAS,PR)	0.88 mile	In compliance
CENTRO AMBULATORIO HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.55 mile	In compliance
CVS PHARMACY 7969 (CAGUAS,PR)	0.81 mile	Inoperant (change of administration)

Name *Hazardous waste site at PR-156*	Distance	Status
WALGREENS 0038 (CAGUAS,PR)	0.73 mile	In compliance
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	0.88 mile	In compliance
WALGREENS 403 (CAGUAS,PR)	0.85 mile	In compliance
HALCON BAKER INC (CAGUAS,PR)	0.20 mile	In compliance
CONSOLIDATED PHARMACY (CAGUAS,PR)	0.68 mile	In compliance
CARIBE WATER TECHNOLOGY INC (CAGUAS,PR)	0.06 mile	In compliance
OREILLY AUTO ENTERPRISES LLC 6490 (CAGUAS,PR)	0.28 mile	In compliance
ESCUELA OSCAR BUNKER (CAGUAS,PR)	0.84 mile	In compliance

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Report question: Within 1 undefined of a Hazardous waste site? yes

Modify question by entering a new buffer distance and unit for the selected study area.

1 | miles | Submit

Name	Distance
AUTOMECA TECHNICAL COLLEGE (CAGUAS,PR)	0.51 mile
SUPERSTATION BONNEVILLE SHELL (CAGUAS,PR)	0.53 mile
SEARS 2915 (CAGUAS,PR)	0.53 mile
CARIBBEAN PETROLEUM LP SS GULF 611 (CAGUAS,PR)	0.35 mile
LUMA CAGUAS MECHANICAL SHOP (CAGUAS,PR)	0.54 mile
CARIBBEAN PHOTO IMAGING (CAGUAS,PR)	0.54 mile
FARMACIA EL AMAL 26 (CAGUAS,PR)	0.59 mile
DEPT OF ED LUIS RAMOS GONZALEZ (CAGUAS,PR)	0.63 mile
UNITED PARCEL SERVICE (CAGUAS,PR)	0.43 mile
RHEEM PUERTO RICO INC (CAGUAS,PR)	0.60 mile
PATHEON PUERTO RICO INC (CAGUAS,PR)	0.61 mile
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.67 mile
SURGIMOS (CAGUAS,PR)	0.70 mile
AKRON MANUFACTURING CORP (CAGUAS,PR)	0.76 mile
KODAK RAHOLA INC (CAGUAS,PR)	0.49 mile
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.64 mile
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.64 mile
ESSO STANDARD OIL CO PR CO 100 (CAGUAS,PR)	0.29 mile
PEP BOYS 516 (CAGUAS,PR)	0.54 mile
SHELL CO PR LTD SS 2941 BONNEVILLE (CAGUAS,PR)	0.76 mile
SHELL CO PR LTD SS 804927 PARADIS (CAGUAS,PR)	0.76 mile
TROPICOLOR (CAGUAS,PR)	0.62 mile
SHELL CO PR LTD SHELL RATTAN IND (CAGUAS,PR)	0.22 mile
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.22 mile
SAM S CLUB 6389 (CAGUAS,PR)	0.99 mile
PRASA CAGUAS CENTRAL LAB (CAGUAS,PR)	0.23 mile
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.88 mile
ELECTRICAL CONTROL EQUIPMENT MFG CORP (CAGUAS,PR)	0.91 mile
CARTAGENA PRINTING (CAGUAS,PR)	0.20 mile
PERIODICO LA SEMANA (CAGUAS,PR)	0.66 mile
LEI SEMANA (CAGUAS,PR)	0.66 mile
ESSO STANDARD OIL CO PR CO 230 (CAGUAS,PR)	0.69 mile
AMIGO SUPERMARKET 3681 (CAGUAS,PR)	0.43 mile
NIVAX AUTO (CAGUAS,PR)	0.56 mile
MVP TOYOTA CAGUAS (CAGUAS,PR)	0.55 mile
ESSO STAND OIL CO PR SS CO 235 (CAYEY,PR)	0.66 mile
ESSO STANDARD OIL CO PR CO 235 (CAGUAS,PR)	0.66 mile
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.86 mile
ST JUDE MEDICAL PUERTO RICO LLC (CAGUAS,PR)	0.76 mile
MUNICIPIO AUTONOMO DE CAGUAS SECRETARI (CAGUAS,PR)	0.54 mile
BECKMAN COULTER PR INC (CAGUAS,PR)	0.65 mile
LUMA CAGUAS DISTRICT OFFICE LINES OPERATIONS (CAGUAS,PR)	0.51 mile
CAMERA MUNDI INC (CAGUAS,PR)	0.80 mile
CENTRO AMBULATORIO HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.95 mile
CVS PHARMACY 7359 (CAGUAS,PR)	0.91 mile
WALGREENS 9838 (CAGUAS,PR)	0.72 mile
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	0.85 mile
WALGREENS 403 (CAGUAS,PR)	0.85 mile
HALCON BAKER INC (CAGUAS,PR)	0.20 mile
CONSOLIDATED PHARMACY (CAGUAS,PR)	0.68 mile
CARIBE WATER TECHNOLOGY INC (CAGUAS,PR)	0.06 mile
OREILLY AUTO ENTERPRISES LLC 5490 (CAGUAS,PR)	0.26 mile
ESCUELA OSCAR BUNKER (CAGUAS,PR)	0.54 mile

Name *Hazardous waste site at PR-34*	Distance	Status
AUTOMECA TECHNICAL COLLEGE (CAGUAS,PR)	0.51 mile	In compliance
SUPERSTATION BONNEVILLE SHELL (CAGUAS,PR)	0.93 mile	In compliance
SEARS 2915 (CAGUAS,PR)	0.53 mile	Inoperant
CARIBBEAN PETROLEUM LP SS GULF 011 (CAGUAS,PR)	0.35 mile	In compliance
LUMA CAGUAS MECHANICAL SHOP (CAGUAS,PR)	0.54 mile	In compliance
CARIBBEAN PHOTO IMAGING (CAGUAS,PR)	0.54 mile	In compliance
FARMACIA EL AMAL 26 (CAGUAS,PR)	0.59 mile	Inoperant
DEPT OF ED LUIS RAMOS GONZALEZ (CAGUAS,PR)	0.62 mile	In compliance
UNITED PARCEL SERVICE (CAGUAS,PR)	0.43 mile	In compliance
RHEEM PUERTO RICO INC (CAGUAS,PR)	0.88 mile	In compliance
PATHEON PUERTO RICO INC (CAGUAS,PR)	0.61 mile	Inoperant
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.97 mile	Inoperant
SURGIKOS (CAGUAS,PR)	0.76 mile	In compliance
ARBROOK MANUFACTURING CORP (CAGUAS,PR)	0.76 mile	In compliance
KODAK RAHOLA INC (CAGUAS,PR)	0.49 mile	Inoperant
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.64 mile	In compliance
PR ARMY NATIONAL GUARD (CAGUAS,PR)	0.94 mile	In compliance

Name *Hazardous waste site at PR-34*	Distance	Status
ESSO STANDARD OIL CO PR CO 160 (CAGUAS,PR)	0.29 mile	In compliance
PEP BOYS 916 (CAGUAS,PR)	0.54 mile	Inoperant
SHELL CO PR LTD SS 2941 BONNEVILLE (CAGUAS,PR)	0.76 mile	In compliance
SHELL CO PR LTD SS 804827 PARADIS (CAGUAS,PR)	0.76 mile	In compliance
TROPICOLOR (CAGUAS,PR)	0.62 mile	Inoperant
SHELL CO PR LTD SHELL RATTAN IND (CAGUAS,PR)	0.22 mile	Inoperant
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.22 mile	Inoperant
SAM S CLUB 6689 (CAGUAS,PR)	0.99 mile	In compliance
PRASA CAGUAS CENTRAL LAB (CAGUAS,PR)	0.25 mile	In compliance
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.88 mile	In compliance
ELECTRICAL CONTROL EQUIPMENT MFG CORP (CAGUAS,PR)	0.81 mile	In compliance
CARTAGENA PRINTING (CAGUAS,PR)	0.20 mile	Exceeds one (1) mile radius
PERIODICO LA SEMANA (CAGUAS,PR)	0.66 mile	In compliance
LEI SEMONA (CAGUAS,PR)	0.66 mile	In compliance
ESSO STANDARD OIL CO PR CO 236 (CAGUAS,PR)	0.69 mile	In compliance
AMIGO SUPERMARKET 3681 (CAGUAS,PR)	0.45 mile	In compliance
NIWAY AUTO (CAGUAS,PR)	0.56 mile	Inoperant

Name *Hazardous waste site at PR-34*	Distance	Status
MVP TOYOTA CAGUAS (CAGUAS,PR)	0.55 mile	In compliance
ESSO STAND OIL CO PR SS CO 235 (CAYEY,PR)	0.66 mile	In compliance
ESSO STANDARD OIL CO PR CO 235 (CAGUAS,PR)	0.66 mile	In compliance
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.86 mile	Inoperant
ST JUDE MEDICAL PUERTO RICO LLC (CAGUAS,PR)	0.76 mile	Exceeds one (1) mile radius
MUNICIPIO AUTONOMO DE CAGUAS SECRETARI (CAGUAS,PR)	0.54 mile	In compliance
BECKMAN COULTER PR INC (CAGUAS,PR)	0.69 mile	Exceeds one (1) mile radius
LUMA CAGUAS DISTRICT OFFICE LINES OPERATIONS (CAGUAS,PR)	0.61 mile	In compliance
CAMERA MUNDI INC (CAGUAS,PR)	0.88 mile	In compliance
CENTRO AMBULATORIO HIMA SAN PABLO CAGUAS (CAGUAS,PR)	0.55 mile	In compliance
CVS PHARMACY 7969 (CAGUAS,PR)	0.81 mile	Inoperant (change of administration)
WALGREENS 0038 (CAGUAS,PR)	0.73 mile	In compliance
PRPHA BRISAS DEL TURABO I (CAGUAS,PR)	0.88 mile	In compliance
WALGREENS 403 (CAGUAS,PR)	0.85 mile	In compliance
HALCON BAKER INC (CAGUAS,PR)	0.20 mile	In compliance
CONSOLIDATED PHARMACY (CAGUAS,PR)	0.68 mile	In compliance

Name *Hazardous waste site at PR-34*	Distance	Status
CARIBE WATER TECHNOLOGY INC (CAGUAS,PR)	0.06 mile	In compliance
OREILLY AUTO ENTERPRISES LLC 6490 (CAGUAS,PR)	0.28 mile	In compliance
ESCUELA OSCAR BUNKER (CAGUAS,PR)	0.84 mile	In compliance

Leoncio Velazquez Boulevard

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Report question: Within 1 undefined of a Hazardous waste sites yes

Modify question by entering a new buffer distance and unit for the selected study area.

1 | miles | Submit

Name	Distance
GENERAL ELECTRIC CAGUAS OPERATION (CAGUAS,PR)	0.37 mile
ULTRALUMBER CORP (CAGUAS,PR)	0.39 mile
DEPARTAMENTO DE SANEAMENTO (CAGUAS,PR)	0.76 mile
SHELL CO PR LTD VILLA BLANCA SS 0701 (CAGUAS,PR)	0.36 mile
SHELL CO PR LTD MARI OLGA SS 2870 (CAGUAS,PR)	0.95 mile
BENITEZ AUTO CAGUAS (CAGUAS,PR)	0.15 mile
BENITEZ AUTO (CAGUAS,PR)	0.15 mile
DEPT OF ED CHARLES E MINER SCHOOL (CAGUAS,PR)	0.76 mile
BANNER PUERTO RICO PAINTS INC (CAGUAS,PR)	0.41 mile
BANNER PAINTS (CAGUAS,PR)	0.61 mile
U M I DE PR INC (CAGUAS,PR)	0.45 mile
LAZARE KAPLAN PR INC (CAGUAS,PR)	0.32 mile
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.52 mile
NEWBRIDGE NETWORKS INTL CORP (CAGUAS,PR)	0.65 mile
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.95 mile
ESSO STANDARD OIL CO PR SP 262 (CAGUAS,PR)	0.21 mile
CAGUAS EQUIPMENT RENTAL INC (CAGUAS,PR)	0.55 mile
GOV OF PR DEPT AGRICULTURE ASDA (CAGUAS,PR)	0.18 mile
CENTENNIAL OF PUERTO RICO (CAGUAS,PR)	0.23 mile
PRASA CAGUAS WASTEWATER TRTMT (CAGUAS,PR)	0.83 mile
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.51 mile
CIP SUPERFUND SITE (CAGUAS,PR)	0.24 mile
GARAJE JUANO (CAGUAS,PR)	0.76 mile
CHARNEDO EUROPEAN HAUS (CAGUAS,PR)	0.76 mile
MEADWESTVACO HEALTHCARE PACKAGING PR LLC (CAGUAS,PR)	0.39 mile
DIESEL ENGINE TECHNICIAN (CAGUAS,PR)	0.76 mile
BENITEZ PAINT BODY SHOP (CAGUAS,PR)	0.76 mile
GREGORY EQUIP CORP (CAGUAS,PR)	0.76 mile
HOSPITAL HIMA SAN PABLO (CAGUAS,PR)	0.31 mile
FARMACIA EL AMAL 12 (CAGUAS,PR)	0.64 mile
X PRESS RY CLEANERS (CAGUAS,PR)	0.40 mile
XPRESS DRY CLEANER (CAGUAS,PR)	0.40 mile
MTG TECHNOLOGY SERVICES INC (CAGUAS,PR)	0.61 mile
ROJAS GEORGE (CAGUAS,PR)	0.76 mile
IMPRESSION ASSOCIATES INC (CAGUAS,PR)	0.76 mile
JANSSEN ORTHO LLC EXTERNAL WHSE (CAGUAS,PR)	0.35 mile
IFCO RECYCLING INC (CAGUAS,PR)	0.71 mile
WESTERN AUTO CORP (CAGUAS,PR)	0.32 mile
CARIBBEAN CV JOINTS AXLE CO (CAGUAS,PR)	0.35 mile
DAEWOOD CAGUAS (CAGUAS,PR)	0.07 mile
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.76 mile
CAGUAS BLOOD CANCER CENTER (CAGUAS,PR)	0.76 mile
TOTAL PETROLEUM PUERTOR ICO CORP SERVICE STATION 304130 (CAGUAS,PR)	0.76 mile
CAMERA MUNDI INC (CAGUAS,PR)	0.55 mile
INDUSTRIAS AUTOMOTRICES FIGUEROA USA TRANS (CAGUAS,PR)	0.16 mile
UNITED PARCEL SERVICE (CAGUAS,PR)	0.31 mile
UPS (CAGUAS,PR)	0.31 mile
OMEGA MARKET RESEARCH (CAGUAS,PR)	0.03 mile

Name *Hazardous waste site at Leoncio Velazquez Boulevard*	Distance	Status
GENERAL ELECTRIC CAGUAS OPERATION (CAGUAS,PR)	0.27 mile	In compliance
ULTRALUMBER CORP (CAGUAS,PR)	0.39 mile	In compliance
DEPARTAMENTO DE SANEAMENTO (CAGUAS,PR)	0.76 mile	In compliance
SHELL CO PR LTD VILLA BLANCA SS 0701 (CAGUAS,PR)	0.36 mile	In compliance
SHELL CO PR LTD MARI OLGA SS 2879 (CAGUAS,PR)	0.95 mile	In compliance
BENITEZ AUTO CAGUAS (CAGUAS,PR)	0.15 mile	In compliance
BENITEZ AUTO (CAGUAS,PR)	0.15 mile	In compliance
DEPT OF ED CHARLES E MINER SCHOOL (CAGUAS,PR)	0.76 mile	In compliance
BANNER PUERTO RICO PAINTS INC (CAGUAS,PR)	0.41 mile	In compliance
BANNER PAINTS (CAGUAS,PR)	0.41 mile	In compliance
U M I DE PR INC (CAGUAS,PR)	0.46 mile	In compliance
LAZARE KAPLAN PR INC (CAGUAS,PR)	0.32 mile	In compliance
B H MICROFILM COMPONENTS INC (CAGUAS,PR)	0.52 mile	Inoperant
NEWBRIDGE NETWORKS INTL CORP (CAGUAS,PR)	0.46 mile	Inoperant
SACHS PLASTICS DIVISION (CAGUAS,PR)	0.95 mile	In compliance
ESSO STANDARD OIL CO PR 2P 252 (CAGUAS,PR)	0.21 mile	In compliance
CAGUAS EQUIPMENT RENTAL INC (CAGUAS,PR)	0.35 mile	In compliance
GOV OF PR DEPT AGRICULTURE ASDA (CAGUAS,PR)	0.18 mile	In compliance
CENTENNIAL OF PUERTO RICO (CAGUAS,PR)	0.28 mile	In compliance

Name *Hazardous waste site at Leoncio Velazquez Boulevard*	Distance	Status
PRASA CAGUAS WASTEWATER TRTMT (CAGUAS,PR)	0.83 mile	In compliance
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.54 mile	In compliance
CIP SUPERFUND SITE (CAGUAS,PR)	0.24 mile	
GARAJE JUANO (CAGUAS,PR)	0.76 mile	In compliance
CHARNECO EUROPEAN HAUS (CAGUAS,PR)	0.76 mile	In compliance
MEADWESTVACO HEALTHCARE PACKAGING PR LLC (CAGUAS,PR)	0.39 mile	Inoperant
DIESEL ENGINE TECHNICIAN (CAGUAS,PR)	0.76 mile	In compliance
BENITEZ PAINT BODY SHOP (CAGUAS,PR)	0.76 mile	In compliance
GREKORY EQUIP CORP (CAGUAS,PR)	0.76 mile	Exceeds one (1) mile radius
HOSPITAL HIMA SAN PABLO (CAGUAS,PR)	0.31 mile	In compliance
FARMACIA EL AMAL 12 (CAGUAS,PR)	0.44 mile	Inoperant
X PRESS RY CLEANERS (CAGUAS,PR)	0.40 mile	In compliance
XPRESS DRY CLEANER (CAGUAS,PR)	0.40 mile	In compliance
MFG TECHNOLOGY SERVICES INC (CAGUAS,PR)	0.81 mile	In compliance
ROJAS GEORGE (CAGUAS,PR)	0.76 mile	Unknown
IMPRESSION ASSOCIATES INC (CAGUAS,PR)	0.76 mile	In compliance
JANSSEN ORTHO LLC EXTERNAL WHSE (CAGUAS,PR)	0.35 mile	Exceeds one (1) mile radius
IFCO RECYCLING INC (CAGUAS,PR)	0.71 mile	In compliance
WESTERN AUTO CORP (CAGUAS,PR)	0.32 mile	In compliance

Name *Hazardous waste site at Leoncio Velazquez Boulevard*	Distance	Status
CARIBBEAN CV JOINTS AXLE CO (CAGUAS,PR)	0.35 mile	In compliance
DAEWOOD CAGUAS (CAGUAS,PR)	0.07 mile	In compliance
BERRIOS AUTO GALLERY (CAGUAS,PR)	0.76 mile	Inoperant
CAGUAS BLOOD CANCER CENTER (CAGUAS,PR)	0.76 mile	In compliance
TOTAL PETROLEUM PUERTOR ICO CORP SERVICE STATION 304130 (CAGUAS,PR)	0.76 mile	In compliance
CAMERA MUNDI INC (CAGUAS,PR)	0.55 mile	In compliance
INDUSTRIAS AUTOMOTRICES FIGUEROA USA TRANS (CAGUAS,PR)	0.16 mile	In compliance
UNITED PARCEL SERVICE (CAGUAS,PR)	0.34 mile	In compliance
UPS (CAGUAS,PR)	0.34 mile	In compliance
OMEGA MARKET RESEARCH (CAGUAS,PR)	0.08 mile	In compliance

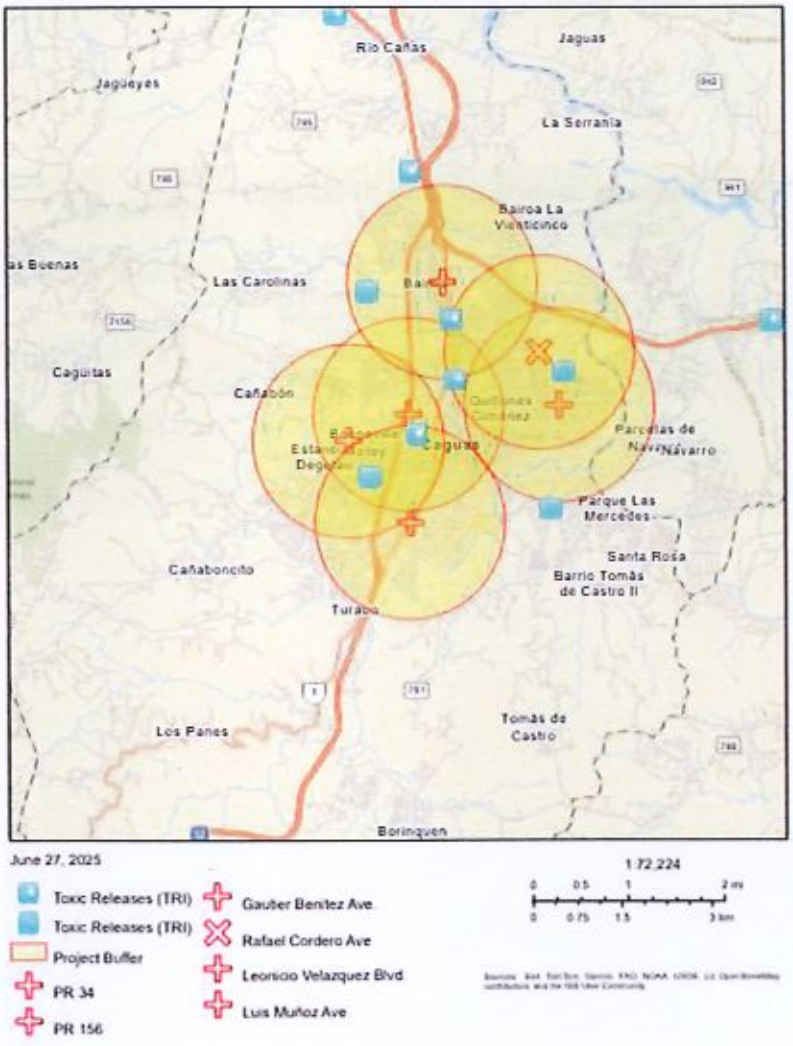
Contamination and Toxic Substances: Toxic Release Inventory (TRI) site List

Using the NEPAssist Tool, we established a midpoint on each avenue:

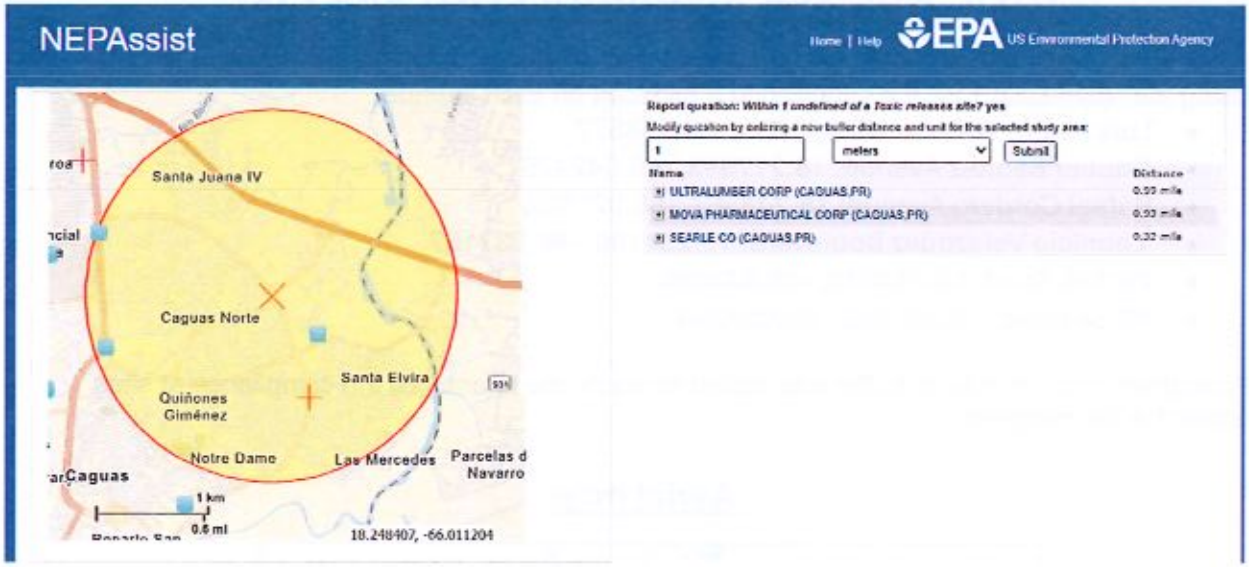
- Luis Muñoz Avenue: 18.235605, -66.018577
- Gautier Benitez Avenue: 18.217993, -66.042476
- Rafael Cordero Avenue: 18.243567, -66.021692
- Leonicio Velazquez Boulevard: 18.254106, -66.037167
- PR 156 Road: 18.234232, -66.042690
- PR 34 Road: 18.230256, -66.052290

From there, one (1) mile of buffer was added for each one to analyze the compliance at sites under the TRI program.

Aerial map



Rafael Cordero Avenue



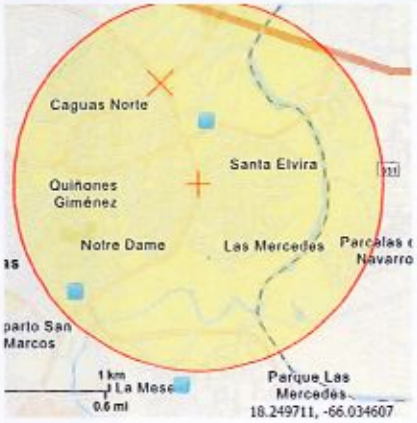
Name Toxic Release Inventory site at Rafael Cordero Avenue	Distance	Status
ULTRALUMBER CORP (CAGUAS,PR)	0.99 mile	In compliance
MOVA PHARMACEUTICAL CORP (CAGUAS,PR)	0.93 mile	In compliance
SEARLE CO (CAGUAS,PR)	0.32 mile	Inoperant (change of administration)

Luis Muñoz Marin Avenue

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Report question: ***Within 1 undefined of a Toxic releases site?***

yes

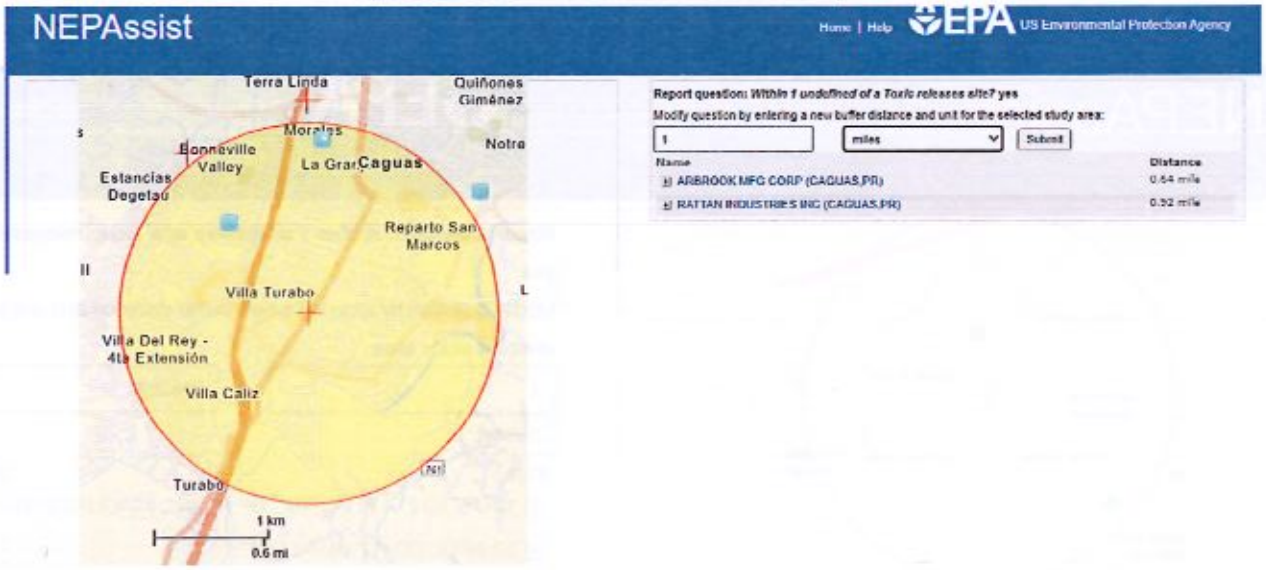
Modify question by entering a new buffer distance and unit for the selected study area:

1 | meters | Submit

Name	Distance
⊞ MATSUSHITA ELECTRIC OF PR INC (CAGUAS,PR)	0.88 mile
⊞ SEARLE CO (CAGUAS,PR)	0.35 mile

Name Toxic Release Inventory *site* at Luis Muñoz Marin Avenue	Distance	Status
MATSUSHITA ELECTRIC OF PR INC (CAGUAS,PR)	0.88 mile	In compliance
SEARLE CO (CAGUAS,PR)	0.35 mile	Inoperant (change of administration)

Gautier Benitez Avenue



Name Toxic Release Inventory site *at Gautier Benitez Avenue*	Distance	Status
ARBROOK MFG CORP (CAGUAS,PR)	0.64 mile	In compliance
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.92 mile	Inoperant

PR-156

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Report question: ***Within 1 undefined of a Toxic releases site?*** **yes**

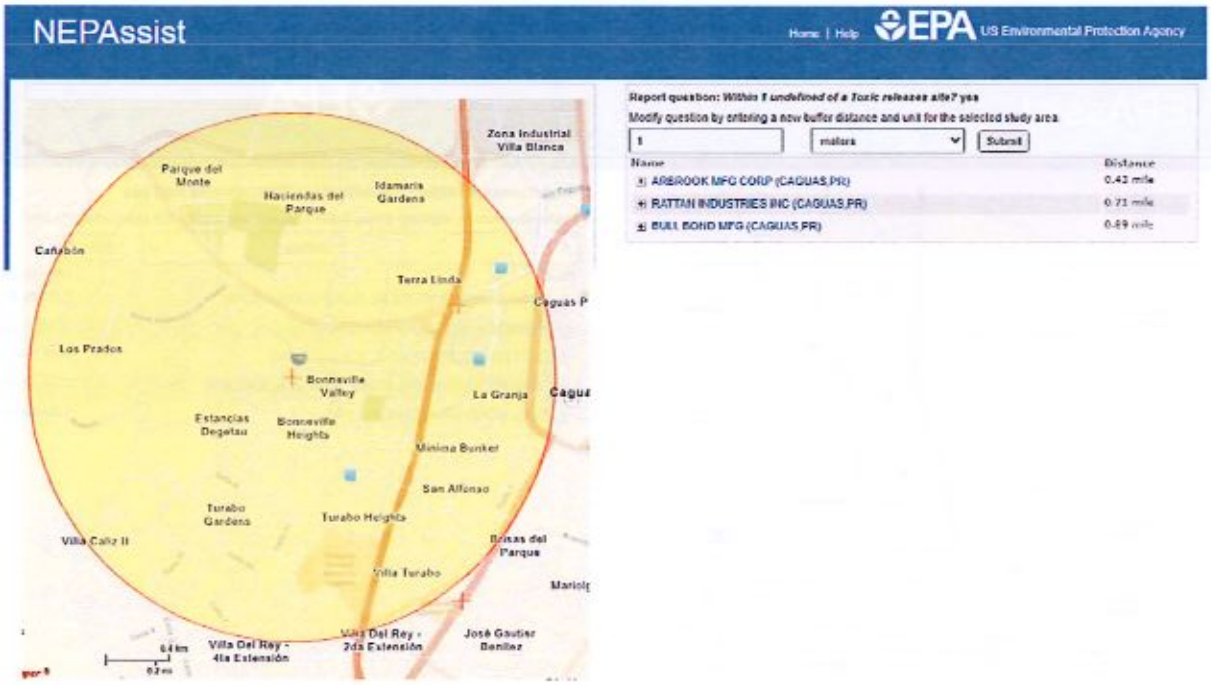
Modify question by entering a new buffer distance and unit for the selected study area

1 | meters | Submit

Name	Distance
MOVA PHARMACEUTICAL CORP (CAGUAS,PR)	0.61 mile
ARBROOK MFG CORP (CAGUAS,PR)	0.76 mile
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.22 mile
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.88 mile
BULL BOND MFG (CAGUAS,PR)	0.22 mile

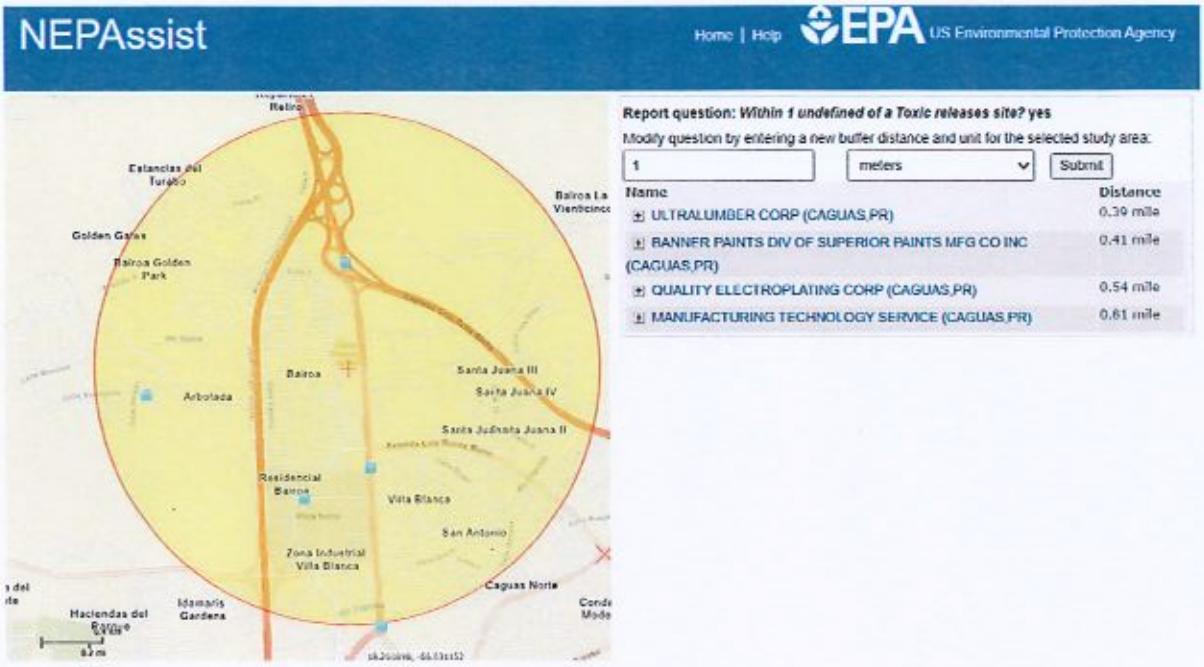
Name of Toxic Release Inventory site *at PR-156*	Distance	Status
MOVA PHARMACEUTICAL CORP (CAGUAS,PR)	0.61 mile	In compliance
ARBROOK MFG CORP (CAGUAS,PR)	0.76 mile	In compliance
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.22 mile	Inoperant
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.88 mile	In compliance
BULL BOND MFG (CAGUAS,PR)	0.22 mile	Unknow

PR-34



Name Toxic Release Inventory site *at PR-34*	Distance	Status
ARBROOK MFG CORP (CAGUAS,PR)	0.43 mile	In compliance
RATTAN INDUSTRIES INC (CAGUAS,PR)	0.71 mile	Inoperant
BULL BOND MFG (CAGUAS,PR)	0.89 mile	Unknown

Leoncio Velazquez Boulevard



Name Toxic Release Inventory site *at Leoncio Velazquez Boulevard*	Distance	Status
ULTRALUMBER CORP (CAGUAS,PR)	0.39 mile	In compliance
BANNER PAINTS DIV OF SUPERIOR PAINTS MFG CO INC (CAGUAS,PR)	0.41 mile	In compliance
QUALITY ELECTROPLATING CORP (CAGUAS,PR)	0.54 mile	In compliance
MANUFACTURING TECHNOLOGY SERVICE (CAGUAS,PR)	0.81 mile	In compliance

Image 1. Map of PR-34 int. with Degetau Avenue

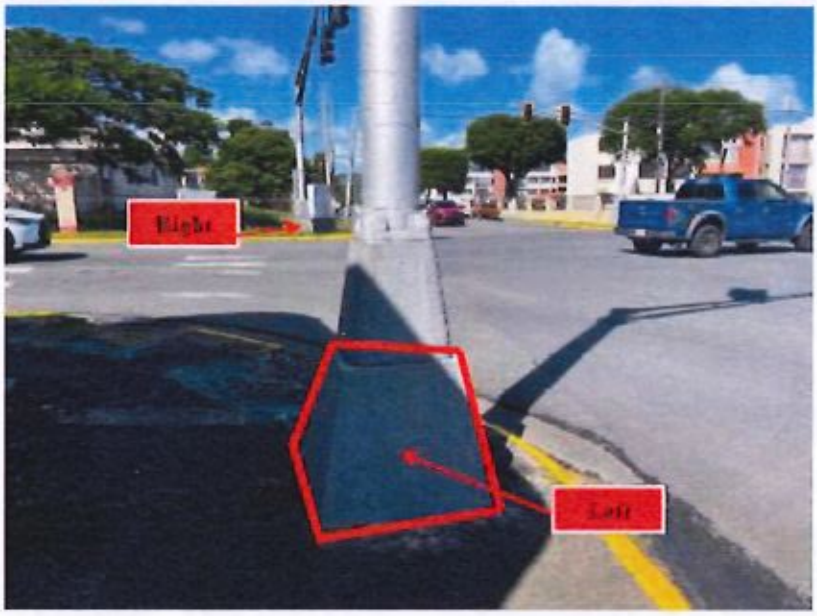
Location -Light pole bases positive to lead



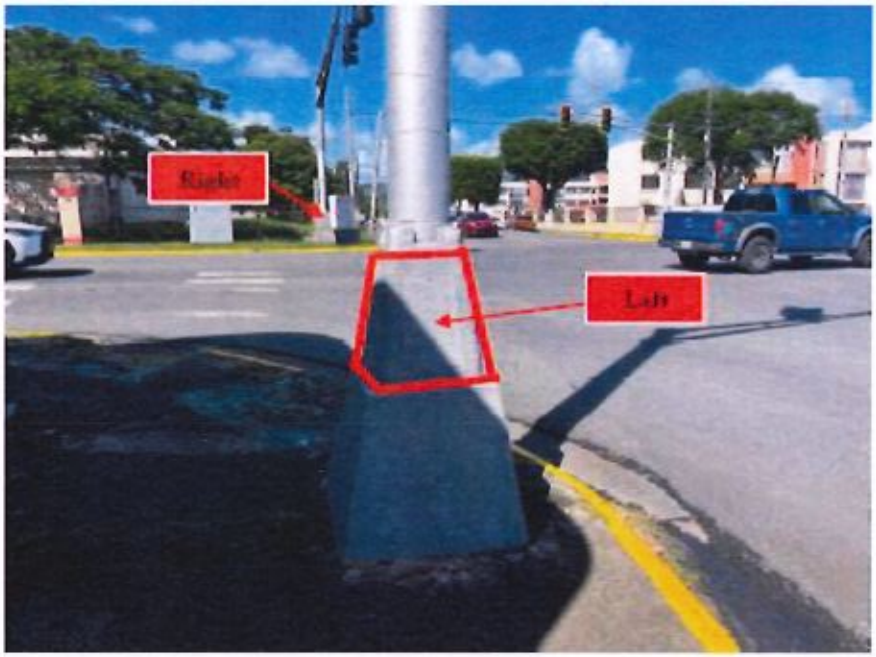
Luminaries (concrete and metal base)

Image 2: PR-34 int. with Degetau Avenue

Light pole bases positive to lead



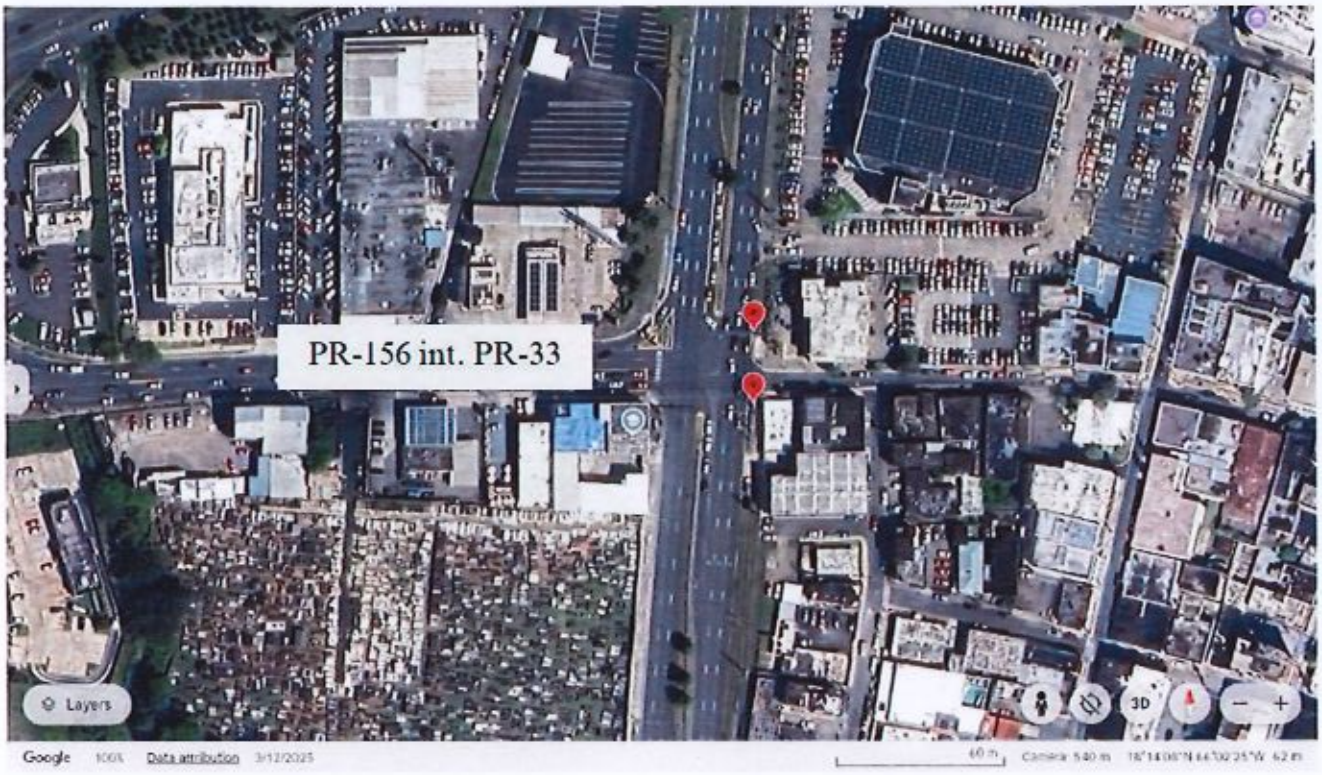
Road PR-34 Int. Degetau Ave.- Concrete Light Pole Bases (All Sides) with Lead Based Paint



Road PR-34 Int. Degetau Ave.- Metal Light Pole Bases (All Sides) with Lead Based Paint

Image 3. Map of PR-156 int. with PR-33

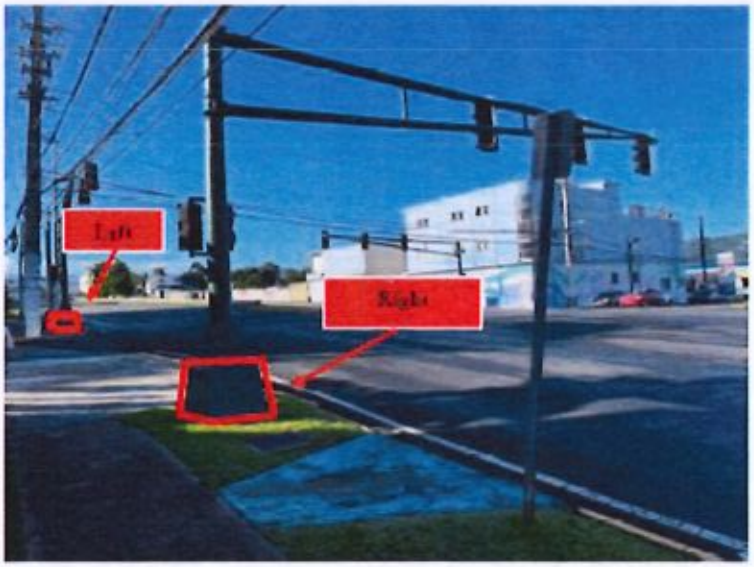
Location -Light pole bases positive to lead



Luminaries (concrete and metal base)

Image 4: PR-156 int. with PR-33

Light pole bases positive to lead



Road PR-156 Int. PR-33 - Concrete Light Pole Bases (All Sides) with Lead Based Paint



Road PR-156 Int. PR-33 - Metal Light Pole Bases (All Sides) with Lead Based Paint

Detailed Facility Report

Facility Summary

PATHEON PUERTO RICO INC

PR-1 KM 34.3 VILLA BLANCA INDUSTRIAL PARK, CAGUAS, PR 00726

FRS (Facility Registry Service) ID: 110007807971

EPA Region: 02

Latitude: 18.239507

Longitude: -66.035257

Locational Data Source: RCRAINFO

Industries: Chemical Manufacturing

Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	--
Qtrs in Noncompliance (of 12)	--
Qtrs with Significant Violation	--
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	**RCRA**
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	09/09/2011
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Statute	SDWA
Compliance Monitoring Activities (5 years)	.
Date of Last Compliance Monitoring Activity	.
Compliance Status	Inactive
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	
Formal Enforcement Actions (5 years)	
Penalties from Formal Enforcement Actions (5 years)	
EPA Cases (5 years)	
Penalties from EPA Cases (5 years)	

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): No Information

Resource Conservation and Recovery Act (RCRA): Inactive Other, (PRD174010377)

Safe Drinking Water Act (SDWA): OWNER: Private, PRIMARY SERVICE AREA DESCRIPTION: Other Transient Area, SOURCE: Ground water, TYPE: Non-transient non-community system Permit Inactive - 2021-12-17 (PR0513436)

Go To Enforcement/Compliance Details

Known Data Problems <https://ircpa.gov/resources/echo_data/known_data_problems>

Other Regulatory Reports

Air Emissions Inventory (EIS): 0960411

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): 00726MVPHRSTATE

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110037607971					N	18.235567	-66.035257
ICIS		1600045177					N	18.235567	-66.035257
ICIS		1600033778					N	18.235567	-66.035257
EIS	CAA	0960411					N	18.2357	-66.0353
TRI	EPCRA	00726MVPHRSTATE	Toxics Release Inventory	Last Reported for 2006			N	18.235567	-66.035257
RCRAInfo	RCRA	PRD174010377	Other	Inactive ()			N	18.235567	-66.035257
SDWIS	SDWA	PR0513436	OWNER: Private, PRIMARY SERVICE AREA DESCRIPTION: Other Transient Area, SOURCE: Ground water, TYPE: Non-transient non-community system	Inactive - 2021-12-17	Population Served: 900		N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110037607971	PATHEON PUERTO RICO INC	KM 34.3, VILLA BLANCA INDUSTRIAL PARK, CAGUAS, PR 00726	Caguas,Municipio
ICIS		1600045177	PATHEON PUERTO RICO INC	STATE ROAD 1 KM 34.3, CAGUAS, PR 00725	Caguas,Municipio
ICIS		1600033778	PATHEON PUERTO RICO INC	STATE ROAD 1 KM 34.3, CAGUAS, PR 00726	Caguas,Municipio
EIS	CAA	0960411	PATHEON PHARMACEUTICALS	KM 1, KM 34.3, VILLA BLANCA INDUSTRIAL PARK, CAGUAS, PR 00726	Caguas,Municipio
TRI	EPCRA	00726MVPHRSTATE	NOVA PHARMACEUTICAL CORP	STATE RD 1 KM 34.3 VILLA BLANCA INDUSTRIAL PARK, CAGUAS, PR 00726	Caguas,Municipio
RCRAInfo	RCRA	PRD174010377	PATHEON PUERTO RICO INC	ROAD 1 KM 34.4, CAGUAS, PR 00726	Caguas,Municipio
SDWIS	SDWA	PR0513436	NOVA PHARMACEUTICAL CORP.	PR	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
TRI	00726MVPHRSTATE	2834	Pharmaceutical Preparations

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00726MVPHRSTATE	325412	Pharmaceutical Preparation Manufacturing
EIS	0960411	325412	Pharmaceutical Preparation Manufacturing
RCRAInfo	PRD174010377	325412	Pharmaceutical Preparation Manufacturing

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)

No data records returned

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> activities or because they are not counted as inspections within EPA's Annual Results <https://www.epa.gov/enforcement/enforcement-data-and-results>.

SDWA (Safe Drinking Water Act) Sanitary Survey Results (5 Years)

Source ID	Date	Type	Agency	Data Verification	Distribution	Management Operation	Finished Water Storage	Operator Compliance	Other Evaluation	Pumps	Security	Source	Financial	Treatment

No data records returned

Sanitary survey result codes:

S = Significant Deficiencies
M = Minor Deficiencies
R = Recommendations Made
N = No Deficiencies or Recommendations
X = Not Evaluated
Z = Not Applicable
D = Sanitary Defect
-- = Not Reported to EPA

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	PRD174050377	No	06/07/2025	0	06/06/2025
SDWA	PR0613436	No	12/31/2024	0	05/08/2025

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11
RCRA (Source ID: PRD174050377)			07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12/31/24	01/01-03/31/25
	Facility-Level Status		No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation	Agency											

Statute	Violation Type/Category		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR
SDWA (Source ID: PR0613436)			01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12
	Facility-Level Status		Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inact
	Category	Violation Type												

*Quarter 13 data is voluntarily entered and/or incomplete, and may not form a complete picture for that quarter. Read more <https://epa.gov/help/reports/dfr-data-dictionary#sdwacomp>

SDWA Compliance Data Last Reported: 12/31/2024

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

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

Formal Enforcement Actions

Last 5 Years

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

No data records returned

SDWA (Safe Drinking Water Act) Violations and Enforcement Actions (5 Years)

Violations										Enforcement Actions			
Source ID	Noncompliance Period	Violation ID	Federal Rule	Contaminant	Category	Description	Measured Value	State MCL (Maximum Contaminant Level)	Federal MCL (Maximum Contaminant Level)	Status	Date	Category	Description	Agency
990613436	04/01/2021 - 06/30/2021	0	Revised Total Coliform Rule	Revised Total Coliform Rule	3019	Monitoring Violation	–	–	–	Archived				

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (EAS (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS-[Integrated Compliance Information System])	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-Listed Aquatic Species?

No data records returned

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use

No data records returned

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

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

TRI FacilityID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers

No data records returned

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

Chemical Name

No data records returned

Community

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2022 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and ACS census block groups in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://cpa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (ACS (American Community Survey))	
Total Persons	23,573
Population Density	7,857/sq mi
Housing Units in Area	12,034
Percent People of Color	98%
Households in Area	10,036
Households on Public Assistance	431
Persons With Low Income	18,024
Percent With Low Income	77%

Geography	
Radius of Selected Area	1 mi
Center Latitude	35.739707
Center Longitude	-86.815247

Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Children 5 years and younger	1,810 (7%)
Minors 17 years and younger	4,717 (18%)
Adults 18 years and older	19,677 (82%)
Seniors 65 years and older	5,283 (22%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
White	12,193 (52%)
African-American	2,174 (9%)
Hispanic-Origin	22,661 (97%)
Asian	98 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	61 (0%)
Other/Multi-Racial	5,317 (23%)

Geography	
Total Area	--
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than $15,000	3,977 (39.435%)
$15,000 - $25,000	1,662 (16.479%)
$25,000 - $50,000	2,788 (27.646%)
$50,000 - $75,000	940 (9.32%)
Greater than $75,000	718 (7.12%)

Education level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	1,698 (9.69%)
9th through 12th Grade	1,336 (7.74%)
High School Diploma	5,105 (29.73%)
Some College/2-year	2,345 (13.66%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	6,842 (38.77%)

Detailed Facility Report

Facility Summary

BULL BOND MFG

RIO CANAS INDUSTRIAL PARK LOT # 35, CAGUAS, PR 00725

FRS (Facility Registry Service) ID: 110070550490

EPA Region: 02

Latitude: 18.2363

Longitude: -66.04023

Locational Data Source: TRIS

Industries: Chemical Manufacturing

Indian Country: N

Enforcement and Compliance Summary

No data records returned

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): No Information

Resource Conservation and Recovery Act (RCRA): No Information

Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): 0072WBLLBNRICAN

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110070550490					N	18.2363	-66.04023
TRI	EPCRA	0072WBLLBNRICAN	Toxics Release Inventory	Last Reported for 2018			N	18.2363	-66.04023

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110070550490	BULL BOND MFG	RIO CANAS INDUSTRIAL PARK LOT II 35, CAGUAS, PR 00725	Caguas Municipio
TRI	EPCRA	0072WBLLBNRICAN	BULL BOND MFG	RIO CANAS INDUSTRIAL PARK LOT # 35 - ROAD 175 KM 0.2, CAGUAS, PR 00725	Caguas Municipio

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description

No data records returned

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	0072WBLLBNRICAN	325510	Paint and Coating Manufacturing

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)

No data records returned

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> *activities or because they are not counted as inspections within EPA's Annual Results* <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed

No data records returned

Three-Year Compliance History by Quarter

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

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

Formal Enforcement Actions

Last 5 Years

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

No data records returned

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?

No data records returned

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use

No data records returned

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

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

TRI Pollution Prevention Report

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
0072WBLLBNRICAN	2018	--	--	0	--	--	0	--

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

Chemical Name	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Zinc compounds	--	--	--	--	--	R	--	--	--	--

Community

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2022 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and ACS census block groups in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (ACS (American Community Survey))	
Total Persons	23,551
Population Density	7,547/sq.mi.
Housing Units in Area	12,291
Percent People of Color	98%
Households in Area	10,161
Households on Public Assistance	462
Persons With Low Income	17,337
Percent With Low Income	74%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.2363

Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Children 5 years and younger	1,116 (5%)
Minors 17 years and younger	3,996 (17%)
Adults 18 years and older	19,552 (83%)
Seniors 65 years and older	5,180 (22%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
White	17,148 (57%)
African-American	2,199 (9%)
Hispanic Origin	22,915 (97%)
Asian	106 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	42 (0%)

Geography	
Center Longitude	-66.04023
Total Area	--
Land Area	100%
Water Area	0%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than $15,000	3,805 (37.47%)
$15,000 - $25,000	1,681 (16.56%)
$25,000 - $50,000	2,760 (27.18%)
$50,000 - $75,000	1,106 (10.89%)
Greater than $75,000	802 (7.9%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
Other/Multiracial	5,230 (22%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	1,607 (9.19%)
9th through 12th Grade	1,171 (6.84%)
High School Diploma	4,919 (28.73%)
Some College/2-year	2,457 (14.35%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	5,032 (29.39%)

Detailed Facility Report

Facility Summary

NEOLPHARMA, INC

99 JARDINES ST, CAGUAS, PR 00725

FRS (Facility Registry Service) ID: 110042081038

EPA Region: 02

Latitude: 18.240619

Longitude: -66.017865

Locational Data Source: FRS

Industries: Chemical Manufacturing

Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	03/05/2024
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	**CWA**
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	04/10/2015
Compliance Status	Not Applicable
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Statute	RCRA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	08/09/2021
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	2
Qtrs with Significant Violation	2
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	2
Penalties from Formal Enforcement Actions (5 years)	$7,500
EPA Cases (5 years)	1
Penalties from EPA Cases (5 years)	$7,500

Regulatory Information

Clean Air Act (CAA): Operating 80% Synthetic Minor (PR0000007202500004)

Clean Water Act (CWA): Non-Major, Permit Pending (PRR05BZ92)

Resource Conservation and Recovery Act (RCRA): Active LQG, (PRD090378225)

Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): 15514511

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): 00625SRLCXSTATE

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110042081038					N	18.240639	-66.017865
ICIS		43975					N	18.241444	-66.017975
ICIS-Air	CAA	PR0000007202500004	80% Synthetic Minor Emissions	Operating	CAMACT, CANSPS, CASIP		N	18.241444	-66.017917
EIS	CAA	15514511					N	18.2421	-66.0187
ICIS-NPDES	CWA	PRR05BZ92	Non-Major: General Permit Covered Facility	Pending	Industrial Stormwater		N	18.241667	-66.017778
TRI	EPA13	00625SRLCXSTATE	Toxics Release Inventory	Last Reported for 1989			N	18.240619	-66.017865
RCRAInfo	RCRA	PRD090378225	LQG	Active (IIP)			N	18.242606	-66.017619

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110042081038	NEOLPHARMA, INC	99 JARDINES ST, CAGUAS, PR 00725	Caguas Municipio
ICIS		43975	SEARLE & CO.	STATE ROAD #189 KM. 2.0, CAGUAS, PR 00725	Caguas Municipio
ICIS-Air	CAA	PR0000007202500004	NEOLPHARMA (OPER/SM80)	PR 189 KM 2.0, CAGUAS, PR 00725	Caguas Municipio
EIS	CAA	15514511	NEOLPHARMA, INC.	PR-189, JARDINES, STREET 99, CAGUAS, PR 00936	Caguas Municipio
ICIS-NPDES	CWA	PRR05BZ92	NEOLPHARMA, INC.- NEOLPHARMA	99 JARDINES STREET, CAGUAS, PR 00725	Caguas Municipio
TRI	EPA13	00625SRLCXSTATE	SEARLE & CO	STATE RD 4189 KM 22 STA JUANA WARD, CAGUAS, PR 00725	Caguas Municipio
RCRAInfo	RCRA	PRD090378225	NEOLPHARMA INC	99 JARDINES ST, CAGUAS, PR 00725	Caguas Municipio

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
TRI	00625SRLCXSTATE	2834	Pharmaceutical Preparations
TRI	00625SRLCXSTATE	2860	Legacy Docket Conv
ICIS-Air	PR0000007202500004	2834	Pharmaceutical Preparations
ICIS-NPDES	PRR05BZ92	2834	Pharmaceutical Preparations
ICIS-NPDES	PRR05BZ92	3613	Switchgear And Switchboard Apparatus

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00625SRLCXSTATE	325412	Pharmaceutical Preparation Manufacturing
EIS	15514511	325412	Pharmaceutical Preparation Manufacturing
ICIS-Air	PR0000007202500004	325412	Pharmaceutical Preparation Manufacturing
RCRAInfo	PRD090378225	325412	Pharmaceutical Preparation Manufacturing

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

No data records returned

Enforcement and Compliance

RCRA (Hazardous Waste (Resource Conservation and Recovery Act) Compliance Pipeline (Compliance Monitoring → Violations → Enforcement Actions) (10 Years)

This table shows how violations relate to compliance monitoring (CM) activities and enforcement. Currently available for CAA and RCRA only. Full CM history available below.

Compliance Monitoring				Violations				Enforcement Actions			
Source ID	Compliance Monitoring Type	Compliance Monitoring Agency	Compliance Monitoring Date	Violation Type	Violation Agency	Violation Determined Date	Return to Compliance Date	Enforcement Type	Enforcement Action Date	Penalty Assessed	Comp Action Cost
PRD090378225	Compliance Evaluation Inspection	EPA	08/09/2023	262.A: Generators - General	EPA	08/21/2023	12/15/2023	Initial 3008(A) Compliance	01/08/2024	$7,500	$7,500
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	08/09/2023	12/27/2023				
					EPA	08/09/2023	12/15/2023	Final 3008(A) Compliance	01/08/2024	$7,500	$7,500
				262.A: Generators - General	EPA	08/09/2023	12/07/2023	Order	08/23/2023	--	--
				262.A: Generators - General	EPA	08/09/2023	12/07/2023	Verbal Informal			
				262.A: Generators - General							
PRD090378225	Compliance Evaluation Inspection	EPA	07/27/2018	262.A: Generators - General	EPA	07/27/2018	07/27/2018	Written Informal	11/29/2018	--	--
				262.A: Generators - General	EPA	07/27/2018	07/27/2018				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	07/27/2018	07/27/2018				

Entries in italics are not counted as compliance monitoring strategy activities. For programs without compliance monitoring strategies, entries in italics are not counted as on-site activities within EPA's Annual Results.

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CAA	PR0000007202500004	ICIS-Air	Inspection/Evaluation	FCE On-Site	EPA	03/05/2024	
RCRA	*PRD090378225*	*RCRAInfo*		*No Longer A Significant Non Compliar*	*EPA*	*12/27/2023*	
RCRA	*PRD090378225*	*RCRAInfo*		*Significant Non-Complier*	*EPA*	*09/05/2023*	
RCRA	PRD090378225	RCRAInfo/ICIS	Inspection/Evaluation	Compliance Evaluation Inspection	EPA	08/09/2023	Violations Or Compliance Issues Were Found

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> *activities or because they are not counted as inspections within EPA's Annual Results* <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	PR0000007202500004	No	06/07/2025	0	06/06/2025
CWA	PR0058292	No	12/31/2024	0	06/06/2025
RCRA	PRD090378225	No	06/07/2025	2	06/06/2025

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	
CAA (Source ID: PR0000007202500004)					07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12/31/24	01/(
	Facility-Level Status				No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	N
	HPV History														
	Violation Type	Agency	Programs	Pollutants											

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11
CWA (Source ID: PR0058292)		01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24
	Facility-Level Status	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	Quarterly Noncompliance Report History											

Statute	Program/Pollutant/Violation Type		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11
RCRA (Source ID: PRD090378225)			07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12/31/24	01/01-03/31/25
	Facility-Level Status		No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	Significant Noncomplier	Significant Noncomplier	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Evaluation	Agency											
RCRA	Significant Noncomplier	EPA					09/05/2023	12/27/2023					
	Violation	Agency											
RCRA	262.A: Generators - General	EPA					08/03/2023	12/15/2023					
RCRA	262.A: Generators - General	EPA					08/03/2023	12/07/2023					
RCRA	262.A: Generators - General	EPA					08/03/2023	12/07/2023					
RCRA	262.M: Preparedness, Prevention, and Emergency Procedures	EPA					08/09/2023	12/27/2023					
RCRA	262.A: Generators - General	EPA					08/21/2023	12/15/2023					

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date
RCRA	*RCRAInfo*	*PRD090378225*	*VERBAL INFORMAL*	*EPA*	*08/23/2023*

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

Formal Enforcement Actions

Last 5 Years

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
RCRA	RCRAInfo	--	RCRAINFO/PRD090378225	FINAL 3008(A) COMPLIANCE ORDER	--	EPA	--	--	1	01/08/2024	$7,500	$0	--	--	--
RCRA	ICIS	3002	RCRAINFO/PRD090378225	Administrative - Formal	02-2024-7301	EPA	Neolpharma, Inc.	01/08/2024	1	01/08/2024	$7,500	$0	--	$0	$7,500
RCRA	RCRAInfo	--	RCRAINFO/PRD090378225	INITIAL 3008(A) COMPLIANCE	--	EPA	--	--	1	01/08/2024	--	$0	--	--	--

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210100050404	Rio Caguitas	--	No	No	--	Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
PR	2024	PRER14I	RIO CAGUITAS	Impaired - 303(d) Listed - With Restoration Plan	METALS (OTHER THAN MERCURY) | NUTRIENTS | PATHOGENS | TEMPERATURE | TURBIDITY	Not Supporting	Not Supporting	--	Not Supporting	--

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

Toxics Release Inventory History of Reported Chemicals Released or

Air Pollutant Report

Transferred in Pounds per Year at Site

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers

No data records returned

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

Chemical Name

No data records returned

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

DMR and TRI Multi-Year Loading Report

NPDES ID	Description

No data records returned

e-Manifest Hazardous Waste History (Public)

Hazardous Waste Shipped in Kilograms by Year (Through 3/8/2025)

Source ID	Waste Description	2022	2023	2024	2025
PRD980378955	Hazardous Waste	12,554	7,711	2,540	1,824
PRD093148179	Acute Hazardous Waste	0 - 2	0 - 3	0	0
PRD060318125	Pharmaceutical Hazardous Waste	0	0	0	0

"Pharmaceutical Hazardous Waste" refers to quantities managed under 40 CFR part 266 subpart P and thus excluded from the Hazardous and Acute Hazardous Waste quantities shown above.

Community

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2022 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and ACS census block groups in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (ACS [American Community Survey])	
Total Persons	17,446
Population Density	3,744 (sq.mi.)
Housing Units in Area	8,456
Percent People of Color	98%
Households in Area	6,103
Households on Public Assistance	259
Persons With Low Income	13,735
Percent With Low Income	79%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	28.140639
Center Longitude	-66.611666
Total Area	–
Land Area	91%
Water Area	9%

Income Breakdown (ACS [American Community Survey]) - Households (%)	
Less than $15,000	2,567 (35.05%)
$15,000 - $25,000	1,282 (13.45%)
$25,000 - $50,000	1,933 (26.75%)
$50,000 - $75,000	759 (10.36%)
Greater than $75,000	691 (9.34%)

Age Breakdown (ACS [American Community Survey]) - Persons (%)	
Children 9 years and younger	991 (6%)
Minors 17 years and younger	3,017 (17%)
Adults 18 years and older	14,429 (83%)
Seniors 65 years and older	4,270 (24%)

Race Breakdown (ACS [American Community Survey]) - Persons (%)	
White	8,739 (50%)
African American	1,478 (8%)
Hispanic-Origin	16,973 (97%)
Asian	47 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	55 (0%)
Other/Multiracial	3,791 (22%)

Education Level (Persons 25 & older) (ACS [American Community Survey]) - Persons (%)	
Less than 9th Grade	1,313 (7.92%)
9th through 12th Grade	758 (3.97%)
High School Diploma	4,597 (28.11%)
Some College/2-year	1,851 (14.11%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	4,074 (31.46%)

Detailed Facility Report

Facility Summary

QUALITY ELECTROPLATING CORP

PR-1 KM 34.2 V. BLANCA IND, CAGUAS, PR 00725

FRS (Facility Registry Service) ID: 110008476602

EPA Region: 02

Latitude: 18.246756

Longitude: -66.039921

Locational Data Source: NPDES

Industries: Fabricated Metal Product Manufacturing

Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	02/14/2024
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--
Statute	**CWA**
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	8
Qtrs with Significant Violation	5
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Statute	EPCRA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	08/24/2021
Compliance Status	–
Qtrs in Noncompliance (of 12)	–
Qtrs with Significant Violation	–
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	–

Statute	RCRA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	03/30/2023
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	8
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	2
Penalties from Formal Enforcement Actions (5 years)	$15,000
EPA Cases (5 years)	1
Penalties from EPA Cases (5 years)	$15,000

Regulatory Information

Clean Air Act (CAA): Operating Minor (PR0000007202500019)

Clean Water Act (CWA): Non-Major, Permit Effective (PRR053205)

Resource Conservation and Recovery Act (RCRA): Active LQG, (PRD090592544)

Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): 7114611

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): 00626QLIYLSTATE

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110008476602					N	18.246756	-66.039921
ICIS		3000009261					N	18.240409	-66.03531
ICIS-Air	CAA	PR0000007202500019	Minor Emissions	Operating	CAAMACT, CAASIP		N	18.240417	-66.035306
EIS	CAA	7114611					N	18.2577	-66.0416
ICIS NPDES	CWA	PRR053205	Non-Major: General Permit Covered Facility	Effective	Industrial Stormwater	07/28/2026	N	18.246346	-66.039726
TRI	EPCRA	00626QLIYLSTATE	Toxics Release Inventory	Last Reported for 2023			N	18.240409	-66.03531
RCRAInfo	RCRA	PRD090592544	LQG	Active (H)			N	18.240409	-66.03531

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110008476602	QUALITY ELECTROPLATING CORP	PR-1 KM 34.2 V. BLANCA IND, CAGUAS, PR 00725	Caguas Municipio
ICIS		3000009261	QUALITY ELECTROPLATING CORP	ROAD # 1 KM 34.2 V. BLANCA IND, CAGUAS, PR 00725	Caguas Municipio

System	Statute	Identifier	Facility Name	Facility Address	Facility County
ICIS-Air	CAA	PR0000007202500019	QUALITY ELECTROPLATING CORP.	RD#1 KM 34.2 VILLA BLANCA IND. , CAGUAS, PR 00625	Caguas Municipio
EIS	CAA	7114611	QUALITY ELECTROPLATING CORP.	PR-1, KM 34.2, VILLA BLANCA INDUSTRIAL PARK, CAGUAS, PR 00726	Caguas Municipio
ICIS-NPDES	CWA	PRR053205	QUALITY ELECTROPLATING CORP	SAKURA ST. VILLA BLANCA INDUSTRIAL PARK, CAGUAS, PR 00726	Caguas Municipio
TRI	EPA313	00626QLTYLSTATE	QUALITY ELECTROPLATING CORP	SAKURA ST VILLA BLANCA IND US TRIAL PARK, CAGUAS, PR 00725	Caguas Municipio
RCRAInfo	RCRA	PRD090592544	QUALITY ELECTROPLATING CORP	SAKURA STATE RD 1 KM 34.2 - VILLA BLANCA IND PARK, CAGUAS, PR 00725	Caguas Municipio

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
TRI	00626QLTYLSTATE	3471	Plating And Polishing
ICIS-Air	PR0000007202500019	3471	Plating And Polishing
ICIS-NPDES	PRR053205	3471	Plating And Polishing

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00626QLTYLSTATE	332813	Plate Work Manufacturing
TRI	00626QLTYLSTATE	332813	Electroplating, Plating, Polishing, Anodizing, and Coloring
EIS	7114611	332813	Electroplating, Plating, Polishing, Anodizing, and Coloring
ICIS-Air	PR0000007202500019	332813	Electroplating, Plating, Polishing, Anodizing, and Coloring
RCRAInfo	PRD090592544	332813	Electroplating, Plating, Polishing, Anodizing, and Coloring

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description

No data records returned

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

RCRA (Hazardous Waste (Resource Conservation and Recovery Act) Compliance Pipeline (Compliance Monitoring → Violations → Enforcement Actions) (10 Years)

This table shows how violations relate to compliance monitoring (CM) activities and enforcement. Currently available for CAA and RCRA only. Full CM history available below.

Compliance Monitoring				Violations				Enforcement Actions			
Source ID	Compliance Monitoring Type	Compliance Monitoring Agency	Compliance Monitoring Date	Violation Type	Violation Agency	Violation Determined Date	Return to Compliance Date	Enforcement Type	Enforcement Action Date	Penalty Assessed	Comp Action Cost
PRD090592544	Compliance Evaluation Inspection	EPA	03/30/2023	262.A: Generators - General	EPA	03/30/2023	11/19/2024	Final 3008(A) Compliance Order	11/19/2024	$15,000	$15,000
				262.A: Generators - General	EPA	03/30/2023	11/19/2024	Initial 3008(A) Compliance	11/19/2024	$15,000	$15,000
				262.A: Generators - General	EPA	03/30/2023	11/19/2024				
				262.A: Generators - General	EPA	03/30/2023	11/19/2024				
				262.A: Generators - General	EPA	03/30/2023	11/19/2024				
				262.A: Generators - General	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
				262.M: Preparedness, Prevention, and Emergency Procedures	EPA	03/30/2023	11/19/2024				
PRD090592544	Compliance Evaluation Inspection	EPA	07/25/2018	No Violation Identified	–	–	–				

Entries in italics are not counted as compliance monitoring strategy activities. For programs without compliance monitoring strategies, entries in italics are not counted as on-site activities within EPA's Annual Results.

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CAA	PR0000007202500019	ICIS-Air	Inspection/Evaluation	FCE On-Site	EPA	02/14/2024	
EPCRA	00626QLTYLSTATE	ICIS	Inspection/Evaluation	Late/Non Reporter	EPA	08/24/2021	
RCRA	PRD090597544	RCRAInfo/ICIS	Inspection/Evaluation	Compliance Evaluation Inspection	EPA	03/30/2023	Violations Or Compliance Issues Were Found

Entries in italics are not included in FCHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> activities or because they are not counted as inspections within EPA's Annual Results <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	PR0000007202500019	No	06/07/2025	0	06/06/2025
CWA	PRR053205	No	12/31/2024	8	06/06/2025
RCRA	PRD090597544	No	06/07/2025	8	06/06/2025

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	
CAA (Source ID: PR0000007202500019)					07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12/31/24	01/0
	Facility-Level Status				No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	N
	HPV History														
	Violation Type	Agency	Programs	Pollutants											

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	
CWA (Source ID: PRR053205)					01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	0
	Facility-Level Status				Significant Category I Noncompliance	Significant Category I Noncompliance	Significant Category I Noncompliance	Significant Category I Noncompliance	No Violation Identified	No Violation Identified	No Violation Identified	Significant Category I Noncompliance	
	Quarterly Noncompliance Report History				Failure to Report DMR - Not Received	Failure to Report DMR - Not Received	Failure to Report DMR - Not Received	Failure to Report DMR - Not Received	Resolved			Failure to Report DMR - Not Received	N
	Benchmark Threshold Exceedances (No Violation): Pollutant	Disch Point	Mon Loc	Freq									
CWA	Aluminum, total recoverable <effluent-charts#prr053205/01104> [redacted] <https://epa.gov/effluent-charts#prr053205/01104>	001 - 11	Effluent Gross	NMth		1,400%	909%	3,855%					
CWA	Nitrite Plus Nitrate Total <effluent-charts#prr053205/51450> [redacted] <https://epa.gov/effluent-charts#prr053205/51450>	001 - 11	Effluent Gross	NMth		99%							
CWA	Zinc, total recoverable <effluent-charts#prr053205/01094> [redacted] <https://epa.gov/effluent-charts#prr053205/01094>	001 - ZG	Effluent Gross	NMth	267%								

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8
CWA	Aluminum, total recoverable <effluent-charts#prr053205/01104> [redacted] <https://epa.gov/effluent-charts#prr053205/01104>	002-11	Effluent Gross	NMth	4,064%	927%	1,455%	3,471%				
CWA	Nitrite Plus Nitrate Total <effluent-charts#prr053205/51450> [redacted] <https://epa.gov/effluent-charts#prr053205/51450>	002-11	Effluent Gross	NMth	31%	126%						
CWA	Zinc, total recoverable <effluent-charts#prr053205/01094> [redacted] <https://epa.gov/effluent-charts#prr053205/01094>	002-2G	Effluent Gross	NMth	256%							49%
	Late or Missing Discharge Monitoring Report (DMR) Measurements											
	Counts of Late DMR Measurements					6	12				3	
	Counts of Missing DMR Measurements										12	

Statute	Program/Pollutant/Violation Type		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11
RCRA (Source ID: PRD090593584)			07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12/31/24	01/01-03/31/25
	Facility-Level Status		No Violation Identified	No Violation Identified	Violation Identified	Violation	Violation	Violation	Violation	Violation	Violation	Violation	No Violation Identified
	Violation	Agency											
RCRA	262.A: Generators - General	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.A: Generators - General	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.A: Generators - General	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.A: Generators - General	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.A: Generators - General	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.A: Generators - General	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.M: Preparedness, Prevention, and Emergency Procedures	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.M: Preparedness, Prevention, and Emergency Procedures	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.M: Preparedness, Prevention, and Emergency Procedures	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	
RCRA	262.M: Preparedness, Prevention, and Emergency Procedures	EPA			03/30/2023	→	→	→	→	→	→	11/19/2024	

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11
RCRA	262.34 Preparedness, Prevention, and Emergency Procedures	EPA		03/30/2023	→	→	→	→	→	→	12/19/2024	
RCRA	262.34 Preparedness, Prevention, and Emergency Procedures	EPA		03/30/2023	→	→	→	→	→	→	12/19/2024	

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

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

Formal Enforcement Actions

Last 5 Years

Statute	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlement(s)/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
RCRA	RCRAInfo	–	RCRAINFO;PRP090592544	FINAL 3008(A) COMPLIANCE ORDER	–	EPA	--		1	11/18/2024	$15,000	$0	--	–	–
RCRA	RCRAInfo	-	RCRAINFO;PRP090592544	INITIAL 3008(A) COMPLIANCE	–	EPA	–	–	1	11/18/2024	--	$0			
RCRA	ICIS	3008	RCRAINFO;PRP090592544	Administrative - Formal	09-2024-7301	EPA	Quality Electroplating Corp	11/19/2024	1	11/19/2024	$15,000	$0	–	$0	$15,000

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (HUC) (Reach Address Database)]	WBD (Watershed Boundary Dataset) Subwatershed Name (HUC [Reach Address Database])	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with E.S.A (Endangered Species Act)-Listed Aquatic Species?
212300025011	Rio Cagayitas	RIO CAGUITAS	No	No	Aluminum, total recoverable| Chromium, hexavalent (as Cr)| Enterococci | Nitrite Plus Nitrate Total | Nitrogen, total (as N)| Phosphorus, total (as P)| Turbidity | Zinc, total recoverable	Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
PR	2014	[redacted]	RIO CAGUITAS	Impaired- Might Need a Total Maximum Daily Load - Has Restoration Plan	METALS (OTHER THAN MERCURY) | [redacted] PATHOGENS | [redacted] SEDIMENTATION/SILTATION	Not Supporting	Not Supporting	--	Not Supporting	–

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

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

Air Pollutant Report TRI Pollution Prevention Report

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
[redacted]	2023	2	–	0	--	--	2	--
[redacted]	2022	6	–	28,843	--		6	28,849
[redacted]	2021	6	–	28,843	--		6	28,843
[redacted]	2020	7	–	28,843	-		7	28,843

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
05626QLTYLSTATE	2019	8		0	–	–	8	–
05626QLTYLSTATE	2018	8	--	0	–	–	8	–
05626QLTYLSTATE	2017	10	--	0	--	–	10	–
05626QLTYLSTATE	2016	10	--	0	-	–	10	–
05626QLTYLSTATE	2015	15	–	0		--	15	--
05626QLTYLSTATE	2014	25	–	0	-		25	

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

Chemical Name	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Cyanide compounds	0	0	0	0	0	0	0	0	0	0
Nickel compounds	-	250	--	--			-	--	--	-
Nitrate compounds (water dissociable; reportable only when in aqueous solution)	--	28,843	28,843	28,843	--	--	--	--	--	-
Nitric acid	7	6	6	7	8	8	10	10	15	25
Zinc compounds	–	0	–	–	–	--	–	–	–	–

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

DMR and TRI Multi-Year Loading Report

NPDESID	Description

No data records returned

e-Manifest Hazardous Waste History (Public)

Hazardous Waste Shipped in Kilograms by Year (Through 3/8/2025)

Source ID	Waste Description	2022	2023	2024	2025
FRD063892544	Hazardous Waste	64,273	56,847	67,131	–
FRD063892544	Acute Hazardous Waste	0	0	0	--
FRD063892544	Pharmaceutical Hazardous Waste	0	0	0	--

"Pharmaceutical Hazardous Waste" refers to quantities managed under 40 CFR part 266 subpart P and thus excluded from the Hazardous and Acute Hazardous Waste quantities shown above.

Community

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2019 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and ACS census block groups in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (ACS [American Community Survey])	
Total Persons	15,959
Population Density	5,114/sq mi.
Housing Units in Area	7,573
Percent People of Color	99%
Households in Area	6,456
Households on Public Assistance	347
Persons With Low Income	10,260
Percent With Low Income	64%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.240356
Center Longitude	-66.599521
Total Area	
Land Area	10.76
Water Area	0%

Age Breakdown (ACS [American Community Survey]) - Persons (%)	
Children 5 years and younger	491 (3%)
Minors 17 years and younger	3,421 (21%)
Adults 18 years and older	13,535 (85%)
Seniors 65 years and older	3,423 (21%)

Race Breakdown (ACS [American Community Survey]) - Persons (%)	
White	8,457 (53%)
African American	1,252 (8%)
Hispanic-Origin	15,592 (98%)
Asian	96 (1%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	47 (0%)
Other/Multiracial	3,911 (25%)

Education Level (Persons 25 & older) (ACS [American Community Survey]) - Persons (%)	
Less than 9th Grade	913 (7.35%)
9th through 12th Grade	689 (5.55%)

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than $15,000	1,570 (30.4%)
$15,000 - $25,000	566 (11.0%)
$25,000 - $50,000	1,577 (30.5%)
$50,000 - $75,000	782 (15.1%)
Greater than $75,000	656 (12.7%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
High School Diploma	3,162 (36.2%)
Some College/2-year	1,443 (17%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	1,922 (20.8%)

Detailed Facility Report

Facility Summary

ULTRALUMBER CORP

PR-1 KM 33.3 URB IND VASQUEZ, CAGUAS, PR 00725

FRS (Facility Registry Service) ID: 110004889773

EPA Region: 02

Latitude: 18.24851

Longitude: -66.035896

Locational Data Source: TRIS

Industries: Wood Product Manufacturing

Indian Country: N

Enforcement and Compliance Summary

Statute	RCRA
Compliance Monitoring Activities (5 years)	–
Date of Last Compliance Monitoring Activity	09/13/2000
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	–

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): No Information

Resource Conservation and Recovery Act (RCRA): Inactive Other, (PRD987374279)

Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): 00625LTRLM6AURB

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110004889773					N	18.24851	-66.035896
TRI	EPCRA	00625LTRLM6AURB	Toxics Release Inventory	Last Reported for 1988			N	18.24851	-66.035896
RCRAInfo	RCRA	PRD987374279	Other	Inactive ( )			N	18.24851	-66.035896

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110004889773	ULTRALUMBER CORP	PR 1 KM 33.3 URB IND VASQUEZ, CAGUAS, PR 00725	Caguas Municipio
TRI	EPA13	00625LTRLM6AURB	ULTRALUMBER CORP	GA URB INDUSTRIAL VAZQUEZ, HC-06 BOX 72501, CAGUAS, PR 00725	Caguas Municipio
RCRAInfo	RCRA	PRD987374279	ULTRALUMBER CORP	CARR 1 KM 33.3 BO BARROA, CAGUAS, PR 00725-9511	Caguas Municipio

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
TRI	00625LTRLM6AURB	2491	Wood Preserving

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00625LTRLM6AURB	321114	Wood Preservation

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)

No data records returned

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> activities or because they are not counted as inspections within EPA's Annual Results <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	PRD987374279	No	06/07/2025	0	06/06/2025

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type		QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11
RCRA (Source ID: PRD987374279)			07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24	07/01-09/30/24	10/01-12/31/24	01/01-03/31/25
	Facility-Level Status		No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation	Agency											

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

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

Formal Enforcement Actions

Last 5 Years

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

No data records returned

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?

No data records returned

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use

No data records returned

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

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

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers

No data records returned

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

Chemical Name

No data records returned

Community

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2022 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and ACS census block groups in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data dictionary#demographic>.

General Statistics (ACS [American Community Survey])	
Total Persons	25,755
Population Density	4,753 [Sq mi]
Housing Units in Area	6,960
Percent People of Color	95%
Households in Area	5,956
Households on Public Assistance	140
Persons With Low Income	9,568
Percent With Low Income	65%

Geography	
Radius of Selected Area	1 mi
Center Latitude	18.246561
Center Longitude	-66.033506
Total Area	–
Land Area	5 [sq mi]
Water Area	0 [sq mi]

Income Breakdown (ACS [American Community Survey]) - Households [%]	
Less than $15,000	1,813 (30.23%)
$15,000 - $25,000	692 (11.23%)
$25,000 - $50,000	1,850 (30.65%)
$50,000 - $75,000	684 (11.41%)
Greater than $75,000	788 (13.15%)

Age Breakdown (ACS [American Community Survey]) - Persons [%]	
Children 5 years and younger	424 (3%)
Minors 17 years and younger	2,261 (15%)
Adults 18 years and older	12,574 (85%)
Seniors 65 years and older	3,331 (22%)

Race Breakdown (ACS [American Community Survey]) - Persons [%]	
White	2,895 (75%)
African American	1,037 (7%)
Hispanic Origin	14,419 (56%)
Asian	96 (1%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	69 (0%)
Other/Multiracial	3,577 (24%)

Education Level (Persons 25 & older) (ACS [American Community Survey]) - Persons [%]	
Less than 9th Grade	378 (6.92%)
9th through 12th Grade	802 (5.36%)
High School Diploma	3,836 (25.63%)
Some College/2-year	1,438 (12.75%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	4,169 (38.15%)

Exhibit 7
Contamination and Toxic

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: *globalespr@gmail.com* PHONES: *787-994-2203/787-607-8965*

Asbestos Containing Materials Inspection



SAMPLING CONDUCTED AT:

ROAD PR-34

Located at in Caguas, PR

GES Project # -2022-218

DECEMBER 2022

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

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GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
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The Asbestos Containing Materials inspection was performed based on DNER/ NESHAP regulations and protocol according to the following scenario:

a. The road is divided various functional spaces.
b. Physical and hazard assessment of suspected asbestos containing materials was performed.
c. Samples were collected according to homogenous areas.(Does not apply).
d. Samples sent to NVLAP Accredited Laboratory. (Does not apply).
e. Samples were analyzed by PLM method, in accordance to EPA recommended procedures. (Does not apply).

Thank you for the opportunity, any questions, please call 787-994-2203 and 787-607-8965 or email globalespr@gmail.com.

Cordially;

Mr. Angel O. Ortega, JS
Environmental Consultant
President

Mr. Elis J. Morales
Asbestos Inspector-ASB-0123-0049-SI

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

ASBESTOS INSPECTOR CERTIFICATION



TARJETA DE REGISTRO
PARA LA REMOCION DE ASBESTO

Esta tarjeta autoriza a:

Elis J. Morales Rivera

Inspector

A trabajar en la remoción de asbesto en Puerto Rico. Esta persona NO es un empleado del DRNA.

ASB-0123-0049-SI
Número de Registro

3-ene-2024
Fecha de vencimiento

Firma Autorizada - Departamento Recursos Naturales y Ambientales

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

SITE AREA



COORDINATES TO GET TO THE PROJECT:

18.2423241, -66.0407468

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
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APPENDIX III

ASBESTOS NEGATIVE CERTIFICATION

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

APPENDIX IV

CONCLUSION

After evaluating the above mentioned project, our company Global Environmental Services LLC certifies Asbestos free for the Road PR-34 in Caguas, PR of December 3, 2022.

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

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GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

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TABLE- LEAD REGULATORY LEVELS	
	EPA & DNER Levels
LEAD BASED PAINT	**1.0mg/cm2** **or** **0.5% by weight (or 5,000 ppm)**

Lead Based Paint Inspection Guidelines used during the inspection.

SOP: Stardand Operation Procedure:

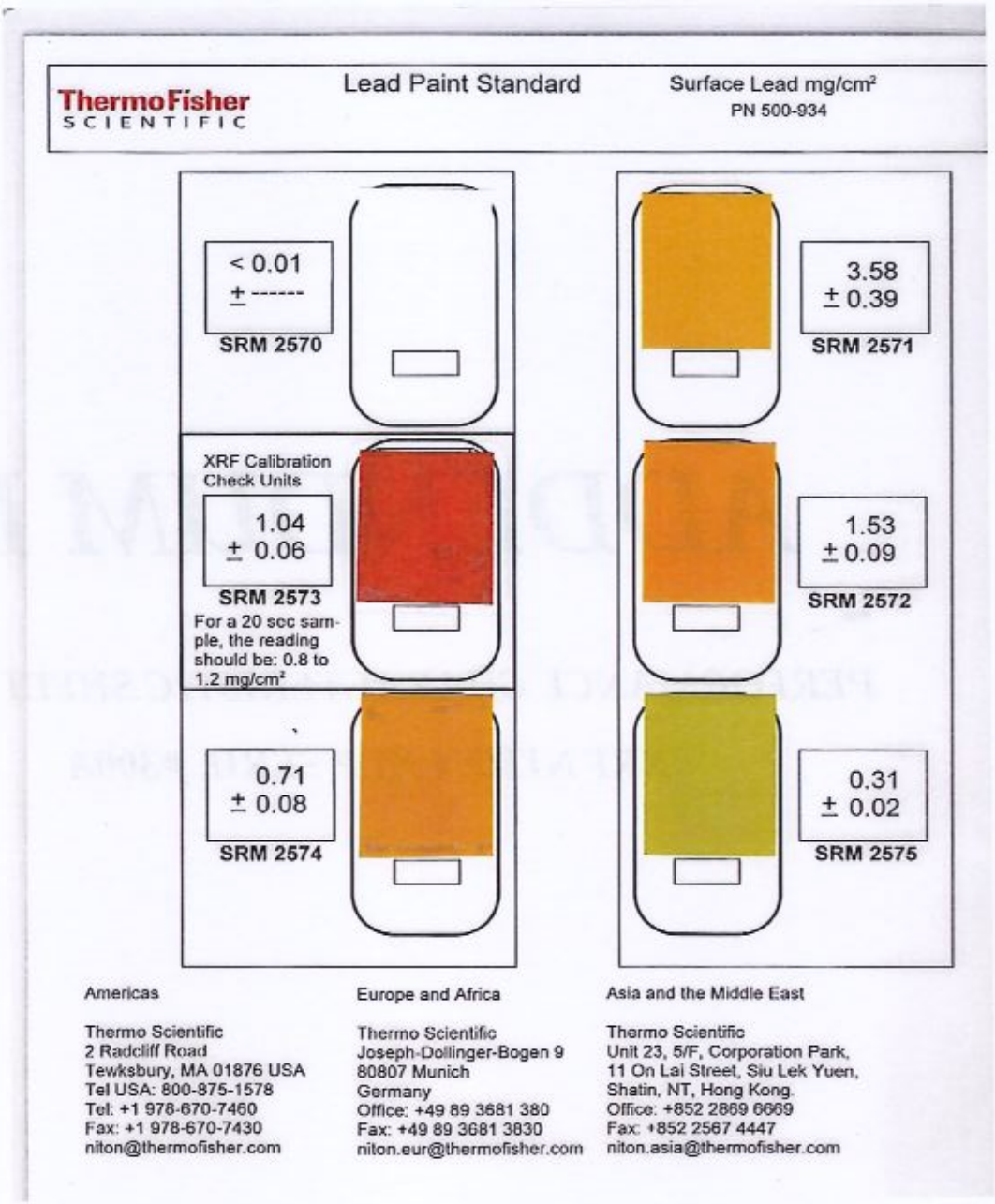
LEFT SIDE	B	RIGHT SIDE
A		C
	D	
		ENTRANCE AREA OR DOOR AREA

Thank you for the opportunity, any questions, please call 787-994-2203 and 787-607-8965 or email globalespr@gmail.com.

Cordially;

Mr. Angel O. Ortega, JS
Environmental Consultant
President

Mr. Elis J. Morales
Lead Based Paint Inspector LBPI-22422-224



ThermoFisher SCIENTIFIC

Lead Paint Standard

Surface Lead mg/cm²
PN 500-934

< 0.01
± ------
SRM 2570

3.58
± 0.39
SRM 2571

XRF Calibration Check Units

1.04
± 0.06
SRM 2573

For a 20 sec sample, the reading should be: 0.8 to 1.2 mg/cm²

1.53
± 0.09
SRM 2572

0.71
± 0.08
SRM 2574

0.31
± 0.02
SRM 2575

Americas

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niton.eur@thermofisher.com

Asia and the Middle East

Thermo Scientific
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11 On Lai Street, Siu Lek Yuen,
Shatin, NT, Hong Kong.
Office: +852 2869 6669
Fax: +852 2567 4447
niton.asia@thermofisher.com

Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Niton LLC*
Tested Model: *XLp 300*
Source: ^{109}Cd
Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.
XLp 300A, XLp 301A, XLp 302A and XLp 303A.
XLi 700A, XLi 701A, XLi 702A and XLi 703A.
XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is <u>not</u> needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
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

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:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)						
	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25^{th} Percentile	Median	75^{th} Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* 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. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

SITE AREA



COORDINATES TO GET TO THE PROJECT:

18.2423241, -66.0407468

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

ADDENDUM IV

CERTIFICATIONS GRANTED BY THE DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES OF PUERTO RICO

MR. ELIS J. MORALES- LEAD BASED PAINT INSPECTOR CERTIFICATION



CERTIFICACIÓN PLOMO PUERTO RICO

Esta tarjeta autoriza a:

Elis Javier Morales Rivera

Para realizar actividades relacionadas a Mitigación de Pintura con Base de Plomo

Disciplina: **Inspector**

Fecha de Expiración: Septiembre 17, 2023

Certificación #:
LBPI-22422-224

Firma Autorizada
Departamento de Recursos Naturales y Ambientales



ThermoFisher SCIENTIFIC

CERTIFICATE

This Certifies that

Elis Morales

Has successfully completed

Safety Training for
~ Sealed Source XRF - Radiation Safety~

Supervisor Signature

8/10/2021
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

GES 2022-218	XRF Serial Number: 100102	Project: Road PR-34 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 18/31**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
1	*Calibrate*				0.9		
2	*Calibrate*				0.8		
3	*Calibrate*				0.9		
4	PR-34 Int. PR-156	Solid White Line	Right Side	Asphalt	0.01	Neg	
5	PR-34 Int. PR-156	Solid White Line	Right Side	Asphalt	0.01	Neg	
6	PR-34 Int. PR-156	Solid White Line	Right Side	Asphalt	0.01	Neg	
7	PR-34 Int. PR-156	Solid White Line	Right Side	Asphalt	0.01	Neg	
8	PR-34 Int. PR-156	Yellow Curb Line	Right Side	Concrete	0.01	Neg	
9	PR-34 Int. PR-156	Yellow Curb Line	Right Side	Concrete	0.01	Neg	
10	PR-34 Int. PR-156	Yellow Curb Line	Right Side	Concrete	0.01	Neg	
11	PR-34 Int. PR-156	Yellow Curb Line	Right Side	Concrete	0.01	Neg	
12	PR-34 Int. PR-156	Light Pole	Right Side	Metal	0.02	Neg	
13	PR-34 Int. PR-156	Light Pole	Right Side	Metal	0.02	Neg	
14	PR-34 Int. PR-156	Light Pole Base	Right Side	Concrete	0.02	Neg	
15	PR-34 Int. PR-156	Light Pole Base	Right Side	Concrete	0.02	Neg	
16	PR-34 Int. PR-156	Blue Street Ramp	Right	Concrete	0.01	Neg	
17	PR-34 Int. PR-156	Blue Street Ramp	Right Side	Concrete	0.01	Neg	
18	PR-34 Int. PR-156	Blue Street Ramp	Right Side	Concrete	0.01	Neg	
19	PR-34 Int. PR-156	Blue Street Ramp	Right Side	Concrete	0.01	Neg	

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

GES 2022-218	XRF Serial Number: 100102	Project: Road PR-34 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 20/31**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
39	PR-34 Int. PR-7785	Yellow Curb	Left Side	Concrete	1.5	Pos.	42 Ln. Ft. Approx.
40	PR-34 Int. PR-7785	Yellow Curb	Left Side	Concrete	1.7	Pos.	
41	PR-34 Int. PR-7785	Blue Street Ramp	Right Side	Concrete	0.01	Neg	
42	PR-34 Int. PR-7785	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
43	PR-34 Int. PR-7785	Blue Street Ramp	Left	Concrete	0.01	Neg	
44	PR-34, 0.4 - 0.6	Solid White Line	Right Side	Asphalt	0.01	Neg	
45	PR-34, 0.4 - 0.6	Solid White Line	Right Side	Asphalt	0.01	Neg	
46	PR-34, 0.4 - 0.6	Solid White Line	Right Side	Asphalt	0.01	Neg	
47	PR-34, 0.4 - 0.6	Solid White Line	Right Side	Asphalt	0.01	Neg	
48	PR-34, 0.4 - 0.6	Solid White Line	Left Side	Asphalt	0.01	Neg	
49	PR-34, 0.4 - 0.6	Solid White Line	Left Side	Asphalt	0.01	Neg	
50	PR-34, 0.4 - 0.6	Solid White Line	Left Side	Asphalt	0.01	Neg	
51	PR-34, 0.4 - 0.6	Solid White Line	Left Side	Asphalt	0.01	Neg	
52	PR-34, 0.4 - 0.6	Street Ramp	Left Side	Concrete	0.00	Neg	
53	PR-34, 0.4 - 0.6	Street Ramp	Left Side	Concrete	0.00	Neg	
54	PR-34, 0.4 - 0.6	Street Ramp	Left	Concrete	0.00	Neg	
55	PR-34, 0.4 - 0.6	Street Ramp	Left Side	Concrete	0.00	Neg	
56	PR-34 Int. Ave. Degetau	Solid White Line	Right Side	Asphalt	0.01	Neg	
57	PR-34 Int. Ave. Degetau	Solid White Line	Right Side	Asphalt	0.01	Neg	

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Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

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GES 2022-218	XRF Serial Number: 100102	Project: Road PR-34 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 22/31**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
76	Calibrate				1.0		
77	Calibrate				0.9		
78	Calibrate				0.9		

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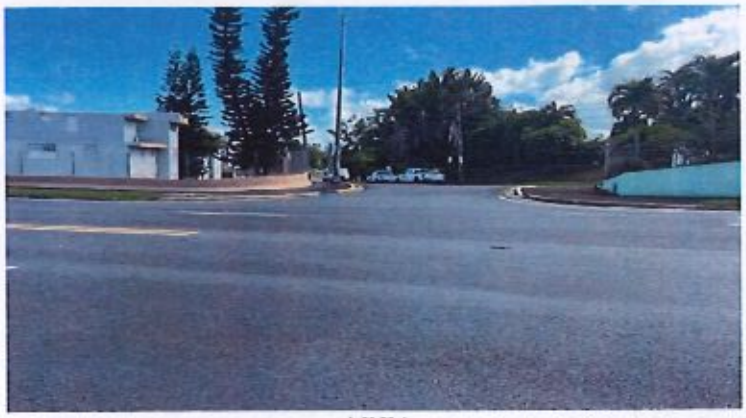
TABLE SUMMARY OF COMPONENTS WITH LEAD BASED PAINT

FUNCTIONAL SPACE	COMPONENT	SIDE	SUBSTRATE	SQ. FT. APPROX./ Units
Road PR-34 Int. Road PR-7785	Yellow Curb	Left	Concrete	42 ln. ft. approx.
Road PR-34 Int. Degetau Ave.	Light Pole Base	Left/ Right	Concrete	68 sq. ft. approx. (2 units)
Road PR-34 Int. Degetau Ave.	Light Pole Base	Left/ Right	Metal	56 sq. ft. approx. (2 units)



Road PR-34 Int. Road PR-7785- Concrete Yellow Curb with Lead Based Paint





AREA

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ADDENDUM VIII

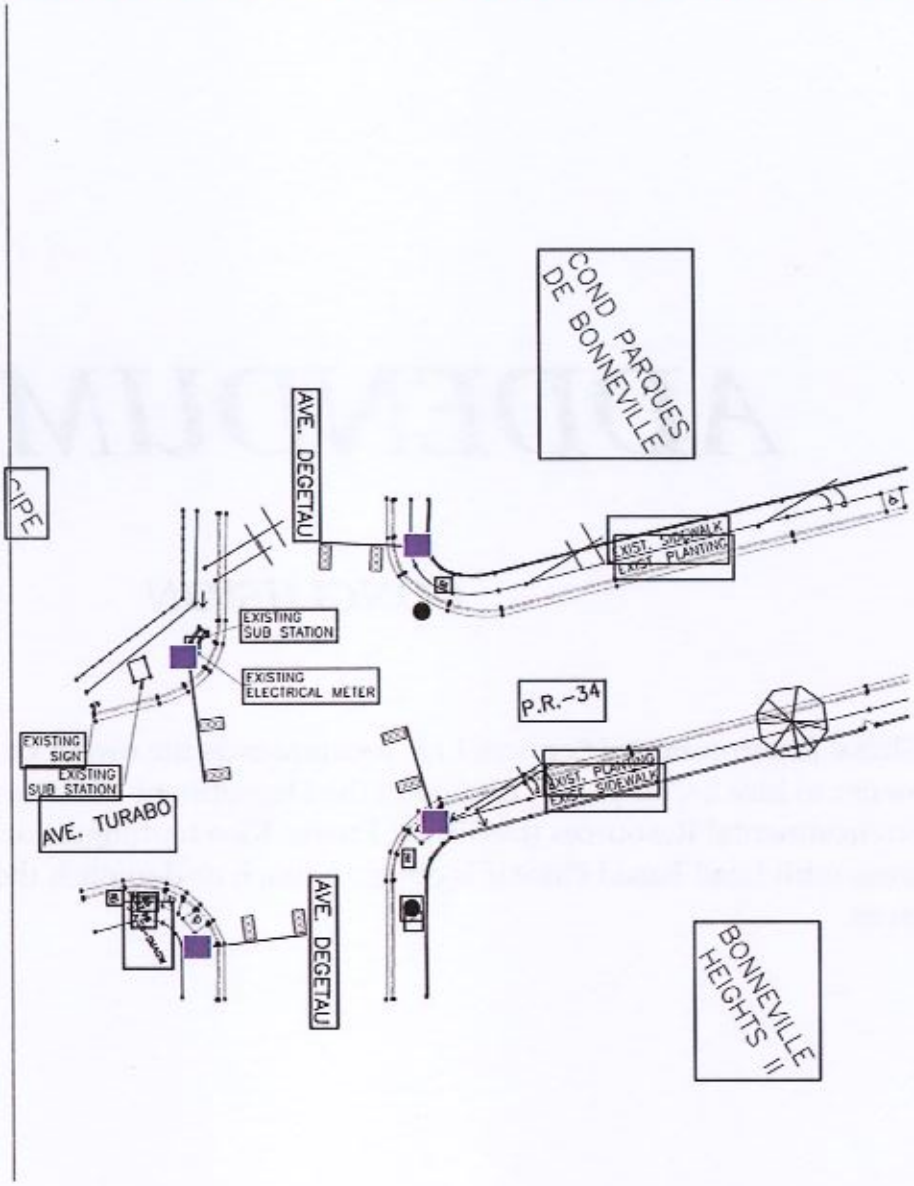
WHERE THE POSITIVE COMPONENTS AREA FOUND WITH LEAD BASED PAINT

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

BR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

LBP POSITIVE RESULTS LOCATIONS- PR-34 INT. DEGETAU AVE.



NOT TO SCALE

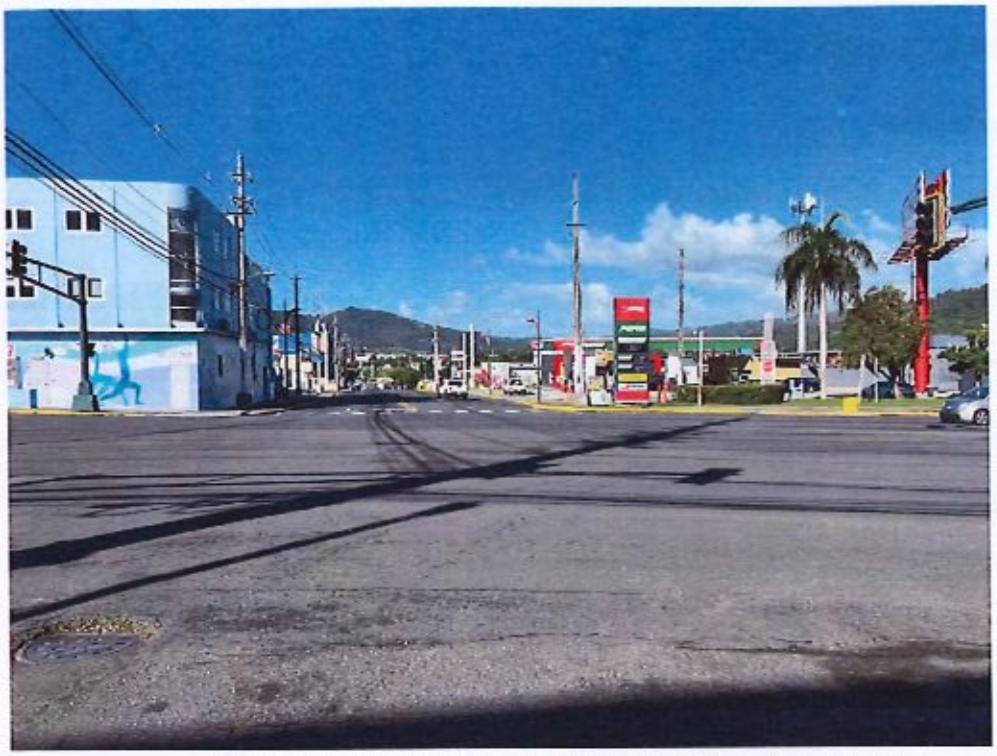
= *CONCRETE/ METAL GRAY LIGHT POLE BASES WITH LBP*

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203/787-607-8965

Asbestos Containing Materials Inspection



SAMPLING CONDUCTED AT:

ROAD PR-156

Located at in Caguas, PR

GES Project # -2022-218

DECEMBER 2022

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

December 13, 2022

Eng. Juan M. Vazquez
Vice-President
Vazquez Associates Ingenieros PSC
PO Box 6089
Caguas, PR 00726

Affair: Asbestos Containing Materials Inspection in Road PR-156 located at Caguas, PR

Dear Eng. Vazquez:

Global Environmental Services LLC (GES) was contracted to perform a Asbestos Containing Materials Inspection at reference project. The inspection was contracted for the evaluation this Road areas.

Asbestos Containing Building Material (ACBM) is defined as any material which contains more that 1% percent Asbestos.

The ACM Inspection was conducted on December 3, 2022 by Mr. Elis J. Morales, Department of Natural and Environmental Resources of Puerto Rico (DNER) certified Asbestos Inspector # ASB-0123-0049-SI with enough experience.

During the inspection, inspector **NO suspected Asbestos Containing Materials**. The asbestos inspection work will be performed by Asbestos Hazards Emergency Response Act (AHERA) accredited asbestos inspectors under the PR Environmental Quality Board accreditation program. The inspection will be conducted in accordance with EPA's "Guidance for Controlling Asbestos Containing Materials in Buildings (EPA 560/5-85/024)". Asbestos Containing Materials Inspection and bulk sampling procedures to be implemented was based on the guidelines established by the ASTM E2356-14 Standard Practice for Comprehensive Building Asbestos Survey. Samples were analyzed by PLM using dispersion staining techniques in accordance with US EPA Method: 600/M4-82-020 of Dec. 1982 and 600/R-93/116 of July 93.

Global Environmental Services LLC **certifies this project asbestos free.**

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

APPENDIX I

CERTIFICATIONS GRANTED BY THE DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES OF PUERTO RICO

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

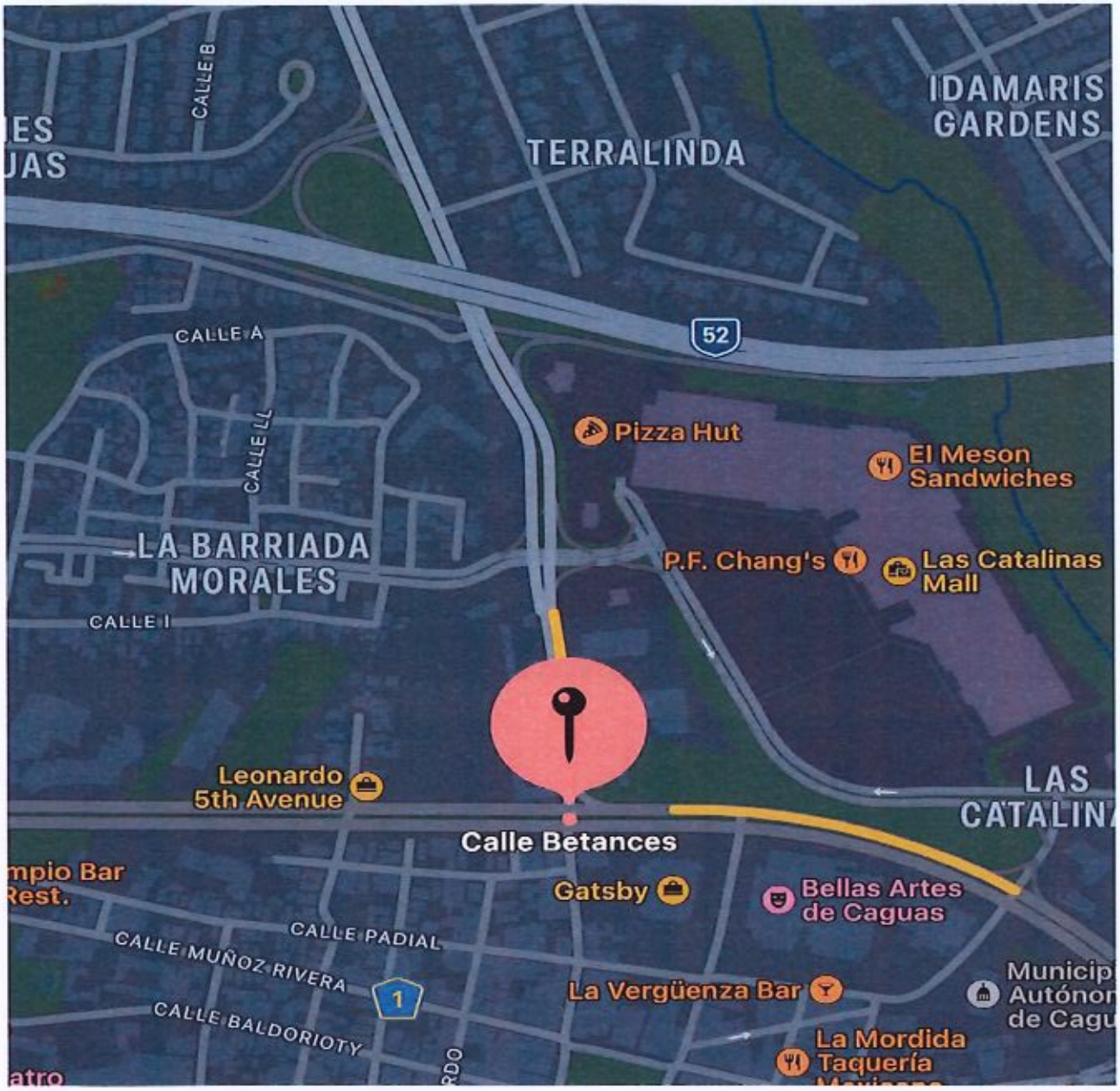
APPENDIX II

SITE AREAS

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/ Indoor Air Quality
DNER & EPA Permits and Certifications
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

SITE AREA



GOBIERNO DE PUERTO RICO
OFICINA DEL GOBERNADOR
JUNTA DE CALIDAD AMBIENTAL

Área de Calidad de Agua

Forma PGC-009

CERTIFICACION DE NO PRESENCIA DE ASBESTO EN ESTRUCTURAS A DEMOLERSE

(Deberá completarse en letra de molde o impresa)

NUM. PERMISO: _____

Yo, Elis J. Morales (Nombre), mayor de edad, casado (Estado Civil), y vecino de Naranjito (Municipio)

Dirección Postal RR8 Box 1995 PMB 313 Bayamón, PR 00956 (Pueblo) (Zip Code)

Teléfonos: Residencial (787) 607 - 8965 Oficina (787) 994 - 2203 Ext. _____
Fax (____) _____ - _____

Certifico que:

1. La estructura localizada en la Carretera PR-156 en Caguas, PR, 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 Bayamón (Municipio) de Puerto Rico, hoy día 9 de diciembre de 2022

ASB-0123-0049-SI

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.

Dirección Física: Ave. Ponce de León 1306, Carr. Estatal 8838, Sector el Cinco, Río Piedras, PR 00926
Dirección Postal: Apartado 11488, Santurce, PR 00910-1488
Tel. (787) 767-8181 • Fax (787) 767-1962

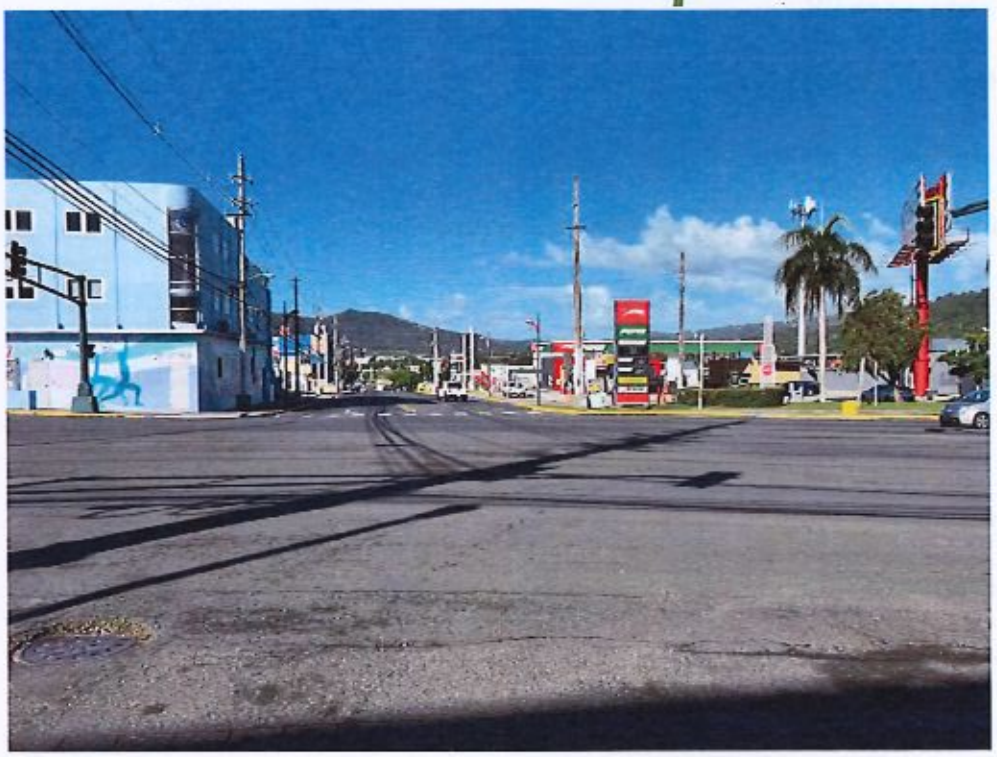
PUERTO RICO VERDE

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
DNER Permits/ EPA Permits & Certifications

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 /787-607-8965

Lead Based Paint Inspection



SAMPLING CONDUCTED AT:

ROAD PR-156

Located at in Caguas, PR

GES Project # -2022-218

DECEMBER 2022

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: *globalespr@gmail.com* PHONES: *787-994-2203 / 787-607-8965*

December 13, 2022

Eng. Juan M. Vazquez
Vice-President
Vazquez Associates Ingenieros PSC
PO Box 6089
Caguas, PR 00726

Affair: Lead Based Paint Inspection in Road PR-156 located at Caguas, PR

Dear Eng. Vazquez:

Global Environmental Services LLC (GES) was contracted to perform a Lead Based Paint Inspection at reference project.

The Lead Paint Standard is in Addendum I of the Report. Project Photos in Addendum III of the report.

The Inspection performance with Thermo Fisher Scientific XRF Niton Model Xlp 300A Serial Number #100102 was conducted using H.U.D. Standard for Lead Based Paint as defined by Title X of Housing and Community Department Act of 1992 (unless HUD and EPA have lowered the standard) & Guidelines for the Evaluation and Control of Lead Based Paint in Housing of 1997, revised in 2012 and PREQB Lead Based Paint Abatement Controls Regulation.

The Lead Based Paint Inspection was conducted on December 3, 2022 by Mr. Elis J. Morales, Department of Natural and Environmental Resources of Puerto Rico (DNER) certified Lead Based Paint Inspector # LBPI-22422-224 with enough experience.

The project consisted of evaluation in all components in Road PR-156 located in Caguas, PR. During the evaluation **we found positive components with Lead Based Paint** in said project.

TABLE 1.0 - SUMMARY OF COMPONENTS WITH LEAD BASED PAINT				
FUNCTIONAL SPACE	COMPONENT	SIDE	SUBSTRATE	SQ. FT. APPROX/ Units
Road PR-156 Int. PR-33	Light Pole Bases	Left/Right	Metal	28 sq. ft. approx. (2 units)
Road PR-156 Int. PR-33	Light Pole Bases	Left/Right	Concrete	38 sq. ft. approx. (2 units)
Road PR-156 Int. Barcelona Street Km. 57.8	Yellow Curb	Left	Concrete	90 ln. ft. approx.
Road PR-156 Km. 57.7	Yellow Curb	Left	Concrete	142 ln. ft. approx.
Road PR-156 Int. A Street	Yellow Curb	Left	Concrete	151 ln. ft. approx.

Negative Definition= If the lead concentration measured by the XRF Spectrum Analyzer is less than 1.0 mg/cm2 it is considered negative.

Positive Definition= If the concentration measured by the XRF Spectrum Analyzer is equal or greater than 1.0 mg/cm2 it is considered **Positive**.

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

ADDENDUM I

THE LEAD PAINT STANDARD

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

ADDENDUM II

PERFORMANCE CHARACTERISTIC SHEET (PCS)-

XRF NITON XLP SERIE #300A

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 from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

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.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

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. Use the K+L variable time mode readings.

Conduct XRF retesting 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 housing a result is defined as the average of three readings. In multifamily housing, a result is 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 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 results.

Compute the average of all ten re-test XRF results.

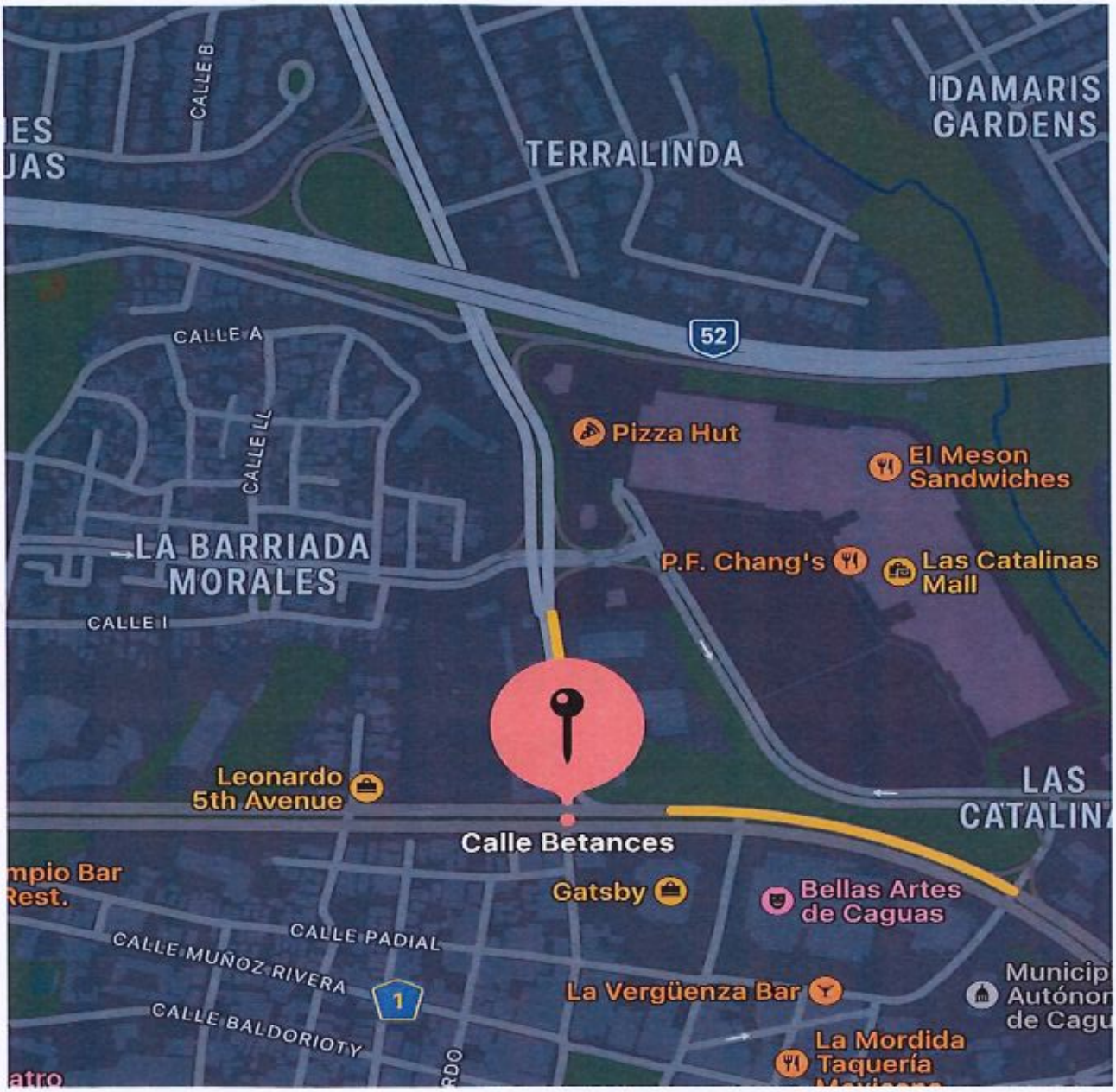
Find the absolute difference of the two averages.

ADDENDUM III

SITE AREA

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

SITE AREA



GLOBAL ENVIRONMENTAL SERVICES LLC
COMPANY LEAD CERTIFICATION



GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

Este certificado es otorgado a:

Global Environmental Services, LLC

Por haber cumplido con los requisitos establecidos en el Capítulo VI, Regla 127 del Reglamento para el Manejo Adecuado de Actividades de Pintura con Base de Plomo. Se le otorga esta certificación como **Firma** para llevar a cabo actividades relacionadas a Mitigación de Pintura con base de plomo en la jurisdicción de Puerto Rico.

Número de Certificado

LBPF-33621-050

Fecha de emisión: Enero 9, 2022

Fecha de Expiración: Enero 8, 2023

DRNA

José Roque Julá
Jefe
División Desperdicios Tóxicos

GLOBAL ENVIRONMENTAL SERVICES LLC
Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality
RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

ADDENDUM V

LBP TESTING COMBINATIONS

GLOBAL ENVIRONMENTAL SERVICES LLC

Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

RR8 BOX 1995 PMB 313 BAYAMON, PR 00956 EM@IL: globalespr@gmail.com PHONES: 787-994-2203 / 787-607-8965

GES 2022-218	XRF Serial Number: 100102	Project: Road PR-156 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 19/39**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./L.n. Ft.*
20	PR-156 Int. PR-33	Blue Street Ramp	Right Side	Concrete	0.01	Neg	
21	PR-156 Int. PR-33	Sub-Station Box	Right Side	Metal	0.02	Neg	
22	PR-156 Int. PR-33	Solid White Line	Left Side	Asphalt	0.01	Neg	
23	PR-156 Int. PR-33	Solid White Line	Left Side	Asphalt	0.01	Neg	
24	PR-156 Int. PR-33	Solid White Line	Left Side	Asphalt	0.01	Neg	
25	PR-156 Int. PR-33	Solid White Line	Left Side	Asphalt	0.01	Neg	
26	PR-156 Int. PR-33	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
27	PR-156 Int. PR-33	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
28	PR-156 Int. PR-33	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
29	PR-156 Int. PR-33	Yellow Curb Line	Left	Concrete	0.01	Neg	
30	PR-156 Int. PR-33	Light Pole	Left	Metal	0.02	Neg	
31	PR-156 Int. PR-33	Light Pole	Left Side	Metal	0.02	Neg	
32	**PR-156 Int. PR-33**	**Light Pole Base**	**Left Side**	**Metal**	**1.6**	**Pos.**	**14 Sq. Ft. Approx.**
33	**PR-156 Int. PR-33**	**Light Pole Base**	**Left Side**	**Concrete**	**1.8**	**Pos.**	**19 Sq. Ft. Approx.**
34	PR-156 Int. PR-33	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
35	PR-156 Int. PR-33	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
36	PR-156 Int. Las Catalinas	Solid White Line	Right Side	Asphalt	0.01	Neg	
37	PR-156 Int. Las Catalinas	Solid White Line	Right Side	Asphalt	0.01	Neg	
38	PR-156 Int. Las Catalinas	Yellow Curb Line	Right Side	Concrete	0.01	Neg	

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GES 2022-218	XRF Serial Number: 100102	Project: Road PR-156 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 21/39**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos/ Neg.*	*Approx. Sq. ft./ Ln. Ft.*
58	PR-156 Int. Las Catalinas	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
59	PR-156 Int. Las Catalinas	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
60	PR-156 Int. Las Catalinas	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
61	PR-156 Int. Las Catalinas	Light Pole	Left Side	Metal	0.02	Neg	
62	PR-156 Int. Las Catalinas	Light Pole	Left Side	Metal	0.02	Neg	
63	PR-156 Int. Las Catalinas	Light Pole	Left Side	Metal	0.02	Neg	
64	PR-156 Int. Las Catalinas	Light Pole	Left Side	Metal	0.02	Neg	
65	PR-156 Int. Las Catalinas	Light Pole Base	Left Side	Concrete	0.01	Neg	
66	PR-156 Int. Las Catalinas	Light Pole Base	Left Side	Concrete	0.01	Neg	
67	PR-156 Int. Las Catalinas	Light Pole Base	Left	Concrete	0.01	Neg	
68	PR-156 Int. Las Catalinas	Light Pole Base	Left	Concrete	0.01	Neg	
69	PR-156 Int. Las Catalinas	Blue Street Ramp	Left	Concrete	0.01	Neg	
70	PR-156 Int. Las Catalinas	Blue Street Ramp	Left	Concrete	0.01	Neg	
71	PR-156 Int. Las Catalinas	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
72	PR-156 Int. Las Catalinas	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
73	PR-156 Int. Las Catalinas	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
74	PR-156 Int. PR-52	Cross Walk	Right	Asphalt	0.01	Neg	
75	PR-156 Int. PR-52	Cross Walk	Right	Asphalt	0.01	Neg	
76	PR-156 Int. PR-52	Solid White Line	Right Side	Asphalt	0.01	Neg	

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GES 2022-218	XRF Serial Number: 100102	Project: Road PR-156 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022		
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
96	PR-156 Int. PR-52	Light Pole	Center Side	Metal	0.02	Neg	
97	PR-156 Int. PR-52	Light Pole Base	Center Side	Metal	0.01	Neg	
98	PR-156 Int. PR-52	Cross Walk	Left Side	Asphalt	0.01	Neg	
99	PR-156 Int. PR-52	Cross Walk	Left Side	Asphalt	0.01	Neg	
100	PR-156 Int. PR-52	Solid White Line	Left Side	Asphalt	0.01	Neg	
101	PR-156 Int. PR-52	Solid White Line	Left Side	Asphalt	0.01	Neg	
102	PR-156 Int. PR-52	Solid White Line	Left Side	Asphalt	0.01	Neg	
103	PR-156 Int. PR-52	Solid White Line	Left Side	Asphalt	0.01	Neg	
104	PR-156 Int. PR-52	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
105	PR-156 Int. PR-52	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
106	PR-156 Int. PR-52	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
107	PR-156 Int. PR-52	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
108	PR-156 Int. PR-52	Light Pole	Left Side	Metal	0.02	Neg	
109	PR-156 Int. PR-52	Light Pole	Left Side	Metal	0.02	Neg	
110	PR-156 Int. PR-52	Light Pole Base	Left	Metal	0.02	Neg	
111	PR-156 Int. PR-52	Light Pole Base	Left	Metal	0.02	Neg	
112	PR-156 Int. PR-52	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
113	PR-156 Int. PR-52	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
114	PR-156 Int. PR-52	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
115	PR-156 Int. PR-52	Blue Street Ramp	Left Side	Concrete	0.01	Neg	

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GES 2022-218	XRF Serial Number: 100102	Project: Road PR-156 in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 25/39**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
134	PR-156 Int. Street A	Solid White Line	Right Side	Asphalt	0.01	Neg	
135	PR-156 Int. Street A	Yellow Curb Line	Right Side	Concrete	0.01	Neg	
136	PR-156 Int. Street A	Solid White Line	Left Side	Asphalt	0.01	Neg	
137	PR-156 Int. Street A	Solid White Line	Left Side	Asphalt	0.01	Neg	
138	**PR-156 Int. Street A**	**Yellow Curb Line**	**Left Side**	**Concrete**	**1.5**	**Pos.**	**151 Ln. Ft. Approx.**
139	**PR-156 Int. Street A**	**Yellow Curb Line**	**Left Side**	**Concrete**	**1.7**	**Pos.**	
140	**PR-156 Int. Street A**	**Yellow Curb Line**	**Center Side**	**Concrete**	**2.0**	**Pos.**	
141	PR-156 Int. Street A	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
142	PR-156 Int. Street A	Blue Street Ramp	Left Side	Concrete	0.01	Neg	
143	PR-156, 57.4 to 57.2	Solid White Line	Right Side	Asphalt	0.01	Neg	
144	PR-156, 57.4 to 57.2	Solid White Line	Right Side	Asphalt	0.01	Neg	
145	PR-156, 57.4 to 57.2	Street Ramp	Right Side	Concrete	0.00	Neg	
146	PR-156, 57.4 to 57.2	Street Ramp	Right Side	Concrete	0.00	Neg	
147	PR-156, 57.4 to 57.2	Solid White Line	Left Side	Asphalt	0.01	Neg	
148	PR-156, 57.4 to 57.2	Solid White Line	Left Side	Asphalt	0.01	Neg	
149	PR-156, 57.4 to 57.2	Solid White Line	Left Side	Asphalt	0.01	Neg	
150	PR-156, 57.4 to 57.2	Solid White Line	Left	Asphalt	0.01	Neg	
151	PR-156, 57.4 to 57.2	Solid White Line	Left	Asphalt	0.01	Neg	
152	PR-156, 57.4 to 57.2	Solid White Line	Left Side	Asphalt	0.01	Neg	

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ADDENDUM VI

TABLE SUMMARY OF COMPONENTS WITH LEAD BASED PAINT

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ADDENDUM VII

PHOTOGRAPHS OF POSITIVE COMPONENTS WITH LEAD BASED PAINT



Road PR-156 Int. Barcelona Street Km. 57.8 – Yellow Concrete Curbs with Lead Based Paint



Road PR-156 Int. A Street- Yellow Concrete Curbs with Lead Based Paint

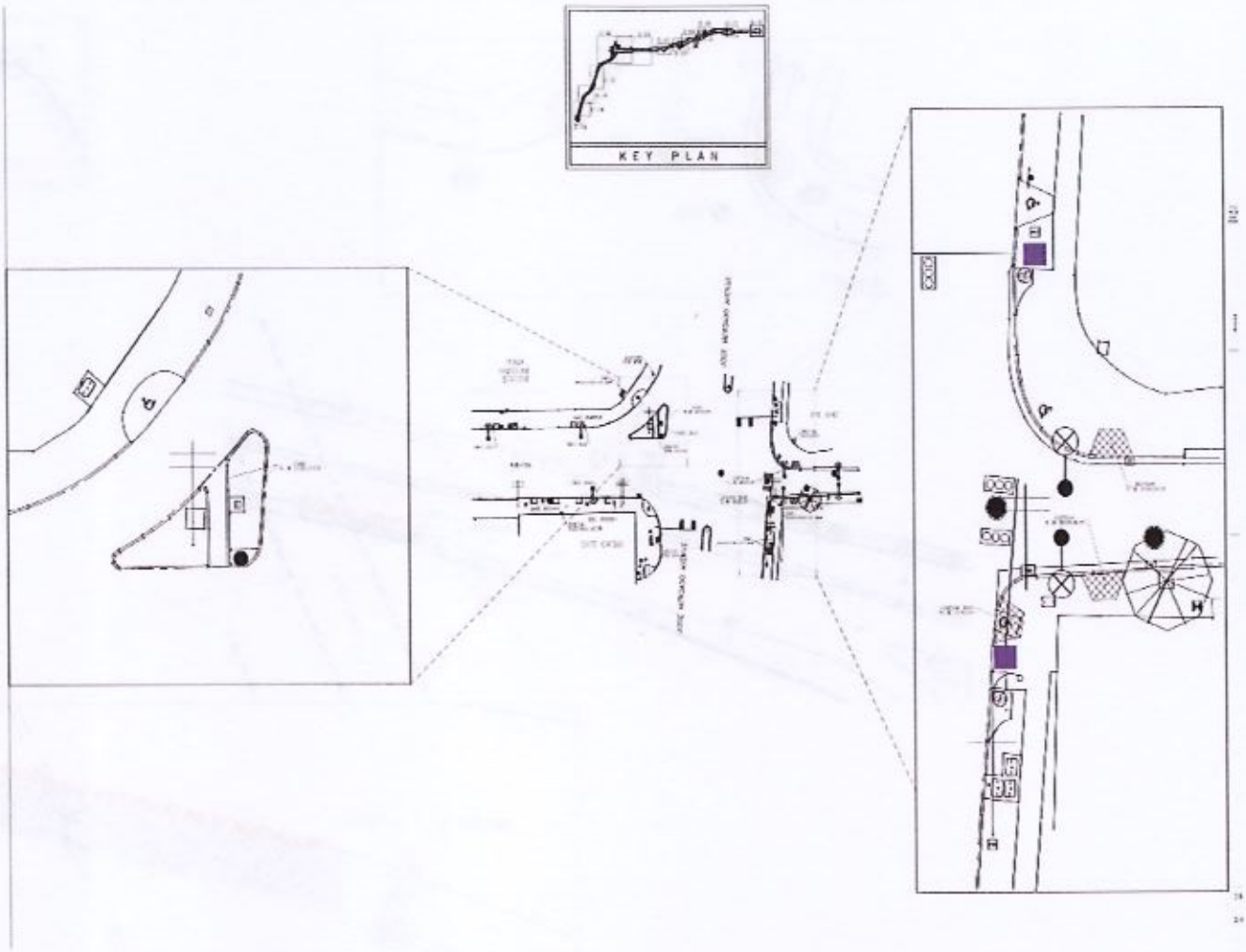


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LBP POSITIVE RESULTS LOCATIONS- PR-156 INT. PR-33



NOT TO SCALE

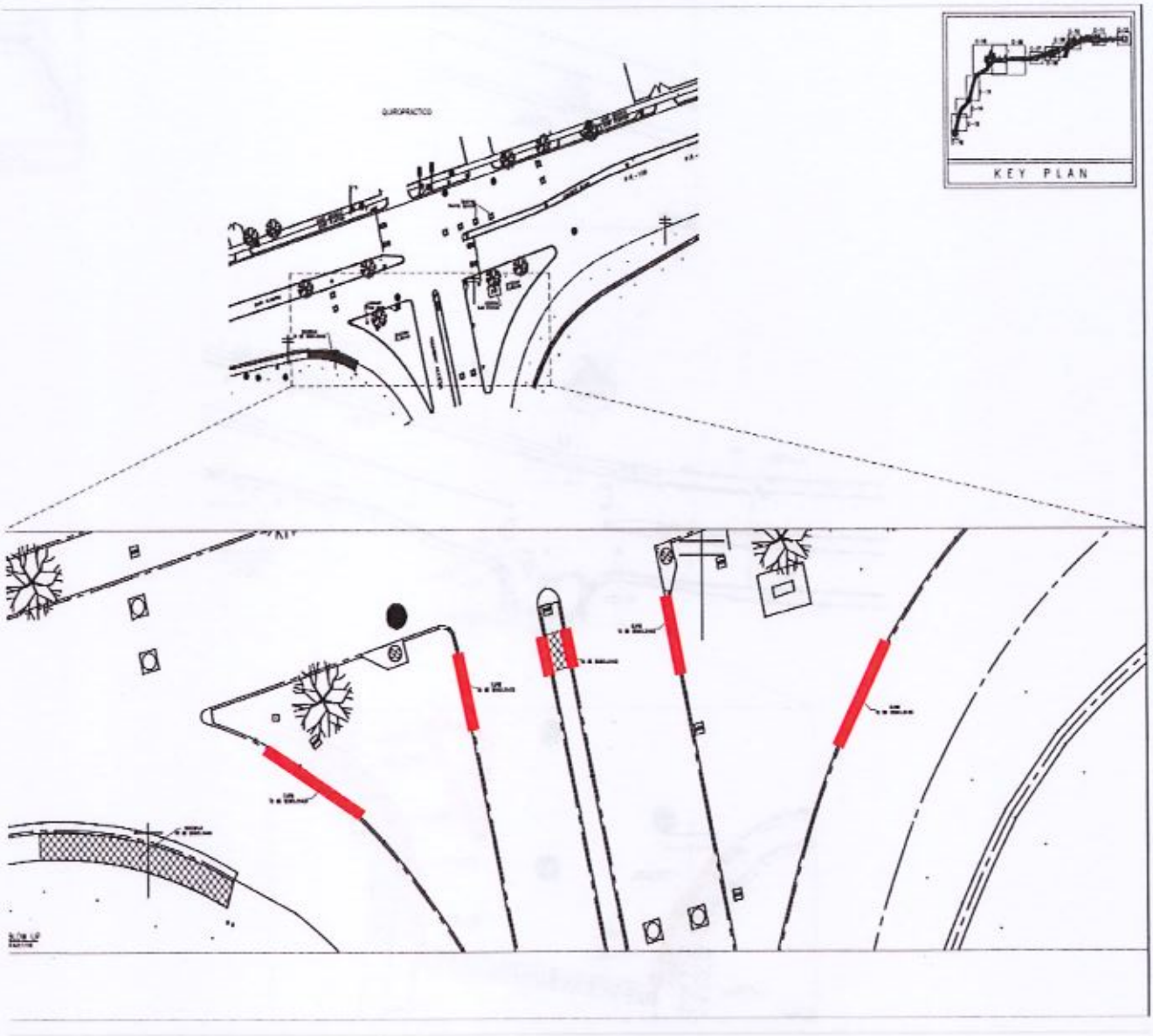
= *CONCRETE/ METAL GRAY LIGHT POLE BASES LBP*

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LBP POSITIVE RESULTS LOCATIONS- PR-156 KM. 57.7



NOT TO SCALE

= *YELLOW CONCRETE CURBS WITH LBP*

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ADDENDUM VI

CONCLUSION

Global Environmental Services LLC recommends the owner or representative of owner to hire a Company Certified in the Department of Natural and Environmental Resources (DNER) of Puerto Rico to mitigate and dispose positive areas with Lead Based Paint if is going to touch or demolish the aforementioned areas.

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DNER & EPA Permits and Certifications

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The Asbestos Containing Materials inspection was performed based on DNER/ NESHAP regulations and protocol according to the following scenario:

a. The avenue is divided one functional spaces.
b. Physical and hazard assessment of suspected asbestos containing materials was performed.
c. Samples were collected according to homogenous areas.(Does not apply).
d. Samples sent to NVLAP Accredited Laboratory. (Does not apply).
e. Samples were analyzed by PLM method, in accordance to EPA recommended procedures. (Does not apply).

Thank you for the opportunity, any questions, please call 787-994-2203 and 787-607-8965 or email globalespr@gmail.com.

Cordially;

Mr. Angel O. Ortega, JS
Environmental Consultant
President

Mr. Elis J. Morales
Asbestos Inspector-ASB-0123-0049-SI

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ASBESTOS INSPECTOR CERTIFICATION



TARJETA DE REGISTRO
PARA LA REMOCION DE ASBESTO

Esta tarjeta autoriza a:

Elis J. Morales Rivera

Inspector

A trabajar en la remoción de asbesto en Puerto Rico. Esta persona NO es un empleado del DRNA.

ASB-0123-0049-SI
Número de Registro

3-ene-2024
Fecha de vencimiento

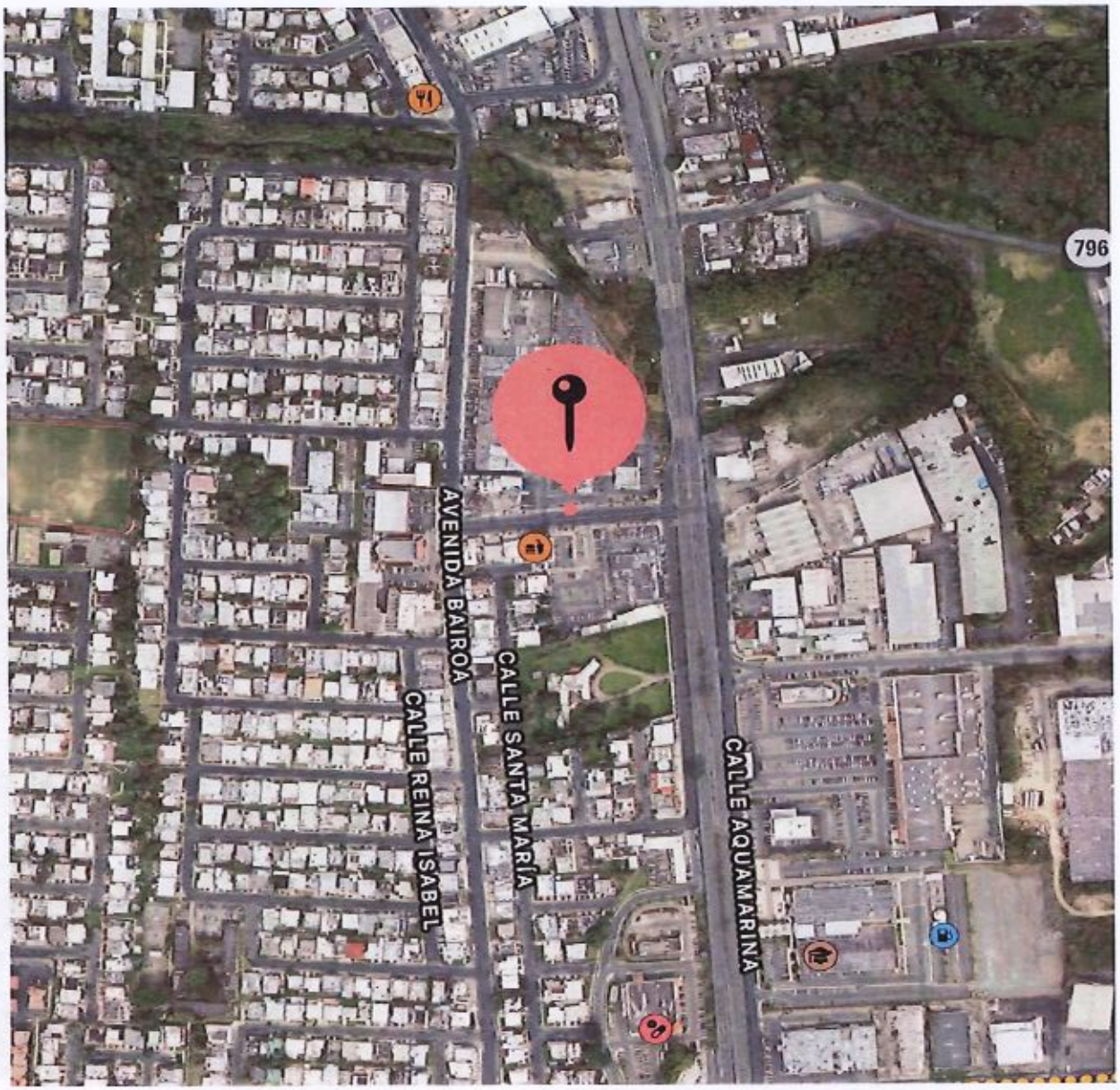
Firma Autorizada - Departamento Recursos Naturales y Ambientales

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SITE AREA



COORDINATES TO GET TO THE PROJECT:

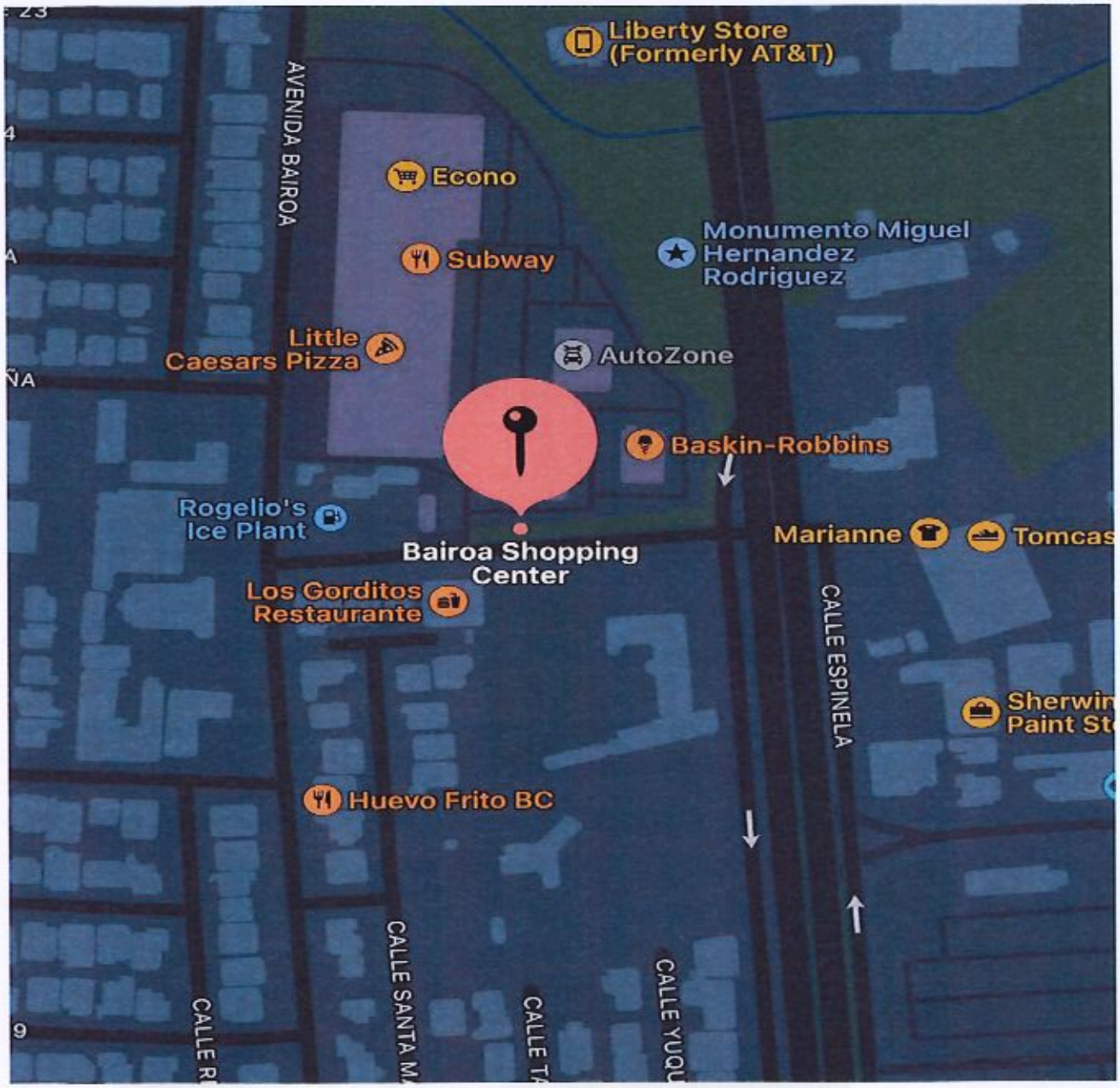
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SITE AREA



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APPENDIX III

ASBESTOS NEGATIVE CERTIFICATION

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APPENDIX IV

CONCLUSION

After evaluating the above mentioned project, our company Global Environmental Services LLC certifies Asbestos free for the Leoncio Velazquez Avenue in Caguas, PR of December 3, 2022.

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TABLE- LEAD REGULATORY LEVELS	
	EPA & DNER Levels
LEAD BASED PAINT	**1.0mg/cm2** **or** **0.5% by weight (or 5,000 ppm)**

Lead Based Paint Inspection Guidelines used during the inspection.

SOP: Stardand Operation Procedure:

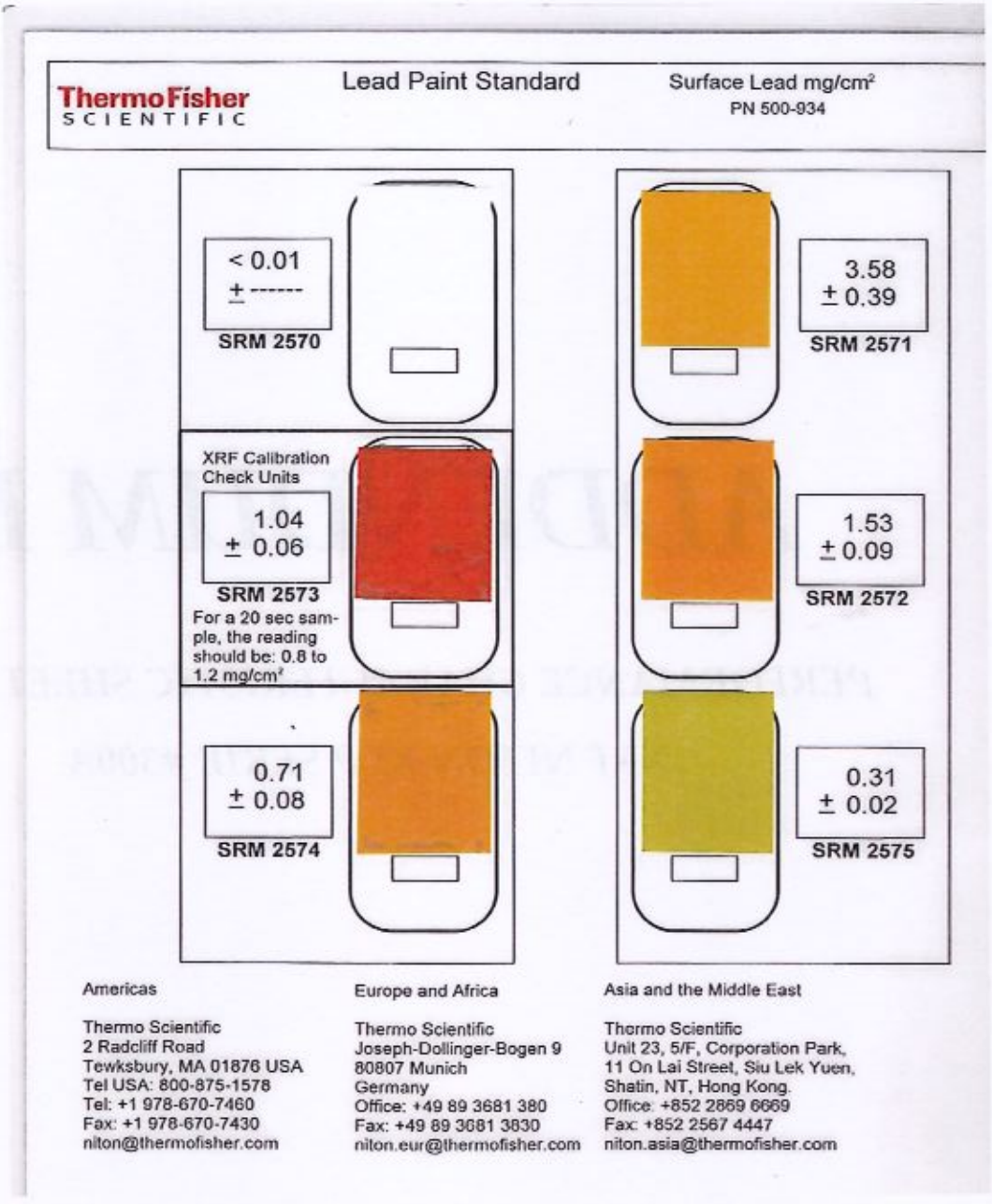
LEFT SIDE	B	RIGHT SIDE
A		C
	D	
		ENTRANCE AREA OR DOOR AREA

Thank you for the opportunity, any questions, please call 787-994-2203 and 787-607-8965 or email globalespr@gmail.com.

Cordially;

Mr. Angel O. Ortega, JS
Environmental Consultant
President

Mr. Elis J. Morales
Lead Based Paint Inspector LBPI-22422-224



ThermoFisher SCIENTIFIC

Lead Paint Standard

Surface Lead mg/cm²

PN 500-934

< 0.01 ± ------
SRM 2570

3.58 ± 0.39
SRM 2571

XRF Calibration Check Units

1.04 ± 0.06
SRM 2573

For a 20 sec sample, the reading should be: 0.8 to 1.2 mg/cm²

1.53 ± 0.09
SRM 2572

0.71 ± 0.08
SRM 2574

0.31 ± 0.02
SRM 2575

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Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Nilon LLC*
Tested Model: *XLp 300*
Source: ^{109}Cd
Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.
XLp 300A, XLp 301A, XLp 302A and XLp 303A.
XLi 700A, XLi 701A, XLi 702A and XLi 703A.
XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is <u>not</u> needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
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

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:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)						
	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25^{th} Percentile	Median	75^{th} Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

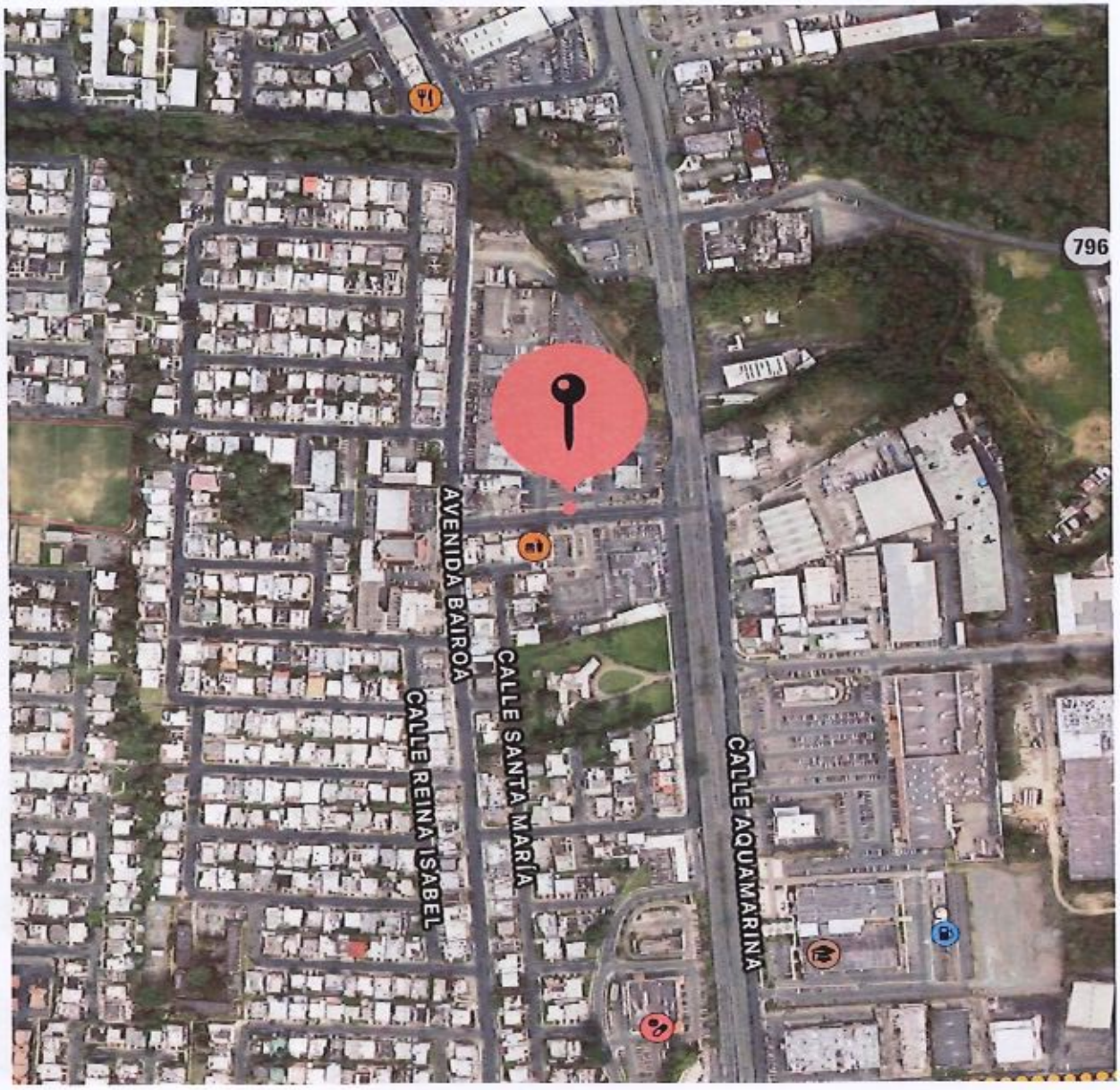
DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* 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. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.*

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SITE AREA



COORDINATES TO GET TO THE PROJECT:

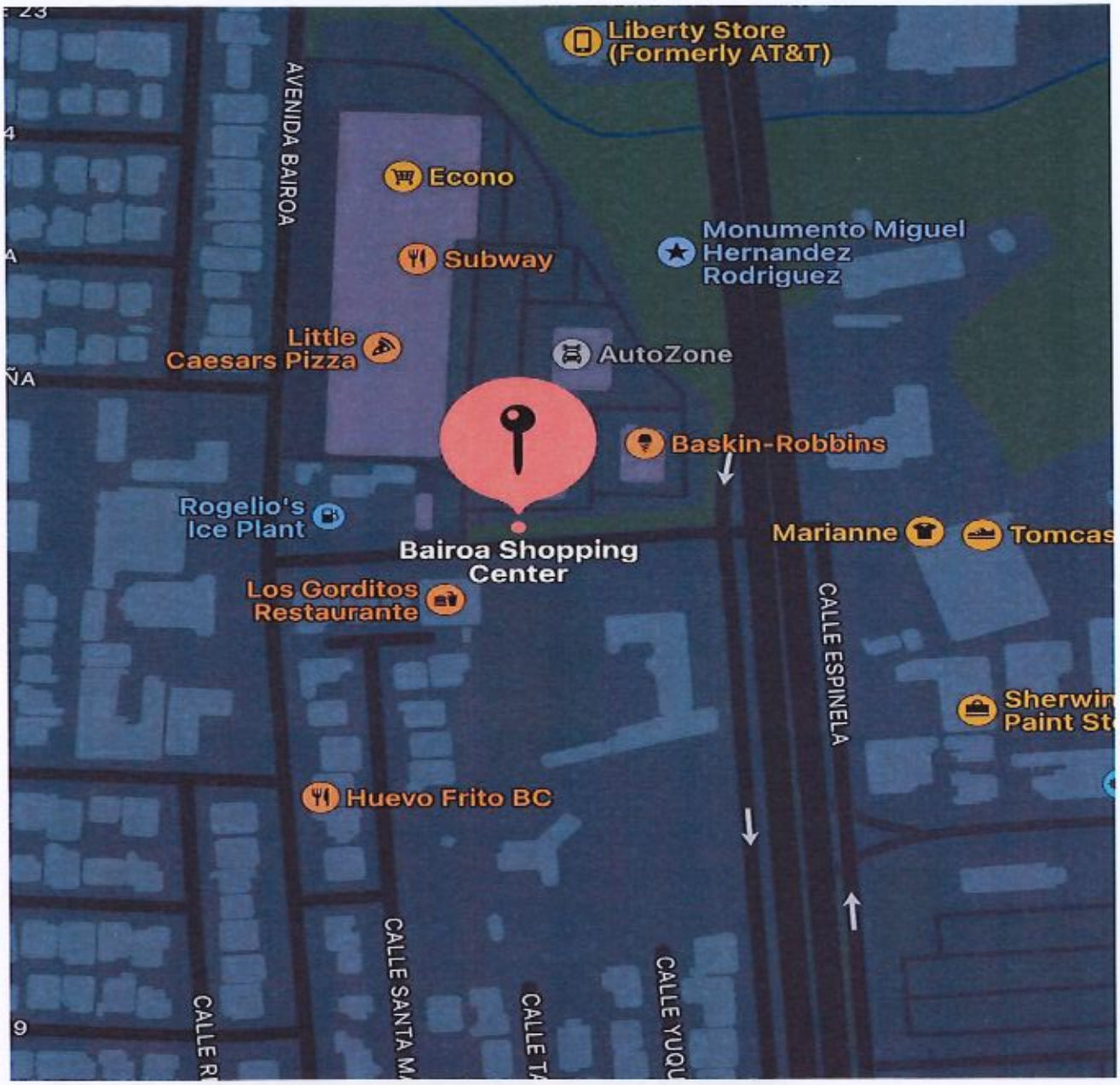
18.25414, -66.03714

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Asbestos & Lead Based Paint Survey/Environmental Consultants Services/Industrial Hygiene/Indoor Air Quality

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SITE AREA



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ADDENDUM IV

CERTIFICATIONS GRANTED BY THE DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES OF PUERTO RICO

MR. ELIS J. MORALES- LEAD BASED PAINT INSPECTOR CERTIFICATION



CERTIFICACIÓN PLOMO PUERTO RICO

Esta tarjeta autoriza a:

Elis Javier Morales Rivera

Para realizar actividades relacionadas a Mitigación de Pintura con Base de Plomo

Disciplina: **Inspector**

Fecha de Expiración: Septiembre 17, 2023

Certificación #:
LBPI-22422-224

Firma Autorizada
Departamento de Recursos Naturales y Ambientales



ThermoFisher SCIENTIFIC

CERTIFICATE

This Certifies that

Elis Morales

Has successfully completed

Safety Training for
~ Sealed Source XRF - Radiation Safety~

Supervisor Signature

8/10/2021
COMPLETION DATE

Jean Geslin
Jean Geslin, RSO
Thermo Fisher Scientific

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GES 2022-218	XRF Serial Number: 100102	Project: Leoncio Velazquez Avenue in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 20/32**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
1	*Calibrate*				1.0		
2	*Calibrate*				0.9		
3	*Calibrate*				0.9		
4	*Leoncio Velazquez Ave.*	*Cross Walk*	*Across*	*Asphalt*	0.01	Neg	
5	*Leoncio Velazquez Ave.*	*Solid White Line*	*Right Side*	*Asphalt*	0.00	Neg	
6	*Leoncio Velazquez Ave.*	*Solid White Line*	*Right Side*	*Asphalt*	0.02	Neg	
7	*Leoncio Velazquez Ave.*	*Solid White Line*	*Right Side*	*Asphalt*	0.01	Neg	
8	*Leoncio Velazquez Ave.*	*Solid White Line*	*Right Side*	*Asphalt*	0.01	Neg	
9	*Leoncio Velazquez Ave.*	*Solid White Line*	*Right Side*	*Asphalt*	0.01	Neg	
10	*Leoncio Velazquez Ave.*	*Yellow Curb Line*	*Right Side*	*Concrete*	0.01	Neg	
11	*Leoncio Velazquez Ave.*	*Yellow Curb Line*	*Right Side*	*Concrete*	0.01	Neg	
12	*Leoncio Velazquez Ave.*	*Yellow Curb Line*	*Right*	*Concrete*	0.01	Neg	
13	*Leoncio Velazquez Ave.*	*Yellow Curb Line*	*Right*	*Concrete*	0.01	Neg	
14	*Leoncio Velazquez Ave.*	*Yellow Curb Line*	*Right Side*	*Concrete*	0.01	Neg	
15	*Leoncio Velazquez Ave.*	*Solid Yellow Line*	*Center Right*	*Asphalt*	0.01	Neg	
16	*Leoncio Velazquez Ave.*	*Solid Yellow Line*	*Center Right Side*	*Asphalt*	0.00	Neg	
17	*Leoncio Velazquez Ave.*	*Solid Yellow Line*	*Center Right*	*Asphalt*	0.01	Neg	

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GES 2022-218	XRF Serial Number: 100102	Project: Leoncio Velazquez Avenue in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 22/32**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
32	Leoncio Velazquez Ave.	Light Pole	Center Side	Metal	0.02	Neg	
33	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
34	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
35	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.00	Neg	
36	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
37	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
38	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
39	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
40	Leoncio Velazquez Ave.	Light Pole	Center Side	Metal	0.02	Neg	
41	Leoncio Velazquez Ave.	Light Pole	Center	Metal	0.02	Neg	
42	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left	Metal	0.02	Neg	
43	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left	Metal	0.02	Neg	
44	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left Side	Metal	0.02	Neg	
45	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left Side	Metal	0.02	Neg	
46	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left	Metal	0.01	Neg	
47	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left Side	Metal	0.02	Neg	
48	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left	Metal	0.02	Neg	
49	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left Side	Metal	0.01	Neg	
50	Leoncio Velazquez Ave.	Light Pole Pipe Barrier	Left	Metal	0.02	Neg	

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GES 2022-218	XRF Serial Number: 100102	Project: Leoncio Velazquez Avenue in Caguas, PR	Client: Vazquez Assoc.	LBP Inspector: Mr. Elis J. Morales	Date: December 3, 2022	**Page 24/32**	
Sample ID	*Functional Space*	*Component*	*Side*	*Substrate*	*XRF Reading (mg/cm²)*	*Result Pos./ Neg.*	*Approx. Sq. ft./Ln. Ft.*
70	Leoncio Velazquez Ave.	Solid White Line	Left Side	Asphalt	0.01	Neg	
71	Leoncio Velazquez Ave.	Solid White Line	Left Side	Asphalt	0.01	Neg	
72	Leoncio Velazquez Ave.	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
73	Leoncio Velazquez Ave.	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
74	Leoncio Velazquez Ave.	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
75	Leoncio Velazquez Ave.	Yellow Curb Line	Left Side	Concrete	0.01	Neg	
76	Leoncio Velazquez Ave.	Yellow Curb Line	Left Side	Concrete	0.00	Neg	
77	Leoncio Velazquez Ave.	Blue Street Ramp	Right Side	Concrete	0.01	Neg	
78	Leoncio Velazquez Ave.	Blue Street Ramp	Right Side	Concrete	0.01	Neg	
79	Leoncio Velazquez Ave.	Blue Street Ramp	Left Side	Asphalt	0.01	Neg	
80	**Leoncio Velazquez Ave. Sub-Station**	**Yellow Curb**	**Left Side**	**Concrete**	**2.1**	**Pos.**	**11 Ln. Ft. Approx.**
81	**Leoncio Velazquez Ave. Sub-Station**	**Pipe Barrier**	**Left Side**	**Metal**	**1.9**	**Pos.**	**8 Ln. Ft. Approx.**
82	**Leoncio Velazquez Ave. Sub-Station**	**Pipe Barrier**	**Left Side**	**Metal**	**1.8**	**Pos.**	**(2 units)**
83	Calibrate				1.0		
84	Calibrate				0.9		
85	Calibrate				0.9		

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TABLE SUMMARY OF COMPONENTS WITH LEAD BASED PAINT

FUNCTIONAL SPACE	COMPONENT	SIDE	SUBSTRATE	SQ. FT. APPROX./ Units
Leoncio Velazquez Avenue Sub-Station	Yellow Curb	Left	Concrete	11 ln. ft. approx.
Leoncio Velazquez Avenue Sub-Station	Yellow Pipe Barrier	Left	Metal	8 ln. ft. approx. (2 units)
Leoncio Velazquez Avenue Sub-Station	Yellow Pipe Barrier	Left	Metal	



Leoncio Velazquez Avenue-Sub-Station- Concrete Yellow Curbs with Lead Based Paint



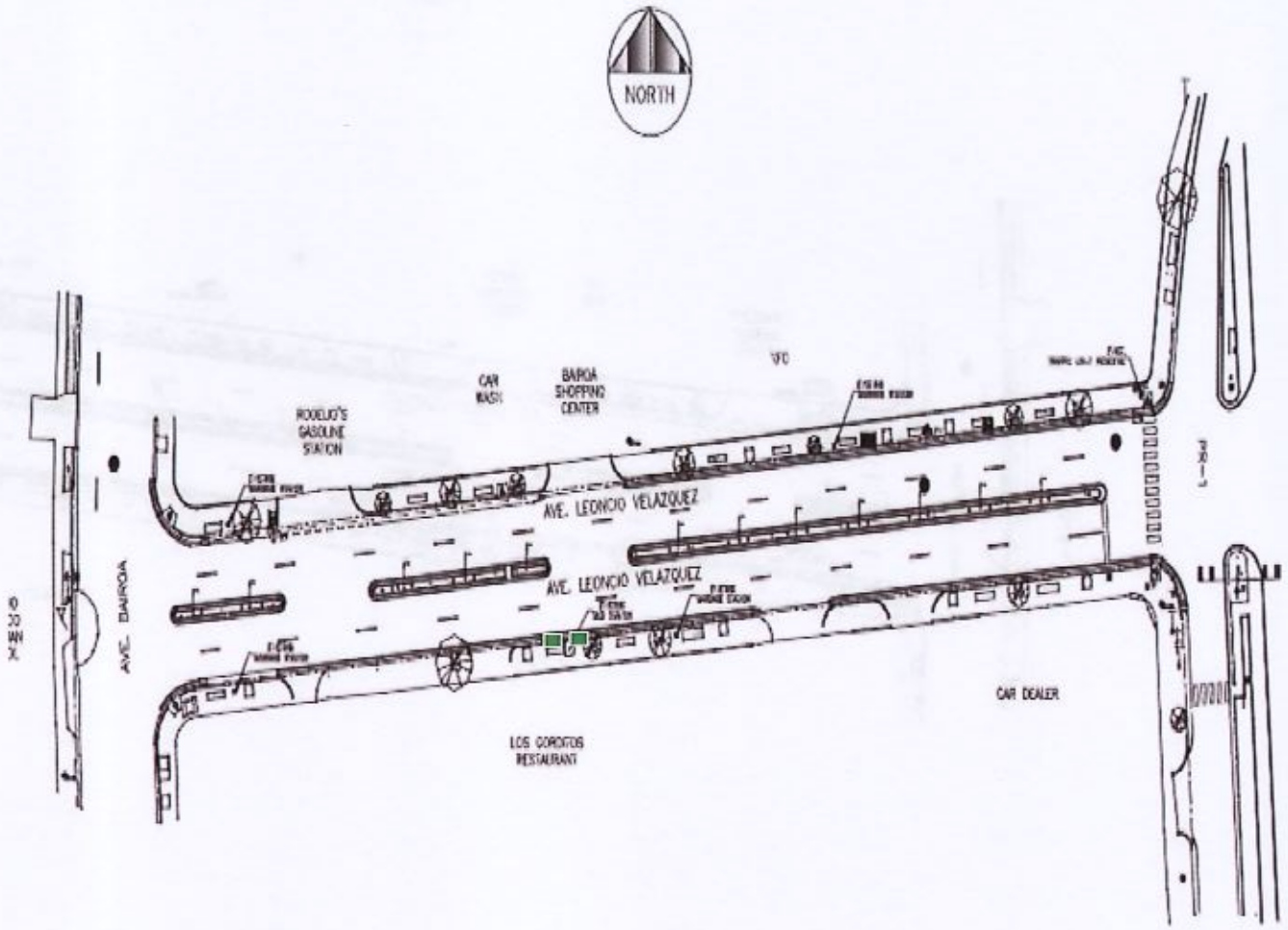
Leoncio Velazquez Avenue-Sub-Station- Concrete Yellow Pipes Barriers with Lead Based Paint

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LBP POSITIVE RESULTS LOCATIONS



NOT TO SCALE

= *METAL YELLOW PIPE BARRIERS WITH LBP*

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ADDENDUM VI

CONCLUSION

Global Environmental Services LLC recommends the owner or representative of owner to hire a Company Certified in the Department of Natural and Environmental Resources (DNER) of Puerto Rico to mitigate and dispose positive areas with Lead Based Paint if is going to touch or demolish the aforementioned areas.

Exhibit 7
Contamination and Toxic

LEAD BASED PAINT INSPECTION REPORT

AT

José Gautier Benítez Avenue & San Carlos Street

Physical Address: Km 36.0 – 38.0, Gautier Benitez Avenue and San Carlos Street
Caguas, Puerto Rico



Prepared by:

ShareTech Group

PO Box 1330, Caguas, P.R.
00726-1330

Tel.: (787)720-5869 Fax: (787)
720-2318

Submitted to:

Municipio de Caguas

Caguas, PR

February 28, 2023

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INTRODUCTION

The Municipality of Caguas retained the services of Sharetech Group Engineering PSC to provide professional environmental engineering consulting services consisting of performing a limited Lead Based Paint (LBP) inspection. The LBP inspection was conducted as part of Municipality of Caguas commitment to comply with local, state, and federal regulations and for identify paint that contains lead above allowable levels that could result in harm to workers, including construction personnel.

Lead Based Paint inspection was conducted on February 21, 2023 and February 22, 2023 at José Gautier Benítez Avenue & San Carlos Street located on Km 36.0 – 38.0, Jose Gautier Benitez Avenue and San Carlos Street in the municipality of Caguas, by Grace Berrios and Erick Pagán accredited lead inspectors. The inspection consisted of the evaluation of the sidewalk and asphalt of Jose Gautier Benitez Avenue and San Carlos Street.

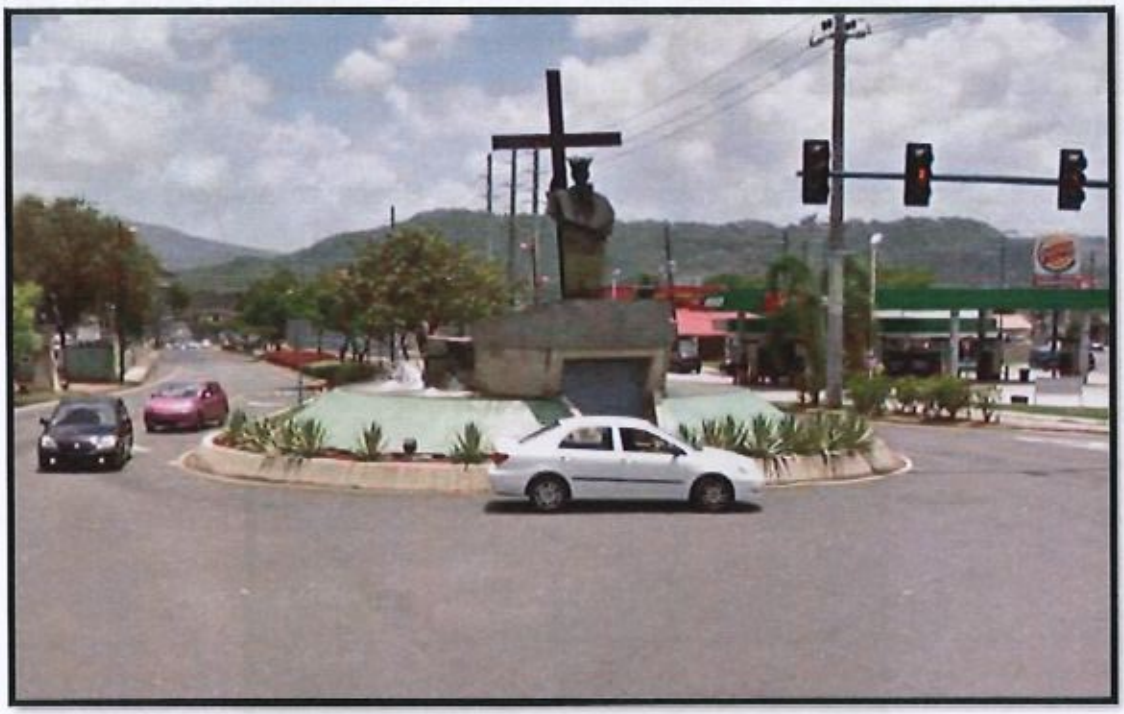


Figure #1: Jose Gautier Benítez Avenue, Caguas, Puerto Rico.

LBP inspection conforming to HUD guidelines was performed to identify all lead-based paints on a surface-by-surface basis. A total of 273 readings were taken including 5 readings for calibration purposes using portable X-ray fluorescence (XRF) spectrum analyzer paint tests, Niton XLp 300 Series Analyzer. The results obtained are tabulated on Table #2: LBP

Assessment Results on Appendix A. The Interpretation of the results is presented on page 6, conclusions and recommendations are on page 8.

METHODOLOGY AND EQUIPMENT

The Lead Based Paint Sampling Procedure was designed to evaluate and document all the data obtained from the inspection in a sequential method that provided confidence of the results presentation.

The survey was performed following the methodology established in the HUD Guidelines for the Evaluation and Control of Lead Based Paint in Housing (2012 revision) and the Natural Resources and Environmental Department (DRNA by Spanish acronym) former PREQB Lead Based Paint Abatement Control Regulation.

An X-Ray Fluorescence (XRF) Lead Analyzer was used to test the paint for lead. This analyzer is a nondestructive method of testing paint and provides immediate results for each test conducted. If paint contains lead equal to or greater than 1.0 mg/cm^2, it is considered to be lead-based paint. The higher the reading on the XRF, the higher the lead content of the paint. The surfaces evaluation was performed as follows:

- If the lead concentration measured by the XRF Spectrum Analyzer is less than 1.0 mg/cm^2 it is considered negative.
- If the lead concentration measured by the XRF Spectrum Analyzer is equal or greater than 1.0 mg/cm^2 it is considered positive.



Figure #2: Image of Niton XLp 300 Series XRF Analyzer

The performance characteristics sheet for the instrument is attached at the end of this report. The spectrum analyzer automatically subtracts from a spectrum the fluorescence from the substrate of the paint, to give an accurate reading of lead contest without taking of samples or stripping of the paint. This performed via a computer program stored in the analyzer, which gives an instantaneous readout of the lead content of a site in milligrams of lead per square centimeter of surface area (mg/cm^2). The Niton Xlp 300A Series XRF Analyzers with serial number 114739, is calibrate before and during the survey.

The inspection was conducted following EPA's work practice standards for conducting lead-based paint activities (40 CFR 745.227), the U.S. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (Guidelines) with the 1997, 2000 and 2012 revisions, and all State and local regulations.

Sharetech Group completed the lead-based paint inspection and investigation to identify all lead-based paint on a surface-by-surface basis. An average of 273 readings, including 4 readings for calibration, were collected at identified surfaces of the evaluated areas using portable X-ray fluorescence (XRF) spectrum analyzer paint testes, Niton XLp 300 Series Analyzer by state-certified lead inspector. Refer to Appendix D for inspector accreditations.

REPORT OF RESULT

Tables #1 summarize the components with lead-based paint. XRF Spectrum Analyzer is less than 1.0 mg/cm^2 it is considered negative. XRF Spectrum Analyzer is equal or greater than 1.0 mg/cm^2 it is considered positive.

Table #1: Positive Reading (at or above 1.0 mg/cm^2)

ShareTech
GROUP ENGINEERING, P.S.C.

Lead Based Paint Inspection

José Gautier Benítez Avenue & San Carlos Stree

Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
7	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Center curb	Yellow	con	2.00
21	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Center curb	Yellow	con	3.20
25	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Bollard	Yellow	m	4.90
32	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	3.80
43	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	4.50
45	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	4.50
48	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	5.80
82	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	1.50
93	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb island	Yellow	con	1.50
102	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	1.40
106	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	4.60
108	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	2.40
127	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	1.90
139	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.40
154	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	2.10

ShareTech GROUP ENGINEERING, P.S.C.

Lead Based Paint Inspection

José Gautier Benítez Avenue & San Carlos Stree

Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
178	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.50
179	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	2.30
193	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	1.90
220	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.60
227	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.90
238	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	3.20
239	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	2.40
240	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.40
241	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	3.60
242	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	2.20
245	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	2.50
247	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	2.00
248	José Gautier Benítez &	2/22/2023	José Gautier	Sidewalk marking	Blue	con	4.10

INTERPRETATION OF RESULT

The survey was performed following the methodology established in the HUD Guidelines for the Evaluation and Control of Lead Based Paint Housing and Natural Resources Environmental Department (DRNA by acronym in Spanish) Lead Based Paint Abatement Control Regulation. The surfaces evaluation was performed as follows:

- If the lead concentration measured by the XRF Spectrum Analyzer is less than 1.0 mg/cm^2 it is considered negative.
- If the lead concentration measured by the XRF Spectrum Analyzer is equal or greater than 1.0 mg/cm^2 it is considered positive.

Lead Based Paint was detected as stated USEPA/HUD definition of lead-based paint (at or above 1.0 mg/cm^2) at 37 of the 273 tested locations. The remaining tested component coatings were below the USEPA/HUD definition of lead-based paint or below the detection limit of the instrument.

CONCLUSIONS AND RECOMMENDATIONS

The lead-based inspection was performed to accessible components and surfaces. If suspected components that could contain lead are encountered underneath of construction materials, they shall be managed as containing lead until the appropriate sampling is performed.

According to the DRNA lead regulations, prior to the demolishing of a structure containing lead-based paint, the contaminated surfaces or substrates must be abated or removed. The waste generated must be characterized to determine if the waste generated is hazardous or non-hazardous waste. The general contractor providing the abatement must be trained and certified as abatement workers by a training provider accredited by the DRNA.

DISCLOSURE

According to the Federal Law (24 CFR part 35 and 40 CFR part 745) a copy of this summary must be provided to new tenants and purchasers of this facility/property, before they become obligated under a lease or sales contract. The entire report must also be provided to new purchasers and be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet, including standard warning language in their leases or sales contracts to ensure that parents have the information necessary to protect their children from lead-based paint hazards.

The Occupational Safety and Health Administration (OSHA) Lead in Construction Standard states that "negative" readings (i.e., those below the HUD/EPA definition of what constitutes LBP (1.0 mg/cm^2) does not relieve contractors from performing exposure assessments (personal air monitoring) on their employees per the OSHA Lead Standard and should not be interpreted as lead free. Although a reading may indicate "negative", airborne lead concentrations still may exceed the OSHA Action Level or the OSHA Permissible exposure limit (PEL) depending on the work activity.

ENVIRONMENTAL ASSESSMENT REPORT CERTIFICATION

Sharetech Group Engineering has performed this lead- based paint inspection in a thorough and professional manner consistent with commonly accepted industry standards. The inspection was conducted on February 21, 2023 and February 22, 2023 by Grace Berrios state-certified inspector LBPI-36122-427 and Erick Pagán, state-certified inspector LBPI-23022-231, qualified by experience, education, and training in the recognition of lead-based paint and approved sampling techniques using the Niton XLp-300.

Erick Pagán Ortiz
EHS Technician

APPENDIX

APPENDIX A: LEAD-BASED PAINT ASSESSMENT RESULTS

Table #2: LBP Assessment Results

ShareTech
GROUP ENGINEERING, P.S.C.

Lead Based Paint Inspection

José Gautier Benítez Avenue & San Carlos Stree

Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
1	José Gautier Benítez & San Carlos Street	2/21/2023		Det. Calibration			
2	José Gautier Benítez & San Carlos Street	2/21/2023		Calibration			1.10
3	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.18
4	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	White	asphalt	0.00
5	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Null			
6	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Null			
7	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Center curb	Yellow	con	2.00
8	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	White	asphalt	0.00
9	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Lamp post	Green	m	0.00
10	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
11	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Canopy	Green	m	0.14
12	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Canopy	Red	m	0.00
13	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Box	Yellow	w	0.00
14	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Box	Yellow	w	0.00
15	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Center curb	Yellow	con	0.01

ShareTech
GROUP ENGINEERING, P.S.C.

Lead Based Paint Inspection

José Gautier Benítez Avenue & San Carlos Stree

Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
22	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue			Null	
23	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Center curb	Yellow	con	0.05
24	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Lamp post	Green	m	0.00
25	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Bollard	Yellow	m	4.90
26	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.16
27	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Floor tile	White and gray	c.	0.60
28	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
29	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	White	asphalt	0.00
30	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.01
31	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
32	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	3.80
33	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
34	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Column	Beige	con	0.00
35	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Column	Wine	con	0.00
36	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	0.00

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José Gautier Benítez Avenue & San Carlos Stree

Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
43	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	4.50
44	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	0.01
45	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	4.50
46	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Center curb	Yellow	con	0.00
47	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Null			
48	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	5.80
49	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
50	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
51	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Curb ramp	White	con	0.00
52	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.02
53	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	0.00
54	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.00
55	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Gray	con	0.00
56	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Base sign	Yellow	con	0.00
57	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
64	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.02
65	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
66	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Canopy	Gray	m	0.00
67	José Gautier Benítez & San Carlos Street	2/21/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
68	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.50
69	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.00
70	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
71	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
72	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Marking line	Yellow	asphalt	0.00
73	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
74	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Marking line	Blue	con	0.00
75	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Marking line	White	con	0.00
76	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.00
77	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
78	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.70

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
85	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
86	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.01
87	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
88	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	White	con	0.00
89	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.01
90	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Lamp post	Green	m	0.00
91	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
92	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Marking line	White	con	0.00
93	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb island	Yellow	con	1.50
94	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
95	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.03
96	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.18
97	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
98	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	White	con	0.00
99	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
106	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	4.60
107	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
108	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	2.40
109	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
110	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
111	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.20
112	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.01
113	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.00
114	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.04
115	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.00
116	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
117	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.00
118	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
119	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
120	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
169	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sign	Brown	m	0.00
170	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	1.40
171	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.03
172	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	2.00
173	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	2.60
174	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.10
175	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
176	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	White	con	0.00
177	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	8.60
178	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.50
179	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	2.30
180	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Box	Yellow	w	0.00
181	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.00
182	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
183	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
190	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	0.00
191	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	White	asphalt	0.00
192	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.08
193	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	1.90
194	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.40
195	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
196	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
197	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.22
198	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
199	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
200	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
201	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Lamp post	Green	m	0.01
202	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Gray	con	0.00
203	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.30
204	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
211	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.50
212	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
213	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
214	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Red	con	0.00
215	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
216	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.12
217	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.03
218	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
219	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Null			
220	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.60
221	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.02
222	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
223	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.06
224	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Canopy	Gray	m	0.00
225	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.01

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232	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	white	con	0.00
233	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.06
234	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
235	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue			Null	
236	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Crosswalk	White	asphalt	0.00
237	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.50
238	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	3.20
239	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	2.40
240	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.40
241	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	3.60
242	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	2.20
243	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.60
244	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
245	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	2.50
246	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
127	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	1.90
128	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Lamp post	Green	m	0.00
129	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
130	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Sidewalk marking	Yellow	con	0.00
131	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Marking line	Yellow	asphalt	0.00
132	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Marking line	Yellow	asphalt	0.00
133	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Crosswalk	White	asphalt	0.00
134	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Null			
135	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb island	Yellow	con	0.00
136	José Gautier Benítez & San Carlos Street	2/21/2023	San Carlos Street	Curb ramp	Blue	con	0.00
137	José Gautier Benítez & San Carlos Street	2/22/2023		Det. Calibration			
138	José Gautier Benítez & San Carlos Street	2/22/2023		Calibration			0.80
139	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	1.40
140	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.14
141	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	White	asphalt	0.00

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Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
148	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Lamp	Brown	m	-0.54
149	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
150	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.02
151	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Crosswalk	White	asphalt	0.00
152	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Trashcan	Red	m	0.00
153	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue			Null	
154	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	2.10
155	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.40
156	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue			Null	
157	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
158	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
159	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	Yellow	con	1.60
160	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	Yellow	con	0.00
161	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Blue	con	0.00
162	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Marking line	Yellow	asphalt	0.00

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Lead Based Paint Inspection

José Gautier Benítez Avenue & San Carlos Stree

Sample ID	Property ID	Date	Functional Space	Description*	Color	Subst. (wood (w), ceramic(c.), metal (m), concrete (con), Gypsum board (GB)	XRF Readings
253	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00
254	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.08
255	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Null			
256	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	0.18
257	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb ramp	Blue	con	0.00
258	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Curb island	Yellow	con	1.50
259	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.07
260	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.23
261	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.08
262	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Post	Yellow	m	3.80
263	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Bollard	Yellow	con	4.40
264	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Null			
265	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Null			
266	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Null			
267	José Gautier Benítez & San Carlos Street	2/22/2023	José Gautier Benítez Avenue	Sidewalk marking	Yellow	con	0.00

APPENDIX B: LOCATIONS OF POSITIVE READINGS IN FLOOR PLANS

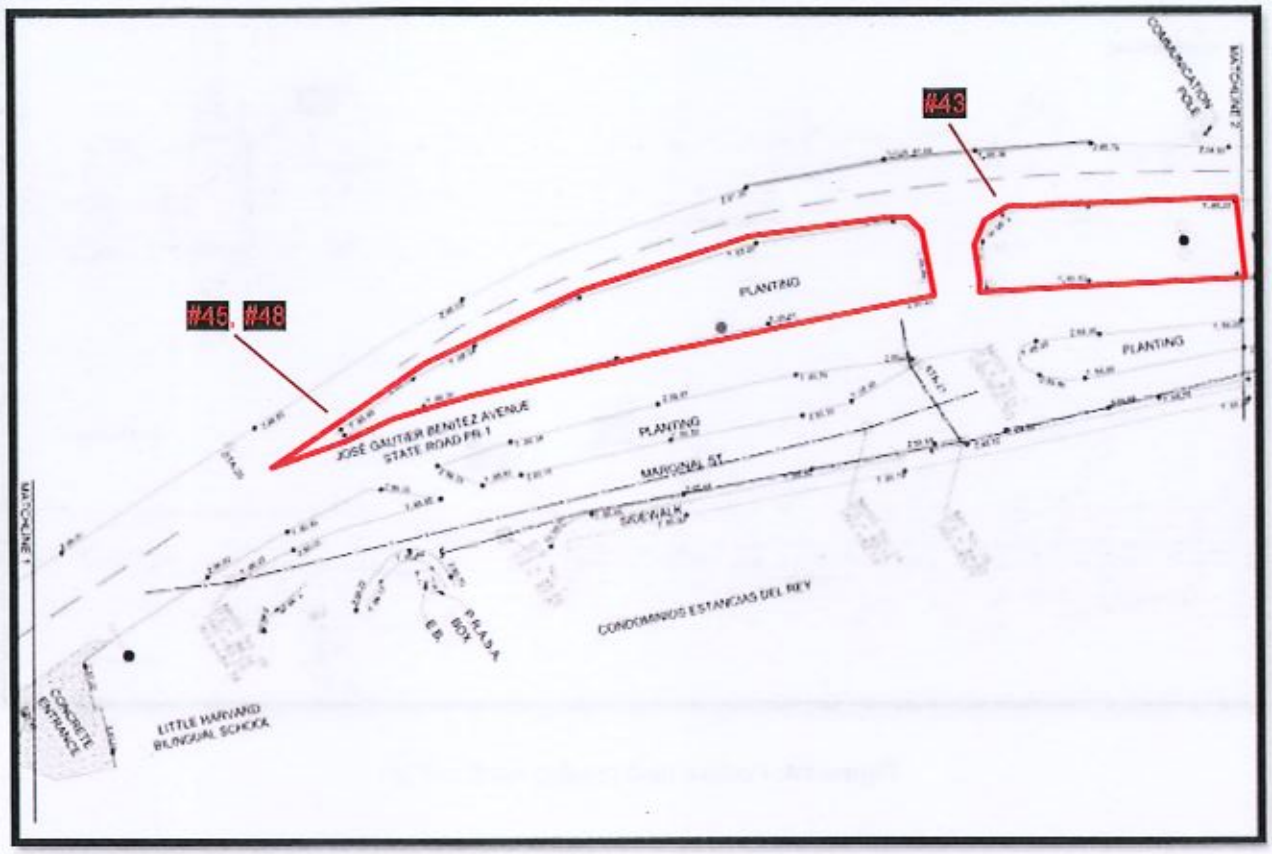


Figure #3: Positive lead reading location Plan

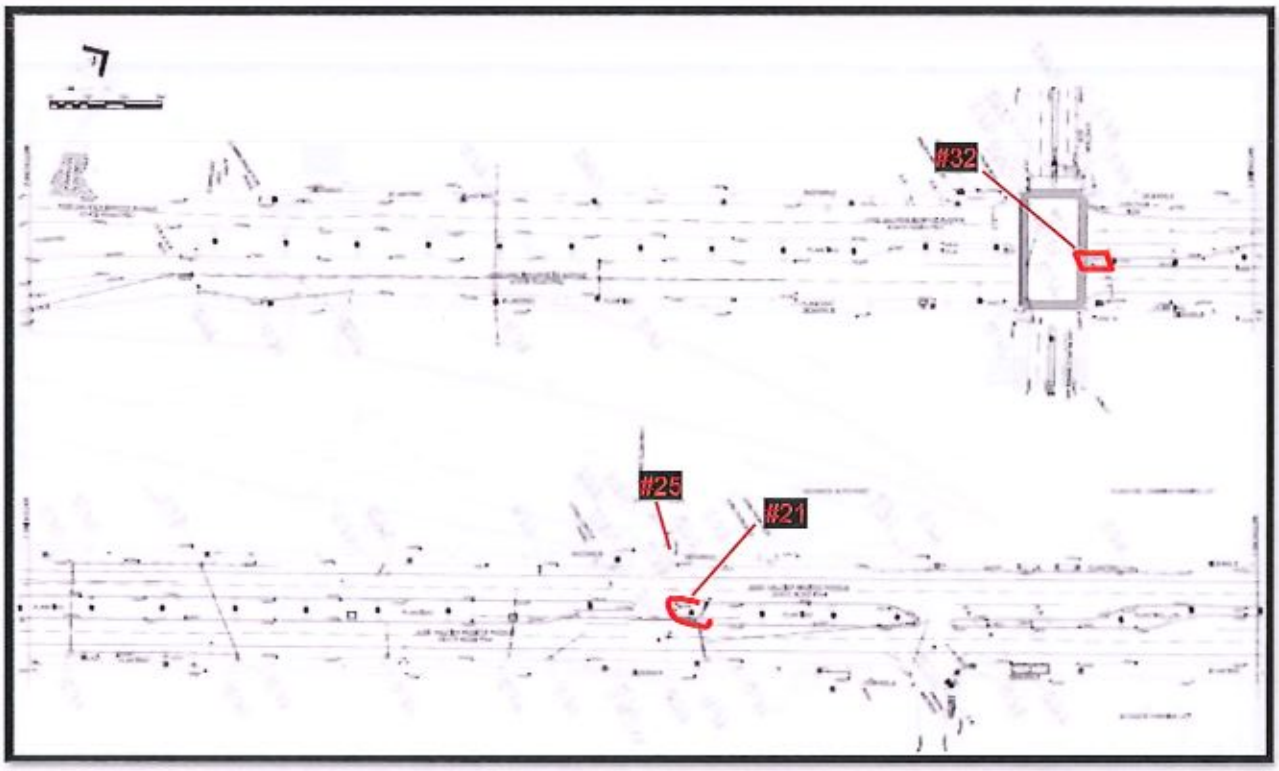


Figure #4: Positive lead reading location Plan

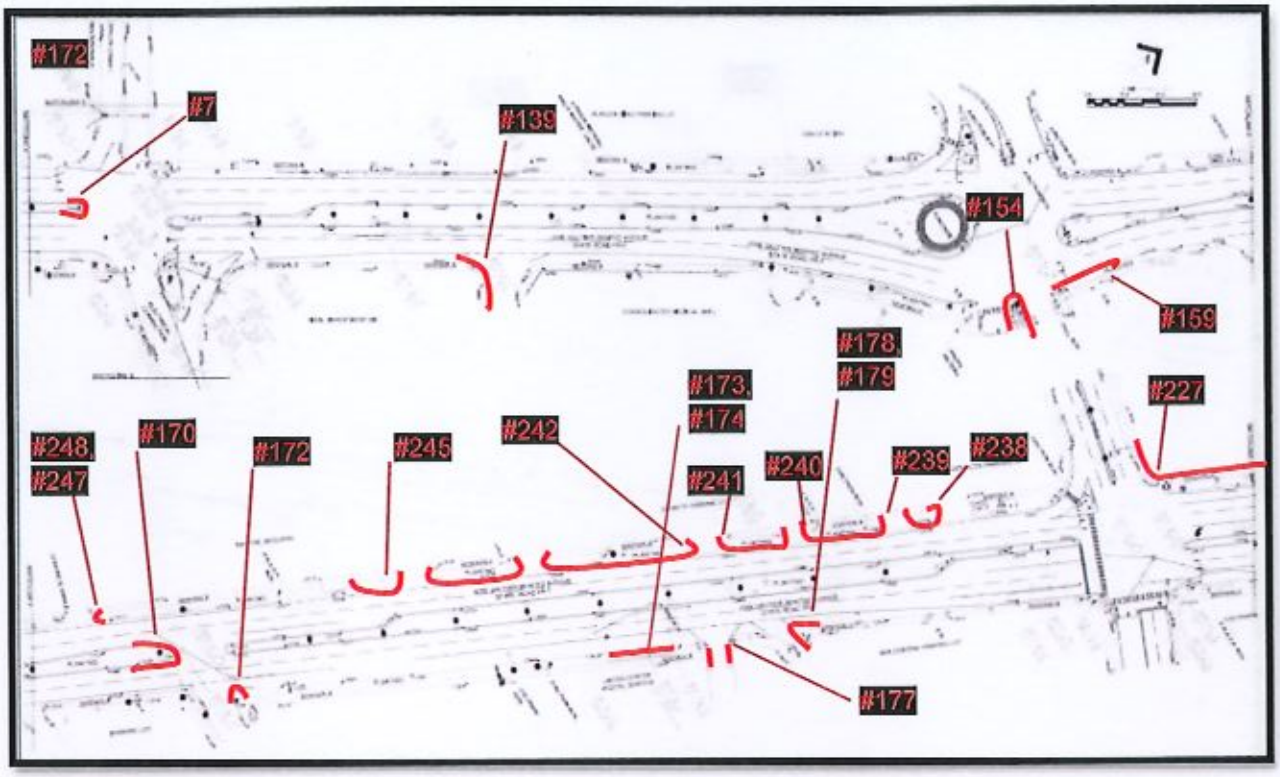


Figure #5: Positive lead reading location Plan

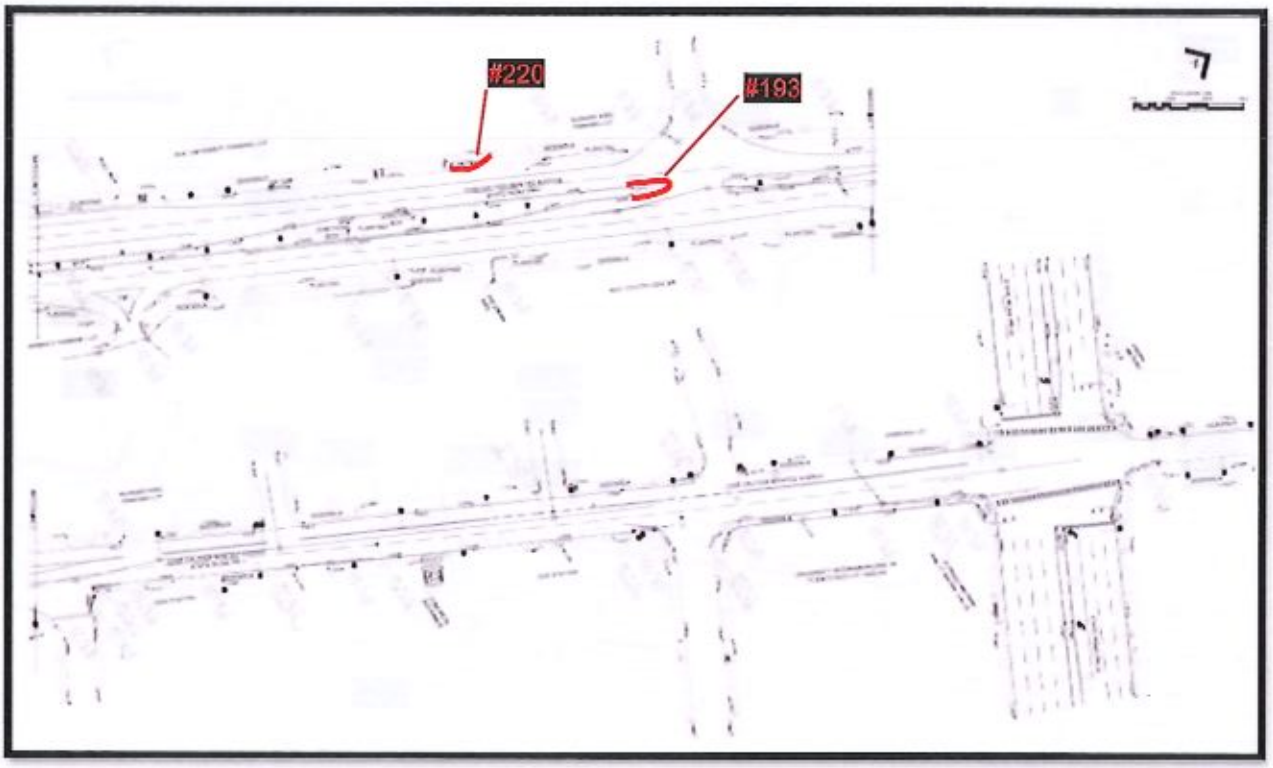


Figure #6: Positive lead reading location Plan

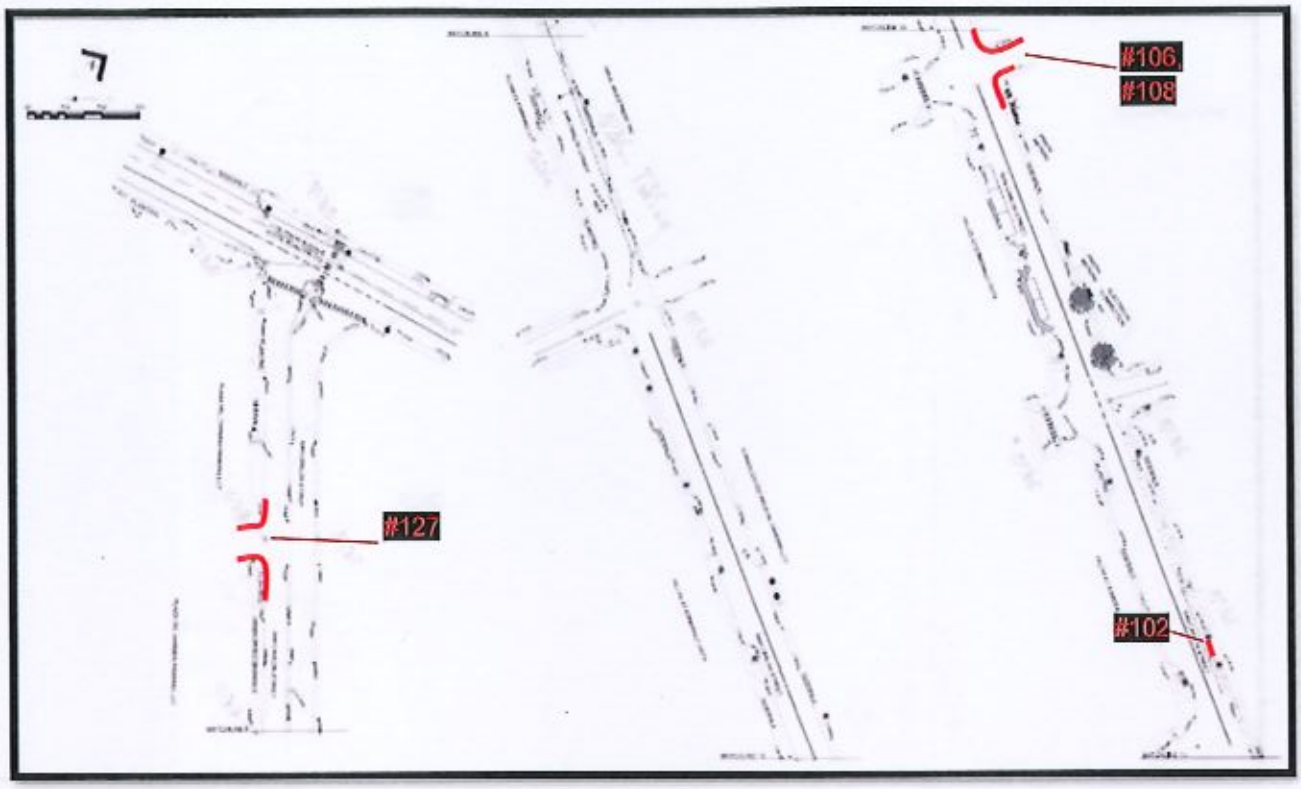


Figure #7: Positive lead reading location Plan

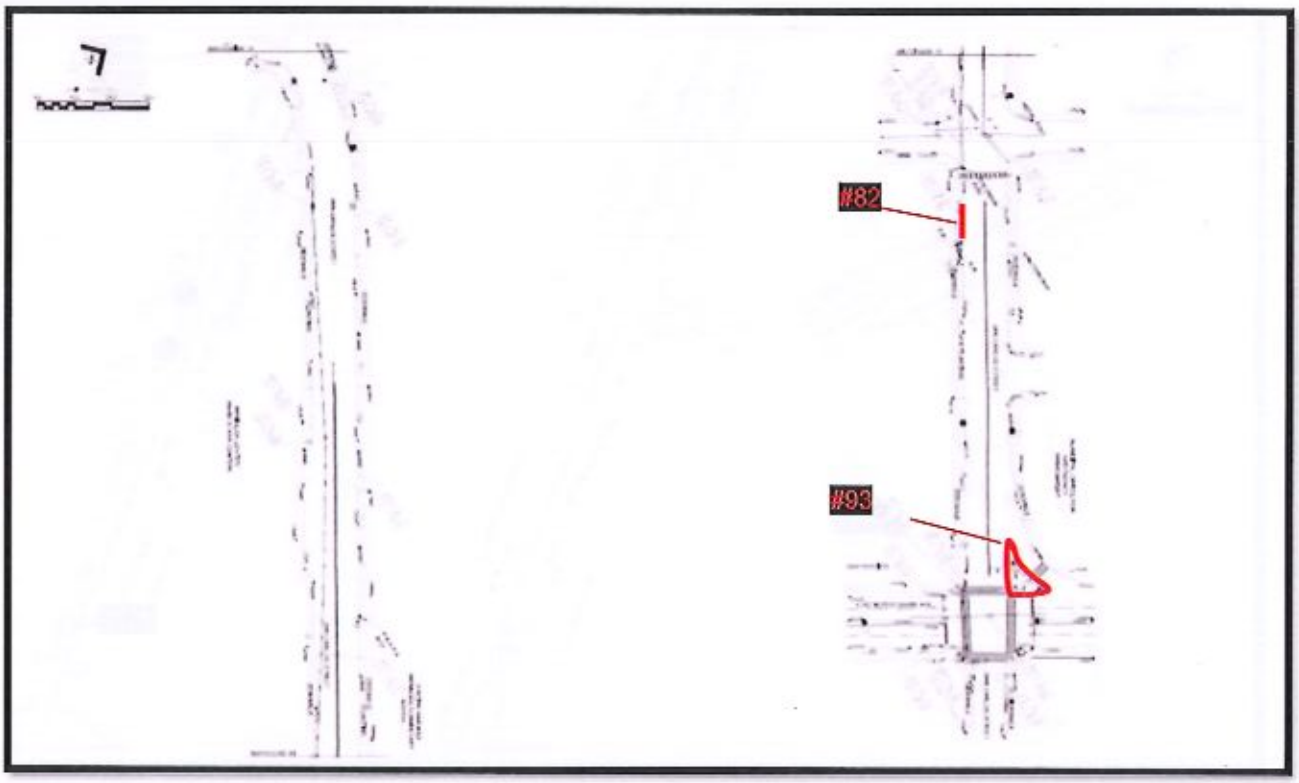


Figure #8: Positive lead reading location Plan

APPENDIX C: ASSESSMENT PHOTOGRAPHS

José Gautier Benitez Avenue & San Carlos Street
Caguas, Puerto Rico

ShareTech GROUP

Lead Reading Photographs



ID #3



ID #4



ID #7



ID #8



ID #9



ID #10

José Gautier Benitez Avenue & San Carlos Street
Caguas, Puerto Rico

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APPENDIX D: LEAD CERTIFICATIONS AND INSPECTOR LICENSES AND ACCREDITATIONS



GOBIERNO DE PUERTO RICO
Departamento de Recursos Naturales y Ambientales

Este certificado es otorgado a:

Sharetech Group Engineering, PSC

Por haber cumplido con los requisitos establecidos en el Capítulo VI, Regla 127 del Reglamento para el Manejo Adecuado de Actividades de Pintura con Base de Plomo. Se le otorga esta certificación como **Firma** para llevar a cabo actividades relacionadas a Mitigación de Pintura con base de plomo en la jurisdicción de Puerto Rico.

Número de Certificado

LBPF-36122-056

Fecha de emisión: Diciembre 27, 2022

Fecha de Expiración: Diciembre 26, 2023

DRNA

María V. Rodríguez Pr

José Roque Julá
Jefe
División Desperdicios Tóxicos


CERTIFICACIÓN PLOMO PUERTO RICO
Esta tarjeta autoriza a:
Eric Pagán Ortiz
Para realizar actividades relacionadas a Mitigación de Pintura con Base de Plomo
Disciplina: Inspector
Fecha de Expiración: Agosto 21, 2023
Certificación #:
LBPI-23022-231
Firma Autorizada
Departamento de Recursos Naturales y Ambientales


CERTIFICACIÓN PLOMO PUERTO RICO
Esta tarjeta autoriza a:
Grace Berrios López
Para realizar actividades relacionadas a Mitigación de Pintura con Base de Plomo
Disciplina: Inspector
Fecha de Expiración: Diciembre 18, 2023
Certificación #:
LBPI-36122-427
Firma Autorizada
Departamento de Recursos Naturales y Ambientales

APPENDIX E: NITON XLP - PERFORMANCE CHARACTERISTIC SHEET

Niton XLp 300, 9/24/2004, ed. 1

Performance Characteristic Sheet

EFFECTIVE DATE: **September 24, 2004** **EDITION NO.: 1**

MANUFACTURER AND MODEL:

Make: *Niton LLC*
Tested Model: *XLp 300*
Source: ^{109}Cd
Note: This PCS is also applicable to the equivalent model variations indicated below, for the Lead-in-Paint K+L variable reading time mode, in the XLi and XLp series:

XLi 300A, XLi 301A, XLi 302A and XLi 303A.
XLp 300A, XLp 301A, XLp 302A and XLp 303A.
XLi 700A, XLi 701A, XLi 702A and XLi 703A.
XLp 700A, XLp 701A, XLp 702A, and XLp 703A.

Note: The XLi and XLp versions refer to the shape of the handle part of the instrument. The differences in the model numbers reflect other modes available, in addition to Lead-in-Paint modes. The manufacturer states that specifications for these instruments are identical for the source, detector, and detector electronics relative to the Lead-in-Paint mode.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS

Lead-in-Paint K+L variable reading time mode.

XRF CALIBRATION CHECK LIMITS

0.8 to 1.2 mg/cm^2 (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm^2 in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm^2 film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION:

For XRF results using Lead-in-Paint K+L variable reading time mode, substrate correction is not needed for:

Brick, Concrete, Drywall, Metal, Plaster, and Wood

INCONCLUSIVE RANGE OR THRESHOLD:

K+L MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm^2)
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

1 of 3

Niton XLp 300, 9/24/2004, ed. 1

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 from the EPA/HUD evaluation using archived building components. Testing was conducted in August 2004 on 133 testing combinations. The instruments that were used to perform the testing had new sources; one instrument's was installed in November 2003 with 40 mCi initial strength, and the other's was installed June 2004 with 40 mCi initial strength.

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.

SUBSTRATE CORRECTION VALUE COMPUTATION

Substrate correction is not needed for brick, concrete, drywall, metal, plaster or wood when using Lead-in-Paint K+L variable reading time mode, the normal operating mode for these instruments. If substrate correction is desired, refer to Chapter 7 of the HUD Guidelines for guidance on correcting XRF results for substrate bias.

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. Use the K+L variable time mode readings.

Conduct XRF retesting 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 housing a result is defined as the average of three readings. In multifamily housing, a result is 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 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 results.

Compute the average of all ten re-test XRF results.

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:

For the Lead-in-Paint K+L variable reading time mode, the instrument continues to read until it is moved away from the testing surface, terminated by the user, or the instrument software indicates the reading is complete. The following table provides testing time information for this testing mode. The times have been adjusted for source decay, normalized to the initial source strengths as noted above. Source strength and type of substrate will affect actual testing times. At the time of testing, the instruments had source strengths of 26.6 and 36.6 mCi.

Testing Times Using K+L Reading Mode (Seconds)						
	All Data			Median for laboratory-measured lead levels (mg/cm^2)		
Substrate	25th Percentile	Median	75th Percentile	Pb < 0.25	0.25 ≤ Pb<1.0	1.0 ≤ Pb
Wood Drywall	4	11	19	11	15	11
Metal	4	12	18	9	12	14
Brick Concrete Plaster	8	16	22	15	18	16

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than or equal to the threshold, and negative if they are less than the threshold.

DOCUMENTATION:

A document titled *Methodology for XRF Performance Characteristic Sheets* 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. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) and QuanTech, Inc., under a contract between MRI and the XRF manufacturer. HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

Contamination and Toxic Memorial- Lead Based Paint Contamination

Site contamination was evaluated and inspected on December 2022 by DNER certified contractor, where findings showed that in Road PR-34 intersection with Degetau Avenue the concrete light pole bases and the metal light pole bases on the right and left side of the intersection were covered with lead-based paint. In addition, in Road PR-156 intersection with PR-33 the concrete light pole bases and the metal light pole bases on the right and left side were covered with lead-based paint. Furthermore, in Jose Gautier Benitez Avenue intersection there is one pole covered with lead-based paint as referred to in the site contamination inspection evaluated by DNER certified contractor on February 28,2023.

Due to the presence of an elevated concentration of LBP, mitigation measures will be conducted by a certified DNER contractor before doing any paint work to prevent dust hazards during the project. Mitigation measures would include controlled removal and proper disposal by a licensed professional recommendation following applicable regulations. It is acknowledged that similar conditions may arise in other sectors, including Rafael Cordero Avenue, Luis Munoz Marin Avenue, and the Pueblo Ward. Should such circumstances be identified, corresponding mitigation actions will be undertaken in accordance with established environmental protocols. Based on the EPA regulations lead-based paint, and asbestos materials are classified as non-hazardous materials. However, they are special management materials that require mitigation.

Exhibit F
Endangered Species

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 DAMARIS ROMAN RUIZ Digitally signed by DAMARIS ROMAN RUIZ Date: 2025.05.13 13:10:43 -04'00'

LOURDES MENA Digitally signed by LOURDES MENA Date: 2025.05.13 13:33:57 -04'00'

Caribbean ES Field Supervisor

MUNICIPIO AUTÓNOMO DE CAGUAS
Apartado 907 Caguas, PR 00726
tel. 7876538833
caguas.pr.gov

MEMORIAL EXPLICATIVO PARA LA REHABILITACION DE LAS AVENIDAS PRINCIPALES DE LA CIUDAD (252 Y 262)

El proyecto propuesto impacta las principales avenidas de la Ciudad. Estas avenidas proveen acceso al tránsito desde las áreas urbanas hacia diferentes comunidades en áreas urbanas y rurales de la Ciudad.

Con el paso del huracán María y otros eventos atmosféricos, estas avenidas han sufrido serios daños en cuanto a su infraestructura, especialmente el alumbrado público. De igual forma, muchos de los árboles que estaban en las áreas de siembra, fueron derribados por los fuertes vientos de estos eventos.

El rodaje sufrió varias reparaciones de infraestructura eléctrica y de comunicaciones. Este factor, junto a la pérdida de vida útil del asfalto por las áreas inundadas a causa de las lluvias asociadas a los eventos, tienen estas avenidas en malas condiciones y susceptibles a un daño mayor con el paso de otro evento atmosférico.

El objetivo de estos proyectos es atender todas estas problemáticas y poner la Ciudad en mejor posición para afrontar eventos y la vida diaria de nuestros ciudadanos y quienes nos visitan. De igual manera se implantarán medidas que fomentarán la movilidad peatonal. En esta fase preliminar del proyecto, consideramos que todos los trabajos y excavaciones se realizarán dentro del derecho de vía de la carretera sin la necesidad de adquisiciones.

Para la realización de los trabajos se requerirá lo siguiente:

- Renovación de la superficie asfáltica mediante escarificación de las áreas y depósito de asfalto a 2" de espesor, marcado de líneas de carril, reconstrucción de rampas que cumplan con códigos y reglamentaciones vigentes con su respectivo marcado de pasos peatonales, reforestación con árboles autóctonos y limpieza general de estructura gris. Esto se implementará en las siguientes áreas:
  - Ave. Luis Muñoz Marín y las siguientes calles interiores:
    - Estacionamiento Monumento Luis Muñoz Marín
    - Calle Coral, desde la Ave. Muñoz Marín hasta la Calle Ópalo
    - Calle Garrido, desde la Ave. Muñoz Marín hasta la Calle 4 de la Urb. San Antonio
    - Calle Aramaná Urb. Caguax
    - Calle 1 Urb. Villa Victoria

- Ave. Georgetti, desde la Ave. Muñoz Marín hasta después del residencial Brisas del Turabo
- Calle 6 de Mariolga, desde la Ave. Muñoz Marín hasta la calle 25
- Calle 2 de Mariolga, desde la Ave. Muñoz Marín hasta la calle 23
- Calle Edimburgo, desde la Ave. Muñoz Marín hasta la calle Luxemburgo
- Estacionamientos instalaciones recreativas Villa del Rey I
- Calle Windsor Villa del Rey I, desde la Ave. Muñoz Marín hasta el final

o Ave. Gautier Benítez y las siguientes calles interiores:
- Calle San Carlos, desde Ave. Luis Muñoz Marín hasta la Ave. Pino
- Calle que dirige hacia el Salvation Army

o Ave. Rafael Cordero y las siguientes calles interiores:
- Calle Nuñez
- Estacionamiento Plaza del Mercado
- Calle San Andrés, desde la Ave. Rafael Cordero hasta la Pista Millán Clara

o Bulevar Leoncio Velázquez

o PR-156

o PR-34

- Creación de carriles para ciclistas. La bicicleta es un medio de transporte alternativo y eco-amigable, el cual reduce las emisiones de gases por efecto invernadero para proteger el medio ambiente. El carril ciclista se implantará en las siguientes áreas:
  - o Carril ciclista en la avenida Rafael Cordero, en dirección del tránsito con una longitud aproximada de 600 metros comenzando en la Estación de Bomberos en intersección con la calle Dr. Pedro Goyco y la calle El Troche y finalizando en la plazoleta de recreación pasiva localizada en la intersección con la calle Manuel Elzuburu y Vizcarrondo y la calle San Andrés.

  - o Carril ciclista en la avenida Rafael Cordero, en ambas direcciones del tránsito con una longitud aproximada de 2000 metros comenzando en la

Estación de Bomberos en intersección con la calle Dr. Pedro Goyco y la calle El Troche y finalizando en la entrada vehicular del Centro Comercial Plaza Centro localizada en el cuadrante Este de Complejo.

- Carril ciclista en la avenida Luis Muñoz Marín, en una sola dirección del tránsito, con una longitud aproximada de 540 metros comenzando en la avenida Rafael Cordero y finalizando en la PR-189.

- Carril ciclista en la PR-189, en una sola dirección del tránsito, con una longitud aproximada de 1,100 metros comenzando en la avenida Luis Muñoz Marín y finalizando en la avenida Rafael Cordero.

- Reemplazo de asfalto y pasos peatonales en adoquines, por rodaje y pasos peatonales en concreto con su debido marcado. Esto se implementará en las siguientes áreas:
  - Intersección con la Ave. Garrido, en Santa Juana
  - Entrada de Plaza Centro II, solo lo que está en adoquines
  - Intersección con Calle Aramaná, Urb. Caguax (cerca de Atento)
  - Intersección con el Bulevar Cristóbal
  - Intersección con la Ave. San Carlos en Mariolga

- Áreas Por Considerarse con Alumbrado Público bajo el Mantenimiento del Municipio:
  - Bulevar Leoncio Velázquez
  - Ave. Muñoz Marín, desde la Ave. Los Trovadores en Bairoa, hasta la Ave. Pino (PR-172)
  - Estacionamiento Monumento Luis Muñoz Marín
  - Ave. Georgetti, desde la Ave. Muñoz Marín hasta después del residencial Brisas del Turabo
  - Estacionamientos instalaciones recreativas Villa del Rey I
  - Calle Windsor Villa del Rey I, desde la Ave. Muñoz Marín hasta el final
  - Ave. Gautier Benítez, entre la Ave. José Mercado (PR-33) y el puente de la PR-52
  - Ave. Degetau, entre la Ave. Muñoz Marín y la Urb. San Alfonso
  - Ave. Pino
  - Calle San Carlos, frente a Plaza del Carmen Mall
  - Ave. Rafael Cordero, entre la entrada de Plaza Centro a la Calle Vizcarrondo
  - PR-156, entre Ave. José Mercado (PR-33) y Puente Sara

- PR-1, entre Puente Las Damas y la intersección con la Mujer Indígena
- Centro Urbano

- Trabajos de Arquitectura e Ingeniería:
  - Revisión de las condiciones del alumbrado actual.
  - Propuesta de poste y luminaria que cumpla con los nuevos códigos de viento y que reduzca consumo energético.
  - Diseño y especificaciones del alumbrado propuesto.
  - Permisología y documentos para proceso de subasta

- Trabajos de Construcción
  - Remoción de postes y bases existentes.
  - Reparación de alambrado y cualquier otro componente eléctrico necesario para el funcionamiento adecuado del alumbrado.
  - Instalación de nuevos postes, con sus respectivas bases y luminaria led.

Para este proyecto se propone una asignación de fondos bajo el programa CDBG-DR del Departamento de la Vivienda de aproximadamente 15 millones de dólares.

De necesitar información adicional, puede comunicarse con nosotros al (787) 653 8833 extensión 2500 o a nuestro correo electrónico planificacion@caguas.gov.pr

Zaid Díaz Isaac, PPL
Director Oficina de Planificación

United States Department of the Interior

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

In Reply Refer To:
FWS/R4/CESFO/BKT/HUD

Mr. Efrain Maldonado
Field Office Director
U.S. Department of Housing and Urban Development
235 Federico Costa Street, Suite 200
San Juan, Puerto Rico 00918

Re: Blanket Clearance Letter for Federally sponsored projects, Housing and Urban Development

Dear Mr. Maldonado:

On January 14, 2013, the U.S. Fish and Wildlife Service (USFWS) in coordination with the U.S. Department of Housing and Urban Development (HUD), signed the Blanket Clearance Letter (BCL) to expedite the consultation process, for federally sponsored projects. On March 20, 2025, the USFWS and the Puerto Rico Department of Housing (PRDOH) acting as the responsible entity designated by HUD decided to review and update the BCL to ensure that new available information regarding the consultation process is included. This letter replaces the January 14, 2013, Blanket Clearance Letter for HUD sponsored projects.

The U.S. Fish and Wildlife Service (USFWS) is one of two lead Federal Agencies responsible for the protection and conservation of Federal Trust Resources, including threatened or endangered species listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) (ESA). In the U.S. Caribbean, the USFWS has jurisdiction over terrestrial plants and animals, the Antillean manatee and sea turtles when nesting. The National Marine Fisheries Service has jurisdiction over marine species, except for the manatee. The ESA directs all Federal agencies to participate in conserving these species. Section 7 of the ESA requires Federal agencies to consult with the USFWS to ensure that actions they fund authorize, permit, or otherwise carry out will not jeopardize the continued existence of any listed species or adversely modify designated critical habitat.

The USFWS issued regulations in 1986 detailing the consultation process. As part of this consultation process, the USFWS reviews development projects to assist Federal agencies on the compliance of the ESA. Since HUD typically allocate grant funds for rural and urban development projects, obligations under the ESA, as well as the National Environmental Policy Act (NEPA), require HUD to perform consultation and an environmental impact review prior to the project's

authorization. Primarily, these projects involve repair or reconstruction of existing facilities associated with developed land.

In order to expedite the consultation process, the Caribbean Ecological Services Field Office (CESFO) has developed this BCL to cover for activities and projects that typically result in no adverse effects to federally-listed species under our jurisdiction. The proposed project criteria discussed below are subject to the following conditions:

1. The project is located within an urban or developed area.

    - An urban or developed area is defined as an area that has one or more of the following characteristics:

        - Presence of existing buildings, residential areas, and commercial establishments.
        - Well-established infrastructure including roads, utilities, and urban facilities.
        - High population density.
        - Established neighborhood and urban amenities ("urbanizaciones").
        - Developed landscape with paved surfaces, parking lots, and industrial areas.
        - Signs of human activity and urbanization, such as shopping centers and recreational facilities.
        - Location within the boundaries of a city or town ("casco urbano").
        - High concentration of built-up structures and limited open spaces.
        - Aerial imagery might be requested to the applicant[1].

2. If the project is located in a rural area, and the project is located within a disturbed area that does not require additional clearing of forested (trees) areas.

3. The project is not located within (or adjacent to) drainages, rivers, streams, wetlands, aquatic systems, or coastal areas.

4. If the project is located in a rural area, and the project is not located immediately adjacent to forested areas (e.g., rock walls and haystack hills ("mogotes"); wet montane forest; lowland wet forest; remnant coastal; mangrove forest; damp and dry limestone karst forests; pastureland with patches of exotic trees[2]).

5. The lighting associated to the facilities is not visible directly or indirectly from the shoreline or beach area.

Proposed projects that **do not** meet the above conditions **Do Not Qualify** for review under the Blanket Clearance Letter developed for compliance with Section 7 of the Endangered Species Act.

[1] This is the definition used by the USFWS in IPaC.
[1] *Ibid.*

Project Criteria:

1. Activities related to the resurfacing existing streets or roads; maintenance of existing upland gabion or reinforced concrete retention walls; construction, reconstruction or repair of gutters and sidewalks along existing roads.

2. Repair, replace, improve, reconstruct and/or rehabilitate facilities in already established public transportation systems (Signs, sidewalks and ramps, bus stops and existing routes).

3. Repair, replace, improve, reconstruct, rehabilitate and/or expanding existing public transportation facilities located in urban or developed areas.

4. Construction of new facilities for public transportation systems (e.g. School bus stops, city buses, trolleybuses, public car stops, Public car terminal) in urban or developed areas.

5. Repair, replace, improve, reconstruct, or rehabilitate existing bridges or rip-rap. (follow FWS rip-rap guidance for design).

6. Reconstruction, or emergency repairs, of existing structures, including but not limited to buildings, facilities and homes.

7. Demolition of dilapidated single-family homes or buildings.

8. Rebuilding of demolished single-family homes or buildings.

9. Rehofitting existing buildings.

10. Construction of residential and/or commercial facilities.

11. Construction, repair, replace, improve, reconstruct, and/or rehabilitate recreational facilities.

12. Addition of concrete pads to the existing footprint of a residential and/or commercial structure, provided that the resulting addition is less than 20% of the size of the existing structure.

13. Improvement or renovations to existing structures (exterior and interior) renovations resulting in an exterior increase greater than 20%.

14. Improvements or renovations to existing structures (exterior and interior renovations) resulting in an exterior increase of less than 20%.

15. Acquisition of residential and/or commercial properties in urban or developed areas for the relocation of families and/or activities.

16. Construction, reconstruction, rehabilitation and/or expansion of cemeteries.

17. Installation/drilling of new water well and associated utility infrastructure, either above ground or underground.

18. Establishment of power facilities, including but not limited to associated aboveground and/or underground infrastructure.

19. Construction of electrical system infrastructure and associated components, including but not limited to associated aboveground and/or underground infrastructure.

20. Construction of land based small electric generating facilities, including those fueled with wind, sun, or biomass, capable of producing no more than 10 MW. *

21. Activities within existing Right of Ways (ROWs) related to water and sanitary infrastructure; communication infrastructure; roads, bridges and highways without the removal of native vegetation and/or major earth movement.

22. Construction of rooftop or urban telecommunications systems and associated components, including but not limited to associated aboveground and/or underground infrastructure.

23. Establishment of temporary debris storage (TDS) facilities.

24. Establishment and/or closure of solid waste management facilities. But not new landfills.

25. Installation of water storage systems (cisterns) and associated infrastructure, either above ground or underground, including but not limited to installations on existing or new concrete pads, or existing or new roofs.

26. Installation of solar panels, battery storage systems and/or associated utility infrastructure, either above ground or underground, on existing or new concrete pads, existing or new roofs, ground or pole mounted.

27. Installation of generators on existing or new concrete slabs, and associated utility infrastructure, either above ground or underground.

28. Repair of existing agricultural structures including but not limited to greenhouses, warehouses, canopies, fences, corrals, and shade structures with less than 20% expansion of footprint.

29. New construction of agricultural structures in established farms including but not limited to greenhouses, warehouses, canopies, fences, corrals, and shade structures with or without underground and/or aboveground infrastructure utility connections.

30. Construction of fences, cattle corrals, concrete slabs.

31. Installation of storage containers on new concrete slab.

32. New construction or work which expands the footprint of an existing structure and occurs entirely on disturbed, regularly maintained, upland property, including the staging of equipment.

*Comply with USFWS wind energy guidelines if more than one wind turbine, consider painting one blade black to help birds see the blades. https://www.fws.gov/media/land-based-wind-energy-guidelines

Determination:

Based on the nature of the projects described above and habitat characteristics described on project criteria, we have determined that the actions and type of projects described above may be conducted within this BCL without adversely affecting federally-listed species under our jurisdiction. Thus, consultation under Section 7 of the Endangered Species Act is not required.

For all projects, HUD and its funded partners (municipalities) are expected to implement Best Management Practices to enhance the conservation of our trust resources (i.e.; listed species, wetlands, aquatic habitats, migratory birds and marine mammals) and avoid impacts from project development to aquatic habitat such as erosion and stream sedimentation. The Service provides the following recommendations that have proven to help achieve this effort.

Water Crossing Structures:

1. Use of bottomless culverts or single span bridges instead of traditional box or RCP culverts or any other water crossing structure that impacts the stream bottom, particularly in streams which support native fish. The use of bottomless culverts or a short span bridge would provide a more stable crossing and would not alter the stream habitat. However, if bottomless structures or bridges are not feasible due to cost or engineering constraints, we recommend the following criteria be used to maintain good habitat in the streams:

    a. The stream should not be widened to fit the bridge since this can lead to sedimentation during low flows and possible bank erosion during high flows. Rather, the bridge should be designed to fit the stream channel at the point of crossing. Culverts should be sized to carry natural bank full flow. Additional flow can be capture by culverts placed at a higher elevation so as not to impact bank full flows.

    b. Bridge abutments, wing walls or any other structures should not intrude into the active stream channel.

    c. All culvert footings must be countersunk into the stream channel at both the invert and outlet ends at a minimum of 10% of the culvert height. This will align the water crossing structure with the slope of the stream.

    d. Waterways must not be blocked as to impede the free movement of water and fish. Materials moved during construction, such as grubbing, earth fills, and earth cut

materials must not be piled where they can fall back into the stream and block the drainage courses.

e. Appropriate erosion and/or sedimentation controls measures are to be undertaken to protect water quality until riverbanks are re-vegetated. It has been our experience that appropriate erosion and/or sedimentation control measures are not implemented properly by project contractors. In order to function properly, silt fences need to be buried 6" (proper depth is marked by a line on the silt fence) and suppo1ted at regular intervals by wood stakes. For that reason we are recommending that the enclosed drawing of proper silt fence installation is included in all final project construction plans.

f. Upon completion of a water crossing construction, any temporary fill, must be removed from the construction area and disposed in a landfill.

For a detailed guide to water crossing structures, the Service developed a detailed guide to water crossing structures for regulatory review by permitting agencies, protect damaged structures, reduce future damages, and prevent or minimize damage to natural resources. The document is titled "Guidance for Repair, Replacement, and Clean-up Projects in Streams and Waterways of Puerto Rico and U.S. Virgin Islands" and is available at:

https://www.fws.gov/media/guidance-repair-replacement-and-clean-structures-streams-and-waterways-puerto-rico-and-us

Limitations:

Actions that do not meet the above project criteria, such as actions requiring placement of fill, disturbance, or modification to land outside of an existing access road or ROW; actions that occur on vacant property harboring a wetland and/or forest vegetation; actions requiring excavation, clearing of native vegetation, or alteration of storm water drainage patterns; or actions that require lighting which can be directly or indirectly seen from a beach, must be individually coordinated through the Caribbean Ecological Services Field Office and will be evaluated on a case by case basis.

The Service reserves the right to revoke or modify this BCL if:

1. New information reveals that the categories of work covered in this BCL may affect listed or designated critical habitat in a manner, or to an extent, not previously considered.
2. The categories of work included in this BCL are subsequently modified to include activities not considered in this review.
3. New species are listed, or designated critical habitat may be affected.
4. Lack of compliance with criteria in this BCL.

To obtain additional information on threatened and endangered species, you may visit our website https://www.fws.gov/office/caribbean-ecological-services where you will also find the Map of the Species by Municipality and the Map of Critical Habitat. These maps provide information on the species/habitat relations within a municipality and could provide the applicants an insight if the proposed action is covered under this BCL or may affect a species, thus requiring individual review

The USFWS has also developed a web based tool called the Information for Planning and Consultation (IPaC). Please visit https://ipac. ecosphere.fws.gov/ and familiarize yourself with the features we offer. We encourage you to begin your project planning process by requesting an Official Species List for your individual project that will include all species that may occur in the vicinity of the action area and includes a map of the action area. The site will also identify designated critical habitat, or other natural resources of concern that may be affected by your proposed project. Best management practices or conservation measures are available at the site for some species, but we expect the site to continue growing in its offering.

We appreciate your interest in protecting endangered species and their habitats. It is the Service's mission to work with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of our people. It is our mission to work with others, to conserve, protect and enhance fish wildlife and plants and their habitats for the continuing benefit of our people. If you have any additional questions regarding this BCL, please do not hesitate to contact us at (786) 244-0081 or via email at caribbean_es@fws.gov.

Sincerely,

LOURDES MENA

Digitally signed by LOURDES MENA
Date: 2025.04.24 09:11:24 -04'00'

Lourdes Mena
Field Supervisor

MUNICIPIO AUTÓNOMO DE CAGUAS
Apartado 907 Caguas, PR 00726
Tel. 787-653-3833
caguas.gov.pr

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 Caguas, Puerto Rico certifies that the following project **Rehabilitation of the City's Main Avenues** funded by the **United States Housing and Development Department** and located at **Pueblo Ward** complies with:

(Check one or more below)

Check	Project Criteria
X	1. Activities related to the resurfacing existing streets or roads; maintenance of existing upland gabion or reinforced concrete retention walls; construction; reconstruction or repair of gutters and sidewalks along existing roads.
X	2. Repair, replace, reconstruct and/or rehabilitate facilities in already established public transportation systems (Signs, sidewalks and ramps, bus stops and existing routes).
	3. Repair, replace, improve, reconstruct, rehabilitate and/or expand existing public transportation facilities located in urban or developed areas.
	4. Construction of new facilities for the public transportation system (e.g School bus stops, city buses, trolleybuses, public car stops, public car terminals) in urban or developed areas.
	5. Repair, replace, improve, reconstruct or rehabilitate existing bridges or rip-rap. We recommend following FWS rip-rap guidance for design: https://www.fws.gov/media/guidance-repair-replacement-and-clean-structures-streams-and-waterways-puerto-rico-and-us
	6. Reconstruction, or emergency repairs of existing structures, including but not limited to buildings, facilities and homes.

	7. Demolition of dilapidated single-family homes or buildings.
	8. Rebuilding of demolished single-family homes or buildings.
	9. Retrofitting existing buildings.
	10. Construction of residential and/or commercial facilities.
	11. Construction, repair, replace, improve, reconstruction, and/or rehabilitate recreational facilities.
	12. Addition of concrete pads to the existing footprint of a residential and/or commercial structure, provided that the resulting addition is less than 20% of the size of the existing structure.
	13. Improvement or renovations to existing structures (exterior and interior) renovations resulting in an exterior increase greater than 20%.
	14. Improvements or renovations to existing structures (exterior and interior) renovations resulting in an exterior increase of less than 20%.
	15. Acquisition pf residential and/or commercial properties in urban or developed areas for the relocation of families and/or activities.
	16. Construction, reconstruction, rehabilitation, and/or expansion of cemeteries.
	17. Installation/drilling of new water well and associated utility infrastructure, either above ground or underground.
	18. Establishment of power facilities, including but not limited to associated above ground and/or underground infrastructure.
	19. Construction of electrical system infrastructure and associated components, including but not limited to associated above ground and/or underground infrastructure.
	20. Construction of land based small electric generation facilities, including those fueled with wind, sun, or biomass, capable of producing no more than 10 MV. *
	21. Activities within existing Right of Ways (ROWs) related to water and sanitary infrastructure; communication infrastructure; roads, bridges and highways without the removal of native vegetation and/or major earth movement.
	22. Construction of rooftop or unban telecommunications systems and associated components, including but not limited to associated aboveground and/or underground infrastructure.
	23. Establishment of temporary debris storage (TDS) facilities.

	24. Establishment and/or closure of solid waste management facilities. **But not new landfills.**
	25. Installation of water storage systems (cisterns) and associated infrastructure, either above ground or underground, including but not limited to installations on existing or new concrete pads, or existing or new roofs.
	26. Installation of solar panels, battery storage systems and/or associated utility infrastructure, either above ground or underground on existing or new concrete pads, existing or new roofs, ground or pole mounted.
	27. Installation of generators on existing or new concrete slabs, and associated utility infrastructure, either above ground or underground.
	28. Repair of existing agricultural structures including but not limited to greenhouses, warehouses, canopies, fences, corrals, and shade structures with less than 20% expansion of footprints.
	29. New construction of agricultural structures in established farms including but not limited to greenhouses, warehouses, canopies fences, corrals, and shade structures with or without underground and/or aboveground infrastructure utility connections.
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	31. Installation of storage containers on new concrete slabs.
	32. New construction or work which expands the footprint of an existing structure and occurs entirely on disturbed, regularly maintained, upland property, including the staging of equipment.

April 29th, 2025
Date

Zaid Díaz Isaac, PPL
Director
Planning Office
Municipality of Caguas
Phone: 787-224-5287
Email: zdiaz@caguas.gov.pr

CELEBRANDO 250 AÑOS DE FUNDACIÓN CAGUAS

WILLIAM E. MIRANDA TORRES
ALCALDE

MUNICIPIO AUTÓNOMO DE CAGUAS
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April 29, 2025

Mrs. Lourdes Mena
Director
Fish & Wildlife Service
Boquerón Field Office
P.O. Box 491
Boquerón, Puerto Rico 00622

Dear Mrs. Mena:

CERTIFICATION OF COMPLIANCE ENDANGERED SPECIES ACT
Project Name: REHABILITATION OF THE CITY'S MAIN AVENUES (252 AND 262), PUEBLO WARD
CDBG Program

The Code of Federal Regulations, Title 24 from Housing and Urban Development (HUD), in its Part 58 (Environmental Review Procedures for entities assuming HUD Environmental Responsibilities) requires that we present a certification of compliance with the Endangered Species Act of 1973 for the project of concern.

We are enclosing a signed certification for the project above included under the CDBG Program. Also, we are including a copy of the blanket letter of your Agency updated on March 20, 2025. A copy of this certification will be filed as evidence of our consulting action with your office in compliance with Federal Agency Regulations.

If you need any further information, please contact Mrs. Lisette Díaz Vázquez, Planning and Community Development Unit at (787) 653-8833 extension 2500 or 2501 or her e-mail ldiaz@caguas.gov.pr.

Cordially,

Zaid Díaz Isaac, PPL
Director
Planning Office

RHA
Annex

Exhibit G
Farmlands Protection

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San Juan Area, Puerto Rico



June 18, 2025

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

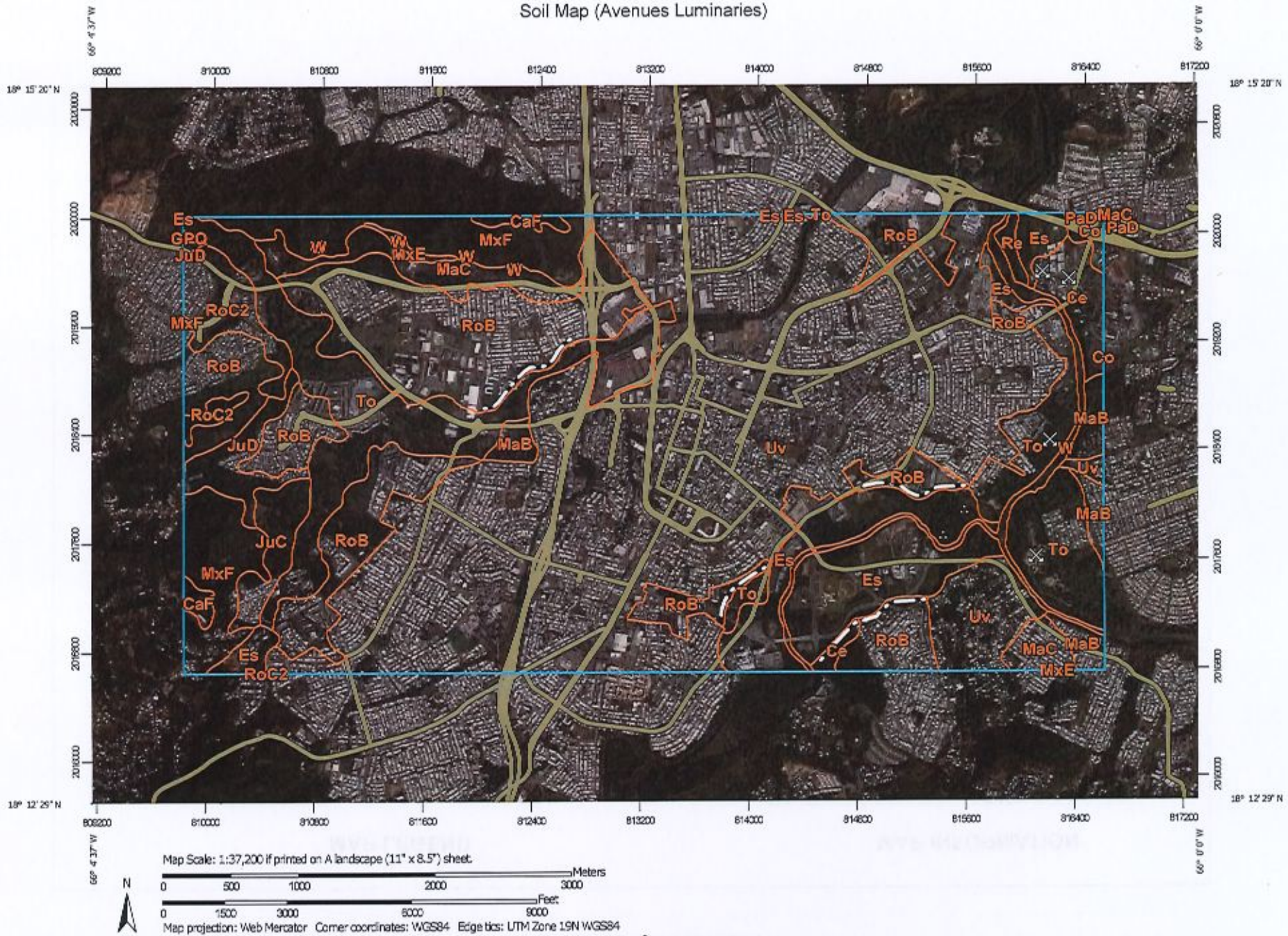
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map (Avenues Luminaries)



Map Scale: 1:37,200 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 500 1000 2000 3000

Feet: 0 1500 3000 6000 9000

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

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Juan Area, Puerto Rico
Survey Area Data: Version 18, Sep 10, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend (Avenues Luminaries)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CaF	Caguabo clay loam, 40 to 60 percent slopes	25.6	0.5%
Ce	Candelero loam	85.9	1.5%
Ca	Cayagua sandy loam	15.5	0.3%
Es	Estacion silty clay loam	437.9	7.8%
GPQ	Canteras and Graveros	1.4	0.0%
JuC	Juncos clay, 5 to 12 percent slopes	69.8	1.2%
JuD	Juncos clay, 12 to 20 percent slopes	75.2	1.3%
MaB	Mabi clay, 2 to 5 percent slopes	87.7	1.6%
MaC	Mabi clay, 5 to 12 percent slopes	135.7	2.4%
MxE	Mucara clay, 20 to 40 percent slopes	9.5	0.2%
MxF	Mucara clay, 40 to 60 percent slopes	297.8	5.3%
PaD	Pandura sandy loam, 12 to 20 percent slopes	2.4	0.0%
Re	Rollly sandy loam	13.4	0.2%
RoB	Rio Arriba clay, 2 to 5 percent slopes	974.8	17.3%
RoC2	Rio Arriba clay, 5 to 12 percent slopes, eroded	109.5	1.9%
To	Toa silty clay loam, 0 to 2 percent slopes, occasionally flooded	680.2	12.1%
Uv	Urban land-Vega Alta complex, 2 to 12 percent slopes	2,547.3	45.2%
W	Water	71.4	1.3%
Totals for Area of Interest		5,641.3	100.0%

Map Unit Descriptions (Avenues Luminaries)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named

according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Juan Area, Puerto Rico

CaF—Caguabo clay loam, 40 to 60 percent slopes

Map Unit Setting

National map unit symbol: 2wx4p
Elevation: 100 to 1,970 feet
Mean annual precipitation: 31 to 86 inches
Mean annual air temperature: 69 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Caguabo and similar soils: 74 percent
Minor components: 26 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Caguabo

Setting

Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, interfluve, head slope, side slope, crest
Down-slope shape: Concave, convex, linear
Across-slope shape: Linear, convex
Parent material: Residuum weathered from volcanic rock

Typical profile

Ap - 0 to 4 inches: clay loam
Bw - 4 to 10 inches: very paragravelly clay loam
Cr - 10 to 16 inches: bedrock
R - 16 to 80 inches: bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 10 to 19 inches to paralithic bedrock; 16 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Minor Components

Consumo

Percent of map unit: 5 percent
Landform: Hillslopes on mountains, hills on mountains
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, interfluve, side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Ecological site: F270XY520PR - Wet extrusive volcaniclastic mountain and valley forest, summits and mountain slopes
Hydric soil rating: No

Naranjito

Percent of map unit: 5 percent
Landform: Mountain slopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Mucara

Percent of map unit: 5 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Morado

Percent of map unit: 5 percent
Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, interfluve, head slope, nose slope, side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Sabana

Percent of map unit: 5 percent
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave, convex
Across-slope shape: Linear

Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Rock outcrop

Percent of map unit: 1 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, head slope, nose slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Concave, convex
Hydric soil rating: No

Ce—Candelero loam

Map Unit Setting

National map unit symbol: byx0
Elevation: 10 to 20 feet
Mean annual precipitation: 85 to 90 inches
Mean annual air temperature: 75 to 81 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Candelero and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Candelero

Setting

Landform: Terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sediments

Typical profile

H1 - 0 to 6 inches: loam
H2 - 6 to 35 inches: sandy clay loam
H3 - 35 to 60 inches: sandy clay

Properties and qualities

Slope: 2 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 12 to 18 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F272XY460PR - Humid fluvial and alluvial forest, seasonal excess moisture possible
Hydric soil rating: No

Minor Components

Cayagua

Percent of map unit: 15 percent
Landform: Hillslopes
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F270XY510PR - Wet intrusive volcanic mountain and valley forest, foot slopes and drainages
Hydric soil rating: Yes

Co—Cayagua sandy loam

Map Unit Setting

National map unit symbol: byx3
Elevation: 200 to 600 feet
Mean annual precipitation: 80 to 90 inches
Mean annual air temperature: 75 to 81 degrees F
Frost-free period: 365 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Cayagua and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cayagua

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Regolith

Typical profile

H1 - 0 to 8 inches: sandy loam

H2 - 8 to 22 inches: clay
H3 - 22 to 60 inches: sandy clay loam

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B/D
Ecological site: F270XY510PR - Wet intrusive volcanic mountain and valley forest, foot slopes and drainages
Hydric soil rating: Yes

Es—Estacion silty clay loam

Map Unit Setting

National map unit symbol: byxk
Elevation: 10 to 100 feet
Mean annual precipitation: 60 to 80 inches
Mean annual air temperature: 75 to 79 degrees F
Frost-free period: 365 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Estacion and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Estacion

Setting

Landform: Flood plains, terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise, talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Moderately fine textured sediments over gravel of mixed origin

Typical profile

H1 - 0 to 8 inches: silty clay loam
H2 - 8 to 20 inches: gravelly clay loam
H3 - 20 to 50 inches: very gravelly sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Hydric soil rating: No

GPQ—Canteras and Graveros

Map Unit Composition

Canteras and graveros: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

JuC—Juncos clay, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: byxv
Elevation: 400 to 1,200 feet
Mean annual precipitation: 65 to 70 inches
Mean annual air temperature: 75 to 79 degrees F
Frost-free period: 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Juncos and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Juncos

Setting

Landform: Hillslopes
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sediments

Typical profile

H1 - 0 to 31 inches: clay
H2 - 31 to 40 inches: clay

H3 - 40 to 44 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: 36 to 60 inches to lithic bedrock
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F270XY440PR - Humid extrusive volcaniclastic mountain and valley forest, foot slopes and drainages
Hydric soil rating: No

JuD—Juncos clay, 12 to 20 percent slopes

Map Unit Setting

National map unit symbol: byxw
Elevation: 400 to 1,200 feet
Mean annual precipitation: 65 to 70 inches
Mean annual air temperature: 75 to 79 degrees F
Frost-free period: 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Juncos and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Juncos

Setting

Landform: Hillslopes
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sediments

Typical profile

H1 - 0 to 31 inches: clay
H2 - 31 to 40 inches: clay
H3 - 40 to 44 inches: unweathered bedrock

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: 36 to 60 inches to lithic bedrock

Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: F270XY440PR - Humid extrusive volcaniclastic mountain and valley forest, foot slopes and drainages
Hydric soil rating: No

MaB—Mabi clay, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: byy5
Elevation: 0 to 400 feet
Mean annual precipitation: 43 to 73 inches
Mean annual air temperature: 65 to 89 degrees F
Frost-free period: 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Mabi and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mabi

Setting

Landform: Terraces, alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sediments

Typical profile

H1 - 0 to 24 inches: clay
H2 - 24 to 99 inches: clay

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D
Ecological site: F272XY460PR - Humid fluvial and alluvial forest, seasonal excess moisture possible
Hydric soil rating: No

Minor Components

Bajura

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Ecological site: F272XY470PR - Humid Palustrine Seasonally Flooded Wetlands
Hydric soil rating: Yes

MaC—Mabi clay, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: byy6
Elevation: 0 to 400 feet
Mean annual precipitation: 43 to 73 inches
Mean annual air temperature: 65 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Mabi and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mabi

Setting

Landform: Terraces, alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sediments

Typical profile

H1 - 0 to 24 inches: clay

H2 - 24 to 99 inches: clay

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: F272XY460PR - Humid fluvial and alluvial forest, seasonal excess moisture possible
Hydric soil rating: No

Minor Components

Bajura

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Ecological site: F272XY470PR - Humid Palustrine Seasonally Flooded Wetlands
Hydric soil rating: Yes

MxE—Mucara clay, 20 to 40 percent slopes

Map Unit Setting

National map unit symbol: 2thqv
Elevation: 160 to 2,000 feet
Mean annual precipitation: 49 to 95 inches
Mean annual air temperature: 71 to 77 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Mucara and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mucara

Setting

Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Parent material: Residuum weathered from volcanic rock

Typical profile

Ap - 0 to 6 inches: clay
Bw - 6 to 13 inches: clay loam
BC - 13 to 19 inches: clay loam
C - 19 to 27 inches: clay loam
Cr - 27 to 80 inches: bedrock

Properties and qualities

Slope: 20 to 40 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Minor Components

Humatas

Percent of map unit: 5 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: F270XY520PR - Wet extrusive volcaniclastic mountain and valley forest, summits and mountain slopes
Hydric soil rating: No

Caguabo

Percent of map unit: 5 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Morado

Percent of map unit: 5 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Naranjito

Percent of map unit: 5 percent
Landform: Ridges, mountain slopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

MxF—Mucara clay, 40 to 60 percent slopes

Map Unit Setting

National map unit symbol: 2thqt
Elevation: 100 to 2,460 feet
Mean annual precipitation: 49 to 95 inches
Mean annual air temperature: 71 to 77 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Mucara and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mucara

Setting

Landform: Mountain slopes, hillslopes

Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Parent material: Residuum weathered from volcanic rock

Typical profile

Ap - 0 to 6 inches: clay
Bw - 6 to 13 inches: clay loam
BC - 13 to 19 inches: clay loam
C - 19 to 27 inches: clay loam
Cr - 27 to 80 inches: bedrock

Properties and qualities

Slope: 40 to 60 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Minor Components

Caguabo

Percent of map unit: 10 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Naranjito

Percent of map unit: 5 percent
Landform: Ridges, mountain slopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex, linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

Rock outcrop
Percent of map unit: 5 percent
Hydric soil rating: No

Morado
Percent of map unit: 5 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank, head slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: F270XY430PR - Humid extrusive volcaniclastic mountain and valley forest, ridges and side slopes
Hydric soil rating: No

PaD—Pandura sandy loam, 12 to 20 percent slopes

Map Unit Setting
National map unit symbol: 30h8j
Elevation: 600 to 1,000 feet
Mean annual precipitation: 75 to 85 inches
Mean annual air temperature: 77 to 81 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition
Pandura and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pandura

Setting
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave, convex
Across-slope shape: Convex, linear
Parent material: Sandy and loamy residuum weathered from granodiorite and/or diorite

Typical profile
Ap - 0 to 3 inches: sandy loam
Bw - 3 to 7 inches: sandy loam
BC - 7 to 19 inches: sandy loam
Cr - 19 to 80 inches: bedrock

Properties and qualities
Slope: 12 to 20 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Jagueyes

Percent of map unit: 5 percent
Landform: Mountain slopes, ridges
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Mountainflank, mountaintop
Down-slope shape: Concave, convex
Across-slope shape: Concave, convex
Hydric soil rating: No

Limones

Percent of map unit: 5 percent
Landform: Mountain slopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountaintop, mountainflank
Down-slope shape: Concave, convex
Across-slope shape: Concave, convex
Hydric soil rating: No

Re—Reilly sandy loam

Map Unit Setting

National map unit symbol: byyt
Elevation: 0 to 300 feet
Mean annual precipitation: 43 to 73 inches
Mean annual air temperature: 65 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Reilly and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reilly

Setting

Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Stratified alluvial deposits

Typical profile

H1 - 0 to 7 inches: sandy loam
H2 - 7 to 18 inches: gravelly sand
H3 - 18 to 55 inches: very gravelly sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 14.17 in/hr)
Depth to water table: About 30 to 60 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Hydric soil rating: No

Minor Components

Bajura

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Ecological site: F272XY470PR - Humid Palustrine Seasonally Flooded Wetlands
Hydric soil rating: Yes

RoB—Rio Arriba clay, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: byyv

Elevation: 100 to 300 feet
Mean annual precipitation: 60 to 70 inches
Mean annual air temperature: 75 to 81 degrees F
Frost-free period: 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Rio arriba and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rio Arriba

Setting

Landform: Terraces, alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine textured sediments

Typical profile

H1 - 0 to 8 inches: clay
H2 - 8 to 60 inches: clay

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: C
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Hydric soil rating: No

RoC2—Rio Arriba clay, 5 to 12 percent slopes, eroded

Map Unit Setting

National map unit symbol: byyw
Elevation: 100 to 300 feet
Mean annual precipitation: 60 to 70 inches
Mean annual air temperature: 75 to 81 degrees F
Frost-free period: 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Rio arriba and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rio Arriba

Setting

Landform: Terraces, alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine textured sediments

Typical profile

H1 - 0 to 8 inches: clay
H2 - 8 to 60 inches: clay

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Hydric soil rating: No

To—Toa silty clay loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: 2tgwz
Elevation: 0 to 200 feet
Mean annual precipitation: 43 to 73 inches
Mean annual air temperature: 65 to 89 degrees F
Frost-free period: 365 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Toa, occasionally flooded, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Toa, Occasionally Flooded

Setting

Landform: Flood plains
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Stratified alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: silty clay loam
AB - 8 to 18 inches: silty clay loam
Bw - 18 to 33 inches: silty clay loam
C1 - 33 to 47 inches: silty clay loam
C2 - 47 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: About 39 to 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Forage suitability group: Unnamed (G272XZ000PR)
Other vegetative classification: Unnamed (G272XZ000PR)
Hydric soil rating: No

Minor Components

Coloso, occasionally flooded

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (two-dimensional): Footslope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F272XY460PR - Humid fluvial and alluvial forest, seasonal excess moisture possible
Other vegetative classification: Unnamed (G272XZ000PR)
Hydric soil rating: No

Dique, frequently flooded

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear

Across-slope shape: Linear
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Hydric soil rating: No

Reilly, frequently flooded

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Riser, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: F272XY450PR - Humid fluvial and alluvial forest, seasonal drought stress possible
Hydric soil rating: No

Bajura, frequently flooded

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Dip
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Ecological site: F272XY470PR - Humid Palustrine Seasonally Flooded Wetlands
Other vegetative classification: Unnamed (G272XZ000PR)
Hydric soil rating: Yes

Uv—Urban land-Vega Alta complex, 2 to 12 percent slopes

Map Unit Setting

National map unit symbol: 2yg2x
Elevation: 200 to 700 feet
Mean annual precipitation: 60 to 70 inches
Mean annual air temperature: 75 to 81 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 60 percent
Vega alta and similar soils: 30 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Description of Vega Alta

Setting

Landform: Karstic marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine textured, iron rich alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 8 inches: clay loam
Bt1 - 8 to 14 inches: clay
Bt2 - 14 to 25 inches: clay
Bt3 - 25 to 36 inches: clay
Bt4 - 36 to 60 inches: clay
C - 60 to 80 inches: clay

Properties and qualities

Slope: 2 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Almirante

Percent of map unit: 5 percent
Landform: Karstic marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Humatas

Percent of map unit: 5 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Hydric soil rating: No

W—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

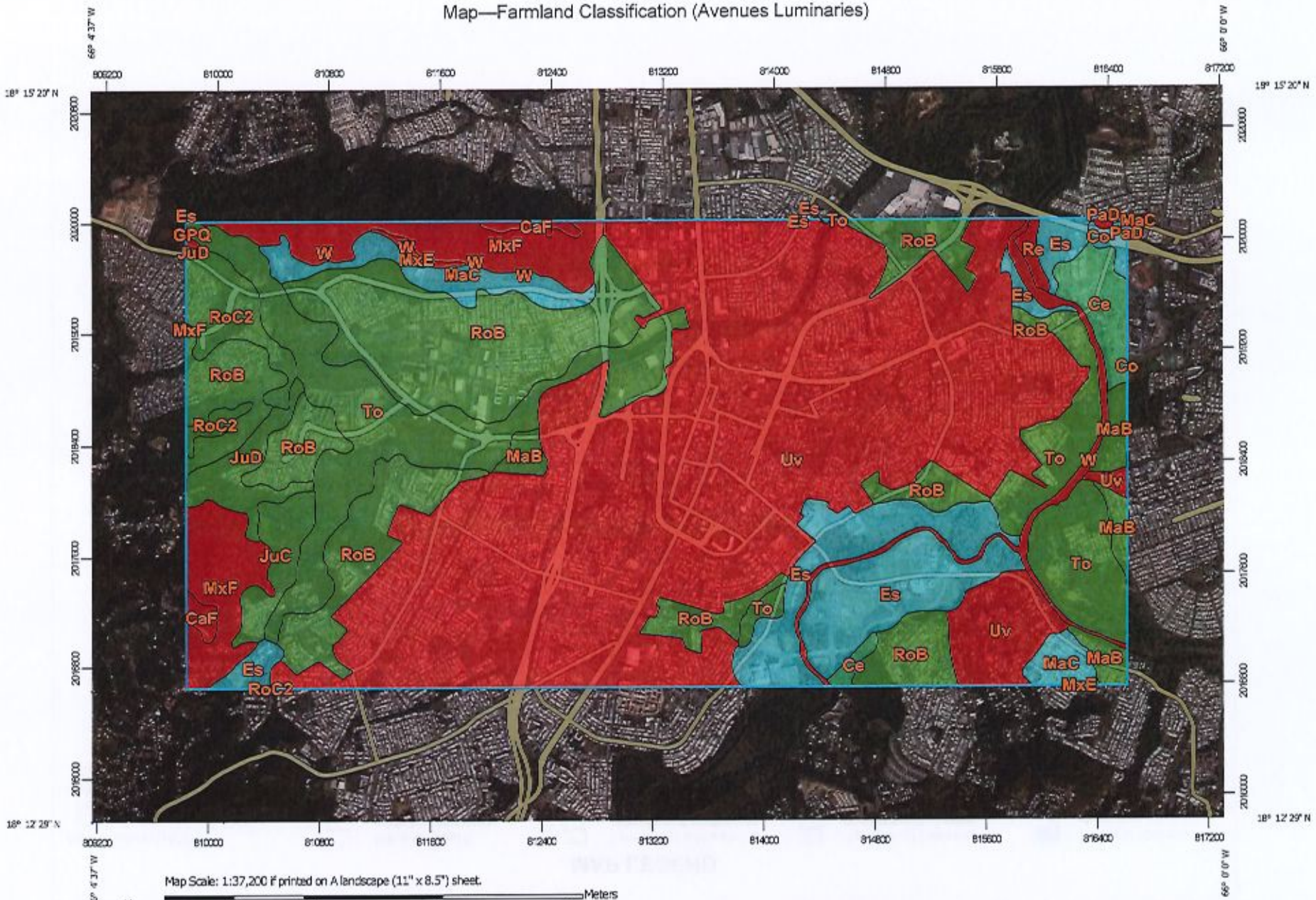
Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Farmland Classification (Avenues Luminaries)

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.

Custom Soil Resource Report

Map—Farmland Classification (Avenues Luminaries)

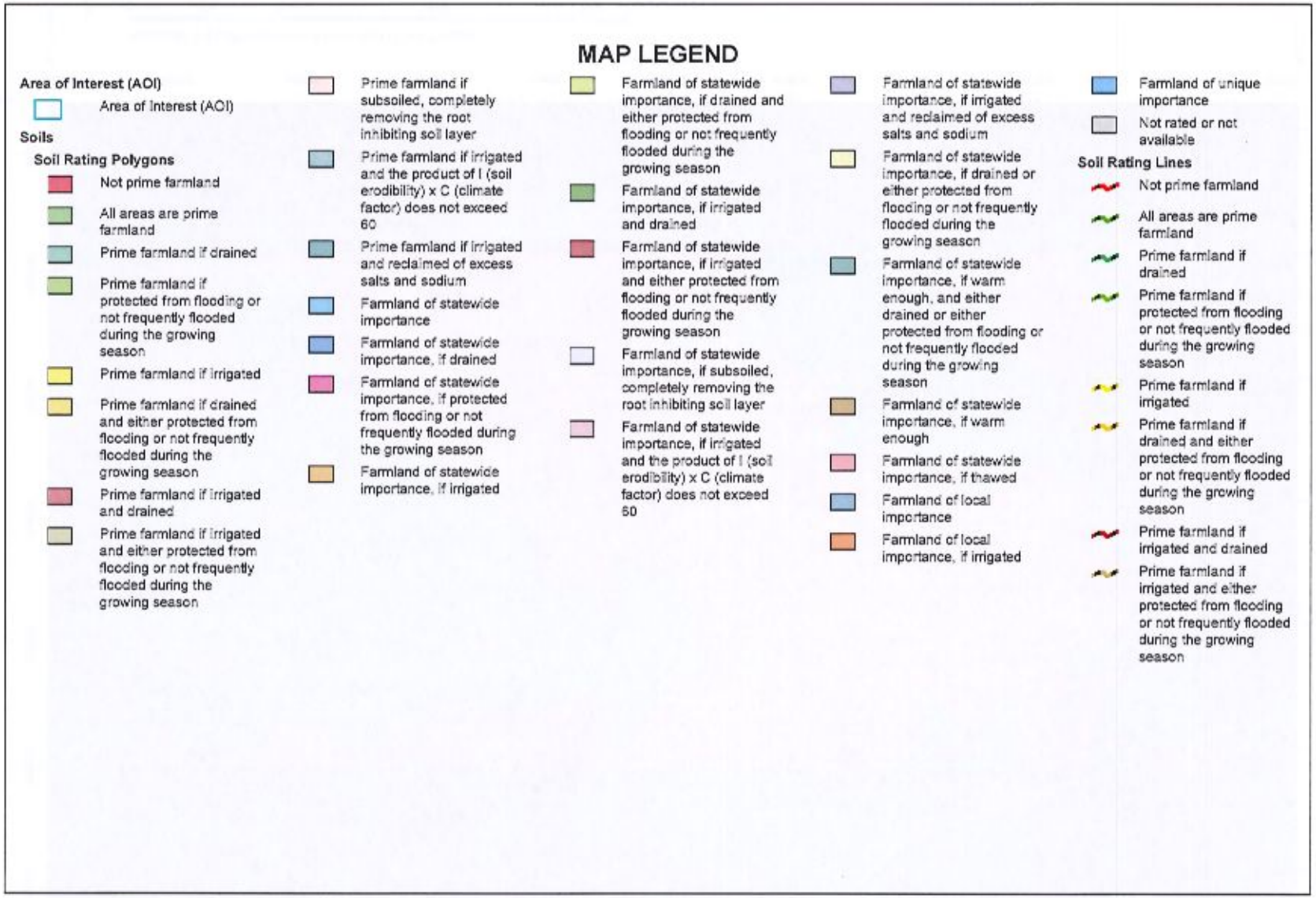


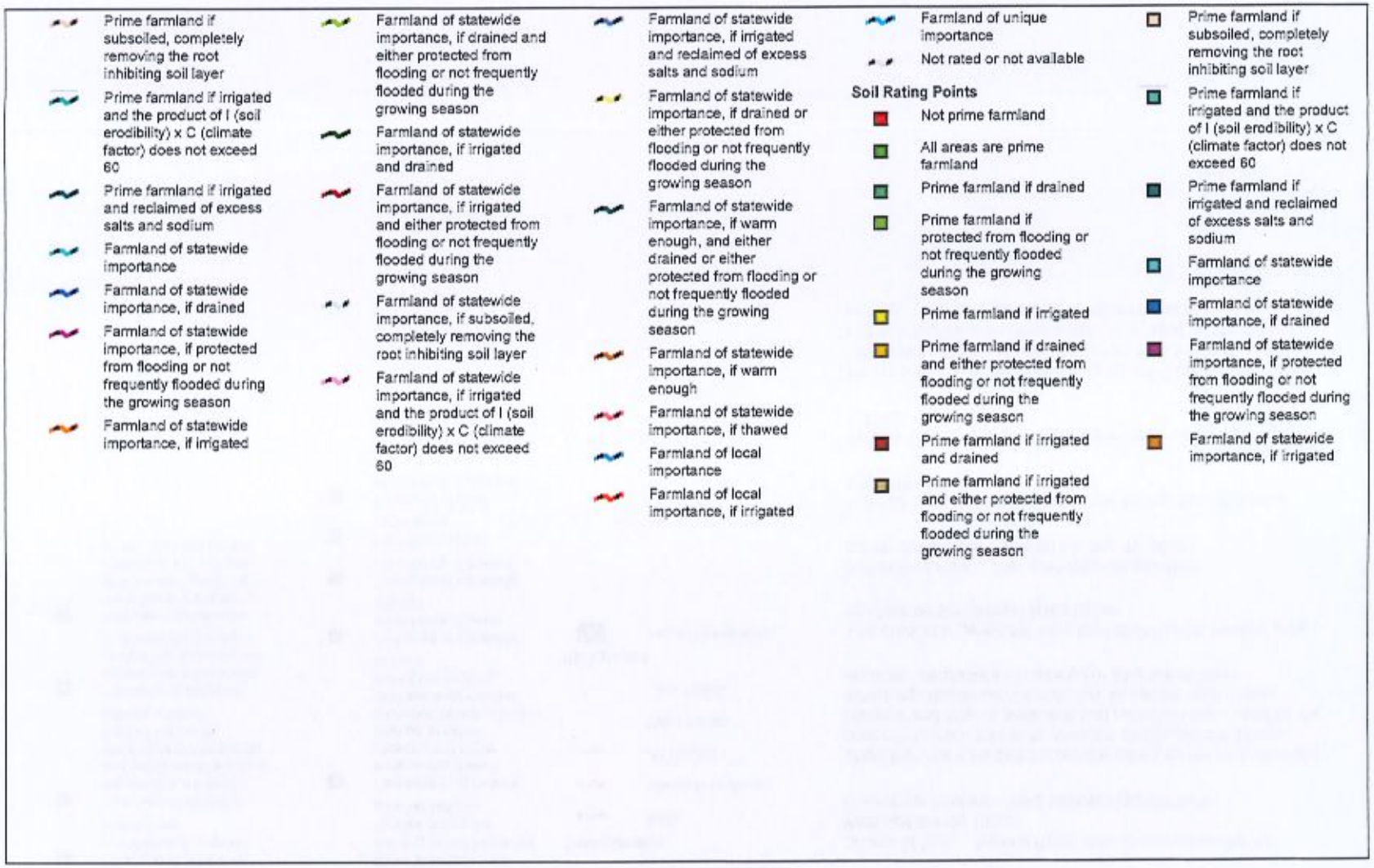
Map Scale: 1:37,200 if printed on A landscape (11" x 8.5") sheet.

Meters: 0, 500, 1000, 2000, 3000

Feet: 0, 1500, 3000, 6000, 9000

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


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


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 Points
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

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Juan Area, Puerto Rico
Survey Area Data: Version 18, Sep 10, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Farmland Classification (Avenues Luminaries)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CaF	Caguabo clay loam, 40 to 60 percent slopes	Not prime farmland	25.6	0.5%
Ce	Candelero loam	Prime farmland if drained	85.9	1.5%
Co	Cayagua sandy loam	Farmland of statewide importance	15.5	0.3%
Es	Estacion silty clay loam	Farmland of statewide importance	437.9	7.8%
GPQ	Canteras and Graveros	Not prime farmland	1.4	0.0%
JuC	Juncos clay, 5 to 12 percent slopes	All areas are prime farmland	69.8	1.2%
JuD	Juncos clay, 12 to 20 percent slopes	All areas are prime farmland	75.2	1.3%
MaB	Mabi clay, 2 to 5 percent slopes	All areas are prime farmland	87.7	1.6%
MaC	Mabi clay, 5 to 12 percent slopes	Farmland of statewide importance	135.7	2.4%
MxE	Mucara clay, 20 to 40 percent slopes	Not prime farmland	9.5	0.2%
MxF	Mucara clay, 40 to 60 percent slopes	Not prime farmland	297.8	5.3%
PaD	Pandura sandy loam, 12 to 20 percent slopes	Not prime farmland	2.4	0.0%
Re	Reilly sandy loam	Not prime farmland	13.4	0.2%
RoB	Rio Arriba clay, 2 to 5 percent slopes	All areas are prime farmland	974.8	17.3%
RoC2	Rio Arriba clay, 5 to 12 percent slopes, eroded	All areas are prime farmland	109.5	1.9%
To	Toa silty clay loam, 0 to 2 percent slopes, occasionally flooded	All areas are prime farmland	680.2	12.1%
Uv	Urban land-Vega Alta complex, 2 to 12 percent slopes	Not prime farmland	2,547.3	45.2%
W	Water	Not prime farmland	71.4	1.3%
Totals for Area of Interest			5,641.3	100.0%

Rating Options—Farmland Classification (Avenues Luminaries)

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

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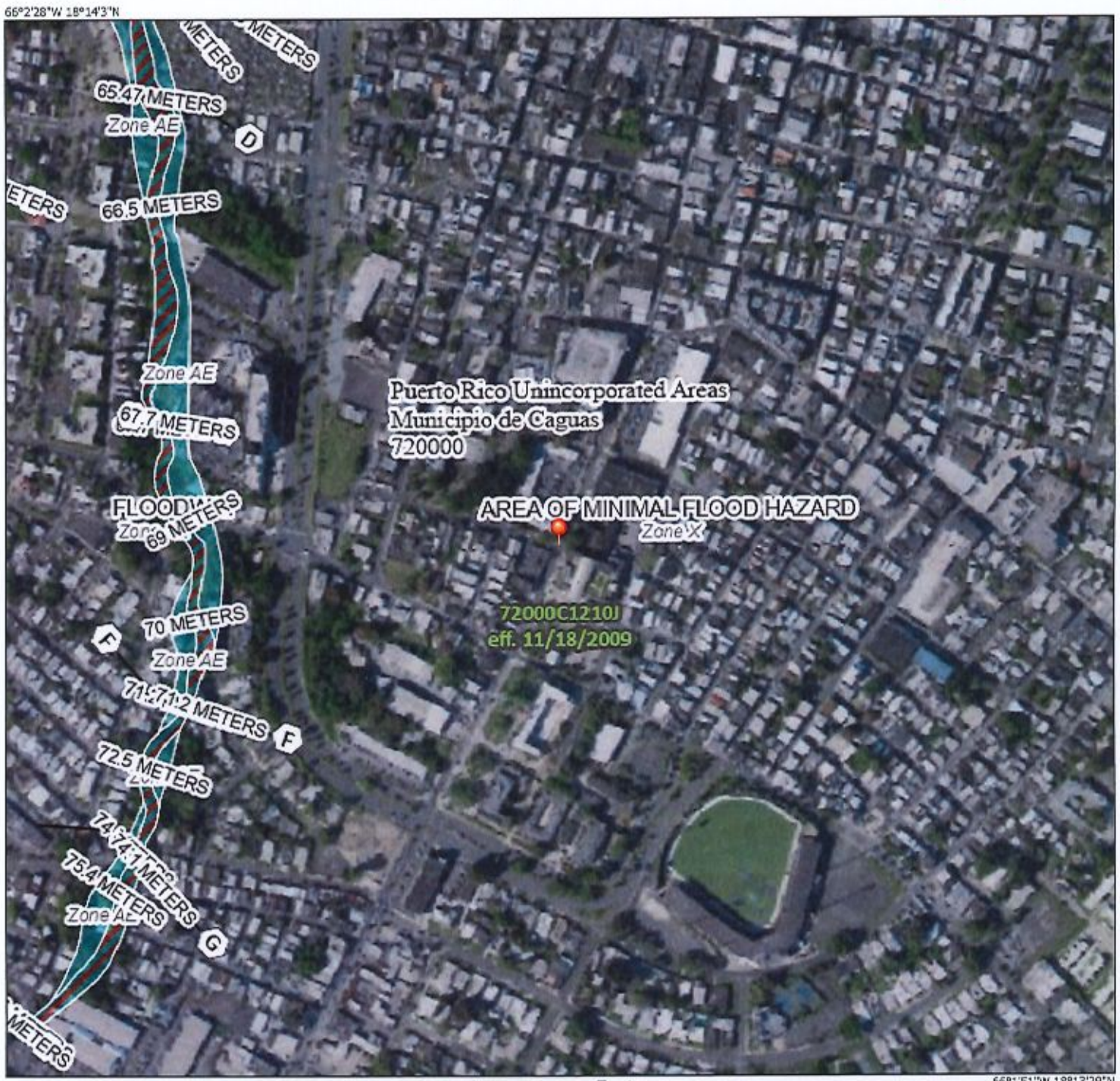
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Exhibit H
Floodplain Management

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/3/2025 at 3:07 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Exhibit 8 a Floodplain Map Leoncio Velázquez Boulevard

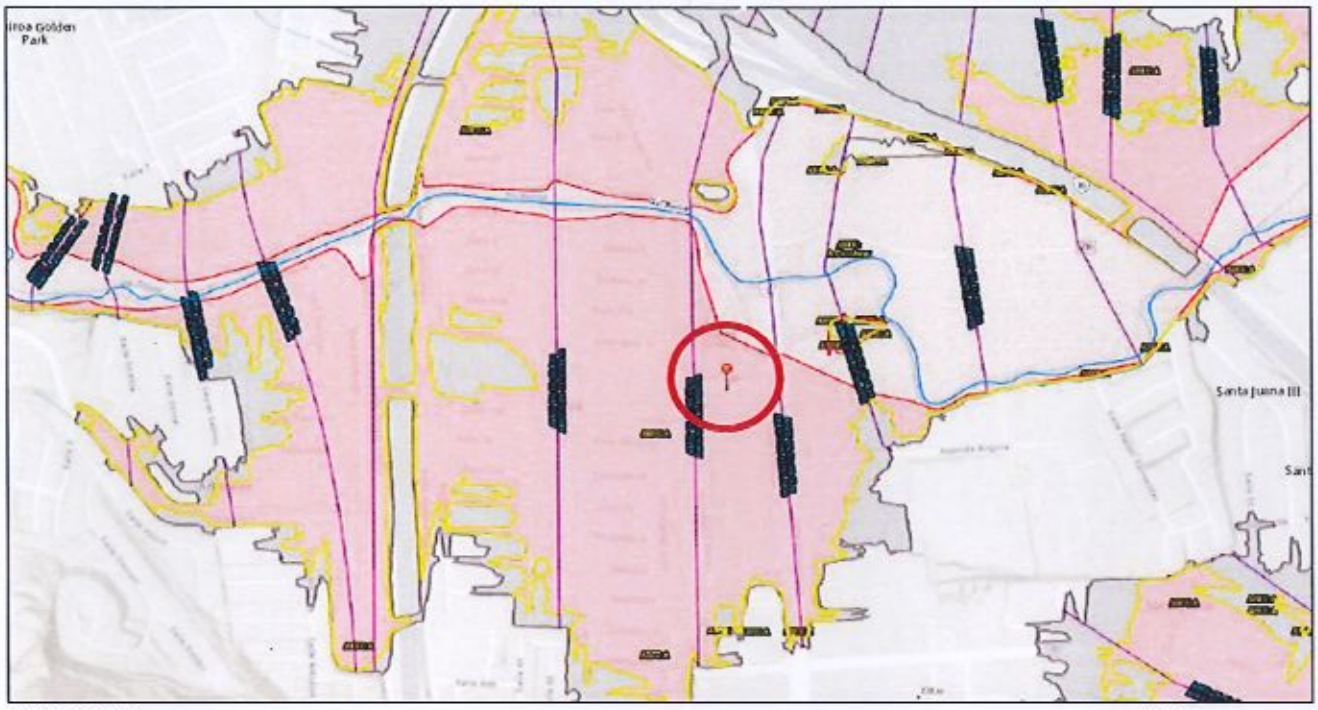
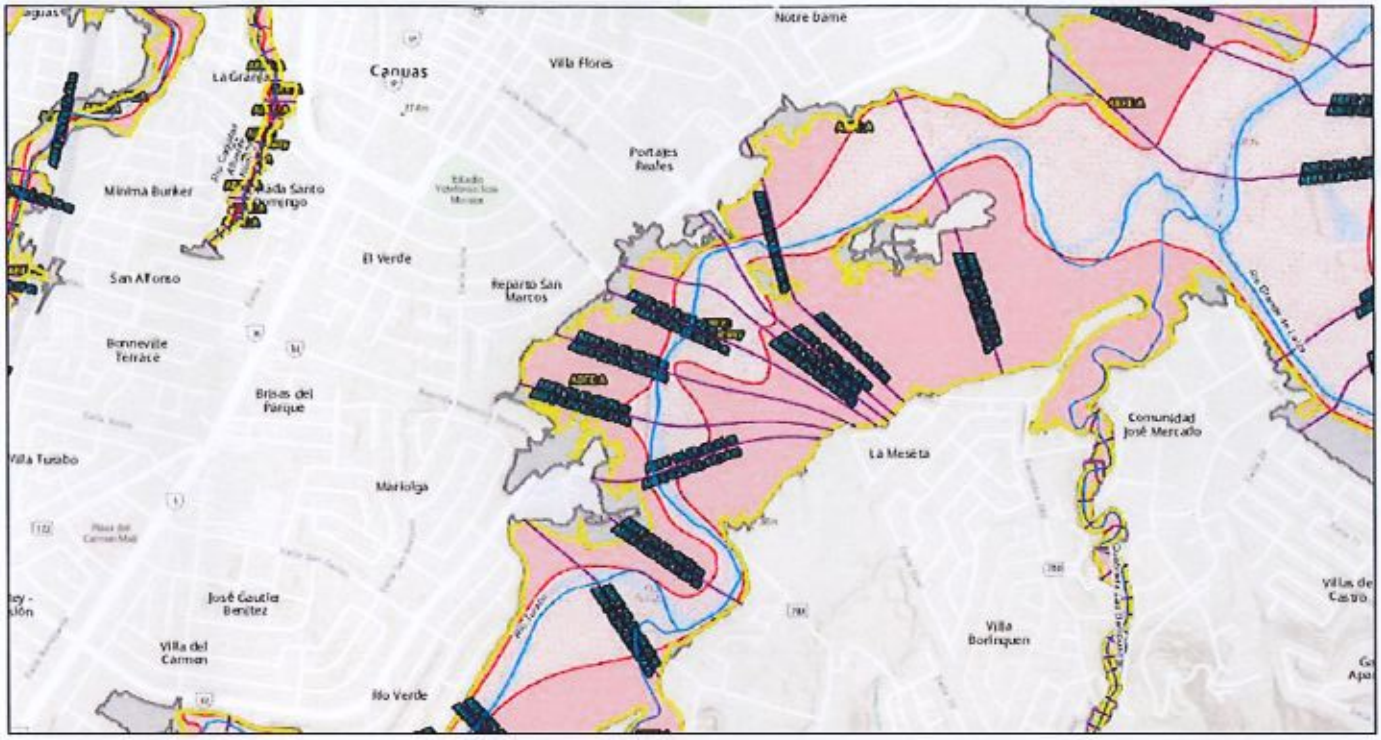


Exhibit 8b Floodplain Map Luis Muñoz Marín Avenue



6/23/2025, 9:24:42 AM

1:10,303

0 0.13 0.25 0.5 mi

0 0.17 0.35 0.7 km

- Advisory Base Flood Elevation (zoom in to make visible)
- Limit of Moderate Wave Action (LiMWA)

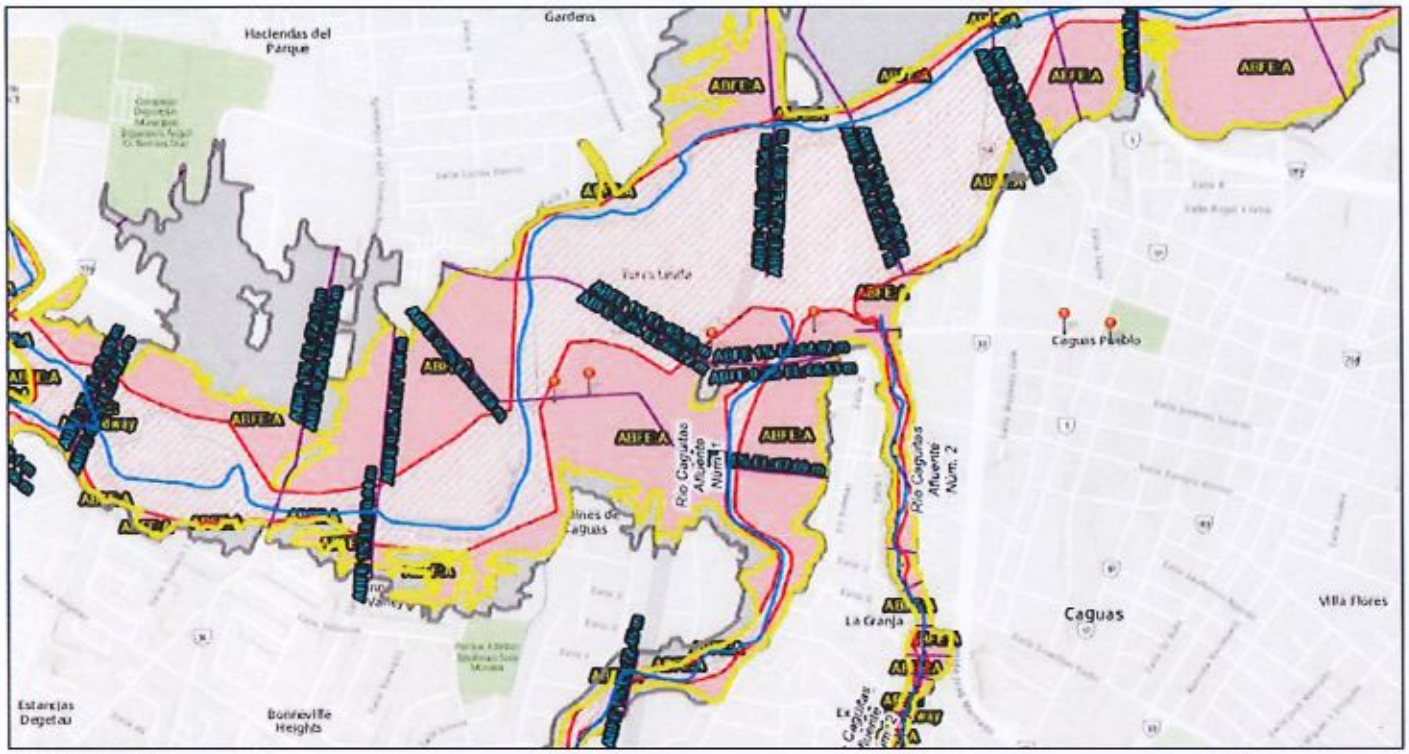
Flood Hazard Extent
- 1% Annual Chance Flood
- 0.2% Annual Chance Flood
- Zone/BFE Boundary

Flood Hazard Area (zoom in to make visible)
- A
- AO
- AE
- Coastal A Zone
- VE

- 0.2% Annual Chance Flood Zone
- A-Floodway
- AE-Floodway
- Coastal A Zone and Floodway
- World_Hillshade

FEMA, Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Exhibit 8c Floodplain Map PR-156 and Pueblo Ward



6/23/2025, 1:38:41 PM

1:7,482

0 0.07 0.15 0.3 mi
0 0.13 0.25 0.5 km

ArcGIS World Geocoding Service
Streamline (zoom in to make visible)
Advisory Base Flood Elevation (zoom in to make visible)
Limit of Moderate Wave Action (LiMWA)
Flood Hazard Extent
1% Annual Chance Flood
0.2% Annual Chance Flood
Zone BFE Boundary
Flood Hazard Area (zoom in to make visible)
A
AO
AE
Coastal A Zone
VE
0.2% Annual Chance Flood Zone
A-Floodway
AE-Floodway
Coastal A Zone and Floodway
World_Hillshade

FEMA, Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Exhibit 8d Floodplain Map Rafael Cordero Avenue

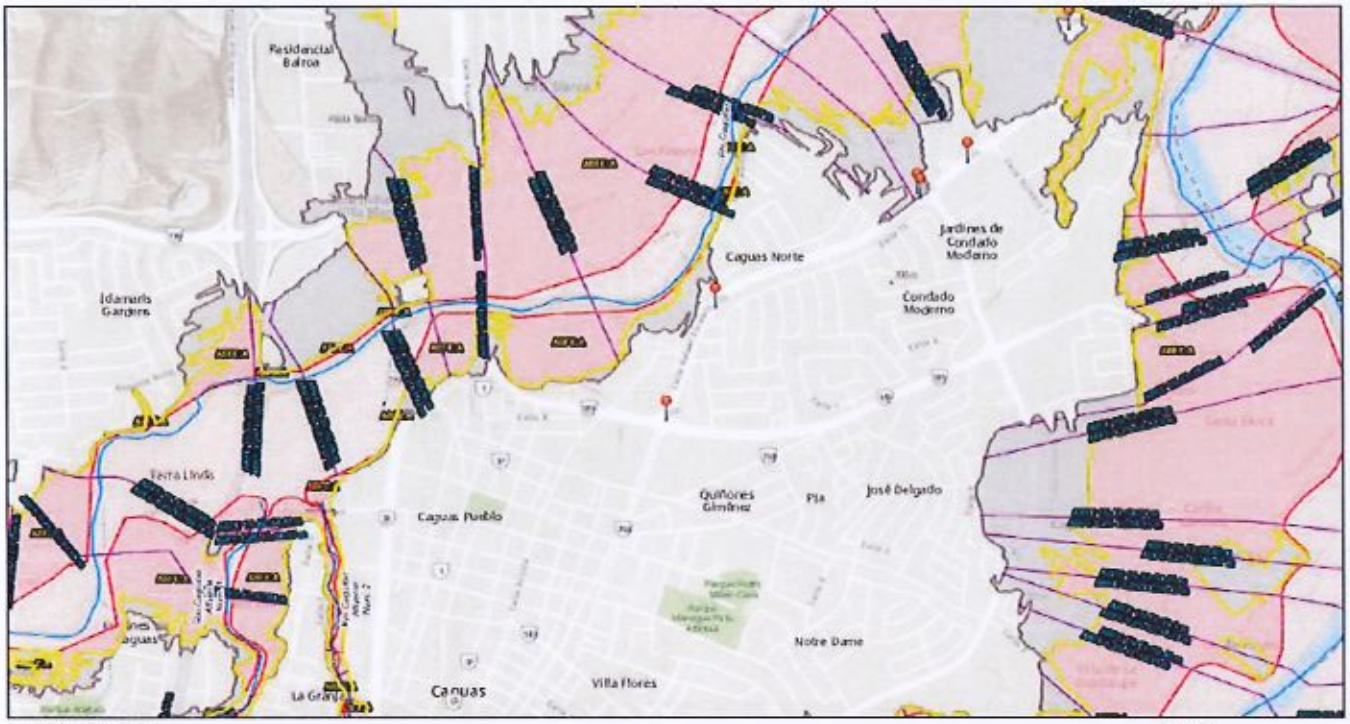
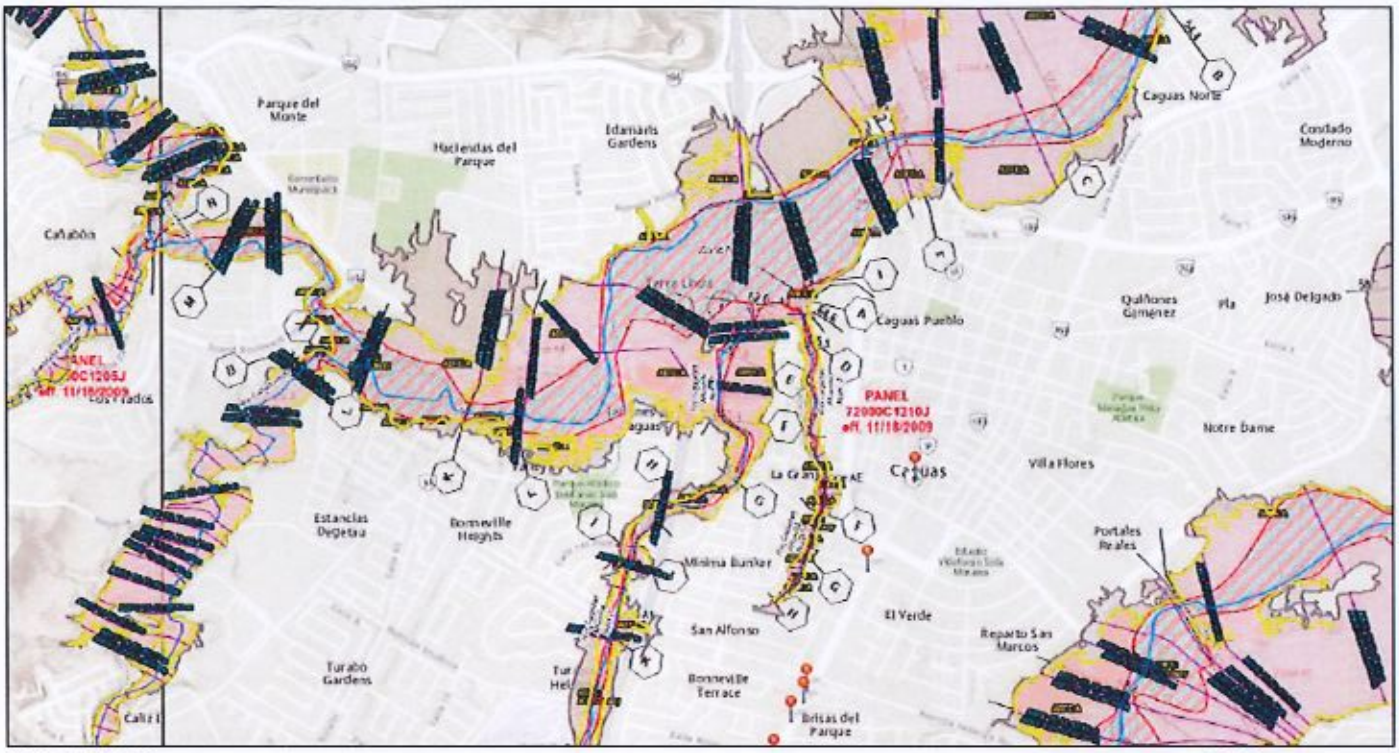


Exhibit 8e Floodplain Map Gautier Benitez Avenue



GOVERNMENT OF PUERTO RICO
DEPARTMENT OF HOUSING

CITY REVITALIZATION PROGRAM

PUERTO RICO DEPARTMENT OF HOUSING
CDBG-DR PROGRAM
CITY REVITALIZATION PROGRAM

Flood Zone Evaluation

Date: March 10, 2023
POC Name: Zaid Diaz Isaac
Subrecipient: Caguas
Address: EDIFICIO CASA ALCALDIA, WILLIAM MIRANDA MARÍN CALLE PADIAL, ESQ. JOSE MERCADO
Title: Director de la Oficina de Planificación
Email: zdiaz@caguas.gov.pr

Re: **Flood Zone Evaluation**
City Revitalization Program
Community Development Block Grant for Disaster Recovery (CDBG-DR)

Project Number: **PR-CRP-000262**
Project Name: **Rehabilitación Alumbrado Afectado por Huracan Maria en Avenidas del Centro Urbano**
Location: **18.226894°, -66.027357°**
Map Source: **FEMA Flood Insurance Rate Maps (FIRMs)**
Panel Number: **72000C1210J**
Panel Date: **11/18/2009**

Dear Mr./Mrs. Zaid Diaz Isaac,

The Puerto Rico Department of Housing (PRDOH) completed the Flood Zone Evaluation of the Rehabilitación Alumbrado Afectado por Huracan Maria en Avenidas del Centro Urbano project submitted to the City Revitalization Program. Below is the result of the evaluation.

- [ ] **1.** The project location provided by the Subrecipient **is not within a flood prone area** based on the current FEMA flood maps and is not required to meet HUD elevation and flood insurance requirements detailed below.
- [x] **2.** The project location provided by the Subrecipient **is in a flood prone area** based on the current FEMA flood maps. The project must meet the following conditions:
  - [x] **2.1** Per HUD's Floodplain Management and Protection of Wetlands regulation, (24 CFR Part 55 ("Part 55"), no HUD financial assistance may be approved after May 23, 1994 with respect to any action other than a functionally dependent use or floodplain function restoration activity located in a floodway unless an exception excludes the action from Part 55 compliance. HUD permits only three categories of activities in a floodway: functionally dependent uses, floodplain restoration activities, and activities listed in Part 55.12(c).

- [ ] **2.1.1** The project does not comply with the exceptions for activities in the floodway and HUD financial assistance may not be used. The project is no longer eligible for the City Revitalization Program.
- [x] **2.1.2** The project complies with the following exception for activity in the floodway:
  - [ ] **2.1.2.1** Functionally Dependent Uses
  - [ ] **2.1.2.2** Floodplain Restoration Activities
  - [ ] **2.1.2.3** Activities listed in section 55.12(c)
    Refer to the section Additional Project Evaluation in the CRP portal at https://horne2.outsystemsenterprise.com/CRP_Layout/NoPermission.aspx the justification memorandum provided by the Subrecipient.
  - [x] **2.1.2.4** Project is in the floodway but consist of repairs to existing construction (including improvements) or reconstruction following destruction caused by a disaster [24 Part 55.1 (c)(3)].
- [ ] **2.2** The project must be elevated or floodproofed, in accordance with FEMA floodproofing standards at 44 C.F.R. § 60.3(c)(3)(ii) or successor standard, up to at least two feet (2') above the 100-year (or one percent (1%) annual chance) floodplain.
- [ ] **2.3** Due to the important nature of the proposed project, PRDOH considers the project a Critical Action project. Per 24 C.F.R. § 55.2(b)(3), all Critical Actions within the 500-year (or 0.2 percent annual chance) floodplain must be elevated or floodproofed (in accordance with the FEMA standards) to the higher of the 500-year floodplain elevation or three feet (3') above the 100-year floodplain elevation. If the 500-year floodplain is unavailable, and the Critical Action is in the 100-year floodplain, then the structure must be elevated or floodproofed at least three feet (3') above the 100-year floodplain elevation.
- [ ] **2.4** Subrecipients of Federal funding must ensure that procedures and mechanisms are put into place to monitor compliance with all flood insurance requirements as found in the Flood Disaster Protection Act of 1973, 24 C.F.R. § 570.605- National Flood Insurance Program and 24 C.F.R. § 570.202- Eligible Rehabilitation and Preservation Activities. These regulations, along with alternative requirements provided in 83 FR 5844.
- [ ] **2.5** The action is in a floodplain but does not require to be elevated above the floodplain, or floodproofed or insured because it consists of civil works (roadway, parking, street repairs, sidewalk repairs, building façade repairs).
- [ ] **2.6** The project must comply with the procedures of Making Determinations of Floodplain Management at 24 CFR 55.20 and the 8-step decision making process of Executive Order 11988.

In addition to HUD requirements above, the project must adhere to any applicable State, local, and tribal codes and standards for floodplain management that exceeds these requirements, including elevation, setbacks, and cumulative substantial damage requirements.
Adherence to flood-related requirements is critical. Failure to meet elevation, floodproofing, and insurance requirements will result in the project being found non-compliant and may result in a repayment of funds to

PRDOH.

If you have any questions, comments or need additional information regarding the decision, feel free to send your request by email to cityrevcdbg@vivienda.pr.gov.

Sincerely,

City Revitalization Program - CDBG-DR
Department of Housing

This content is from the eCFR and is authoritative but unofficial.

Title 24 —Housing and Urban Development
Subtitle A —Office of the Secretary, Department of Housing and Urban Development
Part 55 —Floodplain Management and Protection of Wetlands
Subpart B —Application of Executive Orders on Floodplain Management and Protection of Wetlands

Authority: 42 U.S.C. 3535(d), 4001-4128, and 5154a; 42 U.S.C. 4321 *et seq.*; E.O. 13690, 80 FR 6425; Pub. L. 93-234, 87 Stat. 975; E.O. 11988, 42 FR 26951, 3 CFR, 1977 Comp., p. 117; E.O. 11990, 42 FR 26961, 3 CFR, 1977 Comp., p 121.
Source: 59 FR 19107, Apr. 21, 1994, unless otherwise noted.

§ 55.12 Inapplicability of 24 CFR part 55 to certain categories of proposed actions.

With the exception of the flood insurance requirements in § 55.5, this part shall not apply to the following categories of proposed HUD actions:

(a) HUD-assisted activities described in 24 CFR 58.34 and 58.35(b);

(b) HUD-assisted activities described in 24 CFR 50.19, except as otherwise indicated in § 50.19;

(c) The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition of such floodplain and wetland property, where a permanent covenant or comparable restriction is placed on the property's continued use for flood control, wetland protection, open space, or park land, but only if:

(1) The property is cleared of all existing buildings and walled structures; and

(2) The property is cleared of related improvements except those which:

(i) Are directly related to flood control, wetland protection, open space, or park land (including playgrounds and recreation areas);

(ii) Do not modify existing wetland areas or involve fill, paving, or other ground disturbance beyond minimal trails or paths; and

(iii) Are designed to be compatible with the beneficial floodplain or wetland function of the property.

(d) An action involving a repossession, receivership, foreclosure, or similar acquisition of property to protect or enforce HUD's financial interests under previously approved loans, grants, mortgage insurance, or other HUD assistance;

(e) Policy-level actions described at 24 CFR 50.16 that do not involve site-based decisions;

(f) A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland;

(g) HUD's or the responsible entity's approval of a project site, an incidental portion of which is situated in the FFRMS floodplain (not including the floodway, LiMWA, or coastal high hazard area), but only if:

(1) The proposed project site does not include any existing or proposed buildings or improvements that modify or occupy the FFRMS floodplain except de minimis improvements such as recreation areas and trails; and

(2) The proposed project will not result in any new construction in or modifications of a wetland.

(h) Issuance or use of Housing Vouchers or other forms of rental subsidy where HUD, the awarding community, or the public housing agency that administers the contract awards rental subsidies that are not project-based (*i.e.*, do not involve site-specific subsidies);

(i) Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

[89 FR 30908, Apr. 23, 2024]

This content is from the eCFR and is authoritative but unofficial.

Title 24 —Housing and Urban Development
Subtitle A —Office of the Secretary, Department of Housing and Urban Development
Part 55 —Floodplain Management and Protection of Wetlands
Subpart B —Application of Executive Orders on Floodplain Management and Protection of Wetlands

Authority: 42 U.S.C. 3535(d), 4001-4128, and 5154a; 42 U.S.C. 4321 *et seq.*; E.O. 13690, 80 FR 6425; Pub. L. 93-234, 87 Stat. 975; E.O. 11988, 42 FR 26951, 3 CFR, 1977 Comp., p. 117; E.O. 11990, 42 FR 26961, 3 CFR, 1977 Comp., p 121.
Source: 59 FR 19107, Apr. 21, 1994, unless otherwise noted.

§ 55.13 Inapplicability of 8-step decision making process to certain categories of proposed actions.

The decision-making process in § 55.20 shall not apply to the following categories of proposed actions:

(a) HUD's mortgage insurance actions and other financial assistance for the purchasing, mortgaging, or refinancing of existing one- to four-family properties in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24), where the action is not a critical action and the property is not located in a floodway, coastal high hazard area, or LiMWA;

(b) Financial assistance for minor repairs or improvements on one- to four-family properties that do not meet the thresholds for "substantial improvement" under § 55.2(b)(12);

(c) HUD or a recipient's actions involving the disposition of individual HUD or recipient held one- to four-family properties;

(d) HUD guarantees under the Loan Guarantee Recovery Fund Program (24 CFR part 573), where any new construction or rehabilitation financed by the existing loan or mortgage has been completed prior to the filing of an application under the program, and the refinancing will not allow further construction or rehabilitation, nor result in any physical impacts or changes except for routine maintenance;

(e) The approval of financial assistance to lease an existing structure and/or units within an existing structure located within the floodplain, but only if;

(1) The structure is located outside the floodway or coastal high hazard area, and is in a community that is in the Regular Program of the NFIP and in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24);

(2) The project is not a critical action; and

(3) The entire structure is or will be fully insured or insured to the maximum extent available under the NFIP for at least the term of the lease.

(f) Special projects for the purpose of improving the energy or water efficiency of utilities or installing renewable energy that involve the repair, rehabilitation, modernization, weatherization, or improvement of existing structures or infrastructure, do not meet the thresholds for "substantial improvement" under § 55.2(b)(12), and do not include the installation of equipment below the FFRMS floodplain elevation; and

[89 FR 30909, Apr. 23, 2024]

Editorial Note: At 89 FR 30909, Apr. 23, 2024, § 55.13 was added; the text provided ended with "; and".

This content is from the eCFR and is authoritative but unofficial.

Title 24 —Housing and Urban Development
Subtitle A —Office of the Secretary, Department of Housing and Urban Development

Part 55 Floodplain Management and Protection of Wetlands

Subpart A General

§ 55.1 Purpose.

§ 55.2 Terminology.

§ 55.3 Assignment of responsibilities.

§ 55.4 Notification of floodplain hazard.

§ 55.5 Flood insurance.

§ 55.6 Complying with this part.

Subpart B Application of Executive Orders on Floodplain Management and Protection of Wetlands

§ 55.7 Identifying the FFRMS floodplain.

§ 55.8 Limitations on HUD assistance in floodplains.

§ 55.9 Identifying wetlands.

§ 55.10 Limitations on HUD assistance in wetlands.

§ 55.11 [Reserved]

§ 55.12 Inapplicability of 24 CFR part 55 to certain categories of proposed actions.

§ 55.13 Inapplicability of 8-step decision making process to certain categories of proposed actions.

§ 55.14 Modified 5-step decision making process for certain categories of proposed actions.

Subpart C Procedures for Making Determinations on Floodplain Management and Protection of Wetlands

§ 55.16 Applicability of subpart C decision making process.

§ 55.20 Decision making process.

§ 55.21 Alternate processing for existing nonconforming sites.

§§ 55.22-55.25 [Reserved]

§ 55.26 Adoption of another agency's review under the Executive orders.

§§ 55.27-55.28 [Reserved]

Subpart D Severability

§ 55.30 Severability.

PART 55—FLOODPLAIN MANAGEMENT AND PROTECTION OF WETLANDS

Authority: 42 U.S.C. 3535(d), 4001-4128, and 5154a; 42 U.S.C. 4321 *et seq.*; E.O. 13690, 80 FR 6425; Pub. L. 93-234, 87 Stat. 975; E.O. 11988, 42 FR 26951, 3 CFR, 1977 Comp., p. 117; E.O. 11990, 42 FR 26961, 3 CFR, 1977 Comp., p 121.

Source: 59 FR 19107, Apr. 21, 1994, unless otherwise noted.

Subpart A—General

§ 55.1 Purpose.

(a)

(1) The purpose of Executive Order 11988, Floodplain Management, as amended, is "to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative."

(2) The purpose of Executive Order 11990, Protection of Wetlands, is "to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative."

(3) This part implements requirements consistent with Executive Order 11988, Floodplain Management, as amended, and Executive Order 11990, Protection of Wetlands, and employs the principles of the Unified National Program for Floodplain Management. These regulations apply to all proposed actions for which approval is required, either from HUD (under any applicable HUD program) or from a recipient (under programs subject to 24 CFR part 58), that are subject to potential harm by location in floodplains or wetlands. Covered actions include acquisition, construction, demolition, improvement, disposition, financing, and use of properties located in floodplains or wetlands.

(b) [Reserved]

[59 FR 19107, Apr. 21, 1994, as amended at 78 FR 68728, Nov. 15, 2013; 89 FR 30903, Apr. 23, 2024]

§ 55.2 Terminology.

(a) With the exception of those terms defined in paragraph (b) of this section, the terms used in this part shall follow the definitions contained in section 6 of Executive Order 11988, section 7 of Executive Order 11990, and the "Guidelines for Implementing Executive Order 11988, Floodplain Management, and Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input"; the terms "special flood hazard area," "criteria," and "Regular Program" shall follow the definitions contained in FEMA regulations at 44 CFR 59.1; and the terms "Letter of Map Revision" and "Letter of Map Amendment" shall refer to letters issued by FEMA, as provided in 44 CFR part 65 and 44 CFR part 70, respectively.

(b) For purposes of this part, the following definitions apply:

(1) *Coastal high hazard area* means the area subject to high velocity waters, including but not limited to hurricane wave wash or tsunamis. The area is designated on a Flood Insurance Rate Map (FIRM) or Flood Insurance Study (FIS) under FEMA regulations, or according to best available information. (See § 55.8(b) for appropriate data sources.)

(2) *Compensatory mitigation* means the restoration (reestablishment or rehabilitation), establishment (creation), enhancement, and/or, in certain circumstances, preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved. Examples include, but are not limited to:

(i) *Permittee-responsible mitigation:* On-site or off-site mitigation undertaken by the holder of a wetlands permit under section 404 of the Clean Water Act (or an authorized agent or contractor), for which the permittee retains full responsibility;

(ii) *Mitigation banking:* A permittee's purchase of credits from a wetlands mitigation bank, comprising wetlands that have been set aside to compensate for conversions of other wetlands; the mitigation obligation is transferred to the sponsor of the mitigation bank; and

(iii) *In-lieu fee mitigation:* A permittee's provision of funds to an in-lieu fee sponsor (public agency or nonprofit organization) that builds and maintains a mitigation site, often after the permitted adverse wetland impacts have occurred; the mitigation obligation is transferred to the in-lieu fee sponsor.

(3)

(i) *Critical action* means any activity for which even a slight chance of flooding would be too great, because such flooding might result in loss of life, injury to persons, or damage to property. Critical actions include activities that create, maintain or extend the useful life of those structures or facilities that:

(A) Produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials;

(B) Provide essential and irreplaceable records or utility or emergency services that may become lost or inoperative during flood and storm events (*e.g.*, community stormwater management infrastructure, water treatment plants, data storage centers, generating plants, principal utility lines, emergency operations centers including fire and police stations, and roadways providing sole egress from flood-prone areas); or

(C) Are likely to contain occupants who may not be sufficiently mobile to avoid loss of life or injury during flood or storm events, *e.g.*, persons who reside in hospitals, nursing homes, convalescent homes, intermediate care facilities, board and care facilities, and retirement service centers. Housing for independent living for the elderly is not considered a critical action.

(ii) Critical actions shall not be approved in floodways, LiMWAs, or coastal high hazard areas unless they meet an exception at § 55.8 or § 55.21.

(4) *Federal Flood Risk Management Standard (FFRMS) floodplain* means the floodplain as defined by Executive Order 13690 and the Guidelines for Implementing Executive Order 11988, Floodplain Management, and Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input and further described as applied to HUD-assisted activities by § 55.7 of this part.

(5) *0.2-percent-annual-chance (500-year) floodplain* means the area, including the base flood elevation, subject to inundation from a flood having a 0.2 percent chance or greater of being equaled or exceeded in any given year. (See § 55.8(b) for appropriate data sources).

(6) *Floodway* means that portion of the floodplain which is effective in carrying flow, where the flood hazard is generally the greatest, and where water depths and velocities are the highest. The term "floodway" as used here is consistent with "regulatory floodways" as identified by FEMA. (See § 55.8(b) for appropriate data sources.)

(7) *Functionally dependent use* means a land use that must necessarily be conducted in close proximity to water (*e.g.*, a dam, marina, port facility, water-front park, and many types of bridges).

(8) *High hazard area* means a floodway or a coastal high hazard area.

(9) *Impervious surface area* means an improved surface that measurably reduces the rate of water infiltration below the rate that would otherwise be provided by the soil present in a location prior to improvement, based on the soil type identified either by the Natural Resource Conservation Service Soil Survey or geotechnical study. Impervious surfaces include, but are not limited to, unperforated concrete or asphalt ground cover, unvegetated roofing materials, and other similar treatments that impede infiltration.

(10) *Limit of Moderate Wave Action (LiMWA)* means the inland limit of the portion of Coastal A Zone where wave heights can be between 1.5 and 3 feet during a base flood event, subjecting properties to damage from waves and storm surge. (See § 55.8(b) for appropriate data sources.)

(11) *1-percent-annual-chance (100-year) floodplain* means the area subject to inundation from a flood having a one percent or greater chance of being equaled or exceeded in any given year. (See § 55.8(b) for appropriate data sources.)

(12) *Substantial improvement* —

(i) *Substantial improvement* means either:

(A) Any repair, reconstruction, modernization, or improvement of a structure, including a manufactured housing unit, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(1) Before the improvement or repair is started; or

(2) If the structure has been damaged, and is being restored, before the damage occurred; or

(B) Any repair, reconstruction, modernization, or improvement of a structure, including a manufactured housing unit, that results in an increase of more than twenty percent in the number of dwelling units in a residential project or in the average peak number of customers and employees likely to be on-site at any one time for a commercial or industrial project.

(ii) *Substantial improvement* may not be defined to include either:

(A) Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications that is solely necessary to assure safe living conditions, or

(B) Any alteration of a structure listed on the National Register of Historical Places or on a State Inventory of Historic Places.

(iii) Structural repairs, reconstruction, or improvements not meeting this definition are considered "minor improvements".

(13) *Wetlands* means those areas that are inundated or saturated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, river overflows, mud flats, and natural ponds. This definition includes those wetland areas separated from their natural supply of water as a result of activities such as the construction of structural flood protection methods or solid fill roadbeds and activities such as mineral extraction and navigation improvements. This definition includes both wetlands subject to and those not subject to Section 404 of the Clean Water Act as well as constructed wetlands.

[59 FR 19107, Apr. 21, 1994, as amended at 78 FR 68729, Nov. 15, 2013; 89 FR 30904, Apr. 23, 2024]

§ 55.3 Assignment of responsibilities.

(a) *General.* The implementation of Executive Orders 11988 and 11990 under this part shall be conducted by HUD for Department-administered programs subject to environmental review under 24 CFR part 50 and by authorized responsible entities that are responsible for environmental review under 24 CFR part 58.

(b)

(1) *The Assistant Secretary for Community Planning and Development (CPD)* shall oversee:

(i) The Department's implementation of Executive Orders 11988 and 11990 and this part in all HUD programs; and

(ii) The implementation activities of HUD program managers and, for HUD financial assistance subject to 24 CFR part 58, of grant recipients and responsible entities.

(2) In performing these responsibilities, the Assistant Secretary for CPD shall make pertinent policy determinations in cooperation with appropriate program offices and provide necessary assistance, training, publications, and procedural guidance.

(c) *Other HUD Assistant Secretaries, the General Counsel, and the President of the Government National Mortgage Association (GNMA)* shall:

(1) Ensure compliance with this part for all actions under their jurisdiction that are proposed to be conducted, supported, or permitted in a floodplain or wetland, including taking full responsibility for all decisions made under their jurisdiction that are made pursuant to § 55.20 for environmental reviews completed pursuant to 24 CFR part 50;

(2) Ensure that actions approved by HUD or responsible entities are monitored and that any prescribed mitigation is implemented;

(3) Ensure that the offices under their jurisdiction have the resources to implement the requirements of this part; and

(4) Incorporate in departmental regulations, handbooks, and project and site standards those criteria, standards, and procedures related to compliance with this part.

(d) *Responsible entity Certifying Officer.* Certifying Officers of responsible entities administering or reviewing activities subject to 24 CFR part 58 shall comply with this part in carrying out HUD-assisted programs. Certifying Officers shall monitor approved actions and ensure that any prescribed mitigation is implemented.

(e) *Grantees and applicants.* Grantees and Applicants that are not acting as responsible entities shall:

(1) Supply HUD (or the responsible entity authorized by 24 CFR part 58) with all available, relevant information necessary for HUD (or the responsible entity) to perform the compliance required by this part, including environmental review record documentation described in 24 CFR 58.38, as applicable;

(2) Implement mitigating measures required by HUD (or the responsible entity authorized by 24 CFR part 58) under this part or select alternate eligible property; and

(3) Monitor approved actions and ensure that any prescribed mitigation is implemented.

(f) *Third party providers.* Consultants and other parties to the environmental review process may prepare maps, studies (*e.g.*, hydraulic and hydrologic studies), and reports to support compliance with this part, including identification of floodplains and wetlands and development of alternatives or minimization measures. The following responsibilities, however, may not be delegated to the third-party provider:

(1) Receipt of public or agency comments;

(2) Selection or rejection of alternatives analyzed in Step 3 of the 8-step decision making process in § 55.20;

(3) Selection or rejection of minimization measures analyzed in Step 5 of the 8-step decision making process in § 55.20;

(4) Determination whether avoidance of floodplain or wetland impacts, according to the purpose of Executive Orders 11988 and 11990, is or is not practicable.

[59 FR 19107, Apr. 21, 1994, as amended at 78 FR 68730, Nov. 15, 2013; 89 FR 30905, Apr. 23, 2024]

§ 55.4 Notification of floodplain hazard.

(a) *Notification for property owners, buyers, and developers.* For actions in the FFRMS floodplain (as defined in § 55.7), HUD (or HUD's designee) or the responsible entity must ensure that any party participating in the transaction is notified that the property is in the FFRMS floodplain and whether flood insurance is required or available in this location. Notification shall also include a description of the approximate elevation of the FFRMS floodplain, proximity to flood-related infrastructure impacting the site including dams and levees, the location of ingress and egress or evacuation routes relative to the FFRMS floodplain, disclosure of information on flood insurance claims filed on the property to the extent available from FEMA, and other relevant information such as available emergency notification resources.

(b) *Renter notification.* For HUD-assisted, HUD-acquired, and HUD-insured rental properties within the FFRMS floodplain, new and renewal leases must include acknowledgements signed by residents indicating that they have been advised that the property is in a floodplain and flood insurance is available for their

personal property. Notification shall also include the location of ingress and egress routes relative to the FFRMS floodplain, available emergency notification resources, and the property's emergency procedures for residents in the event of flooding.

(c) *Conveyance restrictions for the disposition of multifamily real property.*

(1) In the disposition (including leasing) of multifamily properties acquired by HUD that are located in the FFRMS floodplain, the documents used for the conveyance must:

(i) Refer to those uses that are restricted under identified Federal, State, or local floodplain regulations; and

(ii) Include any land use restrictions limiting the use of the property by a grantee or purchaser and any successors under State or local laws.

(2)

(i) For disposition of multifamily properties acquired by HUD that are located in the FFRMS floodplain and contain critical actions, HUD shall, as a condition of approval of the disposition, require by covenant or comparable restriction on the property's use that the property owner and successive owners provide written notification to each current and prospective tenant concerning:

(A) The hazards to life and to property for those persons who reside or work in a structure located within the FFRMS floodplain, and

(B) The availability of flood insurance on the contents of their dwelling unit or business.

(ii) The notice described in paragraph (c)(2)(i) of this section shall also be posted in the building so that it will be legible at all times and easily visible to all persons entering or using the building.

[89 FR 30905, Apr. 23, 2024]

§ 55.5 Flood insurance.

(a)

(1) As required by section 102(a) of the Flood Disaster Protection Act of 1973, as amended (42 U.S.C. 4012a), when HUD financial assistance (including mortgage insurance) is proposed for acquisition or construction purposes in any special flood hazard area (as designated by the Federal Emergency Management Agency (FEMA) on an effective Flood Insurance Rate Map (FIRM) or Flood Insurance Study (FIS)), structures for which HUD financial assistance is provided must be covered by flood insurance in an amount at least equal to the project cost less estimated land cost, the outstanding principal balance of any HUD-assisted or HUD-insured loan, or the maximum limit of coverage available under the National Flood Insurance Program, whichever is least. Under section 202(a) of the Flood Disaster Protection Act of 1973, 42 U.S.C. 4106(a), such proposed assistance in any special flood hazard area shall not be approved in communities identified by FEMA as eligible for flood insurance but which are not participating in the National Flood Insurance Program. This prohibition only applies to proposed HUD financial assistance in a FEMA-designated special flood hazard area one year after the community has been formally notified by FEMA of the designation of the affected area. This requirement is not applicable to HUD financial assistance in the form of formula grants to States, including financial assistance under the State-administered CDBG Program (24 CFR part 570, subpart I), Emergency Solutions Grant amounts allocated to States (24 CFR part

576), and HOME funds provided to a State under Title II of the Cranston-Gonzalez National Affordable Housing Act (42 U.S.C. 12701-12839). HUD strongly encourages that flood insurance be obtained and maintained for all HUD-assisted structures in the FFRMS floodplain, sites that have previously flooded, or sites in close proximity to a floodplain.

(2) Under section 582 of the National Flood Insurance Reform Act of 1994 (42 U.S.C. 5154a), HUD disaster assistance that is made available in a special flood hazard area may not be used to make a payment (including any loan assistance payment) to a person for repair, replacement, or restoration of damage to any personal, residential, or commercial property if:

(i) The person had previously received Federal flood disaster assistance conditioned on obtaining and maintaining flood insurance; and

(ii) The person failed to obtain and maintain the flood insurance.

(b) HUD or the responsible entity may impose flood insurance requirements that exceed the minimums established by the Flood Disaster Protection Act of 1973 or by Tribal, State, or local requirements when needed to minimize financial risk from flood hazards. HUD and responsible entities have discretion to require that flood insurance be maintained for structures outside of the FEMA-mapped floodplain but within the FFRMS floodplain and/or that structures be insured up to the full replacement cost of the structure when needed to minimize financial risk from flood hazards. Nothing in this part limits additional flood insurance requirements that may be imposed by a mortgagee participating in a HUD assistance or mortgage insurance or guarantee program.

[89 FR 30905, Apr. 23, 2024]

§ 55.6 Complying with this part.

(a) *Process.* The process to comply with this part is as follows:

(1) HUD or the responsible entity shall determine whether compliance with this part is required. Refer to § 55.12 for a list of activities that do not require further compliance with this part beyond the provisions of paragraph (c) of this section.

(2) HUD or the responsible entity shall refer to § 55.8 to determine whether the proposed action is eligible for HUD assistance or if it must be rejected as proposed.

(3) If the project requires compliance under this part and is not prohibited by § 55.8, HUD or the responsible entity shall refer to § 55.13 to determine whether the 8-step decision making process in § 55.20 is required.

(4) HUD or the responsible entity shall refer to § 55.10 to determine whether the 8-step decision making process in § 55.20 for wetland protection is required or whether best practices to minimize potential indirect impacts to wetlands should be pursued.

(5) HUD or the responsible entity shall determine whether an exception in § 55.14 applies that would allow them to complete an abbreviated decision-making process under § 55.20.

(6) Where the decision-making process is required, HUD or the responsible entity shall follow the decision-making process described in § 55.20, eliminating any steps as permitted under § 55.14.

(b) *Decision making.* HUD or the responsible entity shall determine whether to approve the action as proposed, approve the action with modifications or at an alternative site, or reject the proposed action, based on its analysis of the proposed risks and impacts. HUD or the responsible entity has discretion to reject any project where it determines that the level of flood hazard is incompatible with the proposed use of the site or that the extent of impacts to wetlands or to the beneficial function of floodplains is not acceptable, regardless of whether it would otherwise be acceptable under this part.

(c) *Other requirements.* Refer to §§ 55.4 and 55.5 to determine whether the proposed action may require notifications and/or flood insurance. Actions that do not require full compliance under this part may still trigger notification and flood insurance requirements.

(d) *Documentation.* HUD or the responsible entity shall require that all of the analysis required under this part, including applicable exceptions and all required steps described in § 55.20, be documented in the environmental review record.

[89 FR 30905, Apr. 23, 2024]

Subpart B—Application of Executive Orders on Floodplain Management and Protection of Wetlands

§ 55.7 Identifying the FFRMS floodplain.

(a) HUD or the responsible entity shall determine all compliance with the floodplain review requirements of this part based on the FFRMS floodplain.

(b) For a non-critical action, HUD or the responsible entity shall define the FFRMS floodplain using the following process:

(1) The climate-informed science approach (CISA) to identify the area having an elevated flood risk during the anticipated life of the project if data is available and actionable. Data is available and actionable for a particular project where:

(i) The data can be accessed via a tool, resource, or other process developed or identified by a Federal agency or agencies to define the floodplain using the CISA, and

(ii) HUD has adopted the particular tool, resource, or other process through a FEDERAL REGISTER publication for comment.

(2) If CISA data is not available or actionable but FEMA has defined the 0.2-percent-annual-chance floodplain, those areas that FEMA has designated as within the 0.2-percent-annual-chance floodplain; or

(3) If neither CISA data nor FEMA-mapped 0.2-percent-annual-chance floodplain data is available, those areas that result from adding an additional two feet to the base flood elevation as established by the effective FIRM or FIS or—if available—FEMA-provided interim or preliminary maps or studies or advisory base flood elevations.

(4) FFRMS floodplain determinations under paragraphs (b)(2) and (3) of this section shall be made using the information provided in the latest FEMA resources. Elevation determinations based on CISA data or an interim or preliminary FEMA map cannot be used as a basis for a lower elevation than the base flood elevation on the current FIRM or FIS.

(c) For a critical action, the FFRMS floodplain is either:

(1) Those areas designated as having an elevated flood risk identified by the climate-informed science approach (CISA)—as determined based on the criticality of the action—during the anticipated life of the project if the data is available and actionable, as available and actionable is described in paragraph (b)(1) of this section; or

(2) If CISA data as described above is not available or actionable, an area either within the 0.2-percent-annual-chance floodplain or within the area that results from adding an additional three feet to the base flood elevation. The larger floodplain and higher elevation must be applied where the 0.2-percent-annual-chance floodplain is mapped. If FEMA resources do not map the 0.2-percent-annual-chance floodplain, the FFRMS floodplain is the area that results from adding an additional three feet to the base flood elevation based on best available information.

(3) FFRMS floodplain determinations under paragraph (c)(2) of this section shall be made using the information provided in the latest FEMA resources.

(d) If CISA data is not available or actionable and if FEMA FIRMS, FIS, preliminary maps or advisory base flood elevations are unavailable or insufficiently detailed to determine base flood elevation, other Federal, Tribal, State, or local data shall be used as "best available information." If best available information is based only on past flooding and does not consider future flood risk:

(1) For non-critical actions, the FFRMS floodplain includes those areas that result from adding an additional two feet to the base flood elevation based on best available information.

(2) For critical actions, the FFRMS floodplain includes those areas that result from adding an additional three feet to the base flood elevation based on best available information.

(e) When preparing an Environmental Impact Statement (EIS), an analysis of the best available, actionable climate science, where available and actionable data exists or can be generated in accordance with 42 U.S.C. 4336(b)(3), as determined by HUD or the responsible entity, must be performed to define the FFRMS floodplain. These sources may supplement the FIRM or Advisory Base Flood Elevation (ABFE) in order to better minimize impacts to projects or to elevate or floodproof structures above the risk adjusted floodplain. These sources may not be used as a basis for a lower elevation than otherwise required under this section.

(f)

(1) Regardless of whether HUD has adopted a particular tool, resource, or other process to define the floodplain using CISA, as described in paragraphs (b)(1) and (c)(1) of this section, HUD or a responsible entity may voluntarily define the FFRMS floodplain utilizing CISA when:

(i) A State, Tribal, or local government formally adopts, through code or other formal adoption measures, a tool, resource, or other written standard developed or utilized by the State, Tribal, or local government that provides data or other methods to identify the FFRMS floodplain using CISA for a particular project; or

(ii) HUD publishes guidance identifying a particular tool, resource, or other process that may be used to define the floodplain using CISA, and the tool, resource, or other process identified in the HUD-published guidance contains the necessary data or information to define the floodplain for the project being considered.

(2)

(i) The approach in this paragraph (f) may not be used as a basis for a lower elevation than the lowest of:

(A) The 0.2-percent-annual-chance floodplain elevation;

(B) The elevation that results from adding an additional two feet to the base flood elevation; or

(C) The elevation required by paragraph (b) or (c) of this section, if CISA data is available and actionable under paragraph (b)(1) or (c)(1).

(ii) Where HUD or a responsible entity voluntarily defines the FFRMS floodplain using the options in paragraph (f)(1)(i) or (ii) of this section, the criticality of the action must be considered when determining the appropriate elevation of the FFRMS floodplain.

[89 FR 30906, Apr. 23, 2024]

§ 55.8 Limitations on HUD assistance in floodplains.

(a) HUD financial assistance (including mortgage insurance) may not be approved with respect to:

(1) Any action located in a floodway unless one of the following applies:

(i) An exception listed in § 55.12 applies; or

(ii) A permanent covenant or comparable restriction will preserve all onsite FFRMS floodplain and/or wetland areas from future development or expansion of existing uses in the floodplain and/or wetland areas. Any rehabilitation, including reconstruction in the case of properties affected by Presidentially declared disasters, that does not expand the footprint of the buildings or the number of units on the site would be allowed within the FFRMS floodplain outside of the floodway. No buildings or improvements may modify or occupy the floodway, with the exception of:

(A) Functionally dependent uses (as defined in § 55.2(b)(7)) and utility lines;

(B) De minimis improvements, including minimal ground disturbance or placement of impervious surface area to ensure accessibility where this is permitted by local ordinances and does not increase flood risk to the property; or

(C) Buildings and improvements that will be removed as part of the proposed action.

(2) Any critical action located in a floodway, other than a functionally dependent use where any existing or new structure has been or will be elevated or floodproofed to the FFRMS elevation for critical actions; or any critical action in a coastal high hazard area or LiMWA, other than a functionally dependent use where any existing or new structure has been or will be elevated and constructed in accordance with current FEMA V-zone construction standards at 44 CFR 60.3(e); provided that, for a critical action that is insurance of a mortgage on a property containing a floodway with no structures or improvements in the floodway, paragraph (a)(1) of this section applies; or

(3) Any noncritical action located in a coastal high hazard area, or LiMWA, unless the action is a functionally dependent use, is limited to existing structures or improvements, or is reconstruction following destruction caused by a Presidentially declared disaster. If the action is not a functionally dependent use, the action must be designed for location in a coastal high hazard area. An action will be considered designed for a coastal high hazard area if:

(i) In the case of reconstruction following destruction caused by a disaster, or substantial improvement, the work meets the current standards for V zones in FEMA regulations (44 CFR 60.3(e)) and, if applicable, the Minimum Property Standards for such construction in 24 CFR 200.926d(c)(4)(ii); or

(ii) In the case of existing construction (including any minor improvements that are not substantial improvements):

(A) The work met FEMA elevation and construction standards for a coastal high hazard area (or if such a zone or such standards were not designated, the 1-percent-annual-chance floodplain) applicable at the time the original improvements were constructed; or

(B) If the original improvements were constructed before FEMA standards for the 1-percent-annual-chance floodplain became effective or before FEMA designated the location of the action as within the 1-percent-annual-chance floodplain, the work would meet at least the earliest FEMA standards for construction in the 1-percent-annual-chance floodplain.

(b) All determinations made pursuant to this section shall be based on the effective FIRM or FIS unless FEMA has provided more current information. When FEMA provides interim flood hazard data, such as ABFE or preliminary maps and studies, HUD or the responsible entity shall use the latest of these sources. However, a base flood elevation from an interim or preliminary source cannot be used if it is lower than the base flood elevation on the current FIRM and FIS.

(c) Where HUD assistance is proposed for actions subject to § 55.20 on structures designated by FEMA as Severe Repetitive Loss (SRL) properties, and FEMA has approved measures that if implemented would qualify the property for a status of "Mitigated" as to the SRL list, HUD or the responsible entity will ensure that FEMA-identified mitigation measures are identified and implemented as part of the decision making process under § 55.20(e).

[89 FR 30906, Apr. 23, 2024]

§ 55.9 Identifying wetlands.

The following process shall be followed in making the wetlands determination:

(a) HUD or the responsible entity shall determine whether the action involves new construction that is located in or impacts a wetland.

(b) As primary screening, HUD or the responsible entity shall verify whether the project area is located in proximity to wetlands identified on the National Wetlands Inventory (NWI) and assess the site for visual indication of the presence of wetlands such as hydrology (water), hydric soils, or wetland vegetation. Where the primary screening is inconclusive, potential wetlands should be further evaluated using one or more of the following methods:

(1) Consultation with the Department of the Interior, U.S. Fish and Wildlife Service (USFWS), for information concerning the location, boundaries, scale, and classification of wetlands within the area.

(2) Reference to the Department of Agriculture, Natural Resources Conservation Service (NRCS) National Soil Survey (NSS), and any Tribal, State, or local information concerning the location, boundaries, scale, and classification of wetlands within the action area and further site study by the environmental review preparer with reference to Federal guidance on field identification of the biological (rather than jurisdictional) characteristics of wetlands.

(3) Evaluation by a qualified wetlands scientist to delineate the wetland boundaries on site.

[89 FR 30906, Apr. 23, 2024]

§ 55.10 Limitations on HUD assistance in wetlands.

(a) When the proposed project includes new construction activities (including grading, clearing, draining, filling, diking, impounding, and related activities for any structure or facilities including the siting of new manufactured housing units) that will have a direct impact to onsite wetlands identified by the process described in § 55.9, compliance with this part requires completion of the 8-step decision making process in § 55.20 to address wetland impacts.

(b) When the proposed project may indirectly affect wetlands by modifying the flow of stormwater, releasing pollutants, or otherwise changing conditions that contribute to wetlands viability, the significance of these impacts must be evaluated and the impacts minimized through best management practices. If the project site includes wetlands that will not be impacted by new construction, HUD strongly encourages measures to preserve such wetlands from future impacts, including by obtaining a restrictive covenant, conservation easement, or other mechanism.

(c) When the proposed project may indirectly affect off-site wetlands, impacts should be minimized to the extent practicable. While this part does not require further decision making to address these effects under the authority of Executive Order 11990, measures to address offsite wetlands impacts may be necessary to comply with related laws and authorities including the Endangered Species Act or to address significant impacts under the National Environmental Policy Act.

[89 FR 30908, Apr. 23, 2024]

§ 55.11 [Reserved]

§ 55.12 Inapplicability of 24 CFR part 55 to certain categories of proposed actions.

With the exception of the flood insurance requirements in § 55.5, this part shall not apply to the following categories of proposed HUD actions:

(a) HUD-assisted activities described in 24 CFR 58.34 and 58.35(b);

(b) HUD-assisted activities described in 24 CFR 50.19, except as otherwise indicated in § 50.19;

(c) The approval of financial assistance for restoring and preserving the natural and beneficial functions and values of floodplains and wetlands, including through acquisition of such floodplain and wetland property, where a permanent covenant or comparable restriction is placed on the property's continued use for flood control, wetland protection, open space, or park land, but only if:

(1) The property is cleared of all existing buildings and walled structures; and

(2) The property is cleared of related improvements except those which:

(i) Are directly related to flood control, wetland protection, open space, or park land (including playgrounds and recreation areas);

(ii) Do not modify existing wetland areas or involve fill, paving, or other ground disturbance beyond minimal trails or paths; and

(iii) Are designed to be compatible with the beneficial floodplain or wetland function of the property.

(d) An action involving a repossession, receivership, foreclosure, or similar acquisition of property to protect or enforce HUD's financial interests under previously approved loans, grants, mortgage insurance, or other HUD assistance;

(e) Policy-level actions described at 24 CFR 50.16 that do not involve site-based decisions;

(f) A minor amendment to a previously approved action with no additional adverse impact on or from a floodplain or wetland;

(g) HUD's or the responsible entity's approval of a project site, an incidental portion of which is situated in the FFRMS floodplain (not including the floodway, LiMWA, or coastal high hazard area), but only if:

(1) The proposed project site does not include any existing or proposed buildings or improvements that modify or occupy the FFRMS floodplain except de minimis improvements such as recreation areas and trails; and

(2) The proposed project will not result in any new construction in or modifications of a wetland.

(h) Issuance or use of Housing Vouchers or other forms of rental subsidy where HUD, the awarding community, or the public housing agency that administers the contract awards rental subsidies that are not project-based (*i.e.*, do not involve site-specific subsidies);

(i) Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and persons with disabilities.

[89 FR 30908, Apr. 23, 2024]

§ 55.13 Inapplicability of 8-step decision making process to certain categories of proposed actions.

The decision-making process in § 55.20 shall not apply to the following categories of proposed actions:

(a) HUD's mortgage insurance actions and other financial assistance for the purchasing, mortgaging, or refinancing of existing one- to four-family properties in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24), where the action is not a critical action and the property is not located in a floodway, coastal high hazard area, or LiMWA;

(b) Financial assistance for minor repairs or improvements on one- to four-family properties that do not meet the thresholds for "substantial improvement" under § 55.2(b)(12);

(c) HUD or a recipient's actions involving the disposition of individual HUD or recipient held one- to four-family properties;

(d) HUD guarantees under the Loan Guarantee Recovery Fund Program (24 CFR part 573), where any new construction or rehabilitation financed by the existing loan or mortgage has been completed prior to the filing of an application under the program, and the refinancing will not allow further construction or rehabilitation, nor result in any physical impacts or changes except for routine maintenance;

(e) The approval of financial assistance to lease an existing structure and/or units within an existing structure located within the floodplain, but only if;

(1) The structure is located outside the floodway or coastal high hazard area, and is in a community that is in the Regular Program of the NFIP and in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24);

(2) The project is not a critical action; and

(3) The entire structure is or will be fully insured or insured to the maximum extent available under the NFIP for at least the term of the lease.

(f) Special projects for the purpose of improving the energy or water efficiency of utilities or installing renewable energy that involve the repair, rehabilitation, modernization, weatherization, or improvement of existing structures or infrastructure, do not meet the thresholds for "substantial improvement" under § 55.2(b)(12), and do not include the installation of equipment below the FFRMS floodplain elevation; and

[89 FR 30909, Apr. 23, 2024]

Editorial Note: At 89 FR 30909, Apr. 23, 2024, § 55.13 was added; the text provided ended with "; and".

§ 55.14 Modified 5-step decision making process for certain categories of proposed actions.

The decision making steps in § 55.20(b), (c), and (g) (Steps 2, 3, and 7) do not apply to the following categories of proposed actions:

(a) HUD's or the recipient's actions involving the disposition of acquired multifamily housing projects or "bulk sales" of HUD-acquired (or under part 58 of recipients') one- to four-family properties in communities that are in the Regular Program of the NFIP and in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24). For programs subject to part 58, this paragraph applies only to recipients' disposition activities that are subject to review under part 58.

(b) HUD's actions under the National Housing Act (12 U.S.C. 1701 *et seq.*) for the purchase or refinancing of existing multifamily housing projects, hospitals, nursing homes, assisted living facilities, board and care facilities, and intermediate care facilities, in communities that are in good standing under the NFIP.

(c) HUD's or the recipient's actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing multifamily housing projects, hospitals, nursing homes, assisted living facilities, board and care facilities, intermediate care facilities, and one- to four-family properties, in communities that are in the Regular Program of the NFIP and are in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24), provided that the number of units is not increased more than 20 percent, the action does not involve a conversion from nonresidential to residential land use, the action does not meet the thresholds for "substantial improvement" under § 55.2(b)(12), and the footprint of the structure and paved areas is not increased by more than 20 percent.

(d) HUD's or the recipient's actions under any HUD program involving the repair, rehabilitation, modernization, weatherization, or improvement of existing nonresidential buildings and structures, in communities that are in the Regular Program of the NFIP and are in good standing (*i.e.*, not suspended from program eligibility or placed on probation under 44 CFR 59.24), provided that the action does not meet the thresholds for "substantial improvement" under § 55.2(b)(12) and the footprint of the structure and paved areas is not increased by more than 20 percent.

(e) HUD's or the recipient's actions under any HUD program involving the repair, rehabilitation, or replacement of existing nonstructural improvements including streets, curbs, and gutters, where any increase of the total impervious surface area of the facility is de minimis. This provision does not include critical actions, levee systems, chemical storage facilities (including any tanks), wastewater facilities, or sewer lagoons.

[89 FR 30909, Apr. 23, 2024]

Subpart C—Procedures for Making Determinations on Floodplain Management and Protection of Wetlands

§ 55.16 Applicability of subpart C decision making process.

Table 1 to this section indicates the applicability, by location and type of action, of the decision making process for implementing Executive Order 11988 and Executive Order 11990 under this subpart.

TABLE 1 TO § 55.16

Type of proposed action (new reviewable action or an amendment) [1]	Floodways	Coastal high hazard and LiMWA areas	Wetlands or FFRMS floodplain outside coastal high hazard area, LiMWA area, and floodways
Critical actions as defined in § 55.2(b)(3)	Critical actions not allowed unless they meet the requirements for critical actions in § 55.8 and are	Critical actions not allowed unless they meet the requirements for critical actions in § 55.8 and are processed under § 55.20 [2]	Allowed if the proposed critical action is processed under §

[1] *Under Executive Order 11990, the decision making process in § 55.20 only applies to Federal assistance for new construction in wetlands locations.*

[2] *Or those paragraphs of § 55.20 that are applicable to an action listed in § 55.14.*

Type of proposed action (new reviewable action or an amendment) [1]	Floodways	Coastal high hazard and LIMWA areas	Wetlands or FFRMS floodplain outside coastal high hazard area, LIMWA area, and floodways
	processed under § 55.20 [2]		55.20.[2]
Noncritical actions not excluded under § 55.12 or § 55.13	Allowed only if the proposed non-critical action is not prohibited under § 55.8(a)(1) and is processed under § 55.20 [2]	Allowed only if the proposed noncritical action is processed under § 55.20 [2] and is (1) a functionally dependent use, (2) existing construction (including improvements), or (3) reconstruction following destruction caused by a disaster. If the action is not a functionally dependent use, the action must be designed for location in a coastal high hazard area under § 55.8(a)(3)	Allowed if proposed noncritical action is processed under § 55.20.[2]

[1] *Under Executive Order 11990, the decision making process in § 55.20 only applies to Federal assistance for new construction in wetlands locations.*

[2] *Or those paragraphs of § 55.20 that are applicable to an action listed in § 55.14.*

[89 FR 30910, Apr. 23, 2024]

§ 55.20 Decision making process.

Except for actions covered by § 55.14, the decision making process for compliance with this part contains eight steps, including public notices and an examination of practicable alternatives when addressing floodplains and wetlands. Third parties may provide analysis and information to support the decision making process; however, final determinations for each step, authorization of public notices, and receipt of public comments, are the responsibility of HUD or the responsible entity. The steps to be followed in the decision making process are as follows:

(a) *Step 1.* Using the processes described in §§ 55.7 and 55.9, determine whether the proposed action is located in the FFRMS floodplain or results in new construction that directly impacts an onsite wetland. If the action does not occur in the FFRMS floodplain or include new construction directly impacting an onsite wetland, then no further compliance with this section is required. Where the proposed action would be located in the FFRMS floodplain and includes new construction directly impacting an onsite wetland, these impacts should be evaluated together in a single 8-step decision making process. In such a case, the wetland will be considered among the primary natural and beneficial functions and values of the

floodplain. For purposes of this section, an "action" includes areas required for ingress and egress, even if they are not within the site boundary, and other integral components of the proposed action, even if they are not within the site boundary.

(b) *Step 2.* Notify the public and agencies responsible for floodplain management or wetlands protection at the earliest possible time of a proposal to consider an action in an FFRMS floodplain or wetland and involve the affected and interested public and agencies in the decision making process.

(1) The public notices required by paragraphs (b) and (g) of this section may be combined with other project notices wherever appropriate. Notices required under this part must be bilingual or multilingual, as appropriate, if the affected public has Limited English Proficiency. In addition, all notices must be published in a newspaper of general circulation in the affected community or on an appropriate government website that is accessible to individuals with disabilities and provides meaningful access for individuals with Limited English Proficiency, and must be sent to Federal, State, and local public agencies, organizations, and, where not otherwise covered, individuals known to be interested in the proposed action.

(2) A minimum of 15 calendar days shall be allowed for comment on the public notice. The first day of a time period begins at 12:01 a.m. local time on the day following the publication or the mailing and posting date of the notice which initiates the time period.

(3) A notice under this paragraph shall state: The name, proposed location, and description of the activity; the total number of acres of floodplain or wetland involved; the related natural and beneficial functions and values of the floodplain or wetland that may be adversely affected by the proposed activity; the HUD approving official (or the Certifying Officer of the responsible entity authorized by 24 CFR part 58); and the phone number to call for information. The notice shall indicate the hours of HUD's or the responsible entity's office, and any Web site at which a full description of the proposed action may be reviewed.

(4) When the proposed activity is located in or affects a community with environmental justice concerns, public comment and decision making under this part shall be coordinated with consultation and decision making under HUD policies implementing 24 CFR 58.5(j) or 50.4(l).

(c) *Step 3.* Identify and evaluate practicable alternatives to locating the proposed action in the FFRMS floodplain or wetland.

(1) Except as provided in paragraph (c)(3) of this section, HUD's or the responsible entity's consideration of practicable alternatives to the proposed site selected for a project should include:

(i) Locations outside and not affecting the FFRMS floodplain or wetland;

(ii) Alternative methods to serve the identical project objective, including but not limited to design alternatives such as repositioning or reconfiguring proposed siting of structures and improvements or incorporating natural systems, ecosystem processes, and nature-based solutions to avoid floodplain and wetland impacts; and

(iii) A determination not to approve any action proposing the occupancy or modification of a floodplain or wetland.

(2) Practicability of alternatives should be addressed in light of the goals identified in the project description related to the following:

(i) Natural values such as topography, habitat, and hazards;

(ii) Social values such as aesthetics, historic and cultural values, land use patterns, and environmental justice; and

(iii) Economic values such as the cost of space, construction, services, relocation, potential property losses from flooding, and cost of flood insurance.

(3) For multifamily and healthcare projects involving HUD mortgage insurance that are initiated by third parties, HUD in its consideration of practicable alternatives is not required to consider alternative sites, but must include consideration of:

(i) A determination to approve the request without modification;

(ii) A determination to approve the request with modification; and

(iii) A determination not to approve the request.

(d) *Step 4.* Identify and evaluate the potential direct and indirect impacts associated with the occupancy or modification of the FFRMS floodplain or the wetland and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action, including impacts related to future climate-related flood levels, sea level rise, and the related increased value of beneficial floodplain and wetland functions.

(1) *Floodplain evaluation.* The floodplain evaluation for the proposed action must evaluate floodplain characteristics (both existing and as proposed for modification by the project) to determine potential adverse impacts to lives, property, and natural and beneficial floodplain values as compared with alternatives identified in Step 3.

(i) Floodplain characteristics include:

(A) Identification of portions of the site that are subject to flood risk, documented through mapping and, as required by § 55.7(e) or commensurate with the scale of the project and available resources as permitted by § 55.7(f), climate-informed analysis of factors including development patterns, streamflow, and hydrologic and hydraulic modeling;

(B) Topographic information that can inform flooding patterns and distance to flood sources, as described in flood mapping, Flood Insurance Studies, and other data sources; and

(C) Public safety communications and data related to flood risk including available information on structures such as dams, levees, or other flood protection infrastructure located in proximity to the site.

(ii) Impacts to lives and property include:

(A) Potential loss of life, injury, or hardship to residents of the subject property during a flood event;

(B) Damage to the subject property during a flood event;

(C) Damage to surrounding properties from increased runoff or reduction in floodplain function during a flood event due to modification of the subject site;

(D) Health impacts due to exposure to toxic substance releases that may be caused or exacerbated by flood events; and

(E) Damage to a community as a result of project failure (*e.g.*, failure of stormwater management infrastructure due to scouring).

(iii) Impacts to natural and beneficial values include changes to:

(A) Water resources such as natural moderation of floods, water quality maintenance, and groundwater recharge;

(B) Living resources such as flora and fauna (if the project requires consultation under 24 CFR 50.4(e) or 58.5(e), consultation with the U.S. Fish and Wildlife Service or National Marine Fisheries Service must include a description of impacts evaluated under this part);

(C) Cultural resources such as archaeological, historic, aesthetic and recreational aspects; and

(D) Agricultural, aquacultural, and forestry resources.

(2) *Wetland evaluation.* In accordance with section 5 of Executive Order 11990, the decision maker shall consider factors relevant to a proposal's effect on the survival and quality of the wetland. Factors that must be evaluated include, but are not limited to:

(i) Public health, safety, and welfare, including water supply, quality, recharge, and discharge; pollution; flood and storm hazards and hazard protection; and sediment and erosion, including the impact of increased quantity or velocity of stormwater runoff on, or to areas outside of, the proposed site;

(ii) Maintenance of natural systems, including conservation and long-term productivity of existing flora and fauna; species and habitat diversity and stability; natural hydrologic function; wetland type; fish; wildlife; timber; and food and fiber resources;

(iii) Cost increases attributed to wetland-required new construction and mitigation measures to minimize harm to wetlands that may result from such use; and

(iv) Other uses of wetlands in the public interest, including recreational, scientific, and cultural uses.

(e) *Step 5.* Where practicable, design or modify the proposed action to minimize the potential adverse impacts to and from the FFRMS floodplain or wetland and to restore and preserve their natural and beneficial functions and values.

(1) *Elevation.* For actions in the FFRMS floodplain, the required elevation described in this section must be documented on an Elevation Certificate or a Floodproofing Certificate in the Environmental Review Record prior to construction, or by such other means as HUD may from time to time direct, provided that notwithstanding any language to the contrary, the minimum elevation or floodproofing requirement for new construction or substantial improvement actions shall be the elevation of the FFRMS floodplain as defined in this section.

(i) If a residential structure undergoing new construction or substantial improvement is located in the FFRMS floodplain, the lowest floor or FEMA-approved equivalent must be designed using the elevation of the FFRMS floodplain as the baseline standard for elevation, except where higher elevations are required by Tribal, State, or locally adopted code or standards, in which case those higher elevations apply. Where non-elevation standards such as setbacks or other flood risk reduction standards that have been issued to identify, communicate, or reduce the risks and costs of floods are required by Tribal, State, or locally adopted code or standards, those standards shall apply in addition to the FFRMS baseline elevation standard.

(ii) New construction and substantial improvement of residential structures that have no dwelling units below the FFRMS floodplain and that are not critical actions as defined at § 55.2(b)(3), or of non-residential structures, shall be designed either:

(A) With the lowest floor, including basement, elevated to or above the elevation of the FFRMS floodplain; or

(B) With the structure floodproofed at least up to the elevation of the FFRMS floodplain. Floodproofing standards are as stated in FEMA's regulations at 44 CFR 60.3(c)(3)(ii) and (c)(4)(i), or such other regulatory standard as FEMA may issue, and applicable guidance, except that where the standard refers to base flood level, floodproofing is required at or above the FFRMS floodplain, as defined in this part.

(iii) The term "lowest floor" must be applied consistent with FEMA regulations in 44 CFR 59.1 and FEMA's Elevation Certificate guidance or other applicable current FEMA guidance.

(2) *Minimization.* Potential harm to or within the floodplain and/or wetland must be reduced to the smallest possible amount. E.O. 11988's requirement to minimize potential harm applies to the investment at risk or the flood loss potential of the action itself, the impact the action may have on others, and the impact the action may have on floodplain and wetland values. The record must include a discussion of all minimization techniques that will be incorporated into project designs as well as those that were considered but not approved. Minimization techniques for floodplain and wetlands purposes include, but are not limited to:

(i) *Stormwater management and green infrastructure:* The use of permeable surfaces; natural landscape enhancements that maintain or restore natural hydrology through infiltration, native plant species, bioswales, rain gardens, or evapotranspiration; stormwater capture and reuse; green or vegetative roofs with drainage provisions; WaterSense products; rain barrels and grey water diversion systems; protective gates or angled safety grates for culverts and stormwater drains; and other low impact development and green infrastructure strategies, technologies, and techniques. Where possible, use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for consideration.

(ii) *Adjusting project footprint:* Evaluate options to relocate or redesign structures, amenities, and infrastructure to minimize the amount of impermeable surfaces and other impacts in the FFRMS floodplain or wetland. This may include changes such as designing structures to be taller and narrower or avoiding tree clearing to reduce potential erosion from flooding.

(iii) *Resilient building standards:* Consider implementing resilient building codes or standards to ensure a reliable and consistent level of safety.

(iv) *Severe Repetitive Loss (SRL) mitigation:* Identify and incorporate FEMA identified SRL mitigation as outlined in § 55.8(c), if applicable.

(3) *Restoration and preservation.* Restore means to reestablish a setting or environment in which the natural and beneficial values of floodplains and wetlands could again function. Where floodplain and wetland values have been degraded by past actions, restoration is informed by evaluation of the impacts of such actions on beneficial values of the floodplain or wetland and identification, evaluation, and implementation of practicable measures to restore the values diminished or lost. Preserve means to prevent modification to the natural floodplain or wetland environment or to maintain it as closely as possible to its natural state. If an action will result in harm to or within the floodplain or wetland, HUD or the responsible entity must ensure that the action is designed or

modified to assure that it will be carried out in a manner which preserves as much of the natural and beneficial floodplain and values as is possible. Restoration and preservation techniques for floodplain and wetlands purposes include, but are not limited to:

(i) Natural Resource Conservation Service or other conservation easements;

(ii) Appropriate and practicable compensatory mitigation, which is required for unavoidable adverse impacts to more than one acre of wetlands. Compensatory mitigation includes but is not limited to: permittee-responsible mitigation, mitigation banking, in-lieu fee mitigation, the use of preservation easements or protective covenants, and any form of mitigation promoted by State or Federal agencies. The use of compensatory mitigation may not substitute for the requirement to avoid and minimize impacts to the maximum extent practicable.

(4) *Planning for residents' and occupants' safety.*

(i) For multifamily residential properties and residential healthcare facilities, an evacuation plan must be developed that includes safe egress route(s) out of the FFRMS floodplain, plans for evacuating residents with special needs, and clear communication of the evacuation plan and safety resources for residents.

(ii) For all healthcare facilities, evacuation route(s) out of the FFRMS floodplain must be identified and clearly communicated to all residents and employees. Such actions must include a plan for emergency evacuation and relocation to a facility of like capacity that is equipped to provide required critical needs-related care and services at a level similar to the originating facility.

(iii) All critical actions in the FFRMS floodplain must operate and maintain an early warning system that serves all facility occupants.

(f) *Step 6.* HUD or the responsible entity shall consider the totality of the previous steps and the criteria in this section to make a decision as to whether to approve, approve with modifications, or reject the proposed action. Adverse impacts to floodplains and wetlands must be avoided if there is a practicable alternative. This analysis must consider:

(1) Whether the action is still practicable in light of exposure to flood hazards in the floodplain or wetland, possible adverse impacts on the floodplain or wetland, the extent to which it will aggravate the current hazards to other floodplains or wetlands, and the potential to disrupt the natural and beneficial functions and values of floodplains or wetlands; and

(2) Whether alternatives preliminarily rejected at Step 3 (paragraph (c)) of this section are practicable in light of information gained in Steps 4 and 5 (paragraphs (d) and (e)) of this section.

(i) The reevaluation of alternatives shall include the potential impacts avoided or caused inside and outside the floodplain or wetland area. The impacts should include the protection of human life, real property, and the natural and beneficial functions and values served by the floodplain or wetland.

(ii) A reevaluation of alternatives under this step should include a discussion of economic costs. For floodplains, the cost estimates should include savings or the costs of flood insurance, where applicable; flood proofing; replacement of services or functions of critical actions that might be lost; and elevation to at least the elevation of the FFRMS floodplain, as appropriate based on the applicable source under § 55.7. For wetlands, the cost estimates should include the cost of filling the wetlands and mitigation.

(iii) If the proposed activity is located in or affects a community with environmental justice concerns, the reevaluation must address public input provided during environmental justice outreach, if conducted, and must document the ways in which the activity, in light of information analyzed, mitigation measures applied, and alternatives selected, serves to reduce any historical environmental disparities related to flood risk or wetlands impacts in the community.

(g) *Step 7.*

(1) If the reevaluation results in a determination that there is no practicable alternative to locating the proposal in the FFRMS floodplain or the wetland, publish a final notice that includes:

(i) The reasons why the proposal must be located in the floodplain or wetland;

(ii) A list of the alternatives considered in accordance with paragraphs(c)(1) and (c)(2) of this section; and

(iii) All mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial functions and values.

(2) In addition, the public notice procedures of § 55.20(b)(1) shall be followed, and a minimum of 7 calendar days for public comment before approval of the proposed action shall be provided.

(h) *Step 8.* Upon completion of the decisionmaking process in Steps 1 through 7, implement the proposed action. There is a continuing responsibility on HUD (or on the responsible entity authorized by 24 CFR part 58) and the recipient (if other than the responsible entity) to ensure that the mitigating measures identified in Step 7 are implemented.

[59 FR 19107, Apr. 21, 1994, as amended at 78 FR 68732, Nov. 15, 2013; 89 FR 30910, Apr. 23, 2024]

§ 55.21 Alternate processing for existing nonconforming sites.

Notwithstanding the limitations on HUD assistance defined in § 55.8, in exceptional circumstances, the Assistant Secretary for Community Planning and Development may approve HUD assistance or insurance to improve an existing property with ongoing HUD assistance or mortgage insurance if the following conditions are satisfied:

(a) HUD completes an environmental review pursuant to 24 CFR part 50, including the 8-step decision making process pursuant to § 55.20, that:

(1) Documents that it is not practicable to transfer the HUD assistance to a site with lower flood risk under existing program rules, financial limitations, and site availability; and

(2) Mandates measures to ensure that the elevated flood risk is the only environmental hazard or impact that does not comply or that requires mitigation to comply, with HUD's environmental requirements at 24 CFR parts 50, 51, 55, and 58; and

(b) The proposed project incorporates all practicable measures to minimize flood risk, preserve the function of the floodplain and any impacted wetlands as described in § 55.20(e), and increase the overall resilience of the site, as approved and/or required by HUD. At minimum, these measures must include:

(1) Removal of all residential units and critical action structures from the floodway;

(2) Identification of evacuation routes out of the FFRMS floodplain;

(3) A No-Rise Certification for any new improvements in the floodway; and

(4) Elevation (or floodproofing pursuant to § 55.20(e)(1)) of existing structures within the FFRMS Floodplain, where practicable.

[89 FR 30912, Apr. 23, 2024]

§§ 55.22-55.25 [Reserved]

§ 55.26 Adoption of another agency's review under the Executive orders.

If a proposed action covered under this part is already covered in a prior review performed under Executive Order 11988 or Executive Order 11990 by another agency, including HUD or a different responsible entity, that review may be adopted by HUD or by a responsible entity authorized under 24 CFR part 58 without further public notice, provided that:

(a) There is no pending litigation relating to the other agency's review for floodplain management or wetland protection;

(b) The adopting agency makes a finding that:

(1) The action currently proposed has not substantially changed in project description, scope, and magnitude from the action previously reviewed by the other agency; and

(2) There has been no material change in circumstances since the previous review was conducted; and

(c) HUD assistance must be conditioned on mitigation measures prescribed in the previous review.

[59 FR 19107, Apr. 21, 1994, as amended at 78 FR 68734, Nov. 15, 2013; 89 FR 30913, Apr. 23, 2024]

§§ 55.27-55.28 [Reserved]

Subpart D—Severability

§ 55.30 Severability.

Any provision of this part held to be invalid or unenforceable as applied to any action should be construed so as to continue to give the maximum effect to the provision permitted by law, unless such holding is that the provision of this part is invalid and unenforceable in all circumstances, in which event the provision should be severable from the remainder of this part and shall not affect the remainder thereof.

[89 FR 30913, Apr. 23, 2024]

Exhibit I
Historic Preservation

OFICINA ESTATAL DE
CONSERVACIÓN
HISTÓRICA
GOBIERNO DE PUERTO RICO
Executive Director | Carlos A. Rubio Cancela | carubio@prshpo.pr.gov

Friday, May 23, 2025

Zaid Díaz Isaac

PO BOX 907, Caguas, PR, 00726

SHPO-CF-05-13-25-08 REHABILITACIÓN DE LAS AVENIDAS PRINCIPALES

Dear Mr. Díaz Isaac,

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

We believe that an Agency finding of no historic properties affected would be appropriate for this undertaking.

Please note that should you discover other historic properties at any point during project implementation, you should notify the SHPO immediately. If you have any questions regarding our comments, please do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio Cancela
State Historic Preservation Officer
CARC/GMO/ MB

Exhibit J
Sole Source Aquifers

Sole Source Aquifers

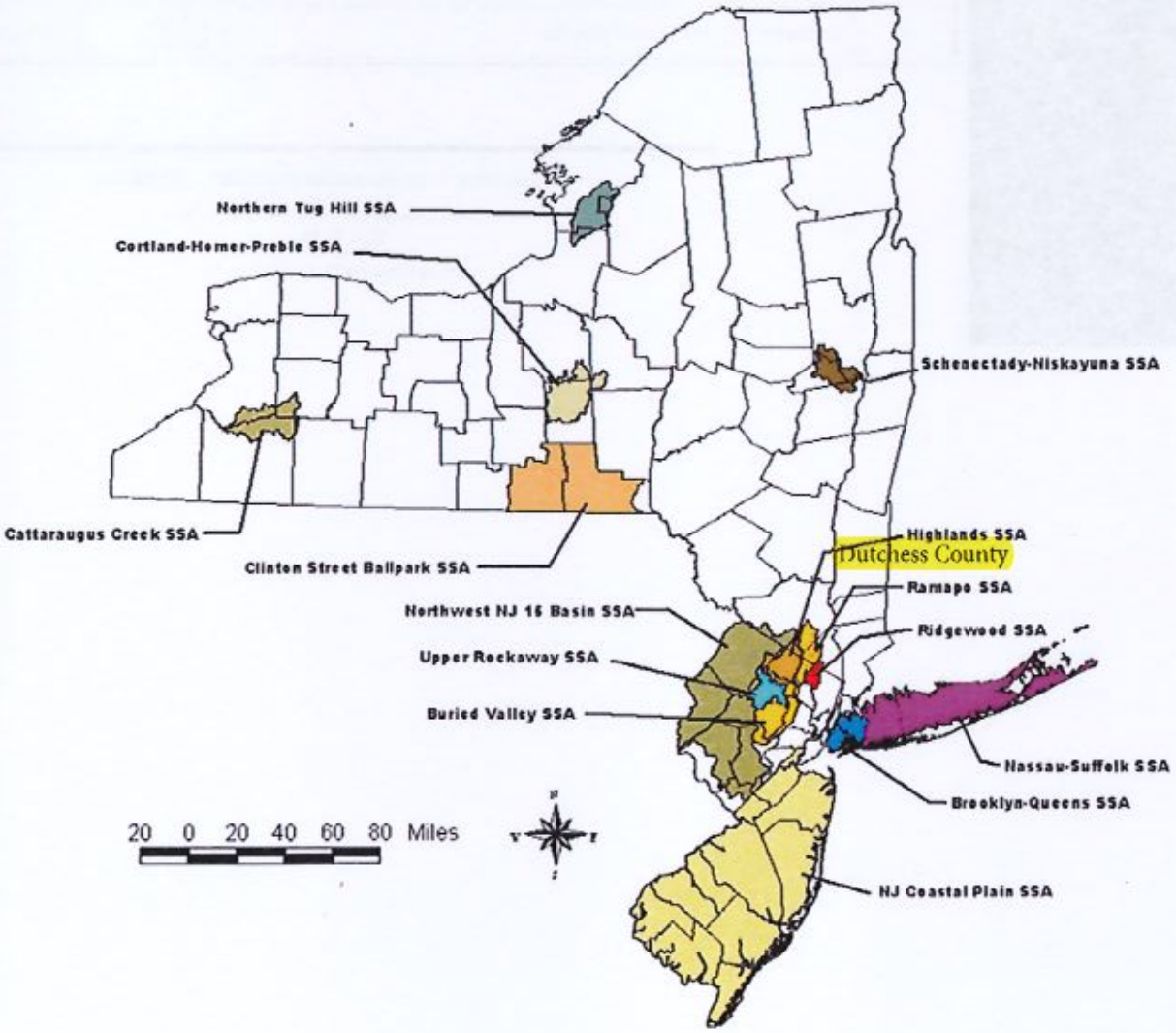
Sole Source Aquifer designation is one tool to protect drinking water supplies in areas with few or no alternative sources to the ground water resource, and where if contamination occurred, using an alternative source would be extremely expensive. The designation protects an area's ground water resource by requiring EPA to review all proposed projects within the designated area that will receive federal financial assistance. All proposed projects receiving federal funds are subject to review to ensure they do not endanger the ground water source.

Related Information

- Sole Source Aquifer Program
- Petitioner Guidance
- FAQs [PDF 14 KB, 2 pp]
- 40 CFR 149

EPA defines a sole or principal source aquifer as one which supplies at least fifty percent (50%) of the drinking water consumed in the area overlying the aquifer. These areas can have no alternative drinking water source(s) which could physically, legally, and economically supply all those who depend upon the aquifer for drinking water. For convenience, all designated sole or principal source aquifers are referred to as "sole source aquifers" (SSA).

If you are interested in petitioning the EPA to make a designation, please consult the Sole Source Aquifer Program Petitioner's Guidance or contact EPA for assistance.



DESIGNATED SOLE SOURCE AQUIFERS

State	Name	Federal Register	Date	GIS Map	Information

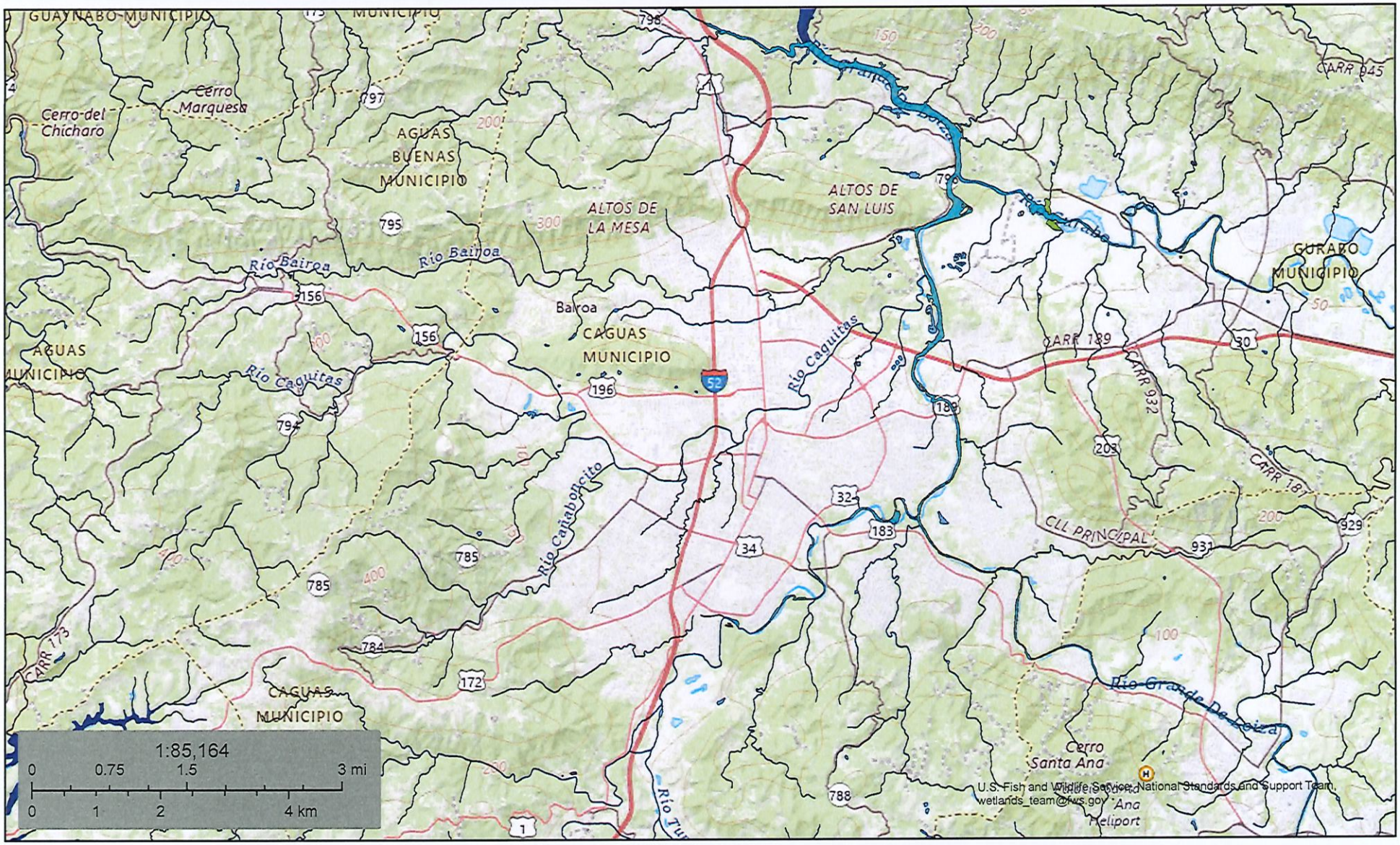
NJ	Buried Valley Aquifers, Central Basin, Essex and Morris Counties	45 FR 30537	05/08/80	Yes	Yes
NJ	Upper Rockaway River Basin	49 FR 2946	01/24/84	Yes	Yes
NJ	Ridgewood Area Aquifers	49 FR 2943	01/24/84	Yes	Yes
NJ/NY	Highlands Aquifer System Passaic,Morris & Essex Co's NJ; Orange Co. NY	52 FR 37213	10/05/87	Yes	Yes
NJ/DE/PA	New Jersey Coastal Plain Aquifer System	53 FR 23791	06/24/88	Yes	Yes
NJ/NY	New Jersey Fifteen Basin Aquifers	53 FR 23685	06/23/88	Yes	Yes
NJ/NY	Ramapo River Basin Aquifer Systems	57 FR 39201	08/28/92	Yes	Yes
NY	Nassau/Suffolk Co., Long Island	43 FR 26611	06/21/78	Yes	Yes
NY	Kings/Queens Counties	49 FR 2950	01/24/84	Yes	Yes
NY	Schenectady/Niskayuna	50 FR 2022	01/14/85	Yes	Yes
NY	Clinton Street-Ballpark Valley Aquifer System, Broome and Tioga Co's	50 FR 2025	01/14/85	Yes	Yes
NY	Cattaraugus Creek Basin Aquifer, WY & Allegany Cos.	52 FR 36100	09/25/87	Yes	Yes
NY	Cortland-Homer-Preble Aquifer System	53 FR 22045	06/13/88	Yes	Yes
NY	Northern Tug Hill Glacial Aquifer	71 FR 64524	11/02/06	Yes	Yes

Exhibit K
Wetlands Protection

U.S. Fish and Wildlife Service

National Wetlands Inventory

Caguas Wetlands Inventory



June 18, 2025

Wetlands

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

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

Exhibit L
Wild and Scenic Rivers

National Park Service

Rivers

Puerto Rico

River	County	Reach	Length (miles)	Description	Potential Classification	ORVs	Watershed (HUC Code 8)	Year Listed/ Updated	Othe State
Río Espíritu Santo	Rio Grande	Headwaters to water supply intake immediately upstream from FDR 12 road crossing.	3	Through jumbles of gigantic rocks and massive rock outcrops which create innumerable waterfalls, rapids, and pools. Dense tropical ìvegetation on steep, canyon-like banks. Excellent habitat for ìgoby, unique fish species, and	Wild	Fish, Scenic, Wildlife	Eastern Puerto Rico	1993	

				endangered species.				
Río Espíritu Santo	Rio Grande	Water supply intake on Rio Espiritu Santo near FDR 12 to 100 yards south of Route 186	0	Through jumbles of gigantic rocks and massive rock outcrops which create innumerable waterfalls, rapids, and pools. Dense tropical ìvegetation on steep, canyon-like banks. Excellent habitat for ìgoby, unique fish species, and endangered species.	Scenic	Fish, Scenic, Wildlife	Eastern Puerto Rico	1993
Río Espíritu Santo	Rio Grande	100 yards south of Route 186 north to Forest boundary.	3	Through jumbles of gigantic rocks and massive rock outcrops which create innumerable	Recreational	Fish, Scenic, Wildlife	Eastern Puerto Rico	1993

				waterfalls, rapids, and pools. Dense tropical ivegetation on steep, canyon-like banks. Excellent habitat for igoby, unique fish species, and endangered species.				
Río Espíritu Santo (tributary)	Rio Grande	Headwaters of both Quebradas Sonadora tributaries to 100 yards south of Route 186	3	Through jumbles of gigantic rocks and massive rock outcrops which create innumerable waterfalls, rapids, and pools. Dense tropical ivegetation on steep, canyon-like banks. Excellent habitat for igoby,	Wild	Fish, Scenic, Wildlife	Eastern Puerto Rico	1993

				unique fish species, and endangered species.				
Río Espíritu Santo (tributary)	Rio Grande	Quebrada Sonadora tributaries from 100 yards south of Route 186 north to Rio Espiritu Santo	1	Through jumbles of gigantic rocks and massive rock outcrops which create innumerable waterfalls, rapids, and pools. Dense tropical ivegetation on steep, canyon-like banks. Excellent habitat for igoby, unique fish species, and endangered species.	Recreational	Fish, Scenic, Wildlife	Eastern Puerto Rico	1993
Río Fajardo	Fajardo	Headwaters approx. 1/2 mile north of West Peak to Forest boundary	5	One of most remote and isolated rivers on Forest. Huge boulders	Wild	Scenic	Eastern Puerto Rico	1993

		approx. 1/2 mile east of East Peak		with high volume of water flow create remarkably scenic landscape of waterfalls, water chutes, and pools.				
Río Sabana	Naguabo	Headwaters approx. 3/4 mile east of El Cacique Peak to 1/4 mile north of Road 191 crossing near southern Forest boundary	2	Remote and isolated river with rapids and pools among rocks. Large beds of spagnum moss. Excellent quality aquatic habitat.	Wild	Recreational, Scenic, Other	Eastern Puerto Rico	1993
Río Sabana	Naguabo	Approx. 1/4 mile north of Road 191 crossing to Forest Boundary	0	Remote and isolated river with rapids and pools among rocks. Large beds of spagnum moss. Excellent quality	Recreational	Recreational, Scenic, Other	Eastern Puerto Rico	1993

aquatic habitat.

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RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
1. Clearwater (Middle Fork), Idaho (P.L. 90-542—October 2, 1968)	Forest Service	54.0	–	131.0	185.0
2. Eleven Point, Missouri (P.L. 90-542—October 2, 1968)	Forest Service	–	44.4	–	44.4
3. Feather, California (P.L. 90-542—October 2, 1968)	Forest Service	32.9	9.7	35.0	77.6
4. Rio Grande, New Mexico (P.L. 90-542—October 2, 1968)	Forest Service Bureau of Land Management	3.9 51.0	– –	0.4 0.4	4.3 51.4
Rio Grande, Texas (P.L. 95-625—November 10, 1978)	National Park Service	95.2	96.0	–	191.2
Rio Grande, New Mexico (P.L. 103-242—May 4, 1994)	Bureau of Land Management	–	12.5	–	12.5
	Rio Grande Total	*150.1*	*108.5*	*0.8*	*259.4*

[1] Mileages in this table are derived from legislative language and/or the most recent figures reported in river plans (or "Comprehensive River Management Plans"). They may differ from mileages obtained by digitizing maps or aerial photographs depicting the river's location on a fixed date. Rivers are dynamic, with frequent flow-related changes in wetted area and longer-term changes in course. Both these physical changes and variations in the technique used to digitize the river will result in variability between a river's reported and actual length at any give time.

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
5. Rogue, Oregon (P.L. 90-542—October 2, 1968)	Forest Service Bureau of Land Management	13.0 20.6	7.5 –	17.0 26.4	37.5 47.0
Rogue, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	91.4	25.7	1.9	119.0
	Rogue River Total	*125.0*	*33.2*	*45.3*	*203.5*
6. Salmon (Middle Fork), Idaho (P.L. 90-542—October 2, 1968)	Forest Service	103.0	1.0	–	104.0
7. St. Croix, Minnesota & Wisconsin (P.L. 90-542—October 2, 1968)	National Park Service	–	181.0	19.0	200.0
St. Croix (Lower) Minnesota & Wisconsin (P.L. 92-560—October 25, 1972)	National Park Service	–	12.0	15.0	27.0
St. Croix (Lower), Minnesota & Wisconsin (Secretarial Designation—June 17, 1976) (*Federal Register* Volume 41, Number 124)	States of Minnesota and Wisconsin	–	–	25.0	25.0
	St. Croix River Total	–	*193.0*	*59.0*	*252.0*
8. Wolf, Wisconsin (P.L. 90-542—October 2, 1968)	National Park Service	–	24.0	–	24.0
9. Allagash Wilderness Waterway, Maine (Secretarial Designation—July 19, 1970) (*Federal Register* Volume 35, Number 138)	State of Maine	92.5	–	–	92.5

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
10. Little Miami, Ohio (Secretarial Designation—August 20, 1973) (*Federal Register* Volume 39, Number 22)	State of Ohio	–	18.0	48.0	66.0
Little Miami, Ohio (Secretarial Designation—January 11, 1981) (*Federal Register* Volume 46, Number 7)	State of Ohio	–	–	28.0	28.0
	Little Miami River Total	–	*18.0*	*76.0*	*94.0*
11. Chattooga, Georgia, North and South Carolina (P.L. 93-279—May 10, 1974)	Forest Service	41.6	2.5	14.6	58.7
12. Little Beaver, Ohio (Secretarial Designation—October 23, 1975) (*Federal Register* Volume 41, Number 40)	State of Ohio	–	33.0	–	33.0
13. Snake, Idaho & Oregon (P.L. 94-199—December 31, 1975)	Forest Service	31.5	36.0	–	67.5
14. Rapid, Idaho (P.L. 94-199—December 31, 1975)	Forest Service	26.8	–	–	26.8
15. New, North Carolina (Secretarial Designation—April 13, 1976) (*Federal Register* Volume 41, Number 76)	State of North Carolina	–	26.5	–	26.5

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
16. Flathead, Montana (P.L. 94-486—October 12, 1976)	Forest Service	97.9	–	17.8	115.7
	Forest Service and National Park Service	–	40.7	62.6	103.3
	Flathead River Total	*97.9*	*40.7*	*80.4*	*219.0*
17. Missouri, Montana (P.L. 94-486—October 12, 1976)	Bureau of Land Management	64.0	26.0	59.0	149.0
	Bureau of Land Management/ Fish and Wildlife Service	–	–		
Missouri, Nebraska & South Dakota (P.L. 95-625—November 10, 1978)	National Park Service	–	–	59.0	59.0
Missouri, Nebraska & South Dakota (P.L. 102-50—May 24, 1991)	National Park Service	–	–	39.0	39.0
	Missouri River Total	*64.0*	*26.0*	*157.0*	*247.0*
18. Obed, Tennessee (P.L. 94-486—October 12, 1976)	National Park Service	43.3	2.0	–	45.3
19. American (North Fork), California (P.L. 95-625—November 10, 1978)	Forest Service	26.3	–	–	26.3
	Bureau of Land Management	12.0	–	–	12.0
	American River (North Fork) Total	*38.3*	–	–	*38.3*

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
20. Delaware (Upper), New York & Pennsylvania (P.L. 95-625—November 10, 1978)	National Park Service	–	23.1	50.3	73.4
Delaware (Middle), New Jersey & Pennsylvania (P.L. 95-625—November 10, 1978)	National Park Service	–	35.0	5.0	40.0
Delaware (Lower), New Jersey & Pennsylvania (P.L. 106-418—November 1, 2000)	National Park Service and Local Government	–	25.4	41.9	67.3
	Delaware River Total	–	*83.5*	*97.2*	*180.7*
21. Pere Marquette, Michigan (P.L. 95-625—November 10, 1978)	Forest Service	–	66.4	–	66.4
22. Saint Joe, Idaho (P.L. 95-625—November 10, 1978)	Forest Service	26.6	–	39.7	66.3
23. Skagit, Washington (P.L. 95-625—November 10, 1978)	Forest Service	–	100.0	58.5	158.5
24. Salmon, Idaho (P.L. 96-312—July 23, 1980)	Forest Service	79.0	–	46.0	125.0
25. Alagnak, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	67.0	–	–	67.0
26. Alatna, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	83.0	–	–	83.0
27. Andreafsky, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service	265.0	–	–	265.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
28. Aniakchak, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	63.0	–	–	63.0
29. Beaver Creek, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service Bureau of Land Management	16.0 111.0	– –	– –	16.0 111.0
	Beaver Creek Total	*127.0*	–	–	*127.0*
30. Birch Creek, Alaska (P.L. 96-487—December 2, 1980)	Bureau of Land Management	126.0	–	–	126.0
31. Charley, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	208.0	–	–	208.0
32. Chilikadrotna, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	11.0	–	–	11.0
33. Delta, Alaska (P.L. 96-487—December 2, 1980)	Bureau of Land Management	20.0	24.0	18.0	62.0
34. Fortymile, Alaska (P.L. 96-487—December 2, 1980)	Bureau of Land Management	179.0	203.0	10.0	392.0
35. Gulkana, Alaska (P.L. 96-487—December 2, 1980)	Bureau of Land Management	181.0	–	–	181.0
36. Ivishak, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service	61.0	–	–	61.0
37. John, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	52.0	–	–	52.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	*Total Miles*
38. Kobuk, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	110.0	–	–	110.0
39. Koyukuk (North Fork), Alaska (P.L. 96-487—December 2, 1980)	National Park Service	102.0	–	–	102.0
40. Mulchatna, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	24.0	–	–	24.0
41. Noatak, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	330.0	–	–	330.0
42. Nowitna, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service	223.0	–	–	223.0
43. Salmon, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	70.0	–	–	70.0
44. Selawik, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service	168.0	–	–	168.0
45. Sheenjek, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service	191.0	–	–	191.0
46. Tinayguk, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	44.0	–	–	44.0
47. Tlikakila, Alaska (P.L. 96-487—December 2, 1980)	National Park Service	51.0	–	–	51.0
48. Unalakleet, Alaska (P.L. 96-487—December 2, 1980)	Bureau of Land Management	80.0	–	–	80.0

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
49. Wind, Alaska (P.L. 96-487—December 2, 1980)	Fish and Wildlife Service	102.0	–	–	102.0
50. American (Lower), California (Secretarial Designation—January 19, 1981) (*Federal Register* Volume 46, Number 15)	State of California	–	–	23.0	23.0
51. Eel, California (Secretarial Designation—January 19, 1981) (*Federal Register* Volume 46, Number 15)	State of California Forest Service Bureau of Land Management Round Valley Indian Reservation	36.0 35.0 21.0 5.0	22.5 – 4.5 1.0	250.5 – 6.5 16.0	309.0 35.0 32.0 22.0
	Eel River Total	*97.0*	*28.0*	*273.0*	*398.0*
52. Klamath, California (Secretarial Designation—January 19, 1981) (*Federal Register* Volume 46, Number 15)	State of California Forest Service Bureau of Land Management Hoopa Valley Indian Reservation National Park Service	– 11.7 – – –	3.0 20.5 – – –	12.2 190.1 1.5 46.0 1.0	15.2 222.3 1.5 46.0 1.0
Klamath, Oregon (Secretarial Designation—September 22, 1994) (*Federal Register* Volume 59, Number 201)	State of Oregon and Bureau of Land Management	–	11.0	–	11.0
	Klamath River Total	*11.7*	*34.5*	*250.8*	*297.0*

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
53. Smith, California (Secretarial Designation—January 19, 1981) (*Federal Register* Volume 46, Number 15)	State of California	–	0.5	28.5	29.0
Smith, California (P.L. 101-612—November 16, 1990)	Forest Service	78.0	30.5	187.9	296.4
	Smith River Total	*78.0*	*31.0*	*216.4*	*325.4*
54. Trinity, California (Secretarial Designation—January 19, 1981) (*Federal Register* Volume 46, Number 15)	State of California	2.0	11.0	24.0	37.0
	Forest Service	42.0	22.0	71.0	135.0
	Bureau of Land Management	–	–	17.0	17.0
	Hoopa Valley Indian Reservation	–	6.0	8.0	14.0
	Trinity River Total	*44.0*	*39.0*	*120.0*	*203.0*
55. Verde, Arizona (P.L. 98-406—August 28, 1984)	Forest Service	22.2	18.3	–	40.5
56. Tuolumne, California (P.L. 98-425—September 28, 1984)	Forest Service	7.0	6.0	13.0	26.0
	National Park Service	37.0	17.0	–	54.0
	Bureau of Land Management	3.0	–	–	3.0
	Tuolumne River Total	*47.0*	*23.0*	*13.0*	*83.0*
57. Au Sable, Michigan (P.L. 98-444—October 4, 1984)	Forest Service	–	23.0	–	23.0
58. Illinois, Oregon (P.L. 98-494—October 19, 1984)	Forest Service	28.7	17.9	3.8	50.4

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
59. Owyhee, Oregon (P.L. 98-494—October 19, 1984)	Bureau of Land Management	120.0	–	–	120.0
60. Loxahatchee, Florida (Secretarial Designation—May 17, 1985) (*Federal Register* Volume 50, Number 100)	State of Florida	1.3	5.8	0.5	7.6
61. Horsepasture, North Carolina (P.L. 99-530—October 26, 1986)	Forest Service	–	3.6	0.6	4.2
62. Black Creek, Mississippi (P.L. 99-590—October 30, 1986)	Forest Service	–	21.0	–	21.0
63. Cache la Poudre, Colorado (P.L. 99-590—October 30, 1986)	Forest Service National Park Service	18.0 12.0	– –	46.0 –	64.0 12.0
	Cache la Poudre River Total	*30.0*	–	*46.0*	*76.0*
64. Saline Bayou, Louisiana (P.L. 99-590—October 30, 1986)	Forest Service	–	19.0	–	19.0
65. Klickitat, Washington (P.L. 99-663—November 17, 1986)	Forest Service	–	–	10.8	10.8
66. White Salmon, Washington (P.L. 99-663—November 17, 1986)	Forest Service	–	7.7	–	7.7
White Salmon, Washington (P.L. 109-44—August 2, 2005)	Forest Service	6.7	13.3	–	20.0
	White Salmon River Total	*6.7*	*21.0*	–	*27.7*

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
67. Merced, California (P.L. 100-149—November 2, 1987)	Forest Service National Park Service Bureau of Land Management	15.0 53.0 3.0	2.0 14.0 –	12.5 14.0 1.0	29.5 81.0 4.0
Merced, California (P.L. 102-432—October 23, 1992)	Bureau of Land Management	–	–	8.0	8.0
	Merced River Total	*71.0*	*16.0*	*35.5*	*122.5*
68. Kings, California (P.L. 100-150—November 3, 1987)	Forest Service National Park Service	16.5 49.0	– –	9.0 6.5	25.5 55.5
	Kings River Total	*65.5*	–	*15.5*	*81.0*
69. Kern, California (P.L. 100-174—November 24, 1987)	Forest Service National Park Service	96.1 27.0	7.0 –	20.9 –	124.0 27.0
	Kern River Total	*123.1*	*7.0*	*20.9*	*151.0*
70. Bluestone, West Virginia (P.L. 100-534—October 26, 1988)	National Park Service	–	10.0	–	10.0
71. Big Marsh Creek, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	–	15.0	15.0
72. Chetco, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	27.5	7.5	9.5	44.5
73. Clackamas, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	20.0	27.0	47.0
74. Crescent Creek, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	–	10.0	10.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
75. Crooked, Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	–	–	14.8	14.8
76. Crooked (North Fork), Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	– 12.2	7.6 0.6	8.9 4.4	16.5 17.2
	Crooked River (North Fork) Total	*12.2*	*8.2*	*13.3*	*33.7*
77. Deschutes, Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	– –	11.0 20.0	43.4 100.0	54.4 120.0
	Deschutes River Total	–	*31.0*	*143.4*	*174.4*
78. Donner und Blitzen, Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	72.7	–	–	72.7
Donner und Blitzen, Oregon (P.L. 106-399—October 30, 2000)	Bureau of Land Management	14.8	–	–	14.8
	Donner und Blitzen River Total	*87.5*	–	–	*87.5*
79. Eagle Creek, Oregon (Wallowa-Whitman National Forest) (P.L. 100-557—October 28, 1988)	Forest Service	4.5	6.0	18.4	28.9

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
80. Elk, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	2.0	–	17.0	19.0
Elk, Oregon (P.L. 111-11—March 30, 2009)	Forest Service	7.7	1.5	–	9.2
Elk, Oregon (P.L. 116-9—March 12, 2019)	Forest Service	29.6	6.9	9.5	46.0
	Elk River Total	*39.3*	*8.4*	*26.5*	*74.2*
81. Grande Ronde, Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	17.4 9.0	– –	1.5 15.9	18.9 24.9
	Grande Ronde River Total	*26.4*	–	*17.4*	*43.8*
82. Imnaha, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	15.0	4.0	58.0	77.0
83. John Day, Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	–	–	147.5	147.5
84. John Day (North Fork), Oregon (P.L. 100-557—October 28, 1988)	Forest Service	27.8	10.5	15.8	54.1
85. John Day (South Fork), Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	–	–	47.0	47.0
86. Joseph Creek, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	8.6	–	–	8.6

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
87. Little Deschutes, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	–	12.0	12.0
88. Lostine, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	5.0	–	11.0	16.0
89. Malheur, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	6.7	7.0	–	13.7
90. Malheur (North Fork), Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	25.5	–	25.5
91. McKenzie, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	–	12.7	12.7
92. Metolius, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	17.1	11.5	28.6
93. Minam, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	41.9	–	–	41.9
94. North Powder, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	6.4	–	6.4
95. North Umpqua, Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	– –	– –	25.4 8.4	25.4 8.4
	North Umpqua River Total	–	–	*33.8*	*33.8*
96. Owyhee (North Fork), Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	9.6	–	–	9.6

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
97. Powder, Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	–	11.7	–	11.7
98. Quartzville Creek, Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	–	–	12.0	12.0
99. Roaring, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	13.5	–	0.2	13.7
100. Rogue (Upper), Oregon (P.L. 100-557—October 28, 1988)	Forest Service	6.1	34.2	–	40.3
101. Salmon, Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	15.0 –	– 4.8	10.5 3.2	25.5 8.0
	Salmon River Total	*15.0*	*4.8*	*13.7*	*33.5*
102. Sandy, Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	4.5 –	– 3.8	7.9 8.7	12.4 12.5
	Sandy River Total	*4.5*	*3.8*	*16.6*	*24.9*
103. Smith (North Fork), Oregon (P.L. 100-557—October 28, 1988)	Forest Service	8.5	4.5	–	13.0
104. Sprague (North Fork), Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	15.0	–	15.0
105. Sycan, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	–	50.4	8.6	59.0
106. Wenaha, Oregon (P.L. 100-557—October 28, 1988)	Forest Service	18.7	2.7	0.2	21.6

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
107. West Little Owyhee, Oregon (P.L. 100-557—October 28, 1988)	Bureau of Land Management	57.6	–	–	57.6
108. Whychus Creek (P.L. 100-557—October 28, 1988)	Forest Service	45.2	8.8	–	54.0
109. Sipsey Fork West Fork, Alabama (*aka* Sipsey Fork of the Black Warrior River) (P.L. 100-547—October 28, 1988)	Forest Service	36.4	25.0	–	61.4
110. White, Oregon (P.L. 100-557—October 28, 1988)	Forest Service Bureau of Land Management	– –	6.5 17.8	15.6 6.9	22.1 24.7
	White River Total	–	*24.3*	*22.5*	*46.8*
111. Wildcat, New Hampshire (P.L. 100-554—October 28, 1988)	Forest Service	–	13.7	0.8	14.5
112. Willamette (North Fork Middle Fork), Oregon (P.L. 100-557—October 28, 1988)	Forest Service	8.8	6.5	27.0	42.3
113. Rio Chama, New Mexico (P.L. 100-633—November 7, 1988)	Forest Service Bureau of Land Management	10.4 11.2	3.0 –	– –	13.4 11.2
	Rio Chama Total	*21.6*	*3.0*	–	*24.6*
114. Vermilion (Middle Fork), Illinois (Secretarial Designation—May 11, 1989)	State of Illinois	–	17.1	–	17.1
115. Jemez (East Fork), New Mexico (P.L. 101-306—June 6, 1990)	Forest Service	4.0	5.0	2.0	11.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
116. Pecos, New Mexico (P.L. 101-306—June 6, 1990)	Forest Service	13.5	–	7.0	20.5
117. Yellowstone (Clarks Fork), Wyoming (P.L. 101-628—November 28, 1990)	Forest Service	20.5	–	–	20.5
118. Niobrara, Nebraska (P.L. 102-50—May 24, 1991)	National Park Service Fish and Wildlife Service	– 	68.0 8.0	28.0 –	96.0 8.0
	Niobrara River Total	–	*76.0*	*28.0*	*104.0*
119. Bear Creek, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	6.5	–	6.5
120. Black, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	14.0	–	14.0
121. Carp, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	12.4	9.3	6.1	27.8
122. Indian, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	12.0	39.0	51.0
123. Manistee, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	–	26.0	26.0
124. Ontonagon, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	43.0	35.0	92.0	170.0
125. Paint, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	–	52.0	52.0

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
126. Pine, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	25.0	–	25.0
127. Presque Isle, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	24.0	48.0	72.0
128. Sturgeon, Michigan (Hiawatha National Forest) (P.L. 102-249—March 3, 1992)	Forest Service	–	21.7	22.2	43.9
129. Sturgeon, Michigan (Ottawa National Forest) (P.L. 102-249—March 3, 1992)	Forest Service	20.0	8.0	–	28.0
130. Tahquamenon (East Branch), Michigan (P.L. 102-249—March 3, 1992)	Forest Service	3.2	–	10.0	13.2
131. Whitefish, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	–	31.5	2.1	33.6
132. Yellow Dog, Michigan (P.L. 102-249—March 3, 1992)	Forest Service	4.0	–	–	4.0
133. Allegheny, Pennsylvania (P.L. 102-271—April 20, 1992)	Forest Service	–	–	86.6	86.6
134. Big Piney Creek, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	–	45.2	–	45.2
135. Buffalo, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	9.4	6.4	–	15.8

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
136. Cossatot, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service Army Corps of Engineers	– –	11.3 4.6	4.2 –	15.5 4.6
Cossatot, Arkansas (Secretarial Designation—January 14, 1994) (*Federal Register* Volume 59, Number 22)	State of Arkansas	–	10.7	–	10.7
	Cossatot River Total	–	*26.6*	*4.2*	*30.8*
137. Hurricane Creek, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	2.4	13.1	–	15.5
138. Little Missouri, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	4.4	11.3	–	15.7
139. Mulberry, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	–	19.4	36.6	56.0
140. North Sylamore Creek, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	–	14.5	–	14.5
141. Richland Creek, Arkansas (P.L. 102-275—April 22, 1992)	Forest Service	5.3	11.2	–	16.5
142. Big Sur, California (P.L. 102-301—June 19, 1992)	Forest Service	19.5	–	–	19.5
143. Sespe Creek, California (P.L. 102-301—June 19, 1992)	Forest Service	27.5	4.0	–	31.5
144. Sisquoc, California (P.L. 102-301—June 19, 1992)	Forest Service	33.0	–	–	33.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
145. Great Egg Harbor, New Jersey (P.L. 102-536—October 27, 1992)	National Park Service	–	30.6	98.4	129.0
146. Westfield, Massachusetts (Secretarial Designation—November 2, 1993) (*Federal Register* Volume 58, Number 219)	State of Massachusetts	–	18.9	24.4	43.3
Westfield, Massachusetts (Secretarial Designation—September 28, 2004) (*Federal Register* Volume 69, Number 209)	State of Massachusetts	2.6	24.0	8.2	34.8
	Westfield River Total	*2.6*	*42.9*	*32.6*	*78.1*
147. Maurice, New Jersey (P.L. 103-162—December 1, 1993)	National Park Service	–	28.9	6.5	35.4
148. Red, Kentucky (P.L. 103-170—December 2, 1993)	Forest Service	9.1	–	10.3	19.4
149. Big and Little Darby Creeks, Ohio (Secretarial Designation—March 10, 1994) (*Federal Register* Volume 59, Number 66)	State of Ohio	–	85.9	–	85.9

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	*Total Miles*
150. Farmington (West Branch), Connecticut (P.L. 103-313—August 26, 1994)	National Park Service and State of Connecticut and Local Government	–	–	14.0	14.0
Farmington (West Branch), Connecticut (P.L. 116-9—March 12, 2019)	National Park Service and State of Connecticut and Local Government	–	–	1.1	1.1
	Farmington (West Branch) River Total	–	–	*15.1*	*15.1*
151. Wallowa, Oregon (Secretarial Designation—July 23, 1996) (*Federal Register* Volume 61, Number 157)	State of Oregon and Bureau of Land Management	–	–	10.0	10.0
152. Elkhorn Creek, Oregon (P.L. 104-208—September 30, 1996)	Forest Service Bureau of Land Management	5.8 –	– 0.6	– –	5.8 0.6
	Elkhorn Creek Total	*5.8*	*0.6*	–	*6.4*
153. Clarion, Pennsylvania (P.L. 104-314—October 19, 1996)	Forest Service	–	17.1	34.6	51.7
154. Lamprey, New Hampshire (P.L. 104-333—November 12, 1996)	National Park Service and Local Government	–	–	11.5	11.5
Lamprey, New Hampshire (P.L. 106-192—May 2, 2000)	National Park Service and Local Government	–	–	12.0	12.0
	Lamprey River Total	–	–	*23.5*	*23.5*

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
155. Lumber, North Carolina (Secretarial Designation—September 25, 1998) (*Federal Register* Volume 63, Number 193)	State of North Carolina	–	60.0	21.0	81.0
156. Sudbury, Assabet, Concord, Massachusetts (P.L. 106-20—April 9, 1999)	National Park Service and State of Massachusetts and Local Government	–	14.9	14.1	29.0
157. Wilson Creek, North Carolina (P.L. 106-261—August 18, 2000)	Forest Service	4.6	2.9	15.8	23.3
158. Wekiva, Florida (P.L. 106-299—October 13, 2000)	National Park Service and State of Florida	31.4	2.1	8.1	41.6
159. White Clay Creek, Delaware & Pennsylvania (P.L. 106-357—October 24, 2000)	National Park Service and Local Government	–	24.0	166.0	190.0
White Clay Creek, Delaware & Pennsylvania (P.L. 113-291—December 19, 2014)	National Park Service and Local Government	–	1.6	7.4	9.0
	White Clay Creek Total	–	*25.6*	*173.4*	*199.0*
160. Wildhorse and Kiger Creeks, Oregon (P.L. 106-399—October 30, 2000)	Bureau of Land Management	13.9	–	–	13.9
161. Rio de la Mina, Puerto Rico (P.L. 107-365—December 19, 2002)	Forest Service	–	1.2	0.9	2.1
162. Rio Icacos, Puerto Rico (P.L. 107-365—December 19, 2002)	Forest Service	–	2.3	–	2.3

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
163. Rio Mameyes, Puerto Rico (P.L. 107-365—December 19, 2002)	Forest Service	2.1	1.4	1.0	4.5
164. Black Butte, California (P.L. 109-362—October 17, 2006)	Forest Service	17.5	3.5	–	21.0
165. Musconetcong, New Jersey (P.L. 109-452—December 22, 2006)	National Park Service	–	3.5	20.7	24.2
Musconetcong, New Jersey (June 3, 2022—*Federal Register* Volume 46, Number 15)	National Park Service	–	–	4.3	4.3
	Musconetcong Total	–	*3.5*	*25.0*	*28.5*
166. Eightmile, Connecticut (P.L. 110-229—May 8, 2008)	National Park Service and Local Government	–	25.3	–	25.3
167. Amargosa, California (P.L. 111-11—March 30, 2009)	Bureau of Land Management	7.9	12.1	6.3	26.3
Amargosa, California (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	3.4	–	3.4
	Amargosa River Total	*7.9*	*15.5*	*6.3*	*29.7*
168. Battle Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	23.4	–	–	23.4
169. Bautista Creek, California (P.L. 111-11—March 30, 2009)	Forest Service	–	–	9.8	9.8

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
170. Big Jacks Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	35.0	–	–	35.0
171. Bruneau, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	38.7	–	0.6	39.3
172. Bruneau (West Fork), Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	0.4	–	–	0.4
173. Clackamas (South Fork), Oregon (P.L. 111-11—March 30, 2009)	Forest Service	4.2	–	–	4.2
174. Collawash, Oregon (P.L. 111-11—March 30, 2009)	Forest Service	–	11.0	6.8	17.8
175. Cottonwood Creek, California (P.L. 111-11—March 30, 2009)	Forest Service Bureau of Land Management	17.4 –	– –	– 4.1	17.4 4.1
	Cottonwood Creek Total	*17.4*	–	*4.1*	*21.5*
176. Cottonwood Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	2.6	–	–	2.6
177. Deep Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	13.1	–	–	13.1
178. Dickshooter Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	9.3	–	–	9.3
179. Duncan Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	0.9	–	–	0.9

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
180. Eagle Creek, Oregon (Mt. Hood National Forest) (P.L. 111-11—March 30, 2009)	Forest Service	8.3	–	–	8.3
181. Fifteenmile Creek, Oregon (P.L. 111-11—March 30, 2009)	Forest Service	10.5	0.6	–	11.1
182. Fish Creek, Oregon (P.L. 111-11—March 30, 2009)	Forest Service	–	–	13.5	13.5
183. Fossil Creek, Arizona (P.L. 111-11—March 30, 2009)	Forest Service	9.3	–	7.5	16.8
184. Fuller Mill Creek, California (P.L. 111-11—March 30, 2009)	Forest Service	–	2.6	0.9	3.5
185. Hood (East Fork), Oregon (P.L. 111-11—March 30, 2009)	Forest Service	–	–	13.5	13.5
186. Hood (Middle Fork), Oregon (P.L. 111-11—March 30, 2009)	Forest Service	–	3.7	–	3.7
187. Jarbidge, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	28.8	–	–	28.8
188. Little Jacks Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	12.4	–	–	12.4
189. Owens River Headwaters, California (P.L. 111-11—March 30, 2009)	Forest Service	6.3	6.6	6.2	19.1
190. Owyhee, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	67.3	–	–	67.3

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
191. Owyhee (North Fork), Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	15.1	–	5.7	20.8
192. Owyhee (South Fork), Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	30.2	–	1.2	31.4
193. Palm Canyon Creek, California (P.L. 111-11—March 30, 2009)	Forest Service	8.1	–	–	8.1
194. Piru Creek, California (P.L. 111-11—March 30, 2009)	Forest Service	4.3	–	3.0	7.3
195. Red Canyon, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	4.6	–	–	4.6
196. Roaring (South Fork), Oregon (P.L. 111-11—March 30, 2009)	Forest Service	4.6	–	–	4.6
197. San Jacinto (North Fork), California (P.L. 111-11—March 30, 2009)	Forest Service	7.2	2.3	0.7	10.2
198. Sheep Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	25.6	–	–	25.6
199. Snake River Headwaters, Wyoming (P.L. 111-11—March 30, 2009)	Forest Service National Park Service	184.0 45.3	97.1 53.3	33.8 –	314.9 98.6
	Snake River Headwaters Total	*229.3*	*150.4*	*33.8*	*413.5*
200. Taunton, Massachusetts (P.L. 111-11—March 30, 2009)	National Park Service	–	26.0	14.0	40.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

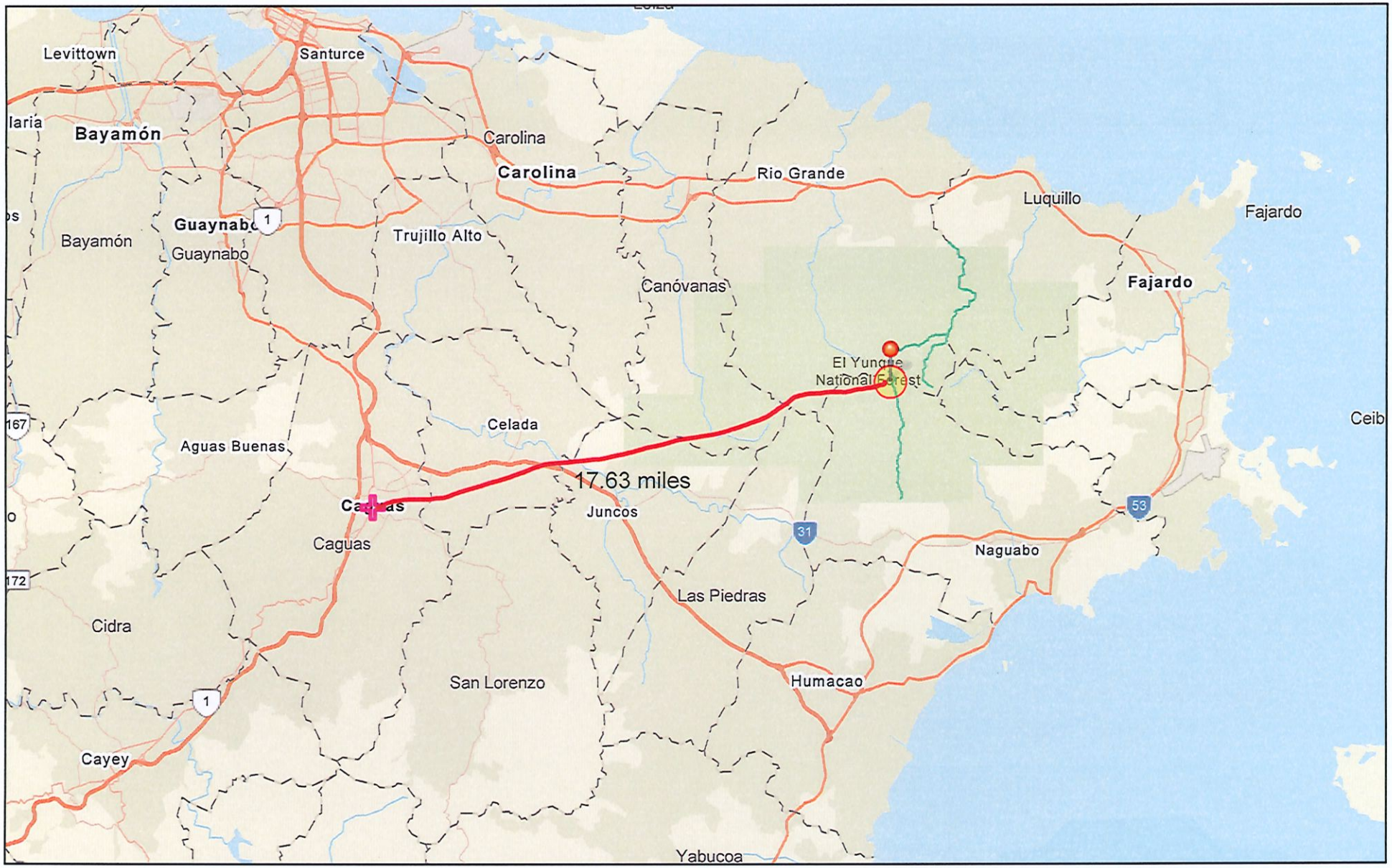
River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	*Scenic*	*Rec'l*	***Total Miles***
201. Virgin, Utah (P.L. 111-11—March 30, 2009)	National Park Service Bureau of Land Management	123.6 21.8	11.3 –	12.6 –	147.5 21.8
	Virgin River Total	*145.4*	*11.3*	*12.6*	*169.3*
202. Wickahoney Creek, Idaho (P.L. 111-11—March 30, 2009)	Bureau of Land Management	1.5	–	–	1.5
203. Zigzag, Oregon (P.L. 111-11—March 30, 2009)	Forest Service	4.3	–	–	4.3
204. Illabot Creek, Washington (P.L. 113-291—December 19, 2014)	Forest Service	4.3	–	10.0	14.3
205. Missisquoi & Trout, Vermont (P.L. 113-291—December 19, 2014)	National Park Service and Local Government	–	–	46.1	46.1
206. Pratt, Washington (P.L. 113-291—December 19, 2014)	Forest Service	9.5	–	–	9.5
207. River Styx (Cave Creek), Oregon (P.L. 113-291—December 19, 2014)	National Park Service	–	0.4	–	0.4
208. Snoqualmie (Middle Fork), Washington (P.L. 113-291—December 19, 2014)	Forest Service	6.4	21.0	–	27.4
209. East Rosebud Creek, Montana (P.L. 115-229—August 2, 2018)	Forest Service	13.0	–	7.0	20.0
210. Franklin Creek, Oregon (P.L. 116-9—March 12, 2019)	Forest Service	4.5	–	–	4.5

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
211. Wasson Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management Forest Service	4.2 5.9	– –	– –	4.2 5.9
	Wasson Creek Total	*10.1*	–	–	*10.1*
212. Molalla, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	–	21.3	21.3
213. Nestucca, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	–	15.5	15.5
214. Walker Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	–	2.9	2.9
215. North Fork Silver Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	–	6.0	6.0
216. Jenny Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	17.6	–	17.6
217. Spring Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	1.1	–	1.1
218. Lobster Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	–	5.0	5.0
219. Elk Creek, Oregon (P.L. 116-9—March 12, 2019)	Bureau of Land Management	–	7.3	–	7.3
220. Green, Utah (P.L. 116-9—March 12, 2019)	Bureau of Land Management	5.3	49.2	8.5	63.0

RIVER MILEAGE CLASSIFICATIONS FOR COMPONENTS OF THE NATIONAL WILD AND SCENIC RIVERS SYSTEM [1]

River Present Units in the National System	Administering Agency	Miles by Classification *Wild*	 *Scenic*	 *Rec'l*	 ***Total Miles***
221. Farmington & Salmon Brook, Connecticut (P.L. 116-9—March 12, 2019)	National Park Service and State of Connecticut and Local Government	–	–	61.7	61.7
222. Wood-Pawcatuck Watershed, Connecticut/RI (P.L. 116-9—March 12, 2019)	National Park Service and Local Government	24.0	52.0	34.0	110.0
223. Nashua, Massachusetts & New Hampshire (P.L. 116-9—March 12, 2019)	National Park Service and Local Government	–	52.8	–	52.8
224. Surprise Canyon Creek, California (P.L. 116-9—March 12, 2019)	Bureau of Land Management National Park Service	1.6 3.7	– –	1.8 –	3.4 3.7
	Surprise Canyon Creek Total	*5.3*	–	*1.8*	*7.1*
225. Deep Creek, California (P.L. 116-9—March 12, 2019)	Forest Service	22.5	1.0	11.0	34.5
226. Whitewater River, California (P.L. 116-9—March 12, 2019)	Bureau of Land Management Forest Service	6.3 17.2	– –	1.7 2.9	8.0 20.1
	Whitewater River Total	*23.5*	–	*4.6*	*28.1*
TOTALS		**6,452.1**	**2,971.4**	**3,972.2**	**13,395.7**

Exhibit L3 Puerto Rico Wild Scenic River Map



July 30, 2025

Project Buffer

Wild Scenic River -Espiritu Santo River

Search Result (point)

Wild and Scenic Rivers

1:288,895

0 2.25 4.5 9 mi

0 3.75 7.5 15 km

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community