

**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:** Revitalization of Catalina Morales Street for the Construction of Paseo de Los Inmortales and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection (PR-CRP-000318).

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

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

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

**Preparer:** Eng. Juan Barroso, PE / Environmental Consultant / B&A Consulting Engineers, PSC

**Certifying Officer Name and Title:**

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**Consultant** (if applicable): B&A Consulting Engineers, PSC

**Direct Comments to:** PRDOH at [comentariosambiental@vivienda.pr.gov](mailto:comentariosambiental@vivienda.pr.gov)

**Project Location:** Catalina Morales Street (State Road PR-182) runs from the Intersection of Cristobal Colon Street (PR-901) to Luis Munoz Rivera Street (PR-900), Pueblo Ward, Municipality of Yabucoa, Puerto Rico.

Coordinates: The Paseo de Los Inmortales construction site on Catalina Morales Street begins at the intersection with Luis Muñoz Rivera Street (18.049846, -65.882701) and concludes at the intersection with González Prida Street (18.048157, -65.880909). The Roundabout project is located at the intersection of State Roads PR-901 and PR-182 (18.047070, -65.878829).

Cadastral: 720-151-001-82; 720-151-009-01; 720-151-099-10; 720-151-009-00

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

The Municipality of Yabucoa is applying for CDBG-DR funds from HUD for recovery projects related to Hurricanes Irma and Maria through an agreement with PRDOH. Project PR-CRP-000318, part of the City Revitalization Program, covers 2.1598 acres across two construction sites near PR-182, PR-901, and PR-9910 within the urban center. One site involves improving Catalina Morales Street (State Road PR-182) from its intersection with Luis Muñoz Rivera Street at the northwest end to the intersection with Segundo González Prida Street at the southeast end. This includes the development of a new promenade called “Paseo de los Inmortales.” The second site involves building a new roundabout around the existing Monumento al Cortador de Caña, located at the intersection of Catalina Morales Street (PR-182), Cristóbal Colón Street (PR-9910), Saturnino Rodríguez Street (PR-901), and Tomás Méndez Street.

Proposed improvements to Catalina Morales Street (PR-182) include widening the sidewalk to meet ADA standards, marking a strip for reforestation, and constructing the Paseo de los Inmortales, which would involve demolishing nearly six inches (15 cm) of sidewalk and ramp on the east side of the street. The new sidewalk would be partially paved with a linear mosaic extending to the Municipal Library. Two segments of concrete retaining walls would be removed to install engraved plaques commemorating notable people from Yabucoa, with mosaics placed between each plaque. A steel mesh structure decorated with ornamental plants would be installed behind the plaques. These upgrades aim to beautify the promenade as a welcoming public space, including planting twenty-four trees, adding new concrete benches, lighting, flagpoles, and the town’s name in Corten steel letters. Existing planters would be reconstructed and widened at the corners of the Paseo de los Inmortales. Additionally, Catalina Morales Street (PR-182) would be repaved, pedestrian crossings would be marked, and a bicycle lane would be added on the west side. The maximum excavation depth for streets and sidewalks is 4 feet (1.2 meters).

The new roundabout would measure 28 feet (8.6 meters) in diameter, with a concentric design and a circular mosaic, surrounded by lawn and concrete rings. The existing Monumento al Cortador de Caña would be temporarily removed during roundabout construction and reinstalled as the centerpiece afterward. Four lampposts would be installed at the center. The surrounding asphalt would be replaced with cobblestones. Improvements also include repairing underground utilities, such as water lines, requiring excavation of 2 to 3 feet (30 to 60 cm), along with installing new drainage and erosion control measures. The street and sidewalk layouts would be adjusted to conform to the new roundabout, promoting safe and efficient vehicle and pedestrian movement.

These upgrades have a positive impact, improving the entrances to the Yabucoa Traditional Urban Center via Luis Muñoz Rivera Street from the north and Cristóbal Colón Street from the south, also enhancing the view of the Monumento al Cortador de Caña at the new roundabout, offering a direct connection to the Yabucoa Public Plaza and Santos Ángeles Custodios Parish.

The Maintenance of Traffic (MOT) during construction activities includes the temporary closing of Catalina Morales Street. Erosion and sedimentation controls would be implemented during the construction of the Paseo de los Inmortales and the roundabout to prevent runoff into the streets. Temporary stormwater controls include straw bales for drainage, silt fences around the project area, and a washout entrance for trucks, which would minimize sediment migration. Staging and storage zones would also be protected with silt fences for sediment control. Alternative traffic routes with clear signage would be established in accordance with PRHTA and FHWA standards and regulations.

**Funding Information**

Grant Number	HUD Program	Funding Amount
B-17-DM-72-0001; B-18-DP-72-0001; B-19-DP-78-0002; B-18-DE-72-0001	Community Development Block Grant – Disaster Recovery (CDBG-DR)	\$11,938,162,230

**Estimated Total HUD Funded Amount:** \$2,941,207.50

**Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:** \$2,941,207.50

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

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

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6</b>		
<p><b>Airport Hazards</b></p> <p>24 CFR Part 51 Subpart D</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The nearest airport to the site is José Aponte De La Torre (RVR) in the Municipality of Ceiba, a primary non-hub airport, located approximately 108,919 feet (20.63 miles) away. The closest military airport is Luis Muñoz Marin International Airport (SJU) in the Municipality of Carolina, a large/medium civil hub and joint military airfield, situated 152,250 feet (28.83 miles) northwest of the proposed project. The project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport, as defined by HUD regulations and the PRDOH airport classification. Therefore, the project complies with 24 CFR Part 51 Subpart D. See <b>Attachment B</b>, Airport Hazard Map.</p>
<p><b>Coastal Barrier Resources</b></p> <p>Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project is located outside coastal or maritime zones. The USFWS CBR Map shows the Puerto Yabucoa Unit PR-39 system, located east of the municipality, at a distance of 4,948 meters (3.08 miles) from the project. The project has no potential to impact a CBRS Unit and complies with the Coastal Barrier Improvement Act of 1990. See <b>Attachment C</b>, USFWS’s CBR Map.</p>
<p><b>Flood Insurance</b></p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the FEMA Flood Insurance Rate Map (FIRM) Panels 72000C1795J, effective November 18, 2009, the roundabout site is located in Zone X, indicating minimal flood hazard. The “Paseo Los Inmortales” site falls within Zone AE, which is classified as a Special Flood Hazard Area (SFHA). Because the project does not include new insurable structures, flood insurance is not required under the National Flood Insurance Program (NFIP). As a result, the project meets the requirements of the Flood Disaster Protection Act of 1973 and the National Flood</p>

		Insurance Reform Act of 1994. Refer to <b>Attachment D</b> , FEMA FIRM.
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 &amp; 58.5</b>		
<p><b>Clean Air</b></p> <p>Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the EPA’s Green Book and NEPAssist Tool, the project is located in an area that meets all regulated criteria pollutants. The nearest nonattainment area is located west, 34,920.88 meters (21.70 miles) away from the proposed project, situated in the municipality of Salinas, for sulfur dioxide (SO2), 2010 Standard. Due to the scope of the project, a temporary increase in PM levels, such as fugitive dust, is expected during construction. Control measures like dust suppression, truck covers, and construction site velocity should be implemented. No increase in current air quality levels is expected during the project's operation. The project will have no impact on air quality and will comply with the Clean Air Act. Refer to <b>Attachment E</b>, the EPA’s Green Book report, <a href="https://www.epa.gov/green-book">https://www.epa.gov/green-book</a>, and the NEPAssist Air Quality Map.</p>
<p><b>Coastal Zone Management</b></p> <p>Coastal Zone Management Act, sections 307(c) &amp; (d)</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project is situated outside the Coastal Zone Delineation, with the nearest zone approximately 985 meters (0.61 miles) northeast of the proposed project. It complies with the Coastal Zone Management Act. See <b>Attachment F</b>, Coastal Zone Management Map.</p>
<p><b>Contamination and Toxic Substances</b></p> <p>24 CFR Part 50.3(i) &amp; 58.5(i)(2)</p>	<p>Yes    No</p> <p><input checked="" type="checkbox"/>    <input type="checkbox"/></p>	<p>The proposed project site does not have a history of industrial use. No toxic, hazardous, or radioactive substances were identified on-site that could impact the health and safety of project users. Asbestos testing conducted on November 16, 2022, yielded negative results. Lead-based paint was identified on the guard rail, curbs, manhole, wood pole, and switch box during testing on November 7, 2022. Based on recommendations of the state-certifier risk assessor, the contaminated surface must be abated or removed by a DNER-certified abatement firm. A DNER removal permit and a mitigation plan are required. Given that the project site is an open area, Radon testing is deemed unnecessary. EPA's NEPAssist web tool identified three (3) Water Discharger (NPDES) facilities, one (1) air pollution (ICIS-Air) facility, and one (1) Hazardous Waste (RCRAInfo) facility with an RCRA ID within a 3,000 ft. radius of the proposed project site. These facilities are:</p>

- (a) Yabucoa Rcpp Project (NPDES)  
Lat: 18.0552, Lon: -65.8858, at 2,200 ft., NW.
- (b) Municipality Of Yabucoa (NPDES)  
Lat: 18.0541, Lon: -65.8753, at 2,855 ft., NE.
- (c) Felix "Nacho" Millán New Stadium (NPDES)  
Lat: 18.0456, Lon: -65.8719, at 2,375 ft., E.
- (d) Ambassador Dry Cleaners (ICIS-Air)  
Lat: 18.0465, Lon: -65.8786, at 40 ft., SE.
- (e) Esso CO -266 / PRR000000463 (VSQG)  
Lat: 18.04706, Lon: -65.8788, at 0 ft., SE.

No Superfund, Brownfields, TRI, or TSCA sites were identified nearby. In addition to the facilities mentioned above, the EPA UST Finder Tool identifies five (5) UST facilities, which are:

- (a) Gulf#458 / ID: 86-0406 (LUST)  
Lat: 18.0499, Lon: -65.8781, at 881 ft., NE.
- (b) Esso CO-266 / ID: 86-1367 (LUST)  
Lat: 18.0470, Lon: -65.8787, at 0 ft., SE.
- (c) Raflin Service Station /ID: 86-0985  
Lat: 18.0526, Lon: -65.8767, at 2,237 ft., N.
- (d) Militos Service Station (Texaco) / ID: 86-1722  
Lat: 18.0502, Lon: -65.8827, at 40 ft., NW.
- (e) Mother & Sons (Gulf) / ID: 86-0381  
Lat: 18.0454, Lon: -65.8740, at 1,544 ft., SW.

Two of the five UST facilities are listed in the 2024 Active Sites LUST List of the Department of Natural and Environmental Resources of Puerto Rico (DNER), see the document in **Appendix G**. The Gulf No. 458 has been mapped incorrectly; its correct location is in the Municipality of San Juan. The Esso CO-266 facility, located at the Roundabout construction site, was included on the LUST List on May 27, 1991. This station was demolished, and according to representatives of the Municipality of Yabucoa, part of the tank system was removed before the Municipality purchased the site. USTs' manholes and monitoring wells were identified on the north side of the property during a site visit. Based on the project design, the identified tank components are outside the project boundaries, except for the monitoring wells, which were installed on the existing sidewalk outside the property lines. Coordination will be made with the DNER to rehabilitate the monitoring wells if the Agency determines they should remain operational. Rehabilitation would consist of raising the well

		<p>accesses to the proposed new elevation. See the photographs included in <b>Attachment A</b>, Environmental Field Observation Report.</p> <p>Based on ArcGIS, Envirofacts, and EPA ECHO data, the five facilities located within a 3,000-foot radius are associated with NPDES, hazardous waste, and air regulations. ECHO states that the compliance status is No Violation Identified for all these sites.</p> <p>See <b>Attachment G</b>, NEPA Assist Map, USTs Finder Map, DNER LUST List, ECHO's Reports, and Asbestos and Lead-Based Inspections Reports.</p>
<p><b>Endangered Species</b></p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The closest critical habitat is approximately 8,009 feet (1.52 miles) southwest of the project site and will not be impacted (<b>Attachment H</b>). To identify threatened and/or endangered species that occur within the proposed project area, a preliminary identification was conducted using the ECOS-IPaC website tool. The IPaC tool indicated the potential presence of the Puerto Rican Boa (<i>Chilabothrus inornatus</i>). However, the project activity is limited to a previously developed urban property; thus, the proposed action does not affect any natural habitats or federally protected species. Based on the nature of the project and the habitat characteristics, the proposed project is not likely to adversely affect federally listed species or their critical habitats, as defined by the U.S. Fish and Wildlife Service (USFWS). To comply with Section 7 of the Endangered Species Act (ESA), a Self-Certification was submitted to the USFWS to fulfill requirements related to the Blanket Clearance Letter (BCL). The USFWS concurred via letter dated April 11, 2025, that the requirements of Section 7 have been satisfied and the project is not likely to adversely affect (NLAA) the Puerto Rican boa. See <b>Attachment H</b>, Critical Habitat Map, and USFWS Coordination Documentation.</p> <p>Based on the information presented, the project complies with the Endangered Species Act. If a Puerto Rican boa is encountered, work will cease until it moves away or the DNER relocates it in accordance with guidance from the USFWS.</p>
<p><b>Explosive and Flammable Hazards</b></p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project does not involve the development of a facility that produces or stores flammable or combustible chemicals. The project will expose neither people nor buildings to such hazards according to 24 C.F.R. §§ 51.201-51.205.</p>

		<p>No aboveground storage containers with explosive or flammable materials were identified within the proposed project limits. However, there are a few gas stations with above-ground diesel fuel tanks, several commercial emergency generators with small above-ground storage tanks, and restaurants with small propane tanks, located within a one-mile radius of the proposed project site. See <b>Attachment I</b>, Commercial Influence Zones Map. However, the project does not include development, construction, or rehabilitation that will increase residential densities or lead to conversions; on-site assessment is not required. Therefore, the project complies with 24 C.F.R. Part 51, Subpart C.</p>
<p><b>Farmlands Protection</b></p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes    No  <input type="checkbox"/>   <input checked="" type="checkbox"/></p>	<p>According to the USGS’s Farmland Classification Map (<b>Attachment J</b>), part of the Paseo Los Inmortales construction site is rated as farmland of statewide importance due to the presence of Talante soils (Ta) on the south side of the site. However, this area was converted to non-farmland in the past due to the construction of the PR-142 road. The proposed project would be carried out along PR-142 and within the existing right-of-way (ROW); therefore, it complies with the Farmland Protection Policy Act.</p>
<p><b>Floodplain Management</b></p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes    No  <input checked="" type="checkbox"/>   <input type="checkbox"/></p>	<p>According to the FEMA ABFE map, the roundabout is located in Zone X (minimal flood risk), and “Paseo Los Inmortales” is in Zone AE (special flood hazard). The project includes sidewalks, benches, and lighting with no elevation changes. A 5-step decision-making process has been completed at 24 CFR 55.12(a), which results in mitigation measures being required. Floodplain impacts were minimized, and the benefits outweighed the risks. Therefore, the project complies with Executive Order 11988. See <b>Attachment D</b>, ABFE Map, and <b>Attachment O</b>, 5-Step Making Process Report.</p>
<p><b>Historic Preservation</b></p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes    No  <input checked="" type="checkbox"/>   <input type="checkbox"/></p>	<p>A determination of No Adverse Affected, conditioned on an archaeological monitoring plan, was recommended based on an evaluation by an SOI Qualified Archaeologist. SHPO concurs with this determination in a letter dated June 28, 2024. The archaeological plan was submitted and approved by SHPO on August 22, 2024. Therefore, the project complies with Section 106 of the National Historic Preservation Act. See <b>Attachment K</b>, Section 106</p>

		NHPA Effect Determination, SHPO's concurrence letter, and Monitoring Plan.
<p><b>Noise Abatement and Control</b></p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The proposed project does not involve new construction or substantial rehabilitation of noise-sensitive uses, such as housing, hospitals, or schools. Instead, it focuses on public infrastructure improvements, such as existing road repairs, sidewalk reconstruction, promenade development, and landscaping. The regulations are primarily concerned with protecting people in noise-sensitive buildings from high exterior noise levels. Since this project doesn't include the construction of new noise-sensitive structures, it doesn't trigger the need for a detailed DNL assessment or the implementation of specific noise attenuation measures. Although the project is located near roadways, the improvements are focused on public spaces and traffic flow, rather than the development of new noise-sensitive uses. Therefore, the project complies with the Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 C.F.R. Part 51, Subpart B.</p>
<p><b>Sole Source Aquifers</b></p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to information published by the US Environmental Protection Agency (USEPA) in the Interactive Map of Sole Source Aquifers (SSA), the nearest designated SSA is roughly 1,053 miles away in Florida, US. Based on the project description, there are no activities that are likely to impact groundwater resources negatively. Therefore, the project meets the Sole Aquifer Requirements. See <b>Attachment L</b>, SSA Map.</p>
<p><b>Wetlands Protection</b></p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project site is approximately 26.52 meters (87 feet) southwest of the nearest Freshwater Emergent Wetland and 79 meters (260 feet) southwest of a Freshwater Forested/Shrub Wetland. The site is outside the USACE jurisdictional wetlands. Therefore, the project complies with Wetlands Protection requirements. See <b>Attachment M</b>, National Wetlands Inventory Map.</p>
<p><b>Wild and Scenic Rivers</b></p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The closest wild and scenic river is the Iacos River, located approximately 24,111 meters (15 miles) northeast of the proposed project. See <b>Attachment N</b>, Wild and Scenic Rivers Map. The proposed project is not within proximity of a National Wild Scenic River (NWSRS). The project complies with the Wild Scenic Rivers Act.</p>

**Field Inspection** (Date and completed by): Juan Barroso, August 25, 2025, Environmental Inspection (See **Attachment A**, Environmental Field Observation Report), and Tamara González Vega, May 22, 2023, Archaeological Inspection (See **Attachment K**, SHPO Coordination Documentation).

**Summary of Findings and Conclusions:**

After reviewing each statute, executive order, or regulation listed in the HUD Statutory Checklist and considering the relevant federal and local laws, it has been concluded that the proposed project, which involves rehabilitation activities such as sidewalk improvements, benches, lighting, underground utilities, and the construction of a roundabout, will not cause adverse environmental effects.

No adverse effects on historic properties or cultural resources are expected. An Archaeological Monitoring Plan will be implemented during all demolitions, excavations, and ground-disturbing activities to address the potential presence of buried historic features. The proposed project does not cause significant impacts to planned growth or land use in the area; does not require land acquisitions or temporary easements; does not require the relocation of people; does not involve substantial impacts on air, noise, or water quality; nor does it, either individually or cumulatively, have any significant environmental effects. Therefore, the project complies with all HUD environmental regulations and may proceed without anticipated adverse environmental effects.

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

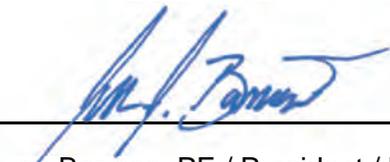
Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development 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
Floodplain Protection	To prevent pollutants from entering nearby natural depressions, waterbodies, and the floodplain, erosion and sedimentation control measures must be implemented during construction. Additionally, a Stormwater Pollution Prevention Plan (SWPPP) should be adopted, and a Notice of Intent (NOI) should be submitted to obtain coverage under the EPA Construction General Permit. Green infrastructure practices, such as using native vegetation to improve water absorption and reduce erosion, must be put in place. Surface runoff should be effectively directed into the existing drainage system to ensure proper water management and minimize flooding.
Endangered Species	The proposed project is not likely to adversely affect federally listed species or their critical habitats. Any sighting of the Puerto Rican Boa within the project limits will trigger the implementation of the USFWS General Design Guidelines.
Clean Air Act	Fugitive dust control measures must be implemented during construction activities to reduce particulate matter air emissions.
Contamination and Toxic Substances	The construction contract shall undertake the obligation to mitigate hazards associated with lead-based paint . If a release or

	contamination is detected during construction, all work shall cease, and a remediation plan shall be formulated and executed in accordance with applicable regulations before resuming work.
SHPO	An Archaeological Monitoring Plan will be implemented during demolition, excavation, and ground disturbance activities. If unexpected cultural resources or historic properties are discovered at any time within the project area, work should cease in the vicinity of such discoveries. SHPO would be notified. Project activities should not resume without authorization from SHPO.

**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:  Date: 10/29/2025  
Name/Title/Organization: Juan Barroso, PE / President / B&A Consulting Engineers, PSC

Certifying Officer Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Name/Title: I . Lorenzo, Permits and Environmental Compliance Specialist

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

## List of attachments

1	Attachment A - Environmental Field Observation Report (E-FOR)
2	Attachment B - Airport Hazard Map
3	Attachment C - Coastal Barrier Resources Map
4	Attachment D - FEMA Flood Map & ABFE Map
5	Attachment E - Air Quality Map & EPA Green Book Record
6	Attachment F - Coastal Zone Management
7	Attachment G - LBP & Asbestos Reports, NEPAassist, UST Fider Maps, DNER LUST List, and ECHO Reports
8	Attachment H - Critical Habitat Map and USFWS Coordination Documentation
9	Attachment I - Commercial Influence Zone Map
10	Attachment J - Farmland Map
11	Attachment K - SHPO Coordination Documentation
12	Attachment L - Sole Source Aquifers Map
13	Attachment M - National Wetlands Inventory Map
14	Attachment N - National Wild and Scenic River Map
15	Attachment O - 5-Step Decision-Making Process Report
16	Attachment P - Design Drawings

**Attachment A**

Environmental Field Observation Report (E-FOR)

## ENVIRONMENTAL FIELD OBSERVATION REPORT (E-FOR)

<b>Application General Application</b>			
Program Funds	CDBG-DR	Sector	Disaster Recovery
Program	City Revitalization Program	Application ID	PR-CRP-000318
Applicant or Entity Name	Municipality of Yabucoa		
Project Name	Revitalization of Catalina Morales Street for the Construction of "Paseo de Los Inmortales" and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection		

<b>Inspection Information</b>			
Inspector Name	Juan Barroso		
Inspection Company	B&A Consulting Engineers, PSC		
Company Address	Urb. Valle Hermoso Calle Olmo Z13		
Municipality	Hormigueros, PR	Zip Code	00660
Company Phone	787-512-8712	Company E-Mail	barroso.associates@gmail.com
Inspection Date	August 25, 2025	Weather Conditions	Clear
Inspection Start Time	0900	Inspection End Time	0945

<b>Property Information</b>			
Property Physical Address	Catalina Morales Street (State Road PR-182) runs from the Intersection of Cristobal Colon Street (PR-901) to Luis Munoz Rivera Street (PR-900).		
Municipality	Yabucoa	Zip Code	00767
Latitude	18.049846 18.048157 18.047070	Longitude	-65.882701 -65.880909 -65.878829
Cadastral Number	720-151-001-82 720-151-009-01 720-151-099-10 720-151-009-00	Property Type	Public Road Infrastructure
Number of Buildings/Structures	N/a	If Other* Property Type, Explain	

Number of Housing Units	N/a	Property Year Built	+1878	<input checked="" type="checkbox"/> Circa <input type="checkbox"/> Actual
Property Remarks <i>(Include Additional Property Remarks or Other Location Description)</i>	The subject property is a road infrastructure located within a developed urban setting.			
Front Side of Property	There are no structures within the project limits. The areas around the street include commercial establishments and municipal buildings.			
Back Side of Property	There are no structures within the project limits. The areas around the street include commercial establishments and municipal buildings.			
Left Side of Property	There are no structures within the project limits. The areas around the street include commercial establishments and municipal buildings.			
Right Side of Property	There are no structures within the project limits. The areas around the street include commercial establishments and municipal buildings.			
<i>Please describe and identify below any observed or known business activities currently or in the past on either the subject or adjoining property.</i>				
Description of Adjoining Properties and Use	Surrounding land use consists primarily of commercial establishments, municipal community facilities, and several residential structures.			

<b>Inspection</b>		
<b>Property Surroundings and Historical Information</b>		
Instructions: Identify any observed or known surrounding conditions that should be taken into consideration and Historical Information.		
Inspection Criteria	Finding	Comment/Explain all "Yes" Responses
Permanent standing water (pond, lake) on site.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Project lot have water frontage	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Evidence of lead-based paint present or hazardous containing material present.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Lead-based paint was identified on a single painted wood pole during testing on November 7, 2022.
Any other unusual conditions on site.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Presence of manholes and monitoring wells for underground storage tanks at the former gas station site within the roundabout project limits.
Structure 45 years or older <i>(As best of Property Owner's knowledge)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Is applicant aware of any significant historical events or person associated with structure; or does structure have a historic marker?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Is there any indicator of soil instability?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Presence of indication of any Landslide event	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Additional Field Observations:

**Potable and Drinking Water Supply**

Instructions: Identify the presence of any observed or known water supply sources currently on the subject property

Inspection Criteria	Finding	Comment/Explain all "Yes" Responses
Property connected and serviced by the municipal water system - PR Aqueduct and Sewer Authority (PRASA)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Along PR-182 Road, there is PRASA sanitary and drinking water infrastructure (6-inch pipe).
Subject property is connected and serviced by a community water system (NON-PRASA)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Presence of a water well currently or in the past of the subject or adjoining property	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water cistern and/or back-up storage system installed	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water treatment currently or in the past of the subject or adjoining property	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Additional Field Observations:

**Wastewater**

Instructions: Identify the wastewater disposal on the subject property.

Inspection Criteria	Finding	Comment/Explain all "Yes" Responses
Property connected and serviced by the municipal sewer system - PR Aqueduct and Sewer Authority (PRASA)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Along PR-182 Road, there is a PRASA sewer system (8-inch gravity pipe).
Presence of a septic system currently or in the past of the subject or adjoining property	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Septic system showing signs of failure such as overflow of wastewater, cracks, bad odors, etc.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Wastewater treatment currently or in the past of the subject or adjoining property	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any visible discharge of solid or viscous contaminants that may cause the obstruction in the sewer system	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sewer controlled equipment installed such as, but not limited to grease traps	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any known current or past events of overflow or uncontrolled discharge of wastewater on the subject or adjoining property	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Additional Field Observations:

**Hazardous Materials and Toxics  
Storage and Handling**

Instructions: Identify any chemicals of concerns currently or in the past on the subject or adjoining property

Inspection Criteria	Finding	Comment/Explain all "Yes" Responses
Any 55-gallon drums/containers on site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Include if leaking or not:
Aboveground Storage Tanks (ASTs)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Small fuel tanks for power generators
Drums (steel or plastic)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Militos Service Station (Texaco) ID: 86-1722, Lat: 18.0502, Lon: -65.8827, at 40 ft., Northwest.
Underground Storage Tanks (USTs)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Militos Service Station (Texaco) ID: 86-1722, Lat: 18.0502, Lon: -65.8827, at 40 ft., Northwest.
Any known Leaking Underground Storage Tanks (LUSTs)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	There was a gas station in the roundabout construction area; this was confirmed by the presence of tanks' manhole covers and monitoring wells. The station is identified in the EPA UST Finder and appears on DNER's 2024 LUST list (UST 02-86-1367). The DNER status is unknown.

Are there any petroleum underground storage tanks (PUSTs) on site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See comment above.
Any signs of surface staining?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any ground water monitoring or injection wells on site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

**Check all chemicals of concern identified on site:**

- Hazardous materials  
  Pesticides  
  Petroleum products  
  Fuels  
  LPG or Propane  
 Compressed gas cylinders  
  Lubricants  
  Paints  
  Antifreeze or Coolants  
 Other, Specify:

Additional Field Observations:

**Pollution Control and Prevention**

Instructions: Identify potential hazardous materials releases and pollution concerns currently or in the past on the subject or adjoining property

Inspection Criteria	Finding	Comment/Explain all "Yes" Responses
Overall poor housekeeping such as uncontained waste materials	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Signs of pollution, stain or releases near stormwater drains	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Sand, soil or other sediment piles on site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Storage containers broken, cracked and/or corroded	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Signs of distressed vegetation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Any known historical spill events	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Additional Field Observations:

**Other Relevant Environmental Matters**

Instructions: Identify any other matter relevant to the field inspection not previously identified in this inspection report

Inspection Criteria	Finding	Additional Field Observations
Any additional identifiable field observation not listed in the inspection criteria	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Additional Field Observations:

**Certification Signature**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Juan Barroso

**Inspector Print Name**



**Inspector Signature**

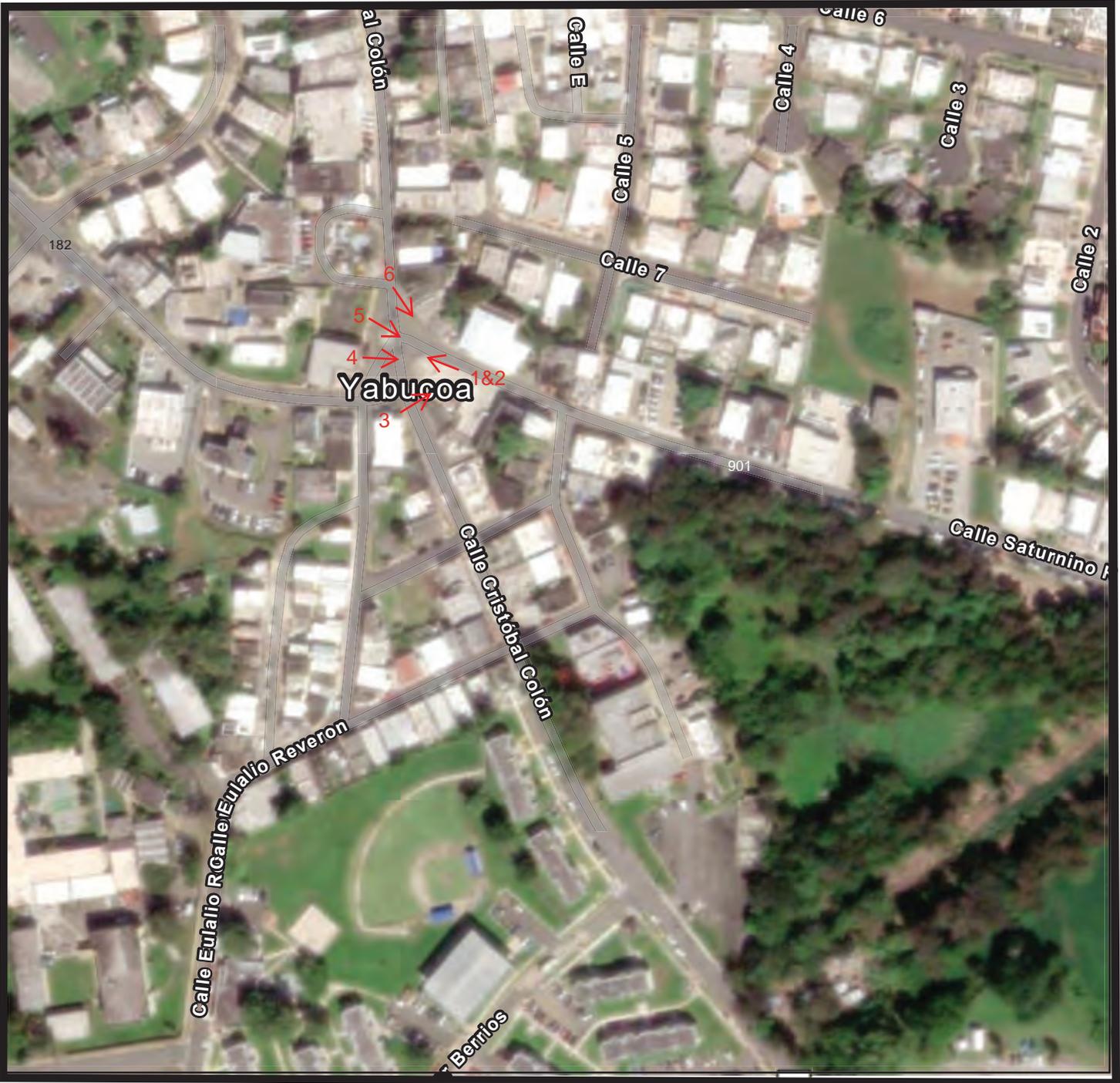
9/3/2025

**Date**

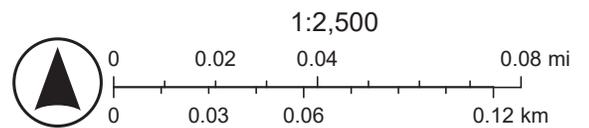
# Photographs Location Map

Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.

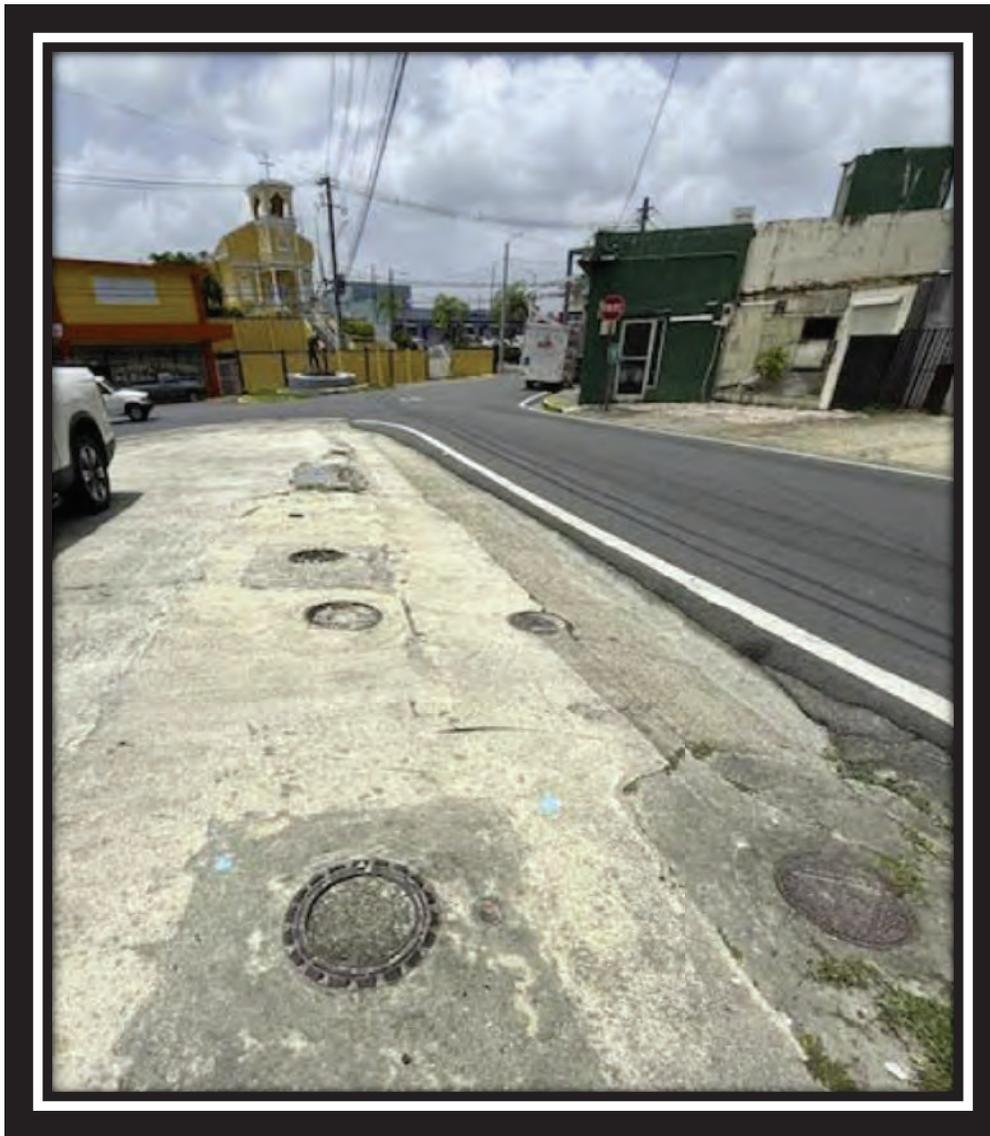


September 3, 2025



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

**SITE REINSPECTION PHOTOGRAPHS (August 25, 2025)**



*Figure 1- Access component related to a former underground storage tank (UST) system for gasoline.*



*Figure 2 - Access component related to a former underground storage tank (UST) system for gasoline.*



Figure 3 - East side photo view.



Figure 4 - North side photo view.



*Figure 5 - North side view of the property.*



*Figure 6 - West Side view of property.*

**FIRST SITE VISIT PHOTOGRAPHS - ARQUEOLOGICAL (May 22, 2023)**

SITE PICTURES- CRP-000318 PR Address: PR-182, and PR-182 int. PR-901 and PR-9910, Yabucoa Coordinates: Starting point: N18°02'59.3736"W65°52'58.4318" ROUNDABOUT N18°02'48.5035"W65°52'44.0637" (WGS 1984)



SITE PICTURES - CRP-000318 PR Address: PR-182, and PR-182 int. PR-901 and PR-9910, Yabucoa  
Coordinates: Starting point: N18°02'59.3736", W65°52'58.4318"  
ROUNDBABOUT N18°02'48.5035"W65°52'44.0637" (WGS 1984)



PR-9910



SITE PICTURES - CRP-000318 PR Address: PR-182, and PR-182 int. PR-901 and PR-9910, Yabucoa  
Coordinates: Starting point: N18°02'59.3736", W65°52'58.4318"  
ROUNDBABOUT N18°02'48.5035"W65°52'44.0637" (WGS 1984)



**Attachment B**

Airport Hazard Map

# Airport Hazard Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://adip.faa.gov/agis/public/#/public>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909), PR-901 and PR-182 intersection (18.047070, -65.878829).

### Legend

-  Site Location
-  Puerto Rico Airports

**Attachment C**

Coastal Barrier Resources Map

# Coastal Barrier Resources System Map

Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://fwsprimary.wim.usgs.gov/CBRISMapper-v2/#layersPanel>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

## Legend

- Site Location
- CBRS Buffer Zone
- Distance (4,948 meters)

### CBRS Units

#### Unit\_Type

- otherwise Protected Area
- System Unit
- CBRS Map Panels

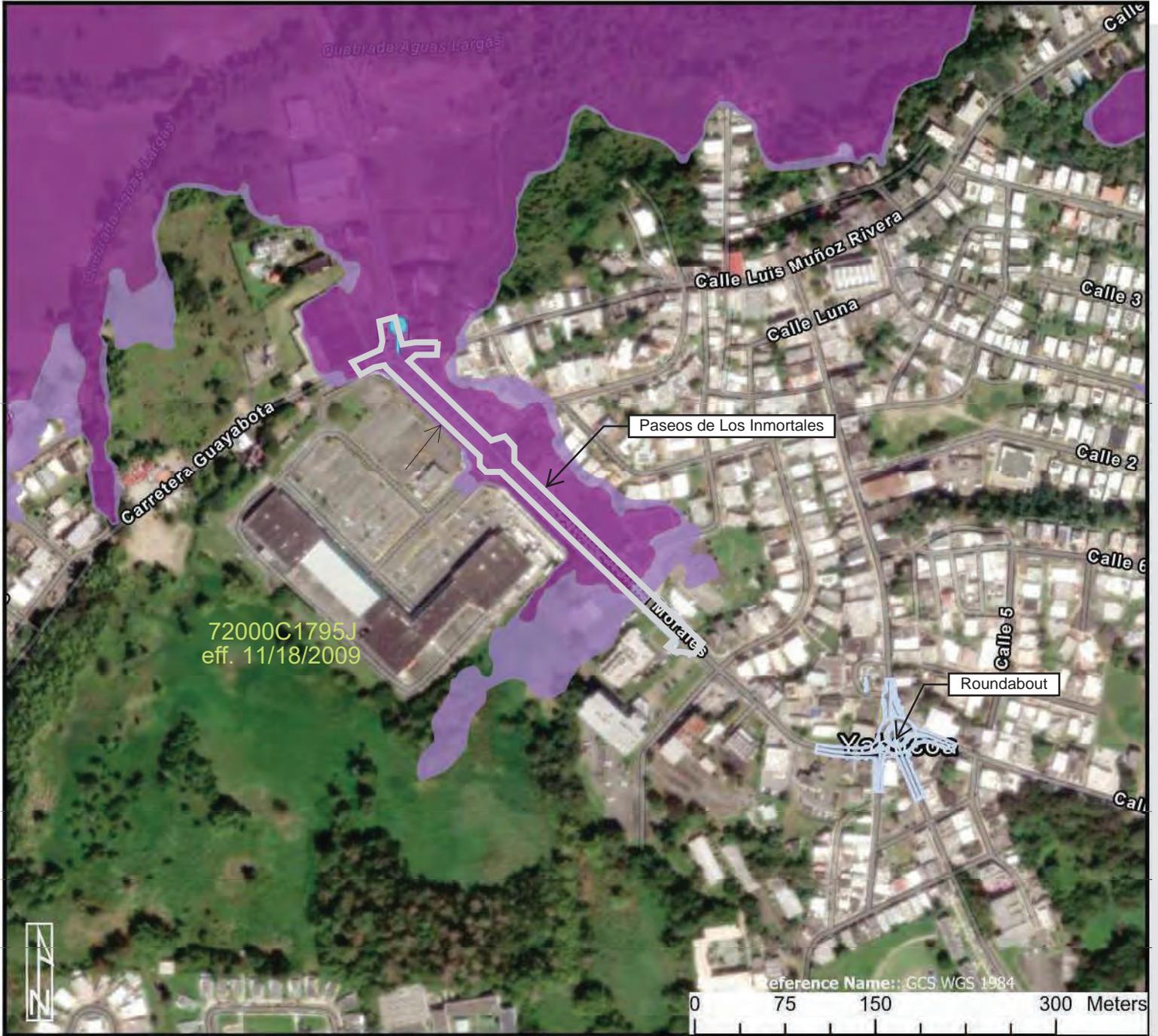
**Attachment D**

FEMA Flood Map & ABFE Map

# FEMA Flood Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** [https://services.arcgis.com/P3ePLMys2RVChkXj/arcgis/rest/services/USA\\_Flood\\_Hazard\\_Reduced\\_Set\\_gdb/FeatureServer](https://services.arcgis.com/P3ePLMys2RVChkXj/arcgis/rest/services/USA_Flood_Hazard_Reduced_Set_gdb/FeatureServer)

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

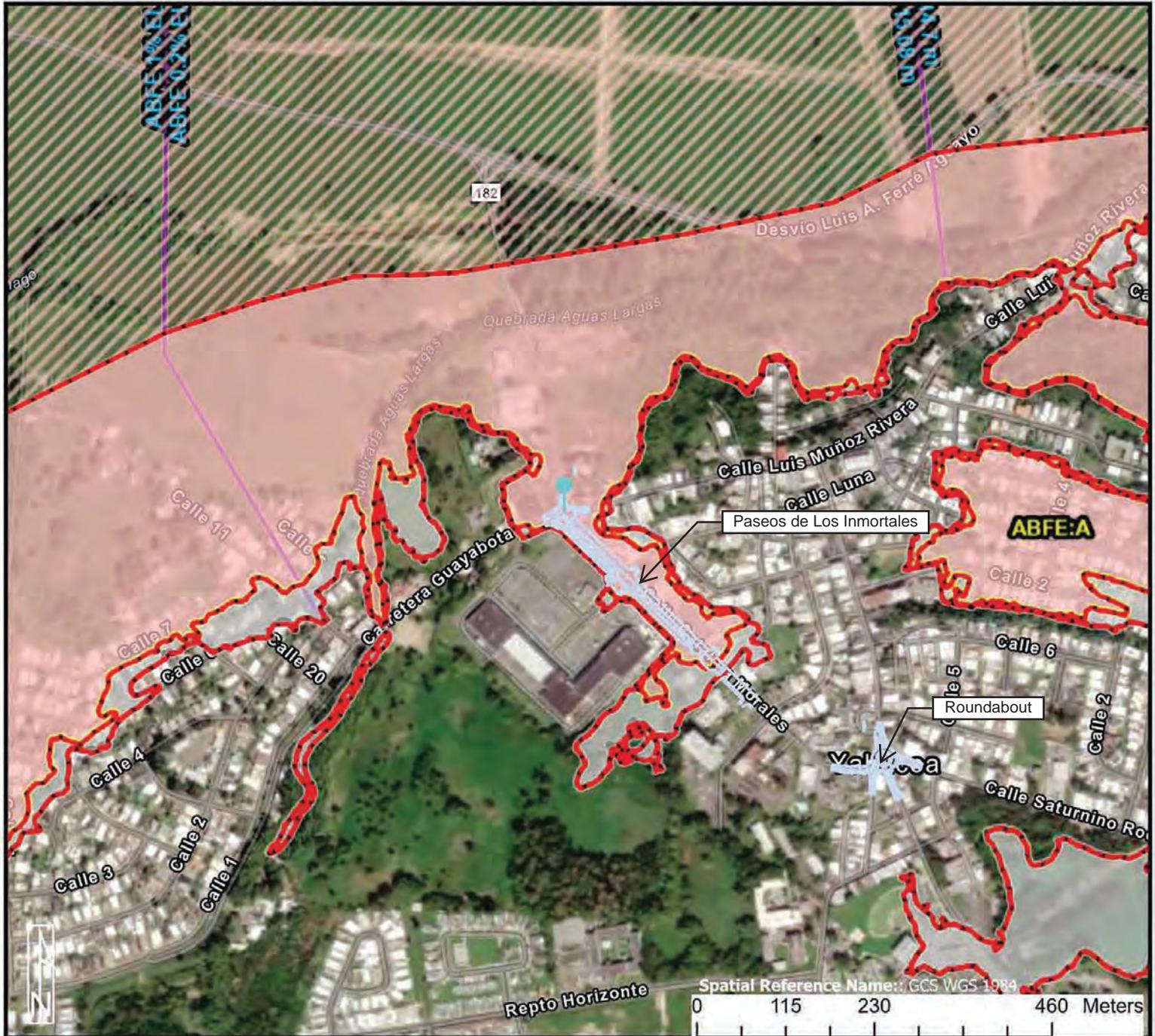
### Legend

-  Project Footprint
-  Project Start
-  1% Annual Chance Flood Hazard
-  Future Conditions 1% Annual Chance Flood Hazard
-  Regulatory Floodway
-  Area with Reduced Risk Due to Levee
-  USA\_Flood\_Hazard\_Reduced\_Set
-  Special Floodway
-  0.2% Annual Chance Flood Hazard

# Puerto Rico's Advisory Base Flood Elevation (ABFE) Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** [https://services.arcgis.com/F7DSX1DSNSIWmOqh/arcgis/rest/services/pr\\_inf\\_airports/FeatureServer](https://services.arcgis.com/F7DSX1DSNSIWmOqh/arcgis/rest/services/pr_inf_airports/FeatureServer)

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

### Legend

	Project Footprint		Flood Hazard Extent		Flood Hazard Area (zoom in to make visible)		Coastal A Zone		AE-Floodway
	Project Coordinate		1% Annual Chance Flood		A		VE		Coastal A Zone and Floodway
	Zone/BFE Boundary		0.2% Annual Chance Flood		AO		0.2% Annual Chance Flood Zone		Advisory Base Flood Elevation (zoom in to make visible)
					AE		A-Floodway		

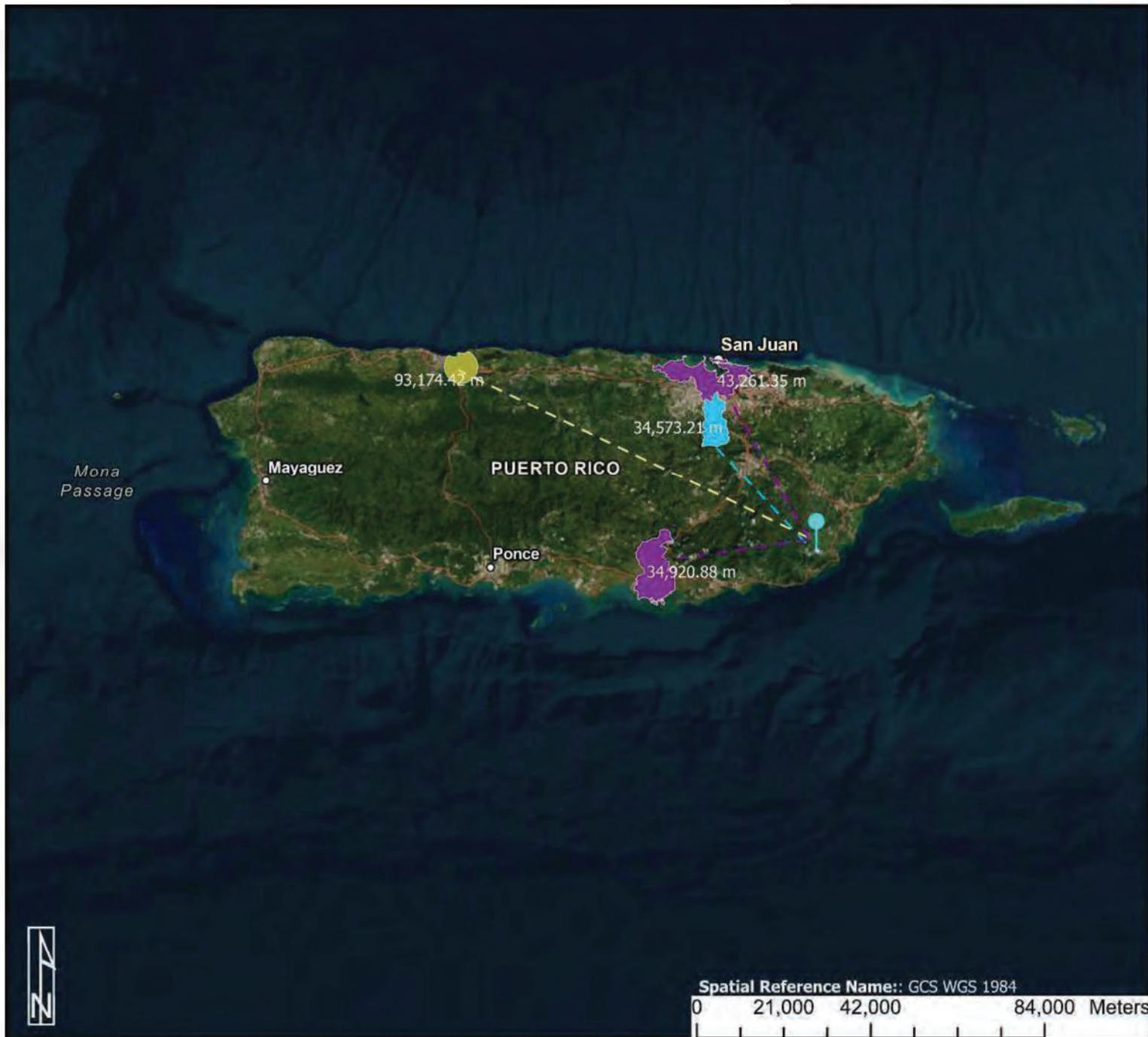
**Attachment E**

Air Quality Map & EPA Green Book Record

# Air Quality Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.



**Address:**Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int.,Pueblo Ward, Yabucoa PR 00767

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**Source:** <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=Puerto+Rico>

Legend

- Project Footprint
- Project Location

PM10 (1987 standard)

Current Attainment Status

- Maintenance
- Nonattainment

SO2 1-hr (2010 standard)

Current Status

- Attainment
- Maintenance
- Nonattainment

Lead (2008 standard)

Current Attainment Status

- Maintenance
- Nonattainment

# Sulfur Dioxide (2010) Nonattainment Areas by State/County/Area

Data is current as of June 30, 2025

*Click underlined column heading to change report order*

State	County	Area Name	<u>County NA</u> <u>Whole/Part</u>	<u>2010</u> <u>Population</u>	State/ County FIPS
			click link for partial county description	whole or partial county population	
ARIZONA	Gila County	Hayden, AZ	<a href="#">Part</a>	1,284	04/007
ARIZONA	Gila County	Miami, AZ	<a href="#">Part</a>	14,995	04/007
ARIZONA	Pinal County	Hayden, AZ	<a href="#">Part</a>	3,346	04/021
GUAM	Guam	Piti-Cabras, GU	<a href="#">Part</a>	6,116	66/010
INDIANA	Huntington County	Huntington, IN	<a href="#">Part</a>	20,838	18/069
IOWA	Muscatine County	Muscatine, IA	<a href="#">Part</a>	30,329	19/139
KENTUCKY	Henderson County	Henderson-Webster Counties, KY	<a href="#">Part</a>	3,783	21/101
KENTUCKY	Webster County	Henderson-Webster Counties, KY	<a href="#">Part</a>	3,149	21/233
LOUISIANA	Evangeline Parish	Evangeline Parish (Partial), LA	<a href="#">Part</a>	124	22/039
LOUISIANA	St. Bernard Parish	St. Bernard Parish, LA	Whole	35,897	22/087
MARYLAND	Anne Arundel County	Anne Arundel County and Baltimore County, MD	<a href="#">Part</a>	479,620	24/003
MARYLAND	Baltimore County	Anne Arundel County and Baltimore County, MD	<a href="#">Part</a>	510,713	24/005
MICHIGAN	St. Clair County	St. Clair, MI	<a href="#">Part</a>	52,102	26/147
MICHIGAN	Wayne County	Detroit, MI	<a href="#">Part</a>	254,079	26/163
MISSOURI	New Madrid County	New Madrid County, MO	<a href="#">Part</a>	2	29/143
NEW YORK	St. Lawrence County	St. Lawrence County, NY	<a href="#">Part</a>	11,922	36/089
OHIO	Morgan County	Muskingum River, OH	<a href="#">Part</a>	743	39/115
OHIO	Washington County	Muskingum River, OH	<a href="#">Part</a>	3,713	39/167
PENNSYLVANIA	Armstrong County	Indiana, PA	<a href="#">Part</a>	3,898	42/005
PENNSYLVANIA	Beaver County	Beaver, PA	<a href="#">Part</a>	14,780	42/007
PENNSYLVANIA	Cambria County	Cambria-Westmoreland Area, PA	<a href="#">Part</a>	2,699	42/021
PENNSYLVANIA	Indiana County	Indiana, PA	Whole	88,880	42/063
PENNSYLVANIA	Warren County	Warren, PA	<a href="#">Part</a>	18,056	42/123
PENNSYLVANIA	Westmoreland County	Cambria-Westmoreland Area, PA	<a href="#">Part</a>	2,702	42/129
PUERTO RICO	Bayamon Municipio	San Juan, PR	<a href="#">Part</a>	22,921	72/021
PUERTO RICO	Catano Municipio	San Juan, PR	Whole	28,140	72/033
PUERTO RICO	Guaynabo Municipio	San Juan, PR	<a href="#">Part</a>	23,802	72/061
<b>PUERTO RICO</b>	<b>Salinas Municipio</b>	<b>Guayama-Salinas, PR</b>	<b><a href="#">Part</a></b>	<b>23,401</b>	<b>72/123</b>
PUERTO RICO	San Juan Municipio	San Juan, PR	<a href="#">Part</a>	147,963	72/127
PUERTO RICO	Toa Baja Municipio	San Juan, PR	<a href="#">Part</a>	52,441	72/137
TENNESSEE	Sullivan County	Sullivan County, TN	<a href="#">Part</a>	15,289	47/163
TEXAS	Anderson County	Freestone and Anderson Counties, TX	<a href="#">Part</a>	7	48/001
TEXAS	Freestone County	Freestone and Anderson Counties, TX	<a href="#">Part</a>	4,087	48/161
TEXAS	Howard County	Howard County, TX	<a href="#">Part</a>	281	48/227
TEXAS	Hutchinson County	Hutchinson County, TX	<a href="#">Part</a>	14,593	48/233
TEXAS	Navarro County	Navarro County, TX	<a href="#">Part</a>	1,593	48/349
TEXAS	Panola County	Rusk and Panola Counties, TX	<a href="#">Part</a>	24	48/365
TEXAS	Rusk County	Rusk and Panola Counties, TX	<a href="#">Part</a>	1,656	48/401
TEXAS	Titus County	Titus County, TX	<a href="#">Part</a>	211	48/449
VIRGINIA	Giles County	Giles County, VA	<a href="#">Part</a>	183	51/071

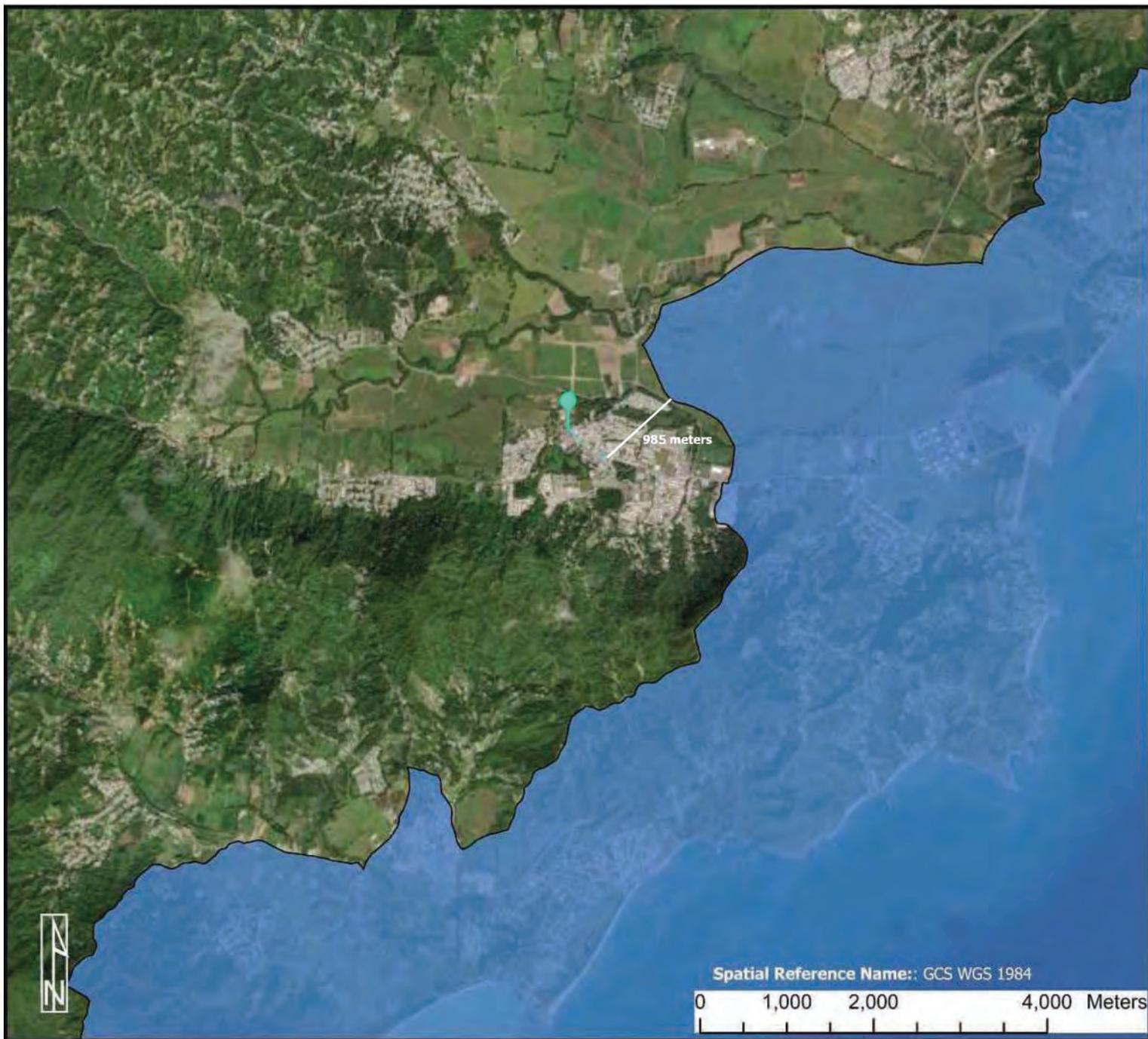
**Attachment F**

Coastal Zone Management

# Coastal Zone Management Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

### Legend

 Site Location

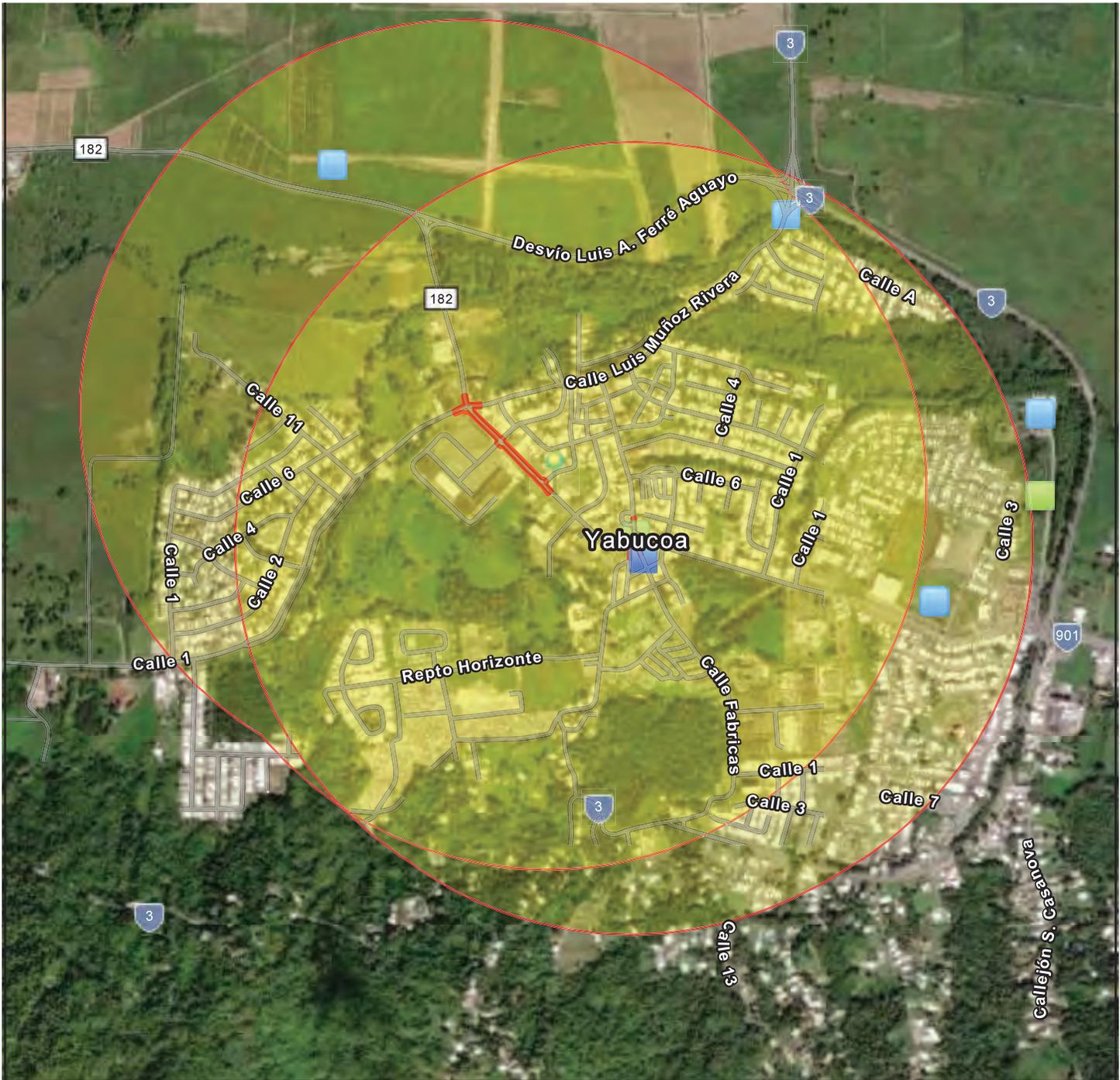
 PR\_USVI\_CoastalZo

## **Attachment G**

LBP & Asbestos Reports, NEPAssist,  
UST Fider Maps, DNER LUST List, and ECHO's Report

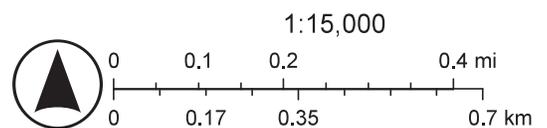
# Contamination and Toxic Substances Map (NEPAssist) Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.



July 15, 2025

-  Air Pollution (ICIS-AIR)
-  Hazardous Waste (RCRAInfo)
-  Water Dischargers (NPDES)
-  3,000 feet radius
-  Project Location
-  Project Sites



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



# ACTIVE SITES LUST LIST

2024

UST ID	NAME	CITY	ADDRESS	OWNER	HOWKNOWN	DTKNOWN
116 86-0375	Caribbean Petroleum L.P.	Aguas Buenas	Carr. 174 km. 21.6	Gulf S/S # 390	UST Removal	15-Mar-93
117 86-0378	Colón S/S	San Juan	Roosevelt & Barbosa	Angel L. Colón	Spill	25-Jun-97
118 86-0381	Independiente/Gulf	Yabucoa	Carr. 901 Km. 0.5	Caribbean Petroleum Corp	Product in Well	10-Dec-02
119 86-0385	Gulf S/S 0406	Utuado	Carr 10 km 35.2	Caribbean Petroleum Corp	Product in Well	1-Jun-99
120 86-0388	Gulf #411	Utuado	Carr. 10 Km. 62.7	Caribbean Petroleum Corp	Product in Well	8-Nov-99
121 86-0390	Gulf #412	Las Piedras	Carr. 183 Km. 20.6	Caribbean Petroleum Corp	UST Removal	6-Jun-95
122 86-0391	Gulf S/S #414	Orocovis	Carr. 155 Km. 31.2	Caribbean Petroleum Corp.	Product in Well	17-Jun-95
123 86-0394	Gulf S/S #417	Mayaguez	Carr. 106 Km. 6.6	Caribbean Petroleum Corp.	Product in Well	24-Apr-02
124 86-0396	Gulf #419	Hatillo	Carr. 487 & 488 Bo. Buena Vista	Caribbean Petroleum Corp.	High Concentration	26-Feb-01
125 86-0400	Gulf #423	Hatillo	Carr. 119 Km. 1.0	Caribbean Petroleum Corp.	Spill	17-Oct-95
126 86-0403	Gulf #454	Albionito	Carr. 162 Km. 5.1	Caribbean Petroleum Corp.	UST Removal	18-Feb-03
127 86-0406	Gulf #458	San Juan	Calle Baldorioty & Degelau	Caribbean Petroleum Corp	Product in Well	23-Oct-00
128 86-0411	Ex-Caribe	Patillas	Muñoz Rivera #20	Jose Rodríguez	UST Removal	13-Jul-09
129 86-0450	Refineria	Bayamón	Carr # 28 Km 2 Urb. Ind. Luchetti	Caribbean Gulf Refining	UST Removal	17-May-99
130 86-0451	Banco Popular	San Juan	Carr 176 km 1.4 Rio Piedras	Banco Popular	Product in Well	2-Ago-96
131 86-0587	Cheeseborough Pond's	Las Piedras	Carr 183 km 21.1 Sur	Cheeseborough Pond's MFG. Co.	Overflow Spill	12-Apr-01
132 86-0622	Shell #3960	Humacao	Carr 924 km 1.0 Jardines de Humacao	Shell Company (P.R.) Limited	Monitoring Wells	1-Oct-97
133 86-0624	Shell #803952	Juncos	Ave Muñoz Rivera	Autoridad de Carreteras	Spill	20-Aug-93
134 86-0626	Shell 804843	Humacao	Carr. 908 km. 0.4 Urb. Los Pinos	Shell Company (P.R.) Limited	Product in Well	8-Sep-00
135 86-0630	Shell 804878	Canóvanas	Carr 3 km 19.5	Shell Company (P.R.) Limited	UST Removal	9-Jan-97
136 86-0631	Gulf #033	Manatí	Carr. # 2 km. 49.8	Caribbean Petroleum Corp.	UST Removal	20-Sep-99
137 86-0632	Shell 803979	Humacao	Carr 3 Esq. Maunuez	Shell Company (P.R.) Limited	UST Removal	19-Feb-98
138 86-0641	Gilberto Colón Fierro	Ciales	Carr 149 km 8.7 Campamento	Gilberto Colón Fierro	UST Removal	16-Sep-96

# ACTIVE SITES LUST LIST

2024

UST ID	NAME	CITY	ADDRESS	OWNER	HOWKNOWN	DTKNOWN
277 86-1359	Ex Esso ( Garaje Muñoz)	Yauco	Calle 25 de julio # 19	Esso	UST Removal	19-Jan-99
278 86-1367	Esso CO-266	Yabucoa	Calle Cristobal Colón 65	Esso Standard Oil Co.	UST Removal	27-May-91
279 86-1369	Ex Esso 3P-259	Humacao	Carr 33 km 83.4 Bo Cataño	Esso	Soil Contamination	15-Jul-05
280 86-1373	Anibal Dávila S/S	Maunabo	Calle Muñoz Rivera Esq. Barceló	Esso Standard Oil Co.	UST Removal	23-Apr-98
281 86-1376	Esso	Cidra	Cidra	Esso Standard Oil Co.	Spill	6-Nov-98
282 86-1380	Ex ESSO 3P-436	Albionito	Carr 14 km 80.0	Esso Standard Oil Co.	UST Removal	Unknown
283 86-1381	Carlos Rodríguez	Barranquitas	Carr 156 km 14.7 Bo. La Vega	Esso Standard Oil Co.	Spill	10-May-99
284 86-1395	Hormigonera Mayaguezana	Mayaguez	PR-114 Km. 147.7 Bo. Guanajibo Castillo	Esso Standard Oil Co.	Film in MW	17-Jun-03
285 86-1427	Hospital del Maestro	San Juan	Ave. Domenech	Esso Standard Oil Co.	Unknown	21-Apr-99
286 86-1437	Caribe Hilton	San Juan	San Gerónimo, Grond 6	Esso Standard Oil Co.	High Concentration	21-Nov-00
287 86-1455	Asociación Pescadores	Culebra	Playa Sardinias 2	Aso. De Pescadores	Closure (High Values)	8-Aug-95
288 86-1456	Cayo Isleta Marina	Fajardo	Puerto Real	Inversiones Isleta Marina	UST Removal	19-Nov-01
289 86-1462	Papirin S/S	Barranquitas	Carr 771 km 2.5 Bo. Barrancas	Sr. Octavio Santini	UST Removal	24-Sep-01
290 86-1465	Pfizer	Barceloneta	Carr 2 km 58.2	Pfizer Pharmaceuticals	UST Removal	19-Mar-02
291 86-1469	Garaje La Hamaca	Lares	Carr #124 km 5.3	Lumen Cruz	UST Removal	18-Apr-01
292 86-1509	Gulf #013	Toa Baja	Carr #167 Ave. Comercio Norte #600 Km 10.7	Oil Investment Consolidated, Inc.	Characterization Rep	Unknown
293 86-1510	Urbano Torres s/s	Río Piedras	Carr 1 km 18.8 Bo. Tortugo	U. S Marshall Service	UST Removal	Unknown
294 86-1515	U.S Naval Comp. & Telec. Sta	Isabela	Carr 2 km 116.2	U. S Navy	UST Removal	2-Mar-01
295 86-1520	U. S. Naval Security Group Activity	Toa Baja	Barrio Sabana Seca	U. S Navy	Closure (High Values)	13-May-99
296 86-1533	Aeropuerto Internacional Luis Muñoz Mar	Carolina	Ave Los Gobernadores	Porths Authority	UST Removal	20-Sep-96
297 86-1555	Zulu Gas Station	San Juan	Ave. Fernández Juncos	Zulu Gas Station	Soil Contamination	15-Apr-08
298 86-1565	Rolón s/s	Morovis	Carr 155 km 48.8	Morovis S/S	Spill	6-Nov-97
299 86-1567	Pueblo s/s 554	Lares	Carr 111 km 33.4	Texaco	UST Removal	16-Dec-97



# Detailed Facility Report

## Facility Summary

### YABUCOA RCPP PROJECT

**BO. CALABAZAS CARR #3- CARR #9909, YABUCOA, PR 00767**

**FRS (Facility Registry Service) ID:** 110071309059

**EPA Region:** 02

**Latitude:** 18.0552

**Longitude:** -65.8858

**Locational Data Source:** NPDES

**Industries:** --

**Indian Country:** N

## Enforcement and Compliance Summary

Statute	CWA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
<b>Compliance Status</b>	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):** Non-Major, Permit Effective (PRR1000F4)

**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):** No Information

**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		110071309059					N	18.0552	-65.8858
ICIS-NPDES	CWA	PRR1000F4	Non-Major: General Permit Covered Facility	Effective	Construction Stormwater	02/16/2027	N	18.0552	-65.8858

### Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110071309059	YABUCOA RCPP PROJECT	BO. CALABAZAS CARR #3- CARR #9909, YABUCOA, PR 00767	Yabucoa Municipio
ICIS-NPDES	CWA	PRR1000F4	YABUCOA RCPP PROJECT	BO. CALABAZAS CARR #3- CARR #9909, YABUCOA, PR 00767	

### 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
No data records returned			

### 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

### 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
CWA	PRR1000F4	No	03/31/2025	0	08/08/2025

### 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
CWA	(Source ID: PRR1000F4)	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	10/01-12/31/24
	Facility-Level Status	No Violation Identified										
	Quarterly Noncompliance Report History											

### 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?
210100050102	Caño de Santiago at mouth	SANITARY SYSTEM OF THE AQUEDUCT AND SEWER AUTHORIT	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	PREE35.1	CA DE SANTIAGO ESTUARY	Impaired - 303(d) Listed - With Restoration Plan	ORGANIC ENRICHMENT/OXYGEN DEPLETION   OTHER CAUSE   PATHOGENS   TURBIDITY	--	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)
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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
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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
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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	4,412
Population Density	1,421/sq.mi.
Housing Units in Area	2,187
Percent People of Color	100%
Households in Area	1,809
Households on Public Assistance	110
Persons With Low Income	3,608
Percent With Low Income	82%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.0552
Center Longitude	-65.8858
Total Area	3.121 sq.mi.
Land Area	99%
Water Area	1%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	856 (47.24%)
\$15,000 - \$25,000	283 (15.62%)
\$25,000 - \$50,000	473 (26.1%)
\$50,000 - \$75,000	136 (7.51%)
Greater than \$75,000	64 (3.53%)

Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Children 5 years and younger	181 (4%)
Minors 17 years and younger	937 (21%)
Adults 18 years and older	3,476 (79%)
Seniors 65 years and older	881 (20%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
White	396 (9%)
African-American	1,764 (40%)
Hispanic-Origin	4,402 (100%)
Asian	10 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	0 (0%)
Other/Multiracial	2,042 (46%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	415 (13.15%)
9th through 12th Grade	279 (8.84%)
High School Diploma	781 (24.75%)
Some College/2-year	668 (21.17%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	604 (19.14%)





# Detailed Facility Report

## Facility Summary

**MUNICIPALITY OF YABUCOA**

**LUIS MUNOZ RIVERA STREET, YABUCOA, PR 00000**

**FRS (Facility Registry Service) ID:** 110060367204

**EPA Region:** 02

**Latitude:** 18.0541

**Longitude:** -65.87532

**Locational Data Source:** FRS

**Industries:** --

**Indian Country:** N

## Enforcement and Compliance Summary

Statute	CWA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	04/21/2025
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):** Non-Major, Permit Expired (PRR040081)

**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):** No Information

**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		110060367204					N	18.0541	-65.87532
ICIS-NPDES	CWA	PRR040081	Non-Major: General Permit Covered Facility	Expired	Urban Stormwater (Small MS4)	06/30/2021	N	18.0541	-65.87532

### Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110060367204	MUNICIPALITY OF YABUCOA	LUIS MUNOZ RIVERA STREET, YABUCOA, PR 00000	

System	Statute	Identifier	Facility Name	Facility Address	Facility County
ICIS-NPDES	CWA	PRR040081	MUNICIPALITY OF YABUCOA	LUIS MUNOZ RIVERA STREET, YABUCOA, PR 00000	Yabucoa Municipio

### Facility SIC (Standard Industrial Classification) Codes

### Facility NAICS (North American Industry Classification System) Codes

System	Identifier	SIC Code	SIC Description	System	Identifier	NAICS Code	NAICS Description
No data records returned				No data records returned			

### Facility Industrial Effluent Guidelines

### Facility Tribe Information

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description	Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			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)
CWA	PRR040081	ICIS-NPDES	Offsite Record Review	Urban Stormwater (MS4) - Desk Audit	EPA	04/21/2025	

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
CWA	PRR040081	No	03/31/2025	0	08/08/2025

### 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
CWA	(Source ID: PRR040081)	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	10/01-12/31/24
	Facility-Level Status	No Violation Identified										
	Quarterly Noncompliance Report History											

### 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?
210100050102	Caño de Santiago at mouth	--	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	PREE35.1	CAÑO DE SANTIAGO ESTUARY	Impaired - 303(d) Listed - With Restoration Plan	ORGANIC ENRICHMENT/OXYGEN DEPLETION   OTHER CAUSE   PATHOGENS   TURBIDITY	--	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)
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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
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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
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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	5,248
Population Density	1,728/sq.mi.
Housing Units in Area	2,630
Percent People of Color	100%
Households in Area	2,187
Households on Public Assistance	130
Persons With Low Income	4,196
Percent With Low Income	80%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.0541
Center Longitude	-65.87532
Total Area	3.121 sq.mi.
Land Area	97%
Water Area	3%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	967 (44.26%)
\$15,000 - \$25,000	357 (16.34%)
\$25,000 - \$50,000	600 (27.46%)
\$50,000 - \$75,000	157 (7.19%)
Greater than \$75,000	104 (4.76%)

Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Children 5 years and younger	216 (4%)
Minors 17 years and younger	1,051 (20%)
Adults 18 years and older	4,196 (80%)
Seniors 65 years and older	1,214 (23%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
White	543 (10%)
African-American	1,961 (37%)
Hispanic-Origin	5,238 (100%)
Asian	10 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	0 (0%)
Other/Multiracial	2,507 (48%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	498 (13.19%)
9th through 12th Grade	300 (7.94%)
High School Diploma	936 (24.78%)
Some College/2-year	763 (20.2%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	812 (21.5%)



# Detailed Facility Report

## Facility Summary

**FELIX &#8220;NACHO&#8221; MILLÁN NEW STADIUM**

**PR-901 KM. 17.73, YABUCOA, PR 00767**

**FRS (Facility Registry Service) ID:** 110071526985

**EPA Region:** 02

**Latitude:** 18.0456

**Longitude:** -65.8719

**Locational Data Source:** NPDES

**Industries:** --

**Indian Country:** N

## Enforcement and Compliance Summary

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

## Regulatory Information

**Clean Air Act (CAA):** No Information

**Clean Water Act (CWA):** Non-Major, Permit Effective (PRR1000HZ)

**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):** No Information

**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		110071526985					N	18.0456	-65.8719
ICIS-NPDES	CWA	PRR1000HZ	Non-Major: General Permit Covered Facility	Effective	Construction Stormwater	02/16/2027	N	18.0456	-65.8719

### Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110071526985	FELIX &#8220;NACHO&#8221; MILLÁN NEW STADIUM	PR-901 KM. 17.73, YABUCOA, PR 00767	

System	Statute	Identifier	Facility Name	Facility Address	Facility County
ICIS-NPDES	CWA	PRR1000HZ	FELIX &#8220;NACHO&#8221; MILLÁN NEW STADIUM	PR-901 KM. 17.73, YABUCA, PR 00767	

### Facility SIC (Standard Industrial Classification) Codes

### Facility NAICS (North American Industry Classification System) Codes

System	Identifier	SIC Code	SIC Description	System	Identifier	NAICS Code	NAICS Description
No data records returned				No data records returned			

### Facility Industrial Effluent Guidelines

### Facility Tribe Information

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description	Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			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
CWA	PRR1000HZ	No	03/31/2025	0	08/08/2025

### 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
CWA (Source ID: PRR1000HZ)		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	10/01-12/31/24
	Facility-Level Status	No Violation Identified										
	Quarterly Noncompliance Report History											

### 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?
210100050102	Caño de Santiago at mouth	QUEBRADA INTERMITENTE TRIBUTARIA DEL RIO GUAYANES	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	PREE35.1	CAÑO DE SANTIAGO ESTUARY	Impaired - 303(d) Listed - With Restoration Plan	ORGANIC ENRICHMENT/OXYGEN DEPLETION   OTHER CAUSE   PATHOGENS   TURBIDITY	--	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)
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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

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

DMR and TRI Multi-Year Loading Report

NPDES ID	Description
----------	-------------

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	5,120
Population Density	1,717/sq.mi.
Housing Units in Area	2,549
Percent People of Color	100%
Households in Area	2,133
Households on Public Assistance	135
Persons With Low Income	4,061
Percent With Low Income	79%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.0456
Center Longitude	-65.8719
Total Area	3.121 sq.mi.
Land Area	96%
Water Area	4%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	949 (44.49%)
\$15,000 - \$25,000	335 (15.71%)
\$25,000 - \$50,000	591 (27.71%)
\$50,000 - \$75,000	149 (6.99%)
Greater than \$75,000	109 (5.11%)

Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Children 5 years and younger	224 (4%)
Minors 17 years and younger	1,059 (21%)
Adults 18 years and older	4,060 (79%)
Seniors 65 years and older	1,172 (23%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
White	530 (10%)
African-American	1,903 (37%)
Hispanic-Origin	5,110 (100%)
Asian	10 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	0 (0%)
Other/Multiracial	2,460 (48%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	472 (12.95%)
9th through 12th Grade	263 (7.22%)
High School Diploma	918 (25.19%)
Some College/2-year	716 (19.65%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	821 (22.53%)



# Detailed Facility Report

## Facility Summary

**ESSO STANDARD OIL CO - PR 2P-266**

**CRISTOBAL COLON 65, YABUCOA, PR 00767**

**FRS (Facility Registry Service) ID:** 110004891500

**EPA Region:** 02

**Latitude:** 18.047061

**Longitude:** -65.878794

**Locational Data Source:** RCRAINFO

**Industries:** --

**Indian Country:** N

## Enforcement and Compliance Summary

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

## Regulatory Information

**Clean Air Act (CAA):** No Information

**Clean Water Act (CWA):** No Information

**Resource Conservation and Recovery Act (RCRA):** Active VSQG, (PRR000000463)

**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):** No Information

**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		110004891500					N	18.047061	-65.878794
ICIS		1400003535					N	18.046667	-65.878889
RCRAInfo	RCRA	PRR000000463	VSQG	Active (H)			N	18.047061	-65.878794

### Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110004891500	ESSO STANDARD OIL CO - PR 2P-266	CRISTOBAL COLON 65, YABUCOA, PR 00767	Yabucoa Municipio
ICIS		1400003535	ESSO S/S 2P-266	CRISTOBAL COLON #65, YABUCOA, PR 00767	Yabucoa Municipio
RCRAInfo	RCRA	PRR000000463	ESSO STANDARD OIL CO - PR 2P-266	CRISTOBAL COLON 65, YABUCOA, PR 00767-3617	Yabucoa 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
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

### 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	PRR000000463	No	08/09/2025	0	08/08/2025

### 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: PRR000000463)		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	04/01-06/30/25
	Facility-Level Status	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
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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)
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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
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No data records returned

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

Chemical Name
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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	5,429
Population Density	1,780/sq.mi.
Housing Units in Area	2,706
Percent People of Color	100%
Households in Area	2,251
Households on Public Assistance	142
Persons With Low Income	4,340
Percent With Low Income	80%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.047061
Center Longitude	-65.878794
Total Area	3.121 sq.mi.
Land Area	98%
Water Area	2%

Income Breakdown (ACS (American Community Survey)) - Households (%)	
Less than \$15,000	1,008 (44.84%)
\$15,000 - \$25,000	370 (16.46%)
\$25,000 - \$50,000	615 (27.36%)
\$50,000 - \$75,000	151 (6.72%)
Greater than \$75,000	104 (4.63%)

Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Children 5 years and younger	231 (4%)
Minors 17 years and younger	1,124 (21%)
Adults 18 years and older	4,306 (79%)
Seniors 65 years and older	1,212 (22%)

Race Breakdown (ACS (American Community Survey)) - Persons (%)	
White	572 (11%)
African-American	2,008 (37%)
Hispanic-Origin	5,419 (100%)
Asian	10 (0%)
Hawaiian/Pacific Islander	0 (0%)
American Indian	0 (0%)
Other/Multiracial	2,610 (48%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	505 (13.03%)
9th through 12th Grade	290 (7.48%)
High School Diploma	1,013 (26.14%)
Some College/2-year	761 (19.64%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	835 (21.55%)



# Detailed Facility Report

## Facility Summary

**AMBASSADOR 60 MINUTES CLEANERS**

**67 CALLE CRISTOBAL COLÓN, YABUCOA, PR 00767**

**FRS (Facility Registry Service) ID:** 110001661997

**EPA Region:** 02

**Latitude:** 18.04652

**Longitude:** -65.87862

**Locational Data Source:** FRS

**Industries:** Personal and Laundry Services

**Indian Country:** N

## Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	08/23/2010
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):** Operating Minor (PR0000007215100041)

**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):** No Information

**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		110001661997					N	18.04652	-65.87862
ICIS-Air	CAA	PR0000007215100041	Minor Emissions	Operating	CAAMACT, CAASIP		N	18.04652	-65.87862

## Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110001661997	AMBASSADOR 60 MINUTES CLEANERS	67 CALLE CRISTOBAL COLÓN, YABUCOA, PR 00767	Yabucoa Municipio

System	Statute	Identifier	Facility Name	Facility Address	Facility County
ICIS-Air	CAA	PR0000007215100041	AMBASSADOR 60 MINUTES CLEANERS	CALLE CRISTOBAL COLON #67, YABUCOA, PR 00767	Yabucoa Municipio

### Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-Air	PR0000007215100041	7216	Drycleaning Plants, Except Rug

### Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
ICIS-Air	PR0000007215100041	812320	Drycleaning and Laundry Services (except Coin-Operated)

### Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
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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)
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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
CAA	PR0000007215100041	No	08/09/2025	0	08/08/2025

### 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	QTR 12
CAA	(Source ID: PR0000007215100041)	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	04/01-06/30/25	07/01-09/30/25
Facility-Level Status		No Violation Identified											
HPV History													
	Violation Type	Agency	Programs	Pollutants									

### Informal Enforcement Actions Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date
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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
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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?
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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)
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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
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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))		Age Breakdown (ACS (American Community Survey)) - Persons (%)	
Total Persons	5,414	Children 5 years and younger	230 (4%)
Population Density	1,777/sq.mi.	Minors 17 years and younger	1,120 (21%)
Housing Units in Area	2,699	Adults 18 years and older	4,295 (79%)
Percent People of Color	100%	Seniors 65 years and older	1,209 (22%)
Households in Area	2,245		
Households on Public Assistance	141	Race Breakdown (ACS (American Community Survey)) - Persons (%)	
Persons With Low Income	4,327	White	571 (11%)
Percent With Low Income	80%	African-American	1,998 (37%)
		Hispanic-Origin	5,404 (100%)
		Asian	10 (0%)
		Hawaiian/Pacific Islander	0 (0%)
		American Indian	0 (0%)
		Other/Multiracial	2,606 (48%)
		Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Geography		Less than 9th Grade	503 (13.02%)
Radius of Selected Area	1 mi.	9th through 12th Grade	287 (7.43%)
Center Latitude	18.04652	High School Diploma	1,012 (26.2%)
Center Longitude	-65.87862	Some College/2-year	757 (19.6%)
Total Area	3.121 sq.mi.	B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	837 (21.67%)
Land Area	98%		
Water Area	2%		
Income Breakdown (ACS (American Community Survey)) - Households (%)			
Less than \$15,000	1,004 (44.72%)		
\$15,000 - \$25,000	368 (16.39%)		
\$25,000 - \$50,000	616 (27.44%)		
\$50,000 - \$75,000	152 (6.77%)		
Greater than \$75,000	105 (4.68%)		



# Asbestos Containing Building Materials Inspection Report

## Project:

Roundabouts Project at Yabucoa  
Municipality Project no. CRP-000307,  
CRP-000381 & 003-CRP-000318,  
Yabucoa, PR

## Client:

O&M Consulting Engineering, PSC

**ZEM-22232**

November 2022

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Prepared By:

*Zimmetry Environmental Management, Corp.*  
*www.zimmetry.com*  
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## **SECTION 1: EXECUTIVE SUMMARY**

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### **1.1 INTRODUCTION**

An Asbestos Containing Building Materials (ACBM) inspection was conducted on November 7, 2022 at Roundabouts Project at Yabucoa Municipality, project numbers: CRP-000307 at PR-3 int. PR- 901; CRP-000381 at PR-3 int. PR- 9009 and PR-9910; and 003-CRP-000318 at PR-901 int. PR-182 and Catalina Morales Street in Yabucoa, Puerto Rico. The asbestos containing building materials sampling was performed to identify material that contains asbestos fibers above allowable levels and to assist with the compliance of local, state and federal regulations.

### **1.2 SUMMARY OF PROPERTY EVALUATION**

The project consisted in the evaluation of the areas of the aforementioned project. The evaluation found that **no** asbestos containing materials were identified during the inspection of the areas.

## **SECTION 2: ASBESTOS CONTAINING MATERIALS SURVEY REPORT**

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### **2.1 OVERVIEW OF THE EVALUATION**

This asbestos containing materials (ACM) survey is an inspection to identify the location of any ACM that exist within. Throughout the inspection no asbestos containing materials were identified at the assessed areas.

The inspection was conducted by the Department of Natural and Environmental Resources (DRNA) of Puerto Rico and United States Environmental Protection Agency (USEPA) accredited Inspectors qualified by experience, education and training in the recognition of potential ACM and approved bulk sampling techniques. Some areas may not have been directly accessible due to the physical hazards encountered within. In these areas, assumptions based on findings in other areas were made whenever possible. These assumptions are duly noted as such in this report.

The inspection was performed in accordance with Environmental Protection Agency recommended procedures found in EPA-450/2-78-014 (Parts I and II), EPA 560/5-85-024, and 40 CFR 763. These procedures call for the visual inspection of the building for suspect friable material and collection and analysis of representative samples of suspect material.

### **2.2 CONDITIONS AND LIMITATIONS—DISCLAIMER**

Zimmetry Environmental Management Corp. has performed this asbestos containing building materials inspection in a thorough and professional manner consistent with commonly accepted industry standards. The Preparer cannot guarantee and does not warrant that this evaluation has identified all adverse environmental factors and/or conditions affecting this project on the date of the evaluation.

The results reported and conclusions reached by the Preparer are solely for the benefit of the Owner and occupants. The results and opinions in this report, based solely on the conditions found at the site on the date of the evaluation, are valid only on that date. The Preparer assumes no obligation to advise the client of any changes in any real or potential asbestos hazards at this site beyond the date of the project evaluation.

The Asbestos Containing Building Materials inspection was performed to ready accessible components and surfaces. If suspected components that could contain asbestos are encountered, they shall be managed as containing asbestos until the appropriate laboratory analysis is performed.

### **2.3 ENVIRONMENTAL ASSESSMENT REPORT CERTIFICATION**

Zimmetry Environmental Management Corp. has performed this asbestos containing building materials inspection in a thorough and professional manner consistent with commonly accepted industry standards. The inspection was conducted on November 7, 2022 by Dilia Rosado, state-certified inspector ASB-0822-0284-SI, qualified by experience, education and training in the recognition of asbestos containing materials and approved sampling techniques.



Dilia Rosado, MEM  
Environmental Asbestos Inspector

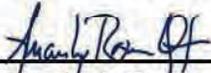
## **SECTION 3: APPENDICES**

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**Appendix A: Certifications, Licenses, and Accreditations**

**Appendix B: Certification of No Presence of Asbestos (Form PGC-009)**

APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS

	TARJETA DE REGISTRO PARA LA REMOCION DE ASBESTO
	Esta tarjeta autoriza a:
	<b><i>Dilia Rosado Zabala</i></b>
	<b>Inspector</b>
	A trabajar en la remoción de asbesto en Puerto Rico. Esta persona <b>NO</b> es un empleado del DRNA.
	
	Firma Autorizada - Departamento Recursos Naturales y Ambientales
<b>ASB-0822-0284-SI</b>	
Número de Registro	
<b>31-jul-2023</b>	
Fecha de vencimiento	

**APPENDIX B: CERTIFICATION OF NO PRESENCE OF ASBESTOS  
(FORM PGC-009)**

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**CERTIFICACION DE NO PRESENCIA DE ASBESTO  
EN ESTRUCTURAS A DEMOLERSE**  
(Deberá completarse en letra de molde o impresa)

PGC- \_\_\_\_\_  
PARA USO OFICIAL

Yo, Dilia Rosado, mayor de edad, soltera, y vecino de Bayamón  
(Nombre) (Estado Civil) (Municipio)

Dirección Postal PO Box 3545 Bayamón 00958  
(Pueblo) (Zip Code)

Teléfonos: Residencial ( 787 ) 550 - 2061 Oficina ( 787 ) 995 - 0005 Ext. \_\_\_\_\_  
Fax ( 787 ) 995 - 0005

**Certifico que:**

Roundabouts Project no. CRP-000307 at PR-3 int. PR- 901; CRP-000381 at

1. La estructura localizada en PR-3 int. PR- 9009 and PR-9910; and 003-CRP-000318 at PR-901 int. PR-182, la cual será objeto de una  
and Catalina Morales Street in Yabucoa, Puerto Rico  
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.

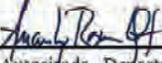
4. Para que así conste, firmo la presente certificación en Bayamón de Puerto Rico,  
(Municipio)  
hoy día 16 de noviembre de 2022

\_\_\_\_\_  
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.**

# CERTIFICATION

---

	TARJETA DE REGISTRO PARA LA REMOCION DE ASBESTO
	Esta tarjeta autoriza a:
	<b><i>Dilia Rosado Zabala</i></b>
	<b>Inspector</b>
	A trabajar en la remoción de asbesto en Puerto Rico. Esta persona <b>NO</b> es un empleado del DRNA.
<b>ASB-0822-0284-SI</b>	
Número de Registro	Firma Autorizada - Departamento Recursos Naturales y Ambientales
<b>31-jul-2023</b>	
Fecha de vencimiento	



# Lead Based Paint Inspection Report

## Project:

Roundabouts Project at Yabucoa  
Municipality Project no. CRP-000307,  
CRP-000381 & 003-CRP-000318,  
Yabucoa, PR

## Client:

O&M Consulting Engineering, PSC

**ZEM-22232**

November 2022

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Prepared By:

*Zimmetry Environmental Management, Corp.*  
*www.zimmetry.com*  
*info@zimmetry.com*

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## **SECTION 1: EXECUTIVE SUMMARY**

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### **1.1 INTRODUCTION**

A Lead-Based Paint inspection was conducted on November 7, 2022 at Roundabouts Project at Yabucoa Municipality, project numbers: CRP-000307 at PR-3 int. PR- 901; CRP-000381 at PR-3 int. PR- 9009 and PR-9910; and 003-CRP-000318 at PR-901 int. PR-182 and Catalina Morales Street in Yabucoa, Puerto Rico. The lead-based paint inspection was performed to identify paint that contains lead above allowable levels and to assist with the compliance of local, state and federal regulations.

### **1.2 SUMMARY OF PROPERTY EVALUATION**

The project consisted of the evaluation of the site of the aforementioned projects. The evaluation found that lead based paint was present in selective components and surfaces through the project on the date of the inspection. Table 1-1 identifies the components positive for lead. Table 2-1 identifies lead-based paint as defined by the U.S. Environmental Protection Agency (EPA) and the Department of Natural and Environmental Resources (DRNA) of Puerto Rico. For specific locations and additional detail on the location of lead-reference Sections 2 and 3.

### **1.3 PROPERTY LOCATIONS OF BUILDING COMPONENTS WITH LEAD-BASED PAINT**

Table 1-1 summarizes the site components and surfaces coated with lead-based paint. Details that identify positive lead-based paint findings within specific areas and on surfaces were provided in the lead-based paint inspection report. The “substrate” is the building component material directly beneath the painted surface. Photographic documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead. The quantification of positives materials presented in this table is only an estimate. If an abatement of the materials will be conducted, the Contractors shall estimate the amount of materials to be abated.

If homogeneous materials that were not accounted for are identified in areas that are not describe in this report or inaccessible areas described in Section 2.3.3, they shall be managed as containing lead. If suspected components that could contain lead are encountered underneath current installed tiles or other construction material, they shall be managed as containing lead until the appropriate test is performed. Refer to Appendix E: Location of Positive Materials for specific location.

<b>Table 1-1: Summary of Components Containing Lead</b>				
<b>Project</b>	<b>Component</b>	<b>Color</b>	<b>Substrate</b>	<b>Approximate Amount</b>
CRP-000307	Curbs	Yellow	Concrete	1,230 Ln. Ft
	Guard Rail	Yellow	Metal	75 Ln. Ft
CRP-000381	Curbs	Yellow	Concrete	3,820 Ln. Ft
	Islets	Yellow/Grey	Concrete	6,685 Ft <sup>2</sup>
	Switch Box Base and Meter	Yellow	Concrete	80 Ft <sup>2</sup>
	Manhole Bases	Yellow	Concrete	124 Ft <sup>2</sup>
	Manhole Lids	Yellow	Metal	5 Units
	Lids	Yellow	Metal	1 Unit
	Light Pole	White	Metal	1 Unit
003-CRP-000318	Light pole	Yellow	Wood	1 Unit

Note:

1. The quantification of positives materials presented in this table is only an estimate. If an abatement of the materials will be conducted, the Contractors shall estimate the amount of materials to be abated.

## SECTION 2: LEAD-BASED PAINT INSPECTION REPORT

---

### 2.1 OVERVIEW OF THE EVALUATION

This lead-based paint inspection is an investigation to identify all lead-based paint on a surface-by-surface basis. A lead-based paint inspection conforming to HUD guidelines was performed at the aforementioned project site.

Averages of 134 samples were taken at identified surfaces of the evaluated areas using X-ray fluorescence (XRF) analyzer. The evaluation found that lead-based paint was present in selective components and surfaces through the project site on the date of the assessment (See Table 1-1).

Some of the remaining XRF test locations exhibited lead-in-paint levels below the level that EPA identifies as lead-based paint, namely 1.0 mg/cm<sup>2</sup>. Such surfaces could create dust-lead or soil-lead hazards if the paint is turned into dust by abrasion, scraping, or sanding. Should these or any lead containing components or surfaces be disturbed in any manner that generates dust, care should be taken to limit its spread.

Testing was performed by Harry Peña, state-certified risk assessor LBPRA-20322-197, using the Niton XLP-300A XRF, SN-101222. The credentials are provided in Section 3, Appendix A: Certifications, Licenses, and Accreditations. The XRF analyzer is designed to measure the lead content of surface coatings on a variety of building surfaces, substrates, and components. The measurement is rapid and nondestructive and, according to the manufacturer, is capable of detecting lead concentrations that occur within numerous layers of various surface coatings.

Please refer to the XRF Testing Results Section 3, Appendix B: XRF Sampling Data for the detailed analytical testing results for each distinct area inspected. The reports provide a complete testing data.

### 2.2 SAMPLING PROCEDURE

The Lead Based Paint Sampling Procedure was design to evaluate and document all the data obtained form the inspection in a sequential method that provided confidence at the moment 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 Department of Natural and Environmental Resources (DRNA) of Puerto Rico Regulation 9098: Regulation for Proper Management of Lead-Based Paint Activities. The surfaces evaluation was performed as follows:

- If the lead concentration measured by the XRF Spectrum Analyzer is less than 1.0 mg/cm<sup>2</sup> it is considered negative.

- If the lead concentration measured by the XRF Spectrum Analyzer is equal or greater than 1.0 mg/cm<sup>2</sup> it is considered positive.

To each component of the project a name was assigned according to the use of that space. If no name could be assigned then a code letter or number was assigned.

Each wall surface, if any, was named with letters beginning with wall A the wall facing the main entrance direction. The wall at your left will be wall B, the wall at front wall C and the wall at you right will be wall D.

## **2.3 RESULTS PRESENTATION**

This section describes the site project components and surfaces coated with lead-based paint (LBP), which were observed in the inspection. Please note that the recommendations given are always the minimum action, which in our professional judgment should be taken.

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 firm providing the abatement services must be certified as an abatement firm by the DRNA.

### **2.3.1 SPECIFIC FINDINGS**

The following LBP were found to contain more than 1.0 mg/cm<sup>2</sup> for what Department of Natural and Environmental Resources (DRNA) of Puerto Rico identifies as lead-based paint or materials containing lead:

- Curbs
- Guard Rail
- Islets
- Lids
- Light Poles
- Manhole Bases
- Manhole Lids
- Switch Box Base and Meter

### **2.3.2 HOMOGENEOUS AREAS WITH SPECIAL CONSIDERATIONS**

NONE

### **2.3.3 INACCESSIBLE AREAS PRESUMED TO BE LEAD-BASED PAINTED**

NONE

## **2.4 LEAD REGULATORY LEVELS**

The lead regulatory levels provided below are those used when preparing this lead-based paint evaluation or when evaluating data collected. The EPA regulatory levels are the same as the state regulatory levels provided in the following table.

<b>TABLE 2-1: LEAD REGULATORY LEVELS</b>	
	<b>EPA/DRNA Levels</b>
<b>Lead-Based Paint</b>	<b>1.0 mg/cm<sup>2</sup></b> <b>or</b> <b>0.5% by weight (or 5,000 ppm)</b>

## 2.5 CONDITIONS AND LIMITATIONS—DISCLAIMER

Zimmetry Environmental Management Corp. has performed this lead-based paint inspection in a thorough and professional manner consistent with commonly accepted industry standards. The Preparer cannot guarantee and does not warrant that this evaluation has identified all adverse environmental factors and/or conditions affecting this site project on the date of the evaluation.

The results reported and conclusions reached by the Preparer are solely for the benefit of the Owner. The results and opinions in this report, based solely on the conditions found at the project on the date of the evaluation, are valid only on that date. The Preparer assumes no obligation to advise the client of any changes in any real or potential lead-based paint hazards at this project beyond the date of the evaluation.

The lead inspection was performed to ready accessible components and surfaces. If suspected components that could contain lead are encountered underneath current installed tiles or other construction material, they shall be managed as containing lead until the appropriate test is performed.

## 2.6 ABATEMENT CONDITIONS

Abatement, as defined by HUD and the Department of Natural and Environmental Resources (DRNA) of Puerto Rico, means any set of measures designed to eliminate lead-based paint and/or lead-based paint hazards permanently. The people providing these services must be trained in accordance with the DRNA licensing/certification requirements. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of 20 years, or these methods must have a design life of at least 20 years.

- onsite or offsite removal of lead-based paint from substrates and components
- replacement of components or fixtures painted with lead-based paint
- permanent enclosure of lead-based paint with construction materials mechanically-fastened to the substrate
- encapsulation of lead-based paint with specially designed encapsulant products
- removal or permanent covering (concrete or asphalt) of soil-lead-based paint hazards

If enclosure or encapsulation is conducted as an abatement method, the lead-based paint remains on the property, so ongoing lead-based paint maintenance is required.

## **2.7 RECOMMENDATIONS**

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 has to be characterized to determine if the waste generated is hazardous or non-hazardous waste. The firm providing the abatement services must be certified as an abatement firm by the DRNA. Workers conducting abatement must be trained and certified as abatement workers by a training provider accredited by the DRNA.

## **2.8 ENVIRONMENTAL ASSESSMENT REPORT CERTIFICATION**

Zimmetry Environmental Management Corp. has performed this lead-based paint inspection in a thorough and professional manner consistent with commonly accepted industry standards. The inspection was conducted on November 7, 2022 by Harry Peña, state-certified risk assessor LBPRA-20322-197, qualified by experience, education and training in the recognition of lead based paint and approved sampling techniques using the Niton XLP-300A XRF, SN-101222.



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Harry Peña, MSEM  
Environmental Risk Assessor

## **SECTION 3: APPENDICES**

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**Appendix A: Certifications, Licenses, and Accreditations**

**Appendix B: XRF Sampling Data**

**Appendix C: XRF's Performance Characteristics Sheet**

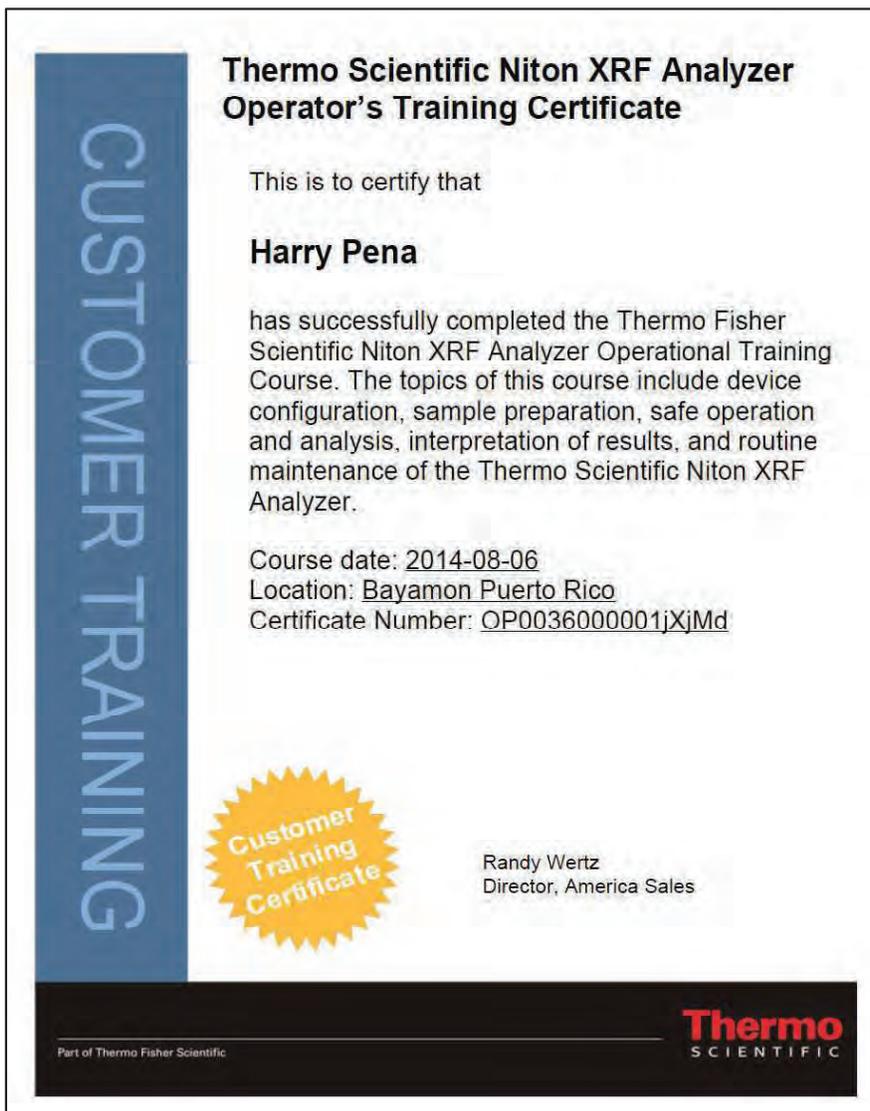
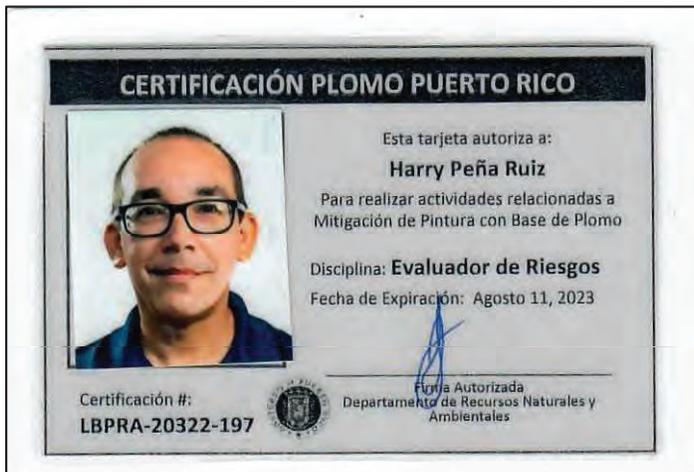
**Appendix D: Photographic Record**

**Appendix E: Location of Positive Materials**

## APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS



## APPENDIX A: CERTIFICATIONS, LICENSES, AND ACCREDITATIONS



## **APPENDIX B: XRF SAMPLING DATA**

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PROJECT:	Roundabouts Project at Yabucoa Municipality, Yabucoa PR			CLIENT: O&M Consulting Engineering, PSC			
DATE:	11/7/2022	Project no. CRP-000381		LBP Inspector: Harry Peña			
Sample ID.	Functional Space	Location	Color	Subst.	XRF Reading	Pos/Neg	Comments
42	Area 1	Pavement Marking	White	Concrete	0.00	Negative	
43	Area 1	Light Pole	White	Concrete	0.00	Negative	
44	Area 1	Light Pole	White	Metal	0.00	Negative	
45	Area 2	Curb	Yellow	Concrete	1.80	Positive	
46	Area 2	Pavement Marking	Yellow	Concrete	0.00	Negative	
47	Area 2	Light Pole	White	Metal	3.10	Positive	
48	Area 2	Base	Yellow	Concrete	0.00	Negative	
49	Area 2	Grille	Yellow	Metal	0.04	Negative	
50	Area 2	Lid	Yellow	Metal	0.00	Negative	
51	Area 2	Lid	Yellow	Metal	0.00	Negative	
52	Area 2	Manhole Lid	Yellow	Metal	0.04	Negative	
53	Area 2	Base	Yellow	Concrete	0.00	Negative	
54	Area 2	Pavement Marking	White	Concrete	0.00	Negative	
55	Area 3	Islet	Yellow	Concrete	2.20	Positive	
56	Area 3	Islet	Gray	Concrete	1.60	Positive	
57	Area 3	Pavement Marking	Yellow	Concrete	0.00	Negative	
58	Area 3	Pavement Marking	White	Concrete	0.00	Negative	
59	Area 3	Curb	Yellow	Concrete	1.60	Positive	
60	Area 4	Curb	Yellow	Concrete	1.50	Positive	
61	Area 4	Pavement Marking	Yellow	Concrete	0.00	Negative	
62	Area 4	Base	Yellow	Concrete	0.28	Negative	
63	Area 4	Light Pole	White	Metal	0.00	Negative	
64	Area 4	Light Pole Base	Yellow	Concrete	0.00	Negative	
65	Area 4	Lid	Yellow	Concrete	0.00	Negative	
66	Area 4	Manhole Lid	Yellow	Metal	5.80	Positive	
67	Area 4	Plate	White	Concrete	0.00	Negative	
68	Area 4	Base	Yellow	Concrete	1.40	Positive	
69	Area 4	Sign	White	Concrete	0.00	Negative	
70	Area 4	Sign	White	Metal	0.00	Negative	
71	Area 4	Sign	Gray	Metal	0.00	Negative	
72	Area 5	Islet	Yellow	Concrete	3.30	Positive	
73	Area 5	Islet	Gray	Concrete	2.10	Positive	
74	Area 5	Pavement Marking	Yellow	Concrete	0.00	Negative	
75	Area 5	Curb	White	Concrete	0.00	Negative	
76	Area 5	Curb	Yellow	Concrete	1.00	Positive	
77	Area 6	Curb	Yellow	Concrete	2.20	Positive	
78	Area 6	Curb	White	Concrete	0.00	Negative	
79	Area 6	Manhole Lid	Yellow	Concrete	3.80	Positive	
80	Area 6	Base	Yellow	Concrete	3.30	Positive	
81	Area 6	Base	Yellow	Concrete	3.20	Positive	
82	Area 6	Manhole Lid	Yellow	Metal	3.10	Positive	
83	Area 6	Lid	Yellow	Metal	0.00	Negative	
84	Area 6	Lid	Yellow	Metal	0.00	Negative	
85	Area 6	Light Pole	Yellow	Metal	0.00	Negative	
86	Area 6	Switch Box	Yellow	Metal	0.00	Negative	
87	Area 6	Switch Box Base	Yellow	Concrete	3.10	Positive	
88	Area 6	Switch Box Meter	Yellow	Concrete	3.60	Positive	
89	Area 6	Light Pole	White	Wood	0.00	Negative	
90	Area 6	Pavement Marking	Yellow	Concrete	0.00	Negative	
91	Area 6	Pavement Marking	White	Concrete	0.00	Negative	
92	Area 6	Lid	Yellow	Metal	0.00	Negative	
93	Area 7	Islet	Yellow	Concrete	3.10	Positive	
94	Area 7	Islet	Gray	Concrete	2.60	Positive	
95	Area 7	Curb	Yellow	Concrete	1.30	Positive	
96	Area 7	Lid	Yellow	Metal	1.80	Positive	
97	Area 7	Pavement Marking	Yellow	Concrete	0.00	Negative	
98	Area 7	Pavement Marking	White	Concrete	0.00	Negative	
99	Area 8	Curb	Yellow	Concrete	3.10	Positive	
100	Area 8	Base	Yellow	Concrete	2.10	Positive	
101	Area 8	Manhole Lid	Yellow	Metal	2.40	Positive	





## APPENDIX C: XRF's PERFORMANCE CHARACTERISTICS SHEET

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## Performance Characteristic Sheet

EFFECTIVE DATE: September 24, 2004

EDITION NO.: 1

### MANUFACTURER AND MODEL:

Make: Niton LLC

Tested Model: XLP 300

Source:  $^{109}\text{Cd}$ 

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<sup>2</sup> (inclusive)

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film).

If 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 <sup>2</sup> )
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

## BACKGROUND INFORMATION

### EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated 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)						
Substrate	All Data			Median for laboratory-measured lead levels (mg/cm <sup>2</sup> )		
	25 <sup>th</sup> Percentile	Median	75 <sup>th</sup> 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*.

## APPENDIX D: PHOTOGRAPHIC RECORD

<b>Photo No.</b> 2018	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2022	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

## APPENDIX D: PHOTOGRAPHIC RECORD

<b>Photo No.</b> 2023	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2025	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

**APPENDIX D: PHOTOGRAPHIC RECORD**

<b>Photo No.</b> 2027	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2028	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based metal guard rail.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

**APPENDIX D: PHOTOGRAPHIC RECORD**

<b>Photo No.</b> 2032	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2033	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

## APPENDIX D: PHOTOGRAPHIC RECORD

<b>Photo No.</b> 2035	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000307</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2037	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted concrete curb.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

## APPENDIX D: PHOTOGRAPHIC RECORD

Photo No.	Date:	
2039	11/7/2022	<div style="display: flex;"> <div style="flex: 1; padding: 5px;"> <p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted metal light pole.</p> </div> <div style="flex: 2;">  </div> </div>
2042	11/7/2022	<div style="display: flex;"> <div style="flex: 1; padding: 5px;"> <p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted concrete curb and islet.</p> </div> <div style="flex: 2;">  </div> </div>

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

**APPENDIX D: PHOTOGRAPHIC RECORD**

<b>Photo No.</b> 2046	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2048	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted metal manhole lid and concrete base.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

## APPENDIX D: PHOTOGRAPHIC RECORD

Photo No.	Date:	
2049	11/7/2022	<div style="display: flex;"> <div style="flex: 1; padding: 5px;"> <p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted concrete curb and islet.</p> </div> <div style="flex: 2;">  </div> </div>
2051	11/7/2022	<div style="display: flex;"> <div style="flex: 1; padding: 5px;"> <p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted metal manhole lid and concrete base.</p> </div> <div style="flex: 2;">  </div> </div>

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

**APPENDIX D: PHOTOGRAPHIC RECORD**

<b>Photo No.</b> 2052	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted concrete curb.		
<b>Photo No.</b> 2055	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted metal manhole lid and concrete base.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

**APPENDIX D: PHOTOGRAPHIC RECORD**

<b>Photo No.</b> 2056	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted concrete switch box base and meter.		
<b>Photo No.</b> 2057	<b>Date:</b> 11/7/2022	
<b>Description:</b>  <b>Project no. CRP-000381</b> Lead-based painted concrete curb, concrete islet and metal lid.		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

**APPENDIX D: PHOTOGRAPHIC RECORD**

<b>Photo No.</b> 2059	<b>Date:</b> 11/7/2022	
<p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted metal manhole lid and concrete base.</p>		
<b>Photo No.</b> 2061	<b>Date:</b> 11/7/2022	
<p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted concrete curb.</p>		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

## APPENDIX D: PHOTOGRAPHIC RECORD

<b>Photo No.</b> 2062	<b>Date:</b> 11/7/2022	
<p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted concrete curb and islet.</p>		
<b>Photo No.</b> 2063	<b>Date:</b> 11/7/2022	
<p><b>Description:</b></p> <p><b>Project no. CRP-000381</b> Lead-based painted concrete curb.</p>		

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

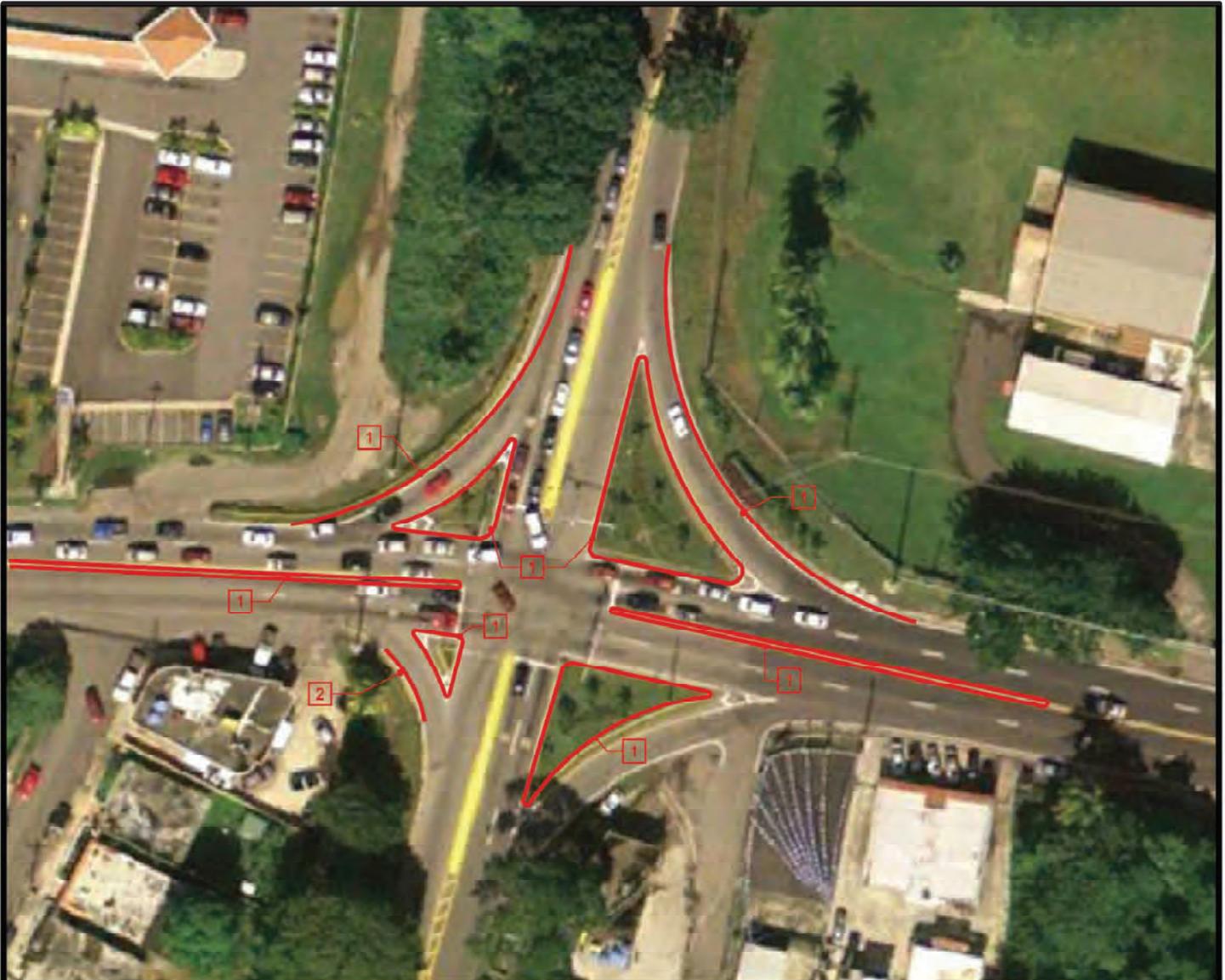
APPENDIX D: PHOTOGRAPHIC RECORD

Photo No.	Date:	
2064	11/7/2022	<p data-bbox="203 506 344 533"><b>Description:</b></p> <p data-bbox="203 598 537 684"><b>Project no. 003-CRP-000318</b> Lead-based painted wood light pole.</p> 

Photographic Documentation is for reference purposes and doesn't necessarily include all the surfaces with lead based paint and/or components containing lead.

## **APPENDIX E: LOCATION OF POSITIVE MATERIALS**

---



**CRP-000307 SITE PLAN**

NTS

Lead Legend:

- 1 Curb
- 2 Guard Rail
- 3 Light Pole
- 4 Islet
- 5 Manhole Lid
- 6 Manhole Base
- 7 Switch Box Base & Meter
- 8 Lid

Note:

The layout of materials shown in this figure is for illustrative purposes only. For actual location and quantity of materials refer to the Lead Based Paint survey report dated November 2022

**Zimmetry Environmental  
Environmental Building Inspectors**

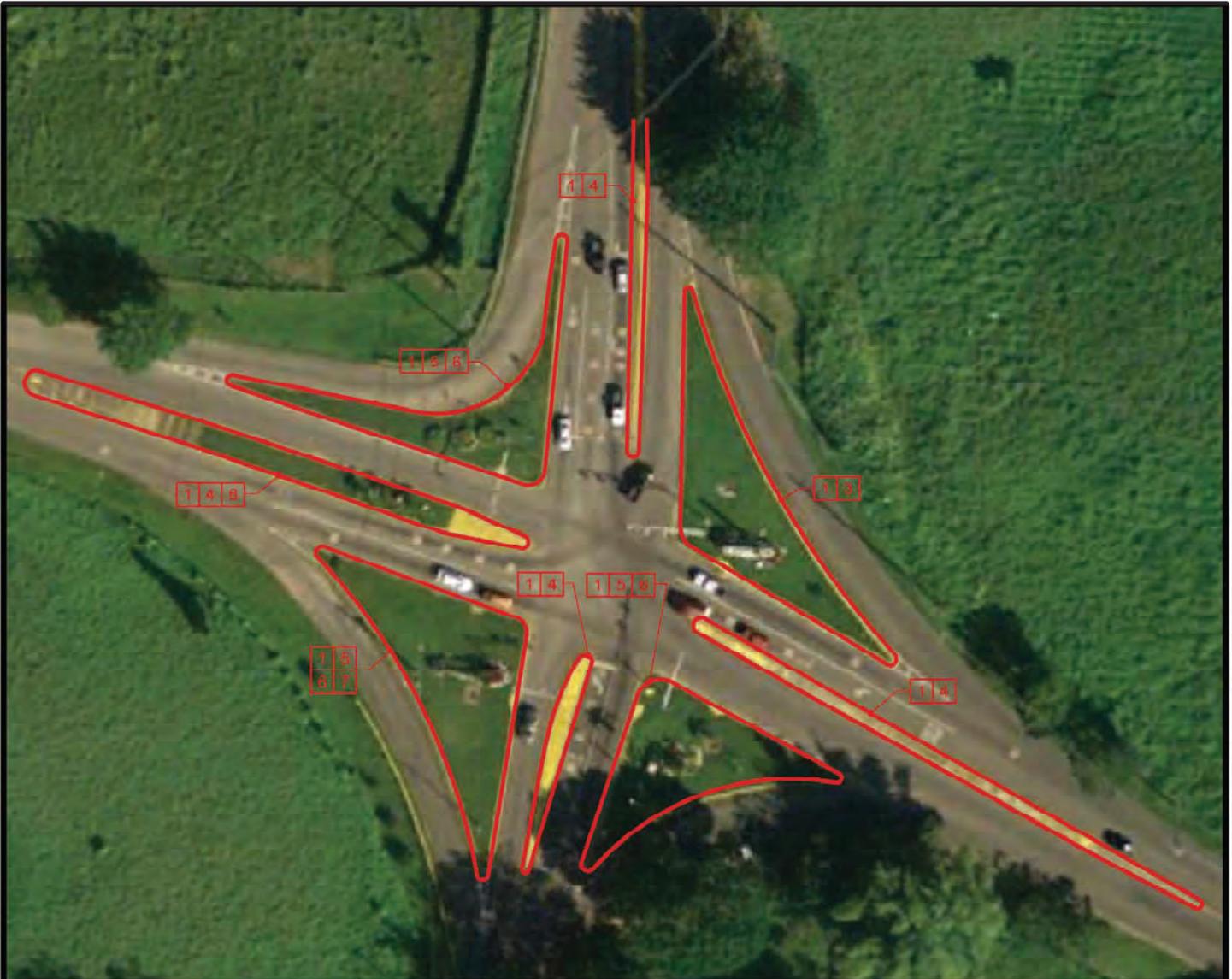
Indoor Environmental Quality / Mold Assessments, Asbestos,  
Lead Based Paint Consulting – Phone – Fax (787) 995-0005

Project: Roundabouts Project at Yabucoa Municipality

Date: November 2022

Project No. ZEM-22238

-



## CRP-000381 SITE PLAN

NTS

## Lead Legend:

- 1 Curb
- 2 Guard Rail
- 3 Light Pole
- 4 Islet
- 5 Manhole Lid
- 6 Manhole Base
- 7 Switch Box Base & Meter
- 8 Lid

### Note:

The layout of materials shown in this figure is for illustrative purposes only. For actual location and quantity of materials refer to the Lead Based Paint survey report dated November 2022

## Zimmetry Environmental Environmental Building Inspectors

Indoor Environmental Quality / Mold Assessments, Asbestos,  
Lead Based Paint Consulting - Phone - Fax (787) 995-0005

Project: Roundabouts Project at Yabucoa Municipality

Date: November 2022

Project No. ZEM-22238

-



## 003-CRP-000318 SITE PLAN

NTS

## Lead Legend:

- 1 Curb
- 2 Guard Rail
- 3 Light Pole
- 4 Islet
- 5 Manhole Lid
- 6 Manhole Base
- 7 Switch Box Base & Meter
- 8 Lid

### Note:

The layout of materials shown in this figure is for illustrative purposes only. For actual location and quantity of materials refer to the Lead Based Paint survey report dated November 2022

## Zimmetry Environmental Environmental Building Inspectors

Indoor Environmental Quality / Mold Assessments, Asbestos,  
Lead Based Paint Consulting - Phone - Fax (787) 995-0005

Project: Roundabouts Project at Yabucoa Municipality

Date: November 2022

Project No. ZEM-22238

-

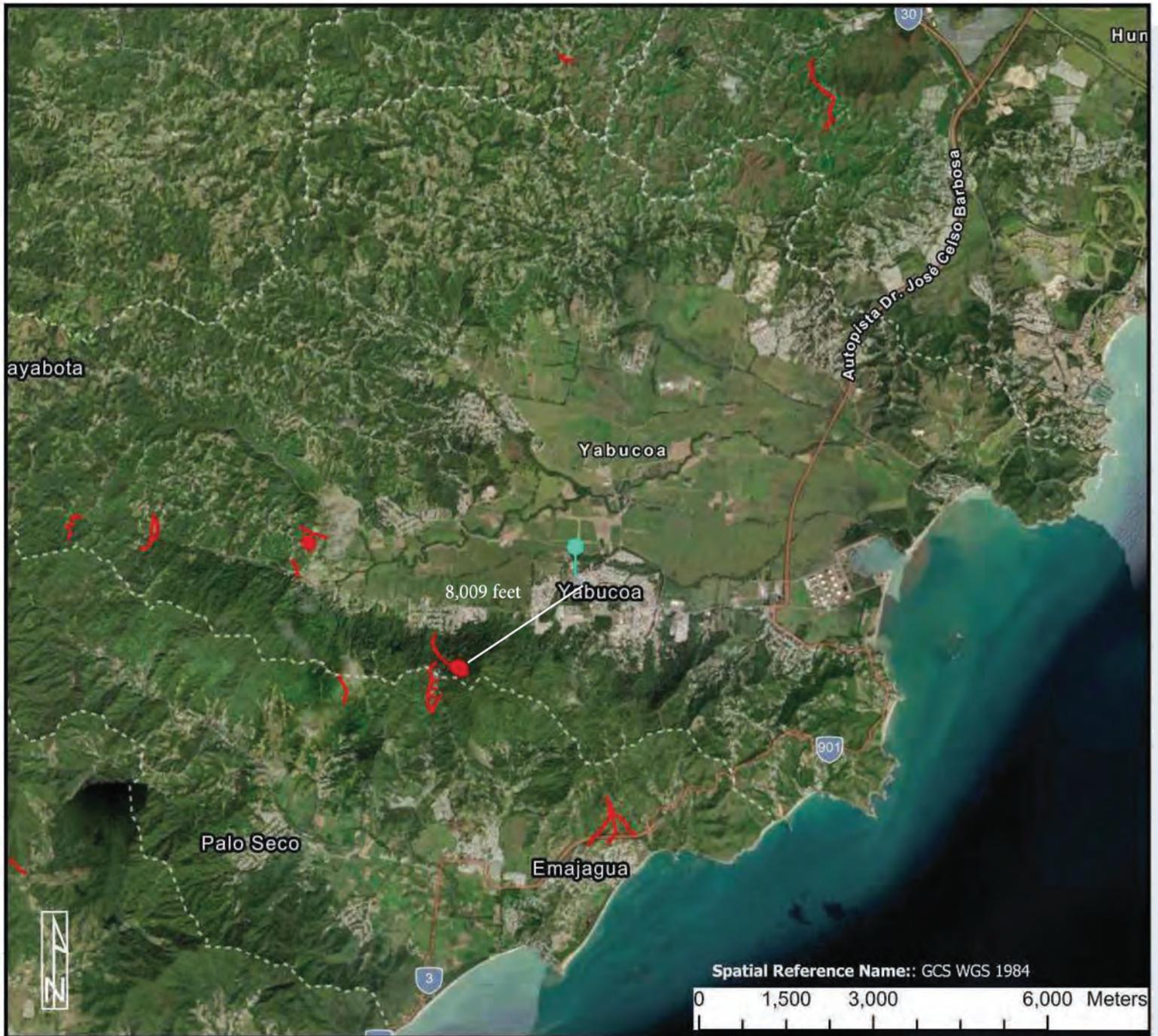
**Attachment H**

Critical Habitat Map and BL Self-Certification

# Critical Habitat Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://ipac.ecosphere.fws.gov/>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

### Legend

-  Site Location
-  Endangered Species Critical Habitat Areas



**Transmittal Letter**

March 28, 2025

Caribbean Ecological Services Field Office  
U.S. Fish and Wildlife Service  
P.O. Box 491  
Boquerón, Puerto Rico 00622  
Email: [caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov)



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.

**DAMARIS ROMAN** Digitally signed by DAMARIS ROMAN RUIZ  
Reviewer **RUIZ** Date: 2025.04.03 10:42:26 -04'00'

**LOURDES MENA** Digitally signed by LOURDES MENA  
Caribbean ES Field Supervisor Date: 2025.04.11 11:46:09 -04'00'

**RE: USFWS Endangered Species Act Certifications – March 2025**

We are submitting the following Self-Certifications for projects under the CDBG-DR Small Business Financing Program, Economic Development Investment Portfolio for Growth Program and City Revitalization Program. Attached are included the Self-Certifications that certify that the projects are in compliance and are not likely to adversely affect federally-listed species.

The following table includes the projects that are in compliance with the Blanket Clearance Letter for the Endangered Species act of 1973, as amended, and the Fish and Wildlife Coordination Act.

Project Number	Project Name
PR-CRP-000318	<i>Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Rehabilitación de la Calle Catalina Morales para la construcción del Paseo de Los Inmortales en el municipio de Yabucoa</i>
PR-CRP-000595	Multimodal Public Transportation Hub
PR-CRP-000815/ PR-CRP-001093	Magisterio Plaza, Magisterio and Pimentel Streets Urban Rehabilitation
PR-CRP-000853	<i>Plaza Pública San Carlos</i>
PR-IPG-000395	Ciqala Luxury Suites Hotel Expansion
PR-SBF-00532-E- Re-evaluation	<i>Mariely Colón Rodríguez hnc M Boutique</i>
PR-SBF-04490-E- Re-evaluation	<i>Hacienda Charra Inc.</i>
PR-SBF-05174-E	The Pickup Place Corp.
PR-SBF-08603	<i>Roberto Sebelen Medina hnc Tapia Haus 103</i>

For more information, please contact the Permits and Environmental Compliance Division at [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) or at (787)274.2527 ext. 4320.

Sincerely,

Permits and Environmental Compliance Division  
Disaster Recovery Office



**Self-Certification**

<http://www.fws.gov/caribbean/ES/Index.html>

**Endangered Species Act Certification**

The U.S. Fish and Wildlife Service, Caribbean Ecological Services Field Office developed a Blanket Clearance Letter in compliance with Endangered Species Act of 1973, as amended, and the Fish and Wildlife Coordination Act for federally funded projects.

The Service determined that projects in compliance with the following criteria are not likely to adversely affect federally-listed species.

The Puerto Rico Department of Housing (PRDOH) certifies that the following project **Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Rehabilitación de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales en el municipio de Yabucoa (PR-CRP-000318)**, under the CDBG-DR City Revitalization Program, consists of the construction of a new roundabout around the existing *Monumento al Cortador de Caña*, located in the intersection of Catalina Morales Street (State Road PR-182), Cristóbal Colón Street (State Road PR-9910), Saturnino Rodríguez Street (PR-901), and Tomás Méndez Street (Lat: 18.047070, Long: -65.878829); and improvements to Catalina Morales Street (State Road PR-182) from its intersection with Luis Muñoz Rivera Street at the northwest end to the intersection with Segundo González Prida Street at the southeast end, including construction of a new promenade called *Paseo de los Inmortales* (Lat: 18.049846, Long: -65.882701), Yabucoa, Puerto Rico, complies with:

Check	Project Criteria
<input checked="" type="checkbox"/>	1. Street resurfacing.
<input checked="" type="checkbox"/>	2. Construction of gutters and sidewalks along existing roads.
<input type="checkbox"/>	3. Reconstruction or emergency repairs of existing buildings, facilities and homes.
<input type="checkbox"/>	4. Rehabilitation of existing occupied single-family homes, and buildings; provided that equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation and that the lighting associated to the new facilities is not visible directly or indirectly from a beach.

<input type="checkbox"/>	5. Demolition of dilapidated single-family homes or buildings; provided that the demolition debris is disposed in certified receiving facilities; equipment storage or staging areas are not located on vacant property harboring a wetland and/or forested vegetation.
<input type="checkbox"/>	6. Rebuilding of demolished single-family homes or buildings, provided that the new construction is within the existing footprint of the previous structure and/or within pre-existing grassed or paved areas, and that the lighting associated to the new facilities are not visible directly or indirectly from a beach.
<input checked="" type="checkbox"/>	7. Activities within existing Right of Ways (ROWs) of roads, bridges and highways, when limited to actions that do not involve cutting native vegetation or mayor earth moving; and are not located within, or adjacent to, drainages, wetlands, or aquatic systems. These activities include the installation of potable water and sanitary pipelines.
<input type="checkbox"/>	8. Improvements to existing recreational facilities, including the installation of roofs to existing basketball courts, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input checked="" type="checkbox"/>	9. Construction of electric underground systems in existing towns and communities, provided that the property is not a wetland area and the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	10. Construction of facilities on vacant properties covered with grasses in urban areas, provided that the lighting associated to the facilities are not visible directly or indirectly from the beach.
<input type="checkbox"/>	11. Construction of houses, buildings or acquiring lands in urban areas covered by grass for relocation of low-income families and/or facilities that have been affected by weather conditions.



Angel G. López-Guzmán

Deputy Director

Permits and Environmental Compliance Division

Disaster Recovery Office

**Address:** P.O. Box 21365 San Juan, PR 00928

**Telephone and Ext:** 787-274-2527 ext. 4320

**Email:** [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov)

*March 13, 2025*

Date

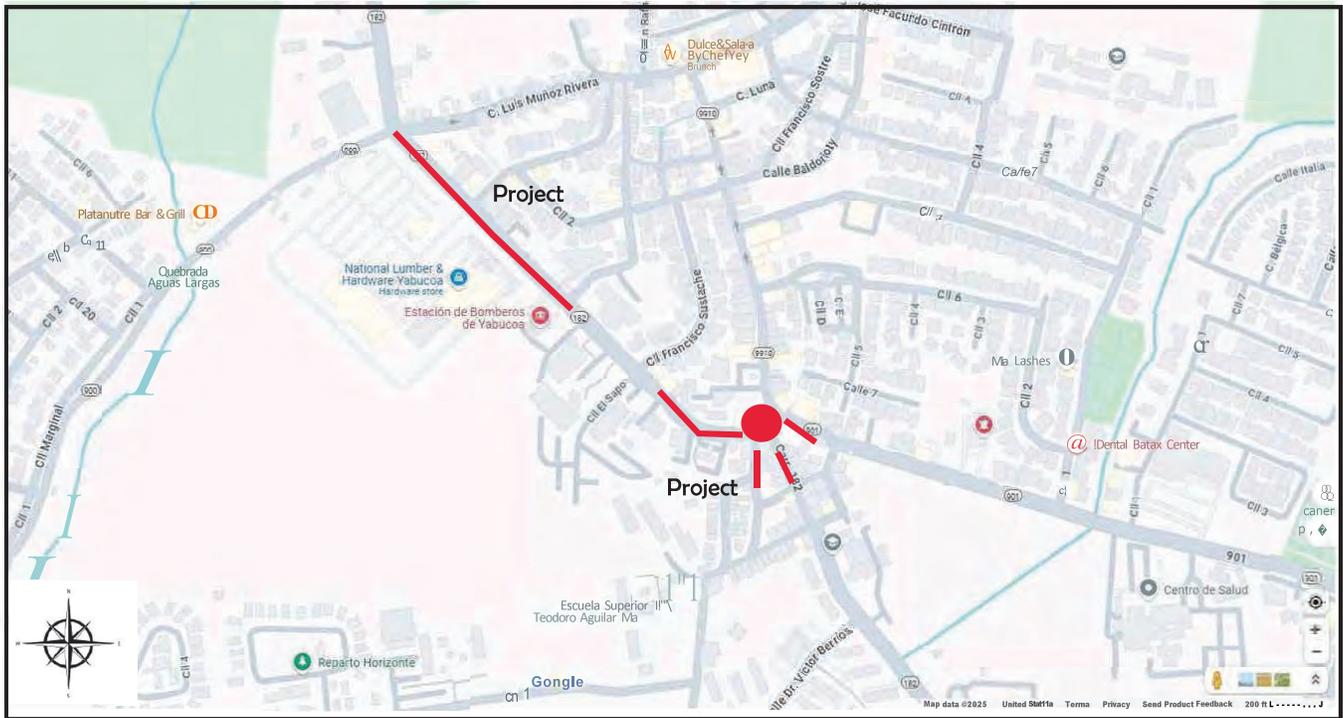
Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Puesto de Los Inmortales (PR-CRP-000318)

Address: PR-182, and PR-182 int. PR-901 and PR-9910, Yabucoa

Coordinates: 18.047070, 05.070829 (Roundabout), 18.049846, 05.002701 (Catalina Morales St.) (WGS 1984)



### LOCATION MAP



PROJECT PR-CRP-000318



PASEO DE LOS INMORTALES PR-182 SOUTH VIEW



PASEO DE LOS INMORTALES PR-182 INT. PR-930 WEST VIEW



PASEO DE LOS INMORTALES PR-182 NORTH VIEW



PASEO DE LOS INMORTALES PR-182, NORTH VIEW



PASEO DE LOS INMORTALES PE-182 SOUTH VIEW



ROUNDBOUT "CORTADOR DE CAÑA" PR-182 SOUTH VIEW



ROUNDBOUT "CORTADOR DE CAÑA" PR-182 WEST VIEW



ROUNDBOUT "CORTADOR DE CAÑA" PR-182



PR-9910 EAST VIEW

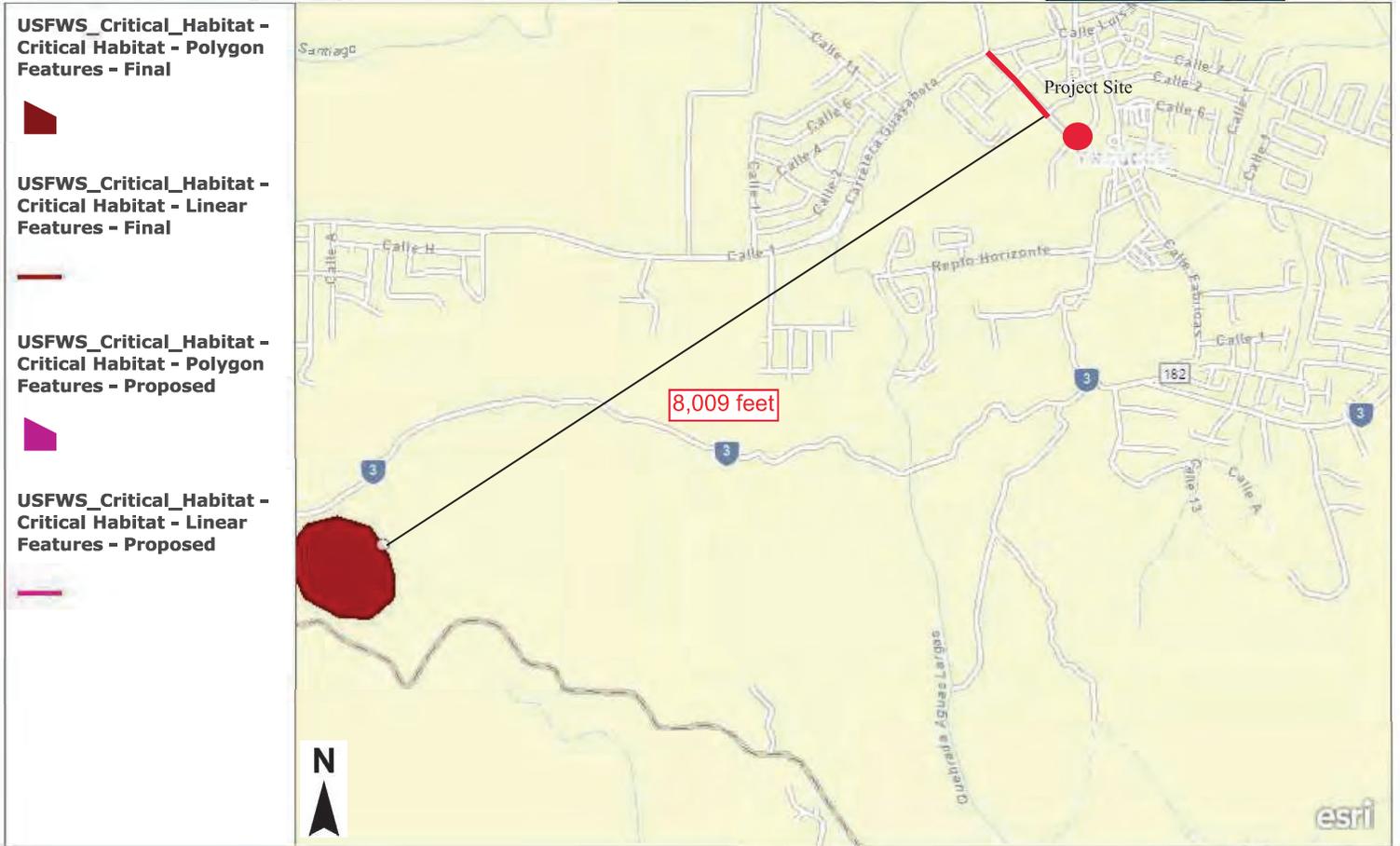


PR-901 SOUTHVIEW



PR-9910 WEST VIEW

Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales (PR-CRP-000318)  
 Address: PR-182, and PR-182 int. PR-901 and PR-9910, Vobucoa  
 Coordinates: 18.0427170, -65.828809 (Roundabout), 18.049846, -65.882701 (Catalina Morales St) (WGS1984)



**USFWS\_Critical\_Habitat - Critical Habitat - Polygon Features - Final**



**USFWS\_Critical\_Habitat - Critical Habitat - Linear Features - Final**



**USFWS\_Critical\_Habitat - Critical Habitat - Polygon Features - Proposed**



**USFWS\_Critical\_Habitat - Critical Habitat - Linear Features - Proposed**



0.3mi

Esri Community Maps Contributors, Kadaster Netherlands, Esri, TomTom, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census Bureau, USFWS

Construcción de Rotononda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales (PR-CRP-000318)

Address: PR-182, and PR-182 int. PR-901 and PR-9910, Yabucoa

Coordinates: 18.047070, -65.878829 (Roundabout), 18.049846, -65.882701 (Catalina Morales St.) (WGS 1984)



November 18, 2022

**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.

Spatial Reference:  
NAD 1983 State Plane Puerto Rico Virgin Islands FIPS 5200 Feet

National Wetlands Inventory (NW1)  
This page was produced by the NW1 mapper



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Caribbean Ecological Services Field Office  
Post Office Box 491  
Boqueron, PR 00622-0491  
Phone: (939) 320-3135 Fax: (787) 851-7440  
Email Address: [CARIBBEAN\\_ES@FWS.GOV](mailto:CARIBBEAN_ES@FWS.GOV)

In Reply Refer To:  
Project Code: 2025-0119927  
Project Name: PR-CRP-000318

07/10/2025 12:47:08 UTC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

**\*THE FOLLOWING SPECIES LIST IS NOT A SECTION 7 CONSULTATION. PLEASE CONTACT OUR OFFICE TO COMPLETE THE CONSULTATION PROCESS\***

The purpose of the Endangered Species Act (Act) is to provide a means whereby threatened, and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect those species and/or their designated critical habitat.

Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action". The enclosed species list provides information to assist with the U.S. Fish and Wildlife Service (Service) consultation process under section 7 of the Act. However, **the enclosed species list does not complete the required consultation process.** The species list identifies threatened, endangered, proposed and candidate species, as well as proposed and designated critical habitats, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. A discussion between the Federal agency and the Service should include what types of listed species may occur in the proposed action area and what effect the proposed action may have on those species. This process initiates informal consultation.

Once a species list is obtained for the proposed project, an effect determination for endangered and threatened species should be made. The applicant could make an effect determination by using available keys on IPaC for specific species. For species with no determination keys, the applicant should request concurrence from the Service by sending a project package

to [caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov). To obtain guidance for completing this process and the minimum requirements for project packages, please visit:

<https://www.fws.gov/sites/default/files/documents/consultation-under-section-7-of-the-endangered-species-act-with-the-caribbean-ecological%20Services-field-office-template-letter.pdf>

When a federal agency, after discussions with the Service, determines that the proposed action is not likely to adversely affect any listed species, or adversely modify any designated critical habitat, and the Service concurs, the informal consultation is complete, and the proposed project moves ahead. If the proposed action is suspected to affect a listed species or modify designated critical habitat, the Federal agency may then prepare a Biological Assessment (B.A.) to assist in its determination of the project's effects on species and their habitat. However, a B.A. is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a B.A. where the agency provides the Service with an evaluation on the likely effects of the action to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a B.A. are described at 50 CFR 402.12.

If a federal agency determines, based on its B.A. or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to further consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation process. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species.

This list is provided pursuant to Section 7 of the Endangered Species Act and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action". Please use this list to determine whether your project requires consultation and to make your effects determination. For more guidance, use the Guideline for Consultation under Section 7 of the Endangered Species Act with the Caribbean Ecological Services Field Office by clicking [here](#).

This species list is provided by:

Caribbean Ecological Services Field Office

[caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov)

Post Office Box 491

Boqueron, PR 00622-0491

(786) 244-0081

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Caribbean Ecological Services Field Office**

Post Office Box 491

Boqueron, PR 00622-0491

(939) 320-3135

## PROJECT SUMMARY

Project Code: 2025-0119927  
Project Name: PR-CRP-000318  
Project Type: Federal Grant / Loan Related  
Project Description: Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.

### Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@18.0469491,-65.87879378489735,14z>



Counties: Yabucoa County, Puerto Rico

## ENDANGERED SPECIES ACT SPECIES

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## REPTILES

NAME	STATUS
<p>Puerto Rican Boa <i>Chilabothrus inornatus</i></p> <p>No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6628">https://ecos.fws.gov/ecp/species/6628</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/UPMRKI4LCRDMHOZ3FTXJYNBRFM/documents/generated/7159.pdf">https://ipac.ecosphere.fws.gov/project/UPMRKI4LCRDMHOZ3FTXJYNBRFM/documents/generated/7159.pdf</a></p>	Endangered

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act <sup>2</sup> and the Migratory Bird Treaty Act (MBTA) <sup>1</sup>. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

- 
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
  2. The [Migratory Birds Treaty Act](#) of 1918.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

## MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) <sup>1</sup> prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO FWS MIGRATORY BIRDS OF CONCERN WITHIN THE VICINITY OF YOUR PROJECT AREA.

## WETLANDS

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

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

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

## **IPAC USER CONTACT INFORMATION**

Agency: Puerto Rico Department of Housing  
Name: A Berríos  
Address: C Miramelinda  
Address Line 2: B7  
City: Dorado  
State: PR  
Zip: 00646  
Email: berriosmarcos@gmail.com  
Phone: 7874643899

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Department of Housing and Urban Development

You have indicated that your project falls under or receives funding through the following special project authorities:

- **FEDERAL PERMITTING IMPROVEMENT STEERING COUNCIL (FPISC)  
TRANSPARENCY PROJECT**

# General Project Design Guidelines (1 Species)

Generated November 17, 2022 04:34 PM UTC, IPaC v6.83.2-rc4



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# Species Document Availability

## Species with general design guidelines

**Puerto Rican Boa** *Chilabothrus inornatus*



## U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

### Conservation Measures for the Puerto Rican boa (*Chilabothrus inornatus*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rico boa is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

The endangered Puerto Rican (PR) boa (*Chilabothrus inornatus*, formerly *Epicrates inornatus*) is the largest endemic snake species that inhabits Puerto Rico. The PR boa is non-venomous and does not pose any life threatening danger to humans, but some individuals may try to bite if disturbed or during capture or handling. Its body color ranges from tan to dark brown with irregular diffuse marking on the dorsum, but some individuals lack marking and are uniformly dark. Juveniles may have a reddish color with more pronounced markings. In general, as they mature, their body color tends to darken.



The Puerto Rican boa was federally listed in 1970. Currently, the species has an island-wide distribution and occurs in a wide variety of habitat types ranging from wet montane to subtropical dry forest, and can be found from mature forest to areas with different degrees of human disturbance like roadsides or houses, especially if near their habitat in rural areas. This boa is considered mostly nocturnal, remaining less active, concealed or basking under the sun during the day.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the PR boa and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented in this document.

#### Conservation Measures:

1. Inform all project personnel about the potential presence of the PR boa in areas where the proposed work will be conducted. A pre-construction meeting should be conducted to inform all project personnel about the need to avoid harming the species as well as penalties for harassing or harming PR boas. An educational poster or sign with photo or illustration of the species should be displayed at the project site.
2. Prior to any construction activity, including removal of vegetation and earth movements, the boundaries of the project and areas to be excluded and protected should be clearly marked in the project plan and in the field in order to avoid further habitat degradation into forested and conservation areas.
3. Once areas are clearly marked, and prior to the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), a biologist or personnel with experience on this species should survey the areas to be cleared to verify the presence of any PR boa within the work area.
4. The PR boa is considered more active at night. Thus, in order to maximize its detection, the species should be searched at nights prior to habitat disturbance.
5. Once the area has been searched for PR boas, vegetation should first be cleared by hand to the maximum extent possible. Vegetation should be cut about one meter above ground prior to the use of heavy machinery for land clearing. Cutting vegetation by hand will allow boas present on site to move away on their own to adjacent available habitat. Any stone walls or naturally occurring rock piles must be carefully dismantled by hand as these are refuges for the snake. This will allow any boas present to vacate the site without injury.
6. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. PR boa data should also include a photo of the animal (dead or alive), site GPS coordinates, the time and date, and comments on how the animal was detected and its behavior.

7. If a PR boa is found within any of the working or construction areas, activities should stop at that area and information recorded (see #6). **Do not capture the boa.** If boas need to be moved out of harm's way, designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #s: ((787) 724-5700, (787) 230-5550, (787) 771-1124). If immediate relocation is not an option, project-related activities at this area must stop until the boa moves out of harm's way on its own. Activities at other work sites, where no boas have been found after surveying the area, may continue.
8. If a PR boa is captured by the PRDNER, record the name of the PRDNER staff and information on where the PR boa will be taken. This information should be reported to the Service.
9. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal (see #7). If not possible, the animal should be left alone until it leaves the vehicle on its own.
10. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future.
11. If a dead PR boa is found, immediately cease all work in that area and record the information accordingly (see #6). If the PR boa was accidentally? killed as part of the project actions, please include information on what conservation measures had been implemented and what actions that will be taken to avoid further killings. A dead boa report should be sent by email (see contacts below) to the Service within 48 hours of the event.
12. Projects must comply with all state laws and regulations. Please contact the PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

- Marelisa Rivera, Deputy Field Supervisor
  - Email: [marelisa\\_rivera@fws.gov](mailto:marelisa_rivera@fws.gov)
  - Office phone (786) 244-0081 or mobile (305) 304-1814
- José Cruz-Burgos, Endangered Species Coordinator
  - Email: [jose\\_cruz-burgos@fws.gov](mailto:jose_cruz-burgos@fws.gov)
  - Office phone (786) 244-0081 or mobile (305) 304-1386

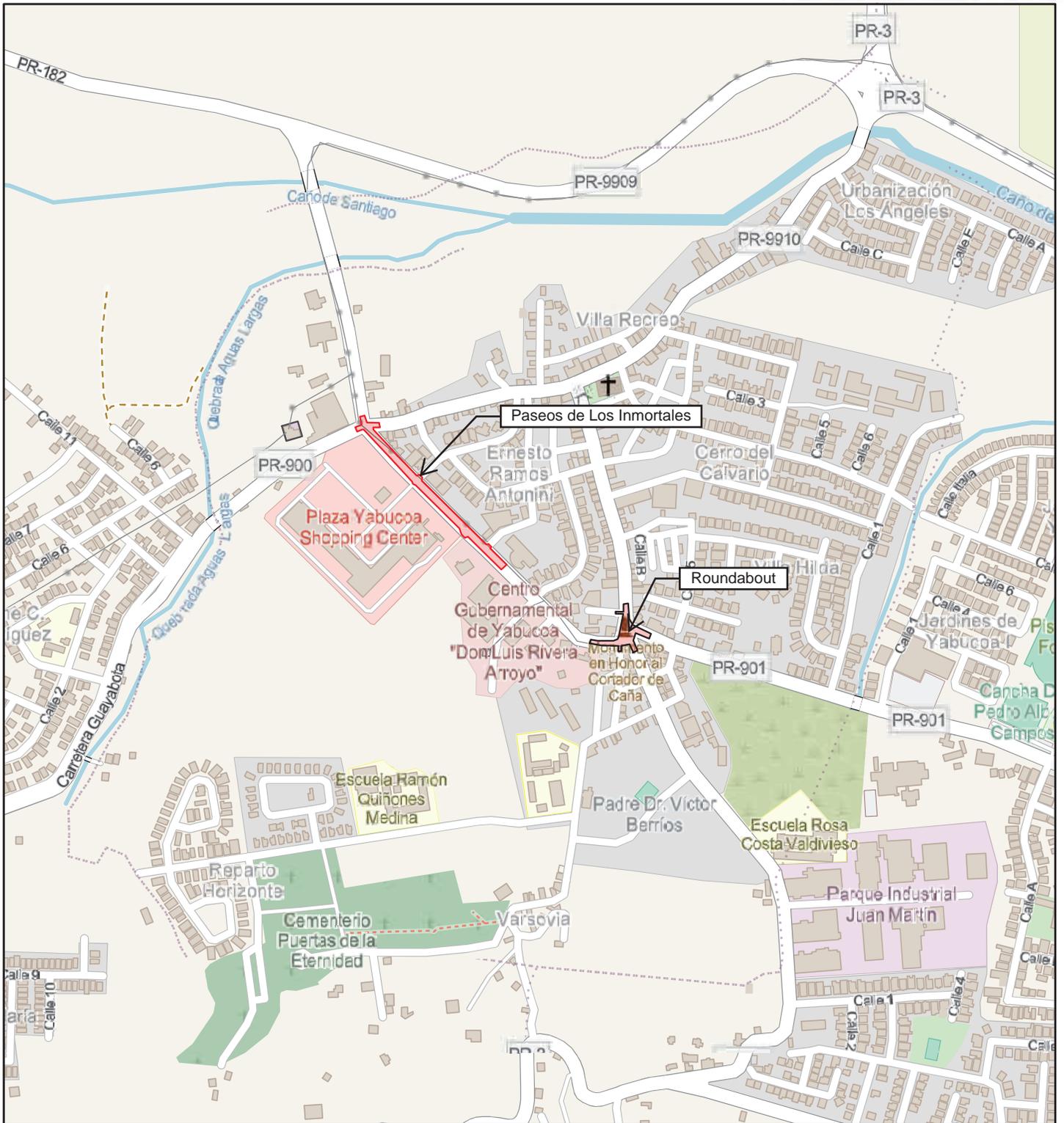
**Attachment I**

Commercial Influence Zone Map

# Commercial Influence Zone Project ID:PR-CRP-000318



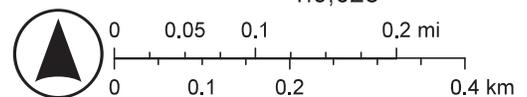
Revitalization of Catalina Morales Street – Paseo de los Inmortales  
and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.



7/18/2025

1:9,028

 Project Footprint



**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

Map data © OpenStreetMap contributors, Microsoft, Facebook, Google, Esri  
Community Maps contributors, Map layer by Esri

**Attachment J**  
Farmland Map

# Farmland Classification Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

### Legend

-  Site Location
-  Farmland of Local Importance
-  Farmland of Statewide Importance
-  Farmland of Unique Importance
-  Not Prime Farmland
-  USA SSURGO - Farmland Class
-  Prime Farmland

**Attachment K**  
SHPO Coordination



# GOVERNMENT OF PUERTO RICO

## STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio Cancela | [carubio@prshpo.pr.gov](mailto:carubio@prshpo.pr.gov)

Friday, June 28, 2024

Lauren B Poche

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

SHPO-CF-06-13-24-03 PR-CRP-000318 (Yabucoa), Revitalization of Catalina Morales St and Roundabout

Dear Ms. Poche,

Our Office has received and reviewed the above referenced project in accordance with 54 USC 306108 (commonly known as Section 106 of the National Historic Preservation Act, as amended) and 36 CFR Part 800: Protection of Historic Properties from the Advisory Council on Historic Preservation.

After a review of all the documentation, the PRSHPO agrees with your finding that the proposed project with the established conditions, will have no adverse effect upon historic properties:

1. Archaeological monitoring during all demolitions, excavations and ground disturbing activities. Please provide us with the archaeological monitoring work plan for our review and concurrence, prior to implementation.

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

Sincerely,

Carlos A. Rubio Cancela

State Historic Preservation Officer

CARC/GMO/MB





GOVERNMENT OF PUERTO RICO  
DEPARTMENT OF HOUSING

April 30, 2024

**Arch. Carlos A. Rubio Cancela**

Executive Director

Puerto Rico State Historic Preservation Office

Cuartel de Ballajá, Third Floor

San Juan, Puerto Rico 00901

**Re: Authorization to Submit Documents for Consultation**

Dear Arch. Rubio Cancela,

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

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

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

Cordially,

**Aldo A. Rivera Vázquez, PE**

Director

Division of Environmental Permitting and Compliance

Office of Disaster Recovery

6/13/2024

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

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

### **Section 106 NHPA Effect Determination Submittal for PR-CRP-000318, Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales en el Municipio de Yabucoa Project, Yabucoa, Puerto Rico – *No Adverse Effect, Conditioned***

Dear Architect Rubio Cancela,

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

On behalf of PRDOH, HORNE is submitting documentation for the proposed Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales en el Municipio de Yabucoa Project. The Municipality of Yabucoa proposes to improve Catalina Morales Street (State Road PR-182) from its intersection with Luis Muñoz Rivera Street at the northwest end to the intersection with Segundo González Prida Street at the southeast end, including construction of a new promenade called Paseo de los Inmortales. The project also includes the construction of a new roundabout around the existing Monumento al Cortador de Caña, located in the intersection of Catalina Morales Street (State Road PR-182), Cristóbal Colón Street (State Road PR-9910), Saturnino Rodríguez Street (PR-901), and Tomás Méndez Street. Improvements include widening sidewalks, urban artwork (mosaics in sidewalks, engraved placards commemorating local illustrious people, and a steel mesh structure), landscaping including new trees, repaving the streets, and bicycle lanes. The roundabout will have a circular mosaic in its center with a lawn and concrete rings, with the existing *Monumento al Cortador de Caña* removed and replaced after construction activities are complete. New lamp posts will be installed and the



surrounding asphalt will be replaced with cobbelstones. Local underground utilities will be repaired or replaced as needed. The full scope of the project is described in the submitted documentation, which includes mapping, photographs, and the 90% construction plans.

Based on the provided documentation, the Program requests a concurrence with a determination that "No Adverse Effect" is appropriate for this undertaking, conditioned to archaeological monitoring during all demolitions, excavations, and ground-disturbing activities. If this condition is deemed appropriate, An archaeological monitoring plan will be prepared and submitted to the PRSHPO for review and concurrence of the appropriateness of its implementation for this undertaking.

If you have any questions or concerns, please contact me by email at [lauren.poche@horne.com](mailto:lauren.poche@horne.com) or phone at 225-405-7676.

Kindest regards,

A handwritten signature in cursive script that reads 'Lauren Bair Poche'.

**Lauren Bair Poche. M.A.**

Architectural Historian, EHP Senior Manager

Attachments

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CITY-REV)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Municipality of Yabucoa	
<b>Program ID:</b> PR-CRP-000318	
<b>Project Name:</b> Revitalization of Catalina Morales Street for the Construction of <i>Paseo de Los Inmortales</i> and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection	

**Project Location:** Catalina Morales Street (State Road PR-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Project Coordinates:** Catalina Morales and Luis Muñoz Rivera Streets Int. (18.049846, -65.882701); Catalina Morales and Segundo González Prida Streets Int. (18.048157, -65.880909); State Roads PR-901 and PR-182 Int. (18.047070, -65.878829)

**TPID (Número de Catastro):** 720-151-001-82; 720-151-009-01; 720-151-099-10; 720-151-009-00

**Type of Undertaking:**  
 Substantial Repair/Improvements  
 New Construction

<b>Construction Date (AH. Est.):</b> ca. 1960s	<b>Property Size (Acres):</b> 2.1598
--	--------------------------------------

**SOI-Qualified Architect/Architectural Historian:** Eduardo A. Regis Martínez, M.A.; edited by Jorge Lizardi Pollock, Ph.D.

**Date Reviewed:** May 25, 2023; January 15, 2024; April 10, 2024; May 17, 2024

**SOI-Qualified Archaeologist:** Tamara González Vega, M.A.; edited by Jesus E. Vega, Ph.D.

**Date Reviewed:** May 25, 2023; May 17, 2024; June 10, 2024

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

### Project Description (Undertaking)

Project PR-CRP-000381 aims to improve Catalina Morales Street (State Road PR-182) from its intersection with Luis Muñoz Rivera Street at the northwest end to the intersection with Segundo González Prida Street at the southeast end, including construction of a new promenade called *Paseo de los Inmortales*. The project also includes the construction of a new roundabout around the existing *Monumento al Cortador de Caña*, located in the intersection of Catalina Morales Street (State Road PR-182), Cristóbal Colón Street (State Road PR-9910), Saturnino Rodríguez Street (PR-901), and Tomás Méndez Street.

Proposed improvements at Catalina Morales Street (State road PR-182) include widening the sidewalk in compliance with ADA regulations, demarcating a strip for reforestation, and constructing of the *Paseo de los Inmortales*, which will require the demolition of nearly six inches (15 cm) of sidewalk and ramp on the east side of the street. The new sidewalk will be partially paved with a linear mosaic extending to the Municipal Library. Two segments of concrete retaining walls will be removed for the installation of engraved placards commemorating illustrious people from Yabucoa, with mosaics between each placard. A steel mesh structure will be installed to the rear of the engraved placards and

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CITY-REV)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Municipality of Yabucoa	
<b>Program ID:</b> PR-CRP-000318	
<b>Project Name:</b> Revitalization of Catalina Morales Street for the Construction of <i>Paseo de Los Inmortales</i> and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection	

decorated with ornamental plants. These improvements will embellish the promenade as an amenable public space, including the planting of twenty-four trees, new concrete benches, new lighting, new flagpoles, and the town's name in Corten steel letters. Existing planters will be rebuilt and widened at the corners of the *Paseo de los Inmortales*. Additionally, Catalina Morales Street (State Road PR-182) will be repaved, pedestrian crossings will be marked adequately, and a bicycle lane will be created on the west side of the street. The maximum depth of excavation for the streets and sidewalks is 4 feet (1.2 meters).

The new roundabout will be 28 feet (8.6 meters) in diameter with a concentric composition and a circular mosaic, surrounded by lawn and concrete rings. The existing *Monumento al Cortador de Caña* will be temporarily removed during the construction of the roundabout and reinstalled as the centerpiece upon completion. Four lampposts will be installed at the center. The surrounding asphalt will be replaced with cobblestones. Other improvements include the reparation of underground utilities, including water lines, requiring excavations of 2 to 3 feet (30 to 60 cm) deep, including new drainage, erosion, and sedimentation control measures.

The geometry of the streets and sidewalks will be improved to conform to the new roundabout, ensuring safe and efficient circulation of cars and pedestrians. These improvements will enhance the south entrance to the Yabucoa Traditional Urban Center, with the historic Cristóbal Colón Street providing direct connection from the roundabout to the Yabucoa Public Plaza and Santos Ángeles Custodios Parish. For a more detailed view of the proposed geometry, refer to the 90% completed design plans.

The Catalina Morales Street will be temporarily closed during project activities. Erosion and sedimentation controls will be implemented during the construction of the *Paseo de los Inmorales* and the new roundabout to avoid discharge into the streets. A temporary storm sewer system will be installed, including hay bales for drainages, silt fences around the project boundaries, and a washout entrance for trucks to avoid sediment migration into the streets. Staging and storage areas will also be delimited with a silt fence for further sediment control. Alternative traffic routes with clear signage will be prepared in compliance with the PRHTA and FHWA standards and regulations.

### **Area of Potential Effects**

As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the undertaking, the Program has determined that the direct APE for this project includes two separate locations at Catalina Morales

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CITY-REV)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Municipality of Yabucoa	
<b>Program ID:</b> PR-CRP-000318	
<b>Project Name:</b> Revitalization of Catalina Morales Street for the Construction of <i>Paseo de Los Inmortales</i> and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection	

Street (State Road PR-182) within the Yabucoa Traditional Urban Center. The first location runs from the intersection of Catalina Morales Street with Luis Muñoz Rivera Street at the northwest end, to the intersection with Segundo González Prida Street at the southeast end, including the new promenade called *Paseo de los Inmortales*. It measures 917 feet (0.17 miles) long by an average of 40 feet wide, encompassing approximately 71,910 square feet, including a wider area of 193 feet at the northwest end. The second location of the direct APE is a new roundabout at the existing *Monumento al Cortador de Caña*, “Monument to the Cane Cutter” at the intersection of Catalina Morales Street (State Road PR-182) with Cristóbal Colón Street (State Road PR-9910) and Tomás Méndez Street. It measures 375 feet from east to west, and 330 feet from north to south, encompassing an area of 32,323 square feet. Both APEs are irregular polygons, encompassing a total area of 104,233 square feet.

The indirect APE or viewshed of the segment of Catalina Morales Street (State Road PR-182) consists of mostly one-story and two-story concrete commercial establishments from the mid- to late 20<sup>th</sup> century on the north side, such as pizzerias, cafeterias, furniture stores, funeral parlors, among others. Non-commercial structures include an acoustic conch and the *Servicio Extensión Agrícola del Colegio de Ciencias Agrícolas* operated by the Mayagüez Campus of the University of Puerto Rico (UPRM). Each street intersection (Muñoz Rivera Street, Santiago Vidarte Street, and Segundo González Prida Street, from west to east) leads to a residential area. The south side is largely defined by the Plaza Yabucoa Shopping Center, built in the early 2000s, followed by institutional buildings such as the Municipal Fire Station, Municipal Library, and City Hall. The new roundabout at the existing *Monumento al Cortador de Caña*, located in the intersection of Catalina Morales Street with Cristóbal Colón Street (State Road PR-9910) and Tomás Méndez Street, is also surrounded by one-story and two-story concrete commercial establishments from the mid- to late 20<sup>th</sup> century. The *Iglesia Evangélica Unida de Yabucoa* is visible to the northwest, along with *Farmacia La Rampla* and a small pedestrian plaza. The new roundabout, as well as the intersection between Catalina Morales and Luis Muñoz Rivera Streets, are located within the boundaries of the Yabucoa Traditional Urban Center.

### Identification of Historic Properties - Archaeology

Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information, by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior’s Professional Qualification Standards (36 CFR Part 61), shows that the project area is within a quarter-mile radius of seven recorded archaeological sites and NRHP-listed/eligible historic properties described below. “No data” denotes no corresponding Institute of Puerto Rican Culture (ICP), State Historic

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Preservation Office (SHPO), or National Register of Historic Places (NRHP) identification was found.

Table 1. Archaeological Sites and NRHP-Listed/Eligible Historic Properties Within Quarter-Mile Radius of Project Area

1.	<b>Name:</b> Yabucoa Traditional Urban Center		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Eligible
	<b>Period:</b> Historic	<b>Date:</b> 1793	<b>Distance:</b> 0.00 mi
	<b>Location:</b> Pueblo Ward	<b>Coordinates:</b> N/A	
	<b>Description:</b> Urban center of the town of Yabucoa located in the southeast coast of Puerto Rico, on the piedmont of the <i>Sierra de Pandura</i> , surrounded by the vast Yabucoa Valley; founded in 1793 on cattle-ranching land pertaining to Humacao donated by Don Manuel Colón de Bonilla and his wife, Doña Catalina Morales Pacheco; according to Puerto Rican historian Cayetano Coll y Toste, the name derives from the Taíno word for "land of manioc."		
2.	<b>Name:</b> Iglesia Evangélica Unida de Yabucoa		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Eligible
	<b>Period:</b> Historic	<b>Date:</b> 1906	<b>Distance:</b> 0.02 mi NW
	<b>Location:</b> #74 Cristóbal Colón Street	<b>Coordinates:</b> 18.047196, -65.87929	
	<b>Description:</b> Two-story, concrete Evangelical church with a central belltower; renovated several times throughout the 20 <sup>th</sup> century.		
3.	<b>Name:</b> Teatro San Rafael		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Eligible
	<b>Period:</b> Historic	<b>Date:</b> 1948	<b>Distance:</b> 0.17 mi NE
	<b>Location:</b> #57 Luis Muñoz Rivera Street	<b>Coordinates:</b> 18.050509, -65.880034	
	<b>Description:</b> Two-story, concrete theater with a gable roof of Art Deco style; currently in an abandoned state.		
4.	<b>Name:</b> Antiguo Café La Tahona; Bristol Hermanos		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Eligible
	<b>Period:</b> Historic	<b>Date:</b> 1937	<b>Distance:</b> 0.18 mi NE
	<b>Location:</b> #1 Cristóbal Colón Street	<b>Coordinates:</b> 18.050317, -65.879683	

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	<b>Description:</b> One-story, concrete commercial structure with a chamfered corner of Colonial Criollo style; currently shared by a bakery named <i>Guachitos Bake and Deli</i> and a legal office for Luis Ortiz, Esq.		
5.	<b>Name:</b> Santos Ángeles Custodios Public Plaza		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Eligible
	<b>Period:</b> Historic	<b>Date:</b> ca. 1880	<b>Distance:</b> 0.20 mi NE
	<b>Location:</b> Luis Muñoz Rivera Street (North), Luna Street (South), Cristóbal Colón (West), Degetau Street (East)	<b>Coordinates:</b> 18.050338, -65.879393	
	<b>Description:</b> Public plaza of the town of Yabucoa with a rectangular shape and rounded corners, encircling the Santos Ángeles Custodios Parish; a pair of bronze statues depicting two guardian angels (the patron saints along with San Vicente Fener) stand on the west end, facing Cristóbal Colón Street.		
6.	<b>Name:</b> Commerce		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Ineligible
	<b>Period:</b> Historic	<b>Date:</b> 1905	<b>Distance:</b> 0.21 mi NE
	<b>Location:</b> #48 Luis Muñoz Rivera Street	<b>Coordinates:</b> 18.050580, -65.879634	
	<b>Description:</b> One-story, brick and masonry commercial structure with five entrances of Neoclassical style; currently used as a dental clinic.		
7.	<b>Name:</b> Iglesia Católica Santos Ángeles Custodios		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP ID:</b> Eligible
	<b>Period:</b> Historic	<b>Date:</b> 1964	<b>Distance:</b> 0.22 mi NE
	<b>Location:</b> Luis Muñoz Rivera Street (North), Luna Street (South), Cristóbal Colón (West), Degetau Street (East)	<b>Coordinates:</b> 18.050432, -65.879099	
	<b>Description:</b> Catholic church originally built before the foundation of Yabucoa in the 18 <sup>th</sup> century under Bishop Don Francisco de la Cuerda y García; devastated by hurricane winds, the 19 <sup>th</sup> century brick and masonry church was controversially demolished in 1963 at the behest of Father Julián Simón and against the wishes of archaeologist and folklorist Ricardo Alegría; a Brutalist contemporary rendition in exposed concrete was designed by architects Jesús Eduardo Amaral and Efrer Morales and built the following year, officially inaugurating in 1968.		

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Table 2. Cultural Resource Studies Conducted Within Quarter-Mile Radius of Project Area

<b>A.</b>	<b>Title:</b> Phase 1A-1B, Nuevo Centro Urbano Calles Cristóbal Colón, Baldorioty y Ramón Quiñonez		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> CAT-YB-07-07-02	<b>NRHP ID:</b> N/A
	<b>Author:</b> Fernando Alvarado Muñoz		<b>Year:</b> 2007
	<b>Results:</b> Negative		<b>Distance:</b> 0.00 mi
<b>B.</b>	<b>Title:</b> Phase 1A-1B, Escuela Elemental Urbana Reparto Horizonte		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> CAT-YB-95-02-04	<b>NRHP ID:</b> N/A
	<b>Author:</b> Aramis Font Negrón		<b>Year:</b> 1995
	<b>Results:</b> Negative		<b>Distance:</b> 0.23 mi SW

Yabucoa has been occupied since approximately 500 A.D., with Cuevas ceramics excavated at the sites of Aguacate, YO-1 (YB010001), and Punta Icacos, also called King's Helmet (YB0100014). The closest indigenous, pre-Hispanic sites are the multi-component Martorell, YO-6 (YB0100006), located northwest of the TUC, and a ceramic site (YB0100012) located east of the TUC, both beyond the quarter-mile radius of the direct APE.

At the historic, 1928 City Hall or Casa Municipal located at Luis Muñoz Rivera Street, currently an elderly home, the indigenous burial of a woman with a ceramic bowl used to be exhibited as an archaeological display. We were unable to identify the provenance or whereabouts of this funerary feature. Additionally, at least ten sites with petroglyphs have been reported at the Guayanés River by archaeologist Carlos A. Pérez Merced (2012), all of them beyond the quarter-mile radius. Two archaeological studies within the Yabucoa Traditional Urban Center, by Alvarado Muñoz (2007) and Font Negrón (1995) were both negative. So far, no significant archaeological materials have been detected within the Yabucoa Traditional Urban Center.

Regarding potential historic sites, most of Catalina Morales Street (PR-182) is outside of the Yabucoa Traditional Urban Center. The canal on the west side of Catalina Morales Street was built in the 1960s to control the frequent flooding that occurred on this low area, immediately west of the Yabucoa Traditional Urban Center and is outside of the direct APE. Of the proposed undertaking, only the intersection of Catalina Morales Street with Luis Muñoz Rivera Street, and the proposed roundabout at the intersection of Catalina Morales Street with Cristóbal Colón Street (State Road PR-9910) are within the Yabucoa Traditional Urban Center. This information has been substantiated by careful analysis of a Spanish map of 1884 (Figure 1). The town of Yabucoa was founded in 1794

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and is considered eligible to the National Register of Historic Places (NRHP). Within the quarter-mile perimeter, seven NRHP-eligible historic properties have been identified (Table 1).

Luis Muñoz Rivera Street was originally known as Comercio Street, where the town's original stores were located. In 1878, a fire at the Gutiérrez store destroyed eight streets within the Yabucoa Traditional Urban Center. Another fire at Comercio Street occurred in 1880, originating at the store of *Ochoa y Hermanos*, resulting in the destruction of thirteen properties. In the 19<sup>th</sup> century, most homes were made of wood, while the best commercial edifices were built with brick.

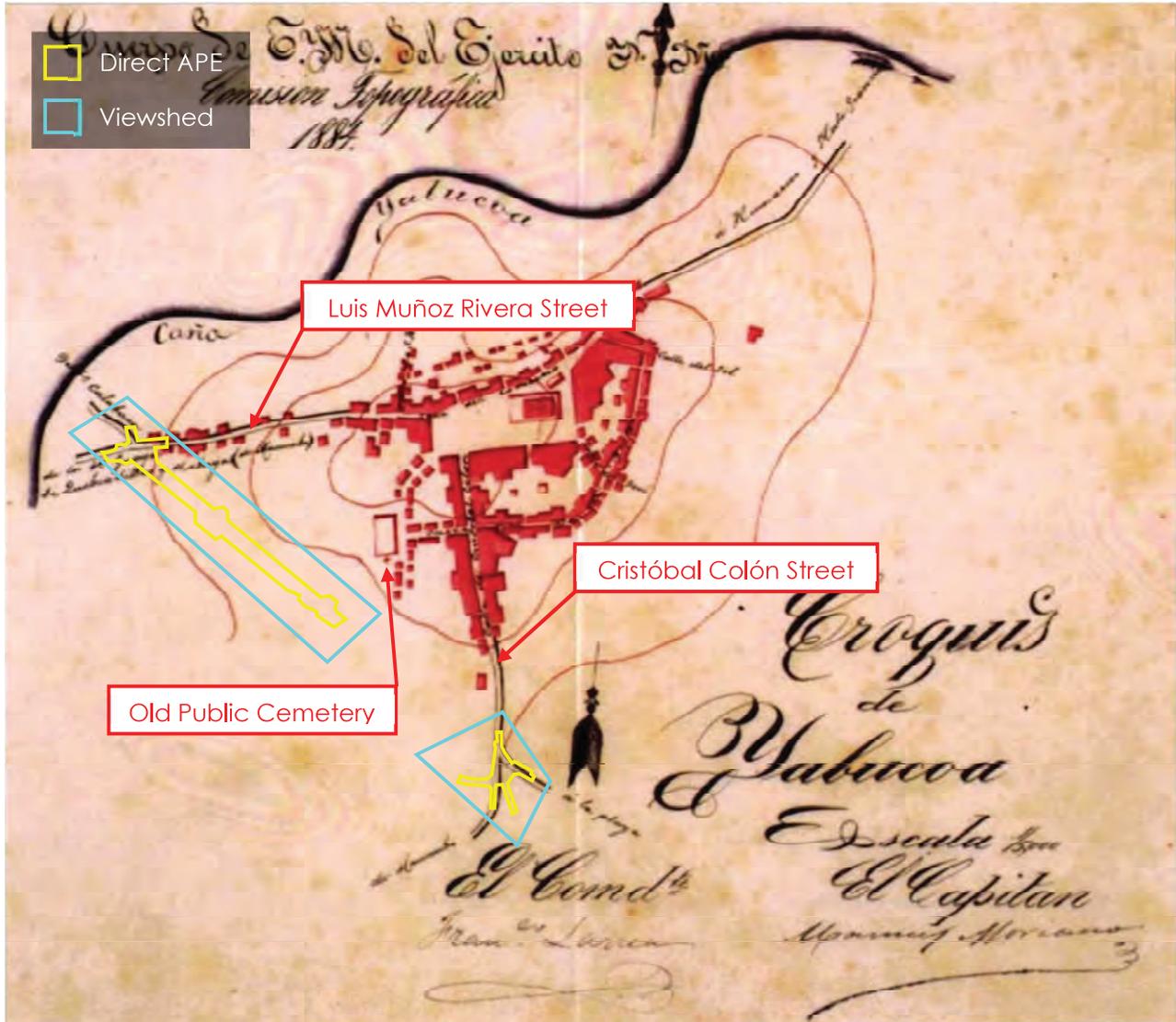
A 1982 view of Catalina Morales Street, looking southeast towards the intersection with Cristóbal Colón Street, is provided in the magazine *Fiestas Patronales de Yabucoa* (Figure 7), followed by photo of La Rampla Street, also dated 1982 in the same magazine. La Rampla Street was a segment of Cristóbal Colón Street (Figure 8).

The undertaking at Catalina Morales Street ends at the intersection with Segundo González Prida Street. This is the southeast end of the direct APE. In the 19<sup>th</sup> century, Gonzalez Prida Street was known as *Salsipuedes*, "Get out if you can," as it led to Yabucoa's cemetery, depicted in the Spanish map of 1884 (Figure 1). The cemetery was built just outside of the urban area, at the bottom of the hill, but it did not reach the intersection with Catalina Morales Street. Therefore, the southeast end of the direct APE at Catalina Morales Street is not considered historic.

The northwest end of the direct APE at Catalina Morales Street may contain potential archaeological remains, including historic pavements, house foundations, and drainage systems. Demolition activities may expose cultural features associated with the fires of 1878 and 1880, and with hurricanes, including the historic hurricanes of San Felipe I (1876), San Roque (1893), San Ciriaco (1899), San Ciprián (1932), San Felipe II (1928), Santa Clara (1956) and Georges (1998). A significant detail regarding Puerto Rico's hurricane history is the trajectory of Hurricane María in 2017, entering through Yabucoa.

The potential for intact deposits is limited to the intersections of Catalina Morales Street with Luis Muñoz Rivera Street and with Cristóbal Colón Street (State Road PR-9910), both dating from the 19<sup>th</sup> century, potentially containing buried archaeological materials such as historic infrastructure and residential foundations. There appears to be no potential for pre-hispanic materials within the direct APE due to the lack of reported sites within a quarter-mile radius and two cultural resource studies with negative results

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**Figure 1.** 1884 croquis of Yabucoa by the *Cuerpo de Ingenieros Militares* (Aníbal Sepúlveda, *Puerto Rico urbano: Atlas histórico de la ciudad puertorriqueña*. Santurce: Carimar, 2004, Vol. 3, p. 450).

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**Figure 2.** 1937 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Office of Photogrammetry, Puerto Rico Highways and Transportation Authority).

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**Figure 3.** 1965 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Office of Photogrammetry, Puerto Rico Highways and Transportation Authority).

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**Figure 4.** 1977 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Office of Photogrammetry, Puerto Rico Highways and Transportation Authority).

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**Figure 5.** 1988 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Office of Photogrammetry, Puerto Rico Highways and Transportation Authority).

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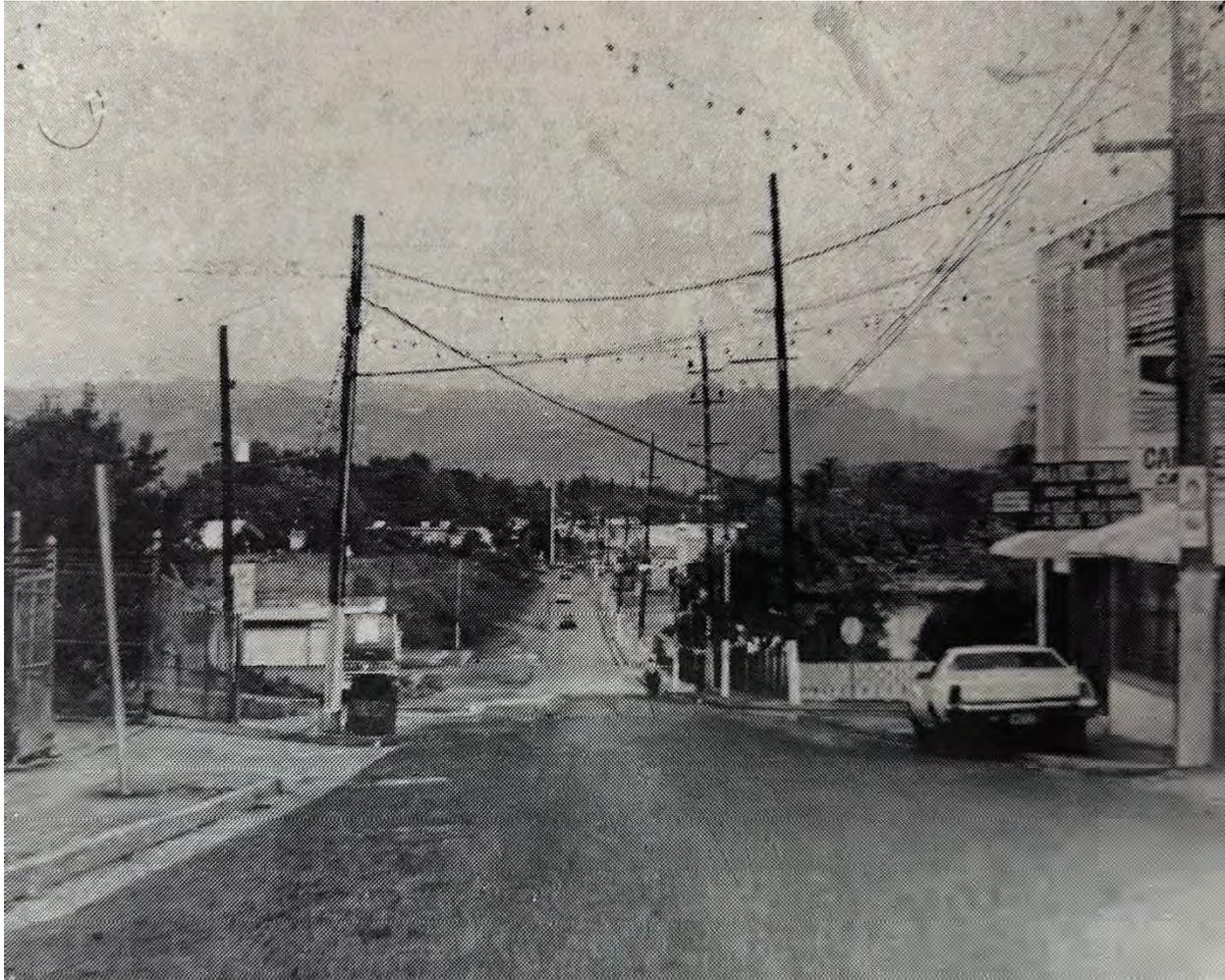


**Figure 6.** 1995 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Office of Photogrammetry, Puerto Rico Highways and Transportation Authority).

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**Figure 7.** 1982 photograph of Catalina Morales Street, toward the Cristóbal Colón Street intersection, looking southeast (Source: *Fiestas Patronales de Yabucoa*, 1982 edition, p. 41).

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**Figure 8.** 1982 photograph of La Rampla Street, a segment of Cristóbal Colón Street where the roundabout will be built, looking south (Source: *Fiestas Patronales de Yabucoa*, 1982 edition, p. 41).

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## Identification of Historic Properties - Architecture

Existing information on previously identified historic properties has been reviewed to determine if any such properties are located within the APE of this undertaking. The review of this existing information, by a Program contracted Historic Preservation Specialist meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61), shows that the project area is within the boundaries of the National Register of Historic Places (NRHP)-eligible Yabucoa Traditional Urban Center. The areas are comprised by the Catalina Morales Street intersection with Luis Muñoz Rivera Street, and a segment of Catalina Morales Street to the crossroad with Cristóbal Colón and Saturnino Rodríguez Streets. Research has determined that within a quarter mile of the project area there are six eligible properties that are also designated locally as historic significant.

The Yabucoa TUC does not hold a significant group of buildings created before 1937 as most of its wooden houses were replaced by concrete buildings. Only a handful meet the NRHP criteria C for being considered as eligible properties. Among these eligible buildings are the former town hall built in 1928 (replacing the one built in the 19<sup>th</sup> century), the San Rafael Theater (built circa 1935), the United Evangelical Church located on Cristóbal Colón Street (founded in 1906, and extensively renovated and expanded in the 1940s), and the Old Fire Station, built in the 1940s like other fire stations in the context of the Second World War. The Catholic parish was erected in the early 19<sup>th</sup> century, renovated in the mid-19<sup>th</sup> century, and demolished in 1963. The masonry church was replaced by a modern church designed by architect Jesús Amaral and Efrer Morales.

Only one building is registered in the NRHP under criteria A (Associated with Historic Events), which is the Yabucoa Fire Station of 1944. Six other buildings are deemed eligible under criteria C (Architecture) or D (Information Potential), within the quarter-mile radius of the project area (Table 3). None of the eligible or registered buildings are within the direct APE in the segment of Catalina Morales Street, from Luis Muñoz Rivera Street to Segundo González Prida Street intersections, or the roundabout proposed for the intersection of Cristóbal Colón Street (PR-9910) with Saturnino Rodríguez Street (PR-901), and Catalina Morales Street (PR-182). The United Evangelical Church of Yabucoa is the only contributing historic property within the viewshed.

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Table 3. NRHP-Listed/Eligible Historic Properties Within Quarter-Mile Radius of Project Area

<b>1.</b> 	<b>Name:</b> Yabucoa Traditional Urban Center		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Eligible
	<b>Date:</b> 1794		<b>Distance:</b> 0.00 mi
	<b>Address:</b> Pueblo Ward (Within Viewshed)		
	<b>Description:</b> Traditional urban center of the town of Yabucoa in the southeast coast of Puerto Rico.		
<b>2.</b> 	<b>Name:</b> Iglesia Evangélica Unida de Yabucoa		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Contributing
	<b>Date:</b> ca. 1906		<b>Distance:</b> 0.02 mi NW
	<b>Address:</b> #74 Cristóbal Colón Street (Within Viewshed)		
	<b>Description:</b> Concrete building, topped with concrete gable roof, and renovated several times.		
<b>3.</b> 	<b>Name:</b> San Rafael Theater		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Eligible
	<b>Date:</b> ca. 1935		<b>Distance:</b> 0.17 mi NE
	<b>Address:</b> #57 Luis Muñoz Rivera Street		
	<b>Description:</b> Three stories high concrete building with a wood frame and corrugated metal planks roof; built circa 1935 within an Art Deco façade and canopy.		
<b>4.</b> 	<b>Name:</b> Former Café La Tahona		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Eligible
	<b>Date:</b> 1937		<b>Distance:</b> 0.18 mi NE
	<b>Address:</b> #1 Cristóbal Colón Street		
	<b>Description:</b> One-story commercial structure; built in 1937 within an eclectic design mixing Spanish Revival and Art Deco decorative elements.		

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<b>5.</b> 	<b>Name:</b> Yabucoa Town Plaza		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Eligible
	<b>Date:</b> ca. 1800		<b>Distance:</b> 0.20 mi NE
	<b>Address:</b> Luis Muñoz Rivera, Cristobal Colón, and Luna Streets.		
	<b>Description:</b> Built since the early 19 <sup>th</sup> century, it has been renovated several times.		
<b>6.</b> 	<b>Name:</b> Commercial Building		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Eligible
	<b>Date:</b> 1905		<b>Distance:</b> 0.21 mi NE
	<b>Address:</b> #48 Luis Muñoz Rivera Street		
	<b>Description:</b> One-story, concrete with wood frame and corrugated metal planks roof, Neoclassic Colonial commercial building.		
<b>7.</b> 	<b>Name:</b> Santos Ángeles Custodios Catholic Parish		
	<b>SHPO ID:</b> N/A	<b>ICP ID:</b> N/A	<b>NRHP:</b> Eligible
	<b>Date:</b> 1964		<b>Distance:</b> 0.22 mi NE
	<b>Address:</b> Yabucoa Town Plaza		
	<b>Description:</b> Reinforced and exposed concrete building designed in a “brutalist” fashion by modern architects Jesús Amaral y Morales, replacing the 19 <sup>th</sup> century brick and masonry parish.		

The urban center of Yabucoa was established in 1792 in lands donated by wealthy owners Manuel Colón and his wife, Catalina Morales Pacheco. According to the 1847 topographic description written by Pedro José Cintrón in 1847, the town was located “on a small hill, in an arid terrain that they call *tosca*” (Sepúlveda, Vol. 2, 183). That year, the town had only three institutional buildings: the masonry parish church and its atrium, built in the beginning of the 19<sup>th</sup> century; a cemetery enclosed by a masonry wall, three main streets, four secondary streets, and some alleys, populated by 91 houses, mainly built in wood, and 52 thatch huts. The town hall was built with wood and roofed with native clay tiles, and a humble hut made of wood and *yaguas* were used as a slaughterhouse. All its buildings were arranged on an irregular layout due to the unevenness of the terrain, as per Cintrón's description. Yabucoa's urban grid originated in the intersection of Cristóbal Colon Street (north to south) and Luis Muñoz Rivera Street (east to west), which today continues to be one the most important streets within the Yabucoa Traditional Urban

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Center. The junction of both streets occurs at the highest point of the urban area, and it is around this intersection that the town plaza, the church, and the old town hall were created. As it is evident, the urban layout of Yabucoa does not follow the traditional orthogonal grid of the Laws of the Indies due to its rugged topographical landscape setting (Figure 1).

The growth of the sugarcane industry and the multiplication of the activities associated with cattle ranching prompted the consolidation of the few streets and alleys of the urban center of Yabucoa. In 1910, Yabucoa's primary industry was cheesemaking due to the abundance of pastures to raise dairy cattle. In the first federal census of 1899, the municipality of Yabucoa reported 13,905 inhabitants; of those, 3,184 lived in the urban center or in its immediate periphery. Human and urban growth was sustained until 1950, reaching its greatest extension towards the end of the decade before suburban sprawl undermined the town's center growth. Within that decade, new streets appeared, including Catalina Morales Street. The town grew along the PR-901 road which intersects to the west with PR-3 or the *Carretera Central*, and to the south along the old PR-182 which also intersects to the south with PR-3. New streets were laid out beyond the town limits, such as Rafael Velázquez and Eulalio Reverón, both perpendicular to PR-182. The Dr. Víctor Berríos social housing project was also built at the end of the decade, approximately 0.35 miles south of the town plaza.

Yabucoa's population significantly decreased by the 1970s, when the sugarcane and livestock industries began to reduce their operations in the area. Eventually, sugarcane would stop being produced altogether, and livestock as an economic activity in the municipality was displaced by industrial activities far from the Yabucoa Traditional Urban Center, prompting suburban sprawl (Figures 9, 10, and 11).

The buildings along Catalina Morales Street were built mostly after 1965, as seen in the DTOP and USGS aerial imagery (Figures 3, 4, 5, and 6). The area around the confluence of the Cristóbal Colon Street (PR-182), Catalina Morales Street, and Saturnino Rodríguez Street (PR-901) was developed by 1937 (Figure 2). Nevertheless, the area was not inhabited at the end of the 19<sup>th</sup> century (Figure 1). Today, this confluence is surrounded by mostly modern concrete structures that do not meet any eligibility criteria for the National Register of Historic Places (NRHP). The Monument to the Sugar Cane Cutter, located at the confluence of Cristóbal Colón Street (PR-182) and Saturnino Rodríguez Street (PR-901), was inaugurated in 2007 under the administration of Hon. Ángel "Papo" García de Jesús.

In conclusion, the development of Yabucoa since 1960 on shows first a gradual urbanization shift towards the west. The Ramos Antonini Urbanization was consolidated in this decade, and Catalina Morales Street was created. At that time, Dr. Víctor Berríos

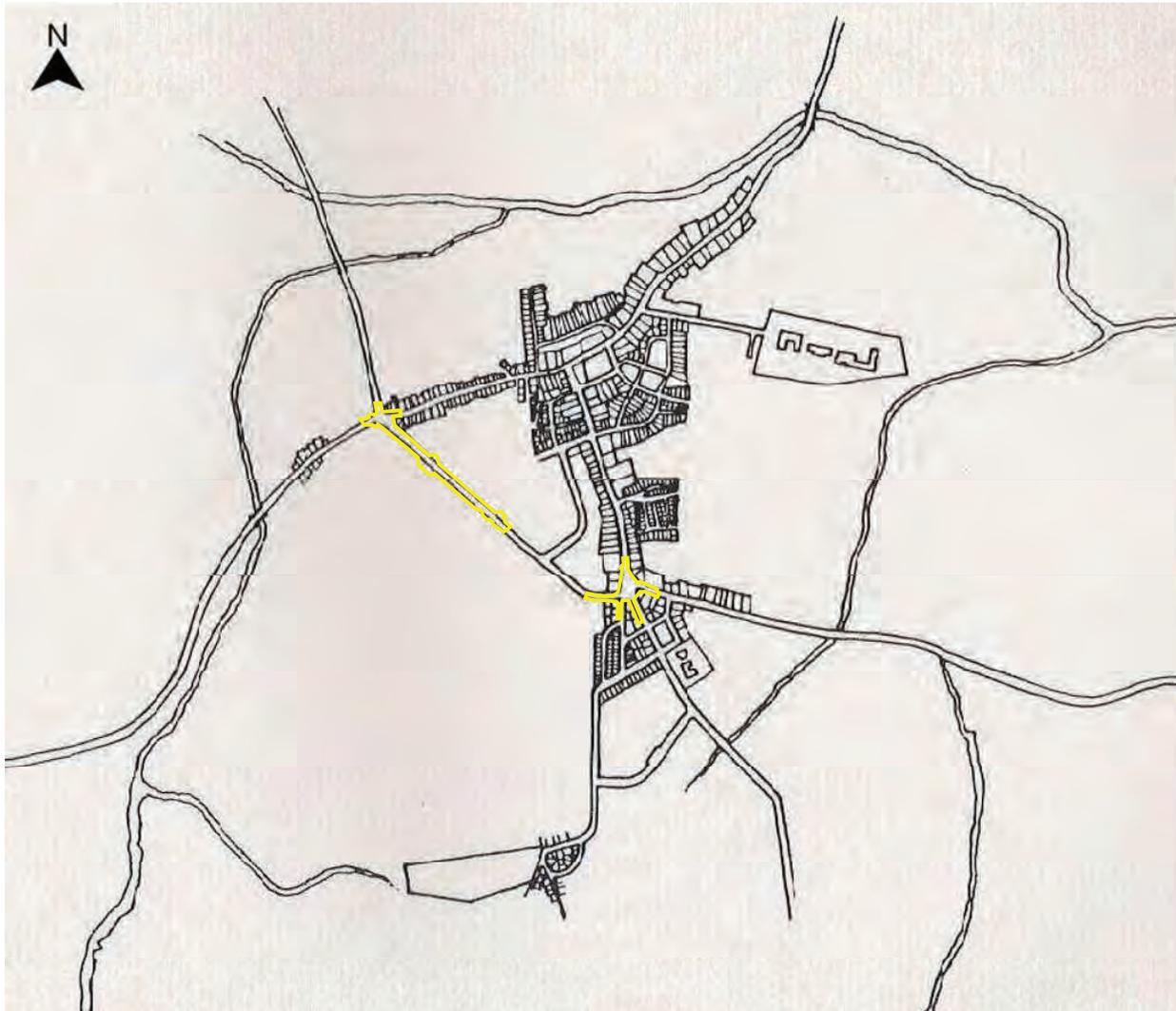
<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CITY-REV)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Municipality of Yabucoa	
<b>Program ID:</b> PR-CRP-000318	
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social housing project was also developed 0.4 miles south of Yabucoa town plaza. In the 1970s, the growth shifted again towards the east. Several streets perpendicular to Cristóbal Colón Street were then created. From the mid-1970s onwards, urban development was peripheric or suburban when modern urbanizations such as *Jardines de Yabucoa* and *Santa Elena* were developed in former agricultural lands to the southwest of Yabucoa's TUC. The suburbanization of Yabucoa is a process that has repeated itself in many of the municipalities of Puerto Rico: the land lost agricultural value and gained value for its real estate development possibilities within the context of modernization and industrialization.

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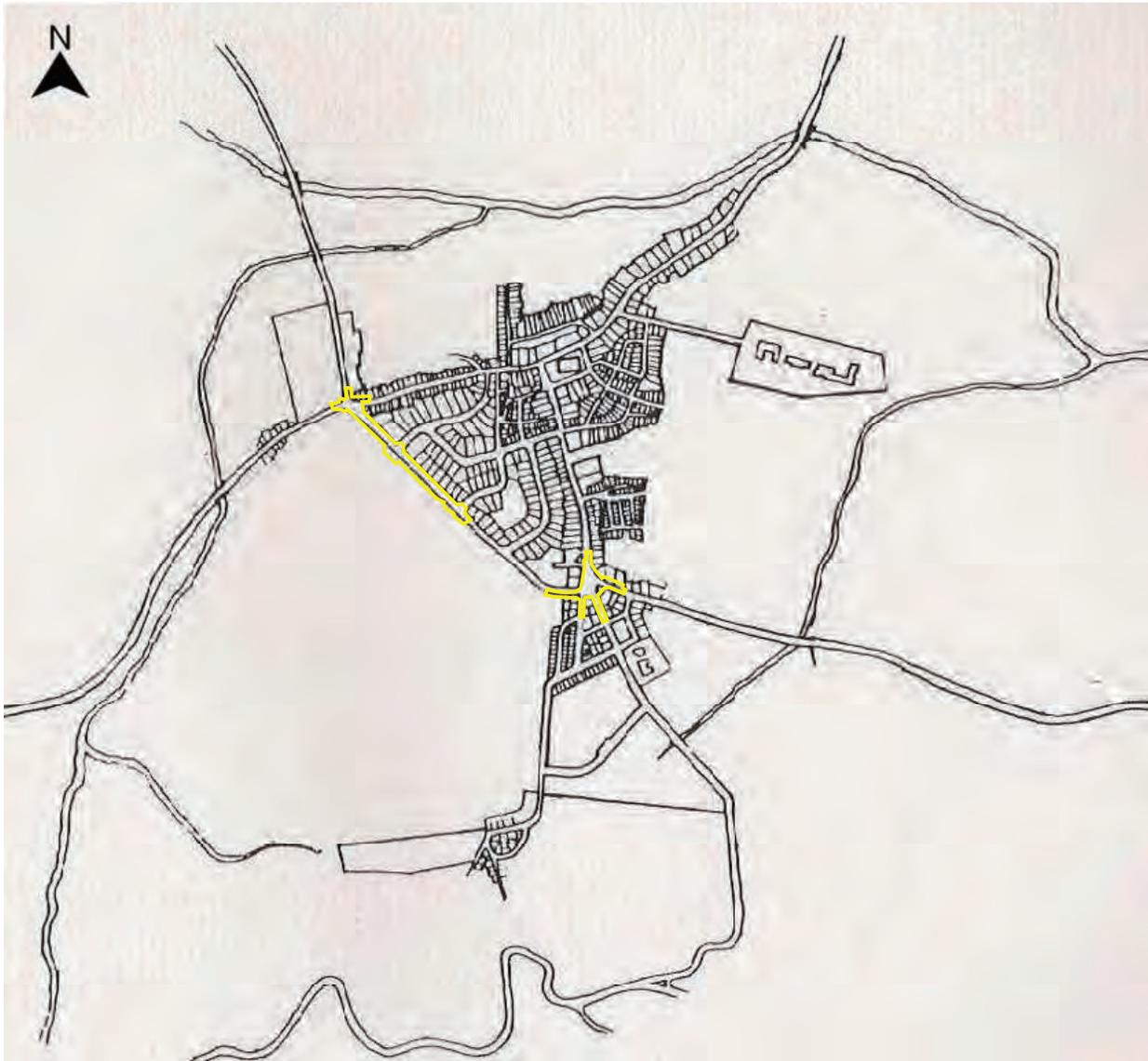


**Figure 9.** Yabucoa urban growth in 1957 (Nicolás Fonseca Medina, “Yabucoa: Solar Urbano”. M.Arch Thesis, UPR, 1986, p. 9).

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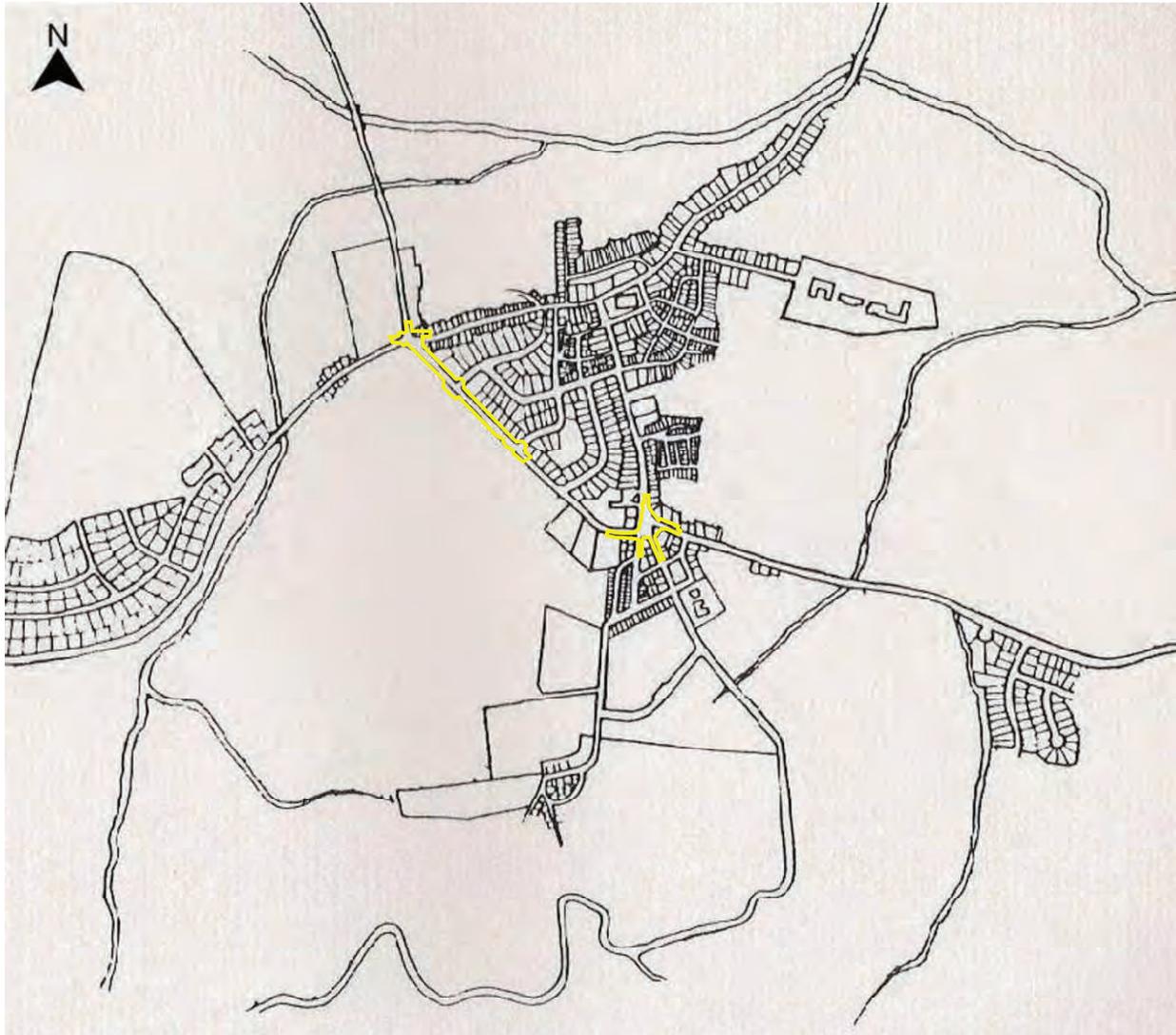


**Figure 10.** Yabucoa urban growth in 1962 (Nicolás Fonseca Medina, “Yabucoa: Solar Urbano”. M.Arch Thesis, UPR, 1986, p. 10).

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**Figure 11.** Yabucoa urban growth in 1967 (Nicolás Fonseca Medina, “Yabucoa: Solar Urbano”. M.Arch Thesis, UPR, 1986, p. 11).

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<b>Subrecipient:</b> Municipality of Yabucoa	
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## Determination

The following historic properties have been identified within the APE and the Program has determined the project will have the following effects on them:

- **Direct Effect:** The Yabucoa Traditional Urban Center is the only historic property present within the direct APE, specifically on the intersection of Catalina Morales Street (State Road PR-182) with Luis Muñoz Rivera Street on the northwest, previously known as Comercio Street, and the area for the proposed roundabout at the intersection with Cristóbal Colón Street. The intersection with Segundo González Prida Street falls outside of the Yabucoa Traditional Urban Center. Due east and veering north, González Prida Street reached the 19<sup>th</sup> century cemetery at the corner of Baldorioty Street. This cemetery was located approximately 375 feet (0.07 miles) from the direct APE at Catalina Morales Street.
- **Indirect Effect:** Two historical properties are within the viewshed of the project: the *Iglesia Evangélica Unida de Yabucoa*, built in 1906 and renovated several times throughout the 20<sup>th</sup> century, and the Yabucoa Traditional Urban center itself. Other potentially NRHP-eligible historic properties are located within a quarter-mile radius but beyond the viewshed. The proposed undertaking will not visually alter the Yabucoa Traditional Urban Center nor will it obstruct the view of any of its contributing properties as the undertaking is limited to the street and sidewalk level. The Paseo de los Inmortales will be constructed on Catalina Morales Street (State Road PR-182), outside the boundaries of the Yabucoa Traditional Urban Center.

Based on the results of historic property identification research efforts, including consulting NRHP listings at the Puerto Rico State Historic Preservation Office (PRSHPO/OECH), their website and zoning maps from the Puerto Rico Planning Board (PRPB), the only listed or historically designated property present within the direct APE is the Yabucoa Traditional Urban Center. The proposed undertaking represents a positive impact, improving the entrances to the Yabucoa Traditional Urban Center through Luis Muñoz Rivera Street to the north, and Cristóbal Colón Street to the south, also improving the view of the *Monumento al Cortador de Caña* at the new roundabout. Therefore, it has been determined that a finding of No Adverse Effect is appropriate for this undertaking, providing archaeological monitoring to address the possibility of buried historic features such as sewers and house foundations from the 19<sup>th</sup> century.

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**Recommendation**

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

- No Historic Properties Affected
- No Adverse Effect
  - Condition: Archaeological monitoring during all demolitions, excavations, and ground disturbing activities. An archaeological monitoring plan will be prepared and submitted to the PRSHPO for review and concurrence of the appropriateness of its implementation for this undertaking.
- Adverse Effect

**This Section is to be Completed by SHPO Staff Only**

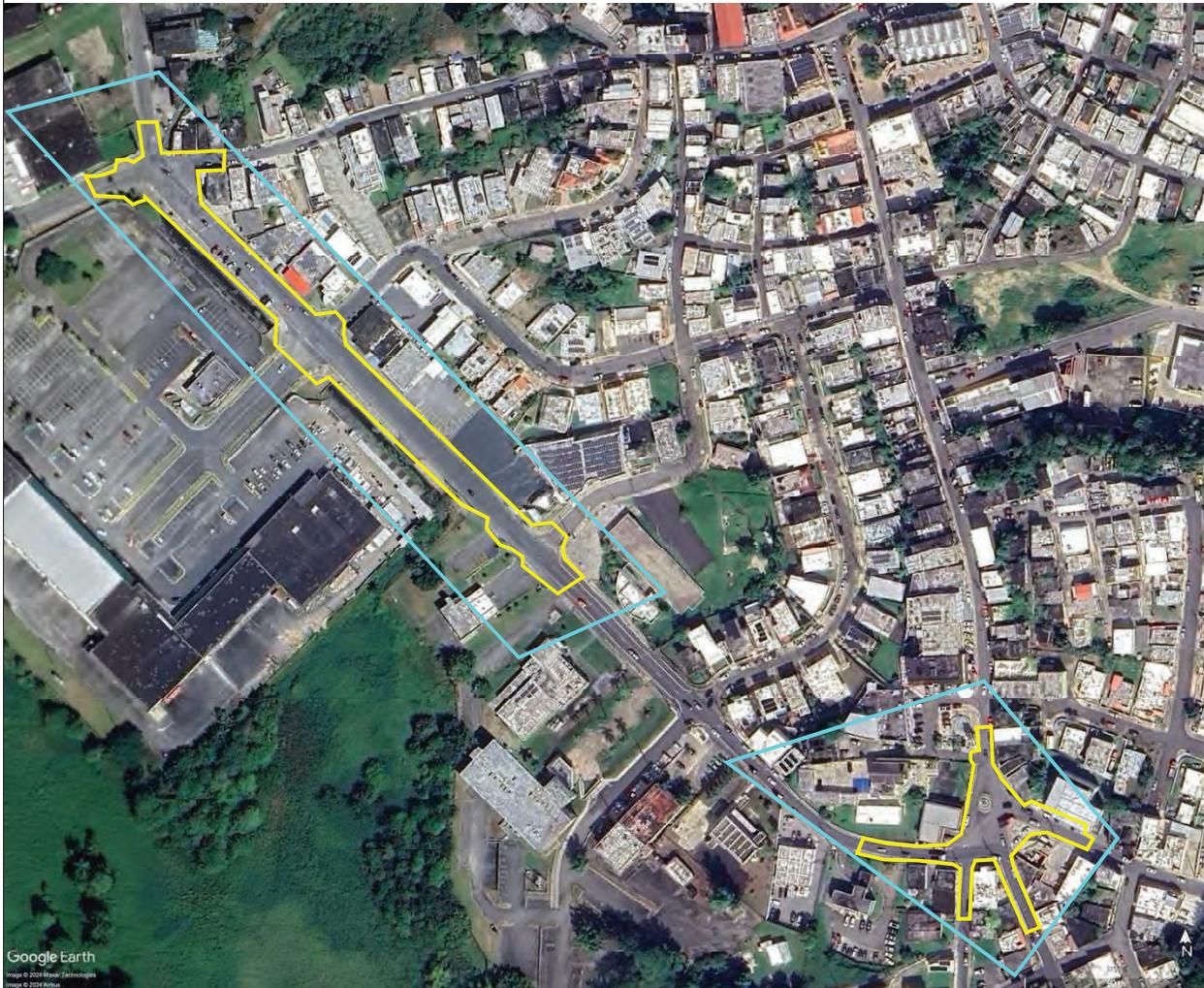
The Puerto Rico State Historic Preservation Office has reviewed the above information and:	
<input type="checkbox"/> <b>Concurs</b> with the information provided. <input type="checkbox"/> <b>Does not concur</b> with the information provided.	
<b>Comments:</b>    	
Carlos Rubio-Cancela State Historic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

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### Project (Parcel) Location - Area of Potential Effect Map (Aerial)



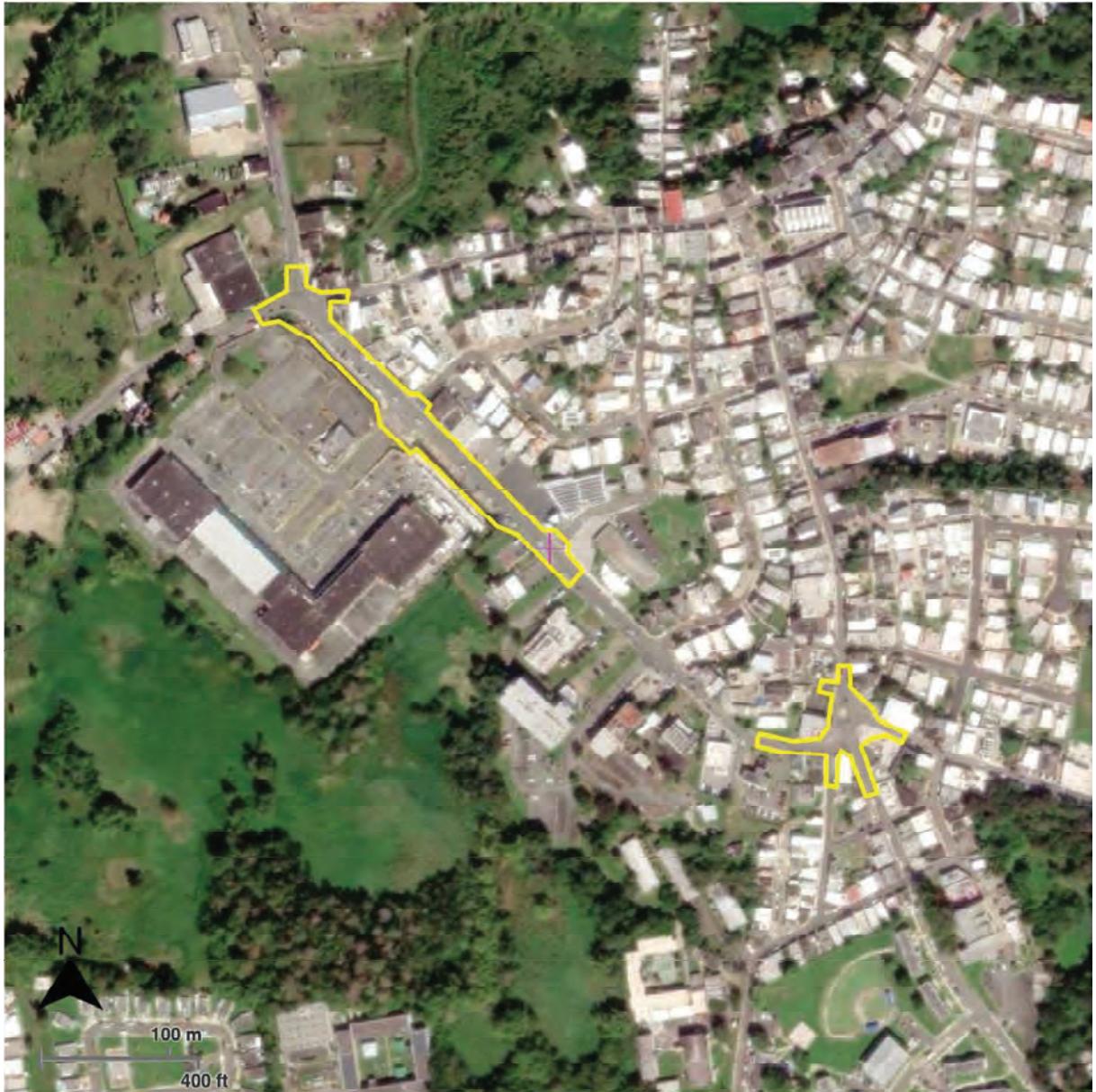
**Source:** 2023 Satellite Image, Google Earth Pro  
(<https://www.google.com/intl/es/earth/about/versions>)

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### Project (Parcel) Location - Aerial Map



**Source:** Interactive Map of United States Environmental Protection Agency, NEPAassist  
(<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

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### Project (Parcel) Location - Topographic Map



**Source:** Interactive Map of United States Environmental Protection Agency, NEPAassist (<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

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### Project (Parcel) Location - Soils Map



**Source:** Interactive Map of Puerto Rico Planning Board, MIPR  
(<http://gis.jp.pr.gov/mipr/>)

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### Project (Parcel) Location - Yabucoa Traditional Urban Center



Source: State Historic Preservation Office (SHPO)

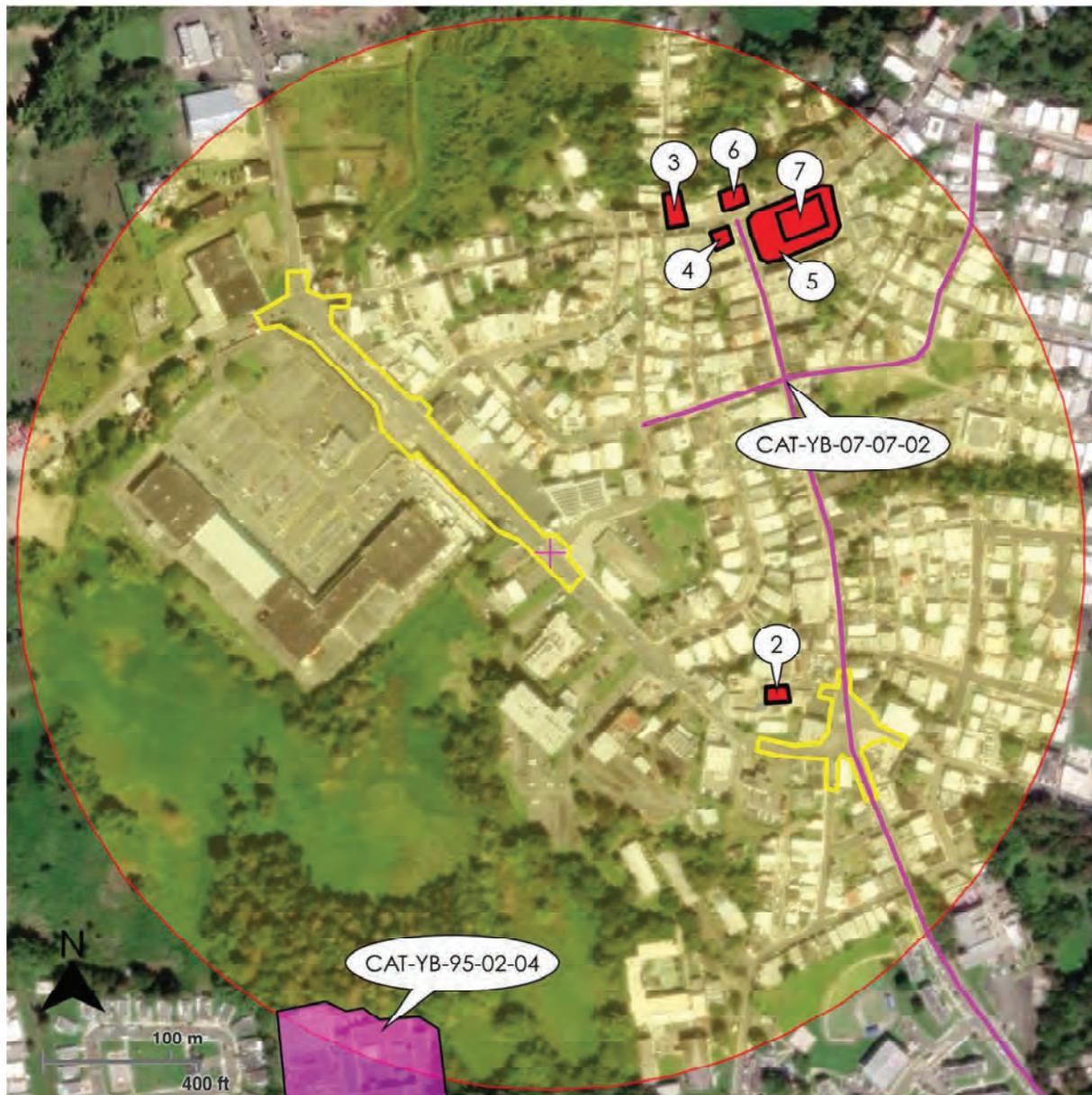
(<https://www.oech.pr.gov/conservacion-historica>)

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### Project (Parcel) Location w/ Previously Recorded Historic Properties - Aerial Map



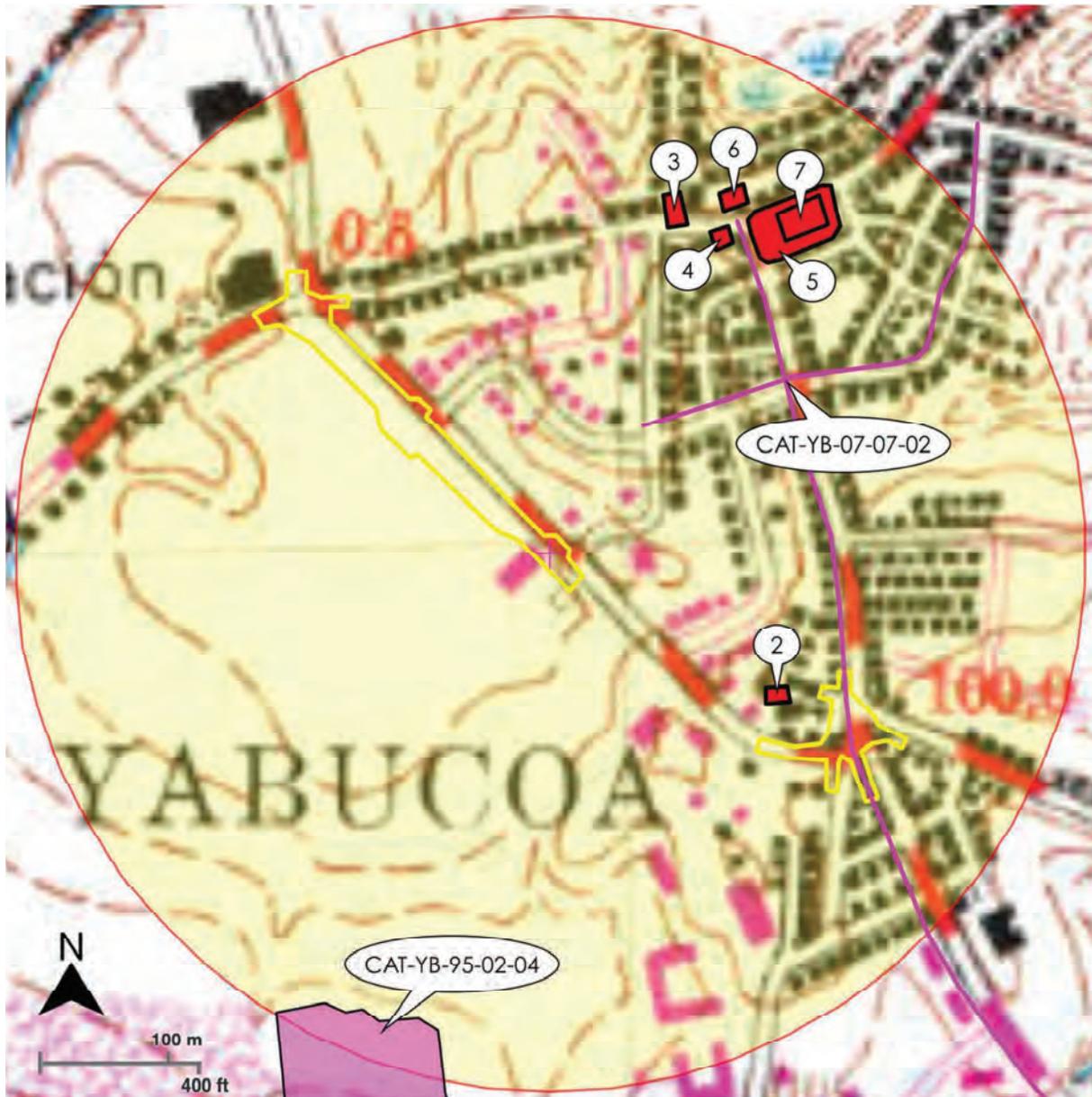
Source: Interactive Map of United States Environmental Protection Agency, NEPAassist (<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

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### Project (Parcel) Location w/ Previously Recorded Historic Properties - Topo Map



Source: Interactive Map of United States Environmental Protection Agency, NEPAassist (<https://nepassisttool.epa.gov/nepassist/nepamap.aspx>)

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### Photograph Key - Direct APE



**Source:** 2023 Satellite Image, Google Earth Pro

(<https://www.google.com/intl/es/earth/about/versions>)

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### Photograph Key - Indirect APE

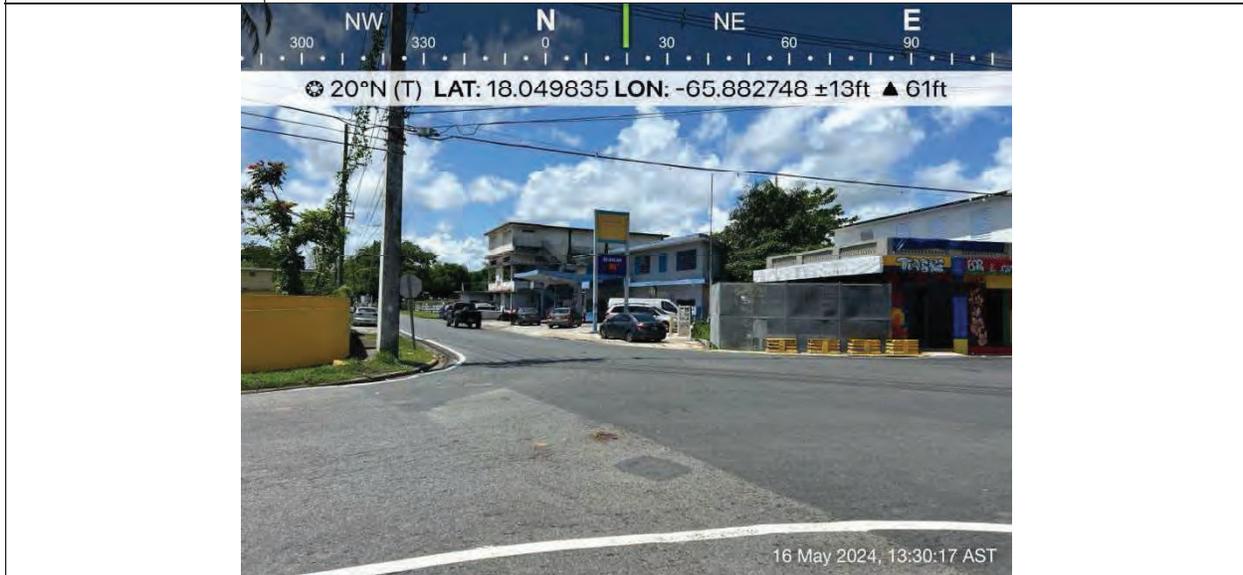


Source: 2023 Satellite Image, Google Earth Pro  
(<https://www.google.com/intl/es/earth/about/versions>)

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<b>Photo:</b> 1	<b>Description:</b> Industrial facility previously operated by the <i>Compañía de Fomento Industrial de Puerto Rico</i> , northwest of the Catalina Morales (PR-182) and Luis Muñoz Rivera Streets intersection.
<b>Date:</b> 5/16/2024	



<b>Photo:</b> 2	<b>Description:</b> Catalina Morales (PR-182) and Luis Muñoz Rivera Streets intersection with a gas station and liquor store in the background.
<b>Date:</b> 5/16/2024	

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**Photo:** 3

**Description:** Guayabo Avenue (PR-900) and the lateral elevation of the industrial facility from the Catalina Morales (PR-182) and Luis Muñoz Rivera Streets intersection.

**Date:** 5/16/2024



**Photo:** 4

**Description:** Luis Muñoz Rivera Street intersection from the Catalina Morales Street (PR-182) sidewalk.

**Date:** 5/16/2024

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**Photo:** 5

**Description:** Water canal between Catalina Morales Street (PR-182) and Plaza Yabucoa Shopping Center on a northwest-southeast axis.

**Date:** 5/16/2024



**Photo:** 6

**Description:** Santiago Vidarte Street intersection and entrance to Plaza Yabucoa Shopping Center from the Catalina Morales Street (PR-182) sidewalk.

**Date:** 5/16/2024

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**Photo:** 7

**Description:** Santiago Vidarte Street intersection from the Catalina Morales Street (PR-182) sidewalk with the Dr. Ida Castro Solís Optic Center in the background.

**Date:** 5/16/2024



**Photo:** 8

**Description:** "Toño Márquez" acoustic conch and mural from the Catalina Morales Street (PR-182) sidewalk.

**Date:** 5/16/2024

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<b>Photo:</b> 9	<b>Description:</b> Water canal between Catalina Morales Street (PR-182) and the lateral elevation of National Lumber & Hardware Store on a northwest-southeast axis.
<b>Date:</b> 5/16/2024	



<b>Photo:</b> 10	<b>Description:</b> Sgt. Teófilo Quiñones Claudio Fire Station from the Catalina Morales Street (PR-182) sidewalk.
<b>Date:</b> 5/16/2024	

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16 May 2024, 13:37:59 AST

**Photo:** 11

**Description:** Segundo González Prida Street intersection from the Catalina Morales Street (PR-182) sidewalk with a Early Head Start in the background.

**Date:** 5/16/2024



16 May 2024, 13:39:47 AST

**Photo:** 12

**Description:** Catalina Morales Street (PR-182) toward the Yabucoa Traditional Urban Center, from the Segundo González Prida Street intersection, with the Municipal Library in the background.

**Date:** 5/16/2024

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<b>Photo:</b> 13	<b>Description:</b> Gravel lot and lateral elevation of the <i>Servicio Extensión Agrícola del Colegio de Ciencias Agrícolas (UPR)</i> from Catalina Morales (PR-182) and Segundo González Prida Streets intersection.
<b>Date:</b> 5/16/2024	



<b>Photo:</b> 14	<b>Description:</b> Segundo González Prida Street toward the Yabucoa Traditional Urban Center and the front elevation of an Early Head Start from Catalina Morales Street (PR-182).
<b>Date:</b> 5/16/2024	

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<b>Photo:</b> 15	<b>Description:</b> Entrance to the entrance to Plaza Yabucoa Shopping Center from the Catalina Morales Street (PR-182) sidewalk.
<b>Date:</b> 5/16/2024	



<b>Photo:</b> 16	<b>Description:</b> Santiago Vidarte Street toward the Yabucoa Traditional Urban Center and the lateral elevation of <i>Yiye Muebles y Enseres</i> furniture store from Catalina Morales Street (PR-182).
<b>Date:</b> 5/16/2024	

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**Photo:** 17

**Description:** Catalina Morales Street (PR-182) toward the Yabucoa Traditional Urban Center and the *Sierra de Pandura* in the background.

**Date:** 5/16/2024



**Photo:** 18

**Description:** Luis Muñoz Rivera Street intersection from the Catalina Morales Street (PR-182) sidewalk.

**Date:** 5/16/2024

**Subrecipient:** Municipality of Yabucoa

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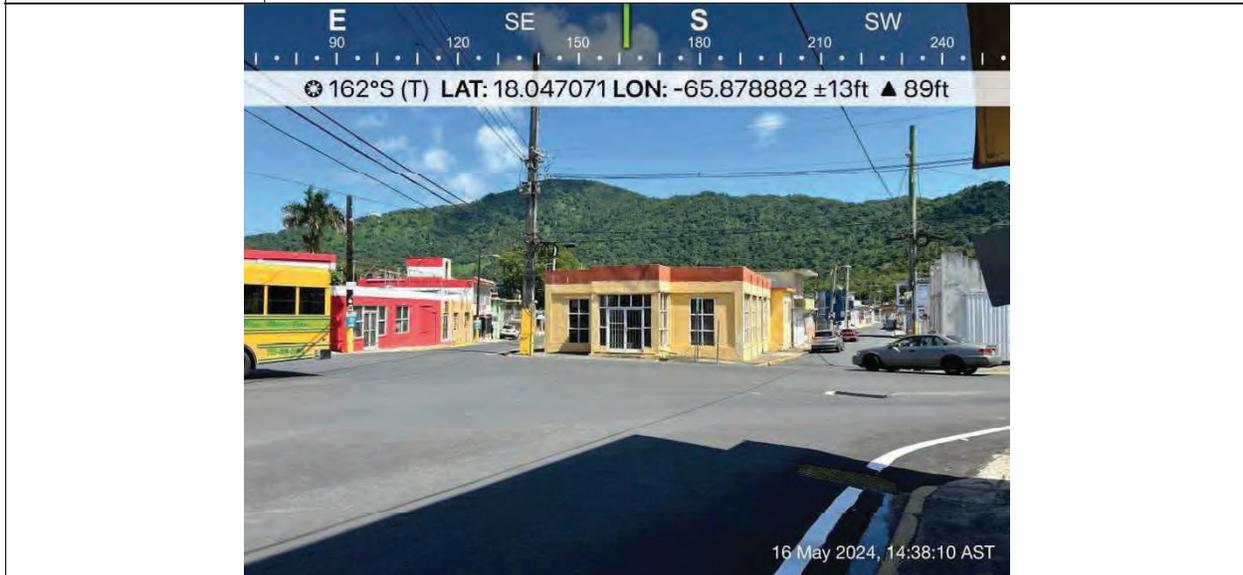
**Project Name:** Revitalization of Catalina Morales Street for the Construction of *Paseo de Los Inmortales* and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection



**Photo:** 19

**Description:** *Homenaje al Cortador Caña* monument at the Catalina Morales (PR-182), Cristóbal Colón (PR-9910), Saturnino Rodríguez (PR-901) Streets intersection, where the proposed roundabout will be built.

**Date:** 5/16/2024



**Photo:** 20

**Description:** Catalina Morales (PR-182), Cristóbal Colón (PR-9910), Saturnino Rodríguez (PR-901) Streets intersection, where the proposed roundabout will be built.

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**Photo:** 21

**Description:** Cristóbal Colón (PR-9910) and Saturnino Rodríguez (PR-901) Streets intersection, toward the Yabucoa Traditional Urban Center, from the *Homenaje al Cortador Caña* monument.

**Date:** 5/16/2024



**Photo:** 22

**Description:** Saturnino Rodríguez Street (PR-901) Street from the *Homenaje al Cortador Caña* monument.

**Date:** 5/16/2024

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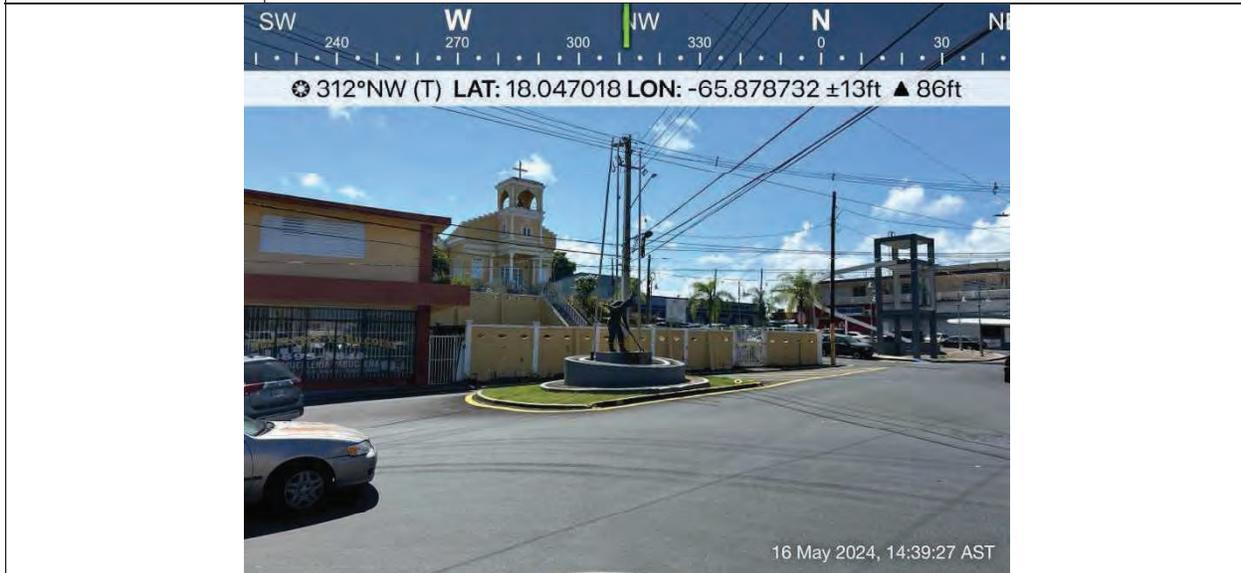
**Project Name:** Revitalization of Catalina Morales Street for the Construction of *Paseo de Los Inmortales* and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection



**Photo:** 23

**Description:** Cristóbal Colón Street (left) and Tomás Méndez Street (right) from the *Homenaje al Cortador Caña* monument.

**Date:** 5/16/2024



**Photo:** 24

**Description:** *Homenaje al Cortador Caña* monument at the Catalina Morales (PR-182), Cristóbal Colón (PR-9910), Saturnino Rodríguez (PR-901) Streets intersection, where the proposed roundabout will be built.

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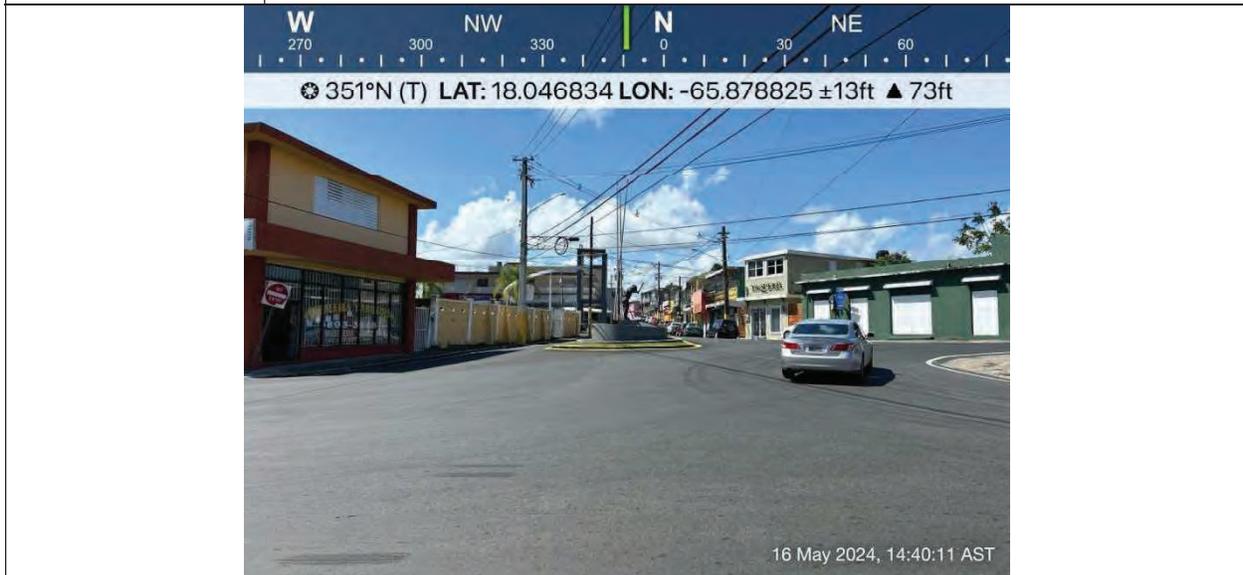
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**Photo:** 25

**Description:** Cristóbal Colón Street away from the Yabucoa Traditional Urban Center.

**Date:** 5/16/2024



**Photo:** 26

**Description:** *Homenaje al Cortador Caña* monument at the Catalina Morales (PR-182), Cristóbal Colón (PR-9910), Saturnino Rodríguez (PR-901) Streets intersection, where the proposed roundabout will be built.

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**Program ID:** PR-CRP-000318

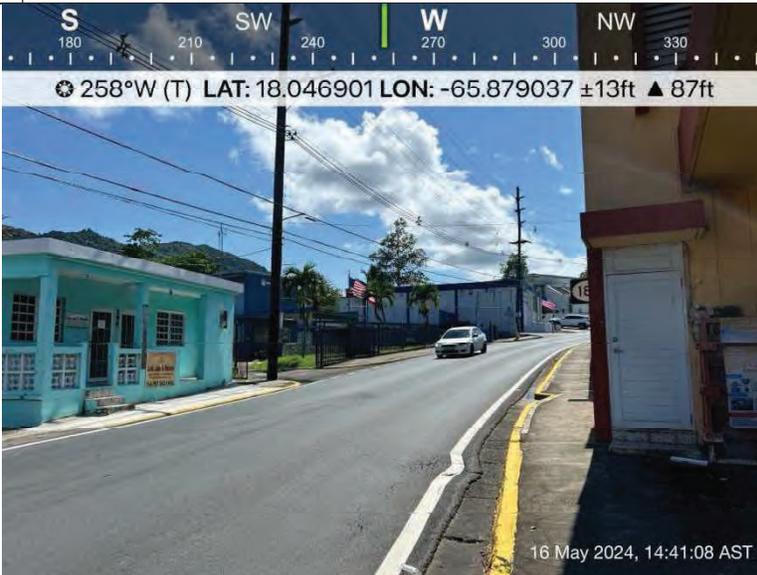
**Project Name:** Revitalization of Catalina Morales Street for the Construction of *Paseo de Los Inmortales* and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection



**Photo:** 27

**Description:** Tomás Méndez Street away from the Yabucoa Traditional Urban Center.

**Date:** 5/16/2024



**Photo:** 28

**Description:** Catalina Morales Street (PR-182) away from the Yabucoa Traditional Urban Center.

**Date:** 5/16/2024

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CITY-REV)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Municipality of Yabucoa	
<b>Program ID:</b> PR-CRP-000318	
<b>Project Name:</b> Revitalization of Catalina Morales Street for the Construction of <i>Paseo de Los Inmortales</i> and Construction of Roundabout on State Roads PR-901 and PR-182 Intersection	



<b>Photo:</b> 29	<b>Description:</b> <i>Iglesia Evangélica Unida de Yabucoa</i> from Cristóbal Colón Street (PR-9910).
<b>Date:</b> 5/16/2024	



<b>Photo:</b> 30	<b>Description:</b> <i>Homenaje al Cortador Caña</i> monument at the Catalina Morales (PR-182), Cristóbal Colón (PR-9910), Saturnino Rodríguez (PR-901) Streets intersection, where the proposed roundabout will be built.
<b>Date:</b> 5/16/2024	



GOVERNMENT OF PUERTO RICO  
DEPARTMENT OF HOUSING

April 30, 2024

**Arch. Carlos A. Rubio Cancela**

Executive Director

Puerto Rico State Historic Preservation Office

Cuartel de Ballajá, Third Floor

San Juan, Puerto Rico 00901

**Re: Authorization to Submit Documents for Consultation**

Dear Arch. Rubio Cancela,

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

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

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

Cordially,

**Aldo A. Rivera Vázquez, PE**

Director

Division of Environmental Permitting and Compliance

Office of Disaster Recovery



# GOVERNMENT OF PUERTO RICO

## STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio Cancela | [carubio@prshpo.pr.gov](mailto:carubio@prshpo.pr.gov)

Thursday, August 22, 2024

**Lauren B Poche**

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

SHPO-CF-08-06-24-01 PR-CRP-000318 (Yabucoa), Revitalization of Catalina Morales St and Roundabout

Dear Ms. Poche,

We have reviewed the archaeological monitoring plan, dated July 19, 2024, prepared for the above referenced project. The plan is deemed acceptable.

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

Sincerely,

Carlos A. Rubio Cancela

State Historic Preservation Officer

CARC/GMO/MB



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

August 6, 2024

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

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

**Re: SHPO CF-06-13-24-03: PR-CRP-000318, Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales en el Municipio de Yabucoa Project, Yabucoa, Puerto Rico – Archaeological Monitoring Work Plan Submission**

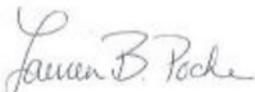
Dear Architect Rubio Cancela,

On behalf of the Puerto Rico Department of Housing (PRDOH), we thank you for your letter dated June 28, 2024 in response to documentation submitted for PR-CRP-000318 (SHPO 06-13-24-03), the Construcción de Rotonda en la Intersección de la Carretera PR-901 y PR-182 y Revitalización de la Calle Catalina Morales para la Construcción del Paseo de Los Inmortales en el Municipio de Yabucoa Project. The letter stated that your office agreed with the finding that the proposed project with the established conditions will have no adverse effect upon historic properties: Archaeological monitoring during all demolitions, excavations and ground disturbing activities with an archaeological monitoring work plan to be submitted for review and concurrence.

As such, we are submitting the requested Archaeological Monitoring Plan for the Revitalization of Catalina Morales Street and Roundabout, Yabucoa, Puerto Rico (PR-CRP-000318/SHPO CF-06-13-24-03) prepared by Archaeologist Imandra Martínez for your review and concurrence that the implementation of this plan is appropriate for this undertaking.

We look forward to your response. If you have any questions or concerns, please contact me by email at [lauren.poche@horne.com](mailto:lauren.poche@horne.com) or phone at 225-405-7676.

Kindest regards,

A handwritten signature in cursive script that reads 'Lauren B. Poche'.

**Lauren Bair Poche. M.A.**

Architectural Historian, EHP Senior Manager

Attachments

**PRDOH CDBG-DR City Revitalization Program  
Revitalization of Catalina Morales Street and  
Roundabout  
Yabucoa, Puerto Rico**

**PR-CRP-000318 / SHPO CF-06-13-24-03**



## **Archaeological Monitoring Plan**

Prepared by:  
Imandra Martínez  
Archaeologist – **Plexos Group**  
July 19, 2024

*Incorporating the Archaeological Monitoring Work Plan Template  
developed by Archaeologist Sharon Meléndez Ortiz, HORNE PR, 2023*

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## PREFACE

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The Municipality of Yabucoa is seeking Community Development Block Grant disaster recovery funds financed by the federal Department of Housing and Urban Development due to damage received by the 2017 Hurricanes Irma and Maria. The Puerto Rico Department of Housing (PRDOH) has established an Agreement between PRDOH and the Municipality of Yabucoa for the City Revitalization Program as part of the Community Development Block Grant for Disaster Recovery (CDBG-DR) Program. The Municipality of Yabucoa proposes to improve Catalina Morales Street (State Road PR-182) from its intersection with Luis Muñoz Rivera Street at the northwest end to the intersection with Segundo González Prida Street at the southeast end, including construction of a new promenade called Paseo de los Inmortales. The project also includes the construction of a new roundabout around the existing Monumento al Cortador de Caña, located in the intersection of Catalina Morales Street (State Road PR-182), Cristóbal Colón Street (State Road PR-9910), Saturnino Rodríguez Street (PR-901), and Tomás Méndez Street. The Puerto Rico State Historic Preservation Office (PRSHPO), in a letter dated June 28, 2024, concurred with a finding of No Adverse Effect for this undertaking conditioned to the implementation of an archaeological monitoring during all demolitions, excavations, and ground-disturbing activities.

The undertaking will include widening sidewalks, urban artwork, landscaping including planting new trees, repavement of the streets, and bicycle lanes. The roundabout will have a circular mosaic in its center with a lawn and concrete rings, with the existing Monumento al Cortador de Caña removed and replaced after construction activities are complete. New lamp posts will be installed, and the surrounding asphalt will be replaced with cobblestones. Local underground utilities will be repaired or replaced as needed. These works will improve the south entrance to the Yabucoa Traditional Urban Center, with the historic Cristóbal Colón Street providing direct connection from the roundabout to the Yabucoa Public Plaza and Santos Ángeles Custodios Parish.

The direct APE for this project is the 2.1598 acres within the Yabucoa Traditional Urban Center that includes two separate locations at Catalina Morales St. (PR-182). The first location runs from the intersection of Catalina Morales St. with Luis Muñoz Rivera St. at the northwest end, to the intersection with Segundo González Prida St. at the southeast end, including the new promenade called Paseo de los Inmortales. The second location of the direct APE is a new roundabout at the

existing Monumento al Cortador de Caña, at the intersection of Catalina Morales St. (PR-182) with Cristóbal Colón St. (PR-9910) and Tomás Méndez St.

The visual APE is the viewshed of the proposed project for both APE's which includes the segment on the northern side of Catalina Morales Street (PR182), and the intersection of this one with Cristóbal Colón St. and Tomás Méndez St. that consists of mostly one-story and two-story concrete commercial establishments from the mid- to late 20th century.

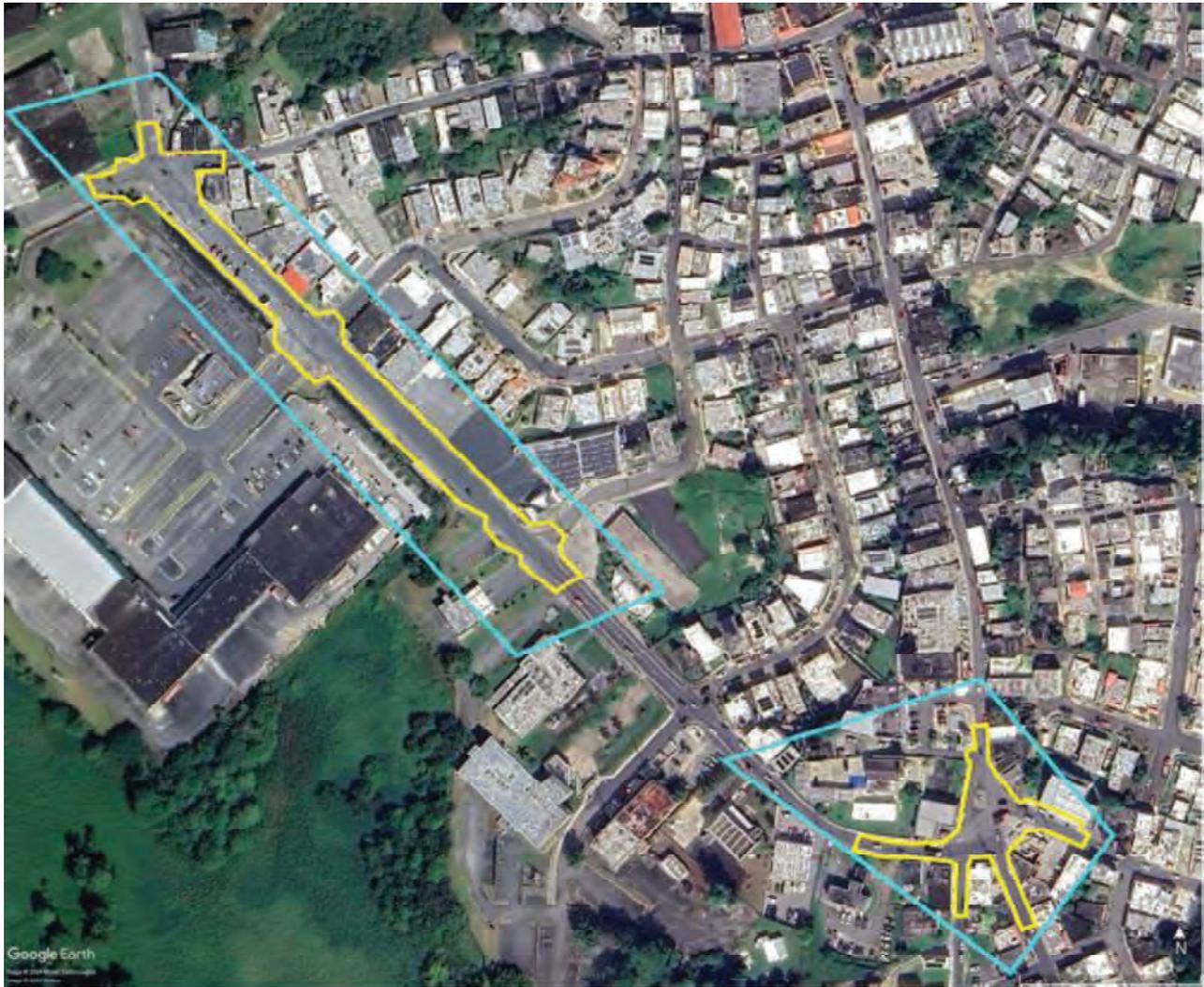
The objectives of this archaeological monitoring plan are: (1) to establish measures to prevent indirect adverse effects on known historical resources; (2) to establish the protocol to be followed in archaeological monitoring; (3) to establish the protocol to be followed if previously unknown resources are identified; (4) to establish the protocol to be followed if there are any unexpected or previously unanticipated adverse effects; (5) to locate, evaluate and document archaeological resources during project development; (6) to recover as much archaeological information as possible during excavation and construction; (7) to conserve and enhance the value of the archaeological resources located and documented; and (8) in the event that the archaeological resource cannot be conserved in situ, to conserve it through documentation (preservation by record).

This document complies with applicable federal and state laws, regulations, and guidelines, and is consistent with the Secretary of the Interior's (SOI) Guidelines for Archeological Documentation, the Advisory Council on Historic Preservation's (ACHP) recommendations on the recovery of significant information from archaeological sites as updated in 2009, and Regulation #8932 of the Institute of Puerto Rican Culture (ICP). The plan was prepared by archaeologist Imandra Martínez, who meets the Professional Qualifications Standards set forth in 36 CFR Part 61.

Figure 1. Project Location, 1982. Scale 1:20 000 (Source: United State Department of the interior, Geological Survey)



**Figure 2. Project Location. Area of Potential Effect Map (Source: Eduardo A. Regis Martínez; edited by Jorge Lizardi Pollock and Tamara González Vega; edited by Jesus E. Vega. *Puerto Rico 2017 Disaster Recovery, CDBG-DR Program, City Revitalization Program (CRP 000318), Section 106 NHPA Effect Determination, 2024*).**



This scope of work is divided into six (6) sections and one (1) appendix. The section following this preamble discusses the proposed construction works. The third section includes a brief description of the historic properties located within the APE and of the archaeological potential of the area. The fourth section provides a detailed description of the archaeological monitoring procedure to be carried out before, during and after the construction works. Section V includes the professional qualifications of the team that will implement this monitoring plan and the last section includes the references cited. The plan closes with an appendix with a model of a monitoring daily activity sheet (Appendix A)

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## 1. PROJECT DESCRIPTION

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The project aims<sup>1</sup> to improve the Catalina Morales St., the construction of a promenade called Paseo de los Inmortales, and the construction of a new roundabout around the existing Monumento al Cortador de Caña. The rehabilitation and renovation of the Catalina Morales St. (from 18.04985167731542, -65.88266614977792 to 18.04819936345736, -65.88092429326126), and the new roundabout (18.04698225835162, -65.87881660737874) comprises 6,680 square meters in its first location and 3,002 square meters for the latter within the west and south ends of the Yabucoa Traditional Urban Center.

According to the 2024 *Section 106 NHPA Effect Determination*, the proposed improvements at Catalina Morales Street include widening the sidewalk in compliance with ADA regulations, demarcating a strip for reforestation, and constructing of the Paseo de los Inmortales, which will require the demolition of nearly six inches (15 cm) of sidewalk and ramp on the east side of the street. The new sidewalk will be partially paved with a linear mosaic extending to the Municipal Library. Two segments of concrete retaining walls will be removed for the installation of engraved placards commemorating illustrious people from Yabucoa, with mosaics between each placard. A steel mesh structure will be installed to the rear of the engraved placards and decorated with ornamental plants. These improvements will embellish the promenade as an amenable public space, including the planting of twenty-four trees, new concrete benches, new lighting, new flagpoles, and the town's name in Corten steel letters. Existing planters will be rebuilt and widened at the corners of the Paseo de los Inmortales. Additionally, Catalina Morales Street (State Road PR-182) will be repaved, pedestrian crossings will be marked adequately, and a bicycle lane will be created on the west side of the street.

The new roundabout will be 28 feet (8.6 meters) in diameter with a concentric composition and a circular mosaic, surrounded by lawn and concrete rings. The existing Monumento al Cortador de Caña will be temporarily removed during the construction of the roundabout and reinstalled as the centerpiece upon completion. Four lamp posts will be installed at the center. The surrounding asphalt will be replaced with cobblestones. Other improvements include the reparation of underground utilities, including water lines, new drainage, erosion, and sedimentation control measures.

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<sup>1</sup> For a better understanding of the proposed undertaking, see attached the most recent design plans of the project (Appendix B).

The demolition works will be performed using lightweight equipment. The contractor shall take precautions during demolition works on areas identified as environmentally, architecturally, and archaeologically sensitive. According to the *106 NHPA Effect Determination*, as a protective and safety measure, the Catalina Morales Street will be temporarily closed during project activities. Erosion and sedimentation controls will be implemented during the construction of the Paseo de los Inmortales and the new roundabout to avoid discharge into the streets. A temporary storm sewer system will be installed, including hay bales for drainages, silt fences around the project boundaries, and a washout entrance for trucks to avoid sediment migration into the streets. Staging and storage areas will also be delimited with a silt fence for further sediment control, and alternative traffic routes with clear signage will be prepared in compliance with the PRHTA and FHWA standards and regulations.

- **The maximum depth excavation for the streets and sidewalks is 4 feet (1.2 meters).**
- **Requiring excavations for underground utilities is 2 to 3 feet (30 to 60 cm) deep.**











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## 2. HISTORIC PROPERTIES WITHIN THE APE

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The project area is within the boundaries of the National Register of Historic Places (NRHP)-eligible Yabucoa Traditional Urban Center. According to the previous investigation (Regis Martínez, Eduardo A.; edited by Jorge Lizardi Pollock and González Vega, Tamara; edited by Jesus E. Vega. *Puerto Rico 2017 Disaster Recovery, CDBG-DR Program, City Revitalization Program (CRP 000318), Section 106 NHPA Effect Determination, 2024*), Yabucoa town was founded in 1793 on cattle-ranching land pertaining to Humacao donated by Don Manuel Colón de Bonilla and his wife, Doña Catalina Morales Pacheco. The Urban Center of Yabucoa is located in the southeast coast of Puerto Rico, on the piedmont of the Sierra de Pandura, surrounded by the vast Yabucoa Valley. In the same investigation the author cites Cayetano Coll y Toste, who points out that the name derives from the Taíno word for “land of manioc”. The urban development of Yabucoa was defined along the current Luis Muñoz Rivera Street, historically known as *Calle del Comercio* (southwest to northeast) and *Cristobal Colón Street* (north to south). Since its formation, the *Caño de Yabucoa*, located north of the founding area, contributed to its irregular grid forming towards the south of this body of water. As in most cities on the island, urban growth has been driven by socioeconomic factors. In the Yabucoa’s case:

*The growth of the sugarcane industry and the multiplication of the activities associated with cattle ranching prompted the consolidation of the few streets and alleys of the urban center of Yabucoa. In 1910, Yabucoa’s primary industry was cheesemaking due to the abundance of pastures to raise dairy cattle. (Regis and others, 2024, p. 19)*

The XIX century city development can be seen on historical maps from the late 19th century (Francisco Larrea y Liso y Manuel Moriano y Vivó, 1884, figure 9). In the mid-19th century, the city already had a square, six streets, and several public buildings, including the church, the cemetery, the king’s house, and a butcher shop, the latter two buildings built of wood. In the same way, it had a stone house, 254 wooden houses, and 780 huts (Sepúlveda, 2004, p. 183). The 19th century buildings are not preserved today. The catholic church was renovated in the mid-19th century and demolished in 1963. The masonry church was replaced by a modern church designed by architect Jesús Amaral and Efrer Morales (Regis y otros, 2024). It is essential to note that the Amaral temple (see figure 10) is eligible for the NRHP not only because of its age but also because the result was of outstanding architectural quality and is a significant example of contemporary religious architecture.

Other important buildings were built during the 20th century such as the town hall built in 1928, San Rafael Theater (ca. 1935), the United Evangelical Church (founded in 1906,

and renovated and expanded in the 1940s), and the Old Fire Station, built in the 1940s. Finally, the urban area where the project is located was developed before 1937. In the aerial images, we can see that the portion where the southern part of the project (Catalina Morales intersection with Cristobal Colón Street) is located shows a consolidated urbanization process for the 1930s. However, the northern portion shows its development between the 1960s to 1980s (Catalina Morales Street from Luis Muñoz Rivera Street to Segundo González Prida Street) (Figures 10 and 11).

### **Archaeological Potential**

According to Section 106 NHPA Effect Determination for this project, the archaeological surveys conducted within a 1/4-mile radius of the project revealed no positive archaeological findings. The Phase 1A-1B, Nuevo Centro Urbano Calles Cristóbal Colón, Baldorioty and Ramón Quiñonez conducted by Alvarado Muñoz Fernando in 2007, and the Phase 1A-1B, Escuela Elemental Urbana Reparto Horizonte conducted by Aramis Font Negrón in 1995, reveals negative results. However, it is essential to highlight that although Catalina Morales Street is not located within the urban foundational layout, it intersects with the old Luis Muñoz Rivera commercial street in the northwest part of the project. Additionally, the southern part of the project will impact the old intersection of Cristóbal Colón Street with the road to Maunabo and the second road to the beach. This intersection already appears drawn on the 19th century map. This situation increases the project area's archaeological potential.

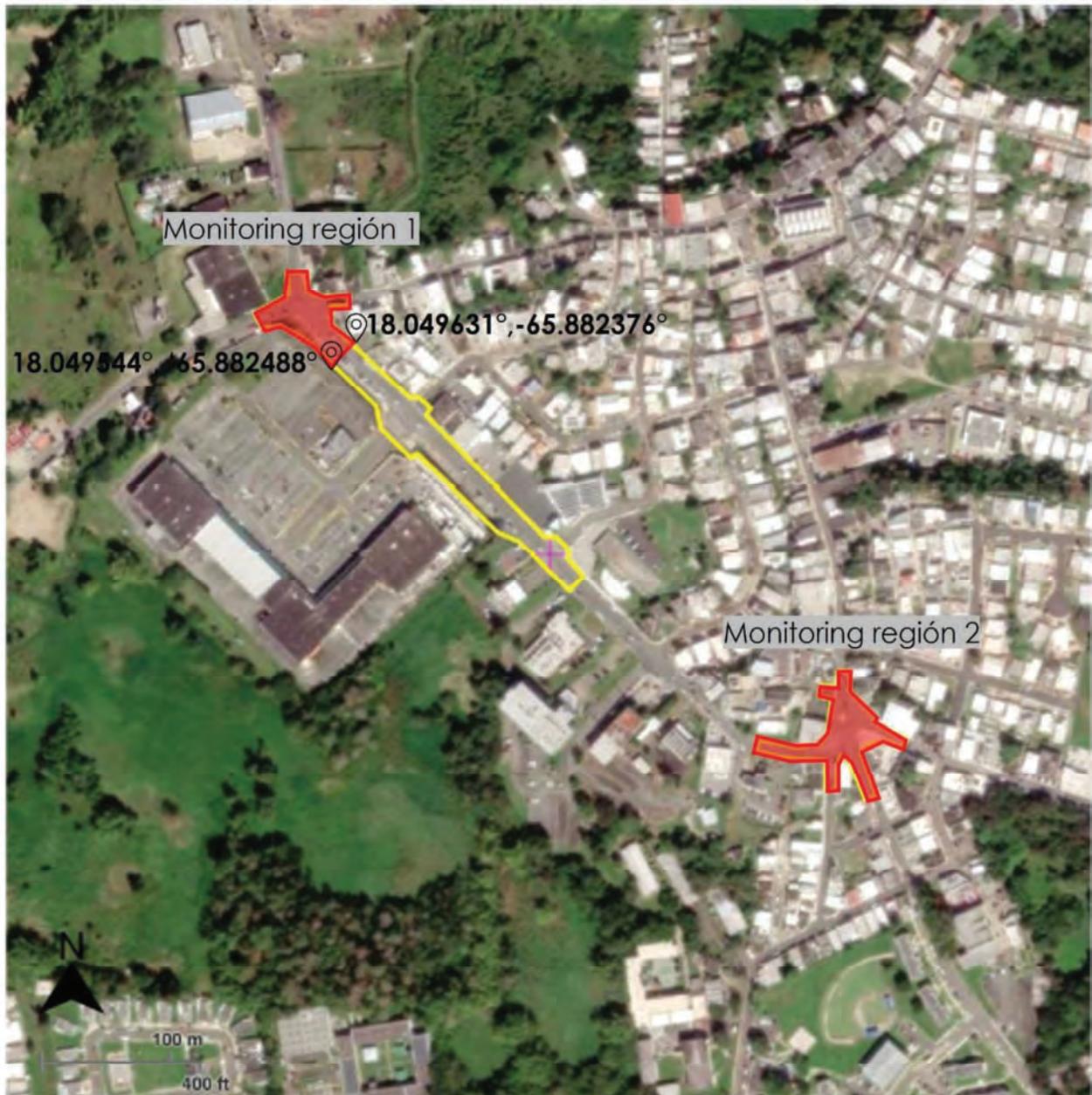
In this context, infrastructural elements from the city from the 19th and 20th centuries, as well as remains of historical buildings, are possible. On the other hand, archaeological remains related to the city's economic development could be found as they are fundamental entrances to the city. Endorsing the results of the research to Section 106 NHPA Effect Determination for this project:

*The northwest end of the direct APE at Catalina Morales Street may contain potential archaeological remains, including historic pavements, house foundations, and drainage systems. Demolition activities may expose cultural features associated with the fires of 1878 and 1880, and with hurricanes, including the historic hurricanes (...) The potential for intact deposits is limited to the intersections of Catalina Morales Street with Luis Muñoz Rivera Street and with Cristóbal Colón Street (State Road PR-9910), both dating from the 19th century, potentially containing buried archaeological materials such as historic infrastructure and residential foundations. There appears to be no potential for pre-hispanic materials within the direct APE due to the lack of reported sites within a quarter-mile radius and two cultural resource studies with negative results.*

Given the size of the project area and the different areas with low versus high archaeological potential, monitoring should be restricted to the high-potential regions. These areas will be limited to the intersections of Luis Muñoz Rivera Street with Catalina

Morales Street from the north beginning of the project to the south coordinates 18.049544°, -65.882488°, 18.049631°, -65.882376° (Monitoring region 1). The other monitoring region will be the south part of the project, the intersection of Catalina Morales, Tomás Méndez Street, Cristóbal Colón Street, and Saturnino Rodríguez Street (Monitoring region 2) (see Figure 8).

**Figure 8. Monitoring recommended regions (Source: Lizardi Pollock and others, 2023).**



Below is a series of images related to the historical and archaeological significance of the site, as well as its historical uses.

Figure 9. 1885 sketch of the town of Naguabo by Francisco Larrea y Liso and Manuel Moriano Vivó, Cuerpo de Ingenieros Militares (Source: Sepulveda 2004, 450).



Figure 10. Amaral y Morales catholic church, Yabucoa, ca 1984 (Source: Marvel and Moreno, 1984)



Figure 11. 1937 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Eduardo A. Regis Martínez; edited by Jorge Lizardi Pollock and Tamara González Vega; edited by Jesus E. Vega. Puerto Rico 2017 Disaster Recovery, CDBG-DR Program, City Revitalization Program (CRP 000318), Section 106 NHPA Effect Determination, 2024)



Figure 12. 1965 USGS aerial photograph of the Yabucoa Traditional Urban Center, highlighting the direct APE and viewshed (Source: Eduardo A. Regis Martínez; edited by Jorge Lizardi Pollock and Tamara González Vega; edited by Jesus E. Vega. *Puerto Rico 2017 Disaster Recovery, CDBG-DR Program, City Revitalization Program (CRP 000318), Section 106 NHPA Effect Determination, 2024*)



Figure 13. 1917, Washington day in Yabucoa (Source: Sepúlveda 2004, p. 453)



**Figure 14. Project Existing conditions. A: Luis Muñoz Rivera Street intersection from the Catalina Morales Street (PR-182) sidewalk. B Catalina Morales (PR-182) and Luis Muñoz Rivera Streets intersection with a gas station and liquor store in the background. C: Homenaje al Cortador Caña monument at the Catalina Morales (PR-182), Cristóbal Colón (PR-9910), Saturnino Rodríguez (PR-901) Streets intersection, where the proposed roundabout will be built.**



**A**



**B**



**C**

### **3. ARCHAEOLOGICAL MONITORING PROCEDURE**

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The monitoring activities can be divided into three groups: activities before the project begins, activities during construction, and post-construction activities. Monitoring is limited to activities that entail demolition, excavations, and earth movements. Those reconstruction activities that do not entail excavations or earth movements do not require an archaeological monitor. However, if there are activities with heavy equipment taking place in the vicinity of historic buildings, there should be a monitor present to prevent accidents and indirect impacts.

#### **A. Before Construction Begins**

1. The Municipality/Construction Manager (CM) will notify the Project Manager (PM), Grant Manager (GM), and Monitor of the proposed activities' start date. The PM is responsible for coordination between the CM and the SOI-qualified archaeologist who will oversee the monitoring (Monitor).
2. Before any demolition or construction begins, the Municipality, PM, CM, GM, and Monitor will have a kickoff meeting to discuss the procedure for archaeological monitoring, including the coordination protocol between the Monitor and the Contractor. The Monitor will provide an orientation on the area's cultural resources and potential resources and their proper treatment. The Monitor will also explain which project activities require archaeological monitoring.
3. The Municipality, CM, PM, and construction crew will complete and sign a statement outlining the activities that may not be performed without the Monitor's presence, demonstrating their understanding and commitment to following the archaeological monitoring procedures.
4. The Monitor shall document the NHRP-eligible or potentially eligible building through detailed descriptions, photos, and scale drawings. Particular attention shall be paid to the construction stages of the building and to other associated structures that may exist within the project's area of potential effect. This data must be included in the final report.

#### **B. During Demolition and Construction**

1. The Monitor shall be in the field during the project activities (Monitoring region 1 and Monitoring region 2) involving demolition and ground disturbance, and activities with heavy machinery or lightweight equipment in the vicinity of historic buildings; access and clear sightlines to all demolition and excavation activities and debris removal will be provided to the Monitor.
2. All demolition must be done with light machinery. In addition, demolitions adjacent to the bridge landings' area should be performed with hand-held

hydraulic hammers to avoid damaging the structure.

3. The Monitor shall provide instructions directly to the construction field personnel concerning how to proceed when there is a potential to impact an archaeological resource. The construction field personnel will abide by these requests: excavate slowly, stop the excavation work to evaluate a finding, etc.
4. The Monitor shall keep a record of monitored activities. The Monitor shall fill out the Daily Record of Activities Form (see **Appendix A**). These forms should be sent weekly to the GM for review and will be attached to the final report as an appendix.
5. After the demolition and removal of surfaces, the Monitor shall document any exposed subsurface feature and shall complete a scale plan drawing. The amount, size, and placement of excavation units needed to document the features, if any, shall depend on the size and complexity of the feature being documented. If necessary to understand the context of the identified resource, the Monitor should conduct archival research of primary sources (like previous project files, newspapers, journals), cartographic sources, and historical images.
6. The Monitor shall document all other archaeological remains identified during construction activities, except for previously unidentified historically significant findings (refer to B-7 below). The documentation shall include a detailed description of the discovery, context, horizontal and vertical provenience, photos, and a plan drawing. This documentation shall be done within a reasonable amount of time, trying not to impact on the project schedule as much as possible.
7. Any subsurface feature may be demolished and removed after being documented by the Monitor and approved by the GM. The information recorded will be included in the final report.
8. If the identified archaeological remains are considered historically significant – i.e., complex structures, precolonial remains or stratified deposits – the Monitor shall instruct the construction crew to (1) immediately cease work in the vicinity of the discovery, (2) take all reasonable measures to avoid or minimize harm to the property, and (3) notify the Municipality, PM, CM, and GM. The GM shall immediately notify the SHPO, as per stipulation III.B.1.b. of the PA. The following protocol shall be followed:
  - a. The Monitor shall make a preliminary assessment of the finding. The assessment shall include a description of the discovery, location, horizontal and vertical extent (if known), context, photographs, and drawings including a site plan. The assessment shall also include a work plan for implementing a National Register of Historic Places' eligibility evaluation of the exceptional remains.
  - b. The assessment and NRHP-eligibility evaluation work plan shall be submitted via email to the PM and GM within 24 hours of the

discovery. The GM will comment on the work plan within 24 hours of receiving it.

- c. The Monitor shall implement the work plan after receiving the GM's authorization to proceed. After completing the fieldwork, the Monitor shall prepare an End of Field Report, summarizing the results. Said report should include an NRHP-eligibility determination. The End of Field Report shall be submitted via email to the PM and GM within 48 hours after completing the fieldwork.
- d. The GM shall notify the SHPO of the NRHP-eligibility determination.

- i. If the finding is **not eligible** to the NRHP, the GM shall notify the SHPO and provide supporting documentation. Construction activities may resume under archaeological monitoring unless the SHPO disagrees with the NRHP determination and makes a timely objection within 48 hours of the notification.
- ii. If the finding is **eligible** to the NRHP, the criteria of adverse effect shall be applied. If the project activities do not adversely affect the finding, the GM shall notify the SHPO and provide supporting documentation. Construction activities may resume under archaeological monitoring unless the SHPO makes a timely objection within 48 hours of the notification.

If the project activities have an **adverse effect** on the NRHP-eligible finding, a Data Recovery will be implemented as a Treatment Measure per Appendix F of the PA. The Monitor shall develop a data recovery plan with a research design consistent with the Secretary of the Interior's Guidelines for Archeological Documentation ([http://www.nps.gov/history/locallaw/arch\\_stnds\\_7.htm](http://www.nps.gov/history/locallaw/arch_stnds_7.htm)) and the Advisory Council on Historic Preservation's (ACHP) recommendations on the recovery of significant information from archaeological sites as updated in 2009, at [https://www.achp.gov/protectinghistoricproperties/Section 10 6](https://www.achp.gov/protectinghistoricproperties/Section_10_6_Archaeology_Guidance)

Archaeology Guidance. The data recovery plan shall be submitted via email to the GM for comments. The GM shall be responsible for submitting the data recovery plan to the SHPO for comments and approval. This treatment measure does not apply to burials or human remains (refer to II.B.11 of this work plan).

- 9. If any additional construction activities are added or design changes are made after the project has begun, the Municipality, CM and PM shall inform the GM and the Monitor prior to performing the work. The Monitor, in conjunction with GM, shall evaluate these activities and apply the adverse effect criteria. If it is determined that the effect is adverse, the archaeologist

will provide recommendations on how to avoid, minimize, or mitigate the adverse effect. These recommendations will be consulted with the SHPO prior to implementation. The SHPO will have 15 days to comment on the recommendations. If no communication is received within that time frame it will be assumed that the SHPO has no objection and concurs with the recommendations outlined.

10. If during construction activities a historic property is affected in an unanticipated manner, the CM shall stop work immediately, and inform the Municipality, PM, GM and Monitor. The Monitor, in conjunction with GM, shall evaluate the unanticipated effects and apply the adverse effect criteria within no more than 24 hours. If the effect is determined to be adverse, the Monitor and GM will provide recommendations on how to avoid, minimize, or mitigate such adverse effects. The GM shall consult with the SHPO on the recommendations prior to implementation. The SHPO will have 48 hours to comment on the recommendations. If no communication is received within that timeframe, it will be understood that the SHPO has no objection and concurs with the recommendations outlined.

#### **c. After Construction Ends**

1. Upon the completion of archaeological monitoring, the Municipality, PM and GM shall be notified. The estimated date of delivery of the final report shall be indicated in the said notification.
2. A technical report shall be prepared detailing monitored construction activities, documentary research (if any), documentation archaeological features and other findings, and analysis and interpretation of the results. The report must include visual information, such as drawings and photos, and a sketch plan of all the documented findings. The report shall be submitted to the GM no later than two (2) weeks after completing the archaeological monitoring work. The GM shall submit the report to the SHPO no later than one (1) week after receiving it.

#### **d. Human Remains**

If human remains are discovered, the protocol established in Stipulation III.B.1.c. of the PA must be followed:

1. Stop work immediately.
2. Notify the local law enforcement office and coroner/medical examiner following applicable Commonwealth statute(s).
3. Protect the remains from any harm.
4. The GM shall be responsible for notifying the SHPO within twenty-four (24) hours of identifying human remains.

#### 4. PROFESSIONAL QUALIFICATIONS

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The Monitor must meet the minimum Secretary of the Interior Professional Qualifications Standards for Archaeology established in 36CFR Part 61. These are: a graduate degree in archaeology, anthropology, or closely related field, plus at least one (1) year of full-time professional experience or equivalent specialized training in archaeological research, administration, or management; at least four (4) months of supervised field and analytic experience in general Puerto Rican archaeology; the demonstrated ability to carry research to completion; and at least one (1) year of full-time professional experience at a supervisory level in the study of archaeological resources of the pre-Columbian and colonial periods. Please see [https://www.nps.gov/history/local-law/arch\\_stnds\\_9.htm](https://www.nps.gov/history/local-law/arch_stnds_9.htm) for more information.

The SOI-qualified archaeologist shall not defer their monitoring responsibilities to any other person who does not meet the minimum professional qualifications. Any additional personnel to intervene in monitoring efforts shall have vast experience in historic archaeology, in working in evaluation (Phase II), documentation (Phase III), and monitoring projects dealing with colonial period properties.

The Principal Investigator may not transfer his or her duties, obligations, and responsibilities to subordinates or other technicians who are not professionally trained in archaeology. In the case of hiring archaeologists and trained technicians to assist in archaeological monitoring, the Principal Investigator must be present for at least 25 percent of the duration of the fieldwork to supervise them.

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## 5. CITED REFERENCES

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1980 *Treatment of Archeological Properties: A Handbook.*

<http://libraryarchives.metro.net>

[/DPGTL/archaeology/1980\\_treatment\\_archaeological\\_properties.pdf](http://libraryarchives.metro.net/DPGTL/archaeology/1980_treatment_archaeological_properties.pdf)

### **O & M Consulting Engineering, PSC**

2023 Roundabout PR-182 int., PR-901 and PR-9910 /Catalina Morales street rehabilitation,

Municipality of Yabucoa, P.R.

### **Consejo para la Protección del Patrimonio Arqueológico Terrestre de Puerto Rico.**

2017 *Reglamento para la radicación y evaluación arqueológica de*

*proyectos de construcción y desarrollo.* San Juan: ICP. Reglamento #8932

del 8 de febrero de 2017.

### **Regis Martínez, Eduardo A.; edited by Jorge Lizardi Pollock and González Vega, Tamara; edited by Jesus E. Vega.**

2024 Section 106 NHPA Effect Determination

### **Marvel, Thomas S. and Moreno Maria L.**

1984 *Architecture of Parish Churches in Puerto Rico.* San Juan: Editorial de la Universidad de Puerto.

### **Sepúlveda, Aníbal**

2004 *Puerto Rico urbano: atlas histórico de la ciudad puertorriqueña.* San Juan: Centro de Investigaciones Carimar.

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s/f "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines [As Amended and Annotated] Professional Qualification Standards". [https://www.nps.gov/history/local-law/arch\\_stnds\\_9.htm](https://www.nps.gov/history/local-law/arch_stnds_9.htm).

s/f "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines for Archeological Documentation". [http://www.cr.nps.gov/local-law/arch\\_stnds\\_7.htm](http://www.cr.nps.gov/local-law/arch_stnds_7.htm) [consultado feb. 2013].

s/f "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines for Historical Documentation". [http://www.cr.nps.gov/local-law/arch\\_stnds\\_5.htm](http://www.cr.nps.gov/local-law/arch_stnds_5.htm).

s/f "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines for Identification".  
[http://www.cr.nps.gov/local-law/arch\\_stnds\\_5.htm](http://www.cr.nps.gov/local-law/arch_stnds_5.htm).

**Puerto Rico State Historic Preservation Office (PRSHPO)**

1993 *Guía para hacer investigaciones arqueológicas Fases I, II y III*. San Juan: Oficina del Gobernador.

**United States Geological Survey.**

APPENDIX A: DAILY RECORD OF ACTIVITIES FORM

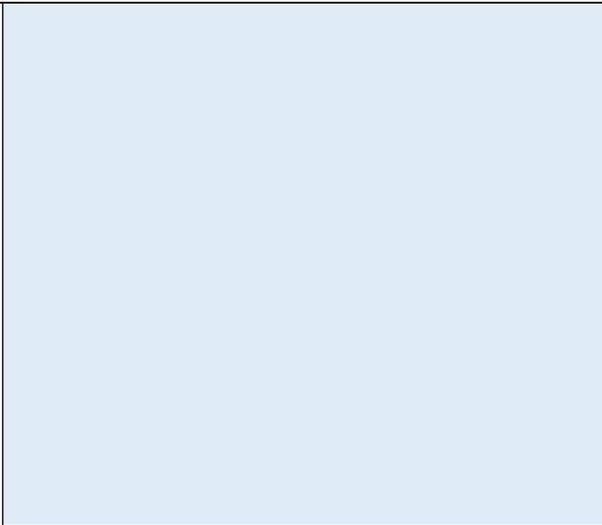
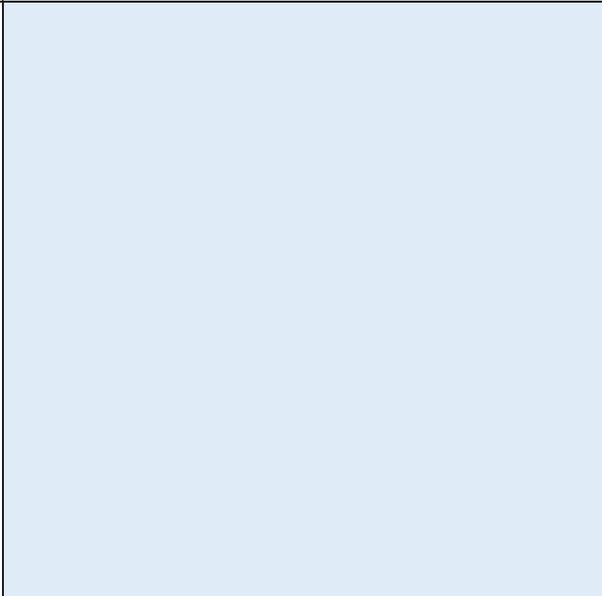
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	<b>PUERTO RICO 2017 DISASTER RECOVERY</b> <b>City Revitalization Program</b> <b>ARCHAEOLOGICAL MONITORING DAILY RECORD OF ACTIVITIES</b>
	<b>Case ID:</b>
<b>Municipality:</b>	<b>Project Location:</b>
	<b>Project Coordinates (lat/long):</b>

<b>SOI Qualified-Archaeologist:</b>
<b>Date of Monitoring:</b> Click or tap to enter a date.
<b>Work Hours:</b>

<u>Description of work performed by contractor and supervised by the Monitor:</u>		
	YES	NO
Was an archaeological remain documented during the day. If yes, include required information below.	<input type="checkbox"/>	<input type="checkbox"/>
Was an exceptional archaeological remain identified during the day? If yes, explain below.	<input type="checkbox"/>	<input type="checkbox"/>
Have the construction activities affected a previously unidentified property or a known historic property in an unanticipated manner? If yes, explain below.	<input type="checkbox"/>	<input type="checkbox"/>
Has there been a change in the scope of work of the project? If yes, explain below.	<input type="checkbox"/>	<input type="checkbox"/>

	<p><b>PUERTO RICO 2017 DISASTER RECOVERY</b>  <b>City Revitalization Program</b>  <b>ARCHAEOLOGICAL MONITORING DAILY RECORD OF ACTIVITIES</b></p>
<p><b>Case ID:</b></p>	<p><b>Project Location:</b></p>
<p><b>Municipality:</b></p>	<p><b>Project Coordinates (lat/long):</b></p>

<p><b>Site Photos</b></p>	
<p><b>Direction of Photo:</b> Click here to enter text.  <b>Description:</b> Click here to enter text.</p>	
<p><b>Direction of Photo:</b> Click here to enter text.  <b>Description:</b> Click here to enter text.</p>	

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APPENDIX B: 90% DESIGN PLANS

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**Attachment L**

Sole Source Aquifers Map

# Sole Source Aquifers Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

### Legend



Site Location



Biscayne Aquifer Distance (1,053 miles)



Sole Source Aquifers

**Attachment M**

National Wetlands Inventory Map

**Wetlands Protection Map**  
**Project ID:PR-CRP-000318**

**Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection**  
**Yabucoa, Puerto Rico.**



July 18, 2025

Wetlands

 Freshwater Emergent Wetland

 Freshwater Forested/Shrub Wetland

 Riverine

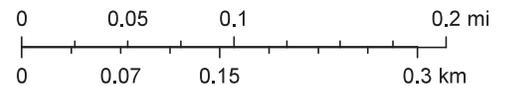


Project Location



Project Sites

1:6,000



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Source:** <https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909). PR-901 and PR-182 intersection (18.047070, -65.878829).

**Attachment N**

National Wild and Scenic River Map

# National Wild and Scenic River Map

## Project ID:PR-CRP-000318

Revitalization of Catalina Morales Street – Paseo de los Inmortales and Proposed Roundabout at the PR-901 / PR-182 Intersection  
Yabucoa, Puerto Rico.



**Address:** Catalina Morales Street (State Road R-182) from Luis Muñoz Rivera Street Int. to Segundo González Prida Street Int. and State Roads PR-901 and PR-182 Int., Pueblo Ward, Yabucoa PR 00767

**Geographic Coordinates (Lat/Lon):** Catalina Morales Street starts at the Luis Muñoz Rivera intersection (18.049846, -65.882701) and ends at the González Prida intersection (18.048157, -65.880909), PR-901 and PR-182 intersection (18.047070, -65.878829).

**Source:** <https://rivers.gov/puerto-rico>

### Legend

-  Site Location
-  National Wild and Scenic River Line Segment
-  Distance (24,111 meters)

**Attachment O**

5-Step Decision-Making Process Report

## **5-Step Decision Making Process**

24 CFR 55.14 (e)

**Subrecipient: Municipality of Yabucoa**

**Project Number: PR-CRP-000318**

**Project Name: Construcción de Rotonda en intersección de la PR 901 y PR 182, Revitalización de la Calle Catalina Morales para la Construcción del Paseo de los Inmortales**

### **Step 1: Determine whether the action is located in a Floodplain and wetland**

As required by Executive Order 11988 and Executive Order 11990, and in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Protection of Wetlands, the project site was analyzed to assess potential impacts on floodplains and wetlands. The proposed project consists of two locations: the first location consists of the conversion of the existing intersection of roads PR-182, PR-901 and PR-9910 to a roundabout (18.047070, -65.878829) in Camino Nuevo Ward, in the Municipality of Yabucoa, Puerto Rico 00767. The new geometry covers an area of 0.56 acres and does not expand beyond the already impacted area. This portion of the project is not located within a floodplain. The second location consists of the construction of the "Paseo de los Inmortales", starts at Luis Muñoz Rivera Street/State Road PR-900 (18.049790, -65.882956 and extends along Catalina Morales Street until it reaches the parcel limit of the Yabucoa Fire Station southeast of the intersection with Segundo Gonzalez Prida Street (18.048022, -65.88769). The extent of the floodplain was determined using the 0.2 Percent-Annual-Chance Flood Approach (0.2PFA) and the extent of the wetland was determined using the National Wetlands Inventory (NWI). The total project consists of approximately 2.09 acres. According to the Advisory Base Flood Elevations Map (ABFE), published on April 13, 2018, approximately 1.04 acres of the second location, "Paseo de los Inmortales", are in floodplain A and 0.07 acres are in floodplain shaded X, however the entire second location portion of the project is within the Floodplain. None of the proposed improvements are in wetlands; however, at one point, the proposed "Paseo de los Inmortales" is approximately 95 feet from a Freshwater Emergent Wetland, identified as PEM1C on NWI, and is therefore considered in this analysis. Since the project will only impact existing streets and sidewalks, no effect on the wetland is anticipated.

The proposed scope of work for this project includes the conversion of the existing intersection of roads PR-182, PR-901 and PR-9910 to a roundabout and the reconstruction of gutters, pavement, ramps, and sidewalks of Catalina Morales Street (PR-182) from the intersection with Francisco Sustache Street, to the intersection with PR-900. The project also includes the addition of bicycle paths, pedestrian crossings, urban furniture and reforestation efforts. The goal is to create a more efficient and safer environment through a complete streets approach. No increase in impervious surfaces is planned; instead, green spaces will be introduced to reduce impervious surfaces, enhance water infiltration, and mitigate erosion, while also promoting local biodiversity and reducing runoff. These efforts will increase the area's resilience to potential flooding, minimize environmental impacts, and ensure responsible development in flood-prone areas.

The proposed scope of work for the “Paseo de los Inmortales” in the Municipality of Yabucoa involves enhancements within a fully developed urban area. The project includes the construction of a new wall, approximately seven (7) feet in height, to be installed directly in front of and physically integrated with an existing masonry wall. This new structure will serve as a mounting surface for commemorative plaques and monuments honoring distinguished individuals from the municipality. On the opposite side of the existing wall, a steel framework – elevated approximately 1.5 feet above ground level - will be anchored to support modular panels designed to resemble a vertical green wall, contributing to the visual appeal and environmental value of the space.

Additional project components include the installation of a concrete base for the placement of decorative ‘YABUCOA’ letters, scarification and resurfacing of the adjacent asphalt roadway, cleaning and maintenance of existing storm drainage infrastructure, and improvements to ensure compliance with the Americans with Disabilities Act (ADA), including the construction of accessible pathways, curb ramps, and transitions.

The construction of the new commemorative wall and associated structural enhancements will occur entirely within an existing paved, impervious sidewalk area. As such, the project will not result in any increase in the impervious surface area. The work is limited to already developed and disturbed ground and therefore will not alter existing stormwater drainage patterns or contribute to increased surface runoff. No stormwater mitigation measures are required.

All proposed activities are consistent with the current environmental conditions of the site and comply with applicable federal requirements, including but not limited to 24 CFR Part 58 and Executive Order 11988 (Floodplain Management). The project does not expand the existing development footprint and will not impact natural drainage features or floodplain functions.

**Step 2: Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.**

Included for reference, as this step does not apply to the Modified 5-step process, per 24 CFR 55.14.

**Step 3: Identify and evaluate practicable alternatives.**

Included for reference, as this step does not apply to the Modified 5-step process, per 24 CFR 55.14.

**Step 4: Identify Potential Direct and Indirect Impacts Associated with floodplain Development.**

The potential direct and indirect impacts of the proposed action on the floodplains and nearby wetland are expected to be minimal, as the project propose upgrades to existing streets and sidewalks. These improvements will not negatively affect or alter runoff patterns during weather events, as no new occupancy or modification of floodplain areas is planned.

Furthermore, to prevent indirect impacts several Best Management Practices (BMP) will be implemented throughout the construction of the project, such as the Erosion and Sediment control measures (CEST Plan). Erosion and sediment control measures, such as silt fencing and erosion control blankets can help prevent sediment runoff from reaching the nearby wetland. Effective stormwater management strategies, including buffers and dust control measures will be used to filter contaminants and control runoff. The plan will also provide guidelines for the proper storage and disposal of construction waste at an authorized facility to ensure proper waste management and to protect floodplains from contamination. Additionally, the project will implement green infrastructure practices, such as the use of native vegetation to enhance water absorption and reduce erosion. This approach ensures that the natural characteristics of the floodplains and adjacent wetlands remain largely undisturbed, while still achieving the desired improvements for the community and public spaces.

Overall, the project is intended to support floodplain and wetland management objectives, while boosting the social value of the area. It will positively impact the community by enhancing quality of life and public safety during a flood event, reducing the risk of loss of life, injury, or hardship; as well as reducing damage to surrounding properties by sloping the newly placed asphalt to the cleaned existing drainage system.

**Step 5: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to and from the floodplain and to restore and preserve their natural and beneficial functions and values.**

The design of the proposed project prioritizes minimizing potential impacts to lives and property by reducing existing impervious areas and integrating green spaces, which are essential for managing water runoff and promoting natural infiltration. This approach helps prevent rapid runoff and lowers flood risks. Reducing flooding events will naturally provide better protection against water damage, safeguarding residents.

The elements of the project will be strategically positioned to ensure that they do not disrupt the natural laminar flow patterns leading toward discharge points, thereby preserving hydrological continuity. Surface runoff, generated by rainfall or flood events, will be efficiently channeled into the existing drainage system, ensuring proper water management and minimizing the risk of localized flooding. Additionally, the project's implementation is expected to have no negative impact on the local flora and fauna, as measures will be taken to avoid disturbing the natural ecosystem.

Overall, the design not only addresses potential flooding events but also promotes the long-term health and stability of the floodplain and surrounding ecosystems, while preserving the economic value of the area. By implementing these strategies, the project will minimize the risk of property damage and loss of life, while strengthening the resilience of the floodplain and wetland functions. This approach ensures the continued ecological benefits of these vital areas.

**Step 6: Reevaluate the Proposed Action.**

The selected site for this phase of the project was chosen based on its existing development and prior environmental disturbance, which aligns with HUD's principles of minimizing adverse environmental impacts by utilizing previously disturbed or developed

land. The site's strategic location within the Municipality enhances its suitability for the intended public purpose, serving as a designated commemorative space honoring distinguished resident. Selecting an alternative location would likely necessitate new ground disturbance in an undeveloped or less impacted area, resulting in increased environmental impacts, greater mitigation requirements, and higher overall construction costs. The proposed site, therefore, represents the most cost-effective and environmentally responsible option for project implementation.

**Step 7: Determination of no practicable alternative and publication of final notice**

Included for reference, as this step does not apply to the Modified 5-step process, per 24 CFR 55.14.

**Step 8: Implement the Proposed Action**

The Municipality of Yabucoa is the Responsible Entity (RE) that will ensure that this plan, as modified and described above, is implemented, and the necessary provisions will be included in all agreements with participating parties. Additionally, the RE will actively monitor the construction process to prevent unnecessary impacts and mitigate any potential risks.

**Attachment P**

Design Drawings

**GENERAL DRAWINGS SCHEDULE**

SHEET NO.	DESCRIPTION	DWG NO.
01	TITLE SHEET	GR/01
02	INDEX OF DRAWINGS	GR/02
03	GENERAL NOTES AND ABBREVIATIONS	GR/03
04	LEGEND AND SYMBOLS	GR/04
05	EXIST. CONDITION AND TOPOGRAPHIC SURVEY PLAN	GR/05
06	TYPICAL SECTION (LINE-1, 2, 3 & 4)	GR/06
07	HORIZONTAL ALIGNMENT AND VERTEX DATA TABLE	GR/07
08	EXISTING CONDITION AND DEMOLITIONS	GR/08
09	QUANTITIES SUMMARY TABLE TOPOGRAPHIC SURVEY PLAN	GR/09
10	QUANTITIES SUMMARY TABLE CONSTRUCTION SCHEDULE AND LEGEND	GR/10
11	TYPICAL SECTION (PR-182, PR-901 AND PR-9910 ROUNDABOUT)	GR/11
12	HORIZONTAL ALIGNMENT AND VERTEX DATA TABLE	GR/12
13	CENTERLINES, GEOMETRY VERTEX DATA	GR/13
14	EXISTING CONDITION AND DEMOLITIONS	GR/14
15	QUANTITIES SUMMARY TABLE	GR/15
16	GENERAL NOTES CONSTRUCTION SCHEDULE AND LEGEND	GR/16
17-22	MAINTENANCE OF TRAFFIC	MOT/02-07
23-27	EROSION CONTROL PLAN	EC/02-07
28-35	SITE PLAN	PP/01-08
36-38	PAVEMENTS PLAN	ID/01-03
39	INTERSECTION DETAILS (GRADING PLAN)	PMD/01
40	ARCHITECTURE PLANS	AE/01-14
41	EXISTING UTILITIES	DR/01-05
42	EXISTING PRECAST CONCRETE CURB RAMP TYPE-1,2,3,4,5, AND 6	DR/01-05
43	EXISTING PRASA WATER UTILITIES	UTW/01-03
44	EXISTING PRASA SANITARY UTILITIES	UTS/02-03
45	EXISTING P.R.E.P.A. UTILITIES	UTE/01-09
46	EXISTING TELECOMMUNICATION UTILITIES	UTT/02-03
47	EXISTING CABLE TV UTILITIES	UTCV/02-03
48	EXISTING GAS UTILITIES	UTG/02-03
49	EXISTING TRAFFIC SIGNS	TS/01-04
50	RETAINING WALLS	RTW/01-03
51	CROSS SECTIONS	CS/01-03
52	TREE SURVEY AND PLANTING	RD/01-02

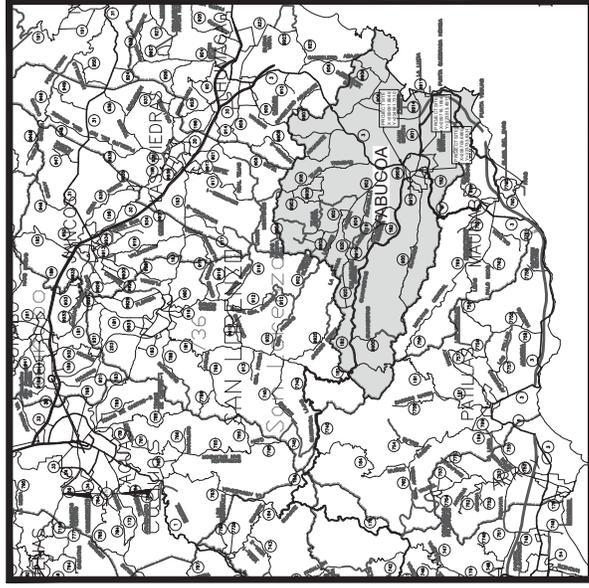
**NOTE:**  
 ALL WORK ON THIS PROJECT SHALL BE PERFORMED AND ALL MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND GENERAL PROVISIONS APPROVED BY THE PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY IN 2006 AND SUBSEQUENT AMENDMENTS IN EFFECT, AT THE TIME OF BIDDING, WITH THE EXCEPTION OF ANY SPECIAL PROVISIONS AND INSTRUCTIONS INCLUDED IN THE CONTRACT BOOK.

**GENERAL DESIGN CRITERIA**

- HIGHWAY DESIGN CODE \_\_\_\_\_
- STRUCTURES DESIGN CODE \_\_\_\_\_
- DESIGN CLASS CODE (PRHTA GENERAL DESIGN STANDARDS) \_\_\_\_\_
- FUNCTIONAL HIGHWAY CLASSIFICATION (AASHTO) \_\_\_\_\_
- FUNCTIONAL HIGHWAY CLASSIFICATION (PRHTA) \_\_\_\_\_
- CONTROL OF ACCESS (FULL, PARTIAL, NONE) \_\_\_\_\_
- ANNUAL AVERAGE DAILY TRAFFIC PRESENT (2013) \_\_\_\_\_
- ANNUAL AVERAGE DAILY TRAFFIC FUTURE (2036) \_\_\_\_\_
- DESIGN HOURLY VOLUME (DHV) \_\_\_\_\_
- DIRECTIONAL DISTRIBUTION (D) \_\_\_\_\_
- PERCENT OF TRUCK (T) \_\_\_\_\_
- DESIGN SPEED (V) \_\_\_\_\_
- MAXIMUM GRADE (%) \_\_\_\_\_
- MINIMUM CURVE RADIUS \_\_\_\_\_
- MAXIMUM SUPERELEVATION \_\_\_\_\_
- DESIGN LOAD FOR STRUCTURES \_\_\_\_\_
- DESIGN EXCEPTION? (YES OR NO) \_\_\_\_\_

DESCRIBE THE EXCEPTION	APPROVAL DATE BY PRHTA
1.	
2.	
3.	

**FINAL PLAN 100%.**



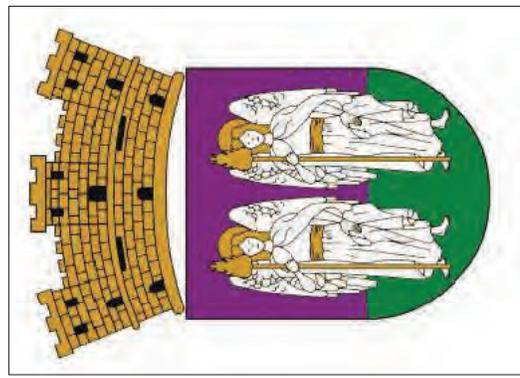
**LOCATION PLAN**  
 SCALE: 1"=1.000000 MILES



TOTAL LENGTH OF PROJECT ..... 0.00 KMS. = 0.00 MI.  
 TOTAL LENGTH OF ROADWAY ..... 0.00 KMS. = 0.00 MI.

**PROJECT :**  
 ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 /  
 CATALINA MORALES STREET REHABILITATION,  
 MUNICIPALITY OF YABUCOA, P.R.

ROADWAY P.A.N. Yabucoa	MUNICIPALITY YABUCOA	ISLAND P.R.	DESIGN YEAR 2022	SHEET NO. 01	TOTAL SHEETS 03
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**HON. Rafael Surillo Ruiz, Alcalde**

**O & M Consulting Engineering, PSC**  
 Puerto Rico Office: Calle El Estero #11, Esq. #113, Guaynabo, Puerto Rico, 00968  
 Tel: (939) 725-1101 Fax: (939) 729-1107

# GENERAL INDEX SHEETS

HIGHWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	02	03

SHT. NO.	Sheet Title	Sheet Description	Drawing Revision Number
01	GR01	TITLE SHEET	
02	GR02	INDEX OF DRAWINGS	
03	GR03	GENERAL NOTES AND ABBREVIATIONS	
04	GR04	LEGEND AND SYMBOLS	
05	GR05	EXISTING CONDITION AND TOPOGRAPHIC SURVEY PLAN	
06	GR06	TYPICAL SECTION (LINE 1, 2, 3 & 4)	
07	GR07	HORIZONTAL ALIGNMENT AND VERTEX DATA TABLES	
08	GR08	EXISTING CONDITION AND DEMOLITIONS	
09	GR09	QUANTITIES SUMMARY TABLE	
10	GR10	EXISTING CONDITION AND TOPOGRAPHIC SURVEY PLAN	
11	GR11	TYPICAL SECTIONS PR-182, PR-9910 AND PR-9910	
12	GR12	CENTRE LINES, GEOMETRY, VERTEX DATA & SURVEY TIES	
13	GR13	CENTRE LINES, GEOMETRY, VERTEX DATA	
14	GR14	EXISTING CONDITION AND DEMOLITIONS	
15	GR15	QUANTITIES SUMMARY TABLE	
16	MO701	GENERAL NOTES, CONSTRUCTION SCHEDULE AND LEGEND	
17	MO702	MAINTENANCE OF TRAFFIC	
18	MO703	MAINTENANCE OF TRAFFIC	
19	MO704	MAINTENANCE OF TRAFFIC-PHASE I	
20	MO705	MAINTENANCE OF TRAFFIC-PHASE I DETOUR	
21	MO706	MAINTENANCE OF TRAFFIC-PHASE II	
22	MO707	MAINTENANCE OF TRAFFIC-PHASE II DETOUR	
23	EC02	EROSION CONTROL PLAN	
24	EC03	EROSION CONTROL NOTES	
25	EC04	EROSION CONTROL DEVICES SILENCE	
26	EC05	EROSION CONTROL DEVICES STRAW BALES	
27	EC07	EROSION CONTROL DEVICES STRAW BALES	
28	PR01	PROPOSED PLAN CATELINA MORALES STREET	
29	PR02	PROPOSED PLAN CATELINA MORALES STREET	
30	PR03	ROADWAY PLAN	
31	PR04	ROADWAY MISCELLANEOUS DETAILS	
32	PR05	ROADWAY PROFILES LINES 1 & 9	
33	PR06	ROADWAY PROFILES LINES 10 & 11	
34	PR07	ROADWAY PROFILES LINES 12	
35	PR08	ROADWAY PROFILES LINES 13 & 14	
36	ID01	INTERSECTION DETAILS (GRAVING PLAN)	
37	ID02	INTERSECTION DETAILS (GRAVING PLAN)	
38	ID03	INTERSECTION DETAILS	
39	PR001	NEW PAVEMENT'S SITE PLAN	
40	AE01	EXISTING CONDITION AND DEMOLITION PLAN	
41	AE02	PROPOSED SITE PLAN	
42	AE03	PROPOSED SIDEWALK PARTIAL PLAN 1	
43	AE04	PROPOSED SIDEWALK PARTIAL PLAN 2	
44	AE05	PROPOSED SIDEWALK PARTIAL PLAN 4	
45	AE06	LARGE SCALE DRAWINGS	
46	AE07	LARGE SCALE DRAWINGS	
47	AE08	LARGE SCALE DRAWINGS	
48	AE09	LARGE SCALE DRAWINGS	
49	AE10	ROTUNDA LARGE VIEW	
50	AE11	ROTUNDA LARGE VIEW	
51	AE12	CONCRETE BENCH DETAIL	
52	AE13	STEEL REINFORCEMENT SCHEDULE	
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75	UT014	EXISTING TELECOMMUNICATION UTILITIES	
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77	UT016	EXISTING CABLE TV UTILITIES	
78	UT017	EXISTING GAS UTILITIES	
79	UT018	EXISTING GAS UTILITIES	
80	UT019	TRAFFIC SIGNS	
81	UT020	TRAFFIC SIGNS	
82	UT021	TRAFFIC SIGNS	
83	UT022	TRAFFIC SIGNS	
84	UT023	TRAFFIC SIGNS	
85	UT024	TRAFFIC SIGNS	
86	UT025	TRAFFIC SIGNS	
87	UT026	TRAFFIC SIGNS	
88	UT027	TRAFFIC SIGNS	
89	UT028	TRAFFIC SIGNS	
90	UT029	TRAFFIC SIGNS	
91	UT030	TRAFFIC SIGNS	
92	UT031	TRAFFIC SIGNS	

PROJECT - ROUNDABOUT PR-3 INT. PR-9910 / ROUNDABOUT PR-9910 / ROUNDABOUT PR-182 INT. PR-9910 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

SCALE AS SHOWN

INDEX OF DRAWINGS

GR 02

DATE	REVISIONS

DESIGN	DRAWING	CHECK	FINAL CHECK

PROJECT NO.	DRAWING NO.	SHEET NO.	TOTAL SHEETS

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**STANDARD SYMBOLS:**

FEATURE	SYMBOL		REMARKS
	PROPOSED	EXISTING	
CENTER LINE	---	---	IDENTIFY
SURVEY MONUMENT	▲	▼	IDENTIFY
SPOT ELEVATION	134.25	[134.25]	DECIMAL POINT AT SHOT ELEV.
BENCH MARK	BMX	BMX No. 1	IDENTIFY
HORIZONTAL P.I.	↔	↔	IDENTIFY
NORTH ARROW	↖	↖	TRUE
NORTH ARROW	↖	↖	MAGNETIC
CONTOUR LINES	130	130	IDENTIFY
PAVEMENT	=====	=====	IDENTIFY ROAD
SIDEWALK	SW	SW	IDENTIFY
CURB	=====	=====	IDENTIFY
GUARD RAIL	=====	=====	IDENTIFY TYPE
BARRIER	=====	=====	IDENTIFY TYPE
BARRICADE	=====	=====	IDENTIFY
RETAINING WALL	=====	=====	TYPE AS SHOWN ON PLANS
CONC. PARAPETS	=====	=====	IDENTIFY TYPE
BARBED WIRE FENCE	-----x-----	-----x-----	IDENTIFY TYPE
CHAIN LINK FENCE	-----o-----	-----o-----	IDENTIFY TYPE
PROPERTY LINE (A)	-----P-----	-----P-----	IDENTIFY IF C.O.A.
ROW LINE & MON. (B)	-----P-----	-----P-----	AS SHOWN ON PLANS
ACCESS CONTROL	-----T.O.C.-----	-----T.O.C.-----	IDENTIFY SIZE
TOP OF CUT	-----T.O.S.-----	-----T.O.S.-----	IDENTIFY TYPE & FLOW
TOE OF SLOPE	-----T.O.S.-----	-----T.O.S.-----	IDENTIFY TYPE & FLOW
PIPES	-----	-----	IDENTIFY SIZE

FEATURE	SYMBOL		REMARKS
	PROPOSED	EXISTING	
HEADWALL	┌ or └	┌ or └	AS PERTYPE
MANHOLE	●	○	IDENTIFY
INLETS	▭	▭	IDENTIFY AS PER SIZE
WATER COURSE	~	~	IDENTIFY
DITCH	--->	--->	IDENTIFY
PAVED DITCH	--->	--->	IDENTIFY
LANE OR POND	∞	∞	IDENTIFY
SWAMP	=====	=====	IDENTIFY IF REQ.
WOODS	=====	=====	IDENTIFY IF REQ.
TREES	⊙	⊙	IDENTIFY IF REQ.
EDGE OF WOODS	=====	=====	IDENTIFY IF REQ.
HEDGE	=====	=====	IDENTIFY IF REQ.
RIP RAP	=====	=====	IDENTIFY
RIP RAP PAVING	=====	=====	IDENTIFY
ROCK	=====	=====	IDENTIFY
BUILDING	=====	=====	IDENTIFY IF REQ.
FOUNDATION	=====	=====	IDENTIFY
BLDG TO DEMOLISH	=====	=====	IDENTIFY
SIENS, GROUND, MTD	-----	-----	UPPER-CODE LOWER-LOCATION
PROP. SIGN IDENT.	⊙	⊙	IDENTIFY
TRAFFIC DETECTOR	⊙	⊙	IDENTIFY
PALM TREES	=====	=====	IDENTIFY
MATCH TO EXISTING	=====	=====	IDENTIFY
LUMINARY	=====	=====	IDENTIFY
ELECTRICAL OR TEL. POLE AND GUY WIRE	=====	=====	IDENTIFY
DIRT ROAD	=====	=====	IDENTIFY

DESIGN NO. / PROJECT NO.	AC-800899 / 800899-999	DATE	2021	SHEET NO.	04	TOTAL SHEETS	03
MUNICIPALITY	SANTA ISABEL	PROJECT	PR-52	YEAR	2021	NO.	04

**PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY**  
**PUERTO RICO INFRASTRUCTURE FINANCE AUTHORITY**

**BRIDGE DECK REPLACEMENT FOR BRIDGES No. 1182 AND 1183 AT P.R. 55 K.M. 71.40 IN THE MUNICIPALITY OF SANTA ISABEL P.R.**

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LEGEND AND SYMBOLS

NOT TO SCALE

GR 04

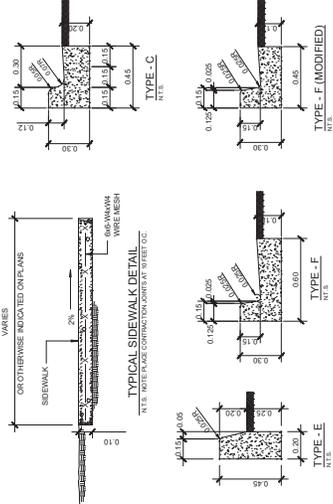
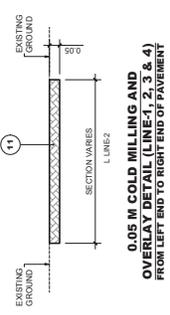
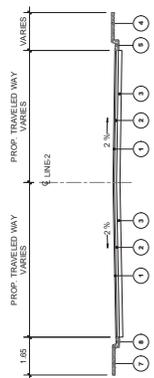
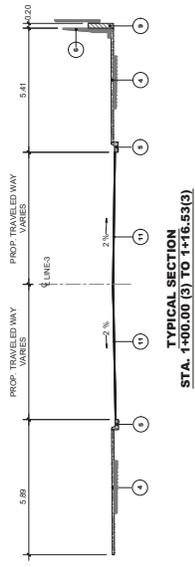
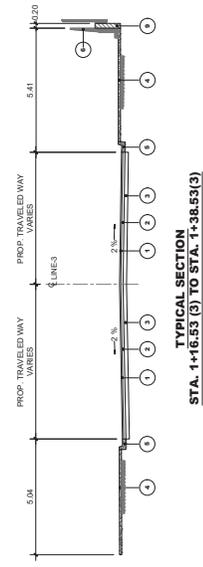
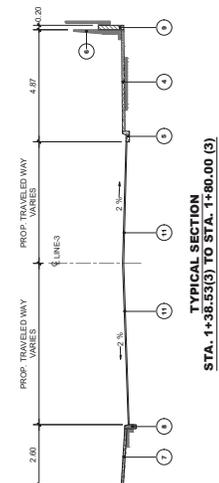
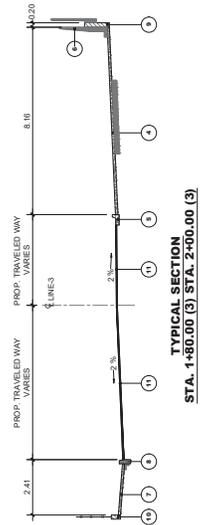
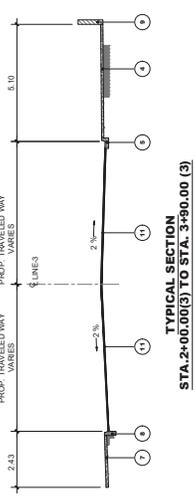
DATE	
BY	
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DESIGN	
DRAWING	
TRACED	
CHECK	
FINAL CHECK	



PROJECT NO.	2022	SHEET NO.	06
DATE	2022	YEAR	2022
MUNICIPALITY	YABUCCA	P.R.	00
ROADWAY P.I.N.	YABUCCA		

**LEGEND:**

- 1 0.05 M WARM MIX ASPHALT MARSHALL-S(50) (SPEC. 401)
- 2 0.10 M WARM MIX ASPHALT MARSHALL-S(50) (12) (SPEC. 401)
- 3 0.15 M AGGREGATE BASE COURSE (SPEC. 304), A-1-a
- 4 PROPOSED SIDEWALK
- 5 PROPOSED CURB TYPE F (MODIFIED)
- 6 PROPOSED MOSAIC
- 7 EXISTING SIDEWALK
- 8 EXISTING CURB
- 9 EXISTING CONCRETE WALL
- 10 EXISTING IRON FENCE OVER CONC. WALL
- 11 0.05 M COLD MILLING AND OVERLAY



PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS



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TYPICAL SECTION  
(LINE -1, 2, 3 & 4)

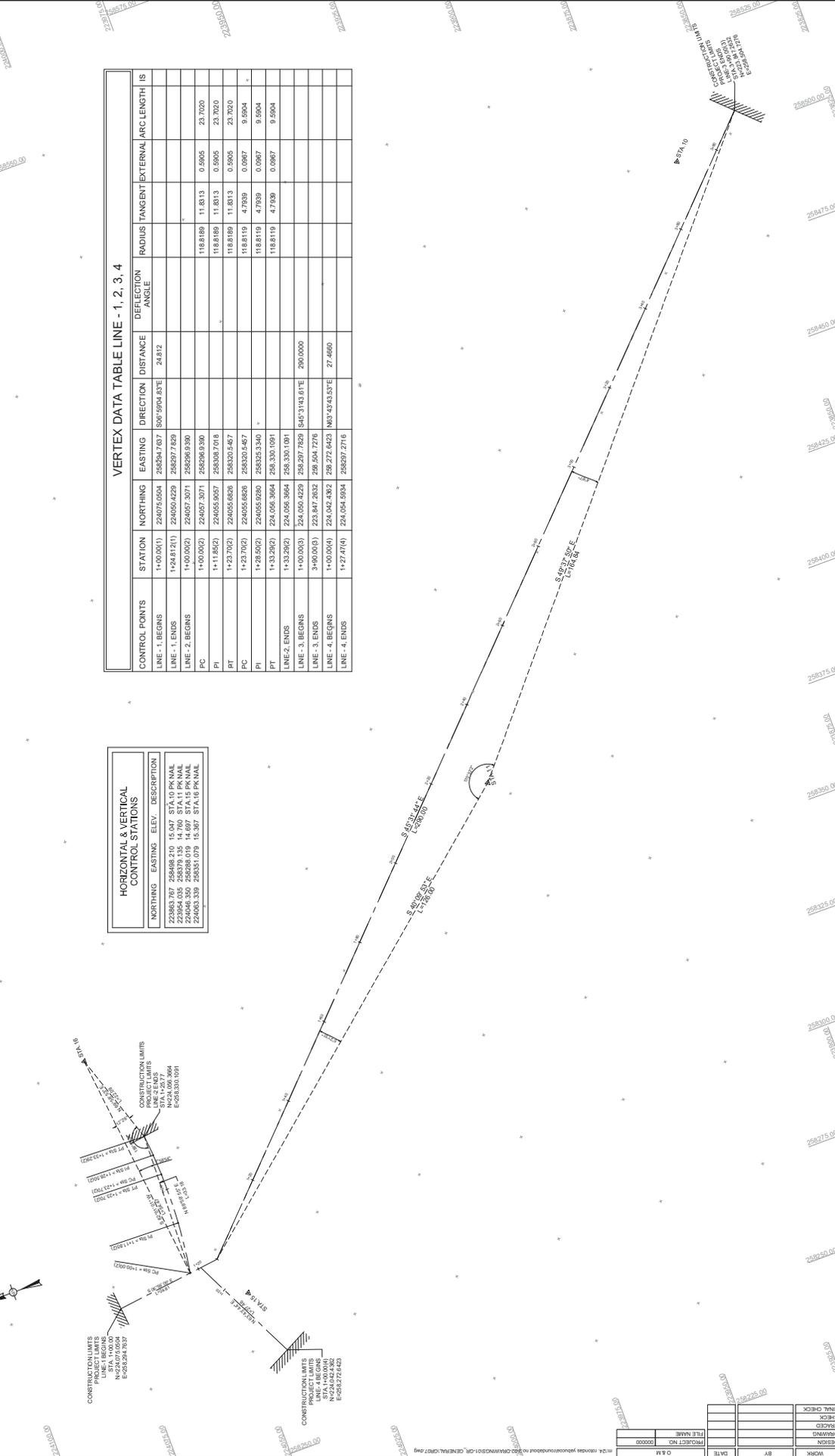
GR 06

DESIGN	PROJECT NO.	00000
DRAWING	FILE NAME	
TRACED		
FINAL CHECK		

PROJECT NO.	2022	YEAR	2022
PROJECT NAME	YABUCCA	MUNICIPALITY	YABUCCA
PROJECT NO.	07	SHEET NO.	03

DATE	BY	WORK	DESIGN	DRAWING	TRACED	CHECK	FINAL CHECK
PROJECT NO.	00000	FILE NAME					

D & M



### VERTICE DATA TABLE LINE - 1, 2, 3, 4

CONTROL POINTS	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DEFLECTION ANGLE	RADIUS	TANGENT	EXTERNAL	ARC LENGTH	IS
LINE - 1, BEGINS	1+00.00(1)	224075.0504	258294.7617	S00°59'04.48"E	24.812						
LINE - 1, ENDS	1+24.81(2)	224050.4229	258297.7839								
LINE - 2, BEGINS	1+00.00(2)	224057.3071	258296.9390								
PI	1+11.88(2)	224055.8007	258308.7018				118.819	11.813	0.5905	23.7020	
PT	1+23.70(2)	224055.8826	258320.5467				118.819	11.813	0.5905	23.7020	
PC	1+23.70(2)	224055.8826	258320.5467				118.819	11.813	0.5905	23.7020	
PI	1+26.50(2)	224055.8920	258325.3440				118.819	4.7939	0.0967	9.5904	
PT	1+33.29(2)	224056.3664	258330.1091				118.819	4.7939	0.0967	9.5904	
LINE-2, ENDS	1+33.29(2)	224056.3664	258330.1091								
LINE - 3, BEGINS	1+00.00(3)	224050.4229	258297.7839	S40°3'14.81"E	290.0000						
LINE - 3, ENDS	3+49.00(3)	223847.2632	258250.4776								
LINE - 4, BEGINS	1+00.00(4)	224042.4362	258272.6423	N83°43'43.53"E	27.4600						
LINE - 4, ENDS	1+27.47(4)	224054.9394	258297.2716								

### HORIZONTAL & VERTICAL CONTROL STATIONS

NORTHING	EASTING	ELEV.	DESCRIPTION
223863.787	258498.210	65.047	STA 10 PK NAL
223864.035	258379.035	47.700	STA 11 PK NAL
223864.035	258379.035	47.700	STA 11 PK NAL
224663.339	258351.079	65.367	STA 16 PK NAL

PROJECT - ROUNDABOUT PR-3 INT, PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE: 07/27/2022

REVISIONS:

DATE	DESCRIPTION	BY

**YABUCCA**

D & M Consulting Engineering, P.S.C.  
 1100 Office Park #11 Street 1, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

GR 07

HORIZONTAL ALIGNMENT AND VERTICE DATA TABLES





ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	10	93



LOCATION MAP  
SCALE: 1:5000



GRAPHIC SCALE 1:400

- NOTES**
- 1- ALL DISTANCES AND ELEVATIONS ARE EXPRESSED IN METERS.
  - 2- THE SURVEYING CONTROL IS BASED ON THE NAD 83 DATUM AND THE UTM PROJECTION SYSTEM.
  - 3- ALL DIMENSIONS ARE GIVEN IN METERS UNLESS OTHERWISE NOTED.
  - 4- ALL DIMENSIONS ARE GIVEN IN METERS UNLESS OTHERWISE NOTED.
  - 5- THE SURVEYING CONTROL IS BASED ON THE NAD 83 DATUM AND THE UTM PROJECTION SYSTEM.
  - 6- THE SURVEYING CONTROL IS BASED ON THE NAD 83 DATUM AND THE UTM PROJECTION SYSTEM.
  - 7- FIELDWORK WAS PERFORMED ON JULY 2022.
  - 8- ELEVATIONS ARE REFERENCED TO THE MSL DATUM.
  - 9- EQUIPMENT TO PERFORM THIS SURVEY CONSISTED OF THE FOLLOWING:
    - 1- TOTAL STATION: SOKKIA TS-10
    - 2- GPS: GARMIN 60CSX
    - 3- LEVELING STAFF: SOKKIA
    - 4- PRISM: SOKKIA

**LEGEND**

ROADWAY	ROADWAY	ROADWAY	ROADWAY
...	...	...	...

PROJECT NAME: FUTURE ROUNDABOUTS FACILITIES FOR YABUCCA TOWN

PROJECT LOCATION: STATE ROAD PR-182 INTERSECTION WITH PR-901 AND PR-9910, YABUCCA, PUERTO RICO

NUM. DATE REVISIONS REMARKS

CERTIFY CORRECT

PEDRO J. DAVILA COLON  
SURVEYOR, S.C. NO. 9323



PROJECT: ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

SCALE: 1:400

DATE: SEPTEMBER 05, 2022

PLAN NO.: JOB-1420M

EXISTING CONDITION AND TOPOGRAPHIC SURVEY PLAN

SCALE AS SHOWN

REVISIONS

PROJECT: ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.



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DATE: #/ #/ #

REVISIONS: #/ #/ #

PROJECT NO.: 00000

FILE NAME:

DATE:

BY:

WORK:

DESIGN:

DRAWING:

CHECK:

FINAL CHECK:







ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	13	89

Alignment Name: CL\_0  
 Alignment Description: Alignment/Road/Geom\_Baseline  
 Alignment Style: Alignment/Road/Geom\_Baseline

Station	Northing	Eastng
1+00.000	223681.741	258731.043
1+33.187	223722.216	258717.506
N23.320°W		
33.187		
1+33.187	223712.216	258717.506
HPI ( )		
CC ( )		
PT ( )		
1+44.152	223722.286	258713.565
1+54.941	223739.529	258782.188
70.000	223793.201	258712.512
17.807° Right		
81.851°		
2.3235		
93.996		
-31.667		
0.843		
0.854		
N23.320°W		
N66.690°E		
N14.416°W		
N64.487°E		
N3.513°W		

Alignment Name: CL\_10  
 Alignment Description: Alignment/Road/Geom\_Baseline  
 Alignment Style: Alignment/Road/Geom\_Baseline

Station	Northing	Eastng
1+00.000	223733.201	258712.512
1+16.020	223737.560	258727.806
223693.097		258724.368
1+30.000	223731.523	258742.388
42.000		
136.410° Right		
30.008		
16.000		
29.888		
2.759		
2.861		
N79.716°E		
S17.281°E		
S86.403°E		
S24.475°W		
S40.325°E		
1+30.008	223731.323	258742.388
PT (GeomBL5)		
1+50.413	223723.118	258760.413
S85.529°E		
19.805		

Alignment Name: CL\_11  
 Alignment Description: Alignment/Road/Geom\_Baseline  
 Alignment Style: Alignment/Road/Geom\_Baseline

Station	Northing	Eastng
1+00.000	223733.201	258712.512
1+10.095	223742.215	258707.987
223753.452		258752.862
1+18.880	223752.306	258707.707
45.000		
127.324° Right		
19.860		
10.096		
10.700		
1.091		
1.118		
N06.750°W		
N63.241°E		
N14.115°W		
N88.528°E		
N1.472°W		
1+19.860	223752.306	258707.707
PT (GeomBL7)		
1+47.464	223779.921	258706.596
N1.472°W		
27.624		

Alignment Name: CL\_12  
 Alignment Description: Alignment/Road/Geom\_Baseline  
 Alignment Style: Alignment/Road/Geom\_Baseline

Station	Northing	Eastng
1+00.000	223686.872	258696.799
1+33.089	223719.905	258696.322
N2.639°E		
33.089		

Alignment Name: CL\_Apron  
 Alignment Description: Alignment/Road/Geom\_Baseline Secondary  
 Alignment Style: Alignment/Road/Geom\_Baseline Secondary

Station	Northing	Eastng
1+00.000	223733.201	258722.512
0+62.832	223733.201	258722.512
10.000		
212.558°		
62.832		
0.000		
0.000		
0.000		
0.000		
0.000		
N0.000°E		

Alignment Name: CL\_Inchibed\_Circle  
 Alignment Description: Alignment/Road/Geom\_Baseline Secondary  
 Alignment Style: Alignment/Road/Geom\_Baseline Secondary

Station	Northing	Eastng
0+00.000	223733.201	258728.012
CC ( )		
PT ( )		
0+97.389	223733.201	258728.012
15.500		
0.000° Left		
9.650°		
97.389		
0.000		
0.000		
0.000		
0.000		
0.000		
N0.000°E		



DESIGN	WORK	DATE	REVISIONS		SCALE AS SHOWN CENTERLINES, GEOMETRY VERTEX DATA	GR
DRAWING	CHECK	FILE NAME	PROJECT NO.			
PROJECT NO.	00000					13

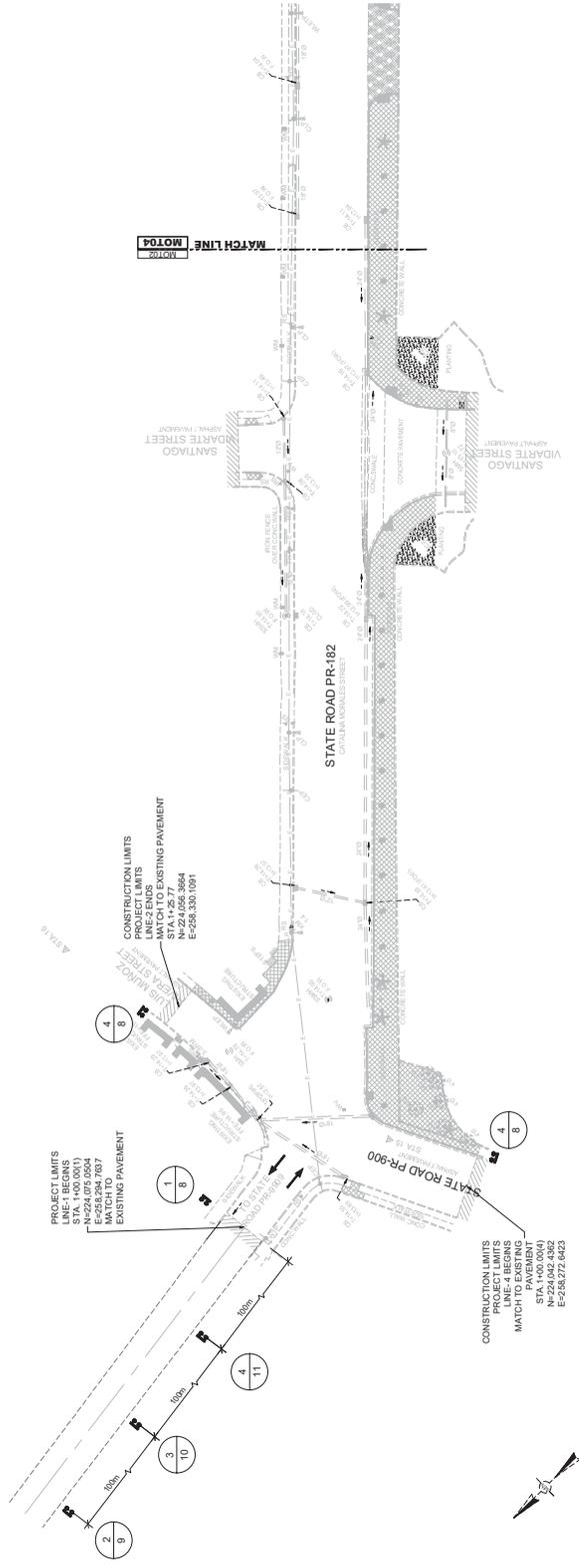
PROJECT: ROUNDABOUT PR-3 INT, PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.







ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	17	93



DATE	BY	WORK	DESIGN	DRAWING	TRACED	CHECK	FINAL CHECK
PROJECT NO.	00000						
FILE NAME							



**PROJECT - ROUNDABOUT PR-3 INT. PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT. / ROUNDABOUT PR-9910 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.**

**MAINTENANCE OF TRAFFIC**

**MOT 02**



SCALE = 1:400

REVISIONS

DATE	DESCRIPTION	BY	APP.

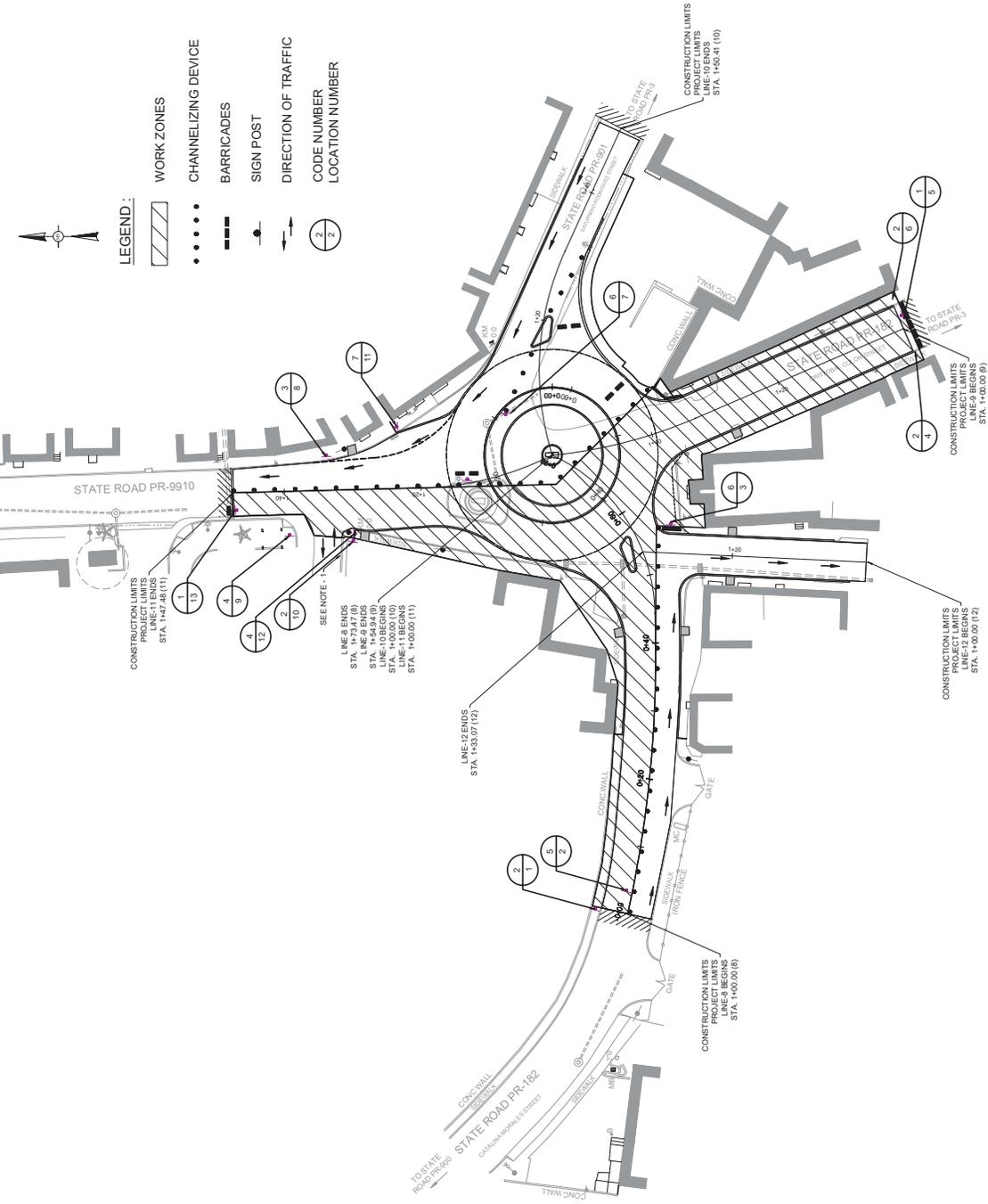
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ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022		



NO.	DESCRIPTION	SYMBOL	SCALE	DATE	BY	CHKD.	APP'D.
1	1.10	R104	3P X 3P	NA	SEE D.L.P.P. MANUAL		1
2	1.4.4.10	R107	3P X 1P	NA	SEE D.L.P.P. MANUAL		4
3	1.8	R04	3P X 1P	NA	SEE D.L.P.P. MANUAL		2
4	8.12	R14	3P X 3P	NA	SEE D.L.P.P. MANUAL		1
5	2	W07	3P X 3P	NA	SEE D.L.P.P. MANUAL		1
6	3	R109	4P X 1P	NA	SEE D.L.P.P. MANUAL		1
7	11	R104					

- LEGEND:**
- WORK ZONES
  - CHANNELIZING DEVICE
  - BARRICADES
  - SIGN POST
  - DIRECTION OF TRAFFIC
  - CODE NUMBER LOCATION NUMBER

NOTE:  
1. CONTRACTOR SHALL MAINTAIN ACCESS AT ALL TIMES DURING CONSTRUCTION.

DESIGN	DATE	REVISIONS	SCALE AS SHOWN	MCT 06
	BY	NO.		
WORK	DATE	NO.	SCALE AS SHOWN	
CHECK	DATE	NO.	SCALE AS SHOWN	
FINAL CHECK	DATE	NO.	SCALE AS SHOWN	

PROJECT - ROUNDABOUT PR-3 INT, PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

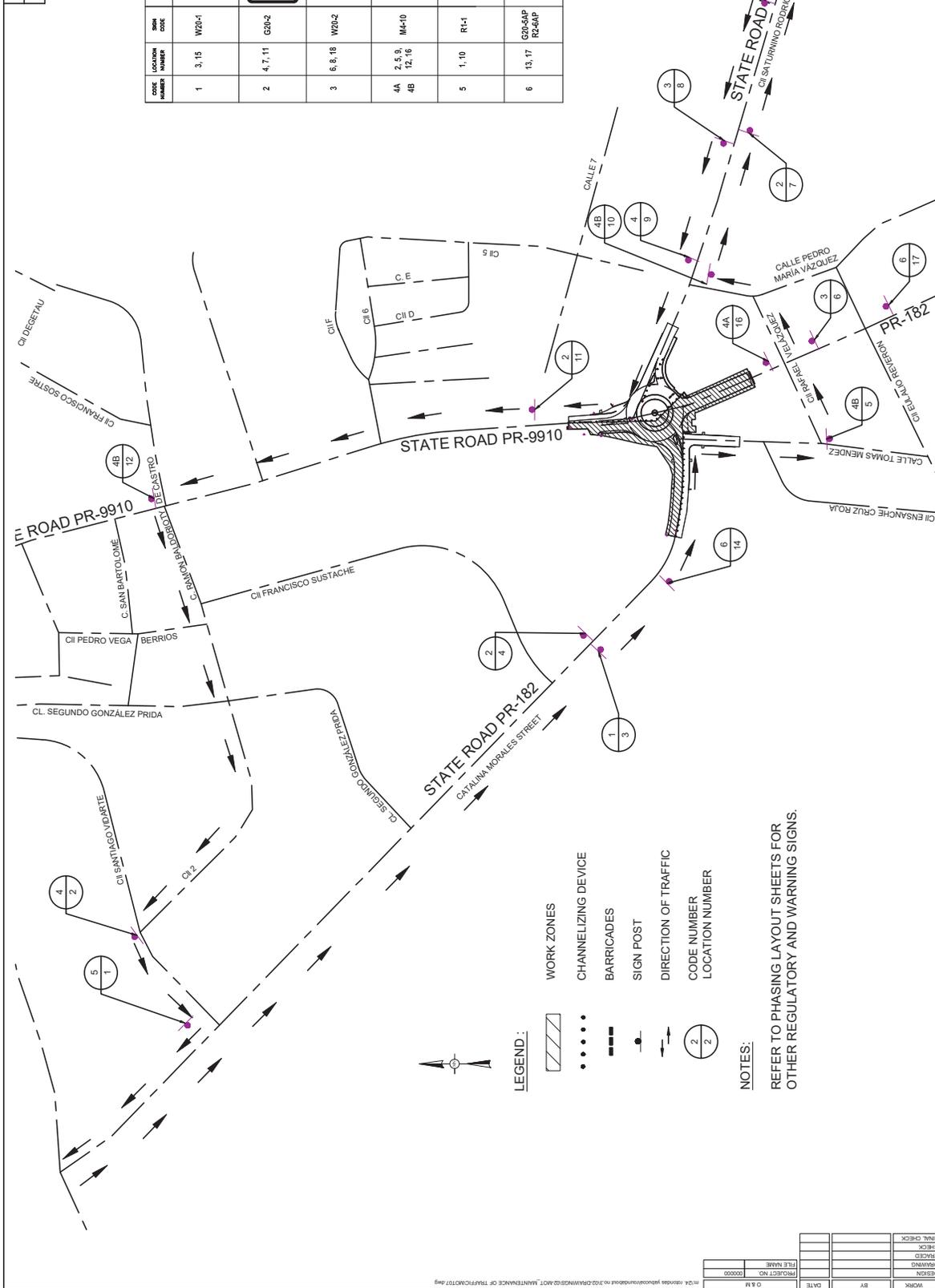
D & M CONSULTING ENGINEERING, P.S.C.  
 1000 Office Park #11 Street 1, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 225-1101 - Fax: (939) 225-1107



DATE	BY	PROJECT NO.	FILE NAME
		00000	

NOTES: 1. CONTRACTOR SHALL MAINTAIN ACCESS AT ALL TIMES DURING CONSTRUCTION.

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022		



CODE NUMBER	LOCATION NUMBER	SHW CODE	LEGEND	SIZE OF PANELS	OVERSIZED SIGN TYPE	REFERENCE MANUAL	TOTAL ITEM
1	3, 15	W20-1	CHARENTAL IN CONSTRUCTION	48" X 48"	N/A	SEE D.T.P.W. MANUAL	2
2	4, 7, 11	G30-2	TERMINA CONSTRUCCION	50" X 20"	N/A	SEE D.T.P.W. MANUAL	3
3	6, 8, 18	W20-2	SENO	36" X 36"	N/A	SEE D.T.P.W. MANUAL	1
4A	2, 5, 9, 12, 16	IM-10	AVANCE	48" X 18"	N/A	SEE D.T.P.W. MANUAL	4
4B			AVANCE				
5	1, 10	RT-1	PARE	30" X 30"	N/A	SEE D.T.P.W. MANUAL	2
6	13, 17	G20-SAP R2-6AP	TRUCK ZONE FINES DOUBLE				

- LEGEND :**
- WORK ZONES
  - CHANNELIZING DEVICE
  - BARRICADES
  - SIGN POST
  - DIRECTION OF TRAFFIC
  - CODE NUMBER
  - LOCATION NUMBER

**NOTES:**  
REFER TO PHASING LAYOUT SHEETS FOR OTHER REGULATORY AND WARNING SIGNS.

	PROJECT - ROUNDABOUT PR-3 INT. PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT. PR-9910 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.	SCALE AS SHOWN	MAINTENANCE OF TRAFFIC-PHASE II DETOUR	M.O.T. 07
	REVISIONS #1 #2 #3	DATE #1 #2 #3	D & M Consulting Engineering, P.S.C. Main Office: Suite #115, Street #113, Guaynabo, Puerto Rico 00968 Tel: (939) 229-1101 - Fax: (939) 229-1107	DESIGN DRAWING CHECKED PROJECT NO. 000000 FILE NAME





HERNANDEZ	YABUCCA	ISLAND	2022	25	93
PROJECT NO.	PROJECT NAME	PROJECT LOCATION	DATE	SHEET NO.	TOTAL SHEETS

**SEDIMENT CONTROL GENERAL NOTES AT CONSTRUCTION STAGE:**

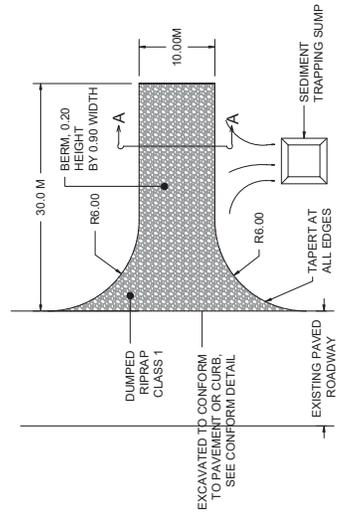
- CONTRACTOR SHALL PRESERVE EXISTING NATURAL AND ARTIFICIAL SEDIMENT BARRIERS AS FAR AS POSSIBLE. REMOVAL OF NATURAL AND ARTIFICIAL SEDIMENT BARRIERS SHALL BE PERFORMED ONLY UNDER CONSTRUCTION REQUIREMENTS.
- NO FILL SHALL BE STORED WITHOUT COMPACTION. STORED FILL SHALL BE COMPACTED TO 70% OF MAXIMUM DRY DENSITY. NO FILL SHALL BE STORED FOR MORE THAN SEVEN (7) DAYS.
- ALL TRUCKS AND EQUIPMENT WHEELS SHALL BE CLEANED BEFORE LEAVING PROJECT. EFFLUENT WATER FROM TRUCKS AND EQUIPMENT CLEANING ACTIVITIES SHALL BE DISCHARGED TO SEDIMENTATION POOLS.
- CONTRACTOR SHALL SPRAY WITH WATER TO MOISTEN THE SURFACE OF ALL TRANSPORTED SOIL, TRANSPORTED SOIL SURFACES SHALL ALSO BE COVERED WITH CANVAS OR BURLAP.
- SEDIMENT LADEN PUMPED WATER FROM FOUNDATION EXCAVATIONS SHALL BE DISCHARGED TO SEDIMENTATION POOLS WITHIN THE PROJECT.
- CONTRACTOR SHALL SPRAY WATER OVER ALL BARED SOIL SURFACES TWICE A DAY.
- EROSION AND SEDIMENT CONTROL WORKS SHALL BE PERFORMED PRIOR TO EARTH MOVEMENT ACTIVITIES.
- CONTRACTOR SHALL MAINTAIN THE TEMPORARY SEDIMENT CONTROL DEVICES CONTINUOUSLY DURING THE ENTIRE PROJECT CONSTRUCTION PERIOD.
- REMOVED SEDIMENT SHALL BE PLACED IN NON-CRITICAL EMBANKMENT AREAS. NO SEDIMENT SHALL BE PLACED IN A POSITION WHERE SUBSEQUENT RAINFALL COULD RETURN IT TO THE SEDIMENT CONTROL DEVICES OR DRAINAGE WAYS.
- CONTRACTOR SHALL REPLACE DETERIORATED FILTER MATERIALS AS NECESSARY AND RESHAPE SEDIMENT BASINS AND RIP RAP.
- CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES AT CUT, FILL, BORROW AND WASTE AREAS.
- CONTRACTOR SHALL NOT STORE HAZARDOUS WASTE WITHIN PROJECT. HAZARDOUS WASTE PRODUCED AT SITE SHALL BE DEPOSITED IN A PROPER WAY. TRANSPORTATION SHALL REPORT TO THE RESIDENT INSPECTOR THE HAZARDOUS WASTE FINAL DISPOSAL SITE AND THE TRANSPORTATION ROUTE. THE STORAGE OF FUELS, SOLVENTS, AND OILS FOR CONSTRUCTION EQUIPMENT SHALL BE PROTECTED BY A MEMBRANE UNDER TWENTY FOUR INCHES BELOW THE STORAGE GROUND AND BY BERMS AROUND THE STORAGE FOR CONTAMINANT CONTAINMENT.
- CONTRACTOR SHALL CONSTRUCT DITCHES, SWALES, BERMS AND SEDIMENTATION POND (IF APPLICABLE) FOR CONTROLLING EROSION AND SEDIMENT POLLUTION DURING CONSTRUCTION.
- SEDIMENT CONTROL STRUCTURE SHALL BE INSPECTED AND REPAIRED AS NECESSARY TO ASSURE A SATISFACTORY PERFORMANCE DURING CONSTRUCTION PHASE.
- THE PROJECT SHALL HAVE ONLY ONE ENTRANCE AND EXIT DURING THE CONSTRUCTION PHASE.
- ALL BARE SOIL MUST BE PROTECTED WITH EROSION BLANKET CONTROL.
- ALL EROSION CONTROL DEVICES SHALL BE CONSTRUCTED AT THE LOCATION INDICATED IN THE CONSTRUCTION PLANS.
- SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE POUNDING EFFICIENCY.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVED SEDIMENT WHEN NECESSARY. MAXIMUM STORAGE HEIGHT SHALL NOT EXCEED 250MM (9").
- REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
- SILT FENCE AND STRAW BALES WILL BE PAID IN CONFORMANCE WITH STANDARD SPECIFICATION 210.
- EXCAVATION, BUCKLE, STAKE'S STEEL OR WOOD POST, STAPLES, WELDED WIRE MESH AND INCIDENTALS ARE SUBSIDIARY OBLIGATION.
- STRAW OR HAY BALES SHALL BE INSPECTED FOR DAMAGE WEEKLY AND AFTER RAINFALL ANY DAMAGE OR DISPLACED BALES SHALL BE REPLACED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAINFALL. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR SUCH MAINTENANCE WORK.
- WHEN THE DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED, THE BALE MAY BE REMOVED AND ANY REMAINING AREAS STABILIZED. THIS WORKS WILL BE PERFORMED AS DIRECTED BY THE ENGINEER AS A SUBSIDIARY OBLIGATION.
- ALL DIMENSION SHOWN ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL APPLY SEEDING WITH MULCH ON A MONTHLY BASIS TO ALL NEW CUT AND EMBANKMENT SLOPES. AT THE DIRECTION OF THE ENGINEER SEEDING AND MULCH WILL BE REAPPLIED TO SLOPES PREVIOUSLY TREATED.
- FAILURE TO APPLY SEEDING AND MULCHING ON A MONTHLY BASIS WILL CAUSE THE IMPOSITION OF LIQUIDATED DAMAGES ON THE 30TH CALENDAR DAY AFTER THE LAST APPLICATION. THE ENGINEER MAY WAIVE THE APPLICATION OF SEEDING AND MULCH TO ROCK CUTS AND ROCK EMBANKMENTS.
- THE CONTRACTOR SHALL SUPPLY AS A SUBSIDIARY OBLIGATION AN ELECTRONIC DEVICE FOR THE MEASUREMENT OF THE PH IN SOILS AND A TABLE FOR THE TREATMENT OF A SOIL WITH AGRICULTURAL LIME.

**MAINTENANCE:**

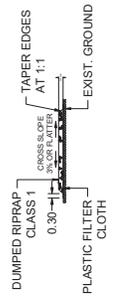
- EROSION CONTROL MEASURE SHALL BE INSPECTED AFTER EACH RAINFALL THAT EXCEEDS 2" IN 24 HOUR AND THE NECESSARY REPAIRS MADE.
- SEDIMENT SHALL BE REMOVED AND THE EROSION CONTROL MEASURES RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH.
- EROSION CONTROL MEASURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NOT LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

**CES PLAN NOTES:**

- THE CONTRACTOR SHALL PROTECT ALL CATCH BASINS, SWALES AND CHANNELS THAT ARE NEAR THE PROJECT AREA PRIOR TO START ANY EXCAVATION. THE CATCH BASINS, SWALES AND CHANNEL PROTECTION CAN BE REMOVED WHEN THE LOCAL INSTALLATION IS COMPLETED. SEE INSTALLATION DETAIL IN THIS DRAWING.
- THE CONTRACTOR SHALL MAINTAIN A WATER TANK TRUCK TO SPRAY IT AROUND THE WORKING AREA WHEN NEEDED OR WHEN THE PROJECT INSPECTOR REQUIRES IT.
- THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIALS AT THE NEAREST APPROVED LANDFILL.
- THE CONTRACTOR SHALL RESTORE PAVED AREA AND RE-SEED GRASS AREAS AS SOON AS POSSIBLE OR AS INSTRUCTED BY THE PROJECT INSPECTOR.
- THE CONTRACTOR SHALL FOLLOW THE GUIDELINES STATED AT THE CES PLAN APPROVED BY THE ENVIRONMENTAL QUALITY BOARD.
- THE CONTRACTOR SHALL INSPECTED SEDIMENT BARRIERS AFTER EACH RAIN EVENT. REPAIRS SHALL BE DONE AS SOON AS POSSIBLE. SEDIMENT SHALL BE REMOVED FROM THE BARRIER WHEN THEY REACH HALF THE HEIGHT OF THE BARRIER.
- THE CONTRACTOR SHALL FOLLOW THE CONTROL MEASURE STATED IN THE CES PLAN. FUGITIVE DUST PERMIT, AND NON-HAZARDOUS SOLID WASTES GENERATION ACTIVITIES PERMITS AS APPROVED BY THE ENVIRONMENTAL QUALITY BOARD.

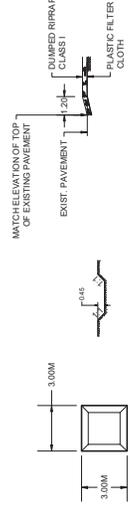


**PLAN**



**SECTION A-A**

**TYPICAL TEMPORARY CONSTRUCTION ENTRANCE**



**PLAN**

**ELEVATION**

**CONFORM DETAIL**

**TYPICAL SEDIMENT TRAPPING SUMP**

**LEGEND:**



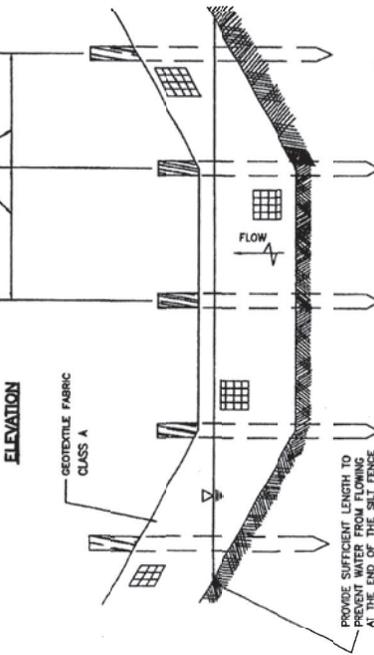
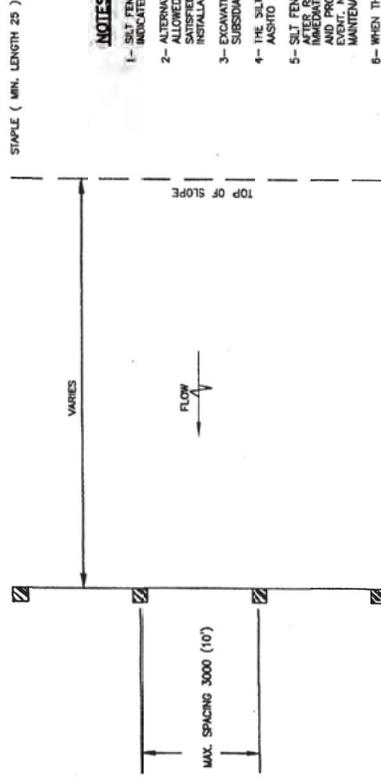
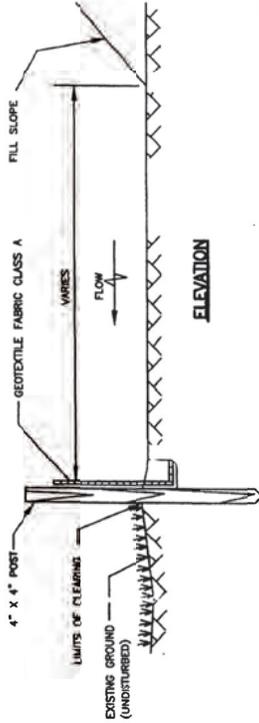
PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS

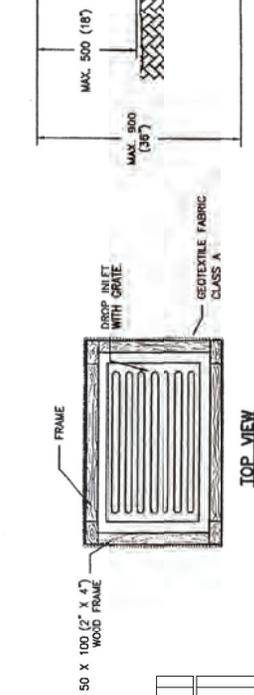


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DATE	
PROJECT NO.	00000
FILE NAME	

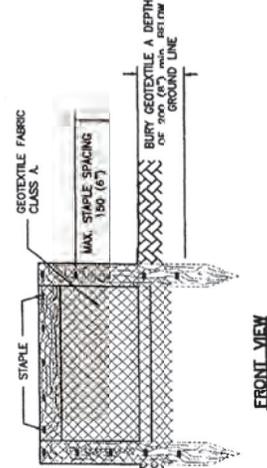
ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	20	93



**INSTALLATION IN A DRAINAGE DITCH**



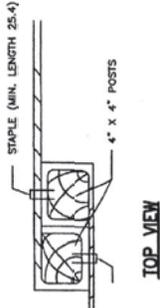
**TOP VIEW**



**FRONT VIEW**

- NOTES:**
- SILT FENCES SHALL BE CONSTRUCTED AT THE LOCATION INDICATED IN THE CONSTRUCTION PLANS.
  - ALTERNATE PRE-ASSEMBLED SILT FENCE OPTIONS WILL BE ALLOWED AS LONG AS SPECIFIED MINIMUMS ARE SATISFIED. FOLLOW MANUFACTURER'S INFORMATION FOR INSTALLATION PROCEDURES.
  - EXCAVATION, BACKFILL, STAPLES AND POSTS ARE SUBSIDIARY OBLIGATIONS.
  - THE SILT FENCE GEOTEXTILE FABRIC SHALL COMPLY WITH AASHTO M288.
  - SILT FENCE SHALL BE INSPECTED FOR DAMAGE WEEKLY. AFTER RAINFALL, ANY DAMAGE FENCE SHALL BE REPAIRED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAINFALL EVENT. MAINTENANCE RECORDS SHALL BE KEPT FOR SUCH MAINTENANCE WORK.
  - IF THE DISTRIBUTED AREA HAS BEEN PROPERLY STABILIZED THE FENCE MAY BE REMOVED AND ANY REMAINING AREAS STABILIZED. THIS WORK WILL BE PERFORMED AS DIRECTED BY THE ENGINEER AS A SUBSIDIARY OBLIGATION.
  - "TOP VIEW" AND "STAPLE DETAIL" APPLY TO ALL APPLICATIONS SHOWN IN THIS SHEET.
  - FOR ALL APPLICATIONS, THE MAXIMUM STAPLE SPACING SHALL BE 150 MM (6").
  - ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

**STAPLE DETAIL**



**TOP VIEW**

**INSTALLATION AT TOE OF FILL**

EFFECTIVE DATE: OCTOBER 1998

COMMONWEALTH OF PUERTO RICO  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC WORKS  
HIGHWAY AND TRANSPORTATION AUTHORITY

RECOMMENDED BY: *[Signature]*  
DESIGN AREA DIRECTOR: *[Signature]*  
DATE: 10/27/98  
APPROVED BY: *[Signature]*  
EXECUTIVE DIRECTOR: *[Signature]*  
DATE: 10/27/98  
APPROVED BY: *[Signature]*  
GENERAL MANAGER: *[Signature]*

**EROSION CONTROL DEVICES  
SILT FENCE**

DATE	REVISION	BY	ER
10-27-98	DESIGN	MM	1
10-27-98	GENERAL NOTES	MM	1
10-27-98	STAPLE DETAIL	MM	1

STD. DWG. 1 OF 20  
EC 06  
EROSION CONTROL DEVICES  
SILT FENCE

O & M Consulting Engineering, P.S.C.  
Main Office: 801 E. Street 11, Suite 113  
Guaynabo, Puerto Rico 00988  
Tel: (939) 228-1101 - Fax: (939) 228-1107

DATE	REVISIONS
##	##

PROJECT: ROUNDABOUT PR-3 INT., PR-901  
ROUNDABOUT PR-3 INT., PR-909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 /  
CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

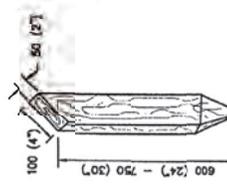
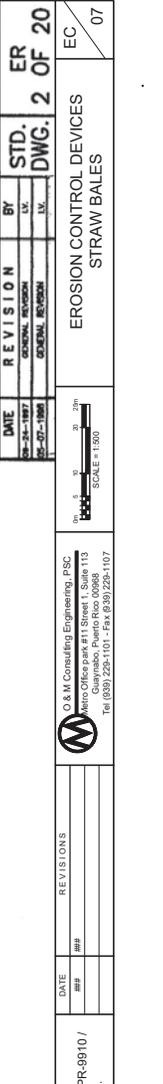
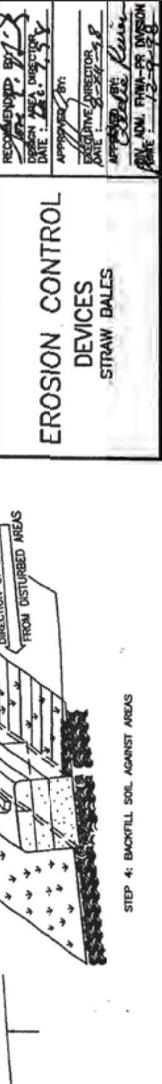
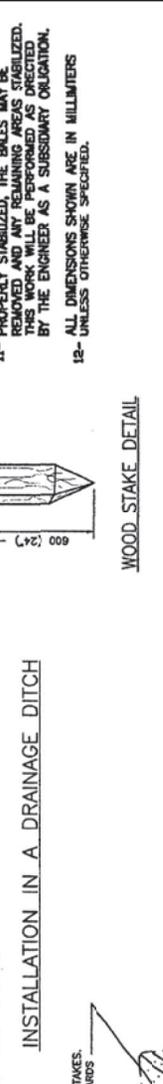
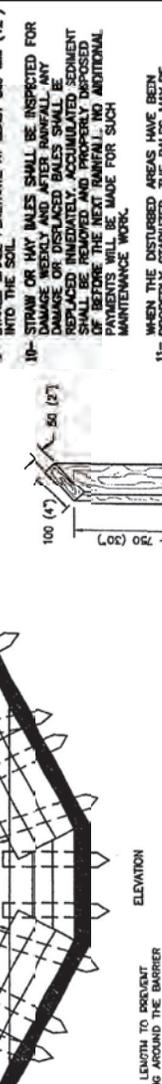


DATE	PROJECT NO.	FILE NAME
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CHECK		
FINAL CHECK		

PROJECT NO.	10000
DATE	07/01/2000
DESIGNER	YABUCCO
DRAWING	EROSION CONTROL DEVICES
TRACER	STRAW BALES
FILE NAME	10000
DATE	07/01/2000

ROADWAY PLAN	YABUCCO	ISLAND	P.R.	YEAR	2002	SHEET NO.	27	TOTAL SHEETS	93
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**NOTES:**  
 1- STRAW BALES SHALL BE CONSTRUCTED AT THE LOCATION INDICATED IN THE CONSTRUCTION PLANS.  
 2- USE STRAW BALES IN DRAINAGE DITCHES ONLY FOR LOW FLOW CONDITIONS AND WHEN SPECIFIED ON THE EROSION CONTROL PLANS.  
 3- INSTALL STRAW BALES ALONG THE CONTOUR LINE  
 4- EXCAVATION, BACKFILL, AND STAKES ARE A SUBSIDIARY OBLIGATION.  
 5- STRAW BALES SHALL BE EMBEDDED IN THE SOIL AND WHERE POSSIBLE ONE-HALF THE HEIGHT OF THE BALE.  
 6- STRAW OR HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 4"x1" (100mmx25mm) WOOD STAKES, DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARD THE DISTURBED AREA AND THE REMAINING TWO STAKES SHALL BE LAID BALE TO FORCE THE BALES TOGETHER.  
 7- STRAW OR HAY BALES SHALL BE PLACED PARALLEL TO THE TOE OF SLOPE OR ALONG THE SLOPE CONTOUR.  
 8- EXCAVATION, BACKFILL, AND STAKES ARE A SUBSIDIARY OBLIGATION.  
 9- STAKES SHALL PENETRATE AT LEAST 300 MM (12") INTO THE SOIL.  
 10- STRAW OR HAY BALES SHALL BE INSPECTED FOR DAMAGE WEEKLY AND AFTER RAINFALL. ANY DAMAGE OR DISPLACED BALES SHALL BE REPLACED IMMEDIATELY. ACCUMULATED SEDIMENT OF BEHIND THE BALE SHALL BE REMOVED AND MAINTENANCE WORK.  
 11- WHEN THE DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED, THE BALES MAY BE REMOVED. THIS WORK WILL BE PERFORMED AS DIRECTED BY THE ENGINEER AS A SUBSIDIARY OBLIGATION.  
 12- ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.



WOOD STAKE DETAIL

INSTALLATION IN A DRAINAGE DITCH

INSTALLATION AT TOE OF FILL

EFFECTIVE DATE: OCTOBER 1998

COMMONWEALTH OF PUERTO RICO  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC WORKS  
 HIGHWAY AND TRANSPORTATION AUTHORITY

EROSION CONTROL DEVICES  
 STRAW BALES

APPROVED BY: [Signature]  
 DATE: 10/12/98

DATE REVISION BY STD. ER DWG. 2 OF 20

DATE	REVISION	BY	STD.	ER	DWG.
08-24-1997	ORIGINAL DESIGN	IV			
08-27-1998	GENERAL REVISION	IV			

EROSION CONTROL DEVICES		EC
STRAW BALES		07

SCALE: 1:500

YABUCCO

O & M Consulting Engineering, P.S.C.  
 1000 Office Park #11 Street 1, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

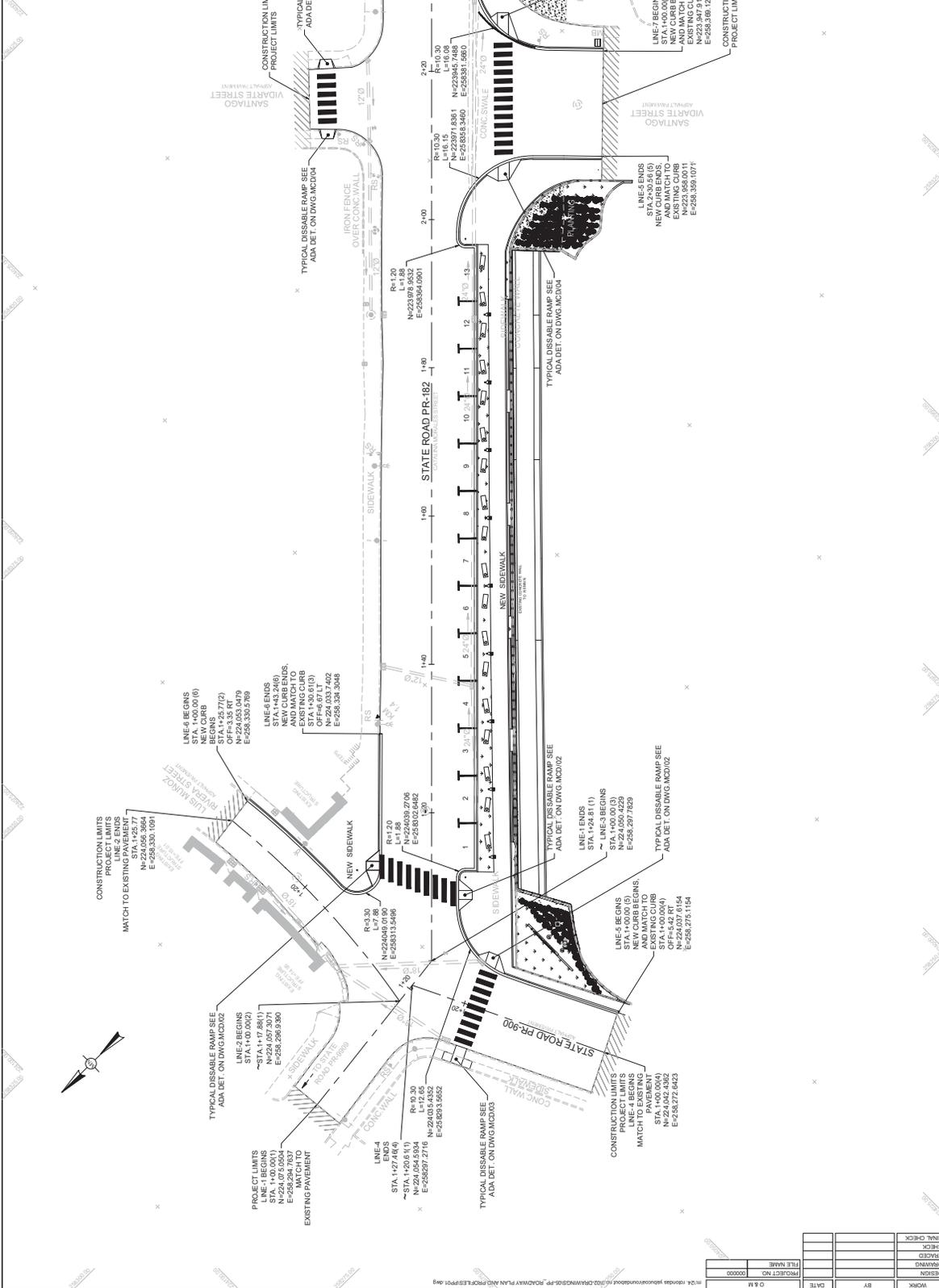
DATE	REVISIONS
##	##

PROJECT - ROUNDABOUT PR-3 INT. PR-901  
 ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-910 /  
 CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCO, P.R.

YABUCCO

FINAL CHECK  
 CHECKED  
 TRACER  
 DRAWING  
 PROJECT NO. 10000

ROADWAY PLAN	MUNICIPALITY	IS AND YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	



DESIGN	WORK	DATE	REVISIONS	DATE	NO.	DESCRIPTION

PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

PROPOSED PLAN  
CATELINA MORALES STREET

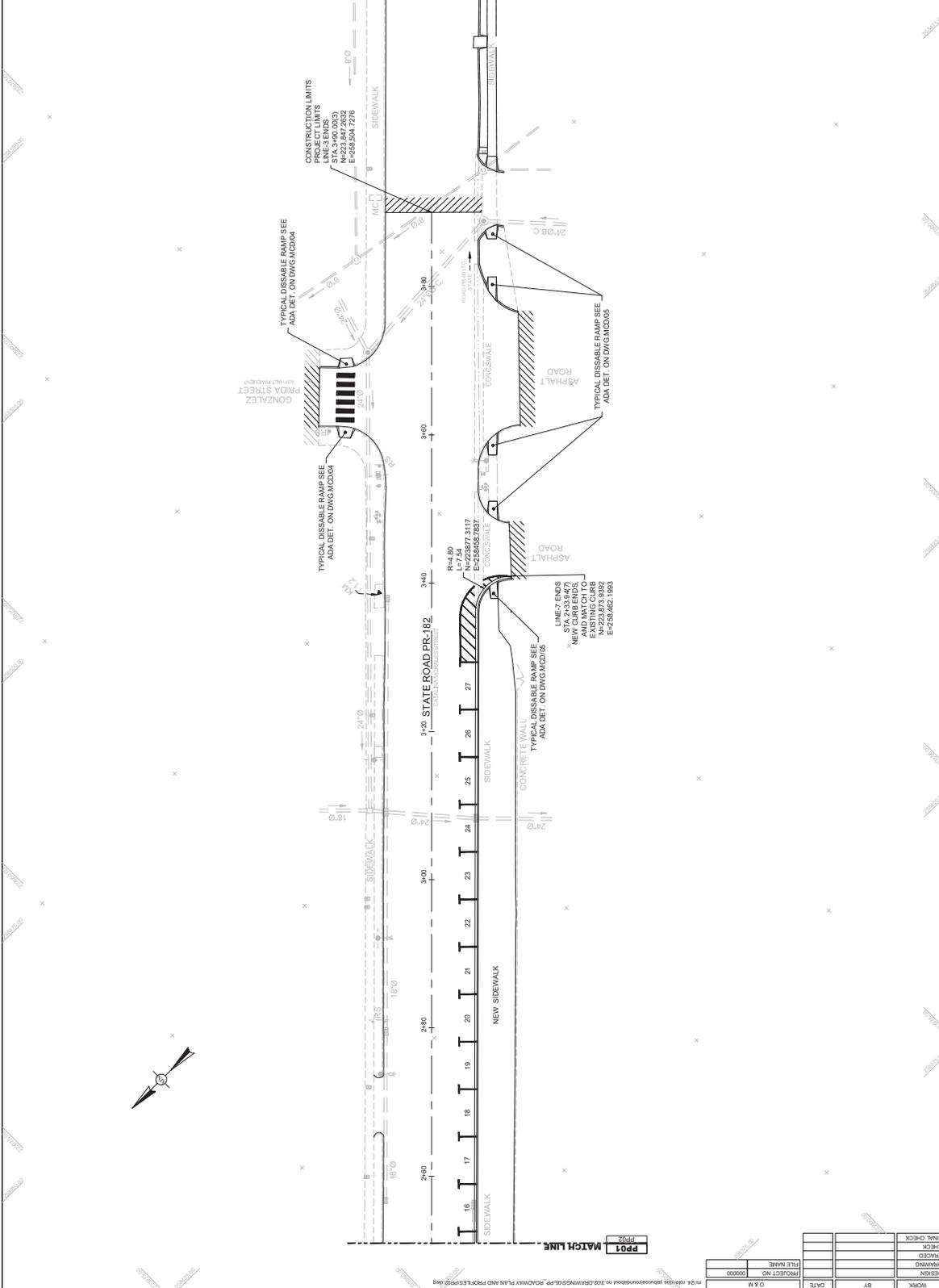
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0' 10' 20' 30' 40' 50' 60' 70' 80' 90' 100'

O & M Consulting Engineering, P.S.C.  
Main Office: 811 Street 11, Suite 113  
Guaynabo, Puerto Rico 00968  
Tel: (939) 229-1101 - Fax: (939) 229-1107

DATE	BY	PROJECT NO.	00000
		FILE NAME	
		DRAWING	
		CHECK	
		FINAL CHECK	



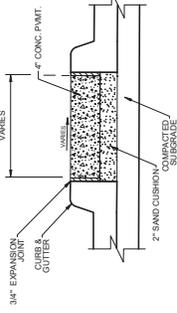
ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	20	03



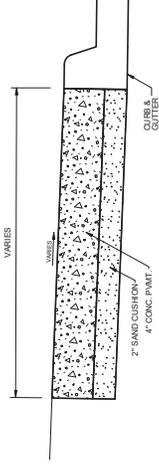
DESIGN	WORK	DATE	DATE	REVISIONS	 O & M Consulting Engineering, P.S.C. Main Office: Park #11 Street #13 Guaynabo, Puerto Rico 00988 Tel: (939) 229-1101 - Fax: (939) 229-1107
PROJECT NO.	PROJECT NAME	FILE NAME	DATE	REVISIONS	
00000	ROUNDABOUT PR-3 INT., PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.				PP 02



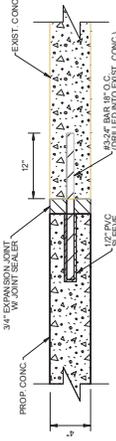
ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Varies	YABUCCA	P.R.	2022	31	93



**ISLAND SECTION DETAIL**  
N.T.S.



**SIDEWALK SECTION DETAIL**  
N.T.S.



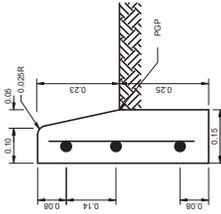
**CONCRETE SIDEWALK CONNECTION DETAIL (SECTION)**  
N.T.S.

REINFORCING BARS SHALL BE NO.4 UNLESS OTHERWISE SHOWN.  
PROVIDE GRADE 60 OR ABOVE, DEFORMED STEEL FOR BAR REINFORCEMENT.

**CURB DETAIL - TYPE D (MOD - 9" CURB)**

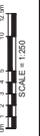
**CURB & GUTTER NOTES:**

- DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS DRAINAGE TYPICAL CURBS DETAILS USED, STD DWG DR 26 OF 40 MODIFIED AS FOLLOWS:
- 1. FOR CURB TYPE-D(MOD), MODIFY CURB HEIGHT TO 0.1016 M ABOVE THE PAVEMENT SURFACE.
- 2. FOR CURB TYPE-A(MOD), MODIFY CURB HEIGHT TO 0.0508 M ABOVE THE PAVEMENT SURFACE.
- 3. REINFORCING BARS SHALL BE NO.4 UNLESS OTHERWISE SHOWN. PROVIDE GRADE 60 OR ABOVE, DEFORMED STEEL FOR BAR REINFORCEMENT.

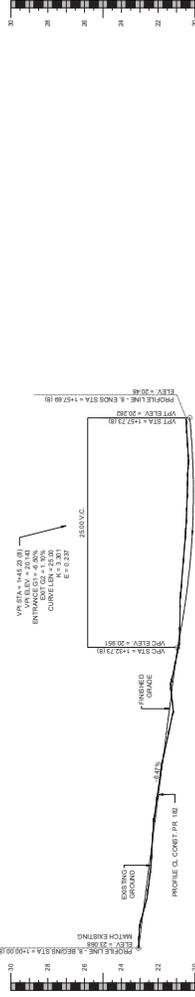


- SIDEWALK & ISLAND NOTES:**
- PROVIDE 3/4" EXPANSION JOINT EVERY 40 FT.
  - PROVIDE 1/2" LED JOINT EVERY 10 FT.
  - CONCRETE SHALL BE CLASS A.
  - PROVIDE GRADE 60 OR ABOVE, DEFORMED STEEL FOR BAR REINFORCEMENT.

LogoYabucoa.png	ROUNDABOUT PR-3 INT., PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.	O & M Consulting Engineering, P.S.C. Main Office: Suite #118, Street 1, Suite 113 Guaynabo, Puerto Rico 00968 Tel: (939) 225-1101 - Fax: (939) 226-1107		REVISIONS	DATE	DATE	DATE
				###	###	###	###
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DRAWING							
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FINAL CHECK							



ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	32	93



PROFILE PR-182 LINE-8	STATION	EXISTING GROUND	FINISHED GRADE
	20.28	18.00	18.00
	20.29	18.05	18.05
	20.30	18.10	18.10
	20.31	18.15	18.15
	20.32	18.20	18.20
	20.33	18.25	18.25
	20.34	18.30	18.30
	20.35	18.35	18.35
	20.36	18.40	18.40
	20.37	18.45	18.45
	20.38	18.50	18.50
	20.39	18.55	18.55
	20.40	18.60	18.60
	20.41	18.65	18.65
	20.42	18.70	18.70
	20.43	18.75	18.75
	20.44	18.80	18.80
	20.45	18.85	18.85
	20.46	18.90	18.90
	20.47	18.95	18.95
	20.48	19.00	19.00
	20.49	19.05	19.05
	20.50	19.10	19.10
	20.51	19.15	19.15
	20.52	19.20	19.20
	20.53	19.25	19.25
	20.54	19.30	19.30
	20.55	19.35	19.35
	20.56	19.40	19.40
	20.57	19.45	19.45
	20.58	19.50	19.50
	20.59	19.55	19.55
	20.60	19.60	19.60
	20.61	19.65	19.65
	20.62	19.70	19.70
	20.63	19.75	19.75
	20.64	19.80	19.80
	20.65	19.85	19.85
	20.66	19.90	19.90
	20.67	19.95	19.95
	20.68	20.00	20.00
	20.69	20.05	20.05
	20.70	20.10	20.10
	20.71	20.15	20.15
	20.72	20.20	20.20
	20.73	20.25	20.25
	20.74	20.30	20.30
	20.75	20.35	20.35
	20.76	20.40	20.40
	20.77	20.45	20.45
	20.78	20.50	20.50
	20.79	20.55	20.55
	20.80	20.60	20.60
	20.81	20.65	20.65
	20.82	20.70	20.70
	20.83	20.75	20.75
	20.84	20.80	20.80

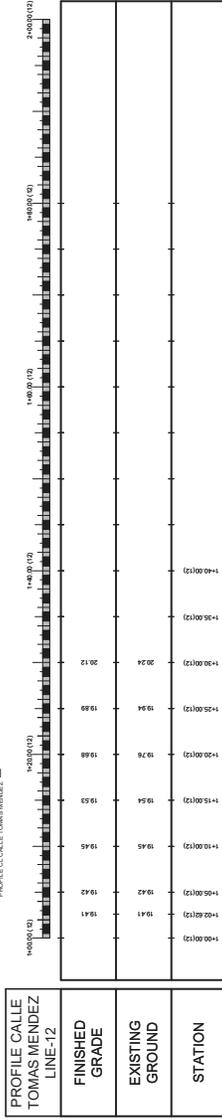
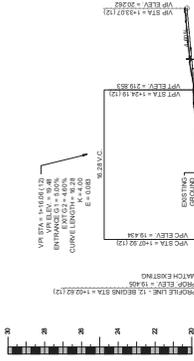


PROFILE PR-182 LINE-9	STATION	EXISTING GROUND	FINISHED GRADE
	18.86	18.00	18.00
	18.87	18.05	18.05
	18.88	18.10	18.10
	18.89	18.15	18.15
	18.90	18.20	18.20
	18.91	18.25	18.25
	18.92	18.30	18.30
	18.93	18.35	18.35
	18.94	18.40	18.40
	18.95	18.45	18.45
	18.96	18.50	18.50
	18.97	18.55	18.55
	18.98	18.60	18.60
	18.99	18.65	18.65
	19.00	18.70	18.70
	19.01	18.75	18.75
	19.02	18.80	18.80
	19.03	18.85	18.85
	19.04	18.90	18.90
	19.05	18.95	18.95
	19.06	19.00	19.00
	19.07	19.05	19.05
	19.08	19.10	19.10
	19.09	19.15	19.15
	19.10	19.20	19.20
	19.11	19.25	19.25
	19.12	19.30	19.30
	19.13	19.35	19.35
	19.14	19.40	19.40
	19.15	19.45	19.45
	19.16	19.50	19.50
	19.17	19.55	19.55
	19.18	19.60	19.60
	19.19	19.65	19.65
	19.20	19.70	19.70
	19.21	19.75	19.75
	19.22	19.80	19.80
	19.23	19.85	19.85
	19.24	19.90	19.90
	19.25	19.95	19.95
	19.26	20.00	20.00
	19.27	20.05	20.05
	19.28	20.10	20.10
	19.29	20.15	20.15
	19.30	20.20	20.20
	19.31	20.25	20.25
	19.32	20.30	20.30
	19.33	20.35	20.35
	19.34	20.40	20.40
	19.35	20.45	20.45
	19.36	20.50	20.50
	19.37	20.55	20.55
	19.38	20.60	20.60
	19.39	20.65	20.65
	19.40	20.70	20.70
	19.41	20.75	20.75
	19.42	20.80	20.80
	19.43	20.85	20.85
	19.44	20.90	20.90
	19.45	20.95	20.95
	19.46	21.00	21.00
	19.47	21.05	21.05
	19.48	21.10	21.10
	19.49	21.15	21.15
	19.50	21.20	21.20
	19.51	21.25	21.25
	19.52	21.30	21.30
	19.53	21.35	21.35
	19.54	21.40	21.40
	19.55	21.45	21.45
	19.56	21.50	21.50
	19.57	21.55	21.55
	19.58	21.60	21.60
	19.59	21.65	21.65
	19.60	21.70	21.70
	19.61	21.75	21.75
	19.62	21.80	21.80
	19.63	21.85	21.85
	19.64	21.90	21.90
	19.65	21.95	21.95
	19.66	22.00	22.00
	19.67	22.05	22.05
	19.68	22.10	22.10
	19.69	22.15	22.15
	19.70	22.20	22.20
	19.71	22.25	22.25
	19.72	22.30	22.30
	19.73	22.35	22.35
	19.74	22.40	22.40
	19.75	22.45	22.45
	19.76	22.50	22.50
	19.77	22.55	22.55
	19.78	22.60	22.60
	19.79	22.65	22.65
	19.80	22.70	22.70
	19.81	22.75	22.75
	19.82	22.80	22.80
	19.83	22.85	22.85
	19.84	22.90	22.90
	19.85	22.95	22.95
	19.86	23.00	23.00
	19.87	23.05	23.05
	19.88	23.10	23.10
	19.89	23.15	23.15
	19.90	23.20	23.20
	19.91	23.25	23.25
	19.92	23.30	23.30
	19.93	23.35	23.35
	19.94	23.40	23.40
	19.95	23.45	23.45
	19.96	23.50	23.50
	19.97	23.55	23.55
	19.98	23.60	23.60
	19.99	23.65	23.65
	20.00	23.70	23.70
	20.01	23.75	23.75
	20.02	23.80	23.80
	20.03	23.85	23.85
	20.04	23.90	23.90
	20.05	23.95	23.95
	20.06	24.00	24.00
	20.07	24.05	24.05
	20.08	24.10	24.10
	20.09	24.15	24.15
	20.10	24.20	24.20
	20.11	24.25	24.25
	20.12	24.30	24.30
	20.13	24.35	24.35
	20.14	24.40	24.40
	20.15	24.45	24.45
	20.16	24.50	24.50
	20.17	24.55	24.55
	20.18	24.60	24.60
	20.19	24.65	24.65
	20.20	24.70	24.70
	20.21	24.75	24.75
	20.22	24.80	24.80
	20.23	24.85	24.85
	20.24	24.90	24.90
	20.25	24.95	24.95
	20.26	25.00	25.00
	20.27	25.05	25.05
	20.28	25.10	25.10
	20.29	25.15	25.15
	20.30	25.20	25.20

DESIGN	DATE	PROJECT NO.	00000
WORK	BY	FILE NAME	
CHECK			
FINAL CHECK			



ROAD SHEETS	SHEET NO.	YEAR	ISLAND	MUNICIPALITY	ROADWAY PLAN
03	34	2022	P.R.	YABUCCA	Yabucoa



PROFILE CALLE TOMAS MENDEZ LINE-12
FINISHED GRADE
EXISTING GROUND
STATION

DATE	
PROJECT NO.	00000
FILE NAME	

DESIGN	
DRAWING	
TRACED	
CHECK	
FINAL CHECK	

LogoYabucoa.png

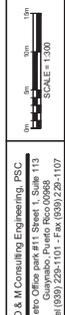
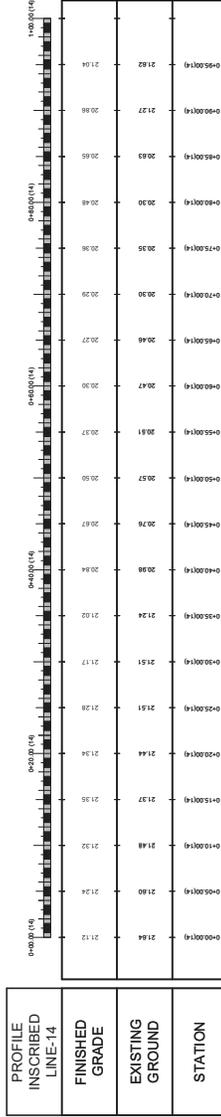
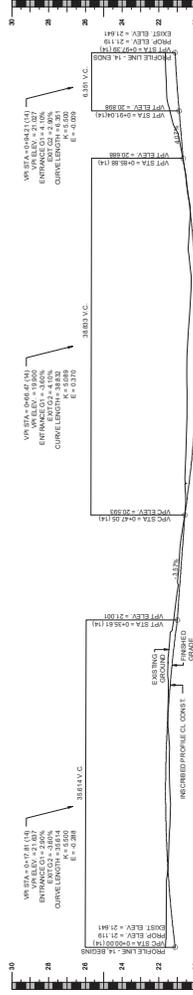
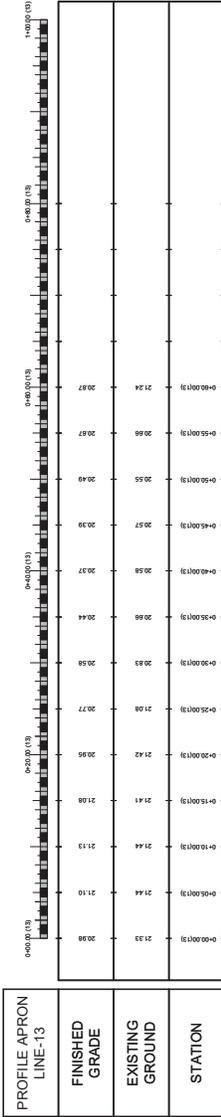
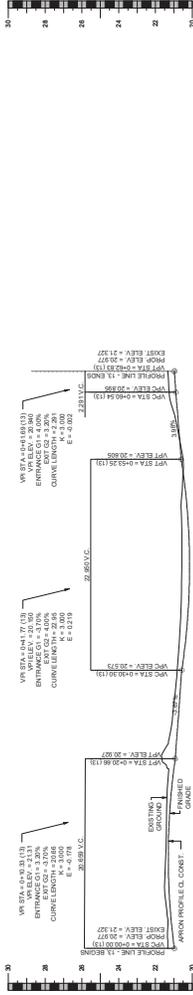
PROJECT - ROUNDABOUT PR-3 INT. PR-901  
ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-910 /  
CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	
REVISIONS	

O & M Consulting Engineering, P.S.C.  
Main Office: Suite #111, Street 113  
Guaynabo, Puerto Rico 00968  
Tel: (939) 225-1101 - Fax: (939) 226-1107

ROADWAY PROFILES-LINES 12

ROAD SHEETS	SHEET NO.	YEAR	ISLAND	MUNICIPALITY	ROADWAY PLAN
03	30	2022	P.R.	YABUCCA	Yabucoa



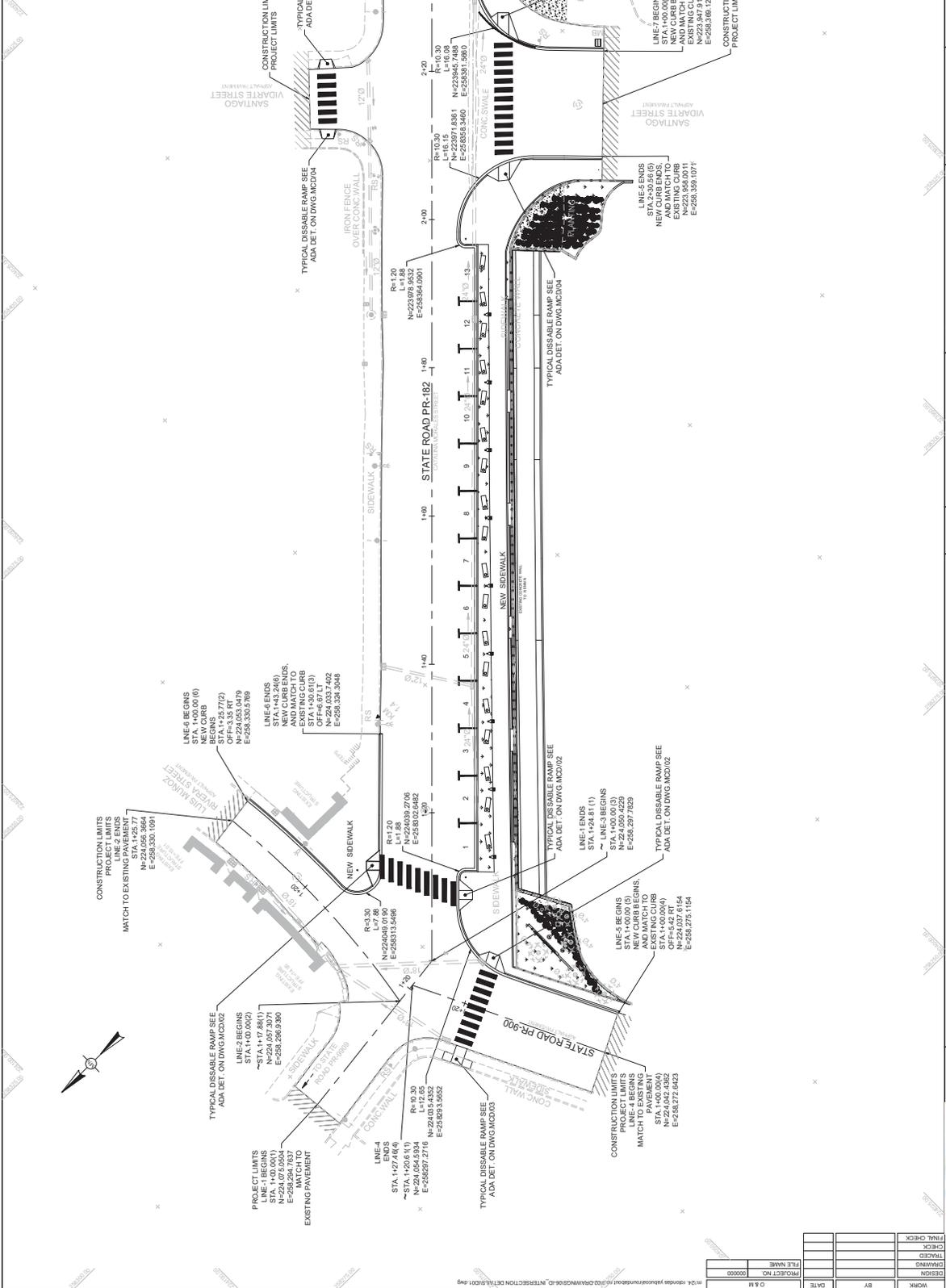
REVISIONS

DATE	REVISIONS

PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

LogoYabucoa.png

ROAD NO.	PROJECT NO.	DATE
1002	1002	2022
MUNICIPALITY	ISLAND	YEAR
YABUCCA	P.R.	2022
PROJECT	DATE	DATE
YABUCCA	2022	2022

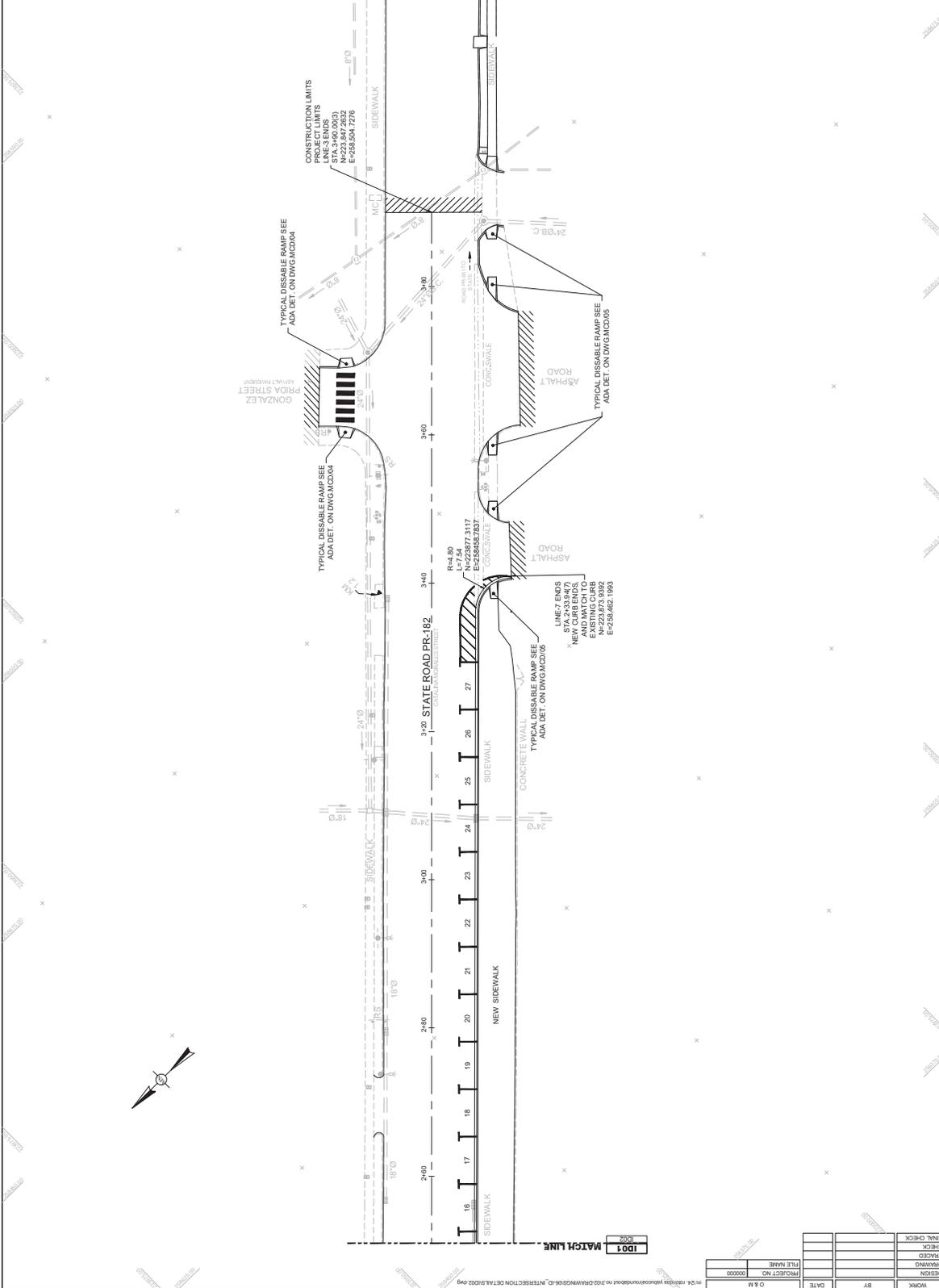


DESIGN	DATE	DATE	DATE	DATE	DATE
BY	BY	BY	BY	BY	BY
WORK	WORK	WORK	WORK	WORK	WORK
PROJECT NO.	PROJECT NO.	PROJECT NO.	PROJECT NO.	PROJECT NO.	PROJECT NO.
10000	10000	10000	10000	10000	10000
FILE NAME	FILE NAME	FILE NAME	FILE NAME	FILE NAME	FILE NAME
REVISIONS	REVISIONS	REVISIONS	REVISIONS	REVISIONS	REVISIONS
#	#	#	#	#	#
<p>PROJECT: ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.</p>					
<p>O &amp; M Consulting Engineering, P.S.C.          Main Office: 811 Street 11, Suite 113          Guaynabo, Puerto Rico 00988          Tel: (939) 229-1101 - Fax: (939) 229-1107</p>					
<p>INTERSECTION DETAILS (GRADING PLAN)</p>					
ID	01				



FINAL CHECK	DATE
CHECK	DATE
DESIGN	DATE
DRAWING	DATE

ROAD NO.	37
YEAR	2022
ISLAND	P.R.
MUNICIPALITY	YABUCCA
PROJECT NO.	PR-9910
DATE	02

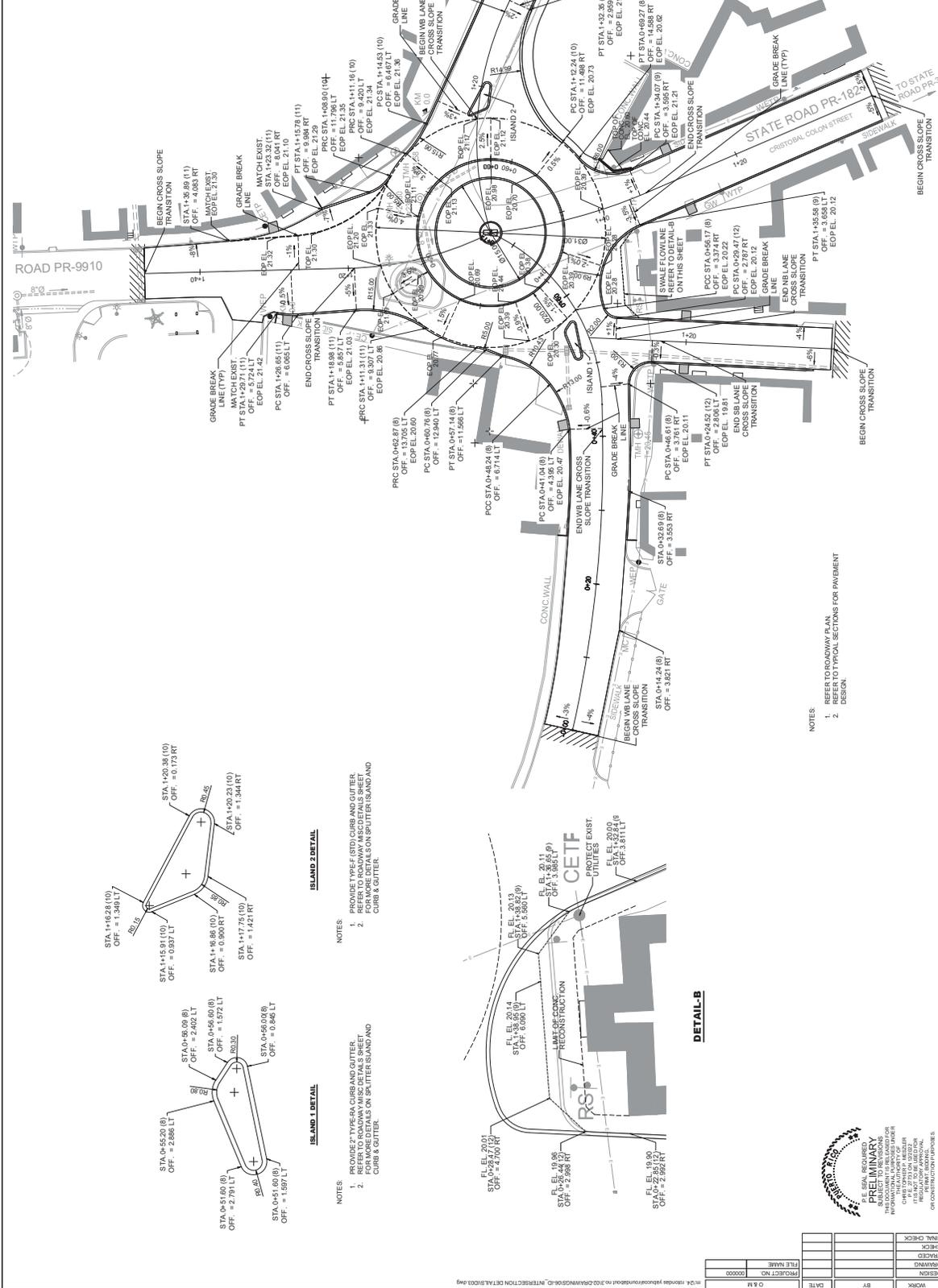


DESIGN	DATE	REVISIONS	<p>O &amp; M Consulting Engineering, P.S.C.          Main Office: Park #11, Street # 13          Guaynabo, Puerto Rico 00968          Tel: (939) 229-1101 - Fax: (939) 229-1107</p>	ID 02
WORK	DATE	#1 #2 #3		
PROJECT NO.	PR-9910	PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.		INTERSECTION DETAILS (GRADING PLAN)
FILE NAME	00000			



DATE	BT
PROJECT NO.	00000
FILE NAME	00000

ROADWAY P.A.N.	YABUCCA	MUNICIPALITY	YABUCCA	ISLAND	P.R.	YEAR	2022	SHEET NO.	30	TOTAL SHEETS	93
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DATE											

**REVISIONS**

NO.	DESCRIPTION	DATE	BY

**PROJECT:** ROUNDABOUT PR-3 INT. PR-901  
**ROUNDABOUT PR-3 INT. - PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT. - PR-901 AND PR-9910 / CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.**

**Logo YabuCCA.pmg**

**INTERSECTION DETAILS**

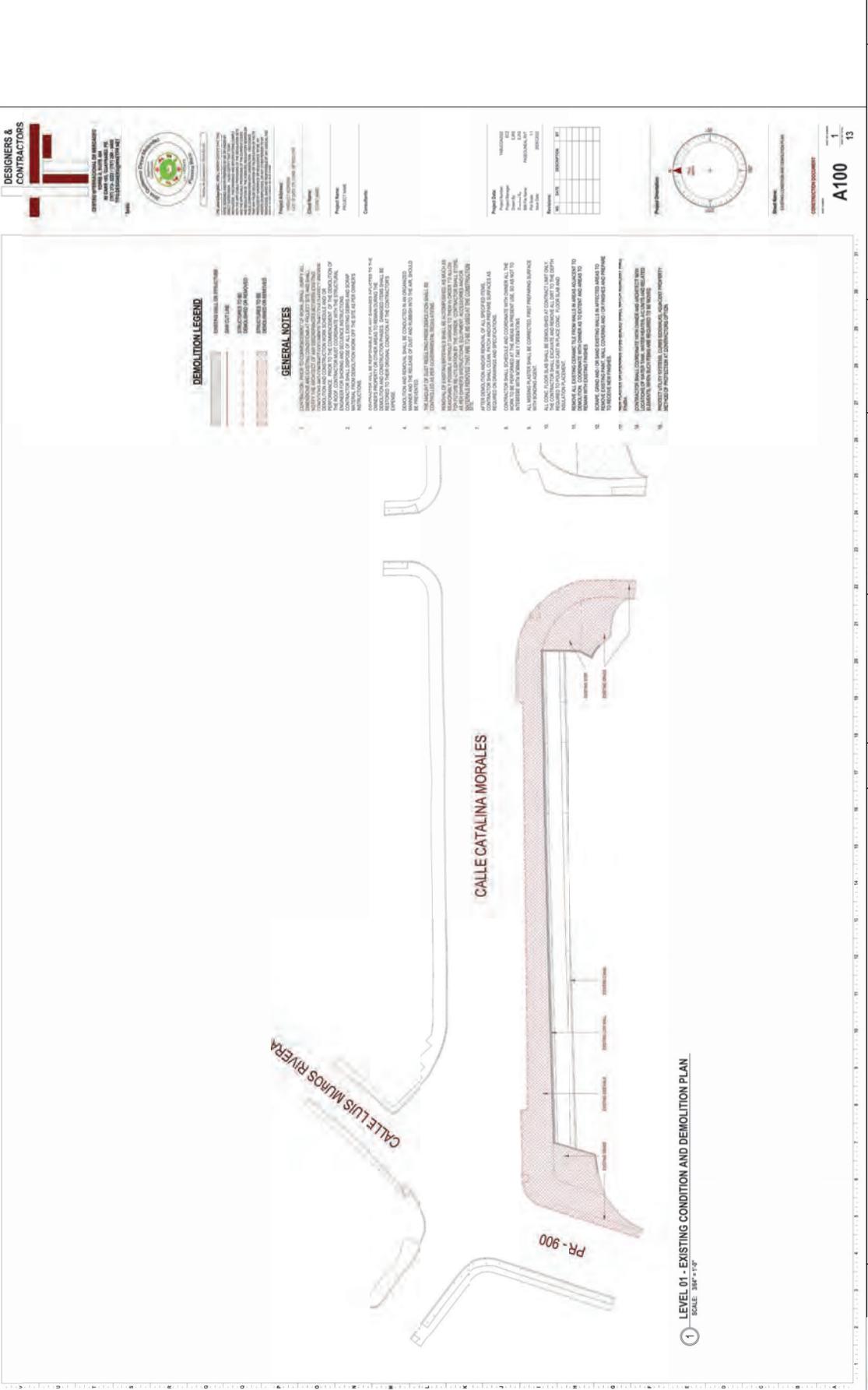
**ID 03**

O & M Consulting Engineering, P.S.C.  
 113 West Office Park #11, Suite 1.13  
 Guayanabo, Puerto Rico 00968  
 Tel: (809) 226-1101 - Fax: (809) 226-1107

DESIGN	
DRAWING	
CHECK	
FINAL CHECK	
DATE	
PROJECT NO.	00000
FILE NAME	



HERNANDEZ P.R.	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	40	93



DESIGN	WORK	DATE	BY	PROJECT NO.	00000	FILE NAME	
FINAL CHECK							
TRACED							
DRAWING							
CHECK							
DATE							
BY							
WORK							

YABUCCA

PROJECT - ROUNDABOUT PR-3 INT. PR-901  
 ROUNDABOUT PR-3 INT. - PR-9009 AND PR-9910 / ROUNDABOUT PR-182 INT. - PR-901 AND PR-9910 /  
 CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

SCALE AS SHOWN

REVISIONS

DATE

CONTRACT DOCUMENT

A100

13

EXISTING CONDITION AND DEMOLITION PLAN

AE

01

O & M Consulting Engineering, P.S.C.  
 1000 Office Park #11 Street E, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	41	93

**DESIGNERS & CONTRACTORS**



**O & M CONSULTING ENGINEERING, P.S.C.**  
 1000 Highway 98, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

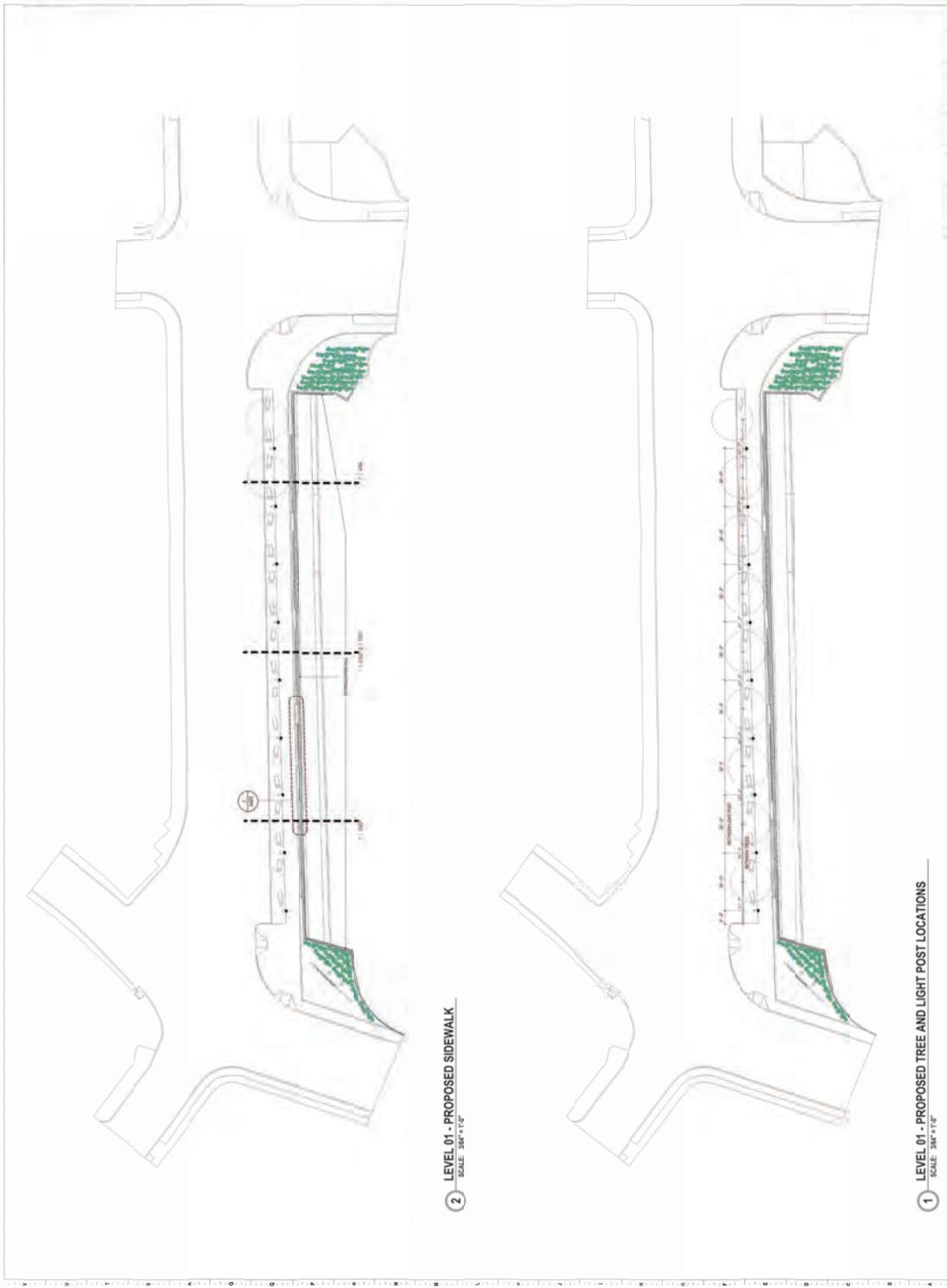
**CLIENT**  
 MUNICIPALITY OF YABUCCA, P.R.

**PROJECT ADDRESS**  
 ROUNDABOUT PR-3 INT., PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

**PROJECT NO.**  
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**DATE**  
 08/2022

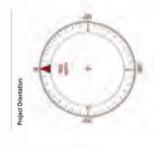
**SCALE**  
 1" = 100'



**2** LEVEL 01 - PROPOSED SIDEWALK  
 SCALE: 1/8" = 1'-0"

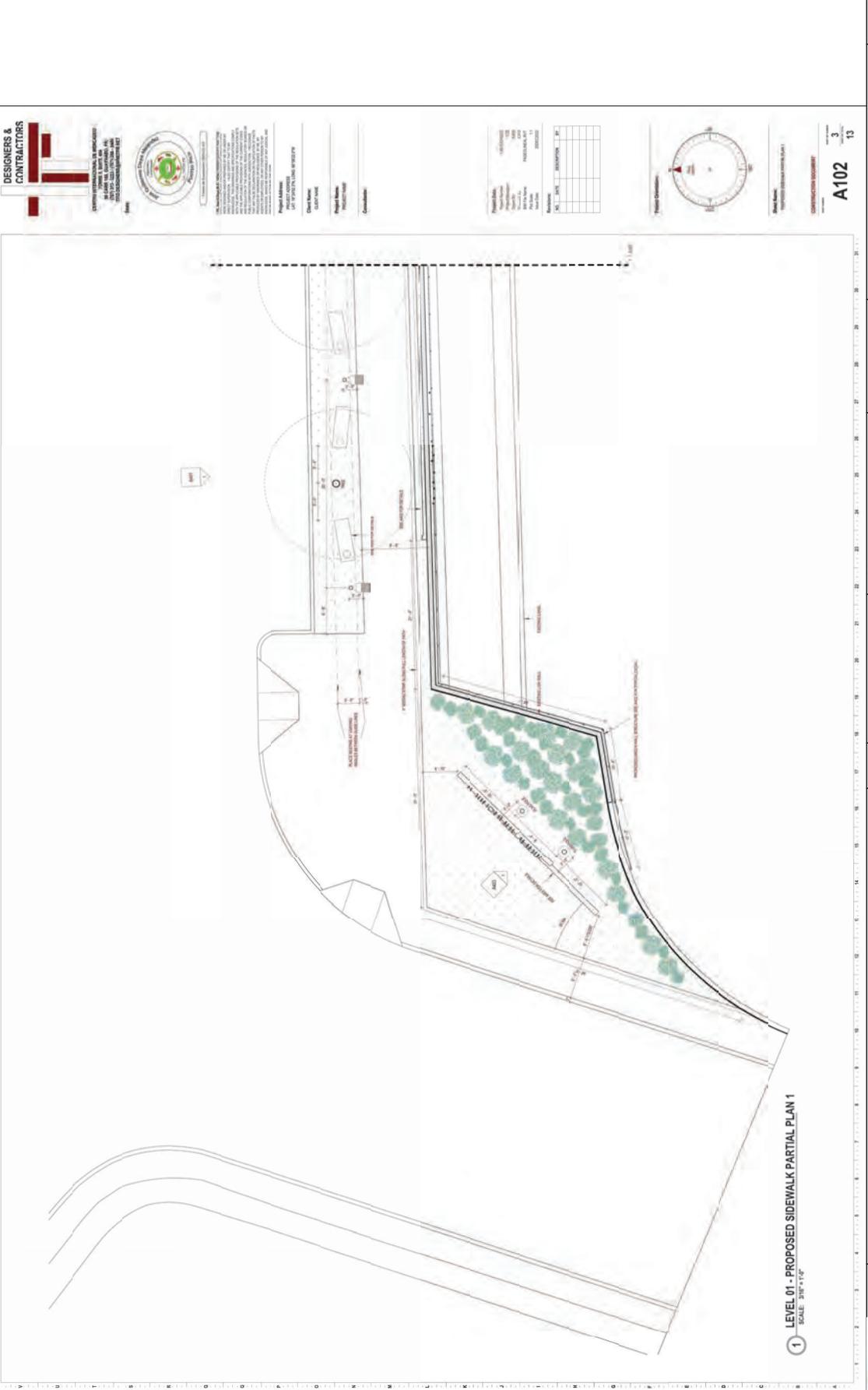
**1** LEVEL 01 - PROPOSED TREE AND LIGHT POST LOCATIONS  
 SCALE: 3/8" = 1'-0"

NO.	DATE	DESCRIPTION	BY



**A101**  
 2  
 13

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	42	93



**DESIGNERS & CONTRACTORS**



**O & M CONSULTING ENGINEERING, P.S.C.**  
 1000 W. L. RIVERA BLVD., SUITE 113  
 GUAYNABO, P.R. 00968  
 TEL: (939) 228-1101 - FAX: (939) 228-1107



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 License No. 10000

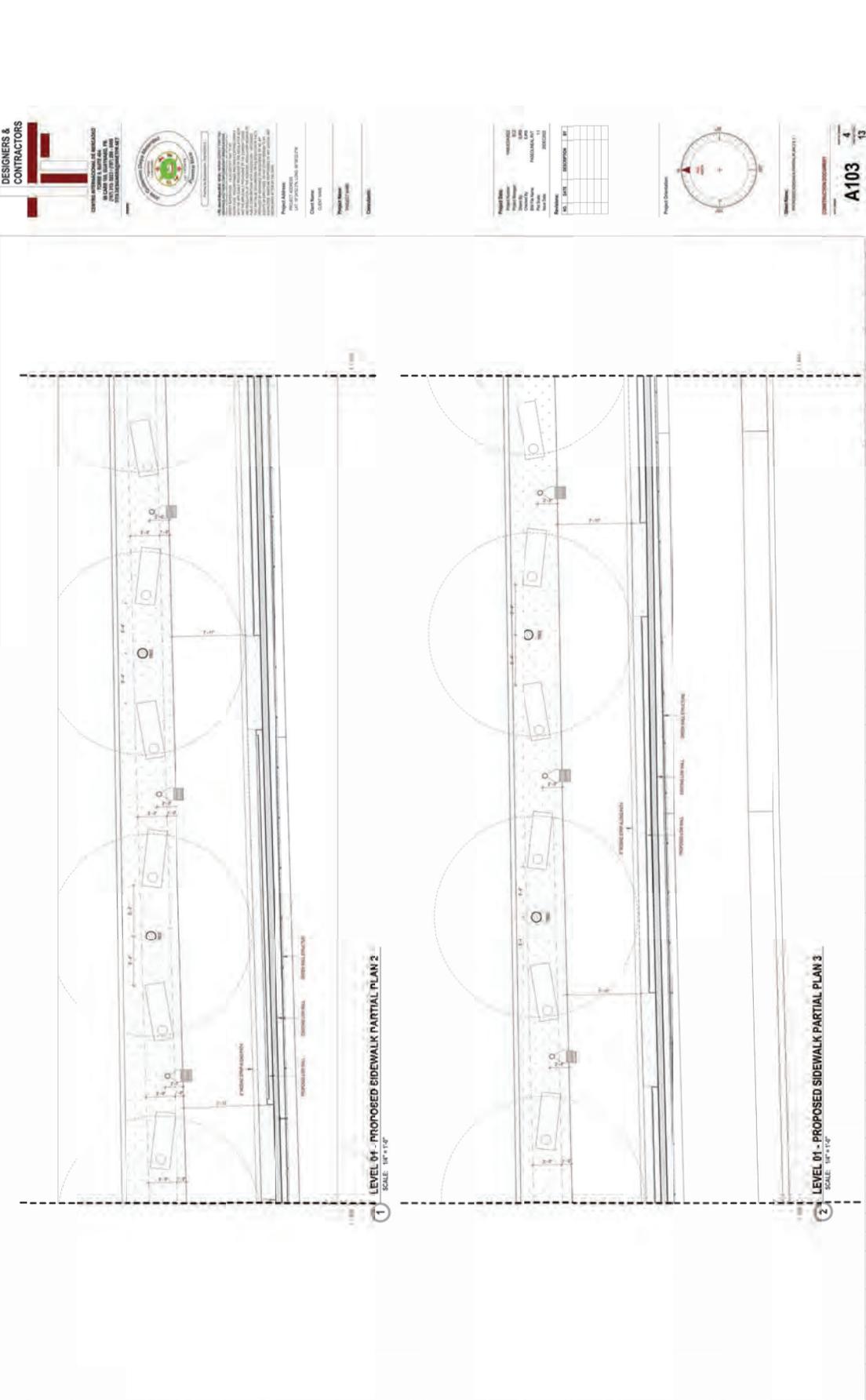
**REGISTERED PROFESSIONAL ENGINEER**  
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 License No. 10000

**REGISTERED PROFESSIONAL ENGINEER**  
 O & M CONSULTING ENGINEERING, P.S.C.  
 License No. 10000

DATE	BY	WORK	DESIGN	DRAWING	TRACED	FINAL CHECK
PROJECT NO.	00000					
FILE NAME						

	PROJECT - ROUNDABOUT PR-3 INT., PR-901 ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.	SCALE AS SHOWN	PROPOSED SIDEWALK PARTIAL PLAN 1	AE	03
	REVISIONS DATE DESCRIPTION	SCALE AS SHOWN	PROPOSED SIDEWALK PARTIAL PLAN 1	AE	03

ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	43	93



**DESIGNERS & CONTRACTORS**

**CENTRAL INSTITUCIONAL DE INGENIERIA**  
 15000 AV. LAS AMERICAS, SUITE 100  
 SAN JUAN, P.R. 00906  
 TEL: (787) 762-1000 FAX: (787) 762-1001

**YABUCCA**  
 15000 AV. LAS AMERICAS, SUITE 100  
 SAN JUAN, P.R. 00906  
 TEL: (787) 762-1000 FAX: (787) 762-1001

**CLIENT**  
 MUNICIPALIDAD DE YABUCCA  
 AV. LAS AMERICAS, SUITE 100  
 SAN JUAN, P.R. 00906

**PROJECT NAME**  
 RECONSTRUCCION DE LA CALLE LAS AMERICAS EN YABUCCA, P.R.

**PROJECT NO.**  
 000000

**DATE**  
 2022

NO.	DATE	DESCRIPTION	BY

**PROJECT NO.**  
000000

**DATE**  
2022



**A103**

SCALE AS SHOWN

DESIGN	BY	DATE

PROJECT NO. 000000

FILE NAME

DATE

BY

DATE



PROJECT - ROUNDABOUT PR-3 INT, PR-901  
 ROUNDABOUT PR-3 INT, PR-909 AND PR-910 / ROUNDABOUT PR-182 INT, PR-907 AND PR-910 /  
 CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS

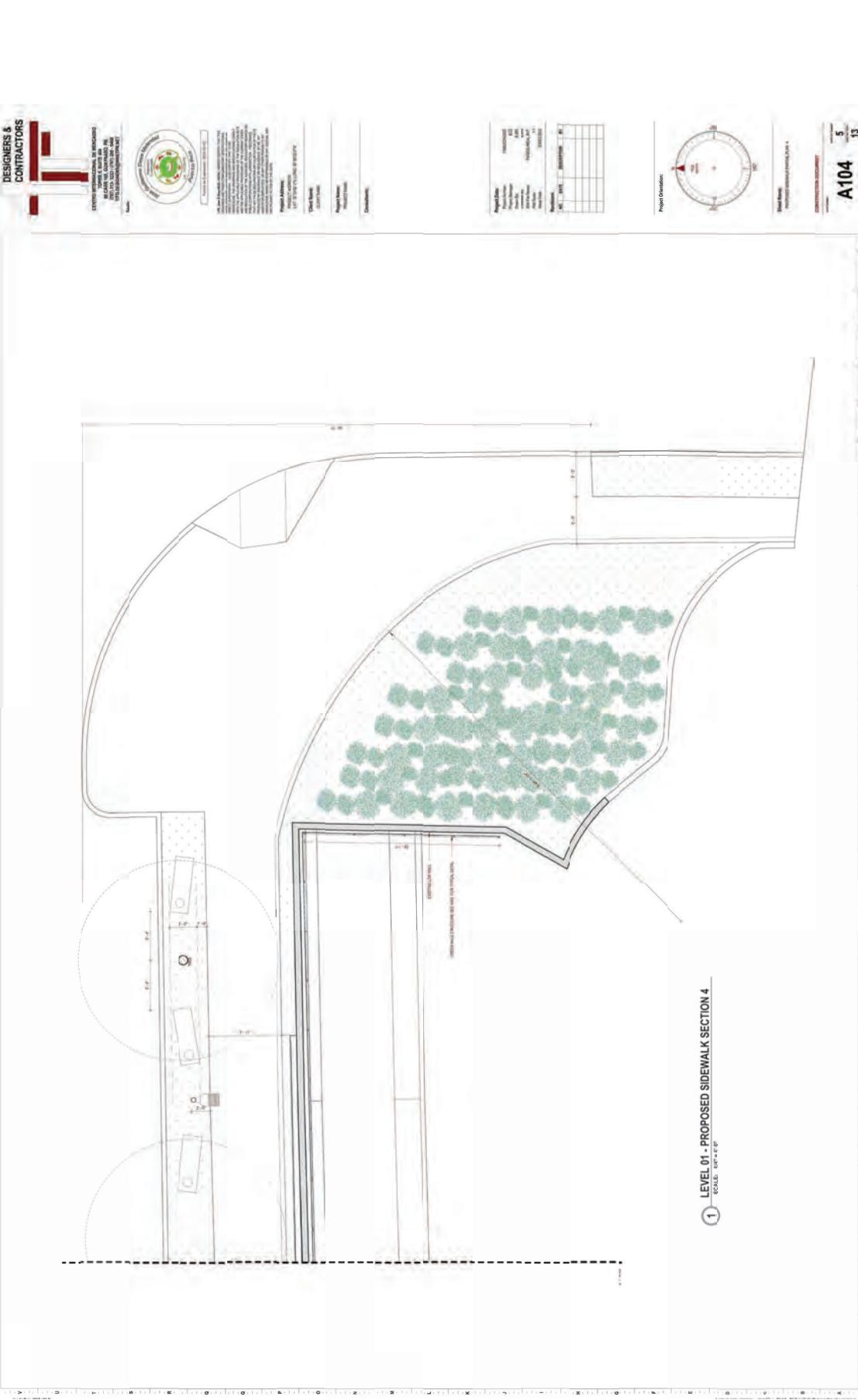
**O & M Consulting Engineering, P.S.C.**  
 15000 AV. LAS AMERICAS, SUITE 100  
 SAN JUAN, P.R. 00906  
 TEL: (787) 762-1000 FAX: (787) 762-1001

SCALE AS SHOWN

PROPOSED SIDEWALK  
 PARTIAL PLAN 2 & 3

AE / 04

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	44	93



**DESIGNERS & CONTRACTORS**



O & M CONSULTING ENGINEERING, P.S.C.  
 1000 W. LUIS PUECO BLVD. SUITE 113  
 GUAYNABO, P.R. 00968



PROYECTO: RECONSTRUCCIÓN DE LA CALLE DE LA UNIÓN EN LA ZONA URBANA DE YABUCCA, P.R.

PROYECTO: RECONSTRUCCIÓN DE LA CALLE DE LA UNIÓN EN LA ZONA URBANA DE YABUCCA, P.R.

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PROYECTO: RECONSTRUCCIÓN DE LA CALLE DE LA UNIÓN EN LA ZONA URBANA DE YABUCCA, P.R.

DESIGNER	DATE	REVISIONS	SCALE AS SHOWN	PROJECT NO.	AE
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WORK					
BY					
DATE					
PROJECT NO.					
DRAWING					
TRACED					
CHECK					
FINAL CHECK					



PROJECT: ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

O & M Consulting Engineering, P.S.C.  
 1000 W. LUIS PUECO BLVD. SUITE 113  
 GUAYNABO, P.R. 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

PROPOSED SIDEWALK  
 PARTIAL PLAN 4

05

DATE	
PROJECT NO.	00000
FILE NAME	
D & M	





ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	47	93

**DESIGNERS & CONTRACTORS**



CENTRO INSTITUCIONAL DE INGENIERIA Y CONSTRUCCION DE PUERTO RICO  
 10000, P.O. BOX 10000, SAN JUAN, P.R. 00906  
 TEL: (787) 764-1100 FAX: (787) 764-1101

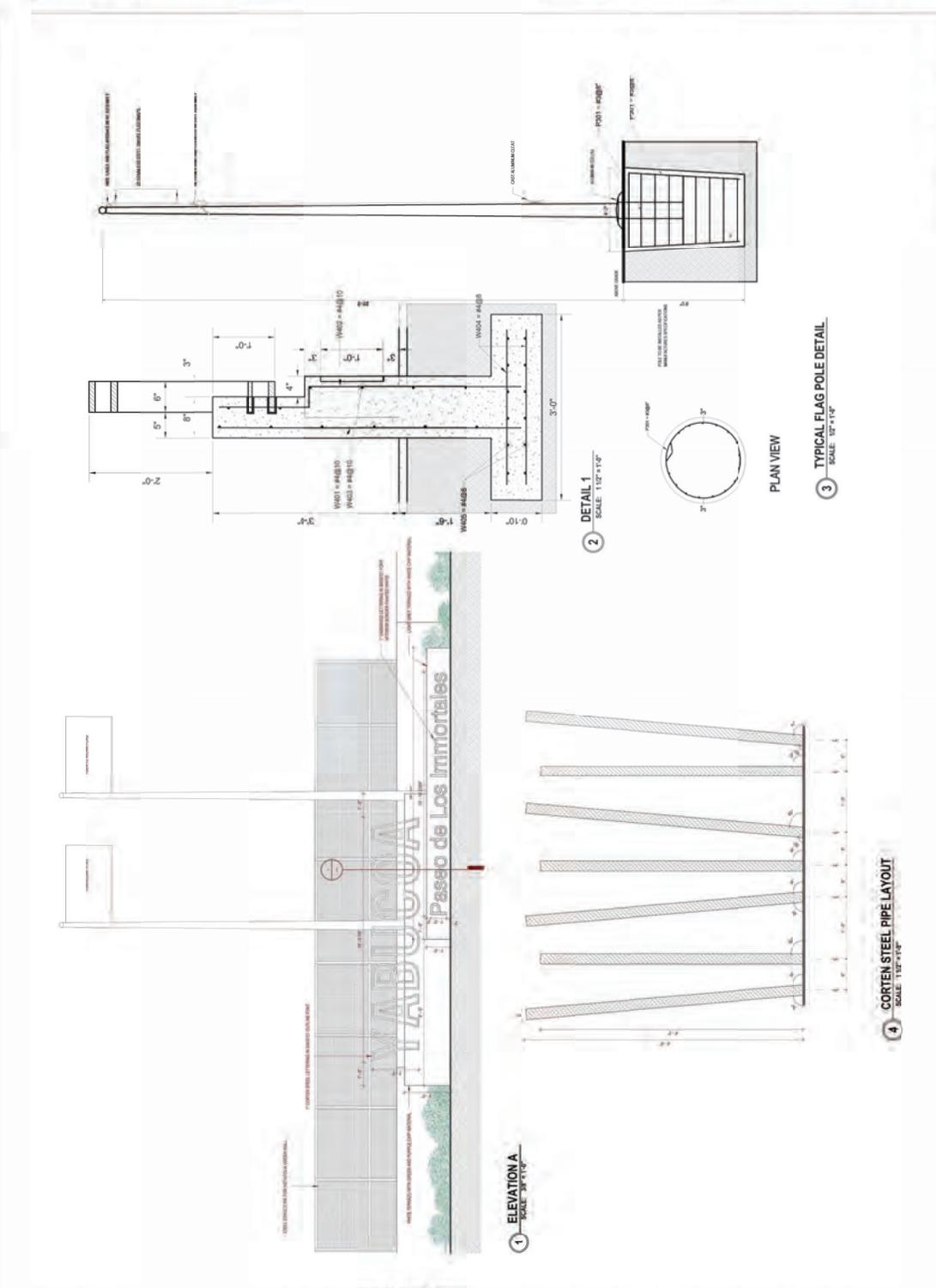
Project Address: 10000, P.O. BOX 10000, SAN JUAN, P.R. 00906  
 Client Name: YABUCCA  
 Project Name: ROUNDABOUT PR-3 INT., PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.  
 Contractor:

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

PROJECT NO.	00000
DATE	



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DATE	REVISIONS	SCALE AS SHOWN	LARGE SCALE DRAWINGS	AE	08

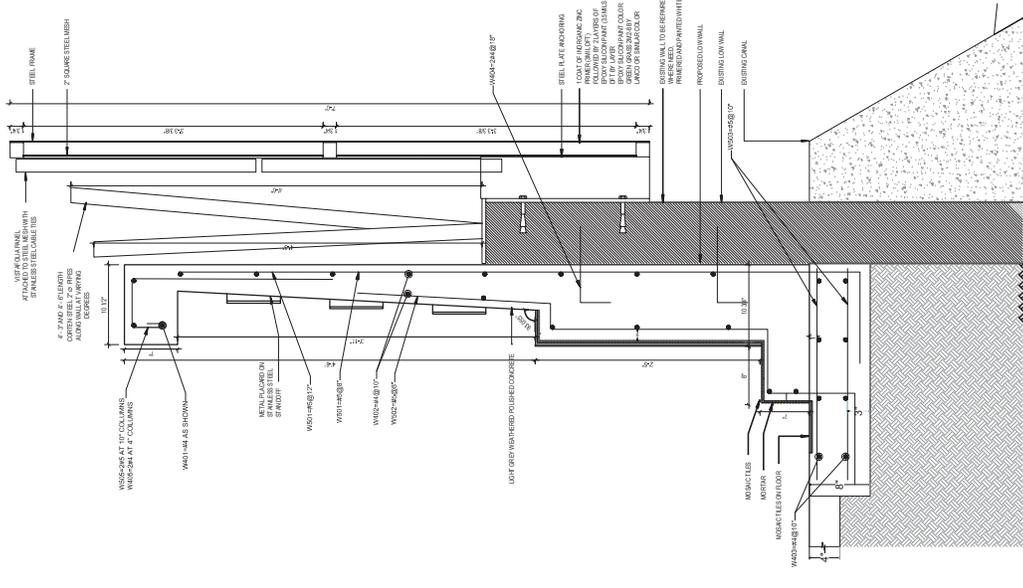
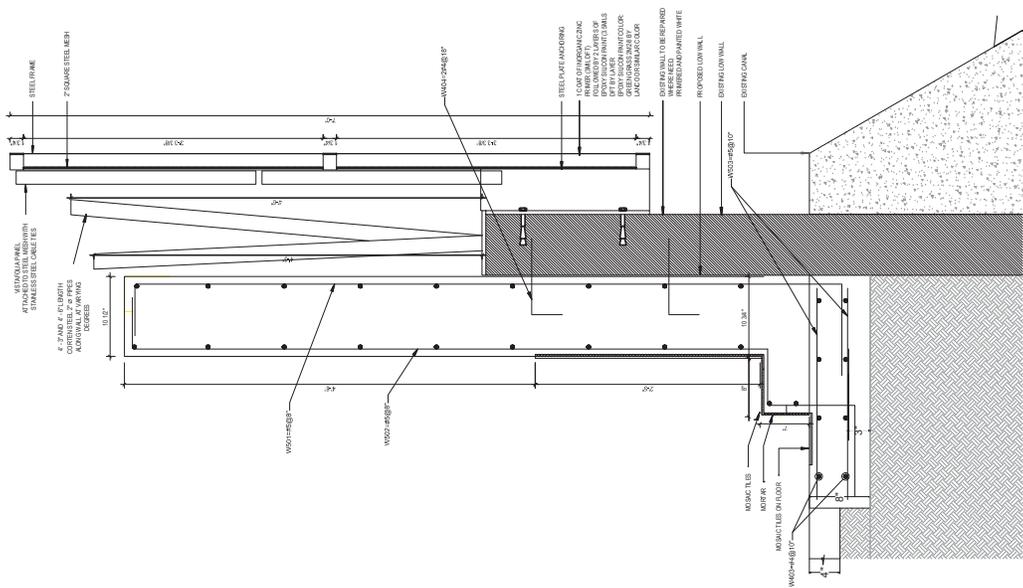
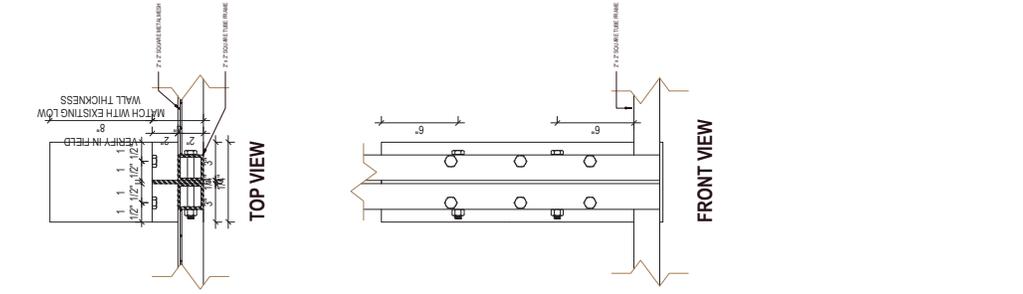
**YABUCCA**

PROJECT: ROUNDABOUT PR-3 INT., PR-901, PR-909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

D & M Consulting Engineering, P.S.C.  
 10000, P.O. BOX 10000, SAN JUAN, P.R. 00906  
 TEL: (787) 764-1100 FAX: (787) 764-1101

DATE	BY	WORK	DESIGN	DRAWING	TRACE	FINAL CHECK

HEAVYWAY P.I.N. Yabucoa	MUNICIPALITY YABUCOA	ISLAND P.R.	YEAR 2022	SHEET NO. 48	TOTAL SHEETS 93
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2 LOW WALL DETAIL CC  
SCALE: 1/2"=1'-0"

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

DESIGN	PROJECT NO.	00000
DRAWING	FILE NAME	
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WORK	DATE	
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PROJECT	DATE	
REVISIONS	DATE	
SCALE AS SHOWN	SCALE AS SHOWN	
LARGE SCALE DRAWINGS	LARGE SCALE DRAWINGS	
AE	AE	09

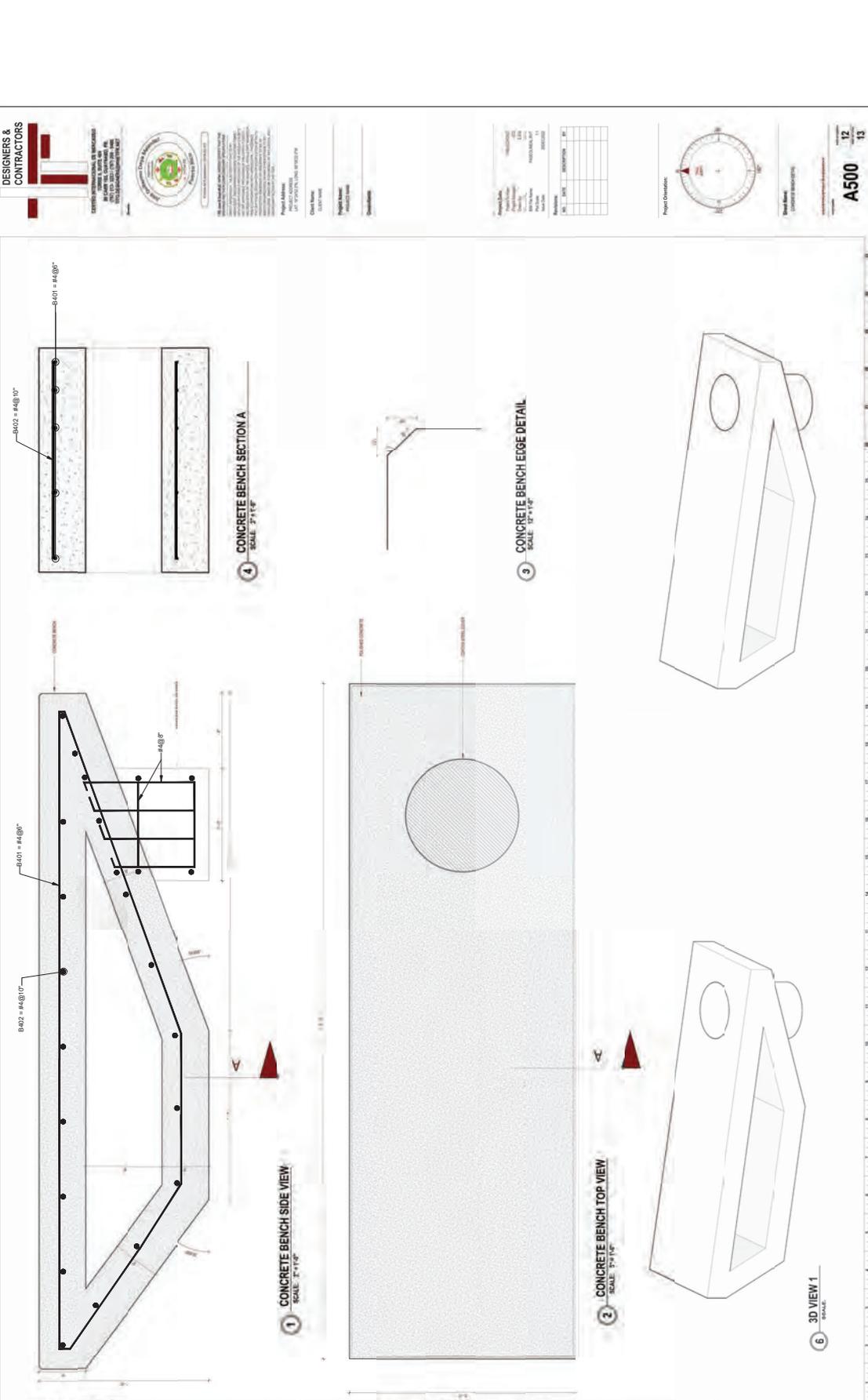
**O & M Consulting Engineering, P.S.C.**  
 1000 Office Park #113, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 229-1101 - Fax: (939) 229-1107

PROJECT - ROUNDABOUT PR-3 INT., PR-901  
 ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-910 /  
 CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.





ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	51	93



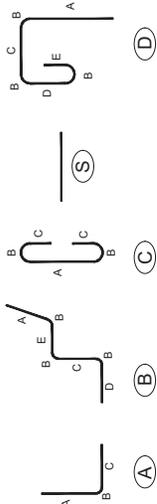
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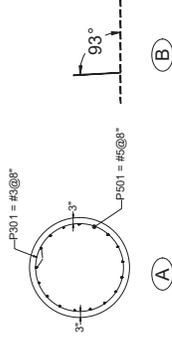
PROJECT - ROUNDABOUT PR-3 INT., PR-901  
 ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-910 /  
 CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.



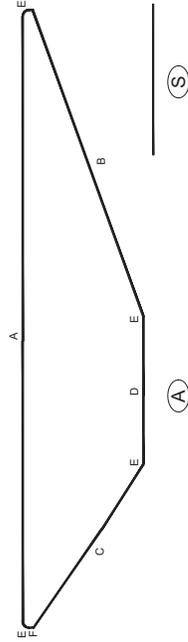
ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	52	93



STEEL REINFORCEMENT SCHEDULE											
BAR	SIZE	TYPE	A(R)	B(R)	C(R)	D(R)	E(R)	L(R)	NUMBER	Weight (lbs)	Remarks
W401	10	3	0.33	0.125	0.21	-	-	43	5	143.62	ADDED 2 SPLICE OF 1.5 FT IN LENGTH DIMENSION.
W402	10	4	-	-	-	-	-	43	15	430.86	ADDED 2 SPLICE OF 1.5 FT IN LENGTH DIMENSION.
W403	10	4	-	-	-	-	-	43	15	430.86	ADDED 2 SPLICE OF 1.5 FT IN LENGTH DIMENSION.
W404	10	4	0.83	0.25	0.42	-	-	1.50	96	96.19	
W405	10	4	2.17	0.33	0.50	0.33	-	9.25	49	472.74	
W501	10	5	7.42	0.33	1.50	-	-	6.71	49	342.84	
W502	10	5	2.25	0.33	3.125	1	-	1.35	49	69.21	
W503	10	5	-	-	-	-	-	1.35	49	69.21	
W504	10	5	-	-	-	-	-	1.35	49	69.21	



STEEL REINFORCEMENT SCHEDULE											
BAR	SIZE	TYPE	A(R)	B(R)	C(R)	D(R)	E(R)	L(R)	NUMBER	Weight (lbs)	Remarks
W401	10	4	4.92	0.33	0.58	-	-	5.83	37	144.18	
W402	10	4	5.33	0.33	0.33	0.33	0.58	6.91	37	170.87	"A" dimension taken as an average.
W403 (2)	10	4	-	-	-	-	-	31.5	14	294.59	ADDED 1.5 ft SPLICE.
W404 (2)	8	4	-	-	-	-	-	2.5	46	76.82	
W405 (2)	8	4	-	-	-	-	-	31.5	5	105.21	ADDED 1.5 ft SPLICE. L wall.



STEEL REINFORCEMENT SCHEDULE												
BAR	SIZE	TYPE	A(R)	B(R)	C(R)	D(R)	E(R)	F(R)	L(R)	NUMBER	Weight (lbs)	Remarks
B401	6	4	11.46	3.19	1.92	0.33	0.09	23.49	4	62.76	ADDED 4 SPLICE OF 12"	
B402	10	4	-	-	-	-	-	2	18	24.05		

STEEL REINFORCEMENT SCHEDULE												
BAR	SIZE	TYPE	A(R)	B(R)	C(R)	D(R)	E(R)	L(R)	NUMBER	Weight (lbs)	Remarks	
P401	10	3	13.17	0.50	0.33	0.33	-	-	5.5	17	97.52	6 IN SPLICE ADDED TO LENGTH DIMENSION.
P501	8	5	-	-	-	-	-	-	5.5	17	97.52	



PROJECT - ROUNDABOUT PR-3 INT, PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

SCALE AS SHOWN

STEEL REINFORCEMENT SCHEDULE

AE 13

O & M Consulting Engineering, P.S.C.  
 1000 Office Park #11, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

REVISIONS

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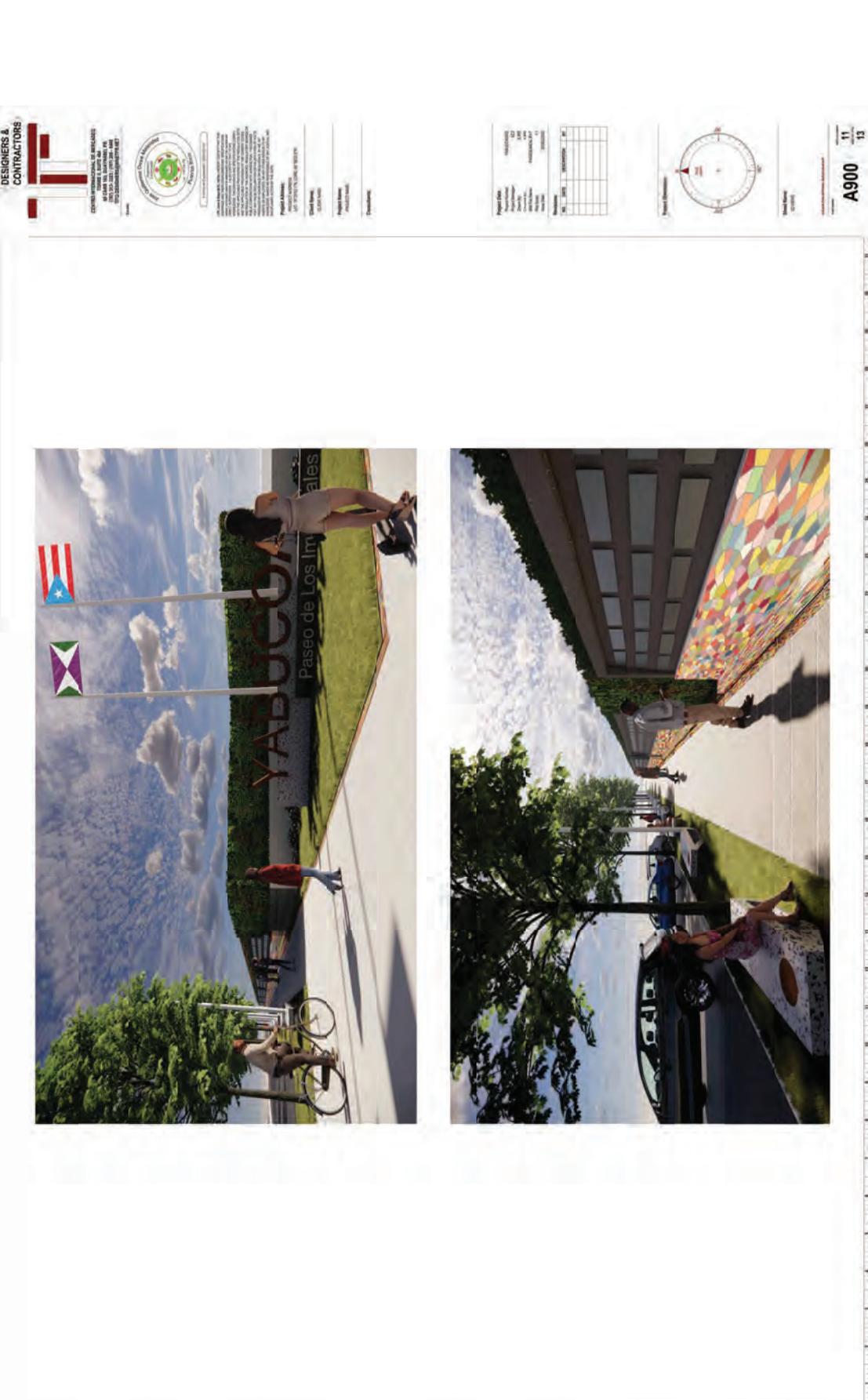
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ROADWAY P.I.N.	Yabucoa	MUNICIPALITY	YABUCCA	ISLAND	P.R.	YEAR	2022	SHEET NO.	53	TOTAL SHEETS	93
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**DESIGNERS & CONTRACTORS**

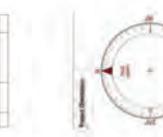


**CENTRO INSTITUCIONAL DE INMIGRANTES DE PASAJE DE LOS INMIGRANTES YABUCCA**  
 10000 YABUCCA, P.R. 00988  
 TEL: (939) 229-1101 - FAX: (939) 229-1107

**PROYECTO:** ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

**PROYECTO:** ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

PROYECTO:	ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.
PROYECTO:	ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.
PROYECTO:	ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.
PROYECTO:	ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.
PROYECTO:	ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.
PROYECTO:	ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.



**A900**  
 11/11/23

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FINAL CHECK											
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DRAWING											
SCALE AS SHOWN											
3D VIEWS											
AE											14



**D & M Consulting Engineering, P.S.C.**  
 10000 YABUCCA, P.R. 00988  
 TEL: (939) 229-1101 - FAX: (939) 229-1107

REVISIONS			
DATE			

PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

YABUCCA



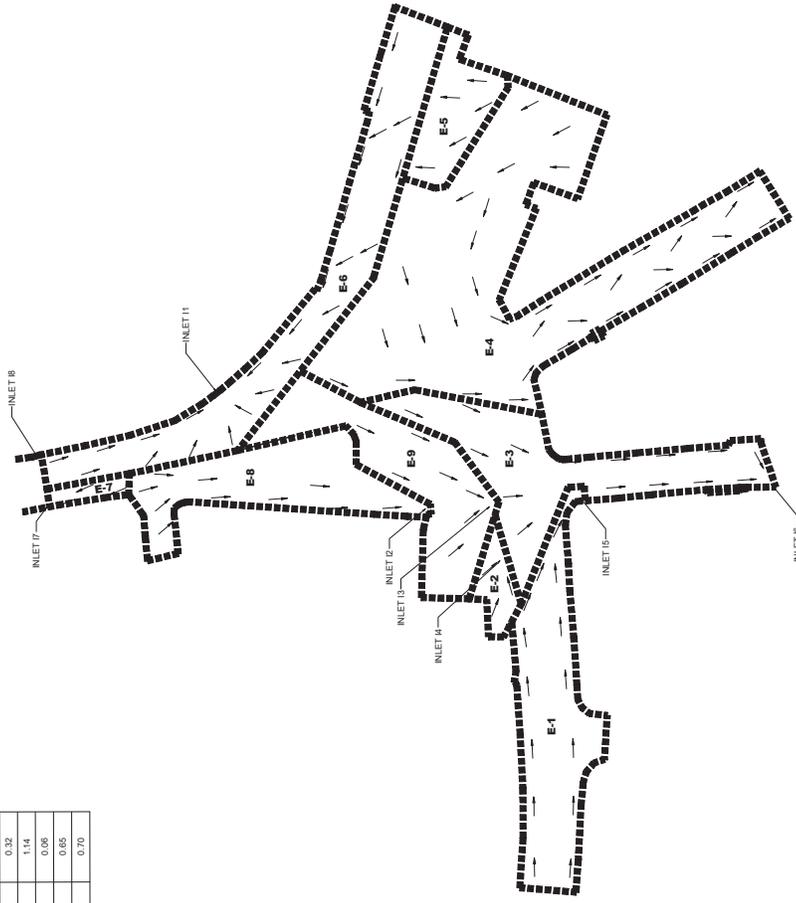
ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	50	93

LEGEND:

— FLOW DIRECTION

DRAINAGE AREA CALCULATIONS			
BASIN ID.	AREA (ACRES)	RUNOFF COEFFICIENT (C)	100-YR EVENT RAINFALL (IN/HR)
E1	0.09	0.9	9.97
E2	0.01	0.9	9.97
E3	0.10	0.9	9.97
E4	0.27	0.9	9.97
E5	0.04	0.9	9.97
E6	0.13	0.9	9.97
E7	0.01	0.9	9.97
E8	0.07	0.9	9.97
E9	0.08	0.9	9.97
E10	0.08	0.9	9.97
E11	0.08	0.9	9.97
E12	0.08	0.9	9.97
E13	0.08	0.9	9.97
E14	0.08	0.9	9.97
E15	0.08	0.9	9.97
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E30	0.08	0.9	9.97
E31	0.08	0.9	9.97
E32	0.08	0.9	9.97
E33	0.08	0.9	9.97
E34	0.08	0.9	9.97
E35	0.08	0.9	9.97
E36	0.08	0.9	9.97
E37	0.08	0.9	9.97
E38	0.08	0.9	9.97
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E57	0.08	0.9	9.97
E58	0.08	0.9	9.97
E59	0.08	0.9	9.97
E60	0.08	0.9	9.97
E61	0.08	0.9	9.97
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E65	0.08	0.9	9.97
E66	0.08	0.9	9.97
E67	0.08	0.9	9.97
E68	0.08	0.9	9.97
E69	0.08	0.9	9.97
E70	0.08	0.9	9.97
E71	0.08	0.9	9.97
E72	0.08	0.9	9.97
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E85	0.08	0.9	9.97
E86	0.08	0.9	9.97
E87	0.08	0.9	9.97
E88	0.08	0.9	9.97
E89	0.08	0.9	9.97
E90	0.08	0.9	9.97
E91	0.08	0.9	9.97
E92	0.08	0.9	9.97
E93	0.08	0.9	9.97
E94	0.08	0.9	9.97
E95	0.08	0.9	9.97
E96	0.08	0.9	9.97
E97	0.08	0.9	9.97
E98	0.08	0.9	9.97
E99	0.08	0.9	9.97
E100	0.08	0.9	9.97

INLET CALCULATIONS		
ID.	CONTRIBUTING BASIN	100-YR Q (100 CFS)
11	E5, E6	1.45
12	E8	0.65
13	E9	0.70
14	E2	0.12
15	E1	0.80
16	E3	0.87
OFFSITE VIA PR-182	E4	2.38

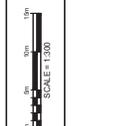


LogoYabucoa.png

PROJECT - ROUNDABOUT PR-3 INT, PR-901 AND PR-909 AND PR-910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-910 / CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS
##	##

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EXISTING DRAINAGE BASINS

DR 02

DATE	
PROJECT NO.	00000
FILE NAME	
DESIGN	
DRAWING	
CHECK	
FINAL CHECK	

HERNANDEZ P.A.	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	96	99



LEGEND:



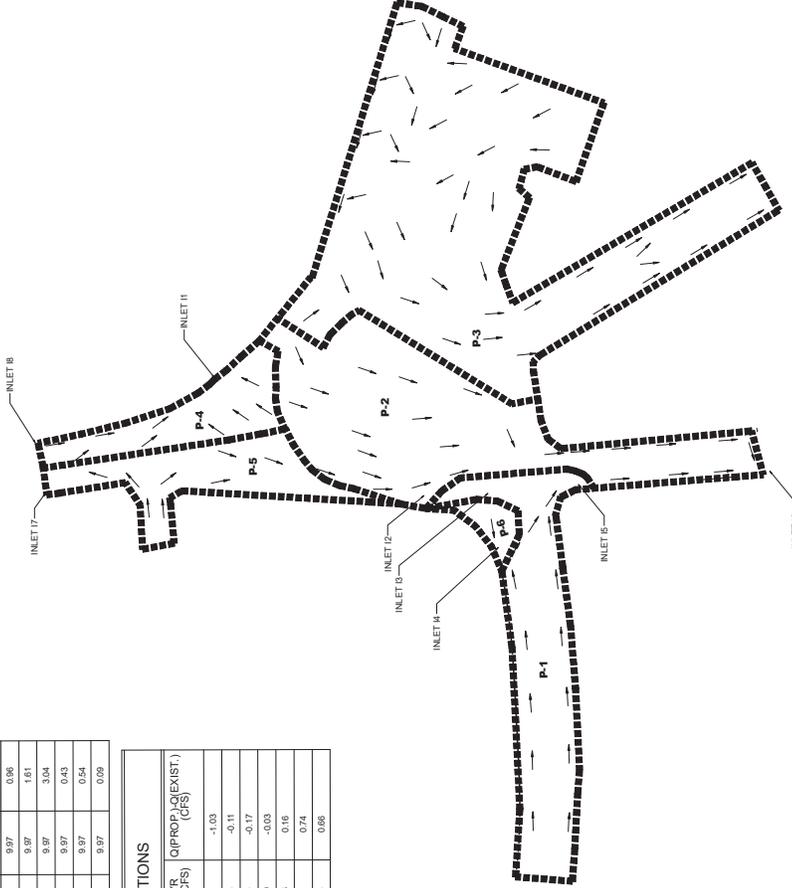
FLOW DIRECTION

**DRAINAGE AREA CALCULATIONS**

BASIN ID.	AREA (ACRES)	RUNOFF COEFFICIENT (C)	RAINFALL INTENSITY (1 (in/hr))	100-YR EVENT Q (100 (CFS))
P1	0.11	0.9	9.97	0.96
P2	0.18	0.9	9.97	1.61
P3	0.34	0.9	9.97	3.04
P4	0.05	0.9	9.97	0.43
P5	0.06	0.9	9.97	0.54
P6	0.01	0.9	9.97	0.09

**INLET CALCULATIONS**

ID.	CONTRIBUTING BASIN	100-YR Q (100 (CFS))	Q (PROP. Q (EXIST.))
11	P4	0.43	-1.03
12	P5	0.54	-0.11
13	P5	0.54	-0.17
14	P6	0.09	-0.03
15	P1	0.96	0.16
16	P2	1.61	0.74
17	P3	3.04	0.66



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PROJECT: ROUNDABOUT PR-3 INT., PR-901 AND PR-909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS
##	##

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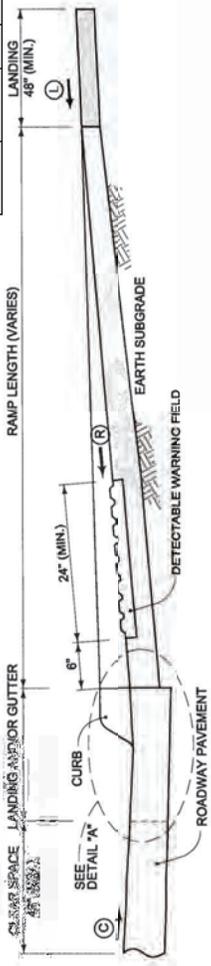


PROPOSED DRAINAGE BASINS

DR 03

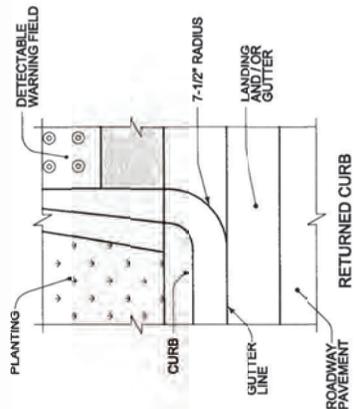
DESIGN	DATE	PROJECT NO.	FILE NAME
DRAWING		000000	
CHECK			
FINAL CHECK			

ROADWAY PAV. YABUCCA	MUNICIPALITY YABUCCA	ISLAND P.R.	FISCAL YEAR 2022	SHEET NO. 57	TOTAL SHEETS 93
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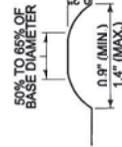


SECTION A-A  
TYPICAL SECTION THROUGH RAMP RUN AND LANDINGS WITH UPPER LANDING AT NORMAL SIDEWALK ELEVATION

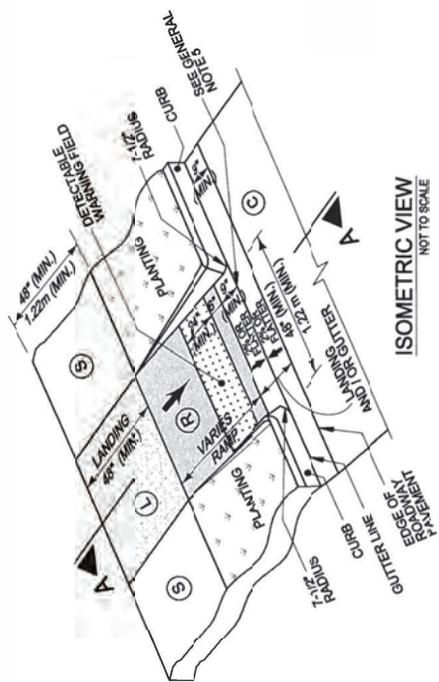
- GENERAL NOTES:**
1. THE MAXIMUM CROSS SLOPES OF RAMPS MUST NOT EXCEED 2% IN ANY DIRECTION.
  2. USE A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE TO CREATE A SLIP RESISTANT SURFACE ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
  3. CONSTRUCT CURB RAMP PERPENDICULAR TO THE CURB. AVOID SKEWING THE RAMP FACE.
  4. CONSTRUCT RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, OR STREET THAT ARE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES NOT TO EXCEED 2.5 INCHES.
  5. AT POINTS WHERE A CHANGE IN SLOPE OCCURS, THE ALGEBRAIC GRADE DIFFERENCE SHALL NOT EXCEED 11%.
  6. LOCATE DRAINAGE INLETS AND MANHOLES OUTSIDE OF RAMP WALKING SURFACES OR LANDINGS.
  7. LOCATE DETECTABLE WARNING FIELD 6 INCHES BEHIND BACK OF CURB.
  8. WALKING SURFACE WITH DETECTABLE WARNING FIELD (TRUNCATED DOMES) SHALL BE A SUBSIDIARY OBLIGATION TO THE CONTRACTOR AND PAID UNDER SPECIFICATION 808.
  9. ANY TYPE OF ADA RAMPS, INCLUDING LANDING, FOR WHEEL CHAIRS AND HANDICAPPED PERSONS WILL BE MEASURED BY THE SQUARE METER OF COMPLETED AND ACCEPTED RAMP SURFACE.
  10. THE DIMENSIONS AND MATERIALS OF SIDEWALK SHALL BE IN CONFORMITY WITH THE DETAILS, LINES AND NOTES OF THE CONTRACT PLANS OR AS ESTABLISHED BY THE ENGINEER.
  11. THE RAMPS AND SIDEWALKS SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION 808-"SIDEWALKS".
  12. THE DETECTABLE WARNING FIELD SHALL BE YELLOW IN COLOR TO PROVIDE HIGH VISIBILITY TO THE VISUALLY IMPAIRED.



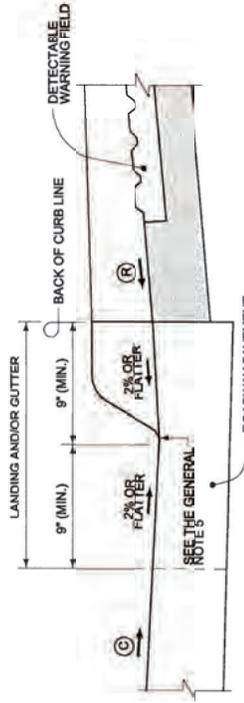
DETAIL "B"  
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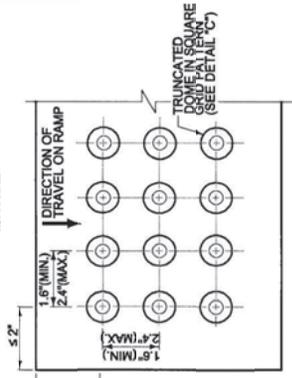
SECTION OF TRUNCATED DOME  
DETAIL "C"  
NOT TO SCALE



ISOMETRIC VIEW  
NOT TO SCALE



DETAIL "A"  
NOT TO SCALE



DETECTABLE WARNING FIELD DETAIL  
PLAN VIEW  
NOT TO SCALE

DESCRIPTION	MAX. RUNNING SLOPE**	MAX. CROSS SLOPE**
(L) LANDING	2% (1V:50H)	2% (1V:50H)
(R) RAMP	8.33% (1V:12H)	2% (1V:50H)
(P) PARALLEL RAMP	7.1% (1V:14H)	2% (1V:50H)
(C) CLEAR SPACE	5% (1V:20H)	2% (1V:50H)
(S) SIDEWALK	5% (1V:20H)	2% (1V:50H)
(T) TRANSVERSABLE SURFACE	10% (1V:10H)	2% (1V:50H)

\* RUNNING SLOPE IS IN DIRECTION OF PEDESTRIAN TRAVEL.  
\*\* CROSS SLOPE IS PERPENDICULAR TO PEDESTRIAN TRAVEL.

DATE	REVISIONS	SCALE AS SHOWN	ADA RAMPS GENERAL NOTES AND TYPICAL DETAILS	MCD 01
###	###			
###	###			
###	###			

PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

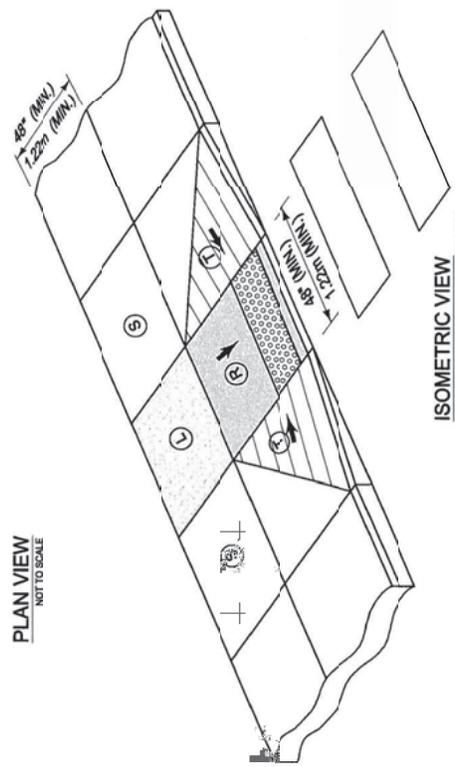
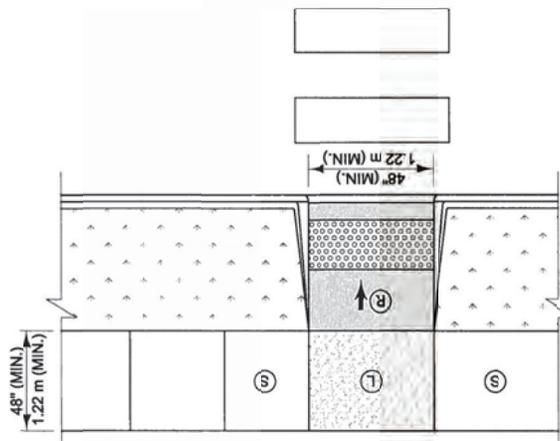
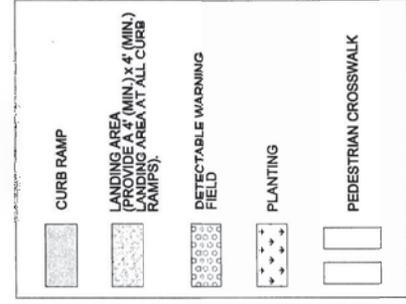
D & M Consulting Engineering, P.S.C.  
 1000 Office Park #11 Street 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107



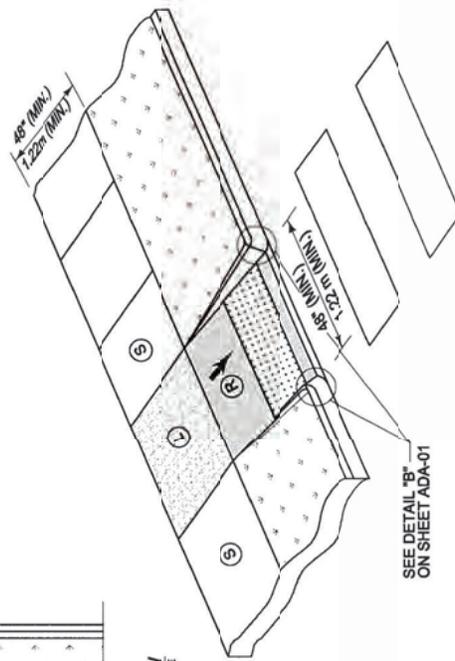
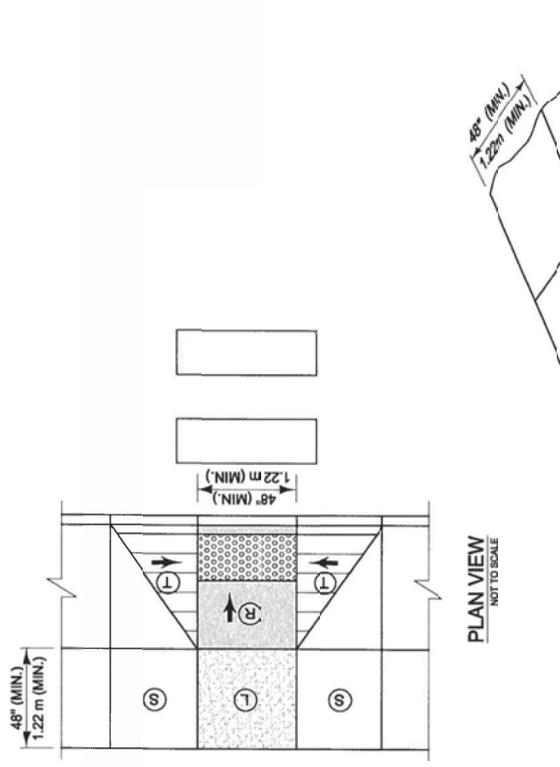
DESIGN	WORK
DRAWING	
TRACED	
CHECK	
FINAL CHECK	

DATE	PROJECT NO. 00000
FILE NAME	
D & M	

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	09	09



**CURB RAMP TYPE 1**  
(PERPENDICULAR CURB RAMP WITH FLARED CURBS)



**CURB RAMP TYPE 2**  
(PERPENDICULAR CURB RAMP WITH RETURNED CURBS)

**NOTE:**  
1. REFER TO SHEET ADA-01 FOR GENERAL NOTES, TYPICAL DETAILS AND SLOPE TABLE.

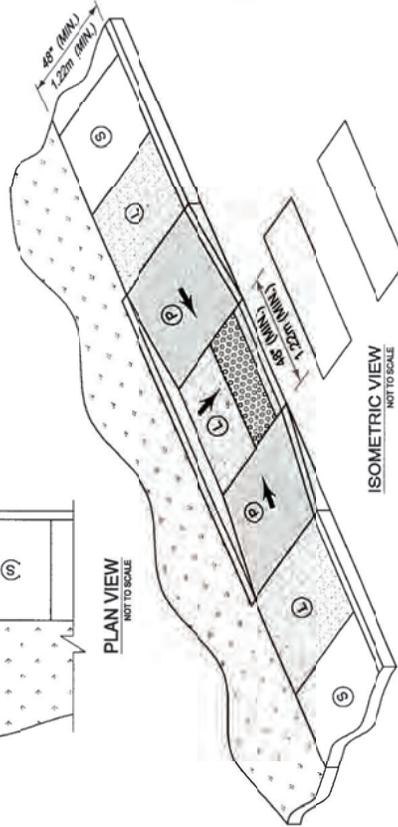
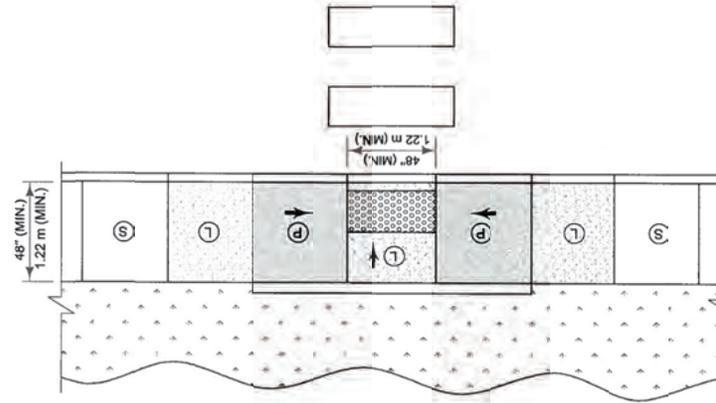
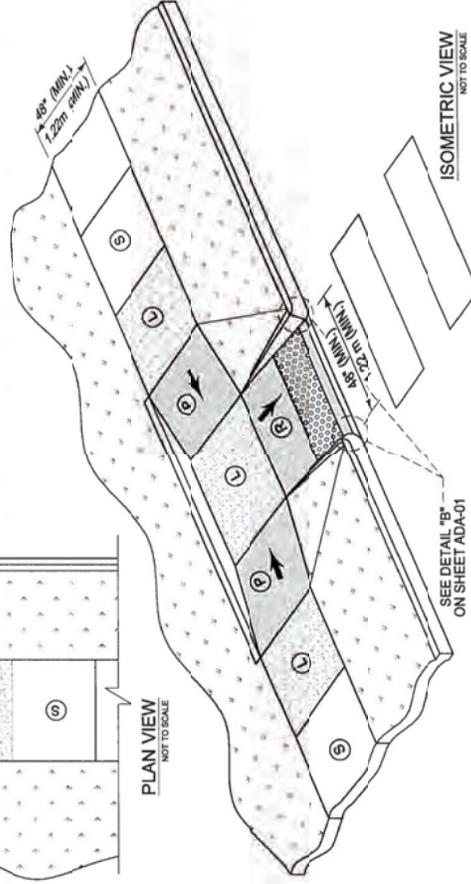
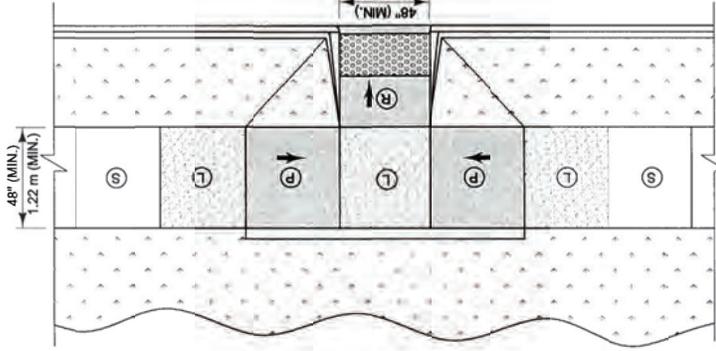
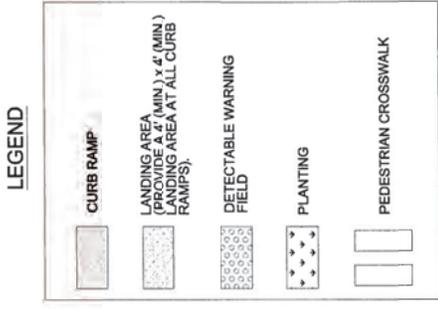
DESIGN	DATE	REVISIONS	SCALE AS SHOWN	MCD
WORK			ADA RAMPS PEDESTRIAN CURB RAMPS CURB RAMP TYPE 1 AND 2	02
DRAWING				
PROJECT NO.				
FILE NAME				
PROJECT NO.				
DATE				



PROJECT: ROUNDABOUT PR-3 INT. PR-901  
ROUNDABOUT PR-3 INT., PR-9009 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 /  
CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

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Guaynabo, Puerto Rico 00968  
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ROADWAY P.I.N. Yabucoa	MUNICIPALITY YABUCCOA	ISLAND P.R.	YEAR 2022	SHEET NO. 59	TOTAL SHEETS 93
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**CURB RAMP TYPE 4**  
(COMBINATION CURB RAMP)  
(FOR USE WITH RESTRICTED RIGHT-OF-WAY)

**CURB RAMP TYPE 3**  
(PARALLEL CURB RAMP)  
(FOR USE WITH RESTRICTED RIGHT-OF-WAY)

**NOTE:**  
1. REFER TO SHEET ADA-01 FOR GENERAL NOTES, TYPICAL DETAILS AND SLOPE TABLE

DESIGN	WORK	DATE	BY	PROJECT NO.	FILE NAME	DATE	REV. #	SCALE AS SHOWN	ADA RAMPS PEDESTRIAN CURB RAMPS CURB RAMP TYPE 3 AND 4	MCD	03



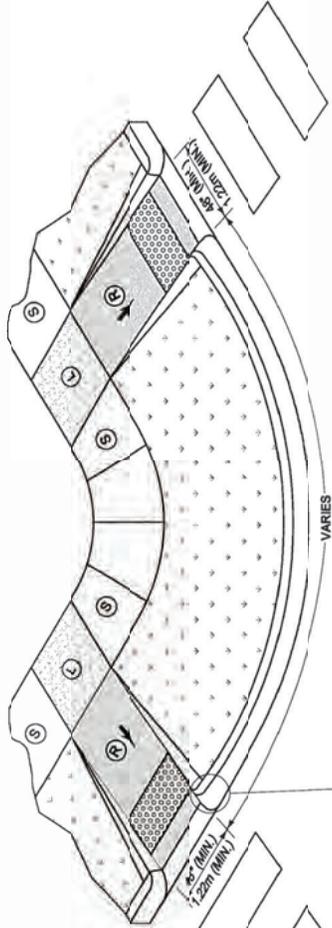
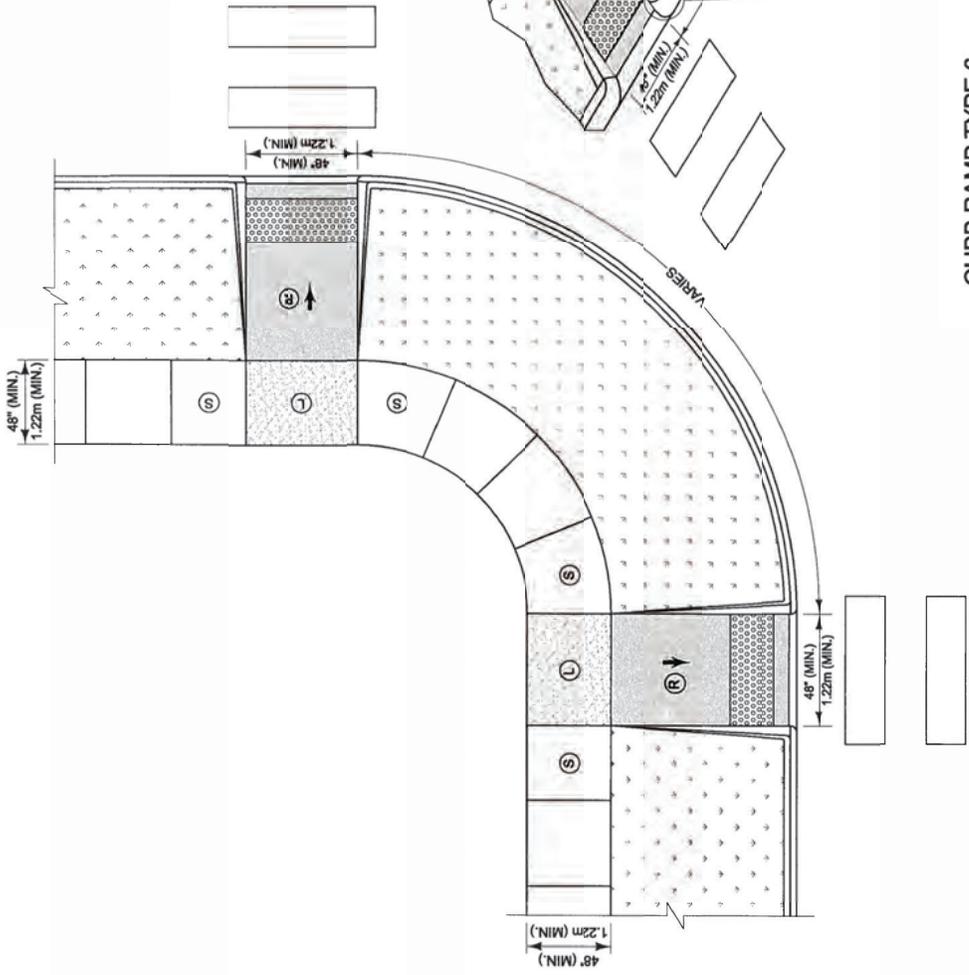
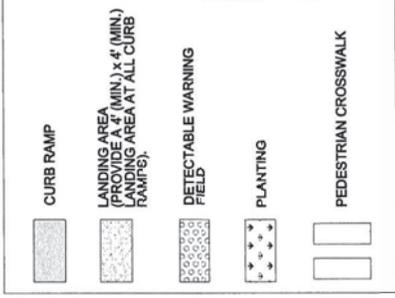
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ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	61	93

**LEGEND**



**CURB RAMP TYPE 6**  
(PERPENDICULAR CURB RAMP WITH RETURNED CURBS AT A CORNER)

- NOTES:**
1. THE RAMPS SHALL BE PERPENDICULAR TO RADIUS.
  2. REFER TO SHEET ADA-01 FOR GENERAL NOTES, TYPICAL DETAILS AND SLOPE TABLE.

SEE DETAIL "B" ON SHEET ADA-01

ISOMETRIC VIEW  
NOT TO SCALE

PLAN VIEW  
NOT TO SCALE

DESIGN	DATE	REVISIONS	PROJECT - ROUNDABOUT PR-3 INT. PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT. PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.	SCALE AS SHOWN	ADA RAMPS PEDESTRIAN CURB RAMPS CURB RAMP TYPE 6	MCD 05
	BY	DATE				
WORK						
DRAWING						
PROJECT NO.	00000					
FILE NAME						
D & M						



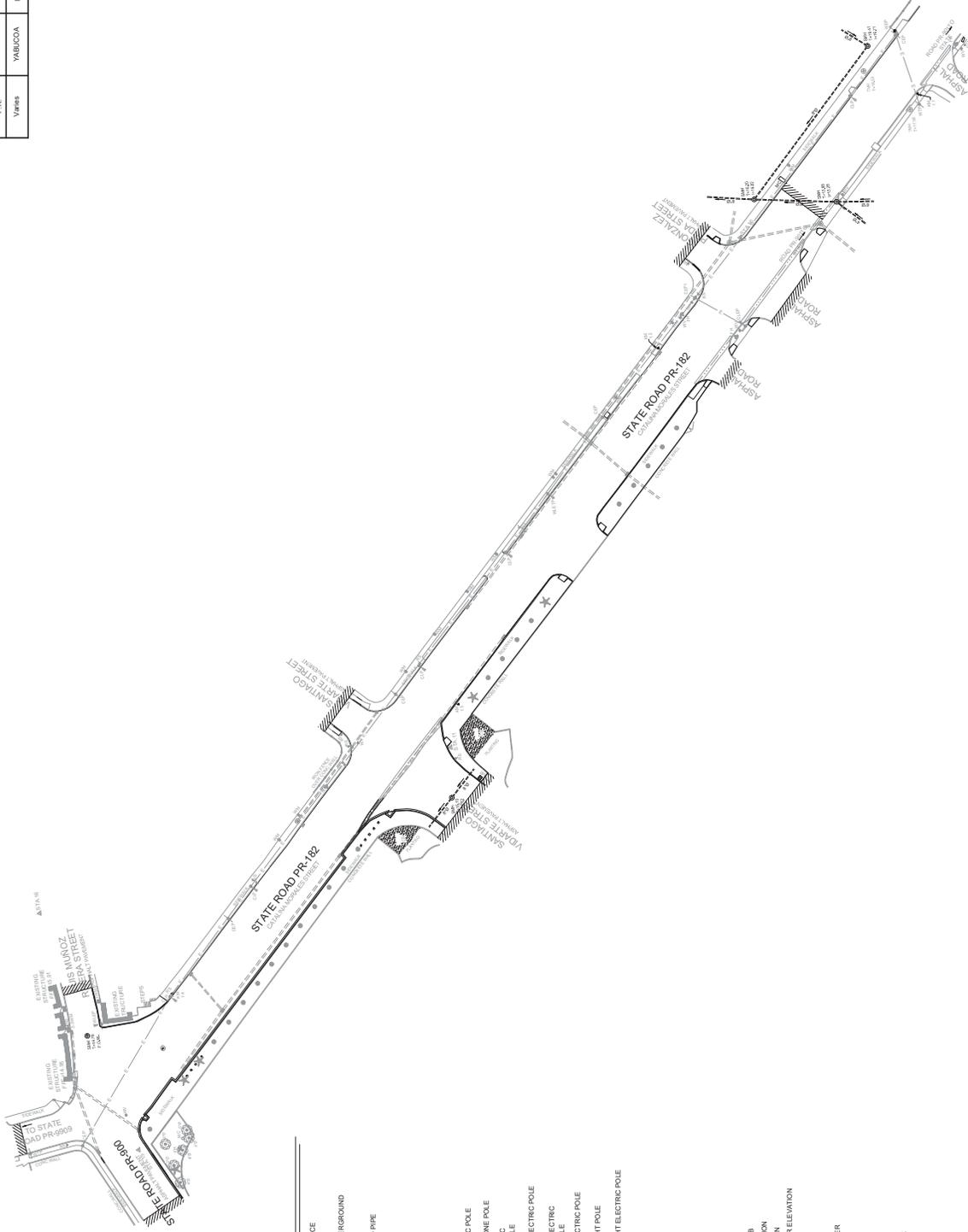
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 Guaynabo, Puerto Rico 00968  
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HERNANDEZ P.A.	MUNICIPALITY	ISLAND	PROYECTO	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	65	93



LEGEND	
CHAIN LINK FENCE	—
IRON FENCE	—
SANITARY UNDERGROUND PIPE	—
STORM SEWER UNDERGROUND PIPE	—
PALM TREE	🌴
TREE	🌳
VEGETATION	🌿
BOLLARD	•
WOOD ELECTRIC POLE	—
WOOD TELEPHONE POLE	—
WOOD ELECTRIC TELEPHONE POLE	—
WOOD LIGHT ELECTRIC POLE	—
WOOD LIGHT ELECTRIC TELEPHONE POLE	—
CONCRETE ELECTRIC POLE	—
CONCRETE LIGHT POLE	—
CONCRETE LIGHT ELECTRIC POLE	—
CITY WIRE	—
KILOMETER	—
CLEAN OUT	—
FIRE HYDRANT	—
WATER METER	—
WATER VALVE	—
WATER BOX	—
METAL COVER	—
CONCRETE SLAB	—
CONTROL STATION	—
CONCRETE MANHOLE	—
FINISHED FLOOR ELEVATION	—
CATCH BASIN	—
SANITARY SEWER MANHOLE	—
STORM SEWER MANHOLE	—
GLGSD	—
FULL OF WATER	—
TELEPHONE MANHOLE	—

DATE	REVISIONS



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PROJECT NO.	00000
FILE NAME	
DATE	
BY	
WORK	

PROJECT - ROUNDABOUT PR-3 INT., PR-901, PR-909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-9910 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

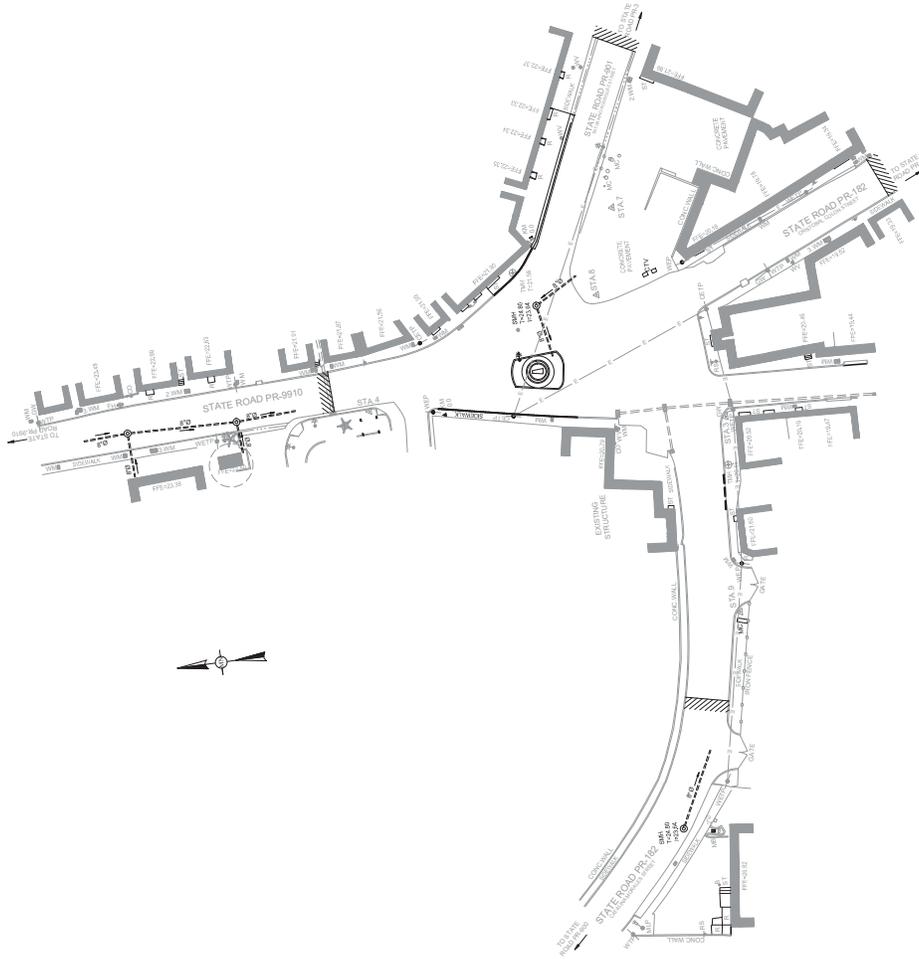


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CHECK	
FINAL CHECK	

ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	66	93

**LEGEND**

- CHAIN LINK FENCE
- IRON FENCE
- RAILWAY UNDERGROUND
- CONCRETE UNDERGROUND
- UNDERGROUND PIPE
- PALM TREE
- TRIE
- VEGETATION
- ISLAND
- LAMP
- WOOD ELECTRIC POLE
- WOOD TELEPHONE POLE
- WOOD ELECTRIC
- WOOD TELEPHONE
- CONCRETE ELECTRIC TELEPHONE POLE
- UTILITY WIRE
- KILOMETER
- CURB CUT
- WATER VALVE
- ROAD SIGN
- CONCRETE CURB
- STOP OR STEPS
- CONCRETE RAIL
- MAILBOX
- SPOT ELEVATION
- FINISHED FLOOR ELEVATION
- CATCHBAY
- SEWER
- SEWER MANHOLE
- SEWER MANHOLE
- CLOSURE
- FULL OF WATER
- MANHOLE
- EXISTING STRUCTURE



PROJECT - ROUNDABOUT PR-3 INT. PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT. PR-9910 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS

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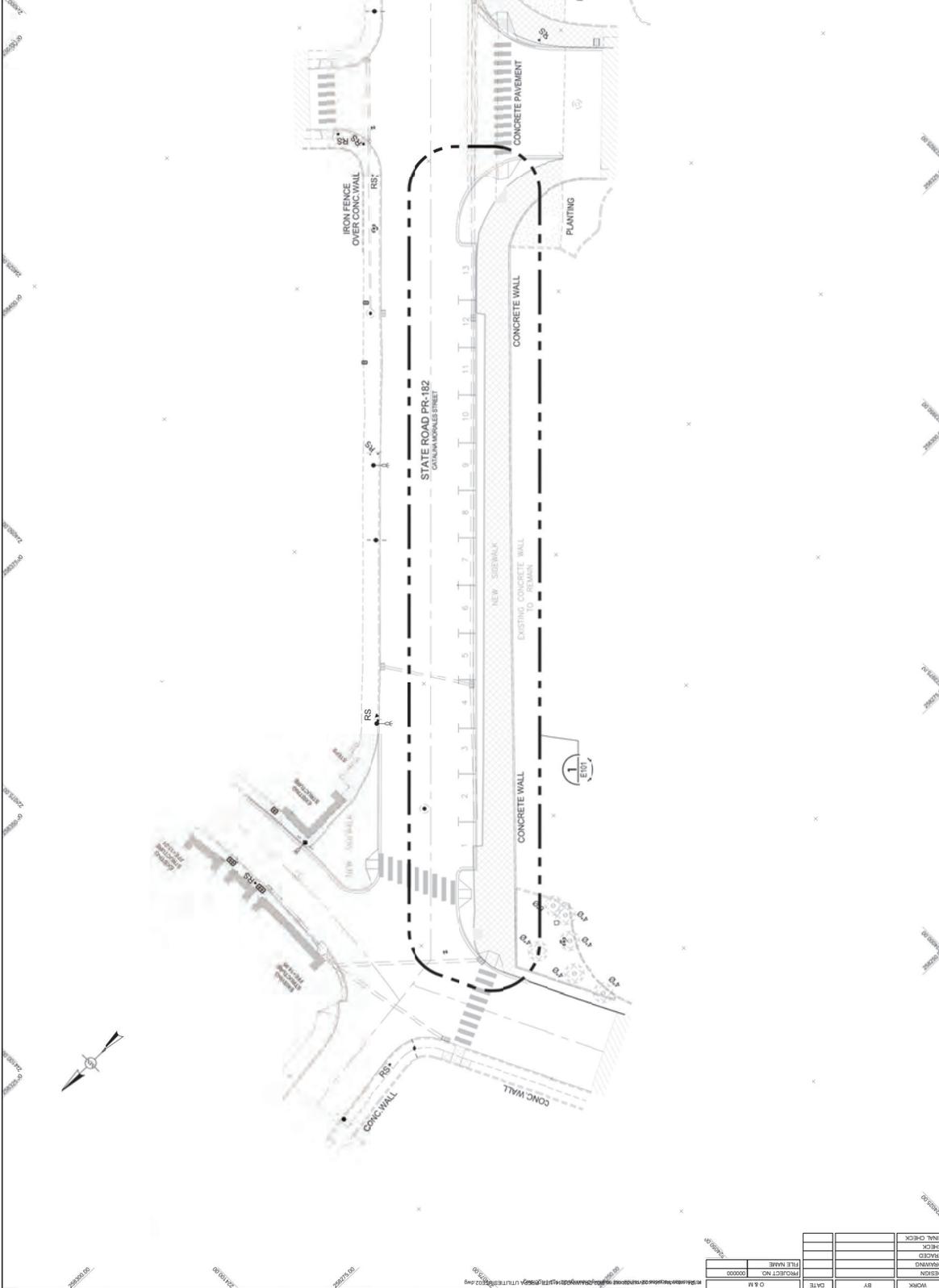


EXISTING PRASA SANITARY UTILITIES

DATE	
PROJECT NO.	00000
FILE NAME	
DESIGN	
DRAWING	
TRACED	
CHECK	
FINAL CHECK	

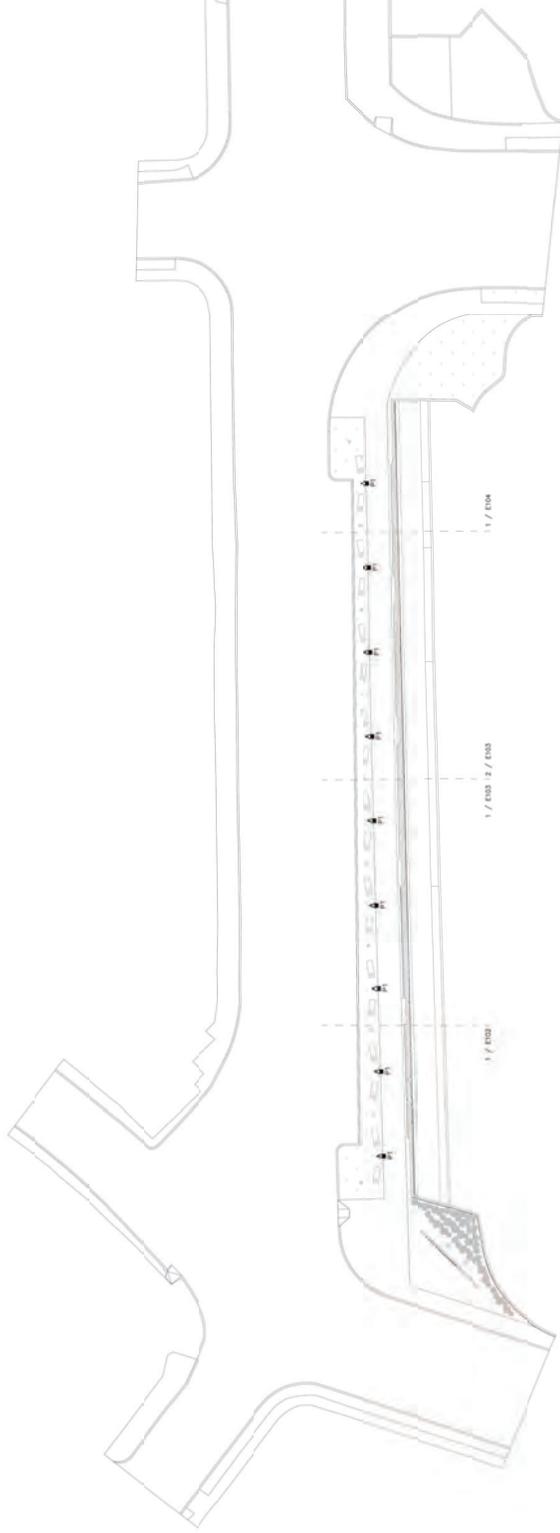


ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	00	03



	<b>PROJECT - ROUNDABOUT PR-3 INT. PR-901 AND PR-907</b> <b>ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-907 AND PR-910 /</b> <b>CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.</b>		REVISIONS #1 #2 #3	DATE #1 #2	 O & M Consulting Engineering, P.S.C. Main Office: Park #11 Street #13 Guaynabo, Puerto Rico 00968 Tel: (939) 228-1101 - Fax: (939) 228-1107	SCALE = 1:500 	UTE PR-182 INT. PR-907 AND 9910 CATELINA MORALES STREET	02
	DESIGN DRAWING CHECK FINAL CHECK	DATE BY	PROJECT NO. 000000	FILE NAME	O & M			

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	69	93



**1** LEVEL 01 - LIGHTING PLAN  
SCALE: 3/8" = 1'-0"

DATE	BY	WORK	DESIGN	DRAWING	TRACED	CHECK	FINAL CHECK
PROJECT NO.	00000						
TITLE NAME							

**LUMINAIRE SCHEDULE:**

SYMBOL	DESCRIPTION	LMPS	MANUFACTURER
L1	4'-0" INTEGRAL SOLAR POWERED LED LINEAR FIXTURE	20W/2000 LUMENS 4000K LED	SOLTECH STL-TR-324-10M-48
L1T	4'-0" INTEGRAL SOLAR POWERED LED LINEAR FIXTURE	20W/2000 LUMENS 4000K LED	SOLTECH STL-TR-324-10M-48
L2	2'-0" INTEGRAL SOLAR POWERED LED LINEAR FIXTURE	10W/1000 LUMENS 4000K LED	SOLTECH STL-TR-164-10M-24
P1	POLE MOUNTED INTEGRAL SOLAR POWERED EXPOSURE ONLY 30' 0" ROUND STRAIGHT ALUMINUM POLE	80W/8000 LUMENS 4000K LED	GREENBAY SYSTEMS (STEALTH) 05-STEALTH-1105



PROJECT - ROUNDABOUT PR-3 INT., PR-901  
ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-910 /  
CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE	REVISIONS
##	##

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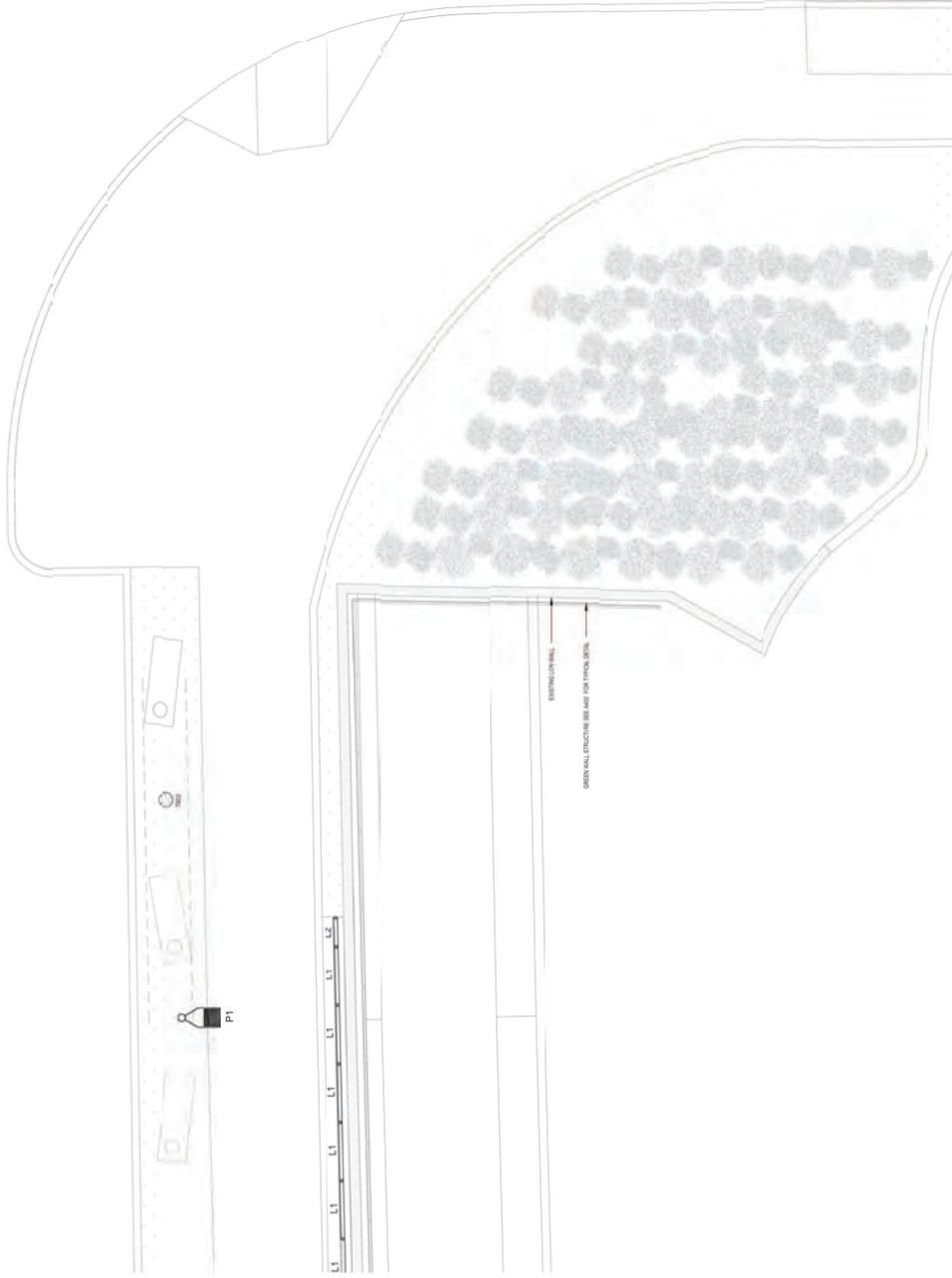
LIGHTING PLAN

UTE 03





ROADWAY PLAN	MUNICIPALITY	ISSUE YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	2022	72	93



1 LEVEL 04 - PROPOSED SIDEWALK SECTION 4 LIGHTING PLAN  
SCALE: 1/8" = 1'-0"



PROJECT - ROUNDABOUT PR-3 INT, PR-901  
ROUNDABOUT PR-3 INT, PR-909 AND PR-910 / ROUNDABOUT PR-182 INT, PR-907 AND PR-910 /  
CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

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 Guaynabo, Puerto Rico 00968  
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SCALE AS SHOWN

PROPOSED SIDEWALK  
SECTION 4 LIGHTING

UTE  
06

DESIGN	DATE	BY	WORK
DRAWING			
PROJECT NO.			
FILE NAME			
PROJECT NO.			
DATE			





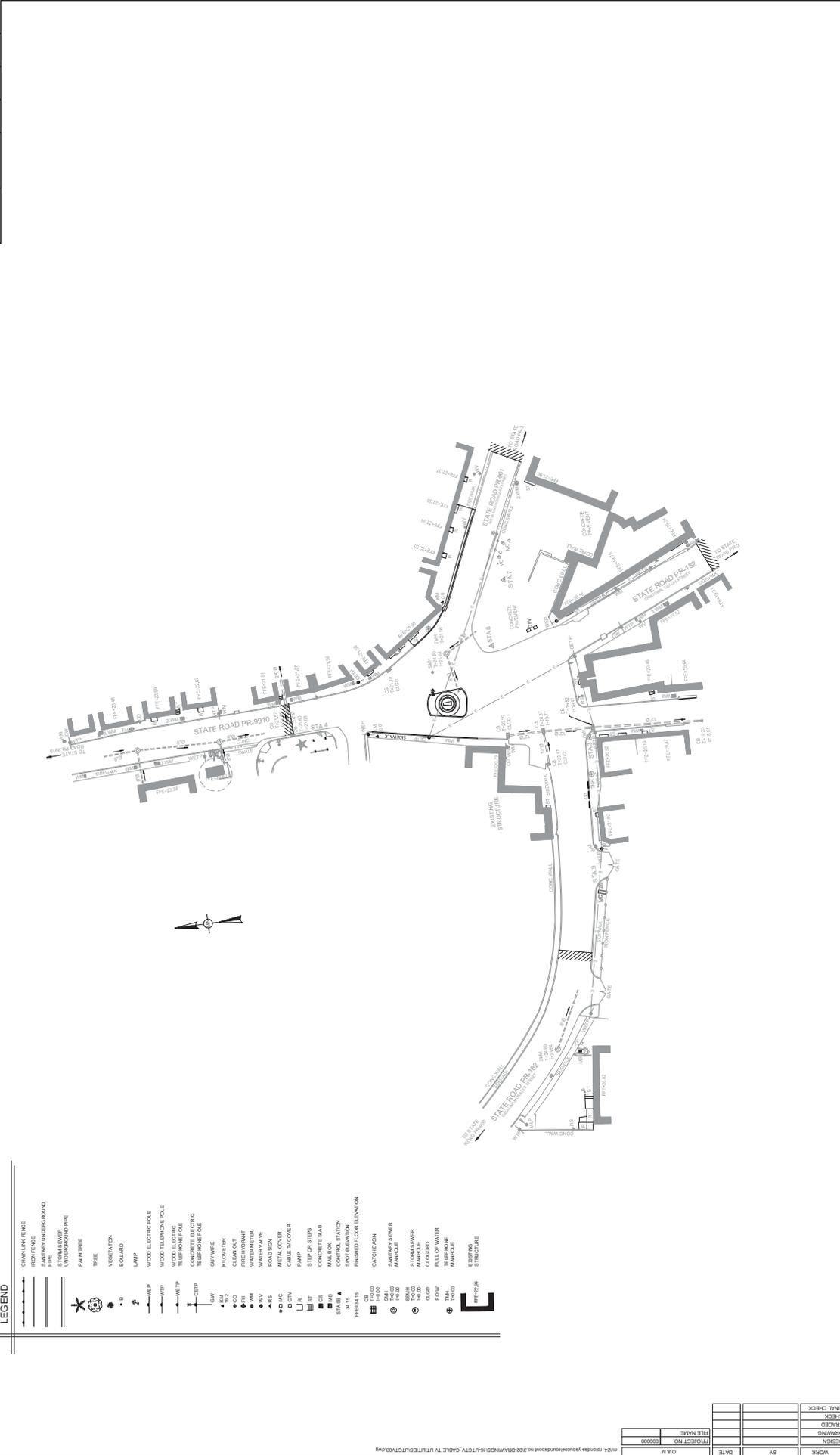








HERNANDEZ	YABUCCO	2022	1
PR	YABUCCO	2022	1
Yabucoa	YABUCCO	2022	1



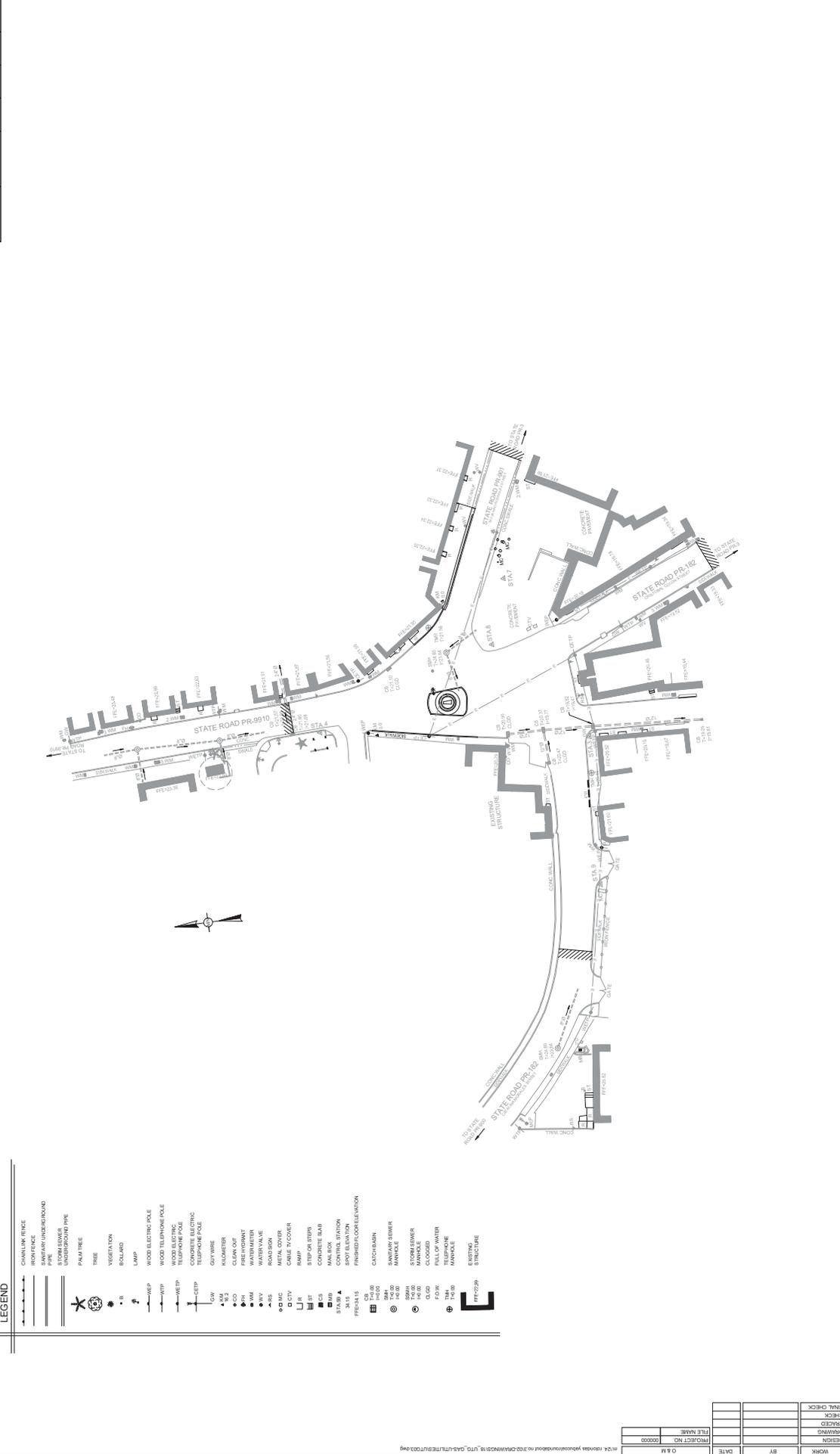
DESIGN	WORK	DATE	BY
PROJECT NO.	FILE NAME	DATE	BY
00000	UTCTV		
03	UTCTV		


**YABUCCO**  
 CONSULTING ENGINEERING, P.S.C.  
 1100 Office Park #11, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 226-1101 - Fax: (939) 226-1107

PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCO, P.R.  
 SCALE AS SHOWN  
 EXISTING CABLE TV UTILITIES  
 UTCTV 03



HERNANDEZ P.R.	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022		



**LEGEND**

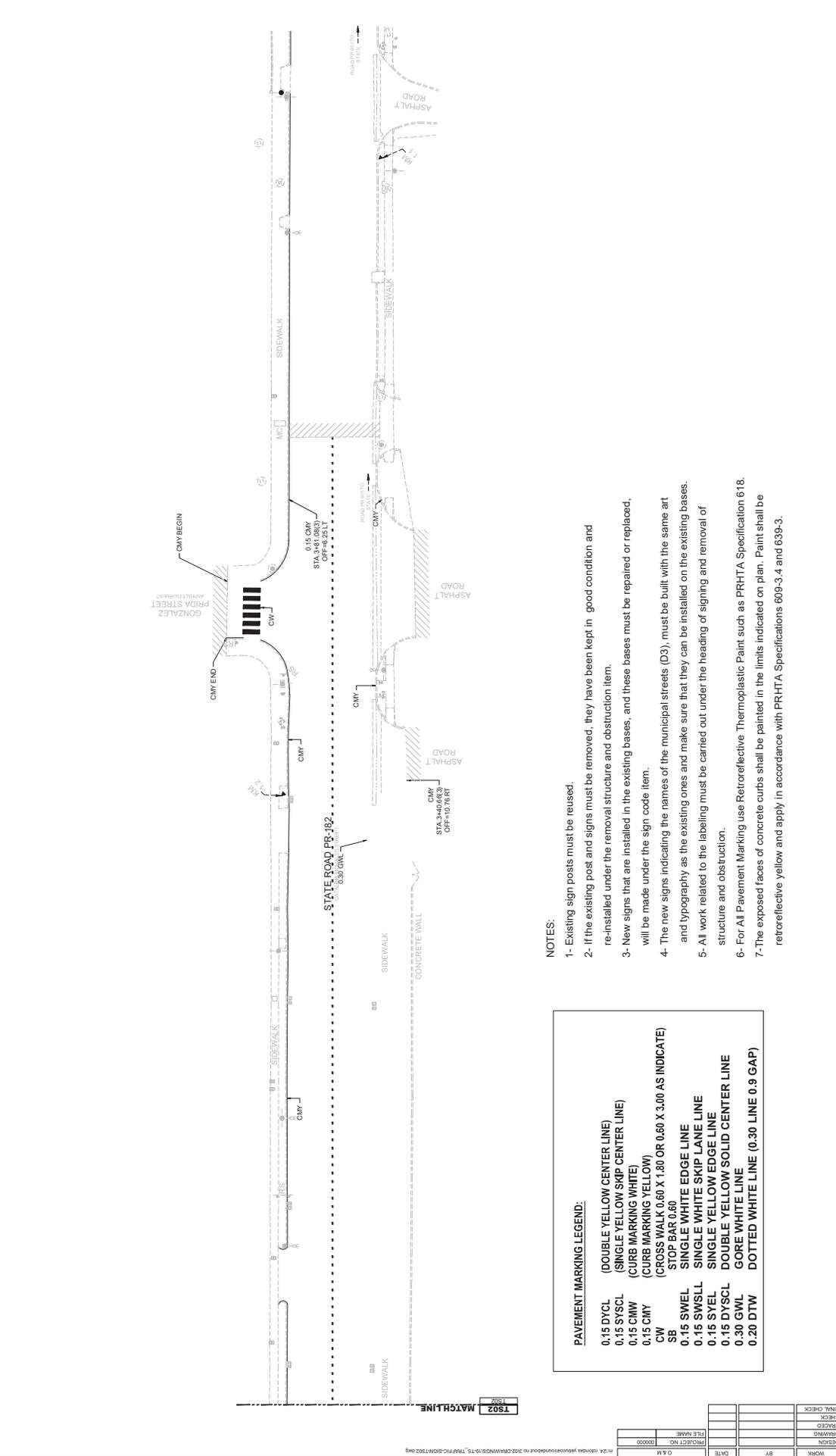
- CHAINLINK FENCE
- IRON FENCE
- BANKWAY UNDERGROUND
- CONCRETE UNDERGROUND
- UNDERGROUND PIPE
- PALM TREE
- TRIE
- VEGETATION
- ISLAND
- LAMP
- WOOD ELECTRIC POLE
- WOOD TELEPHONE POLE
- WOOD ELECTRIC
- WOOD TELEPHONE
- CONCRETE ELECTRIC TELEPHONE POLE
- UTILITY WIRE
- KILOMETER
- CURB CUT
- WATER VALVE
- ROAD SIGN
- CONCRETE CURB
- STOP OR STEPS
- CONCRETE BAR
- MAILBOX
- SPOT ELEVATION
- FINISHED FLOOR ELEVATION
- CATCHBAY
- BANKWAY SEWER
- SEWER MANHOLE
- WATER MANHOLE
- CLOSURE
- FULL OF WATER
- MANHOLE
- EXISTING STRUCTURE

<b>YABUCCA</b>	<b>ROUNDABOUT PR-3 INT., PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.</b>	<b>EXISTING GAS UTILITIES</b>	<b>UTG 03</b>
<small>PROYECTO - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 Y PR-9910 / CALLE CATELINA MORALES REHABILITACION, MUNICIPALIDAD DE YABUCCA, P.R.</small>			
<small>SCALE AS SHOWN</small>			
<small>REVISIONS</small>			
DATE	#	#	#
<small>O &amp; M Consulting Engineering, P.S.C.          Main Office: Park #11 Street #13, Guaynabo, Puerto Rico 00968          Tel: (939) 228-1101 - Fax: (939) 228-1107</small>			



ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022		

DATE	BY	WORK	DESIGN	DRAWING	TRACED	CHECK	FINAL CHECK



- PAVEMENT MARKING LEGEND:**
- 0.15 DYCL (DOUBLE YELLOW CENTER LINE)
  - 0.15 DYSSL (SINGLE YELLOW SKIP CENTER LINE)
  - 0.15 CMW (CURB MARKING WHITE)
  - 0.15 CMY (CURB MARKING YELLOW)
  - CW (GROSS WALK 0.60 X 1.60 OR 0.60 X 3.00 AS INDICATE)
  - SB (STOP BAR 0.60)
  - 0.15 SWEL (SINGLE WHITE EDGE LINE)
  - 0.15 SWSLL (SINGLE WHITE SKIP LANE LINE)
  - 0.15 SYEL (SINGLE YELLOW EDGE LINE)
  - 0.15 DYSSL (DOUBLE YELLOW SOLID CENTER LINE)
  - 0.30 GWL (GORE WHITE LINE)
  - 0.20 DTW (DOTTED WHITE LINE (0.30 LINE 0.9 GAP))

- NOTES:**
- 1- Existing sign posts must be reused.
  - 2- If the existing post and signs must be removed, they have been kept in good condition and re-installed under the removal structure and obstruction item.
  - 3- New signs that are installed in the existing bases, and these bases must be repaired or replaced, will be made under the sign code item.
  - 4- The new signs indicating the names of the municipal streets (D3), must be built with the same art and typography as the existing ones and make sure that they can be installed on the existing bases.
  - 5- All work related to the labeling must be carried out under the heading of signing and removal of structure and obstruction.
  - 6- For All Pavement Marking use Retroreflective Thermoplastic Paint such as PRHTA Specification 618.
  - 7- The exposed faces of concrete curbs shall be painted in the limits indicated on plan. Paint shall be retroreflective yellow and apply in accordance with PRHTA Specifications 609-3.4 and 639-3.

PROJECT - ROUNDABOUT PR-3 INT, PR-901 AND PR-909 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

TRAFFIC SIGNS

TS

02

DATE

REVISIONS

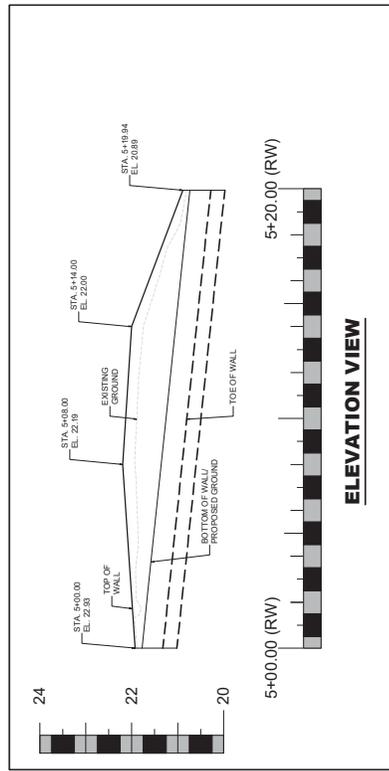
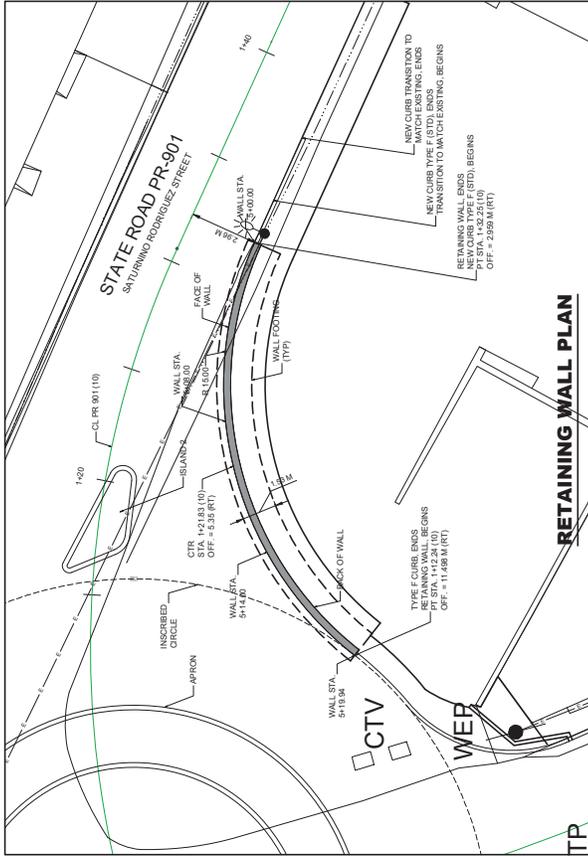
#	DATE	REVISIONS

O & M Consulting Engineering, P.S.C.  
 1000 Office Park #11, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (939) 229-1101 - Fax: (939) 229-1107



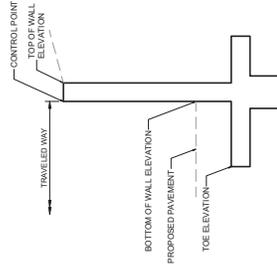


PROJECT NO.	2022	SHEET NO.	80	TOTAL SHEETS	93
DATE	2022	YEAR	2022	NO.	80
MUNICIPALITY	YABUCCA	P.R.			
ISLAND	P.R.				
PROJECT NAME	Yabucca				



### RETAINING WALL ELEVATION TABLE

WALL STA.	STATION CL PR 901	OFFSET CL PR 901	ELEVATION TOP OF WALL	ELEVATION BOTTOM WALL	ELEVATION TOE
5+00.00	1+32.25(10)	2.96 M	22.93	21.77	21.32
5+06.00	1+23.87(10)	4.56 M	22.19	21.36	21.91
5+14.00	1+17.76(10)	7.428 M	22.00	21.05	20.60
5+19.94	1+12.24(10)	11.468 M	20.89	20.73	20.28



### RETAINING WALL SECTION



PROJECT: ROUNDABOUT PR-3 INT, PR-901 AND PR-9910 / ROUNDABOUT PR-3 INT, PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-9901 AND PR-9910 / CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

DATE: \_\_\_\_\_ REVISIONS: \_\_\_\_\_

**M** O & M Consulting Engineering, P.S.C.  
 Main Office: Suite #111, Street #1, Suite #113  
 Guayanabo, Puerto Rico 00968  
 Tel: (939) 228-1101 - Fax: (939) 228-1107

RETAINING WALLS

RW 01

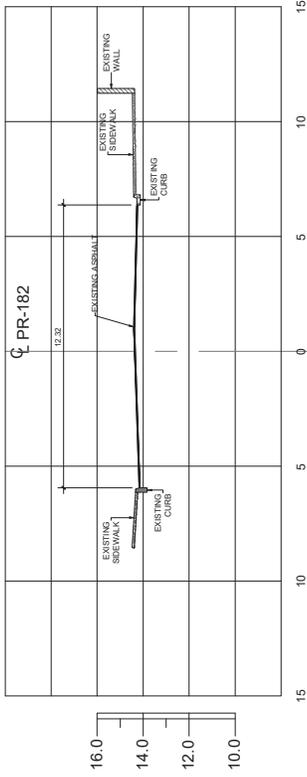
DATE	
PROJECT NO.	00000
FILE NAME	
DRAWING	
TRACED	
CHECK	
FINAL CHECK	





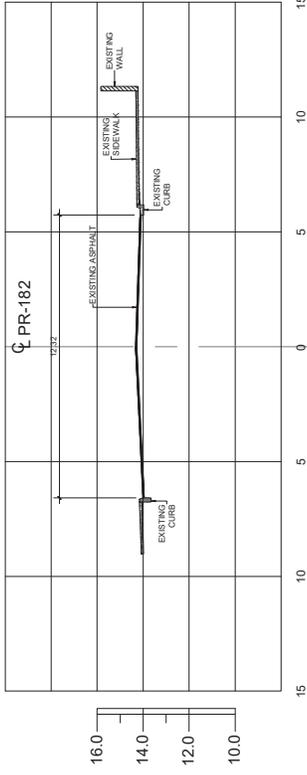


ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCCA	P.R.	2022	90	93



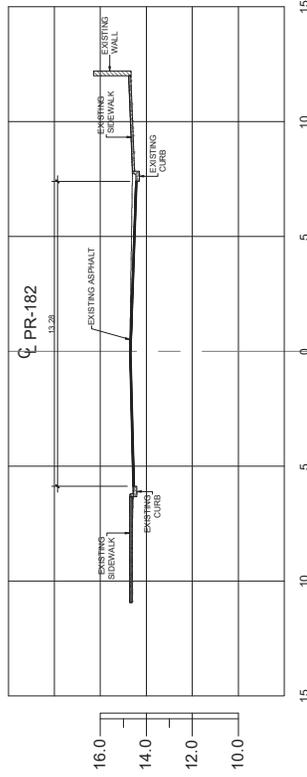
DATUM ELEV. = 6.00

LINE-1 STA 1+80.00



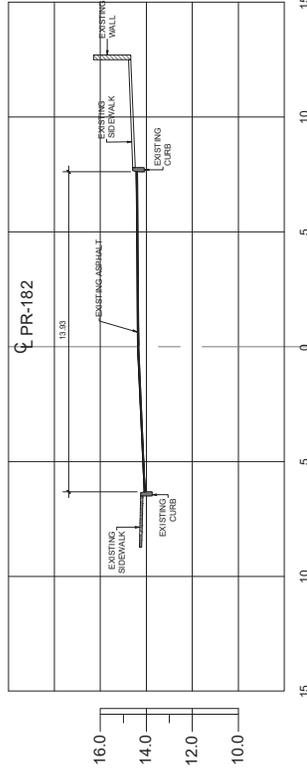
DATUM ELEV. = 6.00

LINE-1 STA 3+20.00



DATUM ELEV. = 6.00

LINE-1 STA 1+20.00



DATUM ELEV. = 6.00

LINE-1 STA 2+00.00

DATE	BT	WORK
PROJECT NO.	00000	
FILE NAME		
DRAWING		
TRACED		
CHECK		
FINAL CHECK		



PROJECT - ROUNDABOUT PR-3 INT. PR-901  
 ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-910 /  
 CADELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCCA, P.R.

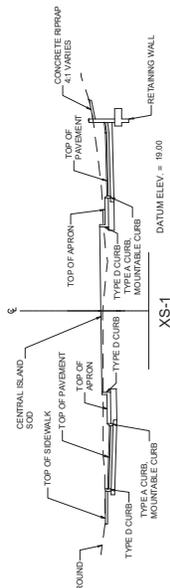
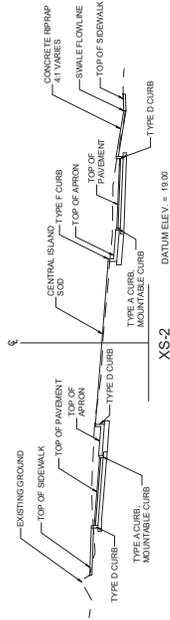
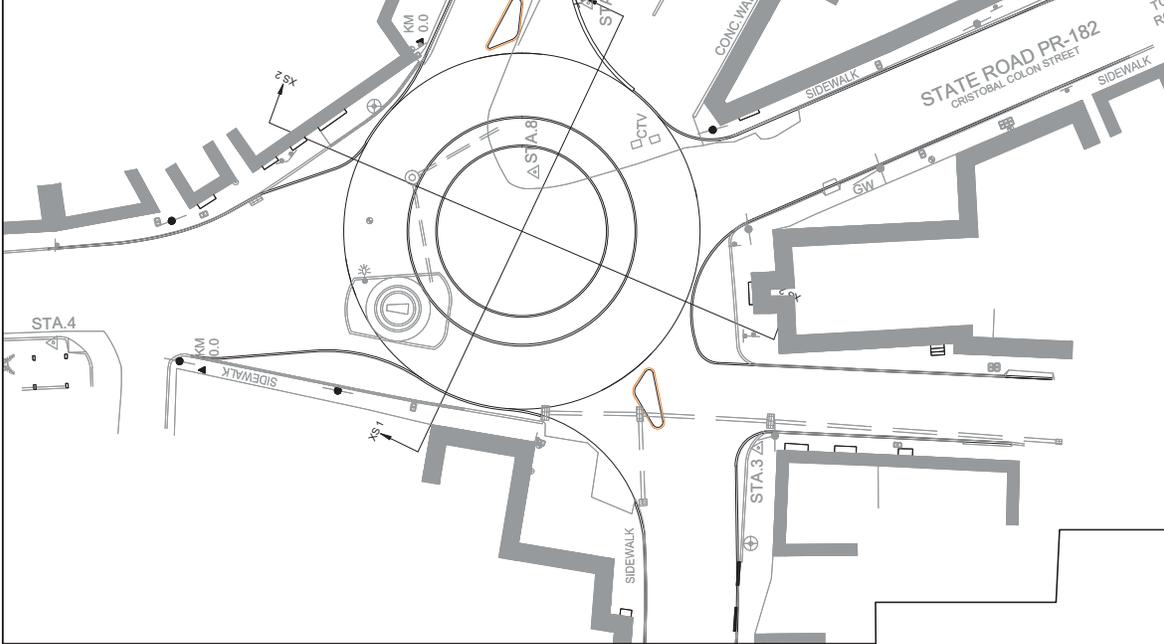


SCALE AS SHOWN

CROSS SECTIONS STA. 1+20.00(3)  
 TO STA. 3+20.00(3)

CS 02

ROADWAY PLAN	MUNICIPALITY	ISLAND	PROJECT YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	91	93

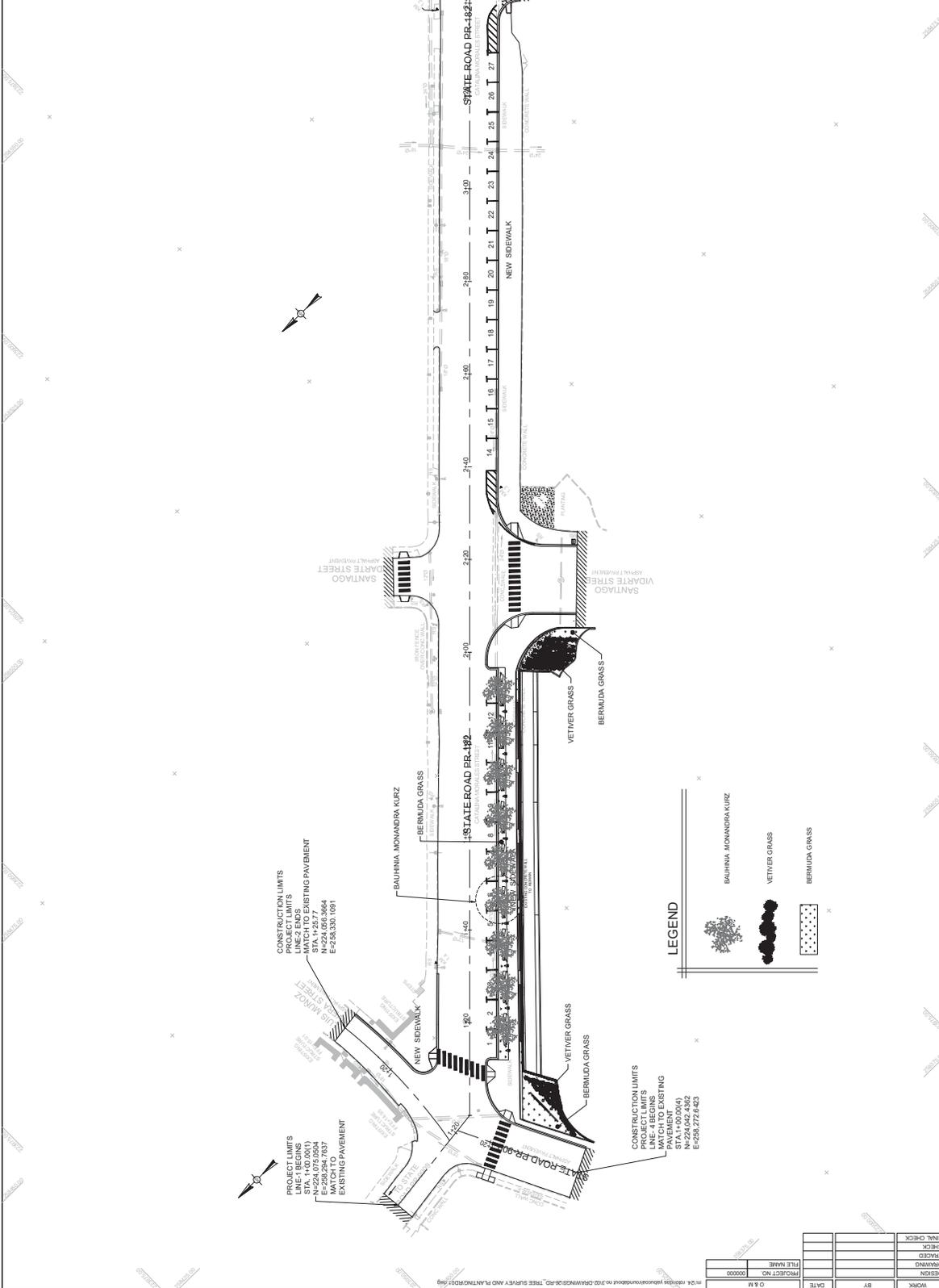


DESIGN	DRAWING	CHECK	DATE	PROJECT NO. 00000	FILE NAME	REVISIONS		DATE	D & M Consulting Engineering, P.S.C. Main Office: Park #11, Street #1, Scale #13 Guaynabo, Puerto Rico 00968 Tel: (939) 229-1101 - Fax: (939) 229-1107	SCALE = 1:200	CS	03
						CROSS SECTION						



PROJECT - ROUNDABOUT PR-3 INT., PR-901  
 ROUNDABOUT PR-3 INT., PR-909 AND PR-910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-910 /  
 CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

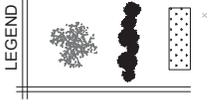
HERNANDEZ	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	02	03



CONSTRUCTION LIMITS  
 LINE-2 ENDS  
 MATCH TO EXISTING PAVEMENT  
 STA. 1+00.00(1)  
 STA. 1+00.00(2)  
 E-258.294.7637  
 E-258.294.7637  
 E-258.330.1091

CONSTRUCTION LIMITS  
 LINE-4 BEGINS  
 MATCH TO EXISTING PAVEMENT  
 STA. 1+00.00(4)  
 STA. 1+00.00(4)  
 E-258.272.6423

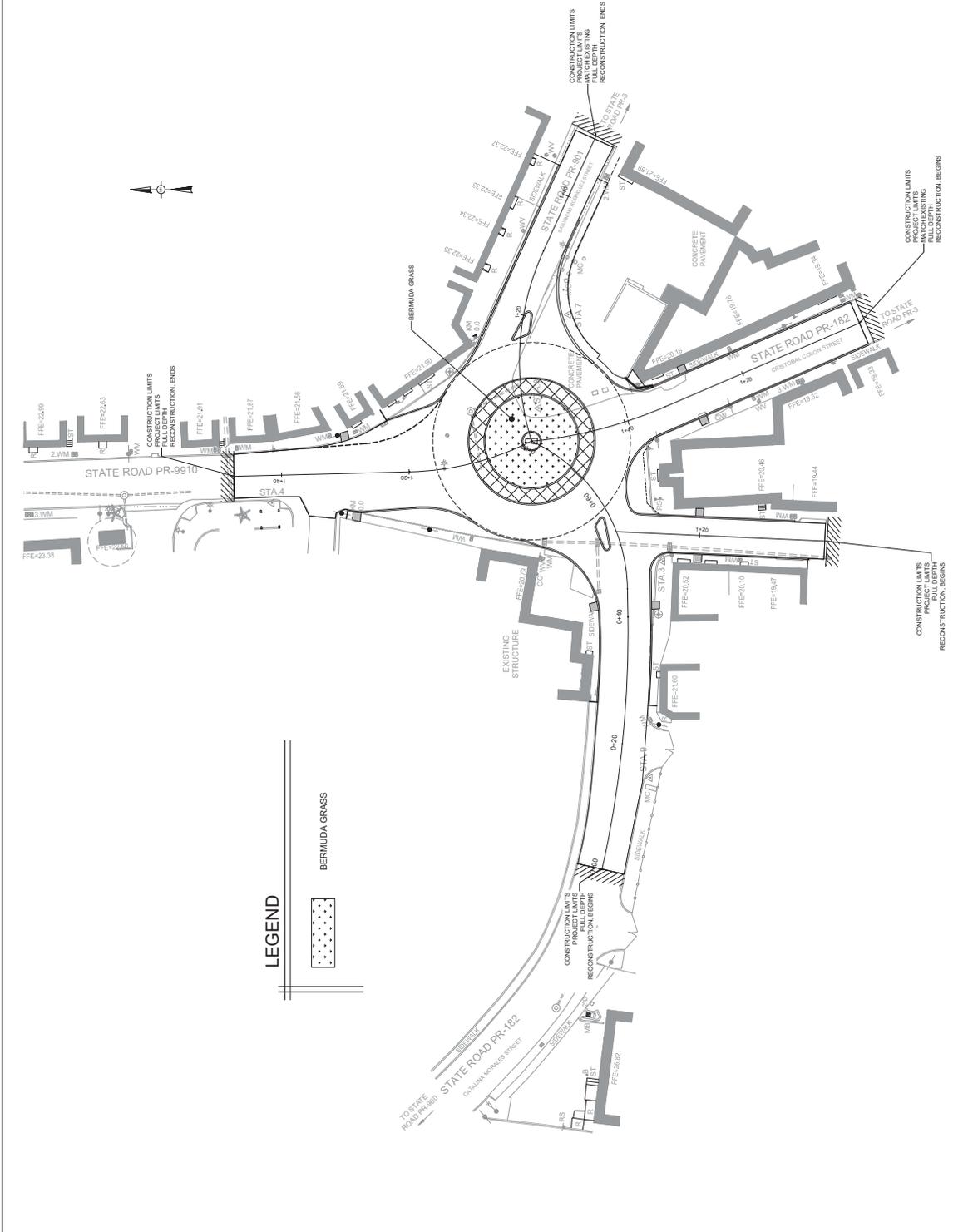
CONSTRUCTION LIMITS  
 LINE-2 ENDS  
 MATCH TO EXISTING PAVEMENT  
 STA. 1+00.00(1)  
 STA. 1+00.00(2)  
 E-258.294.7637  
 E-258.294.7637  
 E-258.330.1091



DESIGN	DATE	REVISIONS	 O & M Consulting Engineering, P.S.C. Main Office: Park #11 Street #13 Guaynabo, Puerto Rico 00968 Tel: (939) 229-1101 - Fax: (939) 229-1107	RD 01
	WORK	DATE		
GRAPHING	FILE NAME	PROJECT NO.	PROJECT - ROUNDABOUT PR-3 INT., PR-901 AND PR-9910 / ROUNDABOUT PR-182 INT., PR-901 AND PR-9910 / CATELINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.	
TRACED	DATE	DATE	SCALE: 1" = 200' 0' 10' 20' 30' 40' 50' 60' 70' 80' 90' 100'	
FINAL CHECK	DATE	DATE	PROJECT NO. 00000	



ROADWAY PLAN	MUNICIPALITY	ISLAND	YEAR	SHEET NO.	TOTAL SHEETS
Yabucoa	YABUCOA	P.R.	2022	09	09



DATE	BY	WORK

PROJECT NO.	00000
FILE NAME	
DESIGN	
DRAWING	
TRACED	
FINAL CHECK	

DATE	REVISIONS
##	##
##	##

PROJECT - ROUNDABOUT PR-3 INT, PR-901  
 ROUNDABOUT PR-3 INT, PR-9909 AND PR-9910 / ROUNDABOUT PR-182 INT, PR-901 AND PR-9910 /  
 CATALINA MORALES STREET REHABILITATION, MUNICIPALITY OF YABUCOA, P.R.

LogoYabucoa.png

O & M Consulting Engineering, P.S.C.  
 Main Office: Suite 411, Street 1, Suite 113  
 Guaynabo, Puerto Rico 00968  
 Tel: (609) 225-1101 - Fax: (609) 225-1107

SCALE	1:200
RD	02

TREE SURVEY AND PLANTING