#### UNIVERSITY OF PUERTO RICO CENTRAL ADMINISTRATION NOTICE OF REQUEST FOR PROPOSAL RFP #DRO 24-020 / B00013 **DESIGN AND SUPERVISION SERVICES**

#### Timeline:

RFP publication date:

November 17, 2023.

Site visit (Not Compulsory)

November 28, 2023, Time: 10:00 am

Location: At the Lobby of the Central Building. Coordinates of

site visit (18.499596, -66.741256).

Parking will be available. The security award booth at the entrance will direct you to the designated parking location.

**Deadline for Request** 

for Information by email:

December 13, 2023, Time: on or before 4:30pm.

**Response for Request** 

for Information by email:

December 20 2023, Time: on or before 4:30pm.

The proposal must be submitted by email on or before 11:59pm (AST) on January 9, 2024. Address the indicated contacts in Section II (Mr. Julio Collazo Rivera, attention to Eng. Carlos Hiraldo). The University of Puerto Rico (UPR) will accept offers via email in digital PDF format at <u>uprrecovery.rfp@upr.edu</u>.

The UPR is working towards its recovery, which requires the issuance of this Request for Oficina de Proposal for Design and Supervision Services for the UPR Recovery Project B00013-DRO-Desarrollo 11-2023-ARE- Reconditioning of the site mechanical system, electric power system infraestructura and 16 buildings and/or structures at UPR Arecibo Campus. The purpose of this RFP is to request and receive proposals from qualified Architecture and Engineering firms for the development of all design documents: Basis of Design, detail design, specifications, cost estimates, schedules, scopes of work, bidding phase, and other required documentation for the compliance of the requirements of FEMA and PRDOH/CDBG-DR Non-Federal Match Program. The awarded firm or professional will also provide services of oversight and coordination for the execution of a complete comprehensive project.

The project will be on Arecibo's Campus and is divided into 4 projects which contain a total of 19 sites, buildings and/or structures DI's. Review and verification through the site area of FEMA's Scope of Work (SOW) and the proposed strategy is required, as well as the development of a detailed SOW (based exclusively in the FEMA SOW of hurricane damages provided) with current industry construction costs for the repair, and in compliance with applicable actual codes and regulations. The project considers several construction tasks that will restore the facilities to their pre-disaster design, function, and capacity, including mitigation tasks as recommended by FEMA. All work to be performed must be within the existing footprint. Some works include mitigation measures and code compliance measures as recommended by FEMA in the respective scope of work for each building. Due to the building's year of construction, it may be necessary lead or asbestos abatement.

The UPR is an equal opportunity employer and does not discriminate as to sex, gender or sexual identity, race, age, national origin, religious creed, civil status, war veterans, handicap or disable status. The UPR reserves the right to reject any or all proposals and to Jardín Botánico Sur award the auction under the conditions it deems most convenient to the interests of the UPR, regardless of the amount of the bids or to cancel the auction award at any time 00926-1117 before the contract is signed.

1187 Calle Flamboyán San Juan PR Tel. 787-250-0000 Fax 787-250-6568

Nov 15, 2023 08:02 AST) Julio A. Collazo Rivera, Director

#### **REQUEST FOR PROPOSALS FOR:**

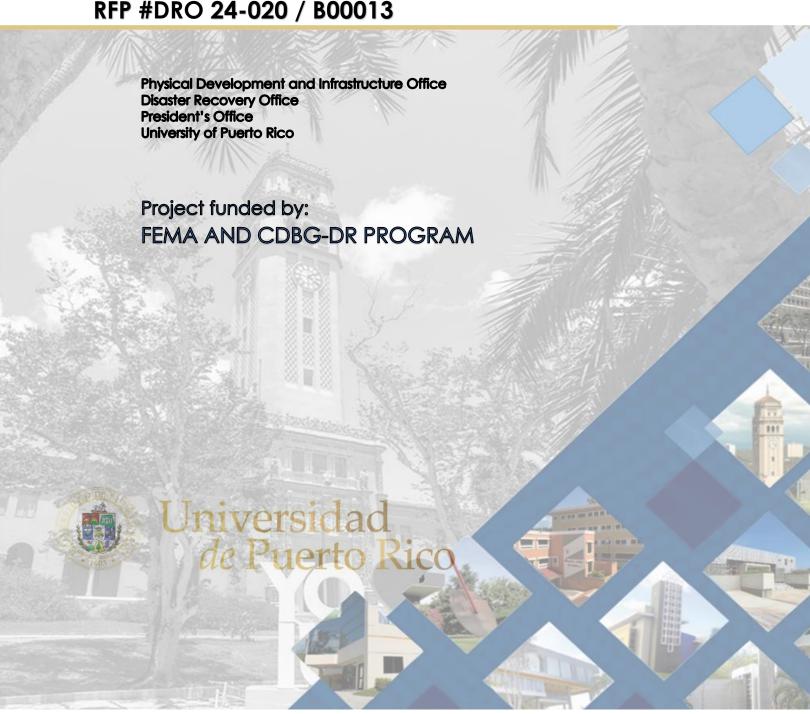
#### **DESING AND SUPERVISION SERVICES FOR**

Project Number: B00013-DRO-11-2023-ARE

Project Title: RECONDITIONING OF THE SITE, MECHANICAL SYSTEM SITE, ELECTRIC POWER SYSTEM SITE AND 16 BUILDINGS

AND/OR STRUCTURES AT UPR ARECIBO CAMPUS

RFP #DRO 24-020 / B00013



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#### 1. BACKGROUND AND PURPOSE

The University of Puerto Rico (the "UPR") is a public corporation of the Government of Puerto Rico, organized by Act No. 1 of January 20, 1966, as amended, known as "Ley de la Universidad de Puerto Rico" (the "UPR Act"), 18 LPRA § 601 et seq, and a higher education institution. The UPR was severely devastated by Hurricane María, and as a result, is a subrecipient of the Puerto Rico Department of Housing (the "PRDOH"), under the CDBG-DR Non- Federal Match Program, and the Public Assistance Program of the Federal Emergency Management Agency (the "FEMA").

The UPR is working towards its recovery, which requires the issuance of this Request for Proposal (the "RFP") for Design and Supervision Services for the UPR Recovery Project: B00013-DRO-11-2023-ARE-Reconditioning of the Site, mechanical system site, electric power system site and 16 buildings and/or structures at UPR Arecibo Campus, ("The Project"). This Program is 90% (\$1,121,846,379.23) funded by FEMA and 10% (\$120,018,711.32) matching funds of CDBG-DR Non-Federal Match Program. The purpose of this RFP is to request and receive proposals from qualified Architecture and Engineering firms for the development of all design documents: Basis of Design, detail design, specifications, cost estimates, schedules, scopes of work, and bidding phase and other required documentation for the compliance of the requirements of FEMA and PRDOH/CDBG-DR Non-Federal Match Program. The awarded firm or professional will also provide services of oversight and coordination for the execution of a complete comprehensive project.

Proponents must explain in detail how they will be able to provide the required services and achieve the expected results, while in compliance with FEMA and PRDOH/CDBG-DR Non-Federal Match Program requirements. Previous experience with projects subject to compliance requirements under FEMA and PRDOH/CDBG-DR Non-Federal Match Program is very important. Review and verification through the site area of FEMA's Scope of Work (the "SOW") is required, as well as the development of a detailed SOW (based exclusively in the FEMA SOW of hurricane damages provided) with current industry construction costs for the repair in compliance with applicable actual codes and regulations. In addition, proponents shall provide the percent fee applicable for any future additional scope or scope change required for reinstate facility to normal functional operation.

The awarded proponent shall comply with all applicable Federal, state, and local laws, rules, regulations, and policies relating to FEMA Public Assistance Program and PRDOH CDBG-DR Program services. This includes without limitation, applicable Federal Registers; 2 C.F.R. part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards; Community Development Act of 1974; 24 C.F.R. part 570 Community Development Block Grant; applicable waivers; Fair Housing Act, 24 C.F.R. § 35, 24 C.F.R. part 58, 24 C.F.R. part 135; National Historic Preservation Act; 2 C.F.R. part 200.101, where applicable, and any other applicable state laws or regulations, including the requirements related to nondiscrimination, labor standards, and the environment; and Action Plan amendments and HUD's guidance on the funds. Click on link to see Compliance with Federal Law, Regulations and Executive Orders.

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#### 2. CONTACT AND TIMELINE

The RFP shall be sent and addressed to:

**Mr. Julio Collazo Rivera, Director**Office of Physical Development & Infrastructure

Attention to:

Eng. Alejandro Argüelles, Director Eng. Carlos Hiraldo, Field Operation Manager's Disaster Recovery Office

University of Puerto Rico Jardín Botánico Sur 1187, calle Flamboyán Río Piedras, Puerto Rico 00926-1117 Tel. (787) 250-0000, Ext. 5099

E-mail: uprrecovery.rfp@upr.edu

**NOTICE**: Be advised that interested proponents must register receipt of this RFP at <u>uprrecovery.rfp@upr.edu</u> to qualify for receiving the following:

- Notice of changes or cancelation of the RFP;
- Responses to questions or clarifications made to interested proponents; and.
- Notice of award of the proposal.

#### 3. TIMELINE AND SUBMISSION DATE

Description	Date
RFP publication	November 17, 2023.
Site Visit (Not compulsory): Location: At the Lobby of the Central Building. Coordinates of site visit (18.499596, -66.741256). Parking will be available. The security guard booth at the entrance will direct you to the designated parking location. Be advised that interested proponents must register via email. Please provide the complete company name, representative's name and email.	November 28, 2023 Time: 10:00am
Deadline for Request for Information (RFI) by email	December 13, 2023, Time: on or before 4:30pm Atlantic Standard Time (AST)
Response for Request for Information by email	December 20, 2023, Time: on or before 4:30pm Atlantic Standard Time (AST)
The proposal must be submitted by email. Address the indicated contacts in Section 2 – CONTACT (Mr. Julio Collazo Rivera, Attention to Eng. Carlos Hiraldo and Eng. Eliezer Collazo)	January 9, 2023, Time: on or before 11:59pm Atlantic Standard Time (AST).
Award Notification	January 2024
Execution of Agreement	February 2024

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The proposal must be compiled in digital PDF format. The dates may be subject to change at the discretion of the UPR. Interested proponents have the responsibility of verifying and checking the email from which they issued a notice of receipt of this RFP, as was indicated in Section 2 of this RFP. All official communication related to this RFP will be per that indication. The award notice of this proposal shall not constitute the formal agreement between the parties.

#### 4. PROJECT DESCRIPTION [AP1][2]

The project will impact the site, mechanical system, electric power system and sixteen buildings and/or structures at UPR Arecibo Campus. The campus project will be divided in four Projects. The first project will include the site 444 "Site", mechanical site M-444 "Site Mecánico" and electric Site E-444 "Site Eléctrico". The second project will include seven (7) buildings, Building 013 "Anexo B", Building 012 "Anexo A", Building 014 "Anexo C", Building 004 "Actividades Atléticas", Building 015 "DECEP" and Building 011 "Centro Pre-escolar". The third project will include five (4) buildings, Building 023 "Ala Sur", Building 025 "Ala Oeste", Building 030 "Laboratorios de enfermeria y auditorio", Building 034 "Taller de mantenimiento". The fourth a last project will include five (5) buildings Building 001 "Biblioteca", Building 003 "Almacen de quimicos", Building 026 "Centro de Estudiantes", Building 027 "Departamento de Educación" and Building 029 "Enfermería" of the University of Puerto Rico at Arecibo on the respective scope of work, as stated by FEMA.

- a. **Alignment of Scope** for submission to COR3 and FEMA for the compliance of the requirements of FEMA and PRDOH/CDBG-DR Non-Federal Match Program, that might consider the following strategies:
  - Improved Project or Scope of Work Alignment for the compliance of the requirements for approval of FEMA, as applicable.
  - Should be considered in the initial design phase (Schematic) to evaluate the scope with the owner and define the SOW to develop the design, which could require alignment of the scope or an improved project. Refer to Appendix G for the FEMA requirements and checklist for submission of alternatives procedures (share funds, alternate projects, improved projects).
- b. **Design Services** which include, but may not be limited to:
  - Visit and identify the FEMA damages (as per SOW Appendix)
  - Validation of the strategy with the owner (UPR ORD & UPR Campus)
  - o As Built
  - Design (schematic, design development, construction documents), technical specifications, cost estimates, schedules, and bidding phase assistance.)
  - Infrastructure, safety, energy efficiency and technology measures in accordance with the hazard mitigation scope
  - o Abatement for lead and asbestos materials
  - Endorsements and Permits
  - Technical Studies as Additional Services (detailed or described the possibles)

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- Field Supervision
- o Other services required related to design and supervision services.
- c. Development of the Logistic Plan for the Design, Permits, Bid packages and Construction Execution phases in relation to the approved budgets and schedule. The purpose of this plan is to coordinate activities with the UPR Arecibo Campus to not cause adverse effects with the academic and administrative functions.

The project considers several construction tasks that will restore the facilities to their pre-disaster design, function, and capacity, including mitigation tasks as recommended by FEMA. All work to be performed must be within the existing footprint. Some works include mitigation measures and code compliance measures as recommended by FEMA in the respective scope of work for each building. Due to the building's year of construction, it may be necessary lead or asbestos abatement.

In general terms, the required tasks for those buildings are as follows (See SOW in **Appendix F** for specifications).

#### 5. SERVICES

The **Awarded Proponent** will carry out, as part of the design and supervision services, all the activities and responsibilities identified below, acknowledging that this does not constitute an exhaustive list of the duties, which can increase due to the very nature of the work:

#### 5.1 SERVICES RELATED TO FEMA'S SOW

- 5.1.1 The provided SOW serves as fundamental base for the development of a final detailed SOW. This final detailed SOW is required for submission to FEMA as part of the schematic design phase, for the purpose of Scope of Work Alignment. The UPR will provide guidelines for roof design. The awarded proponent will be responsible for the design following such guidelines and for preparing cost estimates for the mentioned SOW and any additional SOW as required by UPR for compliance with all internal and FEMA procedures. In addition, the awarded proponent shall perform technical assessments of existing roof conditions, technical specifications, including but not limited to infrared photography; uplift test; cores; materials; roof elements, including equipment, and existing roof perforations to be included as part of the as built. These plans and other documents will comply with the above requirements and must be submitted to the UPR for consideration and approval.
- 5.1.2The Awarded Proponent is responsible for verifying the SOW, Method of Repair (MOR), Bipartisan Budget Act of 2018, Pub. L. No. 115-123, § 20601, 132 Stat. 64 (2018) approved work included in this document. The Campus Liaison will coordinate the visit as soon as possible.

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- 5.1.3The Project shall comply with FEMA's requirements for Category E Permanent Work as stated in the Public Assistance Program and Policy Guide FP104-009-2/April 2018 and Puerto Rico's construction laws, regulations, and codes.
- 5.1.4The Awarded Proponent is responsible for notifying the UPR's representative in case of any change that may affect the primary SOW.
- 5.1.5As part of the design and supervision services to be provided, the Awarded Proponent will serve as a consultant in all matters related, constituting an advisory resource for the UPR in the plans, strategies, and actions referred and/or requested by the President or his authorized representative, COR3 or FEMA, and will be available to complete said requests and attend the meetings that the UPR deems necessary.
- 5.1.6The Awarded Proponent will evaluate the 406 Hazard Mitigation proposed by FEMA and determine if it's viable or if there are better proposal measures to provide Hazard Mitigation to the facility. In case of a change, the awarded proponent, in coordination with the UPR's representative, will prepare a Hazard Mitigation proposal for submission to FEMA for its corresponding approval.
- 5.1.7 The Awarded Proponent will work as a representative of the UPR during the development of the Project. The personnel designated by the Awarded Proponent to oversee the project must be authorized and licensed to exercise the professions of engineering and/or architecture in Puerto Rico and must be a bona fide member of the Professional College of Engineers and Land Surveyors of Puerto Rico or the Architects and Landscape Architects Association of Puerto Rico with the corresponding membership fee payment up to date.

#### 5.1.8

As part of the Basic Services the Awarded Proponent will have the responsibility related to the preparation, processing, and obtaining all the endorsements and permits required for the Project. This includes the responsibility of evaluating and determining the applicable permits to the Project and undertaking all necessary actions to ensure compliance with both state and federal agencies. These efforts will not constitute additional services but will be integral to the basic services provided. The costs associated with submitting the endorsements, engaging technical consultants, and/or acquiring permits from the relevant agencies will be included as part of the reimbursable expenses.

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These responsibilities also extend to obtaining permits and certificates for lead and asbestos remediation in buildings constructed before 1990. In addition, any permit from environmental and historical agencies is required for this project.

The UPR reserves the right to award and request Additional Services. The award of Additional Services for a contract does not imply the complete utilization of the Additional Services amount. All necessary additional services must be requested to or authorized by the UPR. Requests for Additional Services will be made in writing, detailing their nature and associated costs, including coordination costs and the time required for execution. The UPR could also request additional services to the Awarded Proponent per this section of the RFP.

Unless covered under the definition of Basic Services, all services that deviate from the generally accepted architecture/engineering practices will be considered as additional services. Specifically, this refers to services beyond those described in the contract, which the UPR will approve in writing, and within the budget allocated for these services.

Upon contract signing, to activate the Additional Services clause, the awarded proponent must submit a proposal. The UPR will then assess the necessity of performing the additional services. If deemed necessary, and in compliance with the federal procurement process, the UPR may request a minimum of three different proposals. Alternatively, the UPR can activate the clause by requesting additional services from the awarded proponent.

Please refer to Appendix F for a complete FEMA's SOW.

#### 6. COST PROPOSAL

The proposal must be submitted only in the Table Form stated in Appendix D.

Note: Do not modify the template in Appendix D. All spaces are required and must be filled. If any space does not apply you should put (N/A) or other information. This is a substantial requirement, do not leave any blank spaces, for it could be cause for disqualification.

#### 7. REQUIRED DOCUMENTS FOR THE SUBMISSION OF THE PROPOSAL

#### **General Instructions**

The evaluation and selection of a proposal will be based on the information submitted as required in this RFP. Additional information may be required upon interviews, if conducted. Proposers should respond clearly and completely to all requirements. Failure to respond to each of the requirements in the RFP may be the basis for

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rejecting a proposal. The proponent must carefully examine the RFP documents. **The** submission of a proposal by a proponent will be considered evidence that it has read, understands, and accepts these requirements.

The proponent must understand that any study or information presented is provided in good faith, with the purpose of offering access to the same information that the UPR obtained. Said information or studies must be supplemented by personal research and interpretation to be judged by the bidders. It is the responsibility of the proponents, not the UPR, any misinterpretation of the information presented.

Elaborate proposals (e.g., expensive artwork), beyond that sufficient to present a complete and effective proposal, are not necessary or desired.

#### Mandatory requirements, Proposal Preparation, and Submission

Professional services of Design and Supervision companies or individuals with current license to practice engineering or architecture in Puerto Rico are required.

Before submitting the offer, the proponent should carefully examine the RFP or proposal form provided in the RFP documents. The proponent will be responsible for any errors or omissions in the offer. Proposals will be submitted in said form and shall be initialized and signed on each page provided for it, in accordance with the following:

- a. If the proponent is an individual, the offer will be signed with the individual's name and should indicate "Individually." The individual's physical and postal address, telephone and email will be included, also proposal number and title of this RFP.
  - i. If the proponent is an individual operating under the name of a firm, the offer will be signed by the individual. The proponent will include the name of the firm under which it operates (dba). The postal and physical address, email, telephone of the firm will be included, also bid number and title of this RFP.
- b. If the proposer is a professional services corporation (P.S.C.), a limited liability company (L.L.C) or a limited liability partnership (L.L.P), its offer will be signed by its president, secretary, or other authorized official, according to its corporate resolution in this regard. The seal of the corporation must be attached. The physical and postal address, email, telephone of the main office of the corporation will be included, also proposal number and title of this RFP.

The offer and the documents identified below will be addressed to the indicated contacts in Section 2 – CONTACT via email in digital PDF format.

Proposers responding to this RFP **must comply** with the following documents:

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- Letter of Intent (1-page limit): Identifying the name and number of the RFP, and date of submittal. The letter must be signed by an authorized representative of the organization, that states the acceptance of the Terms and Conditions of this RFP, providing the exact business name to conduct business with the UPR, and address, telephone, fax number, e-mail address and SAM Entity Identifier Number.
  - SAM registration and annual renewal is a contract requirement. Proponents in the process of registering and/or renewing their SAM can participate in this RFP, however, if SAM registration and/or renewal process is not done by the time of award, your proposal may be rejected for not meeting federal procurement requirements.
- Appendix A Statement of the Bidder
- Appendix B Required Federal Documents (Lobbying Certification, Non-Conflict of Interest Certification and Limited Denial of Participation Affidavit)
- Appendix D Cost Proposal, including additional SOW fee percentage (%)
- Cost Proposal Breakdown Provide Cost Estimate Breakdown based in SOW provided in Appendix F.
- A color copy of the engineer's or architect's professional ID (Identificación de Colegiación) and a copy of the Department of State License.
- Copy of initialized RFP and its Appendices.
- Appendix E Response Checklist Before signing and submitting the proposal for this Project, interested proponents should carefully review and fill the Appendix E – Response Checklist.

#### Request for Information (RFI)

An RFI or clarification shall be addressed by email to: <a href="mailto:uprrecovery.rfp@upr.edu">uprrecovery.rfp@upr.edu</a> on or before the date established in this document and must reference this specific RFP (RFP #DRO 24-020 / B00013) in the subject line of the email. No telephone inquiries will be allowed. No further questions will be allowed after the established date. No questions will be accepted after the deadline provided in the above schedule, subject to any amendment to the same duly notified.

Any interpretations, correctios, or changes to this RFP will be made by addendum. Any changes to specifications will be made in writing and delivered to proponents that register receipt of this RFP at <a href="mailto:uprrecovery.rfp@upr.edu">uprrecovery.rfp@upr.edu</a>. Proponents shall acknowledge receipt of the addenda on Appendix D – Cost Proposal.

#### 8. UPR RESPONSIBILITIES

The University of Puerto Rico PR will provide for this RFP:

• All the available information considered necessary for the Project execution.

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# 9. COMPENSATION FOR DESIGN AND SUPERVISION SERVICES AND PAYMENT METHOD

The UPR will pay **the Awarded Proponent only** for services rendered or provided to the satisfaction of the UPR. **The Awarded Proponent** will certify that it will submit invoices for services established in the contract and any other services approved in writing by the UPR.

For the performance of the <u>DESIGN PHASE</u>, **the Awarded Proponent** will prepare and deliver to the UPR the documents required for the phase within the time indicated in the basic itinerary agreed to between the parties. The design and bidding itinerary are based on a total of calendar days, beginning on the date of the written Notice to Proceed, and will be interrupted by the evaluation processes carried out by the UPR between each of the phases. Payments will be made after the UPR receives and approves in writing the documents required in the Design Phase, as indicated in the contract, based on a construction cost.

The Awarded Proponent must submit one (1) original and one (1) digital copy of the invoices to be certified by the President of the University of Puerto Rico or his authorized representative, in this case, the Director of the Office of Physical Infrastructure and Development at the University of Puerto Rico, Central Administration (the "ODFI"). In addition, the Designer/Supervisor will send a copy by email to the Project Coordinator appointed by ODFI. Each invoice must be delivered physically to the ODFI during the first ten (10) calendar days of the following month in which the services were rendered. During the Design Phase, the invoices must detail the services provided or the activities carried out, accompanied by the required documents, and comply with the Basic Services requirements established in this contract.

During the <u>SUPERVISION PHASE</u>, the **Designer/Supervisor** must submit, along with the invoice, one (1) monthly report with the summary of activities carried out during that period in accordance with the Scope of Work established in the contract. The report must include photographs that show the project progress, minutes of the meetings with the contractors, an analysis of the current status of the Project, an evaluation of the quality of the execution, and recommendations, among other documents that the **Designer/Supervisor** considers relevant or important. The report with its corresponding invoice must also be delivered on a Universal Serial Bus (USB) and sent by email to the Project Coordinator appointed by the ODFI.

Payments for rendered services will be issued according to contract and within thirty (30) calendar days, beginning on the date on which the Director of the Office of Physical Infrastructure and Development at the University of Puerto Rico, Central Administration approves the work performed, and the invoices and documentation received meet all requirements.

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#### 10. PROPOSAL SCORING AND EVALUATION CRITERIA

Accepted proposals will be reviewed by the UPR and scored against the stated criteria. The committee may review references, request interviews/presentations, conduct interviews, demonstrations and/or conduct on-site visits. The resulting information will be used to score the proposals. The scoring will be tabulated, and the proposals ranked based on the numerical scores received.

The requested proposal will be known as **Design and Supervision Services** to be provided by established and experienced engineer's or architect's firms. The **Awarded Proponent** shall be a professional or technical team fully experienced in project designs, architectural and engineering concepts, site improvements and infrastructure strategies, building development and technology, cost estimates, administration, management, evaluation, project control (budget and schedule) accounting, technological reporting systems, construction quality control and processes. The proponent must also be well versed in Federal compliance, with a proven performance record. The UPR will only consider architectural and engineering firms with established and verifiable experience with at least two (2) years or more of experience, with projects sponsored and funded by FEMA, CDBG-DR program, and/or another Federal agency.

The UPR must comply with all applicable federal and state laws, regulations, executive orders, and policy. Consequently, the UPR will review the Proponent's Proposal to determine overall responsiveness and completeness of the Proposal with respect to the components outlined in the RFP using the following evaluation criteria:

#### Executive Summary – Refer to Appendix A Statement of the Bidder

• Provide a complete profile of your organization, mission, and vision statements.

### Experience and strategy in providing the services (up to 30 points) – Refer to Appendix A Statement of the Bidder

- Describe the organization/company's history, experience, and capabilities as
  it relates to the proposed scope of work. Be specific and detail no more than
  three projects/contracts: description of work, dates, locations, challenges,
  and results. (up to 4 points)
- Indicate relevant experience in projects with FEMA grants. (up to 6 points)
- Please indicate whether you have experience working with public or federal entities, and years of experience performing like services. (up to 6 points)
- Provide specific examples of the services or tasks previously provided by the entity as considered in this RFP. (up to 8 points)
- Detail your firm's understanding of the challenges and barriers for a project like this and proposed approach to overcoming these barriers. (up to 3 points)
- Identify potential risk factors and methods for dealing with these factors. (up to 3 points)

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#### Team qualifications (up to 25 points) – Refer to Appendix A Statement of the Bidder

- The Proponent should provide detailed information about the experience and qualifications of the Proponent's principals, project managers, key personnel, and staff to be assigned, including degrees, certifications, licenses, and years of relevant experience in terms of Federal Grants and/or FEMA and FEMA regulatory requirements. The Proponent shall specifically identify current employees who will serve as Key Personnel. This includes the Proponent's own staff and staff from any subcontractors to be used. The Proponent should demonstrate that its staff (and/or subcontractor's staff) meet the desirable requirements listed below and have necessary experience and knowledge to successfully implement and perform the tasks and services. Any subcontractors should be named, along with a description of experience and what role they will play on the Proponent's team. The proponent should describe its demonstrated capability to provide the staffing with the qualifications required in this RFP through the term of the expected contract. (up to 15 points)
- Attach resumes of personnel (or/and sub-contractors, if any) who will be providing the services. Consider the infrastructure trades specialists (engineering and/or architectural consultants) based on the trades applicable for the scope work for this project (up to 10 points)
  - Personnel/Trade specialist mechanical, electrical, architectural, structural, civil, specialist roof consultant and/or other qualifications per trades based on SOW.

#### Proponent references (5 points) – Refer to Appendix A Statement of the Bidder

- A minimum of three (3) references of the Proponent (as Prime Contractor) to which similar services have been provided within the past five years of a comparable sized institution or company, offering for each a summary of the work performed and how it relates to the scope of work under this RFP. Each reference should include a point of contact name, their title, name of the organization they represent, and their phone and e-mail information so that they may be contacted by the UPR or its designee(s). The Proponent is encouraged to provide up to two (2) references for identified subcontractors. (up to 5 points)
- If the Proponent has previous contracts with the UPR the performance directly related to those services will be taken into account as additional reference to those minimally required.

#### Cost Proposal Breakdown (5 points)

Provide Cost Estimate Breakdown based in SOW provided in Appendix F (5 points)

#### Cost Proposal (25 points) – Refer to Appendix D – Cost Proposal

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Proponent with lower proposal (25 points), all other proposals receive a percentage of the point available based on their cost relationship to the lowest with the following formula: (Lowest Cost Proposal / (Cost Proposal being evaluated) x Total Cost Proposal Points. The final score will be rounded to the nearest whole number.

### Cost Proposal % Fee for additional SOW (5 points) — Refer to Appendix D — Cost Proposal

Proponent with lower % of fee for additional SOW (5 points)

#### Preference of 5 points for Section 3 Business Concern and MWBE

The UPR will provide a preference of five (5) points in the evaluation criteria of the method of rating, for a greater participation of Section 3 Business Concern and M/WBE Registered Puerto Rico Business. The Proposer seeking the Section 3 preference must be able to demonstrate that they meet one of the following criteria:

- Percentage owned by Section 3 residents; or
- Has permanent, full time employees at least 30 percent of whom are currently Section 3 residents, or within three years of the date of first employment with the business concern were Section 3 residents; or
- Has subcontracted, or has a commitment to sub-contract, in excess of 25 percent of the total dollar award of all sub-contracts to be awarded to such businesses described above. You can locate the Section 3 or MWBE Policy document with all the related information of this topic available in English and Spanish on the PRDOH website.
  - o <a href="https://cdbg-dr.pr.gov/en/download/section-3-policy/">https://cdbg-dr.pr.gov/en/download/section-3-policy/</a>
  - https://cdbg-dr.pr.gov/download/politica-sobre-seccion-3/
  - https://cdbg-dr.pr.gov/en/download/mwbe-policy
  - o https://cdbg-dr.pr.gov/download/politica-mwbe/
  - Supporting evidence to substantiate Section 3 status can include; (i) Evidence of business ownership (e.g. Articles of Incorporation, By Laws, proof of 51% company ownership, Partnership Agreement); (ii) Evidence of employees of the business (e.g. roster of permanent full time employees, Section 3 Resident Self Certification Form for each employee who qualifies as newly hired Section Resident employee); (iii) Duly signed letter evidencing subcontracting at least 25% of the dollar amount.
  - Proposers seeking M/WBE preference should provide a copy of their MWBE certification to evidence their status. The certification should be provided by the following agencies as stated in the PRDOH M/WBE Policy Guide:
    - MBDA Minority Business Development Agency PR
    - WBENC Women's Business Enterprise National Council PR

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- **PMSDC** Puerto Rican Minority Supplier Development Council
- EPA Office of Small Business Programs OSDBU

For more information, please click the link below:

https://cdbg-dr.pr.gov/en/section-3/enterprise-woman-minority-mwbe/m-wbe-policy/

**TABLE - SUMMARY OF POINTS** 

Description	Points
Experience and strategy in providing the services	30
Team qualifications	25
Proponent references	5
Cost Proposal Breakdown	5
Cost Proposal	25
Cost Proposal % Fee for additional SOW	5
Total	95
Section 3 Business concerns and MWBE	5
Total	100

#### 11. FINAL EVALUATION

The UPR will review all Proposals summitted based on the proponent experience and execution of similar and complex projects. The Project will be awarded to firms that exceed the requirements of the RFP for the best value of overall services that surpass the UPR's interests and are in full compliance with FEMA and CDBG-DR procurement requirements.

The RFP may not be awarded to the Proponent who submitted the lowest price if, in the judgment of the Committees or the UPR, another Proposal offers a better value for the Government of Puerto Rico.

#### 12. PROJECT AWARD

ODFI's Director will provide oversight on all contractual matters between the UPR and the awarded firm, including final professional services fee compensation, contract's details, and compliance.

The UPR reserves the right to reject any or all proposals and to award the bid under the conditions it deems most advantageous to the interests of the University of Puerto Rico, regardless of the amount of the offer. It also reserves the right to award the proposal to more than one proponent, cancel the RFP and/or the award of the bid at any time before the signing of the corresponding contract. The submission of a

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response to an RFP does not represent an agreement of any kind between the UPR and the proponent.

The UPR will award the bid in writing and will state the reasons it had for the award. The UPR has the right to cancel the process of RFP without notice at any time.

#### 13. JUDICIAL REVIEW

Any proponent adversely affected by a decision made by the UPR in connection with the selection and award procedures provided in this RFP may submit a request for reconsideration to the UPR in accordance with the Uniform Administrative Procedure Act, Law No. 38 of June 30, 2017, as amended, within ten (10) days from the award notification date to the following email <u>uprrecovery.rfp@upr.edu</u>.

A request for reconsideration, as well as any other petition for review, must be in writing and clearly identify the name and address of the requesting party, contain a detailed and accurate statement of the grounds for the request, including copies of all relevant documents, and specify the relief requested. A request for reconsideration or other petition for review that fails to comply with the time limits or procedures stated above or otherwise provided in this section may be dismissed or denied without further consideration. If the UPR fails to act on the motion for reconsideration within ten (10) business days of the filing thereof, it shall be understood that the motion was denied outright and the term for judicial review shall begin to elapse from said date.

If the UPR accepts the reconsideration request within the term provided for it, it must issue the reconsideration resolution within thirty (30) days following the filing of the motion for reconsideration. If the UPR accepts the reconsideration request but doesn't take any action in relation to the motion within thirty (30) days of being filed, it will lose jurisdiction over it and the term to request judicial review will begin from the expiration of said term of thirty (30) days. The UPR may extend said term only once, before it ends, for an additional term of fifteen (15) days.

Judicial Review. The proponent adversely affected by the UPR's final decision on reconsideration may file a petition for judicial review in accordance with the Uniform Administrative Procedure Act, Law No. 38 of June 30, 2017, as amended, before the Court of Appeals, within a term of twenty (20) days from the date a copy of the notice of the final resolution or order was filed in the record of the UPR or from the term of twenty (20) days from the expiration of the thirty (30) day period within which the UPR must act upon the request for reconsideration or from the time extended by the agency, if applicable. The party shall notify the UPR and all other parties of the filing of the petition for review within the term established to request such review. The notice may be served by mail. Provided, that if the date on which the copy of the notice of

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adjudication is filed in the records of the agency differs from the mailing date of said notice, the term shall be calculated from the mailing date.

#### 14. BLACKOUT PERIOD

#### 14.1. Definition of Blackout Period

The blackout period is a specified period during a competitive procurement process in which any Proponent, bidder, or its agent or representative, is prohibited from communicating with any UPR's employee or UPR's contractor involved in any step in the procurement process about the solicitation. The blackout period applies not only to UPR employees, but also to any current contractor of the UPR. "Involvement" in the procurement process includes but may not be limited to project management, design, development, implementation, procurement management, development of specifications, and evaluation of proposals for a particular procurement.

This solicitation designates the contact person (RFP Coordinator) and all communications to and from potential Contractors and/or their representatives during the blackout period must be in accordance with this RFP's defined method of communication with the RFP Coordinator. The blackout period begins on the date that the UPR first issued the publication of this RFP and will end when the 20 days of request for judicial review have passed.

In the event a prospective Contractor may also be a current UPR contractor, UPR employees and the prospective Proponent may contact each other with respect to their existing contract and duties only. Under no circumstances UPR employees or current contractors may discuss this RFP or corresponding procurement process or status. Any bidder, Proponent, or UPR contractor who violates the blackout period may be excluded from the awarding contract and/or may be liable to the UPR in damages and/or subject to any other remedy allowed under law, including but not limited to a ban in participating in any procurements issued by or for the UPR, or any entity of the Government of Puerto Rico, for a period of ten (10) years, if it is determined that such action results in violation of the Anticorruption Code, Puerto Rico Act 2-2018.

#### 14.2. Other Prohibited Communications

Communications with other representatives of the Government of Puerto Rico or relevant entities of Federal Government regarding any matter related to the contents of this RFP are prohibited during the submission and selection processes. Failure to comply with these communications restrictions will result in rejection of the Proponent's proposal.

#### 15. UPR DISCLAIMERS

By submitting a Proposal, the Proponent, on behalf of themselves and their Partners/Subconsultants acknowledges and agrees that:

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#### 15.1. Equal Employment Opportunity and Non-Discrimination

15.1.1. The awarded proponent and authorized subcontractors must comply with the Executive Order 11246 titled "Equal Employment Opportunity", as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41CFR Part 60). In addition, the awarded proponent will not discriminate on account of sex, gender, gender identity, sexual orientation, age, race, color, national origin or social condition, physical or mental impairment, political or religious believes, marital status, for being a victim or being perceived as a victim of domestic violence, physical or mental handicap or veteran status in any employment, contracting or subcontracting practices called for by this contract.

#### 15.2. Conflict of Interest

- 15.2.1. No employee, officer, or agent may participate in the selection, award, or administration of a contract supported by a federal award if he or she has a real or apparent conflict of interest. The purpose of this prohibition is to ensure, at a minimum, that employees involved in the award and administration of contracts are free of undisclosed personal or organizational conflicts of interest—both in fact and appearance (2 C.F.R. § 200.318(c)(2).
- 15.2.2. The Proponent shall notify the UPR as soon as possible if this contract or any aspect related to the anticipated work under this contract raises an actual or potential conflict of interest (as defined at 2 C.F.R. Part 215 and 24 C.F.R. § 85.36 (2013) (or 84.42 (2013), if applicable). The Proponent shall explain the actual or potential conflict in writing in sufficient detail so that the UPR can assess it.
- 15.2.3. In the event of real or apparent conflicts of interest, the UPR reserves the right, in its best interest and at its sole discretion, to reject a proposal(s) outright or to impose additional conditions upon Proponents. The Proponent shall accept any reasonable conflict mitigation strategy employed by the UPR, including but not limited to the use of an independent subcontractor(s) to perform the portion of work that gives rise to the actual or potential conflict. The UPR reserves the right to cancel any contract awarded pursuant to this RFP with 30 days' notice if an actual conflict of interest, or the appearance of such conflict, is not cured to UPR's satisfaction.
  - 15.2.3.1. A real conflict of interest arises when an employee, officer, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the aforementioned individuals, has a financial or other interest or a tangible personal benefit from a firm considered for a contract.
  - 15.2.3.2. An apparent conflict of interest is an existing situation or relationship that creates the appearance that an employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties

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- indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract.
- 15.2.3.3. Although the term "financial interest" is not defined or otherwise described in the Uniform Rules, a financial interest can be considered to be the potential for gain or loss to the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of these parties as a result of the particular procurement. The prohibited financial interest may arise from:
  - 15.2.3.3.1. Ownership of certain financial instruments or investments like stock, bonds, or real Estate.
  - 15.2.3.3.2. A salary, indebtedness, job offer, or similar interest that might be affected by the procurement.

#### 15.3. Cost analysis for proposal; Proponent's Responsibility

15.3.1. All proponents are required to perform an independent and thorough analysis of the cost estimate related to the project and their design and supervision services. Proponents are responsible for determining the accuracy and completeness of the cost estimate independently. Proponents are solely responsible for the accuracy and completeness of the cost proposal submitted.

#### 15.4. No responsibility of the UPR regarding the use of information

15.4.1. The information provided by the UPR in reference to this RFP is intended solely for good faith and for the purpose of facilitating the proposal submission process. It is provided as a convenience to proponents and should not be relied upon as the sole basis for proposals, neither should be interpreted as the norm for every request and procurement process. The UPR shall not be held responsible for the accuracy, completeness, or reliability of the information provided for proposal submission. The UPR disclaims all liability for any errors, omissions, or discrepancies in the information presented in connection with this RFP.

#### 15.5. Proponent's Error and Omissions

15.5.1. The UPR reserves the right to reject a submission that contains an error or omission. The UPR also reserves the right to request correction of any errors or omissions and/or to request any clarification or additional information from any Proponent, without opening clarifications for all Proponents. Proponents will be provided a reasonable period in which to submit written responses to UPR's requests for clarification or additional information. Proponents shall respond by the deadline stated in the correspondence.

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#### 15.6. Proponent's Expenses

15.6.1. Proponents are solely responsible for their own expenses in preparing a Proposal and for subsequent negotiations with the UPR, if any. The UPR will not be liable to any Respondent for any claims, costs, or damages incurred by the Proponent in preparing the Proposal, loss of anticipated profit in connection with any final Agreement, or any other matter whatsoever.

#### 15.7. Selection of proposal in best interest of the UPR

15.7.1. Notwithstanding the selection criteria set forth in the RFP, if determined by the UPR to be in its best interest, the UPR reserves the right to request further information, negotiation, and select a Proposal(s) that, in its sole judgment, is consistent with, and responsive to the goals of its recovery plan, irrespective of whether it is the apparent lowest-priced Proposal.

#### 15.8. Number of Awards

15.8.1. At the sole discretion of the UPR and based upon the breadth and experience of Proponent to this RFP, or other factors considered in its best interests, the UPR may award contracts to more than one proponent and award any vendor one or more steps or task orders per contract. In such case, proponents acknowledge and accept that UPR reserves the right, in its absolute discretion, to further negotiate the terms and conditions of their Proposals and to withdraw an award(s) if an agreement acceptable to the UPR is not reached, notwithstanding the Proponents' submission of Best and Final Offers ("BAFOs").

#### 15.9. Withdrawal Proposals

15.9.1. A proponent may withdraw a Proposal at any time up to the date and time that the contract is awarded. The withdrawal must be submitted in writing to the RFP Coordinator. Absent a full withdrawal, Proponent must certify in the transmittal letter that its Proposal, including the submitted cost proposal and pricing, will be valid for one hundred twenty (120) days from UPR's receipt.

#### 15.10. SAM Registration

15.10.1. SAM registration and annual renewal is a contract requirement. Proponents in the process of registering and/or renewing their SAM can participate in this RFP, however, if SAM registration and/or renewal process is not done by the time of award, your proposal may be rejected for not meeting federal procurement requirements.

## 15.11. Contract Negotiations/No obligation to Contract/Rejection of Proposals/Cancellation of RFP

15.11.1. The selection of any proposal for contract negotiation shall not imply acceptance by the UPR of all terms of the proposal, which may be subject

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- to further negotiation and approvals before the UPR may be legally bound thereby.
- 15.11.2. Issuance of this RFP does not constitute a commitment by the UPR to award a contract. None of the participants in this RFP process have any acquired proprietary rights. The execution of a contract will be subject to government contracting process, all approvals required by law, including the FOMB if applicable. The UPR will not have any binding obligation, duties, or commitments to the Selected Proponent(s) until and unless a contract has been duly executed and delivered by the UPR after approval by the President. If the UPR is unable to negotiate a mutually satisfactory agreement with the Selected Proponent(s), it may, in its sole discretion, negotiate with the next highest-ranked Proponent(s) or cancel and reissue a new RFP. The UPR reserves the right to accept or reject, in whole or in part, all Proposals submitted and/or cancel this RFP and/or reissue this RFP or another version of it, at any time prior to the execution of a contract, if it determines, in its absolute discretion, that doing so is in its best interests. If any or all proposals are rejected, the UPR reserves the right to re-solicit proposals.
- 15.11.3. There is no guarantee of a minimal amount of work or compensation for any of the selected proponent selected for contract negotiations.

#### 15.12. Ownership of Proposals

15.12.1. All documents, including Proposals submitted to the UPR, become the property of the UPR. Selection or rejection of a Proposal does not affect this provision.

#### 15.13. Confidentiality of Proposals

15.13.1. The UPR shall have no obligation to treat any information submitted in connection with a Proposal as proprietary or confidential unless (i) the Proponent so identifies such information in its Proposal as proprietary or confidential, and (ii) the UPR determines that the information is proprietary or a trade secret and legitimately requires such treatment or that it must otherwise be protected from publication according to law. The UPR obligations with respect to protection and disclosure of such information shall always be subject to applicable law. If the Proponent desires to identify any information in its Proposal as proprietary or confidential, it shall limit such designation to only those particular portions of the Proposal that actually constitute proprietary information, trade secrets, or other confidential matters or data. Identification of the entire Proposal or entire sections of the Proposal or other overly broad designations as confidential or proprietary are strongly discouraged and may result in the Proposal being deemed unresponsive. The UPR shall have the right to use all portions of the Proposal, other than those portions identified and marked as confidential or proprietary, as it considers necessary or desirable in connection with this RFP; and, by the submission of

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the Proposal, the Proponent thereby grants to the UPR an unrestricted license to use such unrestricted portions of the Proposal.

#### 15.14. Collection and Use of Personal Information

15.14.1. Proponents are solely responsible for familiarizing themselves and ensuring that they comply with the laws applicable to the collection and dissemination of information, including résumés and other personal information concerning employees and employees of any subcontractors. If this RFP requires Respondents to provide the UPR with personal information of employees who have been included as resources in Proposal to this RFP, Proponents will ensure that they have obtained written consent from each of those employees before forwarding such personal information to the UPR. Such written consents are to specify that the personal information may be forwarded to the UPR for the purposes of responding to this RFP and use by the UPR for the purposes set out in the RFP. The UPR may, at any time, request the original consents or copies of the original consents from Respondents, and upon such request being made, Respondents will immediately supply such originals or copies to the UPR.

#### 15.15. RFP and Proposal as Part of Agreement

15.15.1. This RFP, as well as any related solicitation documents such as Addenda and Questions & Answers, and the selected Proponent's Proposal will become part of any contract between the UPR and the Respondent. If the terms of the RFP and related documents or Proposal conflict with the contract, the contract terms shall control.

#### 15.16. Non-Assignment

15.16.1. The successful proponent obligation under the contract shall not be assigned or transferred to any other person, firm, or corporation without the prior written consent of the UPR.

#### 15.17. Causes for Disqualification

- 15.17.1. Failure to submit the proposal on or before the date and time deadline indicated in this RFP.
- 15.17.2. Failure to submit a fully completed proposal may be deemed nonresponsive.
- 15.17.3. Failure to submit appendix, form, certification, or required document may be ground for disqualification.
- 15.17.4. Any unauthorized ex-parte communication with UPR officials, employees, consultants or advisers, or any other unauthorized person, regarding this Project may be grounds for disqualification.

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#### 15.18. No Bid

15.18.1. Proponents, that for any circumstances decide not to participate in this RFP process, must notify the UPR by email the intention to not submit.

#### 15.19. Sub-Contracts or Consultants of the Awarded Proponent

15.19.1. All federal and state law and regulations requirements apply to subcontractors. The awarded proponent shall require all subcontractors to flow down the PRDOH's Conditions, as well as termination for convenience of the PRDOH, to all subcontractors as well as the requirement to flow down such terms to all lower-tiered subcontractors. These Conditions include required terms for project contracts, HUD General Provisions, Participation by Minority Group Members and Women Requirements and Procedures for Contracts with Housing Trust Fund Corporation, Standard Clauses for Contracts with the PRDOH, and required diversity forms. The UPR reserves the right to request the removal of any personnel, consultant, or employee from the project at any time or reason it deems appropriate.

#### 16. REQUIRED DOCUMENTS FOR THE SIGNING OF THE CONTRACT

In addition of the above requirements, it is required that **before** the signing of the contract, the **successful proponent** provides all the documents listed below within **ten** (10) calendar days of selection. These documents are essential requirements, the UPR reserves the right to cancel the award and/or RFP if the awarded proponent does not comply with the aforementioned term to submit documents:

1. Certificate of Ethics (will be provided)
2. Authorization Form for Electronic Payment (will be provided)
3. Provide a Unique Entity Identifier (UEI) number; be registered and active in the
System for Award Management SAM.GOV.
4. Section 3 Plan - Click on link
5. MWBE Utilization Plan - <u>Click on link</u>
6. Policies and Insurances – See <b>Appendix C</b>
7. Government ID, a color copy of the engineer's or architect's professional ID
(identificación de colegiación) and a copy of the Department of State License to
practice the profession.
8. Legal Entity Certification - Circular Letter No. 013-2021 of the Management and
Budget Office (OGP). (Will be provided)
9. Eligibility Certification of the Unique Registry of Professional Service Providers
(RUP) from the General Services Administration (ASG) may be accepted. If
proponent doesn't have a valid RUP, <b>provide</b> the following documents:
☐ Certificate of Good Standing from the State Department.
<ul> <li>Department of State Certificate of Incorporation.</li> </ul>
- Doparmon or state Confidence of Incorporation.

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RFP for Design and Supervision/ FEMA/CDBG Projects - RFP #DRO 24-020 / B00013 University of Puerto Rico

Corporate Resolution with Corporate's Seal authorizing Corporation's representative to sign the contract.
Debt Certification issued by Department of the Treasury, Form SC 6096, Rev. 24-Feb-2020. In case of debt, submit official Department of Treasury document which certifies that you are under a payment plan that is being fully complied with.
Certification of Filing of Income Tax Forms for the last five (5) years issued by the Department of Finance. Form SC 6088, Rev. 24-Feb-2020 (If there is no information because the Corporation has recently been incorporated, you
must include an affidavit expressing such a situation.)
If the filing certification of payrolls does not register the filing corresponding to the year 2022, present a punched copy by the Treasury of the first sheet of the filed return.
Certificate of No Debt of the Municipal Revenue Collection Center (CRIM)
for all concepts.
If there is debt, you must submit an official CRIM document evidencing a
payment plan. If the Cert. of Filing of Movable Property Forms is negative,
an Affidavit is required.
Certificate of No Debt of the CRIM of Real Estate of the Corporation. If there is debt, you must submit an official CRIM document evidence of a payment plan that is being fully complied with.
Certification of Insurance for Unemployment, Temporary Disability, issued by the Department of Labor and Human Resources.
Social Security Certification for Drivers, issued by the Department of Labor
and Human Resources.
Negative certification from ASUME that the Corporation does not owe
payments to ASUME, from which it has withheld its employees, or negative
certification ordering withholding.
Merchant Registration Certification (IVU) Filing of Monthly Forms of IVU –
Model SC 2942 A.
Municipal Patent Certification.  Affidavit – Law 2, January 4, 2018.
Alliadvii - Law Z, Juliudiy 4, Zulo.

**END OF DOCUMENT** 

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# 17. APPENDIX A STATEMENT OF THE BIDDER

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## UNIVERSITY OF PUERTO RICO BOARD OF AWARD STATEMENT OF THE BIDDER FOR CONTRACTORS

#### **BUSINESS AND TECHNICAL ORGANIZATION.**

Bidder may use additional space to complete required information.

PFR	ΜΔ	NF	NT PI	.ACE	$\bigcirc$ F	RIISI	NFSS
			41 I I	.~~_	$\sim$	0031	11 LJJ

A. Name of Bidder:	
B. Mailing Address:	
C. City and Zip Code:	
D. Physical Address:	
E. City and Zip Code:	
F. Telephone No:	
G. E-Mail:	

#### II. PROPOSER REFERENCES - LIST BELOW SIMILAR CONTRACTS EXECUTED.

Proposer must supply references of minimum three firms to which similar services have been provided within the past five years of a comparable sized institution or company.

No.	Client Name, Contact Person and telephone	Location	Type of Work (Description of the services provided, include any similar services to the herein required)	Contract Amount	Completion Date	Funding Resource (private, state, or federal
1						
2						
3						
4						
5						

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#### III. LIST BELOW CONTRACTS IN HAND

No.	Name Contact Person and Telephone	Type of Work	Contract Price	% Completed
1				
2				
3				
4				
5				

#### IV. EXECUTIVE SUMMARY

Provide a profile of your organization, mission, and vision statements and organizational chart.

#### V. EXPERIENCE DESCRIPTION AND STRATEGY IN PROVIDING THE SERVICES

- Describe the organization/company's history, experience, and capabilities as it relates to the proposed scope of work. Be specific and detail no more than three projects/contracts: description of work, dates, locations, challenges, and results. Indicate relevant experience in projects with FEMA grants. Please indicate whether you have experience working with public or federal entities, and years of experience performing like services. Provide specific examples of the services or tasks previously provided by the entity as considered in this RFP. Detail your firm's understanding of the challenges and barriers for a project like this and proposed approach to overcoming these barriers. Identify potential risk factors and methods for dealing with these factors.

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RFP for Design and Supervision/ FEMA/CDBG Projects - RFP #DRO 24-020 / B00013 University of Puerto Rico

VI.	<b>TEAM QUALIFICATIONS</b> - The Proposition of the I and staff to be assigned, including experience in terms of Federal Grant Proponent shall specifically identify a includes the Proponent's own staff and should demonstrate that its staff (and/listed below and have necessary experform the tasks and services. Any surperform the tasks and services. Any surperform the tasks and services and what role they will describe its demonstrated capability this RFP through the term of the expectant contractors, if any) who will be prospecialists (engineering and/or archites scope work for this project. Personne structural, civil, specialist roofing consolw.	Proponent's principals, page degrees, certifications, its and/or FEMA and FE current employees who distaff from any subcontractor's staff, perience and knowledge becontractors should be all play on the Proponer to provide the staffing steed contract. Attach roviding the services. Coctural consultants) base all/Trade specialist medical staffing specialist medical proportions.	coroject managers, key licenses, and years MA regulatory require will serve as Key Pel ractors to be used. The meet the desirable rege to successfully implement and the proposition of the following managers of personnel (consider the infrastructed on the trades applications).	r personnel, of relevant ements. The esonnel. This exponent equirements ement and description nent should required in or/and subture trades able for the exhitectural,
Ι, <u>(R</u> ε	epresentative's Name) of (1	Name of Organizat	ion) certified	that the
answer to	this foregoing questions and	all statement there	in contained are	true and
correct.				
Authorize	d representative signature		Date	

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# 18. APPENDIX B REQUIRED FEDERAL DOCUMENTS

In compliance with federal regulations, **all bidders** must submit the following documents with their tender documents:

- 1. Lobbying Certification (Use attached model below)
- 2. Non-Conflict of Interest Certification on Existing or Pending Contracts. (Use attached model below)
- 3. Limited Denial of Participation (LDP)/Suspension or Debarment Status Affidavit. (Use attached model below)

A bidder who omits any of the required documents may be disqualified.

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# 1. LOBBYING CERTIFICATION RFP #DRO 24-020 / B00013

Certification for Contracts, Grants, Loans, and Cooperative Agreements
The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$11,000 and not more than \$110,000 for each such failure.

Please check appropriate box:

No nonfederal funds have been used or are planned to be used for lobbying in connection with this application/award/contract.

or

Attached is Standard Form LLL, "Disclosure of Lobbying Activities," which describes the use (past or planned) of nonfederal funds for lobbying in connection with this application/award/contract.

Executed this \_\_\_\_day of \_\_\_\_\_\_, 20\_\_\_\_\_\_

by\_\_\_\_\_\_\_

(Type or Print Name)

(Title of Executing Official)

(Signature of Executing Official)

(Name of organization/applicant)

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# 2. NON-CONFLICT OF INTEREST CERTIFICATION ON EXISTING OR PENDING CONTRACTS Request for Proposal (RFP) Design and Supervision Services Community Development Block Grant – Disaster Recovery Universidad de Puerto Rico RFP #DRO 24-020 / B00013

l,			, of	legal	age,	of	marital	status
(married/single),	and a resi	dent of					, hav	e been
designated	as	the	authorized		repre	sent	ative	of
				_ ("the	Propo	ser"]	) for the	Design
and Supervisior	Services	/ RFP	#DRO 24-020 /	B0001	<b>13</b> pro	cure	ement	process
("Procurement P	rocess"). In	such re	egard, I hereby c	ertify th	at:			

- There are no relevant facts or circumstances that could give rise to an
  organizational or personal conflict of interest for the Proposer or its staff with
  respect to the Procurement Process with the Procuring Entity. Nonetheless, the
  Proposer recognizes that situations may arise that may appear to be, or are,
  conflicts -or potential conflicts- of interest. The term "potential conflict" means
  reasonably foreseeable conflict of interest.
- The Proposer will disclose to the Procuring Entity any relevant information of an apparent, potential, or actual conflict of interest that may appear to exist regardless of their opinion that such information would not impair their objectivity.
- 3. As per 2 C.F.R. § 200.318(c)(1), a conflict of interest would arise when "the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in or a tangible personal benefit from a firm considered for a contract". Therefore, I understand that conflicts of interests may arise in, but not limited to, the following situations:
  - a) Unequal access to information. A potential contractor, subcontractor, employee, or consultant has access to non-public information through its performance on a government contract for disaster recovery services in Puerto Rico.
  - b) **Biased ground rules.** A potential contractor, subcontractor, employee, or consultant has worked with a government contract or program with the basic structure or ground rules of another government contract for disaster recovery services in Puerto Rico.
  - c) Impaired objectivity. A potential contractor, subcontractor,

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employee, or consultant, or member of their immediate family (spouse, parent, or child) has financial interests, or others, that would impair, or give the appearance of impairing, impartial judgment in the evaluation of government programs in offering advice or recommendations to the government, or in providing technical assistance or other services to recipients of Federal funds as part of its contractual responsibility.

- 4. In the case in which the Proposer discloses to the Procuring Entity an apparent, potential, or actual conflict of interest, the Procuring Entity will take the appropriate measures to address the disclosure by taking the following actions, which include but are not limited to, eliminating, mitigating or neutralizing the apparent, potential or actual conflict, when appropriate, through such means as ensuring a balance of views, disclosure with the appropriate disclaimers, or by restricting or modifying the work to be performed to avoid or reduce the apparent, potential, or actual conflict.
- 5. If an apparent, potential, or actual conflict of interest is discovered by the Proposer after the Procurement Process concludes, it will make a full disclosure in writing to the contracting officer. This disclosure shall include a description of actions that the Proposer has taken or proposes to take to avoid, mitigate, or neutralize the apparent, potential, or actual conflict of interest.
- 6. The Proposer has no present or currently planned interests (financial, contractual, organizational, or otherwise) relating to the contract or task order that may result from this Procurement Process that would create any apparent, actual, or potential conflict of interest (including conflicts of interest for immediate family members: spouses, parents, children) that would impinge on its ability to render impartial, technically sound, and objective assistance or advice or result in it being given an unfair competitive advantage.
- 7. The Proposer has exercised, and will continue to exercise, due diligence in avoiding, identifying, removing or mitigating any apparent, potential or actual conflicts of interests to the Procuring Entity's satisfaction.

Signature of Proposer's Authorized Representative	Date		
Printed Name of Proposer's Authorized Representative			
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## 3. LIMITED DENIAL OF PARTICIPATION (LDP)/SUSPENSION OR DEBARMENT STATUS AFFIDAVIT

# Request for Proposal (RFP) Design and Supervision Services Community Development Block Grant – Disaster Recovery Universidad de Puerto Rico RFP #DRO 24-020 / B00013

By signing this Certification, the Proposer certifies that the firm, business, or person submitting the Statement of Qualifications, Proposal, Bid, or Quote has not been LDP. suspended, debarred or otherwise lawfully precluded from participating in any public procurement activity with any Federal, State or local government. Signing this Certification without disclosing all pertinent information about a debarment or suspension shall result in rejection of the proposal or cancellation of a contract. The University of Puerto Rico also may exercise any other remedy available by law. In \_\_\_\_\_, \_\_\_ this \_\_\_ day of \_\_\_\_ of 20\_\_\_. (Name of Entity) (Authorized Representative) (Printed Name of Authorized) (Position) Affidavit No. \_ Subscribed and sworn to before me in the city of \_\_\_\_\_, \_\_\_\_, this \_\_\_\_ day of \_\_\_\_, 20\_\_, by \_\_\_\_ of legal age, \_\_\_\_\_ (civil status), \_\_\_\_\_ (occupation) and resident of \_\_\_\_\_, \_\_\_, in his/her capacity \_\_\_\_\_ of Proposer, who I personally known or have identified by his/her \_\_\_\_\_ Public Notary

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# 19. APPENDIX C POLICIES AND INSURANCE

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# Required Insurance for the project RFP #DRO 24-020 / B00013

Las cubiertas requeridas deben ser endosadas a favor de la Universidad de Puerto Rico.

- (X) Workmen's Compensation (Corp. del Fondo del Seguro del Estado)
- (X) Commercial General Liability (C.G.L.), including Employers Liability & Products Liability Limits Combined Single Limit of \$1,000,000
- (X) Auto
  Limits Combined Single Limit of \$500,000
- (X) Endorsements required for CGL & Auto:
  - (X) Hold Harmless Agreement
  - (X) Additional Insured
  - (X) Thirty (30) days cancellation notice
  - (X) Waiver of Subrogation
- (X) Errors & Omissions / Professional Liability Limits \$1,000,000.00

Para todo proyecto cuyo financiamiento considere fondos CDBG-DR, los endosos deberán incluir a las siguientes entidades:

Puerto Rico Department of	Gobierno de Puerto Rico	US Department of Housing and
Housing	PO Box 9020082	Urban Development (HUD)
PO Box 21365	San Juan, PR 00902-0082	451 7 <sup>th</sup> Street S.W
San Juan, PR 00928-1365		Washington, DC 20410

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# 20. APPENDIX D COST PROPOSAL

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# **COST PROPOSAL**

RE: Reconditioning of the mechanical site and nine buildings and/or structures at UPR Arecibo Campus.
RFP #DRO 24-020 /B00013

# \*WORKS TO BE SUBJECT OF FEDERAL FUNDS REIMBURSEMENT

**Note:** Do not modify this Cost Proposal Template. Fill all the required spaces. If any space does not apply you should put (N/A) or other information. Do not leave any blank spaces.

**COST PROPOSAL** 

#09035 - UPR Arecibo (444 Site, M-4	44 Site Mecánico &	E-444 Site Eléctrico)					
Estimated Construction Cost for the proposed development: \$							
PHASE	TIME	FEE					
Basic	Services:						
Schematic design	days	\$					
Preliminary design	days	\$					
Construction Documents	days	\$					
Bidding and Negotiation	N/A	\$					
Design Subtotal:	N/A	\$					
Supervision:	months x \$ monthly	\$					
Basic Services TOTAL*:		\$					
Additional Services:  • As-Built	days	\$					
Reimbursable Expenses**: For fees, stamps, and filing costs related to endorsements and permits from permit regulatory	N/A	\$					

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offices.

(\$)  Total GROUP: #09035 (Basic services total and reimbursable expenses). Write the total amount in words and numbers.
Additional SOW Fee $\%$ (Design subtotal + Supervision) / Estimated Cost

For other possible Additional Services the UPR reserves the right to adjust these amounts for their convenience.

Description of the possible Additional Services
Lead and Asbestos related work including but not limited
to inventory assessment, testing, certifications, etc.

The UPR establishes an amount of \$ 8,000.00 or other possible Additional Services.

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<sup>\*</sup>The Basic Services will consider all the required permitting efforts with the state and federal agencies and the design of the Roof Waterproofing System with all its components.

<sup>\*\*</sup>For Reimbursable Expenses, the UPR reserves the right to adjust the amount for their convenience. These services will be approved after submitting the proposal and order to proceed by the University.

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#06385 - UPR Arecibo (Building 013 "Anexo B", Building 012 "Anexo A", Building 014 "Anexo C", Building 004 "Actividades Atléticas", Building 015 "DECEP" and Building 011 "Centro Pre-escolar")

Estimated Construction Cost for the proposed development: \$_	
(required)	

Professional design and supervision fees have been computed based on the estimated construction cost mention above:

PHASE	TIME	FEE						
Basic Services:								
Schematic design	days	\$						
Preliminary design	days	\$						
Construction Documents	days	\$						
Bidding and Negotiation	N/A	\$						
Design Subtotal:	N/A	\$						
Supervision:	months x \$ monthly	\$						
Basic Services TOTAL*:		\$						
Additional Services:  • As-Built	days	\$						
<b>Reimbursable Expenses**:</b> For fees, stamps, and filing costs related to endorsements and permits from permit regulatory offices.	N/A	\$						
(\$)								
Total GROUP: #08405 (Basic services total and reimbursable expenses). Write the total amount in words and numbers.								
Additional SOW Fee % (Design subtotal + Supervision) / Estimated Cost								

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<sup>\*</sup>The Basic Services will consider all the required permitting efforts with the state and federal agencies and the design of the Roof Waterproofing System with all its components.

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\*\*For Reimbursable Expenses, the UPR reserves the right to adjust the amount for their convenience. These services will be approved after submitting the proposal and order to proceed by the University.

For other possible Additional Services the UPR reserves the right to adjust these amounts for their convenience.

Description of the possible Additional Services
Lead and Asbestos related work including but not limited
to inventory assessment, testing, certifications, etc.

The UPR establishes an amount of \$14,000.00 for other possible Additional Services.

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# **COST PROPOSAL**

#07234 - UPR Arecibo (Building 023 "Ala Sur", Building 025 "Ala Oeste", Building 030 "Laboratorios de enfermería y auditorio", Building 034 "Taller de mantenimiento")

Estimo	ated	Co	ons	truc	tion	С	ost f	or	th	ne	pr	ор	0	sed de	eve	elop	mer	nt:	\$ 		
(requi	ired)																				
											_										

Professional design and supervision fees have been computed based on the estimated construction cost mention above:

PHASE	TIME	FEE						
Basic Services:								
Schematic design	days	\$						
Preliminary design	days	\$						
Construction Documents	days	\$						
Bidding and Negotiation	N/A	\$						
Design Subtotal:	N/A	\$						
Supervision:	months x \$ monthly	\$						
Basic Services TOTAL*:		\$						
Additional Services:  • As-Built	days	\$						
Reimbursable Expenses**: For fees, stamps, and filing costs related to endorsements and permits from permit regulatory offices.	N/A	\$						
(\$)								
Total GROUP: #07234 (Basic services total amount in words and numbers.	ii ana reimbursable ex	xpenses). Write the total						
Additional SOW Fee % (Design s	subtotal + Supervision							

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<sup>\*</sup>The Basic Services will consider all the required permitting efforts with the state and federal agencies and the design of the Roof Waterproofing System with all its components.

RFP for Design and Supervision/ FEMA/CDBG Projects - RFP #DRO 24-020 / B00013 University of Puerto Rico

\*\*For Reimbursable Expenses, the UPR reserves the right to adjust the amount for their convenience. These services will be approved after submitting the proposal and order to proceed by the University.

For other possible Additional Services the UPR reserves the right to adjust these amounts for their convenience:

Description of the possible Additional Services
Lead and Asbestos related work including but not limited
to inventory assessment, testing, certifications, etc.

The UPR establishes an amount of \$15,000.00 for other possible Additional Services.

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# **COST PROPOSAL**

#08297 - UPR Carolina (Building 001 "Biblioteca", Building 003 "almacén de químicos", Building 026 "Centro de Estudiantes", Building 027 "Departamento de Educación" and Building 029 "Enfermería"

Estimated Construction Cost for the proposed development: \$\_\_\_\_\_\_(required)

Professional design and supervision fees have been computed based on the estimated construction cost mention above:

PHASE	TIME	FEE
Basic	Services:	
Schematic design	days	\$
Preliminary design	days	\$
Construction Documents	days	\$
Bidding and Negotiation	N/A	\$
*Design Subtotal:	N/A	\$
Supervision:	months x \$ monthly	\$
Basic Services TOTAL:		\$
Additional Services:  • As-Built	days	\$
**Reimbursable Expenses: For fees, stamps, and filing costs related to endorsements and permits from permit regulatory offices.	N/A	\$
Total GROUP: #08297 (Basic services total amount in words and numbers.	(\$(\$	xpenses). Write the total
Additional SOW Fee % (Design s	ubtotal + Supervision	n) / Estimated Cost

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<sup>\*</sup>The Basic Services will consider all the required permitting efforts with the state and federal agencies and the design of the Roof Waterproofing System with all its components.

RFP for Design and Supervision/ FEMA/CDBG Projects - RFP #DRO 24-020 / B00013 University of Puerto Rico

\*\*For Reimbursable Expenses, the UPR reserves the right to adjust the amount for their convenience. These services will be approved after submitting the proposal and order to proceed by the University.

For other possible Additional Services the UPR reserves the right to adjust these amounts for their convenience:

Description of the possible Additional Services
Lead and Asbestos related work including but not limited
to inventory assessment, testing, certifications, etc.

The UPR establishes an amount of \$27,000.00 for other possible Additional Services.

Fees for additional professional services will be calculated using the % Fee design for services (Design subtotal + Supervision) / Estimated Cost included on the Cost Proposal tables above and/or hours-based rate described below.

Fees for Professional Services	
	Fee per hour

The proponent acknowledges the receipt of the following **addenda** and, unless otherwise specified, accepts that changes required in these Addenda are included in the Proposal:

Addendum No. 1- Description:		
Date		
Addendum No. 2– Description:		
·		

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Date		
		cription:
Date		
		vas received in connection with this RFP. If no Addenda eck the box.
		s that the Owner reserves the right to reject any or all bids mality in the bidding.
Dated:	_day of _	20
Firm Name:		
Signed by:		(Sign it in ink)
Name:		
Title:		
Employers So Security:	ocial	
Mail Address	:	
Physical Add	ress:	
Phone Numb	er:	
Fax Number:		
E-mail:		

Seal (if Bidder is a Corporation)

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# 21. APPENDIX E RESPONSE CHECKLIST

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# **Response Checklist**

Note: Before submitting the proposal to this RFP, please review the following: Did you include a Letter of Intent identifying the name and number of the RFP, date of submittal, signed by an authorized representative of the organization, that states the acceptance of the Terms and Conditions of this RFP, providing the exact business name to conduct business with the UPR, and address, telephone, fax number, e-mail address and SAM Entity Identifier Number?
Do you have an <b>Active</b> Registration on SAM.gov?
Did you complete and sign Appendix A - Statement of the Bidder?
Did you fully complete Part 1 through 6 in the Statement of the Bidder, Appendix A?
Did you attach the resumes of all firm personnel teamwork (or/and sub-contractors, specialized trades consultants, if any) who will be providing the services?
Did you fully complete and include the additional SOW Fee Percentage (%) in Appendix D – Cost Proposal?
If any space does not apply in Appendix D – Cost Proposal, did you put (N/A) or other information?
Did you acknowledge the Addendums in Appendix D – Cost Proposal, if applicable?
Did you sign and seal Appendix D – Cost Proposal following the instruction in Section 7 - REQUIRED DOCUMENTS FOR THE SUBMISSION OF THE PROPOSAL?
Did you include a Cost Estimate Breakdown based on SOW provided in Appendix F – Scope of Work?
Did you complete and include the required Federal Documents in Appendix B (Lobbying Certification, Non-Conflict of Interest Certification and Limited Denial of Participation Affidavit)?
Did you include a color copy of the engineer's or architect's professional ID (Identificación de Colegiación) and a copy of the Department of State License?
Did you include a copy of initialized RFP and its Appendices?
Before signing and submitting the proposal for this Project, did you carefully review the Appendix E – Response Checklist?

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# 22. APPENDIX F SCOPE OF WORK

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# University of Puerto Rico at CAROLINA

#### 1. GENERAL DATA OF THE PROJECTS:

#### #09035:

DI: 195249 444 Site

DI: 209532 M-444 Site Mecánico

DI: 264201 E-444 Site Eléctrico

#### #06385:

DI: 248792 UPR Arecibo Edificio 013 Anexo B

DI: 249962 UPR Arecibo Edificio 004 Actividades Atléticas

DI: 249963 UPR Arecibo Edificio 012 Anexo A

DI: 249964 UPR Arecibo Edificio 014 Anexo C

DI: 249965 UPR Arecibo Edificio 015 DECEP

DI: 250236 UPR Arecibo Edificio 008 Caseta Guardia

DI: 250237 UPR Arecibo Edificio 011 Centro Pre-Escolar

#### #07234:

DI: 195238 UPR Arecibo Edificio 023 Edificio Ala Sur

DI: 194240 UPR Arecibo Edificio 025 Edificio Ala Oeste

DI: 195245 UPR Arecibo Edificio 030 Laboratorios de Enfermería y Auditorio

DI: 195248 UPR Arecibo Edificio 034 Taller de Mantenimiento

# #08297

DI: 148242 UPR Arecibo Edificio 001 Biblioteca

DI: 145244 UPR Arecibo Edificio 003 Almacén de Químicos

DI: 195241 UPR Arecibo Edificio 026 Centro de Estudiantes

DI: 195242 UPR Arecibo Edificio 027 Departamento de Educación

DI: 250238 UPR Arecibo Edificio 029 Edificio Enfermería

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# II. PROJECTS DESCRIPTION, LOCATION PLAN AND SCOPES:

# A. PW 09035

i. Location Plan



# ii. Description

#### 1. DI: 195249 - 444 Site

a. The UPR Arecibo campus is located in Arecibo municipality and has about 40 acres. This land has topography with moderate slopes with fairly flat area where are located the main facilities. Built in 1967 located at Carr. 653 Km. 0.8 Sector Las Dunas, Arecibo, Puerto Rico, 00612. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46897, -66.74171

# 2. DI: 209532 - M-444 Site Mecánico

a. The mechanical system was operational at the time of the event and sustained damage from wind-blown debris, hurricane winds, electrical fluctuations and water intrusion. The Arecibo campus building mechanical system includes chiller systems, chiller pumps, HVAC outside split units, air handler, ventilation fans, VFD control

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system, air ducts and insulated piping. The mechanical systems are typically located on the roof or ground based near the building. This facility was in operation at the time of the event. Approx. Year Built: 1967, GPS Latitude/Longitude: 18.46897, -66.74171

#### 3. DI: 264201 - E-444 Site Eléctrico

a. UPR's electrical and lighting systems are served by the Puerto Rico Electric Power Authority's (PREPA). UPR owns and operates the 38 kV bus and all downstream equipment, including transformers, feeders, switching units, substations, and pad mounted transformers. The distribution system in this campus is a mix of underground and aerial components. There are emergency generators, which are intended to handle the campus' electrical load in case of a (PREPA) power failure. The campus is illuminated by a combination of high-pressure sodium (HPS), metal halide (MH) and LED lights. This facility was in operation at the time of the event. Approx. Year Built: 1967, GPS Latitude/Longitude: 18.46897, -66.74171

#### iii. SCOPE OF WORK- FEMA

# 1. DI: 195249 - 444 Site

Repair and restore facilities back to pre-disaster design, function, and capacity (in-kind) within the existing footprint.

	UPR Arecibo 444 Site		
PA 428			
	{00-001} Perimeter Fence:	QTY	UNIT
	A. Remove and replace with in kind 7 FT high 9GA Chain link w/barbed wire top, 1,160 LF long. See scope note 1.	1160	LF
	B. Remove and replace with in kind 8 FT high DuroFence brand, Wire fence, 1,534 LF long. See scope note 2.	1534	LF
	C. Remove and replace with in kind 5 FT high 9GA Chain link, 150 LF long.	150	LF
	D. Remove and replace with in kind 6 FT high 9GA chain link, 466 LF long. See scope note 3.	466	LF
	E. Remove and replace with in kind 8 FT high 9GA chain link double gate, 16 FT long.	1	EA
	{01-002} Athletic Field:		
	A. Remove and replace with in kind 8,612 SF of rubberized surface.	8,612	SF
	B. Remove and replace with in kind 108 SF of 26GA corrugated metal and 3/4 IN wood composite support, 18 FT long x 6 FT wide.	108	SF

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	C. Remove and replace with in kind 36 SF of 26GA corrugated metal.	36	SF
	D. Remove and replace with in kind suspended chain link wall (back and sides), 34 FT long x 5 FT high	1	EA
	{02-003} Arecibo Site:		
	A. Remove and replace with in kind 7 light poles, 15 FT high.	7	EA
	B. Remove and replace with in kind 2 channel support for trail identification signs.	2	EA
	C. Remove and replace with in kind 4 light poles, 40 FT high.	4	EA
	D. Remove and replace with in kind 0.6 CY of concrete curb (20 LF $\times$ 6 IN W $\times$ 1.5 FT D).	1	EA
	{03-004} Pedestrian Connector Bridge:		
	A. Repair with in kind 54 SF of wall plaster repair (3 FT x 10 FT) + (2 FT x 12 FT).	54	SF
	B. Remove and replace with in kind 8 surface mounted, 12 IN Round light fixtures, 100W.	8	EA
	C. Prepare and paint with in kind 54 SF of exterior wall.	54	SF
	D. Prepare and paint with in kind 360 SF of ceiling plaster, (12 FT x 30 FT).	360	SF
	E. Replaced plaster, and paint with in kind 75 SF of exterior wall, (5 FT x 15 FT).	75	SF
	F. Replaced plaster, and paint with in kind expansion joint ceiling, 12 LF long.	12	LF
	G. Remove and replace with in kind 6 ceiling lamp, 100 Watts, 12 IN x 12 IN square.	6	LF
	H. Prepare and paint with in kind 900 SF of exterior wall, (6 FT x 150 FT).	900	SF
	Scope notes:  1. For the 1,160 LF fences the GPS Coordinates are:  18.46734, -66.73965 to 18.469292°, -66.739226°  2. For the 1,534 LF fences the GPS Coordinates are:  18.470850°, -66.740416° to 18.471110°, -66.742830°  3. For the 466 LF fences the GPS Coordinates are:  18.469292°, -66.739226° to 18.470425°, -66.739452°.		
HMP 40	·	1	1
	HMP406- 444 Site DI #195249		
	Perimeter Fence		
	1. Harden Chain Link Fence 6 Ft height: 1,160 + 466 = 1,626 Ft (Length)	1626	LF
	Athletic Field		
	1. Replace Metal Roof gauge 26 to gauge 24: 108 SF + 36 = 204 SF	204	SF
	2. Replace standard screws with stainless steel: 1.62 + 0.27 = 1.89 Box	1	EA
	3. Steel Cable/anchors: 2 set	1	EA

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After an evaluation of this project (desktop evaluation), to	
prevent the same damages in a similar future event, As	
PAPPG, the Applicant proposes to harden the Chain Link	
Fence increasing post diameter from 2" to 2.5" and install it	
from 10' spacing to 8' between each post. Also, the Applicant	
proposes to replace the Metal Roof from gauge 26 to gauge	
24, replace standards screws with stainless steel @ 6" spacing,	
and also install steel cables to anchor the metal roof; for two	
roof.	

# 2. DI: 209532 - E-444 Site Mecánico

Repair and restore facilities back to pre-disaster design, function, and capacity (in-kind) within the existing footprint.

	UPR Arecibo M-444 Site Mecánico		
PA 428			
	{001} Roof Top of Chiller Room:	QTY	UNIT
	A. Remove and replace with in kind 2 Twin City Fan BAV-SW supply fan, 32,100 CFM.	2	EA
	{005} Library:		
	A. Remove and replace with in kind 1 Trane RTAC 2004 aircooled chiller, 200 TON.	1	EA
	B. Remove and replace with in kind Schneider Altivar 61 variable frequency drive, 10 HP.	1	EA
	C. Remove and replace with in kind 1 ABB Drives ACS 500 variable frequency drive, 10 HP.	1	EA
	D. Remove and replace with in kind 1 air duct damper, 18 IN x 24 IN, manual control	1	EA
	{021} East Wing:		
	A. Remove and replace with in kind metal air duct, $18 \text{ IN} \times 18 \text{ IN}$ , $8 \text{ FT long}$ .	8	LF
	(022) North Wing:		
	A. Remove and replace with in kind 1 water pump with 10 HP motor, 215T frame.	1	EA
	B. Remove and replace with in kind 2 pressure gauge, 0-100 PSI.	2	EA
	C. Remove and replace with in kind 2 condensing unit, 5 TON.	2	EA
	{023} South Wing:		
	A. Remove and replace with in kind 1 Carrier 50TC-D08A1A5A0A0A0 AC packaged unit, 7.5 TON.	1	EA
	B. Remove and replace with in kind 1 condenser, 3 TON.	1	EA
	{025} West Wing:		

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	A. Remove and replace with in kind 2 Ciac window unit, 1 TON.	2	EA
	·		
	B. Remove and replace with in kind 1 Downblast exhaust fan, 1,000 CFM, 1/4 HP motor	1	EA
	C. Remove and replace with in kind 2 Ciac, 1 TON AC window unit.	2	EA
	{027} Department of Education:		
	A. Remove and replace with in kind 1 Trane TCH420AE0Y0A5BB1 (R410A) AC packaged unit, 35 TON, 208V/60HZ/3PH	1	EA
	{029} Nursing Building:		
	A. Remove and replace with in kind 1 Carrier 42DEA20BLDY6ALYY air handler unit, 2,000 CFM.	1	EA
	{032} Central HVAC Chiller Room:		
	A. Remove and replace with in kind 1 Bell & Gosset water pump with 15 HP Motor, 965 GPM.	1	EA
	{032} Central HVAC Off-site:		
	A. Remove and replace with in kind 1 each of FWS-500-22-AS with 30 HP fan motor cooling tower, 485 TON.	1	EA
	B. Remove and replace with in kind 2 Baldor Reliance 36H017T850H1, 184JM makeup water pump with 5 HP motor.	2	EA
	C. Remove and replace with in kind 2 Pentair L88302NAC10 water filtration.	2	EA
	{034} Maintenance Shop:		
	A. Remove and replace with in kind 1 Berkeley Pumps water pump, 7.5 HP, 3,470 RPM.	1	EA
	B. Remove and replace with in kind 1 control panel.es causing failure, 0% work completed.	1	EA
	C. Remove and replace with in kind 2 Duro United pressure gauge indicator, 0-160 PSI.	2	EA
HMP 406			
	HMP406-M-444 Site Mecánico DI #209532		
	1. Install AC Surge Protector SPD CFS Brick 480 Vac 3-Phase Delta MOV 120 kA: 12 Each	12	EA
	2. Install AC Surge Protector 240/120v Split Phase (medium): 3 Each	3	EA
	3. Install 5-ton AC Anchoring Assembly Total: 4 Each	4	EA
	After an evaluation of this project (desktop evaluation), to prevent the same damages in a similar future event, As PAPPG, the Applicant proposes to install surge protector to the affected A/C system, water pump and control panels. Also, for the Rooftop A/C equipment, the Applicant proposes an anchoring assembly with steel cables.		

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# 3. DI: 264201 - E-444 Site Eléctrico

Repair and restore facilities back to pre-disaster design, function, and capacity (in-kind) within the existing footprint.

	UPR Arecibo E-444 Site Eléctrico		
PA 428			
	Exterior Lighting:	QTY	UNIT
	A. Remove and replace with in kind 8 each of 30 FT aluminum pole.	8	EA
	B. Remove and replace with in kind 10 each of pole mount, 250W High Pressure Sodium (HPS).	10	EA
	C. Remove and replace with in kind 21 each of pole mount 1000W Metal Halide (MH).	21	EA
	D. Remove and replace with in kind 19 each of roof mounted, 1500W Metal Halide (MH).	19	EA
	E. Remove and replace with in kind 1 each of roof mounted LED (Light-emitting Diode).	1	EA
	Main 38 kV Substation:		
	A. Remove and replace with in kind 2 each of structure service lights, 150W, High Pressure Sodium (HPS), 120 V.	2	EA
	B. Remove and replace with in kind 14 CY of concrete footings, cracks at both footings.	14	CY
	Primary Voltage Distribution System:		
	A. Remove and replace with in kind 556.5 kcmil ACSR cable, 1,600 FT long.	1600	LF
	B. Remove and replace with in kind 18 each of suspension polymer insulators 15 kV.	18	EA
	C. Remove and replace with in kind 24 each of 556 mcm suspension clamp.	24	EA
	D. Remove and replace with in kind 12 each of 556 mcm compression connector.	12	EA
	E. Remove and replace with in kind 12 each of double arm 5/8 IN x 16 IN galvanized bolt.	12	EA
	F. Replace with in kind Washer, 24 each of 2 IN x 2 IN galvanized.	24	SF
	G. Replace with in kind Nut, 24 each of 5/8 IN.	24	EA
	H. Replace with in kind Eye Nut, 24 each of 5/8 IN.	24	EA
	I. Replace with in kind Guy wire, 2 each of P.R.E.P.A. Construction Standard E 1-2-3.	2	EA

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#### B. PW 06385

#### i. Location Plan



#### ii. Description:

#### 1. DI: 248792 UPR Arecibo Edificio 013 Anexo B

The UPR Arecibo Edificio 013 Anexo B building is a 9,295 SF, two story educational building that was constructed in 1974 (46 years old). The building is a site cast, and reinforced concrete building with a reinforced concrete roof with a bituminous built-up roof system. The interior includes reinforced concrete bearing walls with a reinforced concrete sealed floor slab on grade. Interior finishes generally consist of concrete ceiling, painted concrete wall and sealed concrete floor. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.47032, -66.74302

#### 2. DI: 249962 UPR Arecibo Edificio 004 Actividades Atléticas

The UPR Arecibo Building 004 is a one story Athletic Activity facility that consist of two structures, a basketball court with administrative offices, and locker rooms attached that's (16,300 sq ft), built in 1984 (36yrs). Additionally there's a gymnasium built in 2001 (19yrs) located near the north end of the basketball facility and the tennis court. The administrative offices are sitting under the bleachers of the basketball facility extending out an additional area of 3,120 SF (120 ft long x 26 ft wide x 10 ft height) by the tennis court that's (1,750 sq

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ft) and measures 35ft x 50ft. The basketball court is 110ft X 120ft X 27ft with the offices sitting under the bleachers and extending out an additional 26ft X 120ft X 10ft. The basketball structure is steel columns, rafters, and purlins with metal decking with a modified bitumen roof. The extension is a concrete roof with a modified bitumen roof cover. The walls are CMU with a plaster finish. The interior includes reinforced CMU concrete walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of an open ceiling and cement ceiling, painted concrete and vinyl floor tile. These facilities were in operation at the time of the event. GPS Latitude/Longitude: 18.46625, -66.74043

# 3. DI: 249963 UPR Arecibo Edificio 012 Anexo A

The UPR Arecibo Edificio 012 Anexo A building is a 3,600 SF, single story educational building that was constructed in 1974 (46 years old). The building is a site cast, reinforced concrete building with a reinforced concrete roof with a bituminous built-up roof system with a six-foot roof overhang on south elevation and two-foot overhang on other elevations. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of painted concrete ceiling and walls and floors of sealed concrete and ceramic floor tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.47015, -66.74291

#### 4. DI: 249964 UPR Arecibo Edificio 014 Anexo C

The UPR Arecibo Edificio 014 Anexo C building is a 2,975 SF, single story college building with classrooms constructed in 1995 (25 years old). The building is reinforced concrete with a reinforced concrete roof with a eight foot roof overhang on the south side. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of painted concrete walls and sealed concrete floors. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.47019, -66.74315

#### 5. DI: 249965 UPR Arecibo Edificio 015 DECEP

The UPR Arecibo Edificio 015 DECEP building is a 2,200 SF, single story college office building constructed in 2003 (17 years old). The building is site cast, reinforced concrete with a reinforced concrete roof with a 3 FT parapet on 3 sides. The roof is a bitumen BUR membrane. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of suspended acoustic ceiling, painted concrete or drywall, and vinyl composition floor tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46812, -66.74115

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#### 6. DI: 250236 UPR Arecibo Edificio 008 Caseta Guardia

The UPR Arecibo Edificio 008 Caseta Guardia building is a 134 SF, 1 story entry guard building that was constructed in 1984 (33 years old). The building is a site cast, reinforced concrete building with a reinforced concrete roof with a bituminous built-up roof system over is a 3.5 FT roof overhang and 5 FT canvas awning with the main roof. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of painted concrete and ceramic floor tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46651, -66.73979

# 7. DI: 250237 UPR Arecibo Edificio 011 Centro Pre-Escolar

The UPR Arecibo Edificio 011 Centro Pre-Escolar building is a 2,680 SF, 1 story school building that was constructed in 2000 (17 years old) is a site cast, reinforced concrete building with a reinforced concrete roof with a bituminous built up roof system. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of suspended acoustic ceiling, painted concrete or drywall and vinyl, ceramic or terrazzo floor tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.47091, -66.74280

#### iii. SCOPE OF WORK- FEMA

#### 1. DI: 248792 UPR Arecibo Edificio 013 Anexo B

ι	UPR Arecibo Edificio 013 Anexo B				
PA 428					
{	(00-001) General	QTY	UNIT		
F	A. Prep and paint 7,100 SF of exterior surfaces.	7100	SF		
Е	3. Prep and paint 1,200 SF of concrete soffit.	1200	SF		
1	C. Remove and replace 20 each of light, LED, 1 FT x 1 FT, surface mount.	20	EA		
	D. Repair and paint 50 SF of spalled concrete soffit.	50	SF		
	E. Repair and paint 10 SF of spalled concrete wall.	10	SF		
-	. Repair and pairin 10 or or spaired conterers wall.	10	31		
{	(00-002) General				
   F	F. Prep and paint 10,600 SF of interior surfaces.	10600	SF		
{	(01-003) Second Floor Room201 (25 FT x 28 FT)				

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G. Prep and paint 120	OSF of interior concrete ceiling.	120	S
{01-004} Second Floor Roo	om202 (25 FT x 28 FT)		
H. Prep and paint 350	SF of interior concrete ceiling.	350	S
{01-005} Second Floor Roo	om203 (25 FT x 28 FT)		
I. Repair and paint 1 S	F of spalled interior concrete ceiling	. 1	S
{01-006} Second Floor Roo	om204 (25 FT x 28 FT)		
J. Remove and replac	ce 1 each of AC, 5-ton package	1	E
{01-007} Second Floor Roo	om205 (25 FT x 28 FT)		
K. Remove and replac	ce 1 each of AC, 5-ton package	1	E
{02-008} First Floor Room1	01 (25 FT x 28 FT)		
L. Prep and paint 300	SF of interior concrete ceiling.	300	S
{02-009} First Floor Room1	02 (25 FT x 28 FT)		
M. Remove and replac	e 1 each of AC, 5-ton package	1	E
N. Prep and paint 5 SF concrete.	Fof interior concrete ceiling,	5	S
{02-010} First Floor Room1	04 (25 FTx 28 FT)		
O. Remove and repla	ace 1 each of AC, 5-ton package	1	E
P. Remove and replace aluminum, 3 FT wide x 5 F	ce 8 each of window, jalousie, T High.	8	E
Q. Remove and replac	ce 1 each of window, jalousie,	1	E

	{02-011} First Floor Room105 (25 FTx 28 FT)		
	R. Remove and replace 2 each of light, fluorescent, 2 FTX 4 FT, 4 tube, surface mount.	2	EA
	S. Prep and paint 40 SF of interior concrete ceiling.	40	SF
			<u> </u>
	T. Remove and replace 6 each of window, jalousie, aluminum, 3 FTwide x 5 FT High.	6	EA
	{02-012} First Floor Room106 (25 FTx 28 FT)		
	H. Description of the control of the	700	C.F.
	U. Prep and paint 700 SF of interior concrete ceiling.	700	SF
	V. Remove and replace 8 each of window, jalousie, aluminum, 3 FTwide x 5 FT High	8	EA
HMP 40	5		
	HMP406-Edificio 013 Anexo B DI #148792		
	A. Paint Mitigation:		
	A.1 Apply 8,360 SF of second coat, waterproof sealer	8360	SF
	B. A/C Unit Mitigation:		
	B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units	4	EA
	C. Window Mitigation		
	C.1 Replace 22 ea (330 SF) of window, impact resistant aluminum jalousie windows 3 FT X 5 FT	22	EA
	C. 2 Replace 1 ea (6 SF) of window, impact resistant aluminum jalousie windows 3 FT X 2 FT	1	EA

# **BBA SCOPE:**

Damage #248792 UPR Arecibo Edificio 013 Anexo B

**System Electrical:** 

# **Disaster Related Damage Component:**

Building Interior{02-011} First Floor Room 105 (25 FT x 28 FT) 2 each of light, fluorescent, 2 FT X 4 FT, 4 tube, surface mounting operable due to water infiltration.

# BBA 2018 Details:

Lighting Controls -	2018 IECC / Section C405.2 Lighting Controls (Mandatory) C405.2.1 Occupant
Sensor Controls	

Education Sector Industry Standard:		
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RFP for Design and Supervision/ FEMA/CDBG Projects - RFP #DRO 24-020 / B00013 University of Puerto Rico

- a. Disaster Damage Work Required: Remove and replace damaged number as noted above per classroom lighting fixtures.
- b. BBA Pre-disaster condition: The lighting system in this classroom were operable prior to the event. Lighting fixtures are powered through an electrical circuit with a commercial type 1 pole lever switch.
- c. BBA Work required: Install one (1) ceiling mounted occupancy sensors one (1) for each room damaged lighting is functional dependent on sensor to meet code requirement. Due to the room size (156 SF), 1 ea. occupancy sensor will be necessary to operate lighting fixture system. The sensor shall be positioned in the ceiling, room area centered to allow for best functionality. New conduit and corresponding wiring will be necessary for sensor installation. Consider conduit installation to nearest lighting system junction box and wiring of sensor to existing circuit. Considering a minimum of 20ft of EMT conduit and 60ft of existing gauge electrical copper wire (minimum allowable: THWN #12 stranded copper wire). If the corresponding circuit wiring is not accessible, consider conduit and corresponding wiring to the nearest lighting panel board.

# System HVAC:

# 1. Disaster Related Damage Component:

Building Interior (01-006) Second Floor Room 204 (25 FT x 28 FT) 1.

each of AC, 5 ton package unit inoperable due to water infiltration

Building Interior (01-007) Second Floor Room 205 (25 FT x 28 FT) 1.

each of AC, 5 ton package unit inoperable due to water infiltration

Building Interior (02-009) First Floor Room 102 (25 FT x 28 FT)1 each

of AC, 5 ton package unit inoperable due to water infiltration

Building Interior (02-010) First Floor Room 104 (25 FT x 28 FT) 1

each of AC, 5 ton package unit inoperable due to water infiltration

#### 2. BBA Details:

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Industry Standard: Per 2016 ASHRAE, 90.1 – 2010 Appendix G Baseline Building

HVAC System Education Sector, Damaged HVAC components: Replacement of multiple HVAC systems in a single building.

- a. Disaster Damage Work Required: Remove and replace air conditioner systems units for each classroom noted above.
- b. Pre-disaster condition: The existing air conditioner units above mentioned served the purpose of conditioning the classrooms. The cooling capacity was for the area, however given the type of units, the fresh air requirements were not met. All units are connected to the same electrical branch circuit and the panelboard has spaces for additional branching.

c. HVAC BBA W	ork required: For	estimating purpose	es, install two (2) ou	tside air compliant direct
expansion (DX)	10 Tons A/C un	t, in place of all it	tems described in c	disaster related damages

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components of HVAC system described above for capacity to meet air exchange standard. For enclosing of Air Handling Unit (AHU), construct a mechanical closet made of insulated gypsum board walls (3 sides) and a minimum 1hr fire rated hollow metal door to install necessary AHU with DX compatible coil and corresponding appurtenances such as: support base, Louver for fresh air w/ damper, supply register w/ opposed blade damper, galvanized ductwork, return air side louver, drainage piping, thermostat, ½" EMT conduit for thermostat control, insulated DX piping and communication cable to connect to condensing unit (CU).

d. Electric Power BBA Work required: In addition to the interior work, exterior rooftop installation (where possible) of the condensing unit will be necessary to complete the refrigeration system needing: connection of DX piping from interior (approx. 30 Ft. run) Air Handling Unit (AHU), 3#18 control cable from AHU, 5/16" clear coated galvanized two-way tie down wires. For the electrical scope both units need dedicated circuits directly from the panelboard, consider the following: 1) AHU - route new branch circuit from panelboard with 3#10 THWN copper wire in 3/4" EMT including disconnecting means (equal or similar to a 30amp Safety switch) with flexible conduit to power the unit and 2) CU -route new branch circuit from panelboard w/ 3#8 THWN copper wire in 3/4" EMT for interior and RGC when exposed to exterior and/or to impact, including disconnecting means (equal or similar to a 30amp Safety Switch) with flexible conduit to power the unit. Please account for the demolition for penetrations as well as the necessary masonry.

#### 2. DI: 249962 UPR Arecibo Edificio 004 Actividades Atléticas

UPR Arecibo Edificio 004 Actividades Atleticas		
PA 428		
Building Damage:	QTY	UNIT
{00-01-001} General Basketball Arena and Adm. Offices		
A. Remove and replace 240 LF long of roof gutters.	240	LF
B. Remove and replace 6 each of window, acrylic cover 2 FTx 3 FT.	6	EA
{00-01-002} General Gymnasium		
C. Remove and replace 1,530 SFof wall, 1/2 INplywood.	1530	SF
D. Remove and replace 1,530 SFof wall, aluminumsiding.	1530	SF
E. Remove and replace wall, metal studs, 5 1/2 IN@ 16 INOCX 10 FT 16-gauge, 50 LFlong.	50	LF
F. Remove and replace 12 each of window, aluminumjalousie 3 FTX 5 FT.	12	EA
{00-02-003} Roofing System Basketball Arena and Adm. Offices		
G. Remove and replace modified bitumen roof, 3,500 SF.	3500	SF
H. Remove and replace steel deck, screw down, 6,800 SF.	6800	SF
I. Remove and replace roof flashing, 26-gauge, 12 IN, 759 LFlong.	759	LF
J. Remove and replace 16,620 SFof roof sealer.	16620	SF
{00-02-004} Roofing SystemGymnasium		

Initials \_\_\_\_\_

K Danasa and and a 111 10 11 170 151	170	1.5
K. Remove and replace roof trim, 12 IN, 170 LFlong.	170	LF
{00-03-005} General Basketball Arena and Adm. Offices	0==	1
L. Prep and paint 270 SFof building interior surfaces.	270	SF
{00-03-006} General Gymnasium		
M. Prep and paint 1,530 SFof building interior surfaces.	1530	SF
{01-04-007} Basketball Arena and Adm. Offices Basketball Area (110FTX 120FT)		
N. Remove and replace 2 each of fire alarmpull station.	2	EA
{02-06-012} Gymnasium(35FT X 50FT)		
O. Remove and replace 9 each of light, 6 INX 8 FTfluorescent, 2 tube, suspended.	9	EA
{03-00-000} Tennis Court		
P. Remove and replace 1 each of Wind Breaker mesh (38 FTx 10 FT).	36 1	EA
{0300-001} Running Track		
Q. Remove and replace rubber surface, 9,100 SF.	9100	SF
{0300-0010} Office Area (22 FTx 16 FT)		
R. Remove and replace vinyl cove base 4 in, 131 LFlong.	131	LF
{03-00-003} Exterior		
S. Remove and replace 2 each of 12 INdiameter, 175 W mercury outdoor light fixture.	2	EA
{03-00-003} Men and Women Bathroom		
T. Remove and replace 9 each of aluminumjalousie windows 2 FTx 2 FT.	9	EA
{03-00-004} Access Ramp		
<ul> <li>U. Prep and paint steel pipe handrail 1.5 INdiameter finish paint, 30 FTlong.</li> </ul>	n 30	LF
{03-00-005}		
V. Remove and replace 5 each of windows aluminumlouvers 4 FTx 8 FT.	5	EA
{03-00-005} Basketball Court		
W. Remove and replace 5 each of ceiling led lights for basketball arena.	5	EA
{03-00-006}		
X. Remove and replace 5 each of windows aluminumlouvers 4 FTx 12 FT.	5	EA
{03-00-007}		
Y. Remove and replace 5 each of windows aluminumlouvers 4 FTx 16 FT.	5	EA
{0300-008}		
Z. Remove and replace 4 each of aluminumjalousie windows 2 FTx 2 FT.	4	EA
{0300-009} Office Area (22 FTx 16 FT)		
AA. Remove and replace 1 each of fluorescent suspended light fixture, 2 FTx 4 FT.	1	EA
Vehicle or Equipment Damage	2	EA

	{00-01-001} General Basketball Arena and Adm. Offices		
	BB. Remove and replace 6 each of Ventilation Exhaust Fan 2 FTx 2 FT.	6	EA
HMP 406			
	HMP406-Edificio 004 Actividades Atleticas DI #249962		
	A. Gutter Mitigation:		
	A.1 Install additional hangers to 240 LF of gutter to prevent the uplift of the gutter due to high wind pressure expected during a similar event.	240	LF
	B. Siding Mitigation		
	B.1 Install 1,530 SF of Exterior Metal Panel Fastening to better secure roof by SF.	1530	SF
	C. Roof Mitigation		
	C.1 Install 3,500 SF of secondary roofing membrane	3500	SF
	C.2 Install 3,500 SF of insulation or light weight cementitious fill sloped to facilitate drainage	3500	SF
	C.3 Install 292 LF of Termination bar to prevent uplift to prevent uplift of waterproofing roof system	292	LF
	C.4 Install 292 LF of cap flashing to prevent uplift of waterproofing roof system in parapet	292	LF
	D. Metal Roof Mitigation		
	D.1 Replace 6,800 SF with Steel roofing panels, on steel frame, corrugated or ribbed, galvanized, 24 gauge.	6800	SF
	D.2 Install 68 SQ of Metal Roof Fastening, 36 additional fasteners per square area (1 SQ = 100 SF)	6800	SF
	E. Siding Mitigation		
	E. Install 759 LF of Exterior Metal Panel Fastening to better secure roof by SF	759	LF
	F. Roof Mitigation	139	LF
	F.1 Install 16,620 SF of Elastomeric roofing, hypalon neoprene, fluid applied, non-woven polyester, reinforced, 20 mils thick.	16620	SF
	G. Running track Mitigation		
	G.1 Install 9,100 SF of Cement underlayment, portland cement based, self-leveling, pumped, 4100 psi, 1/2" thick.	9100	SF
	G.2 Install 1,011 SY of Geosynthetic soil stabilization, geotextile fabric, woven, heavy duty, 600 lb. tensile strength	1011	SY
	H. Floor Tile Mitigation		
	H.1 Install 131 SF of waterproof adhesive	131	SF
	I. Light Fixture Mitigation		
	I.1 Replace 2 EA of vandal resistant LED Canopy light	2	EA
	J. Window Mitigation		

J.1 Replace a total of 40 each (968 SF) using impact resistant aluminum jalousie windows	40	EA
Replace 12 each of window, impact resistant aluminum jalousie windows 3 FT X 5 FT	12	EA
Replace 9 each of window, impact resistant aluminum jalousie windows 2 FT X 2 FT	9	EA
Replace 5 each of window, impact resistant aluminum jalousie windows 4 FT X 8 FT	5	EA
Replace 5 each of window, impact resistant aluminum jalousie windows 4 FT X 12 FT	5	EA
Replace 5 each of window, impact resistant aluminum jalousie windows 4 FT X 16 FT	5	EA
Replace 4 each of window, impact resistant aluminum jalousie windows 2 FT X 2 FT	4	EA
K. Exhaust Fan Mitigation:		
K.1 1 Install 2 each - anchoring system for exhaust fan	2	EA

# 3. DI: 249963 UPR Arecibo Edificio 012 Anexo A

	UPR Arecibo Edificio 012 Anexo A		
PA 428			
	Building Damage:	QTY	UNIT
	{00-001} General		
	A. Prep and paint 3,480 SF of exterior surfaces (290 If long x 12 ft high).	3480	SF
	B. Prep and paint 250 SFof concrete soffit.	250	SF
	C. Remove and replace 4 each of light, LEDphotocell, wall mount, 150W.	4	EA
	D. Remove and replace 5 each of window, jalousie, aluminum, 3 FTwide x 5 FThigh.	5	EA
	E. Remove and replace 4 each of window, jalousie, aluminum, 3 FTwide x 2 FThigh.	4	EA
	{00-002} Roofing System		
	F. Remove and replace 2,695 SF of roof, Built-Up Roofing (BUR) membrane.	2695	SF
	G. Remove and replace roof metal flashing, 100 LFlong.	100	LF
	{00-003} General		
	H. Prep and paint 10,400 SF of interior surfaces.	10400	SF
	(00-004) Room102 (25 FTx 39 FT) + (13 FTx 25 FT)		
	I. Repair and paint 4 SF of spalled concrete ceiling.	4	SF
	{01-006} Room102		
	K. Remove and replace 1 each of window, jalousie, aluminum, 3 FTx 1.5 FT.	1	EA
HMP 406			

Initials \_\_\_\_\_

HMP40	06-Edificio 012 Anexo D 012 DI #249963		
A.	Roof Mitigation		
A.1 cemer	Install 3,850 SF of insulation or light weight ntitious fill sloped to facilitate drainage	3850	SF
A.2 cap flo	Install 290 LF of termination bar on roof edges and ashing to prevent uplift of the roof membrane	1200	SF
B.	Window Mitigation		
B.1 windov	Replace 5 of 27 EA – 3' W x 5' H (75 SF) jalousie ws using impact resistant aluminum jalousie window	5	EA
B.2 windov	Remove and replace 22 of 27 EA – (330 SF) jalousie ws using impact resistant aluminum jalousie window	22	EA
B.3 windov	Replace 5 of 33 EA – 3' W x 2' H – (30 SF) jalousie ws using impact resistant aluminum jalousie window	5	EA
B.4 windov	Remove and replace 28 of 33 EA – (168 SF) jalousie ws using impact resistant aluminum jalousie window	28	EA
B.5	Install 60 each of weatherstripping	60	EA
C.	Door Mitigation		
	Remove and replace 5 EA doors, using hollow commercial, steel, flush, full panel, hollow core, 1-3/4" 18 gauge, 3' x 7'	5	EA
D.	A/C Unit Mitigation:		
D.1	Install on 1 EA – Water Cistern anchoring system	1	EA

# 4. DI: 249964 UPR Arecibo Edificio 014 Anexo C

	UPR Arecibo Edificio 014 Anexo C			
PA 428				
	Building Damage:	QTY	UNIT	
	{00-001} General			
	A. Prep and paint 3,400 SFof building exterior surfaces.	3400	SF	
	B. Prep and paint 600 SFof concrete overhang.	600	SF	
	C. Remove and replace 1 each of light, high pressure sodium, wall pack, 200W.	1	EA	
	D. Remove and replace 6 each of light, 1 FTx1 FTLED, surface mount.	6	EA	

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		1	
E. 3 FT>	Remove and replace 16 each of window, aluminumjalousie 6 FT.	16	EA
F. 2 FT	Remove and replace 24 each of window, aluminumjalousie 3 FT.	24	EA
G.	Prep and paint handrail, 2 rails, 1 1/2 INdia. picket steel	8	LF
	nted, surfacing, 80 FTlong.	0	LI
Н.	Re-surface 500 SF of walkway, sealed concrete	500	SF
	002} Roofing System	000	01
l. ovei	Remove and replace 2,660 SFof modified bitumen roofing reinforced concrete roof.	2660	SF
<b>{00-</b>	003} General		
(00			
J.	Prep and paint 8,316 SFof building interior surfaces.	8316	SF
{01-	004} First Floor ClassroomS-1-02-02 (25 FTx 32 FT)		
K.	Remove and replace 6 each of light, 2 FTx 4 FTfluorescent, 4	6	E.A
tube	e, surface mount.		
L.	Remove and replace 1 each of AC, split unit, 36,000 BTU.	1	EA
M. grille	Remove and replace 2 each of door & frame, steel security e, 3070.	2	EA
N.	Remove and replace 2 each of door & frame, HM, metal	2	E.A
	ne, painted, 3070.		
Ο.	Re-surface 800 SFof floor, sealed concrete.	800	SF
{01-	005} First Floor RestroomS-1-02-02 (7 FTx 12 FT)		
Р.	Remove and replace 1 each of light, 2 FTx 4 FTfluorescent,	1	EA
	ace mount.	'	-′
Q.	Remove and replace 1 each of door & frame, SC, wood	1	ΕA
fram	ne, painted, 3070.		
	006} First Floor ClassroomS-1-03-02 (25 FTx 39 FT)		
{01-	006) Filst Floor Classicollis-1-05-02 (25 FIX 57 FI)		-

i		
S. Remove and replace 1 each of AC, split unit, 36,000 BTU.	1	Е
T. Remove and replace 2 each of door & frame, steel security grille, 3070, surfacing.	2	E
U. Remove and replace 2 each of door & frame, HM, metal frame, painted, 3070.	2	E
V. Re-surface 975 SFof floor, sealed concrete.	975	S
{01-007} First Floor Storage Room(7 FTx 18 FT)		
W. Remove and replace 2 each of light, 2 FTx 4 FTfluorescent, 4 tube, surface mount.	2	E
X. Remove and replace 1 each of door & frame, steel security grille, 3070, surfacing.	1	E
Y. Remove and replace 1 each of door & frame, HM, metal frame, painted, 3070.	1	E
Z. Re-surface 126 SFof floor, sealed concrete.	126	S
	1	1
D6 HMP406-Edificio 014 Anexo C DI #249964		
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill	2975	S
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation	2975	
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap		
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof membrane		L
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof membrane  B. Window Mitigation  B.1 Replace 16 EA – 3' W x 6' H (288 SF) jalousie windows	240	L
A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof membrane  B. Window Mitigation  B.1 Replace 16 EA – 3' W x 6' H (288 SF) jalousie windows using impact resistant aluminum jalousie window  B.2 Replace 24 EA – 3' W x 2' H – (144 SF) jalousie windows	240	E
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof membrane  B. Window Mitigation  B.1 Replace 16 EA – 3' W x 6' H (288 SF) jalousie windows using impact resistant aluminum jalousie window  B.2 Replace 24 EA – 3' W x 2' H – (144 SF) jalousie windows using impact resistant aluminum jalousie window	240 16 24	E
A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof membrane  B. Window Mitigation  B.1 Replace 16 EA – 3' W x 6' H (288 SF) jalousie windows using impact resistant aluminum jalousie window  B.2 Replace 24 EA – 3' W x 2' H – (144 SF) jalousie windows using impact resistant aluminum jalousie window  B.3 Install 40 each of weatherstripping	240 16 24	E
HMP406-Edificio 014 Anexo C DI #249964  A. Roof Mitigation  A.1 Install 2,975 SF of insulation or light weight cementitious fill sloped to facilitate drainage  A.2 Install 240 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof membrane  B. Window Mitigation  B.1 Replace 16 EA – 3' W x 6' H (288 SF) jalousie windows using impact resistant aluminum jalousie window  B.2 Replace 24 EA – 3' W x 2' H – (144 SF) jalousie windows using impact resistant aluminum jalousie window  B.3 Install 40 each of weatherstripping  C. Door Mitigation  C.1 Remove and replace 1 EA doors, using using hollow metal, commercial, steel, flush, full panel, hollow core, 1-3/4"	240 16 24 40	

Initials \_\_\_\_\_

#### **BBA Scope:**

# Damage #249964 UPR Arecibo Edificio 014 Anexo C

# **System Electrical:**

#### **Disaster Related Damage Component:**

Building Interior (01-004) First Floor Classroom S-1-02-02 (25 FT x 32 FT) 6 each of light, 2 FT x 4 FT fluorescent, 4 tube, surface mount damaged by water infiltration and mold propagation.

Building Interior {01-005} First Floor Restroom S-1-02-02 (7 FT x 12 FT) 1 each of light, 2 FT x 4 FT fluorescent, surface mount damaged by water infiltration and mold propagation.

Building Interior (01-006) First Floor Classroom S-1-03-02 (25 FT x 39 FT) 6 each of light, 2 FT x 4 FT fluorescent, 4 tube, surface mount damaged by water infiltration and mold propagation.

Building Interior  $\{01-007\}$  First Floor Storage Room (7 FT x 18 FT) 2 each of light, 2 FT x 4 FT fluorescent, 4 tube, surface mount damaged by water infiltration and mold propagation.

#### **BBA Details:**

Lighting Controls - 2018 IECC / Section C405.2 Lighting Controls (Mandatory) C405.2.1 Occupant Sensor Controls.

Education Sector Industry Standard:

- a. Disaster Damage Work Required: Remove and replace damaged number as noted above per classroom lighting fixtures.
- b. BBA Pre-disaster condition: The lighting system in this classroom were operable prior to the event. Lighting fixtures are powered through an electrical circuit with a commercial type 1 pole lever switch.
- c. BBA Work required: Install four (4) ceiling mounted occupancy sensors one (1) for each classroom damaged lighting is functional dependent on sensor to meet code requirement. Due to the room size (156 SF), 1 ea. occupancy sensor will necessary to operate lighting fixture system. The sensor shall be positioned in the ceiling, room area centered to allow for best functionality. New conduit and corresponding wiring will be necessary for sensor installation. Consider conduit installation to nearest lighting system junction box and wiring of sensor to existing circuit. Considering a minimum of 20ft of EMT conduit and 60ft of existing gauge electrical copper wire (minimum allowable: THWN #12 stranded copper wire). If the corresponding circuit wiring is not accessible, consider conduit and corresponding wiring to the nearest lighting panel board.

# System HVAC:

# **Disaster Related Damage Component:**

Building Interior {01-004} First Floor Classroom S-1-02-02 (25 FT x 32 FT) 1 each of AC, split unit, 36,000 BTU damaged by water infiltration and mold propagation.

Building Interior {01-006} First Floor Classroom S-1-03-02 (25 FT x 39 FT) 1 each of AC, split unit, 36,000 BTU damaged by water infiltration and mold propagation.

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#### **BBA Details:**

Industry Standard: Per 2016 ASHRAE, 90.1 – 2010 Appendix G Baseline Building HVAC System Education Sector, Damaged HVAC components: Replacement of multiple HVAC systems in a single building.

- a. Disaster Damage Work Required: Remove and replace air conditioner systems units for each classroom noted above.
- b. Pre-disaster condition: The existing air conditioner units above mentioned served the purpose of conditioning the classrooms. The cooling capacity was for the area, however given the type of units, the fresh air requirements were not met. All units are connected to the same electrical branch circuit and the panelboard has spaces for additional branching.
- c. HVAC BBA Work required: For estimating purposes, install two (2) outside air compliant direct expansion (DX) 3 Tons A/C unit, in place of all items described in disaster related damages components of HVAC system described above for capacity to meet air exchange standard. For enclosing of Air Handling Unit (AHU), construct a mechanical closet made of insulated gypsum board walls (3 sides) and a minimum 1hr fire rated hollow metal door to install necessary AHU with DX compatible coil and corresponding appurtenances such as: support base, Louver for fresh air w/ damper, supply register w/ opposed blade damper, galvanized ductwork, return air side louver, drainage piping, thermostat, ½" EMT conduit for thermostat control, insulated DX piping and communication cable to connect to condensing unit (CU).
- d. Electric Power BBA Work required: In addition to the interior work, exterior rooftop installation (where possible) of the condensing unit will be necessary to complete the refrigeration system needing: connection of DX piping from interior (approx. 30 Ft. run) Air Handling Unit (AHU), 3#18 control cable from AHU, 5/16" clear coated galvanized two-way tie down wires. For the electrical scope both unitsneed dedicated circuits directly from the panelboard, consider the following: 1) AHU route new branch circuit from panelboard with 3#10 THWN copper wire in ¾" EMT including disconnecting means (equal or similar to a 30amp Safety switch) with flexible conduit to power the unit and 2) CU –route new branch circuit from panelboard w/ 3#8 THWN copper wire in ¾" EMT for interior and RGC when exposed to exterior and/or to impact, including disconnecting means (equal or similar to a 30amp Safety Switch) with flexible conduit to power the unit. Please account for the demolition for penetrations as well as the necessary masonry.

#### 5. DI: 249965 UPR Arecibo Edificio 015 DECEP

	UPR Arecibo Edificio 015 DECEP		
PA 428			
	{00-001} General	QTY	UNIT
	A. Prep and paint 2,520 SF of building exterior surfaces.	2520	SF
	B. Remove and replace 33 each of window, aluminumjalousie 3 FTx 4 FT.	33	EA
	C. Remove and replace 3 each of AC, 3-ton package unit.	3	EA

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D. Remove and replace 12 each of light, incandescent light, 1 bulb, wall mount, 150W.	12	EA
E. Remove and replace 1 each of light, 1 FTx 1 FT, LED, surface mount.	1	EA
F. Prep and paint 1 SFof concrete wall.	1	SF
{00-002} Roofing System		
G. Remove and replace 1,200 SF of BURmembrane.	1200	EA
H. Remove and replace 399 SFof parapet BUR, 3 FTX 133 LF.	399	SF
{00-003} General		
Prep and paint 7,560 SFof building interior surfaces.	7560	SF
{01-004} First Floor Building Lobby (7 FTx 32 FT)	1	
J. Remove and replace 224 SFof ceiling, 2 FTx 4 FTacoustic tile.	224	SF
K. Remove and replace 112 SFof ceiling, suspended metal grid.	112	SF
L. Remove and replace 5 each of light 2 FTx 4 FT, fluorescent,	5	EA
recessed, 4 tube.		
M. Remove and replace 1 each of door & frame, ALU, glass, double door, 3070.	1	EA
{01-005} First Floor Main Secretary Pool (21 FTx 30 FT)		
N. Remove and replace 630 SFof ceiling, 2 FTx 4 FTacoustic tile.	630	SF
O. Remove and replace 315 SFof ceiling, suspended metal grid.	315	SF
P. Prep and paint 32 SFof concrete ceiling.	32	SF
Q. Remove and replace 12 each of light 2 FTx 4 FT, fluorescent,	12	EA
recessed, 4 tube.		
{01-006} First Floor Storage Room(10 FTx 10 FT)		
R. Remove and replace 100 SFof ceiling, 2 FTx 4 FTacoustic tile.	100	SF
S. Remove and replace 50 SFof ceiling, suspended metal grid.	50	EA
T. Remove and replace 2 each of light 2 FTx 4 FT, fluorescent,	2	EA
recessed, 4 tube.	-	
{01-007} First Floor Conference Room(9 FTx 19 FT)	171	0.5
U. Remove and replace 171 SFof ceiling, 2 FTx 4 FTacoustic tile.	171	SF
V. Remove and replace 34 SFof ceiling, suspended metal grid.	34	SF
W. Remove and replace 4 each of light 2 FTx 4 FT, fluorescent, recessed, 4 tube.	4	EA
{01-008} First Floor Director's Office (9 FTx 12 FT)	+	
X. Remove and replace 108 SFof ceiling, 2 FTx 4 FTacoustic tile.	108	SF
Y. Remove and replace 54 SFof ceiling, suspended metal grid.	54	SF
<ul><li>Z. Remove and replace 2 each of light 2 FTx 4 FT, fluorescent,</li></ul>	2	EA
recessed, 4 tube.		
{01-009} First Floor Women's Bathroom(8 FTx 10 FT)	1	
AA. Remove and replace 80 SF of ceiling, 2 FTx 4 FTacoustic tile.	80	SF
BB. Remove and replace 40 SF of ceiling, suspended metal grid.	40	SF
CC. Remove and replace 2 each of light 2 FTx 4 FT, fluorescent,	2	EA
recessed, 4 tube.		
{01-010} First Floor Men's Bathroom(5 FTx 5 FT)		
DD. Remove and replace 25 SF of ceiling, 2 FTx 4 FTacoustic tile.	25	SF

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	EE. Remove and replace 13 SF of ceiling, suspended metal grid.	13	SF
	FF. Remove and replace 5 each of light 2 FTx 4 FT, fluorescent, recessed, 4 tube.	5	EA
	{01-011} First Floor Hallway (8 FTX 32 FT)		
	GG. Remove and replace 256 SF of ceiling, 2 FTx 4 FTacoustic tile.	256	SF
	HH. Remove and replace 256 SF of ceiling, suspended metal grid.	256	SF
HMP 4	06		
	HMP406-Edificio 015 DECEP DI #249965		
	A. Roof Mitigation		
	A.1 Install 2,599 SF of insulation or light weight cementitious fill sloped to facilitate drainage	2599	SF
	A.2 Install 190 LF of peel-stop bar on roof edges to prevent uplift of flashing and roof membrane	190	LF
	B. Window Mitigation		
	B.1 Replace 33 EA – (396 SF) jalousie windows using impact resistant aluminum jalousie window	33	EA
	B.1 Remove and replace 7 EA – (84 SF) jalousie windows using impact resistant aluminum jalousie window	7	EA
	B.2 Install 40 each of weatherstripping	40	EA
	C. Door Mitigation		
	C.1 Install 3 EA Doors, rolling service, steel, manual, 18 gauge, 10' x 20' high, incl. hardware	3	EA
	D. A/C Unit Mitigation:		
	D.1 Install on 3 EA – 3 Ton A/C Package Units anchoring system	3	EA

#### **BBA Scope:**

#### Damage #249965 UPR Arecibo Edificio 015 DECEP

System: Electrical:

# **Disaster Related Damage Component:**

Building Interior  $\{01-004\}$  First Floor Building Lobby (7 FT x 32 FT) 5 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

Building Interior  $\{01-005\}$  First Floor Main Secretary Pool (21 FT x 30 FT)12 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

Building Interior  $\{01-006\}$  First Floor Storage Room (10 FT x 10 FT) 2 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

Building Interior  $\{01-007\}$  First Floor Conference Room (9 FT x 19 FT)4 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

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Building Interior {01-008} First Floor Director's Office (9 FT x 12 FT) 2 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

Building Interior  $\{01-009\}$  First Floor Women's Bathroom  $\{8 \text{ FT x } 10 \text{ FT}\}\)$ 2 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

Building Interior  $\{01-010\}$  First Floor Men's Bathroom (5 FT x 5 FT) 5 each of light 2 FT x 4 FT, fluorescent, recessed, 4 tube damaged by water infiltration and mold propagation.

#### **BBA Details:**

Lighting Controls - 2018 IECC / Section C405.2 Lighting Controls (Mandatory) C405.2.1 Occupant Sensor Controls.

Education Sector Industry Standard:

- a. Disaster Damage Work Required: Remove and replace damaged number as noted above per classroom lighting fixtures.
- b. BBA Pre-disaster condition: The lighting system in this classroom were operable prior to the event. Lighting fixtures are powered through an electrical circuit with a commercial type 1 pole lever switch.
- c. BBA Work required: Install seven (7) ceiling mounted occupancy sensors one (1) for each classroom damaged lighting is functional dependent on sensor to meet code requirement. Due to the room size(156 SF), 1 ea. occupancy sensor will necessary to operate lighting fixture system. The sensor shall be positioned in the ceiling, room area centered to allow for best functionality. New conduit and corresponding wiring will be necessary for sensor installation. Consider conduit installation to nearest lighting system junction box and wiring of sensor to existing circuit. Considering a minimum of 20ft of EMT conduit and 60ft of existing gauge electrical copper wire (minimum allowable: THWN #12 stranded copper wire). If the corresponding circuit wiring is not accessible, consider conduit and corresponding wiring to the nearest lighting panel board.

#### System HVAC:

#### **Disaster Related Damage Component:**

Building Exterior (00-001) General 3 each of AC, 3 ton package unit damaged by high winds, wind driven rain, and flying debris.

#### **BBA Details:**

Industry Standard: Per 2016 ASHRAE, 90.1 – 2010 Appendix G Baseline Building HVAC System

Education Sector, Damaged HVAC components: Replacement of multiple HVAC systems in a single building.

- a. Disaster Damage Work Required: Remove and replace air conditioner systems units for each classroom noted above.
- b. Pre-disaster condition: The existing air conditioner units above mentioned served the purpose of conditioning the classrooms. The cooling capacity was for the area, however Initials \_\_\_\_\_\_

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given the type of units, the fresh air requirements were not met. All units are connected to the same electrical branch circuit and the panelboard has spaces for additional branching.

- c. HVAC BBA Work required: For estimating purposes, install one (1) outside air compliant direct expansion (DX) 10 Tons A/C unit, in place of all items described in disaster related damages components of HVAC system described above for capacity to meet air exchange standard. For enclosing of Air Handling Unit (AHU), construct a mechanical closet made of insulated gypsum board walls (3 sides) and a minimum 1hr fire rated hollow metal door to install necessary AHU with DX compatible coil and corresponding appurtenances such as: support base, Louver for fresh air w/ damper, supply register w/ opposed blade damper, galvanized ductwork, return air side louver, drainage piping, thermostat, ½" EMT conduit for thermostat control, insulated DX piping and communication cable to connect to condensing unit (CU).
- d. Electric Power BBA Work required: In addition to the interior work, exterior rooftop installation (where possible) of the condensing unit will be necessary to complete the refrigeration system needing: connection of DX piping from interior (approx. 30 Ft. run) Air Handling Unit (AHU), 3#18 control cable from AHU, 5/16" clear coated galvanized two-way tie down wires. For the electrical scope both units need dedicated circuits directly from the panelboard, consider the following: 1) AHU route new branch circuit from panelboard with 3#10 THWN copper wire in ¾" EMT including disconnecting means (equal or similar to a 30amp Safety switch) with flexible conduit to power the unit and 2) CU –route new branch circuit from panelboard w/ 3#8 THWN copper wire in ¾" EMT for interior and RGC when exposed to exterior and/or to impact, including disconnecting means (equal or similar to a 30amp Safety Switch) with flexible conduit to power the unit. Please account for the demolition for penetrations as well as the necessary masonry.

#### 6. DI: 250236 UPR Arecibo Edificio 008 Caseta Guardia

	UPR Arecibo Edificio 008 Caseta Guardia		
PA 428			
	Building Damage:	QTY	UNIT
	{00-001} General		
	A. Prep and paint 85 SF of building exterior surfaces.	85	SF
	B. Prep and paint 60 SF of soffit.	60	SF
	C. Remove and replace 60 SF of cover, vertical, canvas with graphics.	60	SF
	D. Remove and replace 130 SF of cover, sloped, canvas with graphics.	130	SF
	E. Remove and replace 4 each of light, 1 FTx 1 FTLED.	4	EA
	F. Remove and replace 1 each of window, 4 FTx 5 FT.	1	EA
	{00-003} General		
	G. Prep and paint 155 SF of building interior surfaces.	155	SF
	{01-004} First Floor Security Office at Entrance (7 FTx 12 FT)		
	H. Remove and replace 2 each of light, incandescent light, 1 bulb, 150W.	2	EA

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	I. Remove and replace 1 each of light, LEDphotocell, wall mount, 150W.	1	EA
	J. Remove and replace 1 each of tempered glass 2 FTx 3 FTfrommetal door ( 3 FTx 7 FT).	1	EA
	K. Remove and replace 1 each of door & frame, HC, wood frame, painted, 3 FTx 7 FT.	1	EA
	{02-007}		
	M. Remove and replace 1 each of window tempered glass 4 FTx 5 FT.	1	EA
HMP 406			
	HMP406-Edificio 008 Caseta Guardia DI #250236		
	A. Paint Mitigation:		
	A.1 Apply 285 SF of second coat, waterproof sealer	285	SF
	B. Window Mitigation		
	B.1 Replace 1 EA of window, impact resistant aluminum jalousie windows 3 FT X 4 FT (12 SF)	1	EA
	B.2 Install 1 EA of rubber weather stripping	1	EA
	B.3 Install 6 SF of safety film on glass	6	SF
	B.4 Install 15 SF of safety film on glass	15	SF
	C. Door Mitigation		
	C.1 Install 1 each of 3' x 7' door weather- stripping	1	EA

# 7. DI: 250237 UPR Arecibo Edificio 011 Centro Pre-Escolar

	UPR Arecibo Edificio 011 Centro Pre-Escolar		
PA 428			
	Building Damage:	QTY	UNIT
	{00-001} General		
	A. Prep and paint 3,144 SF of building exterior surface.	3144	SF
	B. Prep and paint 200 SF of concrete wall.	200	SF
	C. Repair and paint, 80 SF of spalled concrete eave.	80	SF
	D. Remove and replace 4 each of light, LEDphotocell, wall mount, 150W.	4	EA
	E. Remove and replace 2 each of security camera, LED, color.	2	EA
	F. Remove and replace 4 each of AC, 5 Ton Package Unit.	4	EA
	G. Remove and replace 1 each of exhaust fan, 2 FTdia.	1	EA
	H. Repair and paint 200 SFof exterior crack repair.	200	SF
	{00-003} General		
	I. Prep and paint 2,268 SFof building interior surfaces.	2268	SF

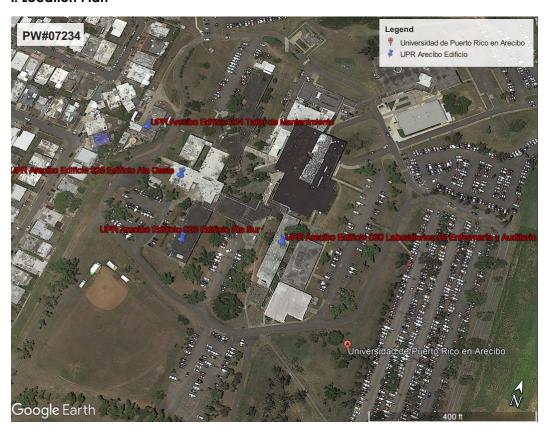
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(01-004) Reception (10 FTx 20 FT)   K. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted.   20 SF     L. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.   M. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.   9 SF     N. Remove and replace 9 SF of floor, VCT, 12x12 IN.   9 SF     (01-005) Kitchen area (5 FTx 10 FT) + (10 FTx 10 FT)   9 SF     O. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.   1 EA     1 bulb, 150W.   9 SF     Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.   1 EA     (01-009) Girls Restroom(8 FTx 10 FT)   9 SF     R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.   1 EA     (01-009) Girls Restroom(8 FTx 10 FT)   9 SF     R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.   1 EA     (01-010) Hallway (4 FTx 26 FT)   9 SF		J. Repair and paint 50 SFof interior crack repair.	50	SF
L. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  M. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.  20 SF  N. Remove and replace 9 SF of floor, VCT, 12x12 IN.  9 SF  (01-005) Kitchen area (5 Ftx 10 FT) + (10 Ftx 10 FT)  O. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-008) Boys Restroom(8 FTx 10 FT)  P. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Q. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted.  20 SF  (01-009) Girls Restroom(8 FTx 10 FT)  R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-010) Hallway (4 FTx 26 FT)  S. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted.  20 EA  T. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.  20 SF  (01-011) Classroom1 (26 FTx 38 FT)  V. Prep and paint 98 SFof ceiling, 1/4 INthick plaster, painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 painted.  X. Remove and replace 1 each of light, incandescent light, 1 painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA  bulb, 150W.  Y. Prep and paint 98 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA  bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 tube, surface mounted.  HMP 406  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer  3344 SF  B. A/C Unit Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package  Units		{01-004} Reception (10 FTx 20 FT)		
1 bulb, 150W.   M. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.   20 SF		K. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted.	20	SF
N. Remove and replace 9 SF of floor, VCT, 12x12 IN. 9 SF (01-005) Kitchen area (5 FTx 10 FT) + (10 FTx 10 FT)  O. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W. (01-008) Boys Restroom(8 FTx 10 FT)  P. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Q. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 SF (01-009) Girls Restroom(8 FTx 10 FT)  R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-009) Girls Restroom(8 FTx 10 FT)  R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-010) Hallway (4 FTx 26 FT)  S. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 EA  T. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W.  U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted. 20 SF (01-011) Classroom1 (26 FTx 38 FT)  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. 99 SF  Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA bulb, surface mounted.  HMP 406  HMP 406  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:			1	EA
(01-005) Kitchen area (5 FTx 10 FT) + (10 FTx 10 FT)  O. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-008) Boys Restroom(8 FTx 10 FT)  P. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Q. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 SF (01-009) Girls Restroom(8 FTx 10 FT)  R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-010) Hallway (4 FTx 26 FT)  S. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 EA T. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  U. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 SF (01-011) Classroom1 (26 FTx 38 FT)  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted. 20 SF painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. 99 SF Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3.344 SF of second coat, waterproof sealer 3344 SF B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA EA Units		M. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.	20	SF
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1 bulb, 150W.  (01-008) Boys Restroom(8 FTx 10 FT) P. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W. Q. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 SF (01-009) Girls Restroom(8 FTx 10 FT) R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-010) Hallway (4 FTx 26 FT) S. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 EA T. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W. U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted. 20 SF (01-011) Classroom1 (26 FTx 38 FT) V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted. 20 SF painted. (01-012) Library (12 FTx 26 FT) W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted. X. Remove and replace 1 each of light, incandescent light, 1 EA bulb, 150W. Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. X. Remove and replace 1 each of 1 ight, incandescent light, 1 EA bulb, 150W. Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. 99 SF Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237 A. Paint Mitigation: A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF B. A/C Unit Mitigation: B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units		{01-005} Kitchen area (5 FTx 10 FT) + (10 FTx 10 FT)		
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bulb, 150W.  Q. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 SF  (01-009) Girls Restroom(8 FTx 10 FT)  R. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  (01-010) Hallway (4 FTx 26 FT)  S. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 EA  T. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted. 20 SF  (01-011) Classroom1 (26 FTx 38 FT)  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  P. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA  HMP 406  HMP406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA  Units		{01-008} Boys Restroom(8 FTx 10 FT)		
Columbia		bulb, 150W.	1	EA
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bulb, 150W.  (01-010) Hallway (4 FTx 26 FT)  S. Prep and paint 20 SFof ceiling, 1/4 INthick plaster, painted. 20 EA  T. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted. 20 SF  (01-011) Classroom1 (26 FTx 38 FT)  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. 99 SF  Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units				
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T. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Y. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units				
bulb, 150W.  U. Prep and paint 20 SFof wall, 1/4 INthick plaster, painted.  Q1-011} Classroom1 (26 FTx 38 FT)  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  Q1-012} Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Y. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units  C. Exhaust Fan Mitigation:			20	EA
(01-011) Classroom1 (26 FTx 38 FT)  V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  (01-012) Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. 99 SF  Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units  C. Exhaust Fan Mitigation:		bulb, 150W.	1	EA
V. Prep and paint 988 SFof ceiling, 1/4 INthick plaster, painted.  {01-012} Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Prep and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units  C. Exhaust Fan Mitigation:		<u> </u>	20	SF
painted.  {01-012} Library (12 FTx 26 FT)  W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 1 EA bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted. 99 SF  Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 1 EA tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units		<u> </u>		
W. Prep and paint 312 SFof ceiling, 1/4 INthick plaster, painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  7. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:			998	EA
painted.  X. Remove and replace 1 each of light, incandescent light, 1 bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:		{01-012} Library (12 FTx 26 FT)		
bulb, 150W.  Y. Prep and paint 99 SFof wall, 1/4 INthick plaster, painted.  Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation: A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:		painted.	312	SF
Z. Remove and replace 1 each of 1 FTx 4 FTfluorescent, 2 tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:			1	EA
tube, surface mounted.  HMP 406  HMP 406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:			99	SF
HMP406-Edificio 011 Centro Pre-Escolar DI #250237  A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:			1	EA
A. Paint Mitigation:  A.1 Apply 3,344 SF of second coat, waterproof sealer 3344 SF  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:	HMP 406			
A.1 Apply 3,344 SF of second coat, waterproof sealer  B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package Units  C. Exhaust Fan Mitigation:		HMP406-Edificio 011 Centro Pre-Escolar DI #250237		
B. A/C Unit Mitigation:  B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units  C. Exhaust Fan Mitigation:		A. Paint Mitigation:		
B.1 Install anchors and brackets on 4 EA – 5 Ton A/C Package 4 EA Units  C. Exhaust Fan Mitigation:		A.1 Apply 3,344 SF of second coat, waterproof sealer	3344	SF
Units C. Exhaust Fan Mitigation:		B. A/C Unit Mitigation:		
			4	EA
C.1 Install 1 each - anchoring system for exhaust fan 1 EA		C. Exhaust Fan Mitigation:		
		C.1 Install 1 each - anchoring system for exhaust fan	1	EA

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#### C. PW 07234

#### i. Location Plan



#### ii. Description:

#### 1. DI: 195238 UPR Arecibo Edificio 023 Edificio Ala Sur

The UPR Arecibo Edificio 023 Edificio Ala Sur building is a 11,000 SF, 2 story office building that was constructed in 1967 (50 years old). The building is a site cast, reinforced concrete building with a reinforced concrete roof. The north section is a three story building with an EPDM membrane on concrete roof covering an area of 3,000 SF. The south section is a two story building with built up asphalt and gravel roof over concrete representing an area of 8,550 SF, for a total roof area of 11,550 SF. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of suspended acoustic ceiling, painted concrete or drywall and ceramic or VCT floor tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46821, -66.74180

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#### 2. DI: 194240 UPR Arecibo Edificio 025 Edificio Ala Oeste

The UPR facility name building is a 8436 SF, 2 story office building that was constructed in 2003 (14 years old). The building is a site cast, reinforced concrete building with a reinforced concrete roof and has an elastomeric coating. West Wing Building is a two - story 26 FT high. The building measures 4,218 SF. Interior finishes generally consist of a combination of metal or suspended acoustic ceiling, painted concrete or drywall and vinyl floor tile or ceramic tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46878, -66.74205

#### 3. DI: 195245 UPR Arecibo Edificio 030 Laboratorios de Enfermería y Auditorio

The UPR Arecibo Edificio 030 Laboratorios de Enfermeria y Auditorio building is a 7,850 SF, 1 story office building that was constructed in 1984 (33 years old). The building is a rectangular reinforced concrete building with a reinforced concrete roof and bituminous membrane roof system. The exterior walls are reinforced concrete with aluminum jalousie windows in the north and south ends. The interior is composed of gypsum board partitions over ceramic tile flooring. The ceiling is 2x4 suspended acoustic tile. The auditorium has theater type sitting on a VCT tile flooring. The building is connected by three concrete roof covered walkways to the main nursing school building. There is a reinforced concrete machine room on the roof measuring 20x40 FT, housing central A/C, electrical transformers and other equipment. . This facility was in operation at the time of the event. UPR facility name building is a 8436 SF, 2 story office building that was constructed in 2003 (14 years old). The building is a site cast, reinforced concrete building with a reinforced concrete roof and has an elastomeric coating. West Wing Building is a two - story 26 FT high. The building measures 4,218 SF. Interior finishes generally consist of a combination of metal or suspended acoustic ceiling, painted concrete or drywall and vinyl floor tile or ceramic tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46853, -66.74106

#### 4. DI: 195248 UPR Arecibo Edificio 034 Taller de Mantenimiento

UPR Arecibo Edificio 034 Taller de Mantenimiento is 6,692 SF, single story maintenance facilities (46 FT x 104 FT; 24 FT x 40 FT; 14 FT x 24 FT; & 18 FT x 34 FT) constructed in 1974 (46 years old). The buildings are site cast, reinforced concrete buildings with a height of 16 Ft on the exterior, with a reinforced concrete roof with a bituminous built—up roof system. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of suspended concrete ceiling, painted concrete

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and concrete floors. The extension roofs are metal ribbed over a plywood decking. This facility was in operations at the time of the event. GPS Latitude/Longitude: 18.46906, -66.74256

#### iii. SCOPE OF WORK- FEMA

# 1. DI: 195238 UPR Arecibo Edificio 023 Edificio Ala Sur

	UPR Arecibo Edificio 023 Edificio Ala Sur DI 195238		
A 428			
	Building Damage:		
	{00-001} General:	38000	SF
	A. Prepare and paint 38,000 SF of building exterior surfaces	8	EA
	B. Remove and replace 8 each of window, aluminum jalousie 3 FT x 4 FT	15	EA
	C. Remove and replace 15 each of windows, aluminum jalousie 4 FT x 5 FT	20	EA
	D. Remove and replace 20 each of window, casement, glass aluminum frame 3 FT x 4 FT	1	EA
	E. Remove and replace 1 each of window, aluminum jalousie 2 FT x 3 FT	1	EA
	{00-002} Roofing System:		
	A. Remove and replace 2,000 SF of BUR	2000	SF
	B. Remove and replace roof flashing, metal, 12 IN, 30 FT long x 12 IN wide	30	FT
	C. Remove and replace 1 each of AC, 10 ton package unit	1	EA
	D. Remove and replace 2 each of AC, 7.5 ton package unit	2	EA
	E. Remove and replace 2 each of AC, 3 ton package unit	2	EA
	{00-003} General:		
	A. Prepare and paint 20,000 SF of building interior surfaces	20000	SF
	{01-004} Third Floor Lobby (17 FT X 23 FT):		
	A. Remove and replace 391 SF of ceiling, 2 FT x 4 FT acoustic tile	391	SF
	{01-005} Third Floor Music Room (12 FT X 13 FT):		
	A. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent	1	EA
	{01-006} Third Floor Office, Jose Monroe (8 FT X 9 FT):		
	A. Remove and replace 3 SF of ceiling, 1 FT x 1 FT acoustic tile	3	SF
	B. Remove and replace 72 SF of ceiling, suspended metal grid	72	SF
	C. Remove and replace base, 4 IN vinyl, 34 LF long	34	LT
	D. Remove and replace 72 SF of floor, VCT, 12 IN x 12 IN	72	SF
	{01-007} Third Floor Office, L. Gonzalez (8 FTX 9 FT):		
	A. Remove and replace 32 SF of ceiling, 2 FT x 4 FT tile	32	SF
	B. Remove and replace base, 4 IN vinyl, 40 FT long	40	FT

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C. Remove and replace 36 SF of floor, VCT, 12 IN x 12 IN	36	SF
{01-008} Third Floor Office, Fernando Medina (8 FT x 13 FT):		
A. Remove and replace base, 4 IN vinyl, 21 LF long	21	FT
B. Remove and replace 52 SF of floor, VCT, 12 IN x 12 IN	52	SF
{01-009} Third Floor Office, Wanda Delgado (8 FT x 11 FT):		
A. Remove and replace 16 SF of ceiling, 2 FT x 4 FT acoustic tile	16	SF
B. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent	1	EA
C. Remove and replace base, 4 IN vinyl, 24 LF long	24	LF
D. Remove and replace 44 SF of floor, VCT, 12 IN x 12 IN	44	SF
{01-010} Third Floor Office, Maria M F Collazo (8 FT x 11 FT):		
A. Remove and replace 1 each of door & frame, HM, metal frame, painted, 3 FT x 7 FT	1	EA
B. Remove and replace base, 4 IN vinyl, 24 LF long	24	LF
C. Remove and replace 61 SF of floor, VCT, 12 IN x 12 IN	61	SF
{01-011} Third Floor Ladies' Restroom (4 FT x 5 FT):		
A. Remove and replace 4 SF of wall, ceramic tile, 4 IN x 4 IN	4	SF
{01-012} Third Floor Men's Restroom (4 FT x 5 FT):		
A. Remove and replace 4 SF of wall, ceramic tile, 4 IN x 4 IN	4	SF
{01-013} Third Floor Humanities Director (8x13):		
A. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent, 2 tube	1	FT
{01-014} Third Floor Social Sciences Director (8 FT x 13 FT):		
A. Remove and replace 3 SF of ceiling, 1 FT x 1 FT tile	3	SF
{01-015} Third Floor AC Room (8 FT x 10 FT):		
A. Repair 80 SF of floor, sealed concrete, surfacing	80	SF
{01-016} Third Floor Office V Figueroa (8 FT x 11 FT):		
A. Remove and replace 1 SF of ceiling, 1 FT x 1 FT tile	1	SF
B. Remove and replace base, 4 IN vinyl, 38 LF long	38	LF
C. Remove and replace 88 SF of floor, VCT, 12 IN x 12 IN	88	SF
{01-017} Third Floor Office, Ramon Naverez (8 FT x 11 FT):		
A. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent, 2 tube	1	EA
B. Remove and replace base, 4 IN vinyl, 38 FT long	38	FT
C. Remove and replace 88 SF of floor, VCT, 12 IN x 12 IN	88	SF
{01-018} Third Floor Office, Puig & Medina (8 FT x 12 FT):		
A. Remove and replace 7 SF of ceiling, 1 FT x 1 FT tile	7	SF
B. Remove and replace base, 4 IN vinyl, 32 LF long	32	LF
C. Remove and replace 24 SF of floor, VCT, 12 IN x 12 IN	24	SF
{01-019} Third Floor Office, Elba Ochoa & Juan Mercado (8 FT X 9 FT):		
A. Remove and replace 72 SF of ceiling, 1 FT x 1 FT tile	72	SF
B. Repair 8 SF of wall, concrete	8	SF
C. Remove and replace base, 4 IN vinyl, 34 LF long	34	LF

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D. Remove and replace 72 SF of floor, VCT, 12 IN x 12 IN	72	SF
{01-020} Third Floor Office, Eumardo Martinez (8 FT X 9 FT):		
A. Remove and replace 8 SF of ceiling, 1 FT x 1 FT tile	8	SF
B. Repair 8 SF of wall, concrete	8	SF
C. Remove and replace base, 4 IN vinyl, 34 FT long	34	FT
D. Remove and replace 36 SF of floor, VCT, 12 IN x 12 IN	36	SF
{02-022} Second Floor, English Department Exterior Hallway (10 FT x 135 FT):		
A. Remove and replace 8 each of light, 2 FT x 4 FT fluorescent, 2 tube	8	EA
{02-023} Second Floor, English Department Room AC 336 (10 FT X 20 FT) + (6 FT x 8 FT):		
A. Remove and replace 100 SF of ceiling, 2 FT x 2 FT acoustic tile	100	SF
B. Remove and replace 2 each of light, 2 FT x 4 FT fluorescent, 4 tube	2	EA
{02-024} Second Floor, English Department Room AC 336A (8 FT x 12 FT):		
A. Remove and replace 12 SF of ceiling, 2 FT x 4 FT acoustic tile	12	SF
{02-025} Second Floor, English Department Room AC Ismul (12 FT x 26 FT):		
A. Remove and replace 64 SF of ceiling, 2 FT x 4 FT acoustic tile	64	SF
B. Remove and replace 2 each of light, 2 FT x 4 FT fluorescent, 4 tube	2	EA
{02-026} Second Floor, English Department Room AC 336B (8 FT x 12 FT):		
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	EA
{02-027} Second Floor, English Department Room AC 334D (8 FT x 12 FT):		
A. Remove and replace 40 SF of ceiling, 2 FT x 4 FT acoustic tile	40	SF
{02-028} Second Floor, English Department Room AC 334E (8 FT x 12 FT):		
A. Remove and replace 40 SF of ceiling, 2 FT x 2 FT acoustic tile	40	SF
B. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	EA
{02-029} Second Floor, English Department Foyer (6 FT x 8 FT):		
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	EA
{02-031} Second Floor, English Department AC 333 (20 FT x 42 FT):		
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent,	1	EA
4 tube	20	LF
B. Remove and replace base, 4 IN vinyl, 20 LF long	20	

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A. tul	Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4	1	EA
	2-033} Second Floor, English Department AC 332 (20 FT x 45 FT):		
A. 4 t	Remove and replace 2 each of light, 2 FT x 4 FT fluorescent, ube	2	EA
В.	Remove and replace base, 4 IN vinyl, 45 LF long	45	LF
C.	Remove and replace 200 SF of floor, VCT 12 IN x 12 IN	200	SF
{02	2-035} Second Floor, English Department AC – 331 (6 FT X 16 FT):		
Α.	Remove and replace 24 SF of ceiling, 2 FT x 4 FT acoustic tile	24	SF
В.	Remove and replace 10 SF of ceiling, suspended metal grid	10	SF
{02 FT)	2-036} Second Floor, English Department AC – 331 A (12 FT x 25		
	Remove and replace 40 SF of ceiling, 2 FT x 4 FT acoustic tile	40	SF
{02 FT)	2-038} Second Floor, English Department AC233 A (12 FT x 30		
Α.	Remove and replace 64 SF of ceiling, 2 FT x 4 FT acoustic tile	64	SF
B. tul	Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4	1	EA
	2-039} Second Floor, English Department AC 233 B (18 FT x 25		
Α.	Remove and replace 40 SF of ceiling, 2 FT x 4 FT acoustic tile	40	SF
B.	Remove and replace 4 each of light, 2 FT x 4 FT fluorescent, 4	4	EA
	2-040} Second Floor, English Department AC 235 (15 FT x 20 FT):		
A. tile	Remove and replace 300 SF of ceiling, 2 FT x 4 FT acoustic	300	SF
В.	Remove and replace 150 SF of ceiling, suspended metal grid	150	SF
{02	2-043} Second Floor, English Department Exterior Hall (10X135):		
Α.	Remove and replace 12 each of light, 2 FT x 4 FT fluorescent	12	EA
{02	2-044} Second Floor, English Department AC 231 (20X25):		
A. tile	Remove and replace 300 SF of ceiling, 2 FT x 4 FT acoustic	300	SF
B. tul	Remove and replace 5 each of light, 2 FT x 4 FT fluorescent, 4 pe	5	EA
	1, painted, 3 FT x 7 FT	1	EA
{02	2-046} Second Floor, English Department AC – 236 (15X30):		
A.	Remove and replace base, 4 IN vinyl, 9 LF long	9	LF
В.	Remove and replace 12 SF of floor, VCT, 12 IN x 12 IN	12	SF
{02	2-047} Second Floor, English Department AC – 238 (4x12):		
Α.	Remove and replace 48 SF of ceiling, 2 FT x 2 FT acoustic tile	48	SF
В.	Remove and replace 48 SF of ceiling, suspended metal grid	48	SF
C. 4 t	Remove and replace 2 each of light, 2 FT x 4 FT fluorescent, ube	2	EA
D.	Remove and replace base, 4 IN vinyl, 32 FT long	32	FT
E.	Remove and replace 48 SF of floor, VCT, 12 IN x 12 IN	48	SF

{02-048} Second Floor, English Department Stairway (8x10):		$\perp$
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	E
B. Repair 120 SF of staircase, sealed concrete	120	S
{02-049} Second Floor, English Department Covacha (3x10):		
A. Remove and replace 1 each of door & frame, HC, wood frame, painted, 3 FT X 7 FT	1	E
{02-050} Second Floor, English Department Exterior Hall (10x135):		
A. Remove and replace 12 each of light, 2 FT x 4 FT fluorescent	12	E
{02-051} Second Floor, English Department Men's' Restroom (8x16):		
A. Repair 128 SF of ceiling, 1/4 IN plaster painted	128	S
B. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent, 2 tube	1	Е
{02-052} Second Floor, English Department Women's Restroom (8x16):		
A. Repair 128 SF of ceiling, 1/4 IN plaster painted	128	S
B. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent, 2 tube	1	E
{02-053} Second Floor, English Department Room AC 330 - N (10X11):		
A. Remove and replace 110 SF of ceiling, 2 FT x 2 FT acoustic tile	110	S
B. Remove and replace 110 SF of ceiling, suspended metal grid	110	S
{02-055} Second Floor, English Department Room AC 330 – K (8X8):		
A. Remove and replace 64 SF of ceiling, 2 FT x 4 FT acoustic tile	64	S
B. Remove and replace 64 SF of ceiling, suspended metal grid	64	S
C. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	Е
{02-056} Second Floor, English Department Room AC 330 – J (11 FT x 1 FT2):		
A. Remove and replace 16 SF of ceiling, 2 FT x 4 FT acoustic tile	16	S
{02-058} Second Floor, English Department Room AC 330 – B (8X9):		
A. Remove and replace 72 SF of ceiling, 2 FT x 2 FT acoustic tile	72	S
B. Remove and replace 72 SF of ceiling, suspended metal grid	72	S
C. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	E
{02-059} Second Floor, English Department Room AC 330 – C (8X9):		
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	E
{02-066} Second Floor, English Department Lobby (18 FT x 24 FT):		
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	Е

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{03-068} First Floor, Department of Physics and Chemistry Lobby (17 FT x 23 FT):		
A. Remove and replace 391 SF of ceiling, 2 FT x 4 FT acoustic tile	391	SF
B. Remove and replace 391 SF of ceiling, suspended metal grid	391	SF
C. Remove and replace 8 each of light, 1 FT x 4 FT fluorescent, 4 tube	8	E
D. Remove and replace 1 each of door & frame, solid wood surfacing, stained, 3 FT x 7 FT	1	E
{03-069} First Floor, Department of Physics and Chemistry Room AC 230 – B (9 FT X 11 FT):		
A. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	E
{03-070} First Floor, Department of Physics and Chemistry Room AC 230 – C (7 FT X 8 FT):		
A. Remove and replace 24 SF of ceiling, 2 FT x 2 FT acoustic tile	24	SF
B. Remove and replace 12 SF of ceiling, suspended metal grid	12	SF
C. Remove and replace 1 each of air register 2 FT x 2 FT	1	E
{03-071} First Floor, Department of Physics and Chemistry Room AC 230 – D (8 FT x 11 FT):		
A. Remove and replace 8 SF of ceiling, 2 FT x 2 FT acoustic tile	8	SF
{03-072} First Floor, Department of Physics and Chemistry Room AC 230 – E (8 FT x 13 FT):		
A. Remove and replace 48 SF of ceiling, 2 FT x 2 FT acoustic tile	48	SF
{03-073} First Floor, Department of Physics and Chemistry Room AC 230 – F (8 FT x 13 FT):		
A. Remove and replace 1 each of ceiling, 2 FT x 4 FT acoustic tile	1	E
{03-074} First Floor, Department of Physics and Chemistry Room AC 230 – G (7 FT X 8 FT):		
A. Remove and replace 56 SF of ceiling, 2 FT x 2 FT acoustic tile	56	SF
B. Remove and replace 56 SF of ceiling, suspended metal grid	56	SF
C. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	E
D. Remove and replace 1 each of air Register, 2 FT x 2 FT	1	E
{03-075} First Floor, Department of Physics and Chemistry Room AC 230 – H (8 FT x 12 FT):		
A. Remove and replace 32 SF of ceiling, 2 FT x 2 FT acoustic tile	32	SF
{03-078} First Floor, Department of Physics and Chemistry Room AC 230 – I (8 FT X 8 FT):		
A. Remove and replace 24 SF of ceiling, 2 FT x 2 FT acoustic tile	24	SF
{03-079} First Floor, Department of Physics and Chemistry Room AC 230 – J (8 FT X 8 FT):		
A. Remove and replace 64 SF of ceiling, 2 FT x 2 FT acoustic tile	64	SF
B. Remove and replace 1 each of light, 2 FT x 4 FT fluorescent, 4 tube	1	E
{03-080} First Floor, Department of Physics and Chemistry Room AC 230 – L (10 FT X 11 FT):		

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	A. Remove and replace 110 SF of ceiling, 2 FT x 2 FT acoustic tile	110	SF
	{03-081} First Floor, Department of Physics and Chemistry Interior Hall (4 FT X 33 FT):		
	A. Remove and replace 132 SF of ceiling, 2 FT x 4 FT acoustic tile	132	SF
	{03-082} First Floor, Department of Physics and Chemistry Exterior Hall (10 FT X 135 FT):		
	A. Remove and replace 12 each of light, 2 FT x 4 FT fluorescent	12	EA
HMP 4	06		
	HM UPR Arecibo Edificio 023 Edificio Ala Sur DI 195238		
	A. Roof Mitigation:		
	Replace 2000 SF and install 9550 SF (11,550 SF-2,000 SF) of Modified Bitumen (SBS)- Full assembly roof Membrane.	11500	SF
	Install 11,550 SF (total roof area) of insulation or light weight cementitious fill sloped to facilitate Drainage.	11500	SF
	Install 2,660 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof Membrane.	2660	LF
	Replace 30 LF and install 697LF (727 LF-30 LF) of Roof metal flashing.	30	EA
	B. Window Mitigation		
	Replace and install 1200 SF of jalousie windows using impact resistant aluminum jalousie window	1200	SF
	Remove and install 328.32 Picture (fixed) Aluminum and impact resistant fixed glass windows (high performance tempered glazing)	328.3 2	EA
	Remove and install 862.5 Projected Aluminum and impact resistant glass windows	862.5	EA
	Install 153 each window of weatherstripping.	153	EA
	C. Door Mitigation		
	Remove and install 15 EA doors, exterior, steel, commercial, flush, 20 ga., 1-3/4" thick x 7'-0" x 3'-6"	15	EA
	Remove and install 3 EA Door Glass Arch. Swing, tempered, $\frac{1}{2}$ " thick, 3' x 7' opening, including hardware	3	EA
	D. Roof Top Exhaust Fan and chimney Mitigation:		
	Install on 1 EA – Roof top Exhaust hood anchoring system	1	EA
	Install on 2 EA – Roof top metal chimney hood anchoring system	2	EA
	E. Roof Top AC condensing units Mitigation:		
	Install on 2 EA – Roof top AC Equipment anchoring system for 3 tons Units.	2	EA
	Install on 3 EA – Roof top AC Equipment anchoring system for (1) each 10 tons Units and (2) each 7.5 tons.	3	EA

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# 2. DI: 194240 UPR Arecibo Edificio 025 Edificio Ala Oeste

	Building Damage:		
1.	(00-001) General:		1
١.	A. Prepare and paint 7,462 SF of building exterior surfaces	7462	S
	B. Repair wall, concrete cracks, painted, 40 LF long	40	L
+	C. Remove and replace 6 each of drains, 2 IN	6	E
	D. Remove and replace 2 each of door & frame ALU, 2 lite, painted (72 IN X 84 IN)	2	Е
	E. Remove and replace 5 each of door & frame ALU, 2 lite, painted (36 IN X 84 IN)	5	E
	F. Remove and replace 1 each of door & frame, HM, painted, (24 IN X 84 IN)	1	E
	G. Remove and replace 1 each of door guard, 1 IN x1 IN steel bar, painted (36 IN X 84 IN)	1	E
	H. Remove and replace 1 each of door & frame, HM, metal frame, painted (48 IN X 84 IN)	1	E.
	I. Remove and replace 1 each of bulletin board, glass, aluminum frame (72 IN x 48 IN)	1	E.
	J. Remove and replace 32 each of window, glass, aluminum frame, 2 FT x 4 FT	32	E.
	K. Remove and replace 3 each of window, glass, aluminum frame, 3 FT x 5 FT	3	E.
	L. Remove and replace 4 each of window, glass, aluminum frame, 2 FT x 2 FT	4	E.
	M. Remove and replace 3 each of window, glass, aluminum frame fixed, 2 FT x 2 FT	3	E.
	N. Remove and replace 28 each of window aluminum jalousie, ALU frame, 3 FT x 4 FT	28	E.
	O. Remove and replace 2 each of window aluminum jalousie, ALU frame, 4 FT x 5 FT	2	E.
	P. Remove and replace 3 each of window aluminum jalousie, ALU frame, 4 FT x 6 FT	3	E.
	Q. Remove and replace 5 each of window guard, 1 IN x1 IN steel bar, 4 FT x 6 FT	5	E
	R. Remove and replace 2 each of AC, window unit, 10,000 BTU	2	E.
	S. Remove and replace 7 each of AC, 5 ton package unit	7	E.
	T. Remove and replace 9 each of light, LED flood security area wall mount, 100 W	9	E
	U. Remove and replace 4 each of light, 2 FT x 4 FT fluorescent	4	Е
	V. Remove and replace 2 each of security camera, wireless outdoor	2	Е
	A. Remove and replace 100 SF of canopy, custom, steel & plexiglass	10	S
	B. Remove and replace 6 each of disconnect switch, 50 AMP	6	Е

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D. Remove and replace handrail, 2 rail 1 ½ IN DIA ½ IN picket steel painted, 120 LF long	120	LF
AA. Remove and replace handrail, 1 rail 1 ½ IN DIA steel painted surfacing, 132 LF long	1, 132	LF
BB. Refinish 600 SF of ramp, sealed concrete, surfacing, 10 FT x 60	FT 600	SF
CC. Refinish 1,080 SF of ramp, sealed concrete, surfacing, 15 FT x	72 1080	SF
FT		
{00-002} Roofing System:	4100	0.5
A. Remove and replace 4,218 SF of elastomeric coating	4128	SF
B. Remove and replace 6 each of drains caps, 8 IN	6	EA
C. Remove and replace 1 each of AC, 5-ton rooftop package unit		EA
D. Remove and replace 1 each of AC, 10-ton rooftop package unit	e 1	EA
E. Remove and replace 5 each of disconnect switch, 50 AMP	5	EA
F. Remove and replace 3 each of exhaust vent	3	EA
{00-003} General:		
A. Prepare and paint 22,386 SF of building interior surfaces	22386	SF
{01-004} Second Floor Computer Lab (24 FT x 42 FT):		
A. Remove and replace 1 each of light, 1 FT x 4 FT fluorescent, tube	2 1	EA
B. Remove and replace 1 each of light, High Bay, 18 IN DIA	1	EA
C. Repair 148 SF of wall, 1/4 IN thick plaster	148	SF
D. Remove and replace chair rail, 2 IN, 108 LF long	108	LF
E. Refinish 1,008 SF of floor, ceramic tile, 2 FT x 2 FT	1008	SF
F. Remove and replace 2 each of electrical, trim plate single	2	EA
{01-005} Second Floor Lab Tech Office (9 FT x 10 FT):		
A. Remove and replace 90 SF of ceiling, 2 FT x 4 FT acoustic tile	90	SF
B. Remove and replace 1 each of electrical, trim plate electric		EA
single gang  C. Refinish 90 SF of floor, ceramic tile, 2 FT x 2 FT	90	SF
{01-006} Second Floor AC 310 Computer Repair Shop (16 FT x 16	70	31
A. Repair 30 SF of wall, 1/4 IN thick plaster	30	SF
B. Refinish 256 SF of floor, ceramic tile, 2 FT x 2 FT	256	SF
{01-007} Second Floor Tutors Room (22 FT x 32 FT):	230	31
	256	SF
A. Remove and replace 256 SF of wall sheet rock  B. Repair 42 SF of wall, 1/4 IN thick plaster	42	SF SF
{01-008} Second Floor Meeting Room (17 FT x 22 FT):	42	JI
, , ,	e 374	SF
A. Remove and replace 374 SF of ceiling, 2 FT x 4 FT acoustic tile		
B. Repair 15 SF of wall, concrete	15	SF
C. Refinish 374 SF of floor, ceramic tile, 2 FT x 2 FT	48	SF
D. Remove and replace windows caulking, 48 LF long	48	LF
{01-009} Second Floor Cubicle Room (27 FT x 29 FT):		

A. Remove and replace 784 SF of ceiling, 2 FT x 2 FT acoustic tile	784	SF
{01-010} Second Floor Hallway #1 (5 FT x 20 FT):	70.	-
A. Repair 55 SF of wall, 1/4 IN thick plaster	55	SF
B. Remove and replace base trim, vinyl 4 IN, 30 LF long	30	LF
C. Remove and replace windows caulking, 56 LF long	56	LF
{01-011} Second Floor Hallway #2 (4 FT x 17 FT):		
A. Remove and replace 68 SF of ceiling, 2 FT x 2 FT acoustic tile	68	SF
B. Remove and replace base, 4 IN vinyl, 54 LF long	54	LF
{01-012} Second Floor Hallway (4 FT x 21 FT):		
A. Remove and replace 56 SF of ceiling, 2 FT x 2 FT acoustic tile	56	SF
B. Repair 8 SF of wall, 1/4 IN thick plaster	8	SF
C. Remove and replace base 4 IN vinyl, 54 LF long	54	LF
D. Remove and replace 84 SF of floor, VCT 24 IN x 24 IN	84	SF
{01-013} Second Floor Storage Closet (5 FT x 6 FT):		
A. Remove and replace base, 4 IN vinyl, 22 LF long	22	LF
{01-014} Second Floor Bathroom (5 FT x 15 FT):		
A. Remove and replace 75 SF of ceiling, 2 FT x 2 FT acoustic tile	75	SF
B. Repair 6 SF of wall, 1/4 IN thick plaster	6	SF
C. Remove and replace windows caulking, 8 LF long	8	LF
{01-015} Second Floor Coordinator Room (12 FT x 13 FT):		
A. Remove and replace 156 SF of ceiling, 2 FT x 2 FT acoustic tile	156	SF
B. Refinish 156 SF of floors, ceramic tile, 2 FT x 2 FT	156	SF
{01-016} Second Floor Studio Room (7 FT x 12 FT):		
A. Remove and replace 84 SF of ceiling, 2 FT x 2 FT acoustic tile	84	SF
B. Remove and replace 12 each of light, 2 FT x 2 FT fluorescent, 2 tube	12	EA
C. Refinish 84 SF of floors, ceramic tile, 2 FT x 2 FT	84	SF
{01-017} Second Floor Electrical Room (6 FT x 6 FT):		
A. Remove and replace 1 each of light, 2 FT x 2 FT fluorescent, 2 tube	1	EA
{01-018} Second Floor System Operator's (8 FT x 10 FT):		
A. Remove and replace 80 SF of ceiling, 2 FT x 2 FT acoustic tile	80	SF
B. Remove and replace 1 each of light, 2 FT x 2 FT fluorescent, 2 tube	1	EA
C. Remove and replace 1 each of electrical, outlet cover	1	EA
D. Refinish 80 SF of floors, ceramic tile, 2 FT x 2 FT	80	SF
 {01-019} Second Floor Center for Academic Support & Development TI-231(25 FT x 36 FT):		
A. Remove and replace 900 SF of ceiling, 2 FT x 2 FT acoustic tile	900	SF
B. Remove and replace 1 each of AC, split ductless 24,000 BTU	1	EA
C. Remove and replace 1 each of light, emergency exit, 2 lamp	1	EA

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D. Remove and replace 1 each of door & frame, metal frame, painted, 3070	1	EA
E. Remove and replace base, 4 IN vinyl, 122 LF long	122	LF
F. Remove and replace 900 SF of floor, VCT 12 IN x 12 IN	900	SF
{01-020} Second Floor AC 225 (20 FT x 43 FT):		
A. Repair 20 SF of wall, 1/4 IN thick plaster	20	SF
B. Remove and replace base, 4 IN vinyl, 123 LF long	123	LF
C. Remove and replace 860 SF of floor, VCT 12 IN x 12 IN	860	SF
{01-021} Second Floor TI 232 A (12 FT x 23 FT):		
A. Remove and replace 276 SF of ceiling, 2 FT x 2 FT acoustic tile	276	SF
B. Remove and replace 4 each of light, 2 FT x 4 FT fluorescent, 2 tube	4	EA
C. Remove and replace base, 4 IN vinyl, 70 LF long	70	LF
D. Remove and replace 276 SF of floor, VCT, 12 FT x 12 IN	276	SF
{01-022} Second Floor Center for Development of Linguistic and		
Information Competency:		
A. Remove and replace 437 SF of ceiling, 2 FT x 2 FT acoustic tile	437	SF
B. Repair 74 SF of wall, 1/4 IN thick plaster	74	SF
C. Remove and replace base, 4 IN vinyl, 120 LF long	120	LF
{01-023} Second Floor TI 230 (21 FT x 36 FT):		
A. Remove and replace 756 SF of ceiling, 2 FT x 2 FT acoustic tile	756	SF
B. Remove and replace base, 4 IN vinyl, 120 LF long	120	LF
{01-024} Second Floor Hallway (10 FT x 74 FT):		
A. Remove and replace 3 each of light, 2 FT x 4 FT fluorescent, 2 tube	3	EA
B. Refinish 50 SF of floor, 1 FT x 1 FT ceramic	50	SF
{01-025} Second Floor Stairway (8 FT x 15 FT):		
A. Repair 7 SF of wall, 1/4 IN thick plaster	7	SF
B. Remove and replace handrail, one rail, 1 1/2 IN DIA steel, 200 LF long	200	LF
C. Remove and replace 2 SF of stair, VCT, 4 IN x 4 IN	2	SF
{02-026} First Floor Hall Title V Section of West Wing (4 FT x 24 FT):		
A. Repair 20 SF of wall, 1/4 IN thick plaster	20	SF
B. Remove and replace base, 4 IN vinyl, 56 LF long	56	LF
{02-027} First Floor Hallway (9 FT x 114 FT):		
A. Remove and replace 10 each of light, 1 FT x 1 FT LED	10	EA
B. Remove and replace base, 4 IN vinyl, 246 LF long	246	LF
C. Remove and replace 1,026 SF of floor, VCT 12 IN x 12 IN	1026	SF
{02-028} First Floor AC 307-A (16 FT x 21 FT):		
A. Remove and replace base, 4 IN vinyl, 74 LF long	74	LF
B. Remove and replace 336 SF of floor, VCT, 12 IN x 12 IN	336	SF
{02-029} First Floor AC 307-B (20 FT x 24 FT):		
A. Remove and replace 480 SF of ceiling, 2 IN x 2 IN acoustic tile	480	SF
B. Remove and replace 480 SF of ceiling, suspended metal grid	480	SF

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	C. Remove and replace 4 each of light, 2 FT x 4 FT fluorescent, 2 tube	4	EA
	D. Repair 20 SF of wall, 1/4 IN thick plaster	20	SF
	E. Remove and replace 2 each of outlet cover, two gang	2	EA
	F. Remove and replace base, 4 IN vinyl, 88 LF long	88	LF
	{02-030} First Floor Information Technology Center (6 FT x 7 FT):		
	A. Remove and replace base, 4 IN vinyl, 26 LF long	26	LF
	{02-031} First Floor Server Room (16 FT x 16 FT):		0
	A. Remove and replace 1 each of HVAC, exhaust fan, 1 HP	1	EA
	{02-032} First Floor Information Technology Center Offices (16 FT x 20 FT):		
	A. Remove and replace 320 SF of ceiling, 2 FT x FT 2 acoustic tile	320	SF
	B. Remove and replace 320 SF of ceiling, suspended metal grid	320	SF
	C. Remove and replace base, 4 IN Vinyl, 26 LF long	26	LF
	D. Remove and replace 320 SF of floor, VCT, 12 IN x 12 IN	320	SF
	{02-033} First Floor Vault (10 FT x 10 FT):		
	A. Remove and replace 100 SF of ceiling, 2 FT x 2 FT acoustic tile	100	SF
	B. Remove and replace 2 each of light, 2 FT x 4 FT fluorescent, 2 tube	2	EA
	C. Remove and replace base, 4 IN vinyl, 40 LF long	40	LF
	A. Remove and replace 100 SF of floor, VCT, 12 IN x12 IN	100	SF
	{02-033} First Floor Vault (10x10):		
	A. Remove and replace 100 SF of ceiling, suspended metal grid	100	SF
	{02-034} First Floor Printer Room (7 FT x 10 FT):		
	A. Remove and replace 70 SF of ceiling, 2 FT x 2 FT acoustic tile	70	SF
	B. Remove and replace 70 SF of ceiling, suspended metal grid	70	SF
	{02-035} First Floor Center for Information Technology Offices (27 FT x 43 FT):		
	A. Repair 2 SF of wall, 1/4 IN thick plaster	2	SF
HMP 4		_	1
	HM - UPR Arecibo Edificio 025 Edificio Ala Oeste DI 195240		
	A. Roof Mitigation:		1
	Remove 4,218 SF and install 3884 SF (8,102 SF-4,218 SF) of Modified Bitumen (SBS)- Full assembly roof Membrane.	4218	SF
	Install 8,102 SF (total roof area) of insulation or light weight cementitious fill sloped to facilitate Drainage.	8102	SF
	Install 573 LF of termination bar on roof edges and cap flashing to prevent uplift of the roof Membrane.	573	LF
	B. Window Mitigation		0
	Remove and install 633 SF of jalousie windows using impact resistant aluminum jalousie window	663	SF
	Remove and install 137 Picture (fixed) Aluminum and impact resistant fixed glass windows (high performance tempered glazing)	137	EA

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Remove and install 162 Projected Aluminum and impact resistant glass windows	162	EA
Install 90 each window of weatherstripping.	90	EA
C. Door Mitigation		0
Remove and install 44 EA doors, exterior, steel, commercial, flush, 20 ga., 1-3/4" thick x 7'-0" x 3'-6"	44	EA
Remove and install 1 EA Door Glass Arch. Swing, tempered, ½" thick, 3' x 7' opening, including hardware	1	EA
D. Roof Top Exhaust Fan Mitigation:		0
Install on 3 EA – Roof top Exhaust hood anchoring system	3	EA
E. Roof Top AC condensing units Mitigation:		0
Install on 1 EA – Roof top AC Equipment anchoring system for 5 tons Units.	1	EA
Install on 1 EA – Roof top AC Equipment anchoring system for 10 tons Units.	1	EA

# 3. DI: 195245 UPR Arecibo Edificio 030 Laboratorios de Enfermería y Auditorio

	UPR Arecibo Edificio 030 Laboratorios de Enfermeria y auditorio	DI 1952	45
PA 428			
	{00-001} General:		
	A. Prepare and paint 4,400 SF of building exterior surfaces	4400	SF
	B. Prepare and paint 1,200 SF of rooftop mechanical room exterior surfaces	1200	SF
	C. Prepare and paint 400 SF of walkway exterior surfaces	400	SF
	D. Remove and replace 3 each of exterior lighting fixture, fluorescent, 2 FT X 4 FT, 2 tubes	3	EA
	E. Remove and replace 10 each of window, Miami style, 3 FT X 5 FT, jalousie, aluminum	10	EA
	F. Remove and replace 4 each of window, Miami style, 2 FT X 3 FT, jalousie, aluminum	4	EA
	G. Remove and replace 2 each of louver, fixed aluminum 1 FT x 1 FT	2	EA
	H. Remove and replace 1 each of canopy exhaust, metal, 7 FT x 4 FT x 4 FT	1	EA
	{00-002} Roofing System:		
	A. Remove and replace 8,950 SF of building and mechanical room roofing BUR membrane	8950	SF
	B. Remove and replace 1/2 IN, PVC conduit, with straps every 3FT, 50 FT long	50	FT
	C. Remove and replace 18 each of PVC electrical conduit not attached to brackets, 180 LF	100	LE

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D. Remove and replace 2 each of 4 IN PVC conduit in-line Junction box cover	2	EA
E. Remove and replace 10 each of 4 IN PVC conduit couplings, detached	10	EA
F. Remove and replace 3 IN PVC conduit, 200 FT long	200	FT
G. Remove and replace 26 each of 1 IN galvanized pipe	26	EA
straps	8	EA
H. Remove and replace 8 each of 3 IN galvanized pipe straps	0	EA
I. Remove and replace 10 each of 2 IN galvanized pipe straps	10	EA
J. Remove and replace 4 IN, PVC conduit, with straps every	160	FT
5FT, 160 FT long	100	' '
K. Remove and replace 10 each of 1 IN PVC coupling	10	EA
L. Remove and replace 10 each of 2 IN PVC coupling	10	EA
M. Remove and replace 1 IN PVC conduit, with straps every	400	LF
3FT, 400 FT long	200	1.5
N. Remove and replace 3 IN PVC conduit, with straps every 5 FT, 200 FT long	200	LF
{00-003} General:		
A. Prepare and paint 3,920 SF of building interior surfaces	3920	SF
{01-004} First Floor Room E108A Classroom (20 FT x 30 FT):		
A. Remove and replace 32 SF of ceiling system, 2 FT x 4 FT	32	SF
B. Remove and replace 1 each of lighting fixture,	4	EA
fluorescent, 2 FT X 4 FT, 4 tubes	4	
{01-005} First Floor Room E108A Lab (20 FT x 26 FT):		
A. Prepare and paint 40 SF of building interior surfaces	40	SF
B. Remove and replace 32 SF of ceiling system, 2 FT x 4 FT	32	SF
{01-006} First Floor Room E108B Classroom (20 FT x 30 FT):		
A. Remove and replace 16 SF of ceiling system, 2 FT x 4 FT	16	SF
acoustic tile	10	31
{01-007} First Floor Auditorium Lobby (9 FT x 41 FT):		
A. Remove and replace 96 SF of ceiling system, 2 FT x 4 FT acoustic tile	96	SF
B. Prepare and paint 120 SF of building wall interior surfaces	120	SF
C. Remove and replace 10 each of 4 IN vinyl cove base	10	EA
{01-008} First Floor Theater (42 FT x 51 FT):		
A. Remove and replace 1,120 SF of ceiling system, 2 FT x 4 FT acoustic tile	1120	SF
B. Remove and replace 600 SF of AC ductwork fiber glass	600	SF
insulation, 12 IN x 24 IN duct  C. Remove and replace 10 each of lighting fixture,	10	EA
fluorescent, 2 FT X 4 FT, 4 tubes	20	EA
D. Remove and replace 20 each of seats theater		
E. Remove and replace 54 each of 4 IN vinyl cove base	54	EA

Initials \_\_\_\_\_

	F. Remove and replace 160 SF of flooring, Vinyl	160	SF
	Composition Tile (VCT), 12 IN X 12 IN	050	
	G. Remove and replace 252 each of flooring, Vinyl Tile Cap/molding, 6 IN x 1.5 IN	252	EA
	H. Prepare and paint 1,050 SF of building wall interior	1050	SF
	surfaces	<u> </u>	
	{01-009} First Floor Room E103A Lab (20 FT x 26 FT):	<u> </u>	
	A. Remove and replace 84 SF of ceiling system, 2 FT x 4 FT acoustic tile	84	Sf
	B. Prepare and paint 160 SF of building wall interior surfaces	160	SF
	{01-010} First Floor Room E103A Classroom (20 FT x 30 FT):		
	A. Remove and replace 30 SF of flooring, ceramic tile, 12 IN X 12 IN	30	SF
	B. Prepare and paint 300 SF of building interior surfaces	300	SF
	C. Remove and replace 144 SF of ceiling system, 2 FT x 4 FT acoustic tile	144	SF
	D. Remove and replace 1 each of Panel board LP1B, 1 PH, 100 A, 120/240V, 20 provisions	1	EA
	{01-011} First Floor Room E103B Lab (20 FT x 30 FT):		
	A. Prepare and paint 50 SF of building interior surfaces	50	SF
	B. Remove and replace 32 SF of ceiling system, 2 FT x 4 FT acoustic tile	32	SF
	C. Remove and replace 4 each of plastic grid, vent/air intake, 24 IN x 48 IN	4	EA
	{01-012} First Floor Room E103B Classroom (20 FT x 30 FT):	<del> </del>	
	A. Remove and replace 400 SF of ceiling system, 2 FT x 4 FT	400	SF
	acoustic tile		
	B. Remove and replace 1 each of 2 FT x 2 FT diffuser vent	1	EA
	C. Prepare and paint 300 SF of building interior surfaces	300	SF
	D. Remove and replace 16 SF of ceiling system, linear metal, 24 IN x 48 IN	16	SF
	E. Remove and replace 4 each of lighting fixture, fluorescent, 2 FT X 4 FT, 4 tubes	4	EA
	{01-013} Rooftop Penthouse Mechanical Room Interior (20 FT x 40 FT):		
	A. Prepare and paint 2,000 SF of building interior wall and ceiling surfaces	2000	SF
	B. Remove and replace 1 each of Air conditioning system, 50-ton unit	1	EA
HMP 40		1	1
	IIAA IIDD Ayaaiha Edifiaia 020 Labayatayiaa da Enfayssayia	1	
	HM - UPR Arecibo Edificio 030 Laboratorios de Enfermería y Auditorio DI 195245		
	•		
	Auditorio DI 195245	8950	SF

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Install 499 LF of termination b	ar on roof edges and can	499	1 F
flashing to prevent uplift of the		1,,,	
B. Window Mitigation			
Remove and install 750 SF or resistant aluminum jalousie w	f jalousie windows using impact vindow	750	SF
Remove and install 42 SF of L screen, mill finish, continuous	ouver, aluminum extruded, with line, stormproof.	42	SF
Install 64 each window of we	eatherstripping.	64	EA
C. Door Mitigation			
Remove and Install 2 EA doc flush, 20 ga., 1-3/4" thick x 7'	ors, exterior, steel,commercial, -0" x 3'-6"	2	EA
Remove and install 14 EA Do	or Glass Arch. Swing, tempered, luding hardware	14	EA
D. Roof Top (fixed) Roof acc	ess hood:		
Install on 1 EA – Roof top equ	uipment anchoring system	1	EA
E. Roof Top AC condensing u	ınits Mitigation:		
Install on 8 EA – Roof top AC for 5-10 tons Units.	Equipment anchoring system	8	EA

# 4. DI: 195248 UPR Arecibo Edificio 034 Taller de Mantenimiento

	UPR Arecibo Edificio 034 Taller de Mantenimiento DI 195248		
A 428			
	Building Damage:		
	{00-001} General:		
	A. Prepare and paint 4,100 SF of building exterior surfaces	4100	SF
	B. Remove and replace 1 each of light, 1 FT x2 FT fluorescent, 2 tube	1	EA
	C. Repair 72 SF of wall, crack plaster	72	SF
	D. Prepare and paint 660 SF of wall, concrete	660	SF
	E. Repair 16 SF of wall, concrete, metal gate anchorage detachment	16	SF
	F. Remove and replace 224 SF of wall, 1/2 IN plywood	224	SF
	G. Remove and replace 20 each of window, aluminum jalousie 3 FT x 4 FT	20	EA
	H. Remove and replace 1 each of light, metal halide lamp, wall mount, 400W	1	EA
	I. Remove and replace 2 each of door & frame, SC, wood frame, painted, 3 FT x 7 FT	2	EA
	{00-002} Roofing System:		
	A. Remove and replace 4,784 SF of modified bitumen roof with granular surface	4784	SF
	B. Remove and replace 800 SF of ribbed metal	800	SF

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	C. Remove and replace 800 SF of roof, 1/2 IN plywood	800	SF
	D. Remove and replace 975 SF of channelized metal deck, 3 FT x 24 FT	975	SF
	E. Remove and replace 2 each of AC, 5-ton package unit	2	EA
	{00-003}:		
	A. Prepare and paint 12,288 SF of building interior surfaces	12288	SF
	{00-004} Maintenance Shop Storage (29 FT x 43 FT):		
	A. Remove and replace 2 each of AC, split ductless 40,000 BTU	2	EA
	B. Remove and replace 24 each of shelf, wood 1/2 IN X 1.5 FT x 10 FT	24	EA
	C. Remove and replace 40 each of shelf, wood 1/4 IN X 1.5 FT x 10 FT	40	EA
	{00-005} Miscellaneous Storage (26 FT x 30 FT):		
	A. Remove and replace 8 each of light, 2 FT x 4 FT fluorescent, 4 tube	8	EA
	{00-006} Cabinet Making Shop (28 FT x 43 FT):		
	A. Repair 60 SF of support beam, concrete	60	SF
	{00-007} Equipment Repair Shop (18 FT x 24 FT):		
	A. Repair 100 SF of wall, concrete	100	SF
HMP 40	5	1	-1
	Exterior General:		
	1. Install additional SBS modified bituminous membrane, layer (heavyweight base sheet, 87 to 120 mil thick layer) as a supplementary mitigation.		
	2. Install supplementary walkway for 4,784 SF built-up roof, (.10x total roof area) 478 SF	478	SF
	3. Install supplementary termination bar for membrane waterproofing of roof, 295 LF	295	LF
	4. Install additional coated screws, 2", 2'-0" cc. (200 each) to 800 SF metal deck for additional reinforcement to resist wind damages.	200	EA
	5. Replace PA proposed ½" thick sheathing for plywood on roof, CDX, 3/4" thick for additional reinforcement to resist wind damages.	1	EA
	NOTES:		
	H. 1: Roofs install hurricane clips, fasteners, anchors, straps, and connectors that are compatible with the roof system and corrosion-resistant in coastal areas. Strengthen the high-wind pressure areas (e.g., corner zones, roof soffits, overhangs). H-4: (Low Slope Roofs: Replace entire roof with a roof covering with a secondary membrane and a fully adhered roof covering, such as modified bitumen. Mechanically fastened insulation or membranes are not acceptable.		

#### D. PW 8297

#### i. Location Plan



#### ii. Description

#### 1. DI: 148242 UPR Arecibo Edificio 001 Biblioteca

The "Biblioteca" building is a 45,788 SF, that was constructed in 1998 (22 years old). This library is two (2) stories, site cast, reinforced concrete building with a reinforced concrete roof with a bituminous built-up roof system. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade, and an elevator. Interior finishes generally consist of suspended acoustic ceiling, painted concrete or drywall and vinyl floor tile. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.47008, -66.74047

#### 2. DI: 148244 UPR Arecibo Edificio 003 Almacén de Químicos

The building is a single story structure with reinforced concrete walls, roof deck and slab on grade. The roof is a modified bitumen membrane. Interior finished are terrazzo floors and painted walls and ceiling. The building was used as a lab and classrooms at the time of the event. It was in use at the time of the event. GPS Latitude/Longitude: 18.47018, -66.74154

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#### 3. DI: 195241 UPR Arecibo Edificio 026 Centro de Estudiantes

The building is a 3 story, site cast, reinforced concrete building it also has a reinforced concrete roof with a bituminous built-up roof system. The built-up roofing system is installed on the flat roof area and extended up the three foot high roof parapet. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of suspended acoustic ceiling, painted concrete or drywall and vinyl floor tile. The building consists of classrooms and offices at the time of the event. The building was in use at the time of the event. GPS Latitude/Longitude: 18.46979, -66.74129

#### 4. DI: 195242 UPR Arecibo Edificio 027 Departamento de Educación

The UPR Arecibo Edificio 027 Departamento de Educacion building is a 6777 SF, 1 story office building that was constructed in 2012 (5 years old). The building is a pre-engineered steel structure with a lean-to on a reinforced concrete slab on grade. Concrete masonry units (C.M.U.) walls in the perimeter and in some interior walls. The roof is metal deck galvalume roof with a bituminous built-up system. The interior includes some concrete masonry units (CMU) walls; plastered and painted. Interior finishes generally consist of suspended acoustic ceiling, modular furniture division walls and vinyl floor tiles. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46827, -66.74108

#### 5. DI: 250238 UPR Arecibo Edificio 029 Edificio Enfermería

The UPR Arecibo Edificio 029 Edificio Enfemeria building is a 15,704 SF, 2 story office building that was constructed in 1974 (43 years old). The building is a site cast, two floors, reinforced concrete building with a reinforced concrete roof with a bituminous built-up roof system. The interior includes reinforced concrete bearing walls with a reinforced concrete floor slab on grade. Interior finishes generally consist of suspended acoustic ceiling, painted concrete or drywall and vinyl floor tile. There is an elevator in the building. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46827, -66.74121

generally consist of suspended acoustic ceiling, painted concrete or drywall and vinyl floor tile. There is an elevator in the building. This facility was in operation at the time of the event. GPS Latitude/Longitude: 18.46827, -66.74121

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# iii. SCOPE OF WORK- FEMA

# 1. DI: 148242 UPR Arecibo Edificio 001 Biblioteca

	UPR Arecibo Edificio 001 Biblioteca DI 148242		
PA 428			
	Building Damage:		
	{00-001} Roofing System:		
	A. Remove and Replace, ductwork, 1 FT x 3 FT, 10 LF long.	10	LF
	B. Remove and Replace, 5 SF of skylight, glass panel.	5	SF
	C. Remove and Replace, 15,498 SF of BUR membrane. (22,894 in MOR)	15498	SF
	D. Remove and Replace, 450 SF of metal roof.	450	SF
	{01-004} Second Floor Reference Room:		
	A. Remove and Replace, 100 SF of ceiling, 2 FT x 2 FT acoustic tile.	100	SF
	B. Prepare and Paint, 20 SF of ceiling.	20	SF
	{01-006} Second Floor Studio Room 2:		
	A. Remove and Replace, 20 SF of ceiling, 2 FT x 2 FT acoustic tile.	20	SF
	{01-007} Second Floor Studio Room 8:		
	A. Prepare and Paint, 60 SF of painted wall.	69	SF
	{01-009} Second Floor Studio Room 4:		
	A. Remove and Replace, 10 SF of ceiling, 5/8 IN drywall,	10	SF
	{01-013} Second Floor Revistas:		
	A. Remove and Replace, 30 SF of ceiling, 2 FT x 2 FT acoustic tile.	30	SF
	{01-016} Second Floor Computer Room:		
	A. Remove and Replace, 12 SF of ceiling, 2 FT x 2 FT acoustic tile.	12	SF
	{01-017} Second Floor Video Conference Room:		
	A. Remove and Replace, 8 SF of ceiling, 5/8 IN drywall.	8	SF
	{01-021} Second Floor Exhibition Room:		
	A. Remove and Replace, 40 SF of ceiling tile, 2 FT x 2 FT acoustic tile.	40	SF
	{01-023} Second Floor Projection Room:		
	A. Remove and Replace, 48 SF of ceiling, 2 FT x 2 FT acoustic tile.	48	SF
	{01-024} Second Floor Library Instruction Program:		
	A. Remove and Replace, 10 SF of ceiling, 2 FT x 2 FT acoustic tile.	10	SF
	{01-026} Second Floor Emergency Exit Stairs:		
	A. Repair, 12 SF of ceiling cement/ plastered.	12	SF
	B. Prepare and Paint, 152 SF of ceiling, paint.	152	SF
	{01-036} Second Floor Covered Walkway:		
	A. Remove and Replace, 128 SF of ceiling, cement panels, 4 FT x 8 FT.	128	SF
	{01-037} Second Floor Stair Roof Access:		
	A. Prepare and Paint, 207 SF of ceiling, concrete, paint.	207	SF

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	B. Prepare and Paint, 200 SF of wall, concrete, paint.	200	SF
	Vehicle or Equipment Damage:		
	A. Remove and Replace - Roof: Equipment, 1 each of Exhaust Fan, (2,000 CFM)	1	EA
HMP 406			
	HMP406-Edificio 001 Biblioteca DI #148242		
	1. Roof Mitigation		
	a. According to the PA Method of Repair (MOR), considering that 67.7% of the total roof area was captured in the DDD as an eligible damage, the entire 4-ply system will be replaced by the PA scope. Therefore, the mitigation proposed will address supplementary measures to strengthen the roofing system, minimizing water infiltration and preventing similar damages to interiors and contents. (Supplementary Mitigation)		
	i. Install 1,624 LF of a continuous termination bar placed over the membrane, along the length of the roof deck and parapet wall with fasteners spaced according with the design wind loads, used as a supplementary attachment method for the roof edge system to prevent tear-off of the membrane and provide greater wind uplift resistance.	1624	LF
	ii. Install 812 LF of metal edge flashing/coping, along the length of the roof perimeter with fasteners spaced according with the design wind loads, to prevent tear-off of the membrane and provide greater wind uplift resistance.	812	LF
	Notes: The linear feet of the roof perimeter were obtained from the Damage Description and Dimensions (DDD). PA SOW shall include but no limited to: Removal and disposal of existing material down to a sound and dry substrate, and the optimization of roof surface according codes and standards applicability including positive drainage compliance with current codes.		
	b. Reinforce the roof covering and fastening system to provide greater high wind uplift resistance and minimize water infiltration.		
	i. Replace 450 SF of 26-gauge corrugated metal roofing panels with 450 SF of corrugated metal roofing panels with greater thickness (24 gauge). (Replacement Mitigation)	450	SF
	ii. Install additional corrosion-resistant self-drilling screws with rubber or neoprene washers, including side lap fastening but focused on edge, ridge and corner zones, for 450 SF of corrugated metal roofing panels. (Supplementary Mitigation)	1	EA
	2. Equipment Mitigation	1	F.
	a. Secure 1 EA of roof mounted equipment, an exhaust fan, to roof slab to withstand a minimum of 171 mph wind forces.	1	EA

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# 2. DI: 148244 UPR Arecibo Edificio 003 Almacén de Químicos

	UPR Arecibo Edificio 003 Almacen de Quimicos DI 148244		
PA 4	28		
	Building Damage:		
	{00-001} General:		
	A. Remove and Replace 2,800 CF of building rooftop HVAC unit. (6 Ton)	2800	SF
	{00-003} General:		
	A. Prepare and Paint, 500 SF of interior painted surfaces.	500	SF
	{00-004} Building Interior:		
	A. Prepare and Clean, 500 SF of floor, terrazzo.	500	SF
НМР	406	•	1
	HMP406-Edificio 003 Almacén de Sustancias Químicas DI # 148244		
	Equipment Mitigation (Supplementary Mitigation)		
	<ul> <li>a. Secure 1 EA of roof mounted equipment, 6 ton (72,000 BTU)</li> <li>HVAC unit, to roof slab to withstand a minimum of 183 mph wind forces.</li> </ul>	1	EA

# 3. DI: 195241 UPR Arecibo Edificio 026 Centro de Estudiantes

8		
Building Damage:		
{00-001} General:		
A.Prepare and Paint, 700 SF of exterior paint.	700	
B. Remove and Replace, 2 each of door & frame, aluminum.	2	
C.Remove and Replace, 3 each of window, aluminum storefront, 3X8 FT.	3	
D.Remove and Replace, 140 SF of Skylight.	140	
E.Remove and Replace, 1 each of Vent pipe, 2FT DIAX15FT.	1	
{00-002} Roofing System:		
A. Remove and Replace, 1 each of methane Vent plumbing. (8 IN Galvanized Duct, 4FT long)	1	
{00-003} General:		
A.Prepare and Paint, 600 SF of interior paint.	600	
{01-008} 3rd Floor – tutorial area Hallway:		
A.Remove and Replace, 32 SF of ceiling tiles.	32	
{04-001} Mold Remediation:		
A.Prepare and Clean, 200 SF of interior mold.	200	

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HMP406-Edificio 026 Centro de Estudiantes DI #195241		
Openings Mitigation (Replacement Mitigation)		
a. Replace 56 SF of window glass (2 EA of 3 FT W x 7 FT H aluminum glass doors and 2 EA of 1 FT W x 7 FT H sidelight) with 56 SF of impact-resistant glass, rated to withstand the wind pressures on the structure and windborne debris impact, reducing the risk of water intrusion and internal building damage (Removal addressed in PA SOW).	56	SF
b. Replace 72 SF of window glass (3 EA of 3 FT W x 8 FT H aluminum glass fixed windows) with 72 SF of impact-resistant glass, rated to withstand the wind pressures on the structure and wind-borne debris impact, reducing the risk of water intrusion and internal building damage (Removal addressed in PA SOW).	72	LF

# 4. DI: 195242 UPR Arecibo Edificio 027 Departamento de Educación

A 428		
Building Damage:		
{00-001} General:		
A. Prepare and Paint, 5,280 SF exterior paint.	5280	SF
B. Remove and Replace, metal Flashing, 6IN, Type L, 250 LF long.	250	LF
{00-002} Roofing System:		
Remove and Replace, 6,744 SF of BUR membrane 1 ply.	6744	SF
{00-003} General:		
Prepare and Paint, 8,000 SF of interior paint.	8000	SF
{01-004} First Floor Administration Area:		
Remove and Replace, 3 each of light, 2x2 fluorescent, 2 tube,	3	EA
recessed.		
{01-005} First Floor Director office):		
Remove and Replace, 143 SF of ceiling, 2x2 acoustic tile.	143	SF
{01-006} First Floor File Office 26:		
Remove and Replace, 130 SF of ceiling, 2x2 acoustic tile.	130	SF
{01-007} First Floor Social Office 1:		
A. Remove and Replace, 198 SF of ceiling, 2x2 acoustic tile.	198	SF
B. Remove and Replace, 198 SF of ceiling, suspended metal grid.	198	SF
{01-008} First Floor Social Office 2:		
Remove and Replace, 198 SF of ceiling, 2x2 acoustic tile.	198	SF
HMP 406	·	
HMP406-UPR Arecibo Edificio 027 Departamento de Educacion DI 195242		
1. Roof Mitigation		

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a. Remove and replace 352 LF of metal edge flashing with 352 LF of metal edge coping, along the length of the roof perimeter with fasteners spaced according with the design wind loads, to prevent tear-off of the membrane and provide greater wind uplift resistance, protecting the whole roofing system effectiveness (Removal of 250 LF of metal flashing addressed by PA SOW). (Replacement Mitigation)	352	LF
b. According to the PA Method of Repair (MOR), considering that 100% of the total roof area was captured in the DDD as an eligible damage, the entire 4-ply system will be replaced by the PA scope. Therefore, the mitigation proposed will address supplementary measures to strengthen the roofing system, minimizing water infiltration and preventing similar damages to interiors and contents. (Supplementary Mitigation)		
i. Install 704 LF of a continuous termination bar placed over the membrane, along the length of the roof deck and parapet wall with fasteners spaced according with the design wind loads, used as a supplementary attachment method for the roof edge system to prevent tear-off of the membrane and provide greater wind uplift resistance.	704	LF
Notes: The linear feet of the roof perimeter were obtained from the Damage Description and Dimensions (DDD). PA SOW shall include but no limited to: Removal and disposal of existing material down to a sound and dry substrate, and the optimization of roof surface according codes and standards applicability including positive drainage compliance with current codes.		

# 5. DI: 250238 UPR Arecibo Edificio 029 Edificio Enfermería

	UPR Arecibo Edificio 029 Edificio de Enfermeria DI 250238				
PA 428	PA 428				
	Building Damage:		T		
	{00-001} General:				
	A. Prepare and Paint in-kind, 10,516 SF of painted surfaces.	1051 6	SF		
	B. Repair and Paint in-kind, wall, 1/4 IN thick plaster, painted (cracks), 700 LF long.	700	LF		
	C. Remove and Replace in-kind, 2 each of window, aluminum jalousie 2x3 FT.	2	EA		
	D. Remove and Replace in-kind, 11 each of window, glass 2x3 FT.	11	EA		
	E. Remove and Replace, conduit, 2 IN PVC SCH 40, 100 LF long.	100	LF		
	F. Remove and Replace, conduit, 1 IN PVC SCH 40, 65 LF long.	65	LF		
	G. Remove and Replace, conduit, 1/2 IN EMT, 20 LF long.	20	LF		
	H. Remove and Replace, conduit, 4 IN PVC SCH40, 10 LF long.	10	LF		
	I. Remove and Replace, flexconduit, 1/2 IN, 10 LF long.	10	LF		
	J. Remove and Replace, 1 each of disconnect switch, 50 AMP.	1	EA		
	K. Remove and Replace, 1 each of exhaust fan, 3,500 CFM.	1	EA		

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L. Remove and Replace, 1 each of junction box, 24x24x6 IN, NEMA4X.	1	EA
M. Remove and Replace, 1 each of junction box, 4x4x4 IN.	1	EA
N. Remove and Replace, 1 each of AC, 5 ton package unit.	1	EA
{00-002} Roofing System:		
Remove and Replace, 7,852 SF of BUR membrane.	7852	SF
{00-003} General:		
A. Prepare and Paint in-kind, 31,548 SF of interior paint.	3154 8	SF
{01-004} Second Floor Room E 201:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-005} Second Floor Room E 202:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	EA	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-006} Second Floor Room E 203:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile, suspended.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-007} Second Floor Room E 204:		
A. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-008} Second Floor Room E 206:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF

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C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-009} Second Floor Room E 208:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-010} Second Floor Room E 211:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-011} Second Floor Room E 212:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-012} Second Floor Room E 215:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-013} Second Floor Room E 216:		
A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile, suspended.	110	SF
B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
{01-014} Second Floor Room E 217:		

	A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
	B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
	C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
	D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
	E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
	{01-015} Second Floor Room E 218:		
	A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
	B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
	C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
	D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
	E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
	{01-016} Second Floor Room E 219:		
	A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
	B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
	C. Remove and Replace in-kind, 1 each of window plastic screen 2x3 FT.	1	EA
	D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
	E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
	{01-017} Second Floor Room E 220:		
	A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
	B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
	C. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
	D. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
	{01-018} Second Floor Room E 221:		
	A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
	B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
	C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
	D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
	E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
	{01-019} Second Floor Room E 222:		
	A. Remove and Replace in-kind, 110 SF of ceiling, 2x4 acoustic tile.	110	SF
	B. Remove and Replace in-kind, 110 SF of ceiling, suspended metal grid.	110	SF
	C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
	D. Remove and Replace in-kind, base, 4 IN vinyl, 42 LF long.	42	LF
	E. Remove and Replace in-kind, 110 SF of floor, VCT, 12x12 IN.	110	SF
	{01-020} Second Floor Room E 223:		
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A. Remove and Replace in-kind, 1,025 SF of ceiling, 2x4 acoustic tile.	1025	SF
B. Remove and Replace in-kind, 1,025 SF of ceiling, suspended metal grid.	1025	SF
C. Remove and Replace in-kind, 1 each of window, aluminum jalousie 2x3 FT.	1	EA
D. Remove and Replace in-kind, 10 each of window plastic screen 2x3 FT.	10	EA
E. Remove and Replace in-kind, 64 SF of wall, 5/8 IN thick drywall.	64	SF
F. Remove and Replace in-kind, base, 4 IN vinyl, 132 LF long.	132	LF
G. Remove and Replace in-kind, 1,025 SF of floor, VCT, 12x12 IN.	1025	SF
{01-021} Second Floor Kitchen:		
A. Remove and Replace in-kind, 80 SF of ceiling, 2x4 acoustic tile.	80	SF
B. Remove and Replace in-kind, 80 SF of ceiling, suspended metal grid.	80	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
{01-022} Second Floor Men's bathroom:		
A. Remove and Replace in-kind, 104 SF of ceiling, 2x4 acoustic tile.	104	SF
B. Remove and Replace in-kind, 104 SF of ceiling, suspended metal grid.	104	SF
C. Prepare and Clean, 1 each of towel dispenser, stainless steel.	1	EA
{01-023} Second Floor Women's bathroom:		
A. Remove and Replace in-kind, 104 SF of ceiling, 2x4 acoustic tile.	104	SF
B. Remove and Replace in-kind, 104 SF of ceiling, suspended metal grid.	104	SF
C. Remove and Replace, 1 each of toilet stall partition, floor anchored, powder coated steel.	1	EA
D. Prepare and Clean, 1 each of towel dispenser, stainless steel.	1	EA
{01-024} Second Floor Storage Room E 227:		
A. Remove and Replace in-kind, 70 SF of ceiling, 2x4 acoustic tile, suspended.	70	SF
B. Remove and Replace in-kind, 70 SF of ceiling, suspended metal grid.	70	SF
C. Prepare and Paint in-kind, 70 SF of floor, sealed concrete surfacing, painted.	70	SF
{01-025} Second Floor Director's Office E 226:		
A. Remove and Replace in-kind, 240 SF of ceiling, 2x4 acoustic tile.	240	SF
B. Remove and Replace in-kind, 240 SF of ceiling, suspended metal grid.	240	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 64 LF long.	64	LF
D. Remove and Replace in-kind, 240 SF of floor, VCT, 12x12 IN.	240	SF
{01-026} Second Floor Director's Office Bathroom:		
A. Remove and Replace in-kind, 40 SF of ceiling, 2x4 acoustic tile.	40	SF
B. Remove and Replace in-kind, 40 SF of ceiling, suspended metal grid.	40	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, 84 SF of wall, 2x3 IN ceramic tile, 3 FT high.	84	SF

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{01-027} Second Floor Office E 224:		
A. Remove and Replace in-kind, 120 SF of ceiling, 2x4 acoustic tile.	120	SF
B. Remove and Replace in-kind, 120 SF of ceiling, suspended metal grid.	120	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 44 LF long.	44	LF
Remove and Replace in-kind, 120 SF of floor, VCT, 12x12 IN	120	SF
{01-028} Second Floor Office E 225:		
A. Remove and Replace in-kind, 120 SF of ceiling, 2x4 acoustic tile.	120	SF
B. Remove and Replace in-kind, 120 SF of ceiling, suspended metal grid.	120	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 44 LF long.	44	LF
D. Remove and Replace in-kind, 120 SF of floor, VCT, 12x12 IN.	120	SF
{01-029} Second Floor Secretary's Office:		
A. Remove and Replace in-kind, 500 SF of ceiling, 2x4 acoustic tile.	500	SF
B. Remove and Replace in-kind, 500 SF of ceiling, suspended metal grid.	500	SF
C. Remove and Replace in-kind, 6 each of window plastic screen 2x3 FT.	6	EA
D. Remove and Replace in-kind, base, 4 IN vinyl, 90 LF long.	90	LF
E. Remove and Replace in-kind, 500 SF of floor, VCT, 12x12 IN.	500	SF
{01-030} Second Floor Nursing Computer Lab:		
A. Remove and Replace in-kind, 440 SF of ceiling, 2x4 acoustic tile.	440	SF
B. Remove and Replace in-kind, 440 SF of ceiling, suspended metal grid.	440	SF
C. Remove and Replace in-kind, 6 each of window plastic screen 2x3 FT.	6	SF
D. Remove and Replace in-kind, base, 4 IN vinyl, 84 LF long.	84	LF
E. Remove and Replace in-kind, 440 SF of floor, VCT, 12x12 IN.	440	SF
{01-031} Second Floor Nursing Remove and Replace hallways:		
A. Remove and Replace in-kind, 1,850 SF of ceiling, 2x4 acoustic tile.	1850	SF
B. Remove and Replace in-kind, 1,850 SF of ceiling, suspended metal grid.	1850	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 390 LF long.	390	LF
D. Remove and Replace in-kind, 1,850 SF of floor, VCT, 12x12 IN.	1850	SF
{01-032} Second Floor Hallways west of main hallway:		
A. Remove and Replace in-kind, 56 SF of ceiling, 2x4 acoustic tile.	56	SF
B. Remove and Replace in-kind, 56 SF of ceiling, suspended metal grid.	56	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 36 LF long.	36	LF
D. Remove and Replace in-kind, 56 SF of floor, VCT, 12x12 IN.	56	SF
{01-033} Second Floor Hallways west of main hallway:		
A. Remove and Replace in-kind, 144 SF of ceiling, suspended metal grid.	144	SF
B. Remove and Replace in-kind, 144 SF of ceiling, 2x4 acoustic tile.	144	SF

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 C. Remove and Replace in-kind, base, 4 IN vinyl, 80 LF long.	80	LF
D. Remove and Replace in-kind, 144 SF of floor, VCT, 12x12 IN.	144	SF
{01-034} Second Floor Room E 205:		
A. Remove and Replace in-kind, 72 SF of ceiling, 2x4 acoustic tile.	72	SF
B. Remove and Replace in-kind, 72 SF of ceiling, suspended metal grid.	72	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 34 LF long.	34	LF
D. Remove and Replace in-kind, 72 SF of floor, VCT, 12x12 IN.	72	SF
{01-035} Second Floor Room E 207:		
A. Remove and Replace in-kind, base, 4 IN vinyl, 34 LF long.	34	LF
B. Remove and Replace in-kind, 72 SF of floor, VCT, 12x12 IN.	72	SF
{01-036} Second Floor Room E 210:		
A. Remove and Replace in-kind, 72 SF of ceiling, 2x4 acoustic tile.	72	SF
B. Remove and Replace in-kind, 72 SF of ceiling, suspended metal grid.	72	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 34 LF long.	34	LF
D. Remove and Replace in-kind, 72 SF of floor, VCT, 12x12 IN.	72	SF
{01-037} Second Floor Room E 213:		
A. Remove and Replace in-kind, 72 SF of ceiling, 2x4 acoustic tile.	72	SF
B. Remove and Replace in-kind, 72 SF of ceiling, suspended metal grid.	72	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 34 LF long.	34	LF
D.Remove and Replace in-kind, 72 SF of floor, VCT, 12x12 IN.	72	SF
{01-038} Second Floor Room E 214:		
A. Remove and Replace in-kind, 72 SF of ceiling, 2x4 acoustic tile.	72	SF
B. Remove and Replace in-kind, 72 SF of ceiling, suspended metal grid.	72	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 34 LF long.	34	LF
D. Remove and Replace in-kind, 72 SF of floor, VCT, 12x12 IN.	72	SF
{01-039} Second Floor Nursing building hallways:		
A. Remove and Replace, 7 each of light, 2x4 fluorescent, 4 tube, surface mount.	7	EA
B. Remove and Replace, 1 each of single gang junction box, dual outlet.	1	EA
C. Remove and Replace, wire mold, 1/2x1/2 IN, 10 LF long.	10	LF
D. Remove and Replace in-kind, 580 SF of floor, ceramic tile, 6x6 IN.	580	SF
{01-040} Second Floor Nursing building north stairwell:		
A. Remove and Replace, handrail, 1 rail 2 IN DIA, 150 LF long.	150	LF
B. Remove and Replace in-kind, 108 SF of floor, ceramic tile, 6x6 IN	108	SF
{02-041} First Floor Men's bathroom:		
A. Remove and Replace in-kind, 396 SF of ceiling, 2x4 acoustic tile.	396	SF
B. Remove and Replace in-kind, 396 SF of ceiling, suspended metal grid.	396	SF
C. Remove and Replace, 1 each of single gang junction box, dual outlet.	1	EA
D. Remove and Replace in-kind, 7 each of window plastic screen 2x3 FT.	7	EA
E. Remove and Replace in-kind, 804 SF of wall, 2x3 IN ceramic tile.	804	SF

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F. Remove and frame, painted	I Replace in-kind, 1 each of door & frame, HM, metal I, 3070.	1	E
{02-042} First Flo			
A. Remove and	d Replace in-kind, 240 SF of ceiling, 2x4 acoustic tile.	240	SF
B. Remove and grid.	d Replace in-kind, 240 SF of ceiling, suspended metal	240	SI
	d Replace in-kind, 276 SF of wall, 2x3 IN ceramic tile.	276	SI
D. Remove and	d Replace in-kind, base, 4 IN vinyl, 62 LF long.	62	LI
E. Remove and	Replace in-kind, 240 SF of floor, 1x1 IN ceramic tile.	240	S
{02-043} First Flo	oor Classroom E 102:		
A. Remove and	d Replace in-kind, 464 SF of ceiling, 2x4 acoustic tile.	464	S
B. Remove and grid.	Replace in-kind, 464 SF of ceiling, suspended metal	464	S
	d Replace, 1 each of light, 2x4 fluorescent, 4 tube,	1	Е
	d Replace, 1 each of single gang junction box, dual	1	E
	Replace in-kind, 1 each of wall, 4x8 cement board	1	Е
	d Replace in-kind, base, 4 IN ceramic, 90 LF long.	90	L
G. Remove and	d Replace in-kind, 464 SF of floor, ceramic tile, 12x12 IN.	464	S
{02-044} First Flo	oor Women's bathroom:		
A. Remove and	d Replace in-kind, 466 SF of ceiling, 2x4 acoustic tile.	466	S
B. Remove and grid.	Replace in-kind, 466 SF of ceiling, suspended metal	466	S
<u> </u>	d Replace in-kind, 804 SF of wall, 2x3 IN ceramic tile.	804	S
D. Remove and	d Replace in-kind, 466 SF of floor, 1x1 IN ceramic tile.	466	S
{02-045} First Flo	oor Classroom E 104:		
A. Remove and	d Replace in-kind, 300 SF of ceiling, 2x4 acoustic tile.	300	S
B. Remove and grid.	Replace in-kind, 300 SF of ceiling, suspended metal	300	S
C. Remove and recessed.	d Replace, 2 each of light, 2x4 fluorescent, 4 tube,	2	E
	d Replace in-kind, base, 4 IN vinyl, 70 LF long.	70	L
E. Remove and	Replace in-kind, 300 SF of floor, VCT, 12x12 IN.	300	S
{02-046} First Flo	oor Classroom E 106:		
A. Remove and suspended.	d Replace in-kind, 580 SF of ceiling, 2x4 acoustic tile,	580	S
B. Remove and grid.	Replace in-kind, 580 SF of ceiling, suspended metal	580	S
C. Remove and	d Replace, wall, 1/4 IN thick plaster (crack), 10 LF long.	10	L
D. Remove and	d Replace in-kind, base, 4 IN vinyl, 98 LF long.	98	L
E. Remove and	Replace in-kind, 580 SF of floor, VCT, 12x12 IN.	580	S
{02-047} First Flo	oor Classroom E 107:		
A. Remove and	d Replace in-kind, 580 SF of ceiling, 2x4 acoustic tile.	580	S

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B. Remove and Replace in-kind, 580 SF of ceiling, suspended metal grid.	580	SF
C. Remove and Replace, 7 each of light, 2x4 fluorescent, 4 tube, recessed.	7	EA
D. Remove and Replace, 1 each of single gang junction box, dual outlet.	1	EA
E. Remove and Replace in-kind, base, 4 IN vinyl, 98 LF long.	98	LF
F. Remove and Replace in-kind, 580 SF of floor, VCT, 12x12 IN.	580	SF
{02-048} First Floor Classroom E 109:		
A. Remove and Replace in-kind, 580 SF of ceiling, 2x4 acoustic tile.	580	SF
B. Remove and Replace in-kind, 580 SF of ceiling, suspended metal grid.	580	SF
C. Remove and Replace, 2 each of light, 2x4 fluorescent, 4 tube, recessed.	2	EA
D. Remove and Replace, 1 each of single gang junction box, dual outlet.	1	EA
E. Remove and Replace in-kind, base, 4 IN vinyl, 98 LF long.	98	LF
F. Remove and Replace in-kind, 580 SF of floor, VCT, 12x12 IN.	580	SF
{02-049} First Floor Classroom E 110 S:		
A. Remove and Replace in-kind, 580 SF of ceiling, 2x4 acoustic tile.	580	SF
B. Remove and Replace in-kind, 580 SF of ceiling, suspended metal grid.	580	SF
C. Remove and Replace in-kind, 3 each of window plastic screen 2x3 FT.	3	EA
D. Remove and Replace, 1 each of single gang junction box, dual outlet.	1	EA
E. Remove and Replace in-kind, base, 4 IN vinyl, 98 LF long.	98	LF
F. Remove and Replace in-kind, 580 SF of floor, VCT, 12x12 IN.	580	SF
{02-050} First Floor Classroom E 110 N:		
A. Remove and Replace in-kind, 580 SF of ceiling, 2x4 acoustic tile.	580	SF
B. Remove and Replace in-kind, 580 SF of ceiling, suspended metal grid.	580	SF
C. Remove and Replace in-kind, base, 4 IN vinyl, 98 LF long.	98	LF
D. Remove and Replace in-kind, 580 SF of floor, VCT, 12x12 IN.	580	SF
{02-051} First Floor Hallway:		
A. Remove and Replace, 8 each of light, 2x4 fluorescent, 4 tube.	8	EA
B. Prepare and Paint in-kind, 2,220 SF of floor, sealed concrete, surfacing.	2220	SF
{02-052} First Floor Landing:		
A. Prepare and Paint in-kind, 99 SF of floor, sealed concrete, surfacing.	99	SF
{02-053} First Floor Nursing Building South Stairwell Adjacent To Decep Building:		
A. Repair and Paint, 20 SF of ceiling, 1/4 IN thick plaster, surfacing.	20	SF
B. Remove and Replace, 4 each of light, 2x2 fluorescent, 2 tube.	4	EA
C. Remove and Replace, handrail, 1 rail 2 IN DIA, 150 LF long.	150	LF
D. Remove and Replace in-kind, 117 SF of floor, ceramic tile, 6x6 IN.	117	SF

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{02-054} First Floo	or North Stairwell:		
A. Remove and I	Replace, handrail, 1 rail 2 IN DIA, 150 LF long.	150	LF
B. Remove and F	Replace in-kind, 108 SF of floor, ceramic tile, 6x6 IN.	108	SF
{02-055} First Floo	or Closet:		
A. Remove and I frame, painted,	Replace in-kind, 1 each of door & frame, SC, wood 3070.	1	EA
B. Remove and F	Replace in-kind, 117 SF of floor, VCT, 12x12 IN.	117	SF
HMP 406			1
HMP406-UPR Are	cibo Edificio 029 Edificio de Enfermeria DI 250238		
1. Roof Mitig	gation		
the total roof are entire 4-ply syste mitigation prop strengthen the	e PA Method of Repair (MOR), considering that 100% of ea was captured in the DDD as an eligible damage, the em will be replaced by the PA scope. Therefore, the osed will address supplementary measures to roofing system, minimizing water infiltration and ar damages to interiors and contents.		
the membrane, of fasteners space supplementary of	stall 956 LF of a continuous termination bar placed over along the length of the roof deck and parapet wall with d according with the design wind loads, used as a attachment method for the roof edge system to prevent embrane and provide greater wind umplift resistance	956	LF
length of the roo design wind load greater wind upli		478	LF
Damage I PA SOW shall incomaterial down to roof surface acc	r feet of the roof perimeter were obtained from the Description and Dimensions (DDD). lude but no limited to: Removal and disposal of existing o a sound and dry substrate, and the optimization of cording codes and standards applicability including a compliance with current codes.		
	s Mitigation		
Window Mitigatio	-		
windows, rated minimize the wo	Remove and replace 46 EA (399.3 SF) of 32 IN 88 SF) jalousie windows with 46 EA of impact-resistant to withstand the wind pressures on the structure and ater infiltration, reducing the risk of internal building enings' weathertightness failure.	46	EA
B.2 IN W x 39 IN H (10 windows, rated minimize the wo	Remove and replace 144 EA (1,483.2 SF) of 38 0.3 SF) jalousie windows with 144 EA of impact-resistant to withstand the wind pressures on the structure and ater infiltration, reducing the risk of internal building enings' weathertightness failure.	144	EA
B.3 x 72 IN H (24 SF) f windows, rated t minimize the wat	Remove and replace 2 EA (48 SF) of 48 IN W fixed wired glass windows with 2 EA of impact-resistant to withstand the wind pressures on the structure and ter infiltration, reducing the risk of internal building enings' weathertightness failure	2	EA

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Door Mitigation		
B.4 Remove and replace 1 EA (75 IN W x 80 IN H) aluminum glass double entrance door with 1 EA impact-resistant aluminum glass double entrance door, rated to withstand the wind pressures on the structure and minimize the water infiltration, reducing the risk of internal building damage by openings' weathertightness failure.	1	EA
B.5 Remove and replace 11 EA (36 IN W x 80 IN H) hollow metal doors with 11 EA commercial hollow metal doors with greater thickness, rated to withstand the wind pressures on the structure and minimize the water infiltration, reducing the risk of internal building damage by openings' weathertightness failure.	11	EA
B.6 Remove and replace 1 EA (36 IN W x 84 IN H) hollow metal door with 1 EA commercial hollow metal door with greater thickness, rated to withstand the wind pressures on the structure and minimize the water infiltration, reducing the risk of internal building damage by openings' weathertightness failure.	1	EA
B7. Remove and replace 1 EA (42 IN W x 80 IN H) wood door with 1 EA commercial hollow metal door with greater thickness, rated to withstand the wind pressures on the structure and minimize the water infiltration, reducing the risk of internal building damage by openings' weathertightness failure.	1	EA
C. Load Path Mitigation		
Anchoring Assembly for Roof-mounted Units		
C.1 Secure 1 EA of roof mounted equipment, 5 ton (60,000 BTU) (3 FT W x 3 FT L x 3 FT H) condensing unit, to roof slab to withstand a minimum of 177 mph wind forces.	1	EA
C.2 Secure 2 EA of roof mounted equipment, (3 FT diameter) exhaust fans, to roof slab to withstand a minimum of 177 mph wind forces.	2	EA
C.3 Secure 1 EA of roof mounted equipment, (2 FT W x 2 FT L) exhaust fan, to roof slab to withstand a minimum of 177 mph wind forces.	1	EA
C.4 Secure 2 EA of roof mounted equipment, (2 FT W x 2 FT L) roof hood vents, to roof slab to withstand a minimum of 177 mph wind forces.	2	EA

# **BBA Scope:**

# Damage # 250238 UPR Arecibo Edificio 029 Edificio Enfermería

System: Electrical:

# **Disaster Related Damage Component:**

Building Interior {01-039} Second Floor Nursing building hallways (20x29) 7 each of light, 2x4 fluorescent, 4 tube, surface mount damaged by water infiltration and mold propagation.

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RFP for Design and Supervision/ FEMA/CDBG Projects - RFP #DRO 24-020 / B00013 University of Puerto Rico

Building Interior {02-043} First Floor Classroom E 102 (16x29) 1 each of light, 2x4 fluorescent, 4 tube, recessed damaged by water infiltration and mold propagation.

Building Interior {02-045} First Floor Classroom E 104 (15x20) 2 each of light, 2x4 fluorescent, 4 tube, recessed damaged by water infiltration and mold propagation.

Building Interior {02-047} First Floor Classroom E 107 (20x29) 7 each of light, 2x4 fluorescent, 4 tube, recessed damaged by water infiltration and mold propagation.

Building Interior {02-048} First Floor Classroom E 109 (20x29) 2 each of light, 2x4 fluorescent, 4 tube, recessed damaged by water infiltration and mold propagation.

Building Interior {02-051} First Floor Hallway (12x185) 8 each of light, 2x4 fluorescent, 4 tube, mounted damaged by water infiltration and mold propagation.

Building Interior {02-053} First Floor Nursing Building South Stairwell Adjacent To Decep Building 4 each of light, 2x2 fluorescent, 2 tube, mounted damaged by water infiltration and mold propagation.

# BBA 2018 Details: Lighting Controls - 2018 IECC / Section C405.2 Lighting Controls (Mandatory) C405.2.1 Occupant Sensor Controls.

Education Sector Industry Standard:

- a. Disaster Damage Work Required: Remove and replace damaged number as noted above per classroom lighting fixtures.
- b. BBA Pre-disaster condition: The lighting system in this classroom were operable prior to the event. Lighting fixtures are powered through an electrical circuit with a commercial type 1 pole lever switch.
- c. BBA Work required: Install seven (7) ceiling mounted occupancy sensors one (1) for each room damaged lighting is functional dependent on sensor to meet code requirement. Due to the room size, 1 ea. occupancy sensor will necessary to operate lighting fixture system. The sensor shall be positioned in the ceiling, room area centered to allow for best functionality. New conduit and corresponding wiring will be necessary for sensor installation. Consider conduit installation to nearest lighting system junction box and wiring of sensor to existing circuit. Considering a minimum of 20ft of EMT conduit and 60ft of existing gauge electrical copper wire (minimum allowable: THWN #12 stranded copper wire). If the corresponding circuit wiring is not

accessible, consider conduit and corresponding wiring to the nearest lighting panel board.

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# 23. APPENDIX G

# **FEMA Alternative Procedures**

PLEASE CLICK HERE

**END OF DOCUMENT** 

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