

ONE LINE LEGEND:

- (1) 300KVA THREE PHASE PAD MOUNTED TRANSFORMER 13.2KV DELTA PRIMARY 120/208V WYE SECONDARY, RADIAL FEED, DEAD FRONT, BAYONET TYPE FUSES, SECONDARY MAIN BREAKER 800 AMPS-3P-50KIAC. STAINLESS STEEL 304 GAGE 14 ENCLOSURE. TRANSFORMER MUST COMPLY WITH P.R.E.P.A. LATEST "COMUNICADO" 15-03 OF LOW LOSSES IN COMPLIANCE WITH DOE 2016.
- (2) METERBANK MB-1 (SEE SCHEDULE).
- (3) EXISTING MANHOLE TO SERVE AS POINT OF CONNECTION. ALL WORK IN THIS MANHOLE BY P.R.E.P.A. AT OWNER'S EXPENSES.
- (4) NEW CONCRETE MANHOLE P.R.E.P.A. STANDARD URD-31. PROVIDE HEAVY DUTY TRAFFIC COVER. COORDINATE EXACT LOCATION OF MANHOLE WITH SAN JUAN "SUPERINTENDENTE DE DISTRIBUCION".
- (5) 3(EA) 15KV 600 AMPS-4 WAY PRIMARY CONNECTION BOX.
- (6) 3(EA) LOAD BREAK ELBOW 200 AMPS #2 15KV SILICONE RUBBER TYPE.
- (7) 3(EA) 10KV LIGHTNING ARRESTER ELBOW SILICONE RUBBER TYPE.
- (8) 2 SETS OF 4 #600 MCM THWN-2 IN 4" PVC SCH 40 CONDUIT. PROVIDE ONE 4" SPARE CONDUIT CAPPED AT BOTH ENDS. SËE TRENCH SECTION CC.
- (9) 1 #3/0 THW IN 1"C GROUND.
- (10) EXOTHERMIC CONNECTION #3/0 CABLE-CABLE TO 3/4" ROD.
- (11) 3/4" x 10' COPPERWELD GROUND ROD.
- (12) 3" EMPTY CONDUIT W/GALVANIZED FISHWIRE.
- (13) 2" EMPTY CONDUIT W/GALVANIZED FISHWIRE.
- (14) 4 #2 THWN-2 & 1 #8 THW IN 2" CONDUIT.
- (15) COMMON AREAS PANELBOARD (SEE SCHEDULE).
- (16) EMPTY CONDUIT CAPPED AT END.
- (17) EXISTING LOAD BREAK. ELBOW TO REMAIN.
- (18) EXISTING FEEDER TO REMAIN.
- XHHW IN 4" PVC SCH 40 CONDUIT. PROVIDE ONE SPARE 4" PVC SCH 40 CAPPED AT BOTH ENDS. ELECTRICAL CONTRACTOR ALSO TO INSTALL 2(EA) 6" PVC SCH 40. EMPTY CONDUITS TO BE SUPPLIED BY P.R.E.P.A.. SEE
- ─●●●─ NEW UNDERGROUND PRIMARY FEEDER CONSISTING OF 3 #2 15KV TRXLPE SHIELDED LLDPE JACKET & 1 #2 XHHW IN 4" SCH 40 CONDUIT. PROVIDE ONE 4" PVC SCH 40 SPARE CONDUIT CAPPED AT BOTH ENDS. SEE TRENCH SECTION BB.
- ☐ EXISTING CONCRETE POLE TO REMAIN.

- P.R.E.P.A. GENERAL NOTES:
- 1- THESE DRAWINGS COINCIDES WITH THOSE DRAWINGS RADICATED IN THE "OFICINA DE GERENCIA DE PERMISOS" 160P-360500E-SA.
- 2- PROJECT OWNER IS RESPONSIBLE TO NEGOTIATE AND OBTAIN ALL ENDORSEMENTS, PERMITS AND RIGHT OF WAY REQUIRED BY GOVERNMENT, STATE, MUNICIPAL, FEDERAL, AND PRIVATE ENTITIES REGARDING THE PROPOSED TYPE OF PROJECT.
- 3- PROJECT OWNER HAS TO HIRE THE SERVICES OF A LICENSED AND COLLEGIATED ENGINEER TO INSPECT THE ELECTRICAL CONSTRUCTION WORK IN ACCORDANCE TO LAW NO. 7 OF JULY 19, 1985, AS AMENDED, AND WITH THE CURRENT "AEE" "REGLAMENTO DE CERTIFICACION DE PLANOS DE PROYECTOS DE CONSTRUCCION ELECTRICA". OWNER MUST NOTIFY "AEE" THE DESIGNATION OF THIS INSPECTOR PRIOR TO PROJECT COMMENCEMENT.
- 4- THE EXECUTION OF THE ELECTRICAL WORKS, AS DESIGNED IN THE DRAWINGS, SHOULD OBSERVE THE BEST PRACTICES FROM THE ELECTRICAL CONSTRUCTION INDUSTRY, IN ACCORDANCE TO THE STANDARDS AND REGULATIONS ADOPTED BY "AEE" AND RELATED AGENCIES, AND ALSO WITH THE NEC, NESC CODES AND ADOPTED IEEE, NFPA, NEMA, AND ANSI
- 5- CONTRACTOR IS NOT AUTHORIZED TO MAKE VARIATIONS TO THIS DESIGN. THE CONTRACTOR IS RESPONSIBLE TO CONSULT WITH THE DESIGNER OR DESIGNATED INSPECTOR OF THIS PROJECT ANY DOUBT THAT ARISES IN THE DRAWINGS INTERPRETATION, IN THE EXECUTION OF THE PROPOSED WORK, TECHNICAL SPECIFICATIONS OR DISCREPANCY BETWEEN EXISTING FIELD CONDITIONS AND THOSE USED FOR DESIGN PURPOSES.
- 6- OWNER OR ELECTRICAL CONTRACTOR WILL NOTIFY "AEE" THE START OF THESE WORKS BY FILLING AND HANDING IN THE FOLLOWING DOCUMENT: "NOTIFICACION DE COMIENZO DE PROYECTO" IN THE CORRESPONDING ENGINEERING DISTRIBUTION DEPARTMENT OF THE CORRESPONDING REGION,
- WITH AT AT LEAST FIFTEEN DAYS PRIOR TO THE PROPOSED DATE. 7- THE ELECTRICAL INSPECTOR AND ELECTRICAL CONTRACTOR ARE RESPONSIBLE TO ATTEND THE PRE-CONSTRCUTION MEETING, TO BE COORDINATED WITH THE

CORRESPONDING REGION ENGINEERING DISTRIBUTION DEPARTMENT.

- 8- ALL WORK TO BE PERFORMED IN ENERGIZED LINES, INCLUDING THE CONNECTION OF THIS PROJECT. HAS TO BE MADE BY "AEE". THE PROPONENT HAS TO ABSORB AL EQUIPMENT, MATERIALS, AND LABOR COSTS. THE PROPONENT HAS TO REQUEST "AEE" AN ESTIMATE FOR THESE WORKS WHICH WILL BE VALID FOR THREE MONTHS AFTER ITS EXPEDITION.
- 9- IT IS PROHIBITED TO PERFORM ANY TYPE OF WORK IN THE ELECTRICAL RIGHT OF WAY STRIP WITHOUT WRITTEN AUTHORIZATION FROM "AEE".
- 10-"AEE" WILL NOT APPROVE PROJECT CONNECTIONS WITH CONDITIONS THAT INVADES RIGHT OF WAYS OR THAT DO NOT COMPLY WITH REQUIRED SECURITY

P.R.E.P.A. SYSTEMS NOTES:

- 1- PROJECT OWNER IS RESPONSIBLE TO PERFORM TESTS TO PRIMARY AND SECONDARY CABLES INCLUDING ITS TERMINATIONS. THESE TEST RESULTS HAS TO BE IN ACCORDANCE TO ESTABLISHED "AEE" PARAMETERS FOR THEM. THESE TESTS HAS TO BE PERFORMED IN COORDINATION WITH A REPRESENTATIVE FROM THE INSPECTION OFFICE OF THE CORRESPONDINT "AEE" ENGINEERING DISTRIBUTION DEPARTMENT.
- 2- DURING CABLE INSTALATION, IT MUST BE PROTECTED AGAINST ABRASIONS AND HUMIDITY. CONTRACTOR IS RESPONSIBLE OF INSTALLING THE CABLE BY USING THE RECOMMENDED PULLING PRACTICES SO THAT THE TENSION SPECIFIED FOR THE CABLE IS NOT EXCEEDED.
- 3- MANHOLES THAT ARE TO BE INSTALLED IN GREEN AREAS, HAS TO BE PROTECTED BY A REINFORCED CONCRETE AS PER STANDARD URD-52.
- 4- ON THOSE CASES WHERE THE PROJECT IS LOCATED LESS THAN A MILE AWAY FROM SALT WATER BODIES, ASCENDING CONDUIT HAS TO BE PVC SCH 80 OR FIBERGLASS, AS APPROVED BY "AEE".
- 5- THE CONDUIT TRENCHES OF THE UNDERGROUIND SYSTEM WILL BE INSPECTED BY "AEE" PRIOR TO BE COVERED AND COMPACTED.
- 6- ALL ESPOSED" BANCADA" WHICH IS EXPOSED TO VEHICULAR TRAFFIC HAS TO BE PROTECTED WITH CONCRETE. ALL THOSE NEAR INSTALLATIONS AND OTHER
- UTILITIES WILL HAVE A MINIMUM CLEARANCE OF THIRTEEN INCHES FROM IT. 7- THE QUANTITY OF REPLACEMENT FUSES PROVIDED BY CONTRACTOR, WILL BE
- 8- CONNECTORS USED TO GROUND CONNECT ANTENNAS AND SUBSTATIONS WILL BE THERMO-WELD OR COMPRESSION.
- 9- CONTRACTOR WILL PROVIDE FISHWIRE IN EVERY SPARE CONDUIT.

THE SAME AS THOSE INSTALLED IN EACH SUBSTATION.

- 10-ALL DISTRIBUTION SYSTEM WILL HAVE A MAXIMUM GROUND RESISTANCE OF 10 OHMS. A ROD WILL BE INSTALLED TO CONNECT TO GROUND THE NEUTRAL EVERY FOUR POLES OR EVERY 1,000 FEET AND IN EVERY TRANSFORMER.
- 11-EVERY CONCRETE BASE FOR EACH POLE HAS TO INCLUDE TWO SPARE CONDUITS FOR FUTURE USE, AS REQUIRED BY "AEE".
- 12-POLE BASES HAS TO BE INSPECTED BY "AEE" IN THEIR CONSTRUCTION.

P.R.E.P.A. SPECIAL NOTES:

- 1- PROJECT OWNER WILL CONTRIBUTE TO "AEE": THE AMOUNT OF _____ FOR IMPROVEMENTS TO EXISTING ELECTRICAL
- THE REQUIRED WORKS IN THE EVALUATION OF THIS PROJECT ON LETTER OF
- APRIL 6, 2017. THIS CONTRIBUTION WILL BE MADE AS PER PROPOSED LOAD IN ACCORDANCE WITH THE ACTUAL "REGLAMENTO PARA DETERMINAR Y COBRAR LAS APORTACIONES DE PERSONAS O INSTITUCIONES EN PROYECTOS DE DESARROLLO". CONTRIBUTION MUST SUBMIT EVIDENCE OF PAYMENT TO THE SAN JUAN "ESTUDIOS Y ESTIMADOS" OFFICE THREE MONTHS PRIOR TO START OF
- 2- "AEE" WILL NOT CONNECT THE PROJECT TO ITS ELECTRICAL SYSTEM UNTIL THE OWNER ESTABLISHES THE REQUIRED RIGHT OF WAY, EITHER INSIDE AND OUTSIDE THE PROJECT LIMITS.
- 3- THE INSTALLATION OF METERING SYSTEMS HAS TO BE COORDINATED WITH THE "OFICINA DE MEDICION" OF THE CORRESPONDING REGION. THE ELECTRICAL CONTRACTOR MUST BE SURE TO CONSULT THIS OFFICE REGARDING EQUIPMENT AND MATERIALS TO BE USED AND ALSO THE LOCATION OF
- 4- THE INSTALLATION OF SUBSTATIONS, TRANSFORMERS, AND OTHER ELECTRICAL EQUIPMENT OVER SEWAGE SYSTEMS, WATER LINES, OR ANY OTHER UTILITY IS
- 5- EXACT POINT OF CONNECTION, DETAILS, AND CONNECTION COSTS TO BE COORDINATED WITH THE SAN JUAN "SUPERINTENDENTE DE INGENIERIA DE DISTRIBUCION"
- 6- AS PART OF PROJECT, CONTRACTOR TO INCLUDE THE REMOVAL OF EXISTING 25KVA PAD MOUNTED TRANSFORMER, PRIMARY FEEDER, AND RELATED EQUIPMENT. WORK IN EXISTING POLE BY P.R.E.P.A. @ OWNER'S EXPENSES.

GENERAL NOTES:

- 1- CONDUITS TO BE 3/4" UNLESS OTHERWISE NOTED. TYPE AS FOLLOWS: A) UNDERGROUND AND CONCRETE ENCASED-PVC SCH 40. B) EXPOSED: INDOOR: RSG.
- OUTDOOR: PVC-SCH 80. C) ABOVE HUNG CEILING AND CONCEALED INWALLS — EMT.
- 2- ALL ELECTRICAL INSTALLATION MUST BE DONE IN A NEAT WORKMAN MANNER, ACCORDING TO THE LAST EDITION OF THE NATIONAL ELECTRICAL
- 3- ALL EQUIPMENT SHALL BE NEW AND MUST COMPLY WITH ANSI NEMA, UL, AND P.R.E.P.A. STANDARDS.
- 4- ALL WIRE SHALL BE COPPER TYPE THWN INSULATION AND NOT SMALLER THWN #12 THWN UNLESS OTHERWISE NOTED.
- 5- ALL EQUIPMENT SHALL BE GROUNDED ACCORDING TO THE LATEST EDITION OF THE NEC.
- 6- PROVIDE A #12 GREEN JUMPER CABLE BETWEEN THE RECEPTACLE GROUNDING SCREW AND THE OUTLET BOX GROUNDING SCREW.
- 7- INDICATED HEIGHT ARE FROM COUNTER TO BOX, OR EQUIPMENT TO
- 8- ROUTE OF CONDUITS SHOWN IN THE LAYOUT ARE SCHEMATIC AND INTEND ONLY TO INDICATE INTERCONNECTIONS BETWEEN OUTLETS OR EQUIPMENT. EXACT CONDUIT ROUTING SHALL BE DETERMINED AT JOB SITE TO CONFORM WITH THE STRUCTURAL CONDITIONS AND SHALL BE SUBJECT OF THE FINAL APPROVAL OF THE ARCHITECH/ENGINEER.
- 9- CONTRACTOR MUST SUBMIT FOR APPROVAL ALL EQUIPMENT AND ELECTRICAL MATERIALS REQUIRED FOR THE WORK TO BE PERFORMED.
- 10- THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECAME AQUAINTED WITH THE EXISTING FIELD CONDITIONS. IT SHALL BE DIRECT RESPONSIBILITY OF THE CONTRACTOR TO BRING PROMPTLY TO THE ATTENTION OF THE ENGINEER, ANY DISCREPANCIES BETWEEN THE EXISTING FIELD CONDITIONS AND THOSE THAT WERE USED FOR DESIGN PURPOSES. THIS SHALL BE DONE BEFORE THE CONTRACTOR SUBMITS HIS BID SO THAT THE ENGINEER CAN RENDER A DECISION OF THE MATER BEFORE THE BIDS ARE RECEIVED. THE SUBMITTAL OF THE BID BY THE CONTRACTOR SHALL BE HELD AS PROOF THAT THE CONTRACTOR UNDERSTAND THOROUGHLY AND COMPLETELY THE SCOPE OF THE WORK INVOLVED, HAS FAMILIARIZED HIMSELF WITH THE EXISTING FIELD CONDITIONS, AND HAS INCLUDED IN HIS BID ALL THE ITEM NECESSARY TO PERFORM THE ELECTRICAL WORK. NO ALLOWANCE WILL BE PERMITTED ON THIS MATTER AFTER THE BIDS ARE RECEIVED.
- 11- CONTRACTOR TO COORDINATE EXACT EQUIPMENT ELECTRICAL ENTRANCE WITH APPROVED SHOP DRAWINGS

P.R.E.P.A. MATERIALS NOTES:

- 1- EVERY EQUIPMENT USED IN THE CONSTRUCTION HAS TO COMPLY WITH IEEE, ANSI, NEMA, AND ASTM STANDARDS.
- 2- CONTRACTOR IS RESPONSIBLE TO VERIFY WITH "AEE" THAT EVERY MATERIAL AND EQUIPMENT USED IS APPROVED BY "AEE" PRIOR TO ITS INSTALLATION. "AEE" HAS THE RIGHT TO ACCEPT OR NOT ACCEPT ANY EQUIPMENT TRANSFERRED TO "AEE".
- 3- EVERY EQUIPMENT AND MATERIAL (INCLUDING TRANSFORMERS AND SUBSTATION CABINETS) TO BE INSTALLED ONE MILE OR LESS IN DISTANCE FROM A SALT WATER BODIES, HAS TO BE CONSTRUCTED IN STAINLESS STEEL, EXCEPT THE METER BASES.
- 4- ON THE UNDERGROUND SYSTEMS, PRIMARY CABLES WITH 15KV TERMINATIONS HAS TO BE USED FOR DISTRIBUTION VOLTAGES AND 46KV FOR 38KV LINES.
- 5- IN AERIAL SYSTEMS, 15KV POLYMER ISOLATORS MUST BE USED FOR DISTRIBUTION VOLTAGE AND 46KV FOR 38KV LINES.
- 6- CONTRACTOR WILL BE RESPONSIBLE TO LABEL EVERY TRANSFORMER TRANSFERED TO "AEE" WITH THE PROPERTY NUMBER PROVIDED BY THE CORRESPONDING "AEE" DISTRIBUTION ENGINEERING DEPARTMENT.

CERTIFICACIÓN DEL DISEÑADOR

- Certifico que soy ingeniero, agrimensor o arquitecto, licenciado y colegiado, y que estoy autorizado por el dueño del proyecto a presentar estos planos de construcción ante la AEE.
- 2. En armonía con las disposiciones de la Ley Núm. 7 del 19 de julio de 1985, según enmendada, conocida como Ley de Certificación de Planos de Construcción, certifico que preparé el diseño eléctrico de este proyecto en conformidad con los códigos, patrones, normas y reglamentos aprobados por la AEE, La Junta de Planificación y la Oficina de Genrecia de Permisos.

FIRMA DEL DISEÑADOR

AUTORIDAD DE ENERGÍA ELÉCTRICA DE PUERTO RICO **ENDOSO**

NOMBRE DE PROYECTO: _EDIFICIO DE DIEGO #73

_ CARGA (kVA): 300(25KVA EXISTING) NÚMERO DE PROYECTO: 00-1-338

REVISIÓN FECHA ENDOSADO POR

- La AEE endosa el diseño eléctrico mostrado en estos planos de construcción basándose en la certificación sometida por el diseñador en cumplimiento con la Ley Núm. 7 del 19 de julio de 1985, según enmendada.
- . La AEE no asume responsabilidad sobre el diseño certificado. El endoso por parte de la AEE no releva a diseñador de la responsabilidad profesional que asume al certificar estos planos. Este endoso no releva al constructor ni al inspector de obra privado de cumplir con las disposiciones del Código Eléctrico Nacional, Código Eléctrico Nacional de Seguridad, códigos, patrones, normas y reglamentos vigentes de la AEE y de otras agencias de gobierno, así como leyes federales y estatales, vigentes al inicio de las obras.
- . El presente endoso tiene vigencia de dos años. De iniciar las obras eléctricas dentro de este término, mediando notificación previa a la AEE, el endoso mantendrá su vigencia hasta la terminación de las mismas. En caso que no se certifique obra eléctrica en ese periodo, este endoso perderá su vigencia.

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