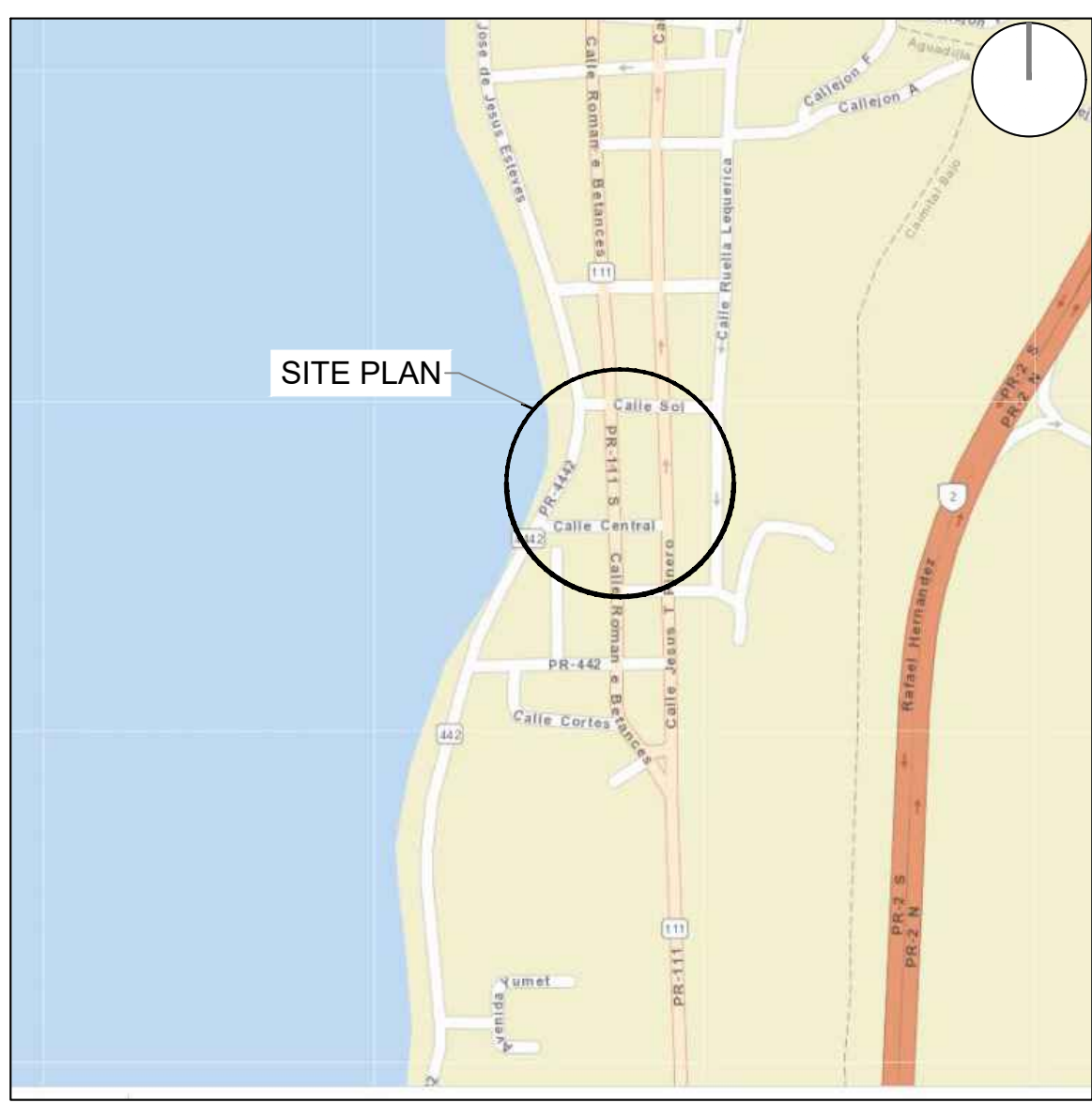
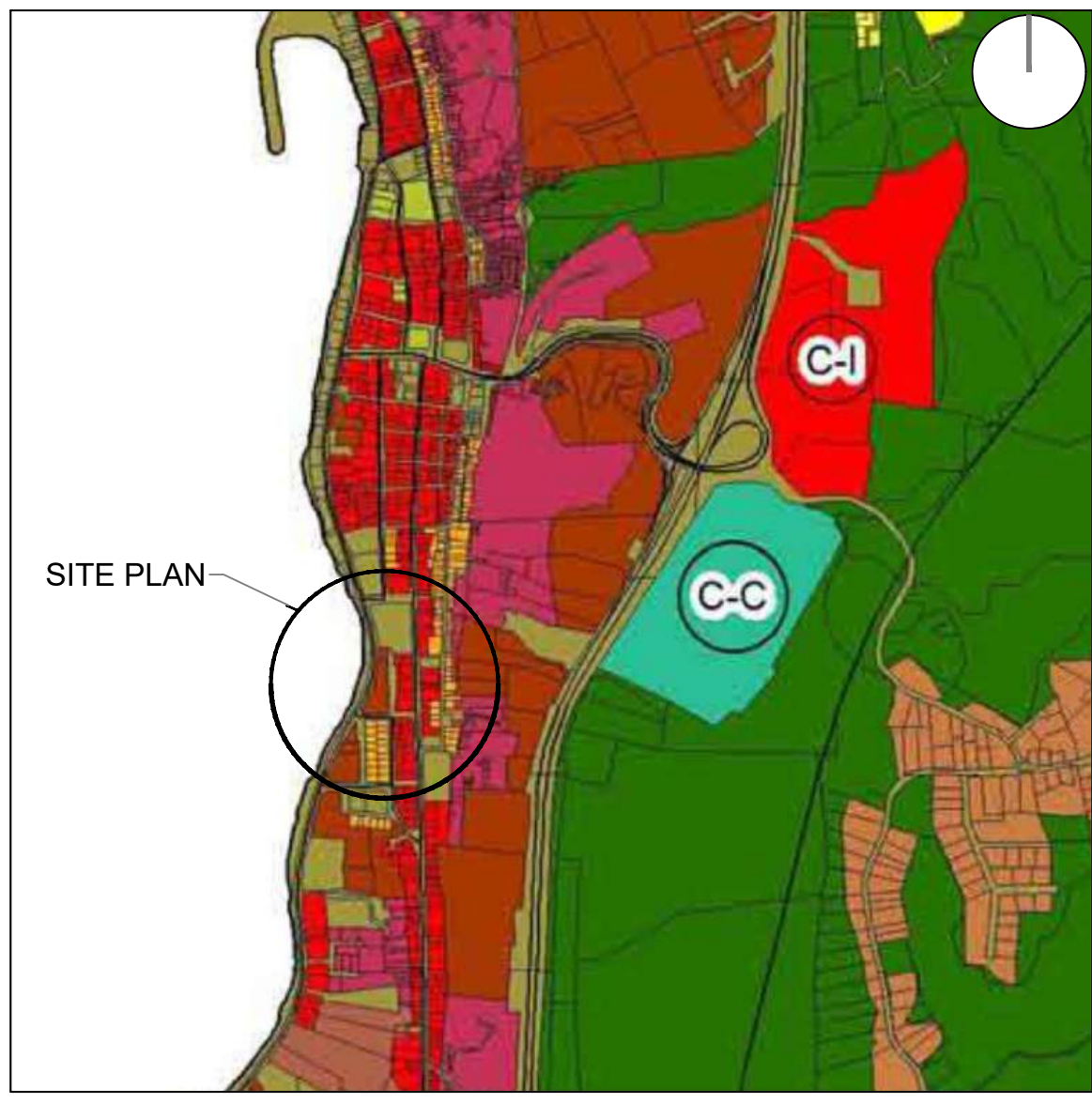


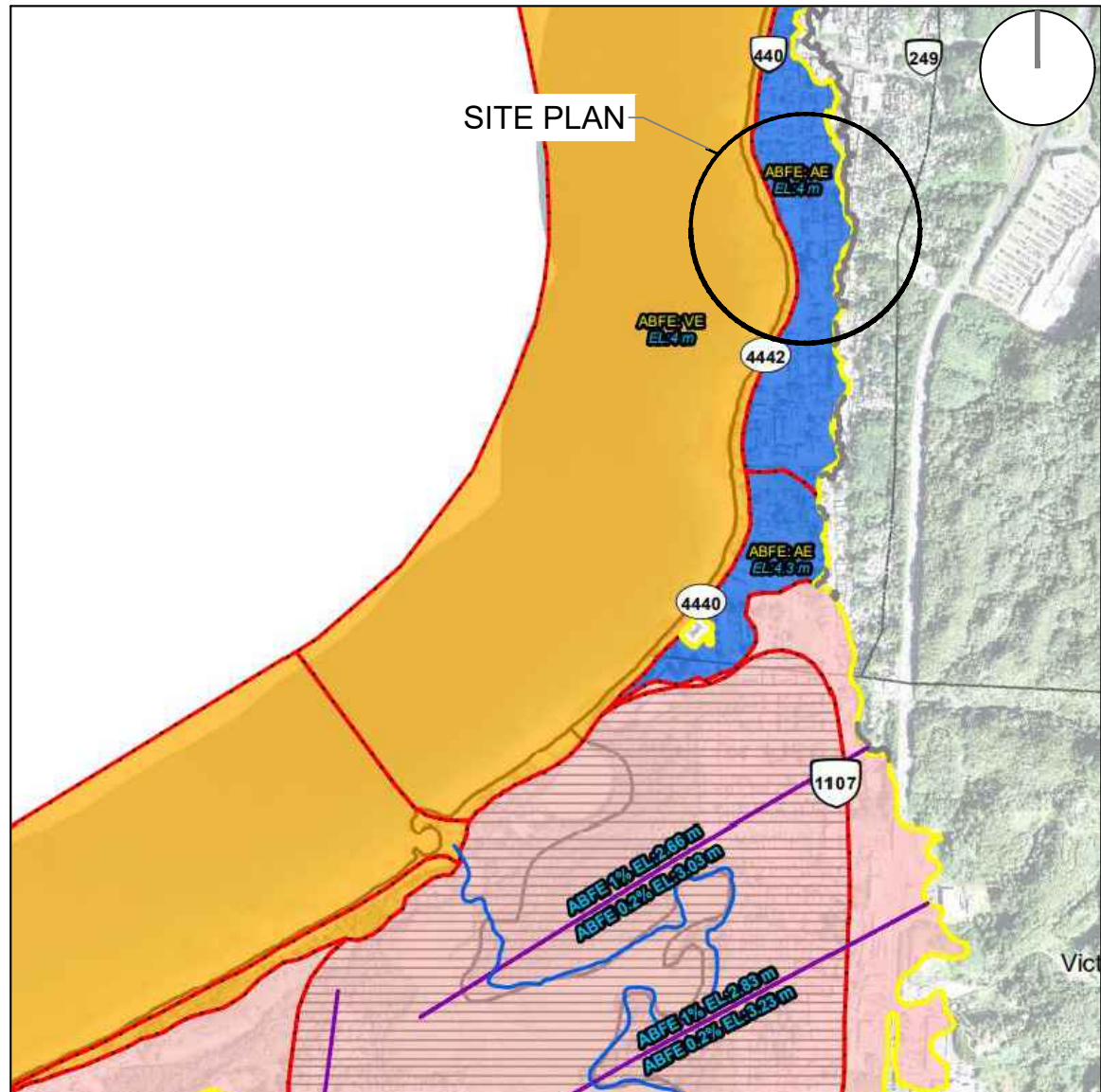
NEW 750 KVA EMERGENCY GENERATOR AT CENTRO JUDICIAL DE AGUADILLA AGUADILLA, PUERTO RICO.



SITE NOT TO SCALE
LAMBERT CORDINATES: X = 123793.2985 Y = 265673.9920



ZONING PLAN - USE NOT TO SCALE



FLOOD MAP NOT TO SCALE

ARCHITECTURE

- 1 T1 TITLE SHEET
- 2 A1.0 SITE PLAN
- 3 A2.0 FLOOR PLAN, ROOF PLAN & ELEVATIONS
- 4 A2.1 ELEVATION & SECTION

STRUCTURE

- 5 S0.0 NOTES & TYPICAL DETAILS
- 6 S0.1 TYPICAL DETAILS
- 7 S1.0 FOUNDATION & STRUCTURAL PLAN AND DETAILS

ELECTRICAL

- 8 ES1.0 EXISTING SITE PLAN
- 9 ES1.1 PROPOSED SITE PLAN
- 10 ES1.2 SINGLE LINE DIAGRAM
- 11 ES1.3 ELECTRICAL ROOM DETAIL AND GROUND MAT
- 12 E1.0 POWER & LIGHTING PLAN, PANEL SCHEDULE AND LIGHT FIXTURE SCHEDULE

DRAFTING DESING

SYMBOL	DATE	BY

REVISIONS

TITLE SHEET
 CALLE PROGRESO, BO. PUEBLD, AGUADILLA, PR.

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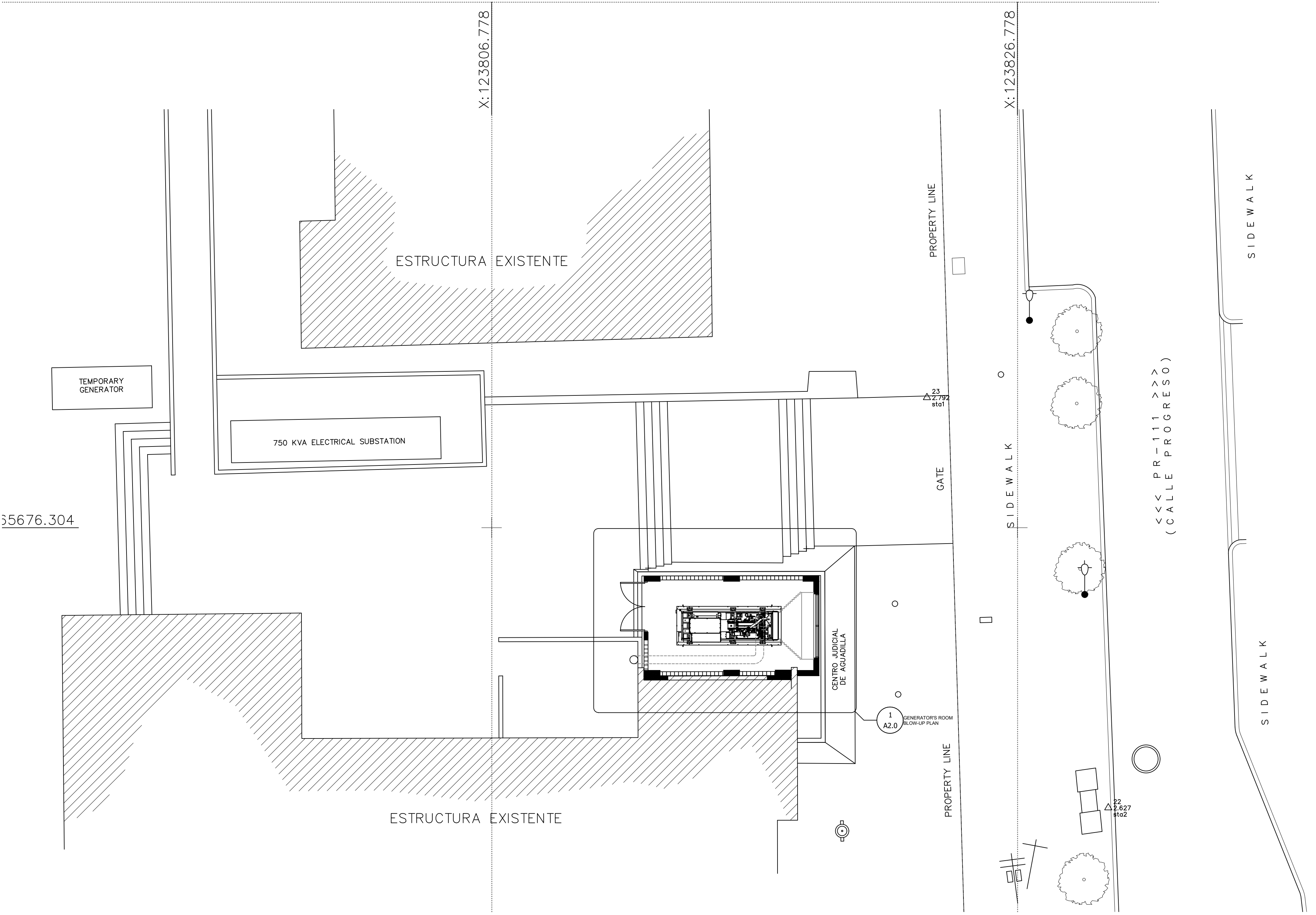


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T1

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SITE PLAN
SCALE: 1/8"=1'-0"

SYMBOL	DATE	BY

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SITE PLAN
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A1.0

SYMBOL	DATE	BY

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GENERATOR'S ROOM DETAIL
 CALLE PROGRESO, BO. PUEBLLO, AGUADILLA, PR.

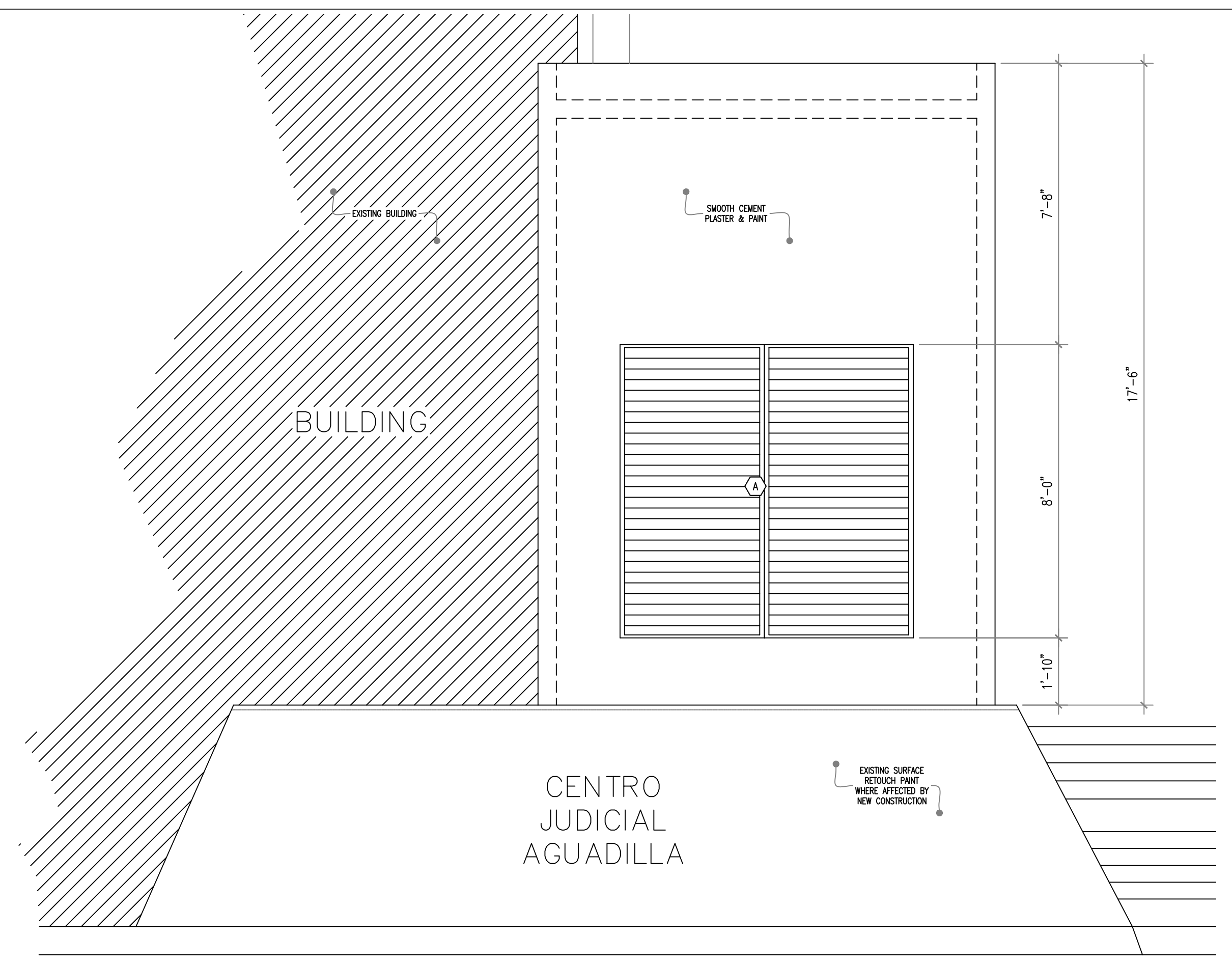
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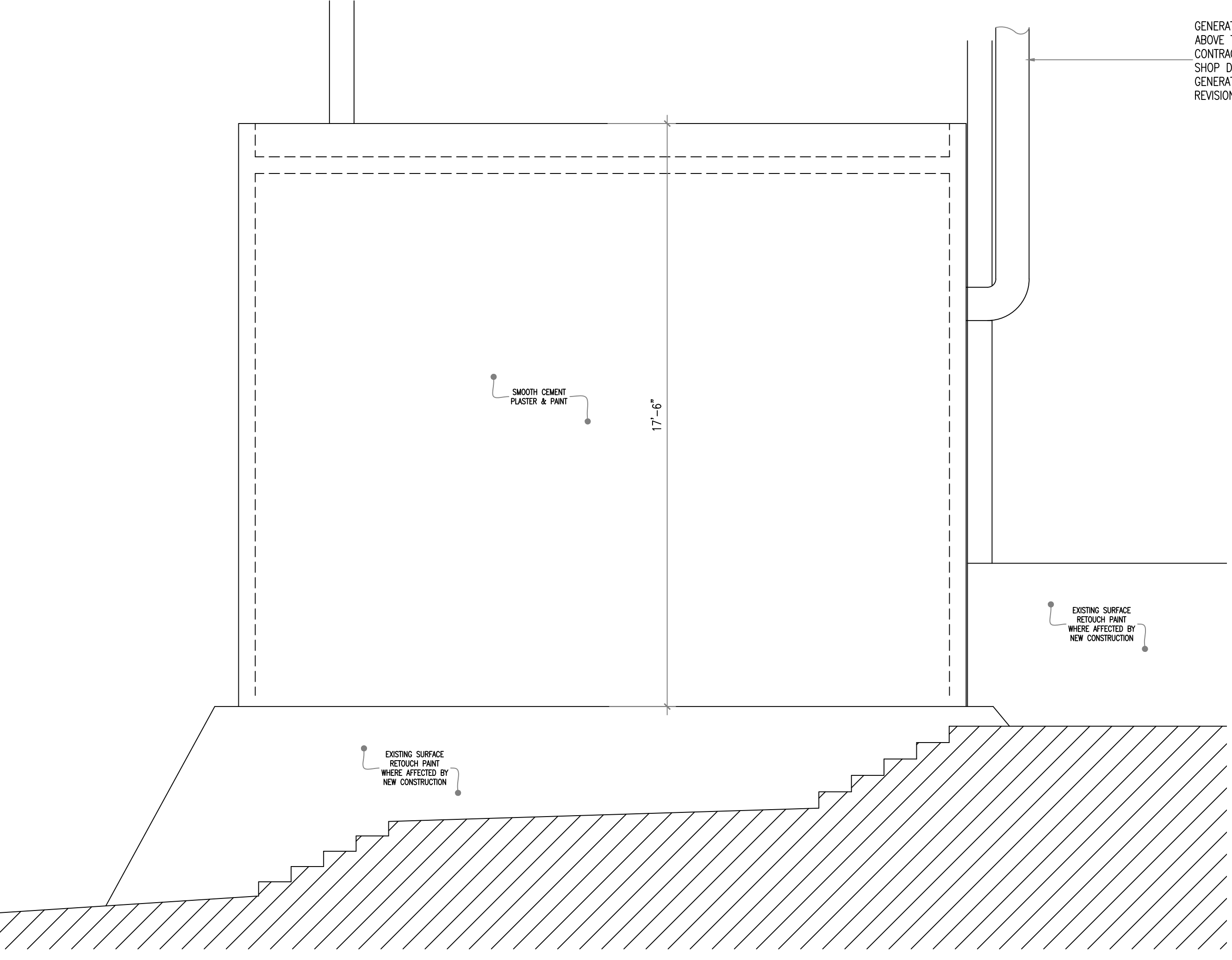
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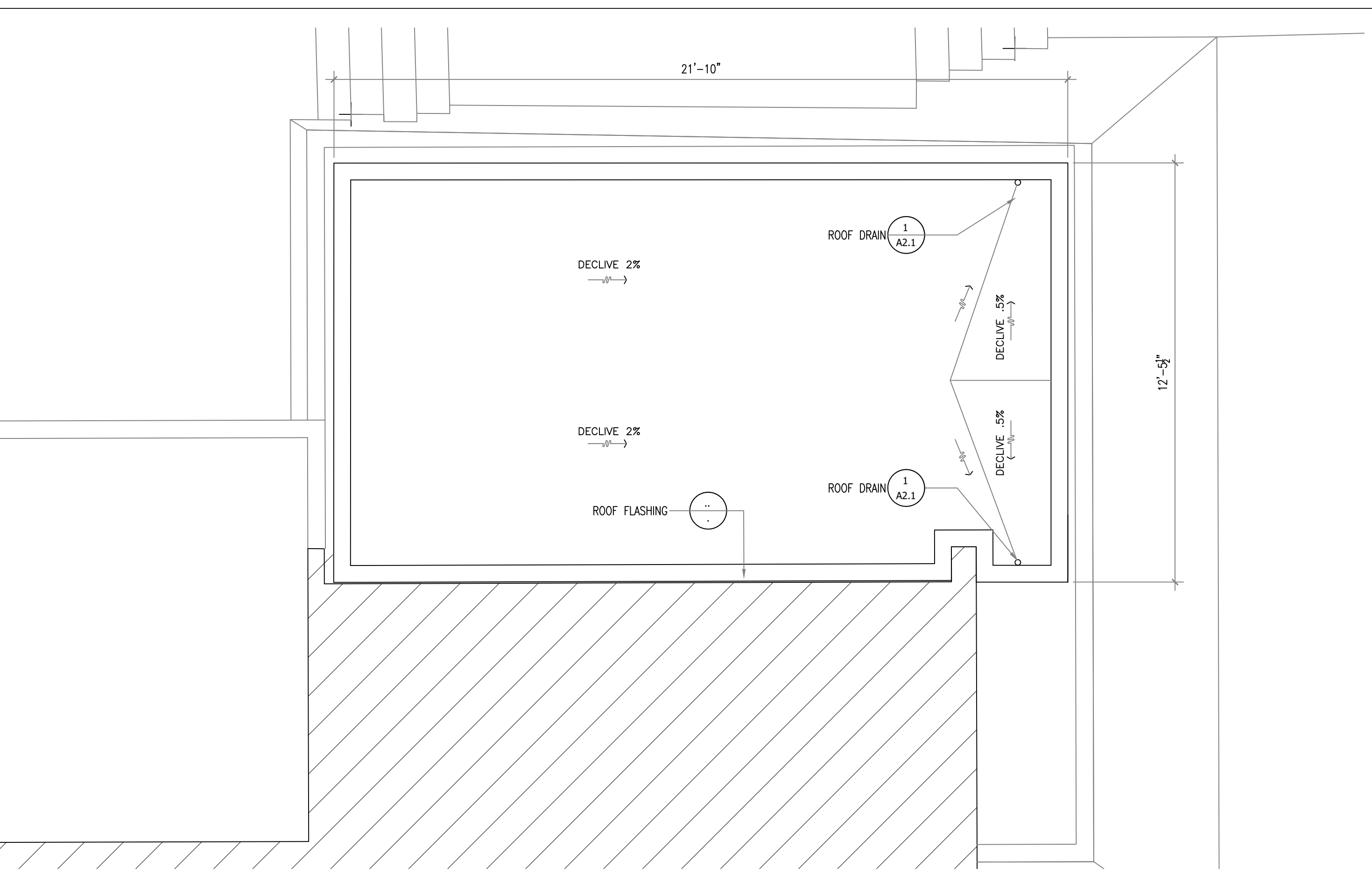
A2.0



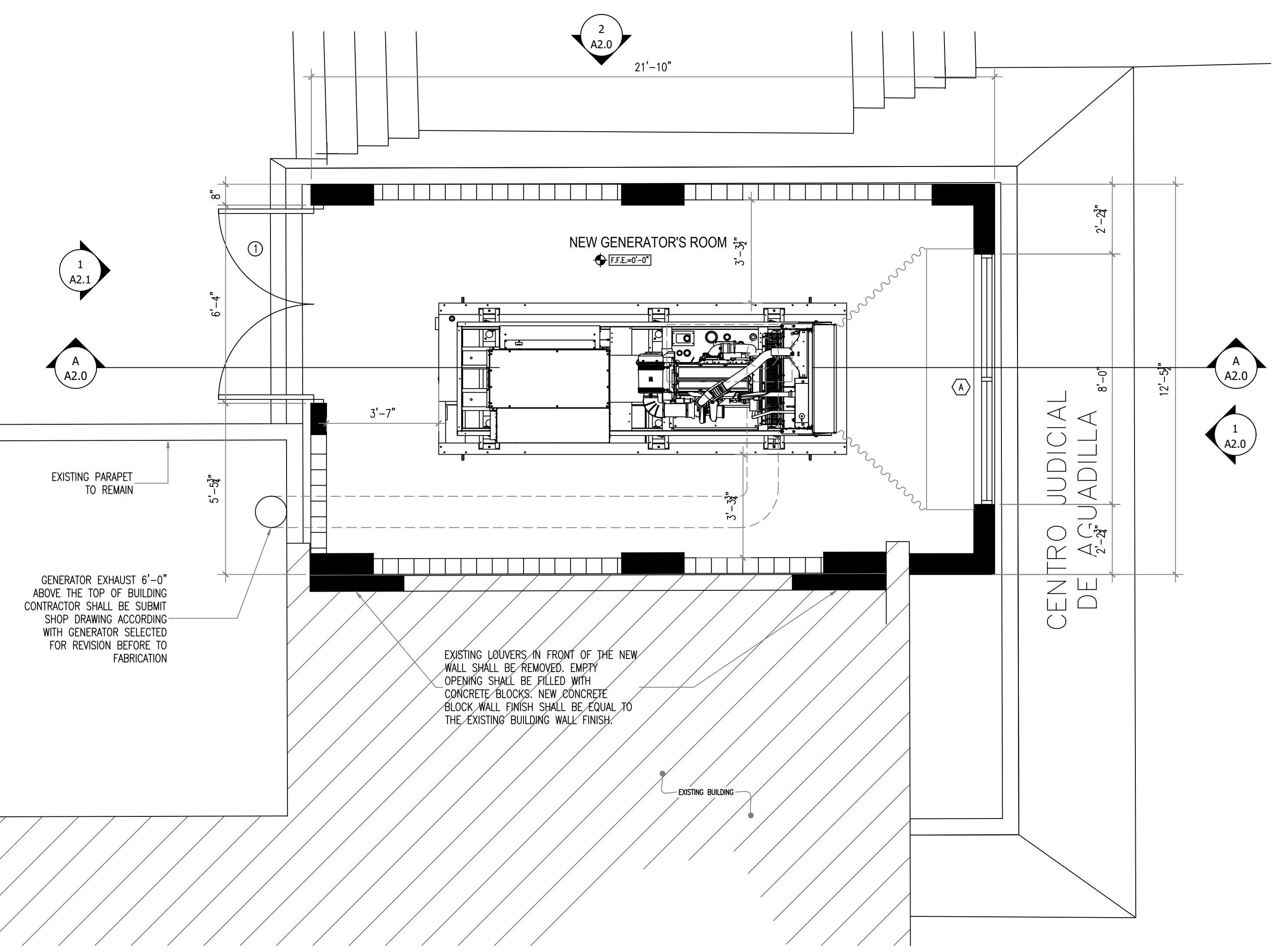
EAST ELEVATION
 SCALE: 3/8"=1'-0"



NORTH ELEVATION
 SCALE: 3/8"=1'-0"

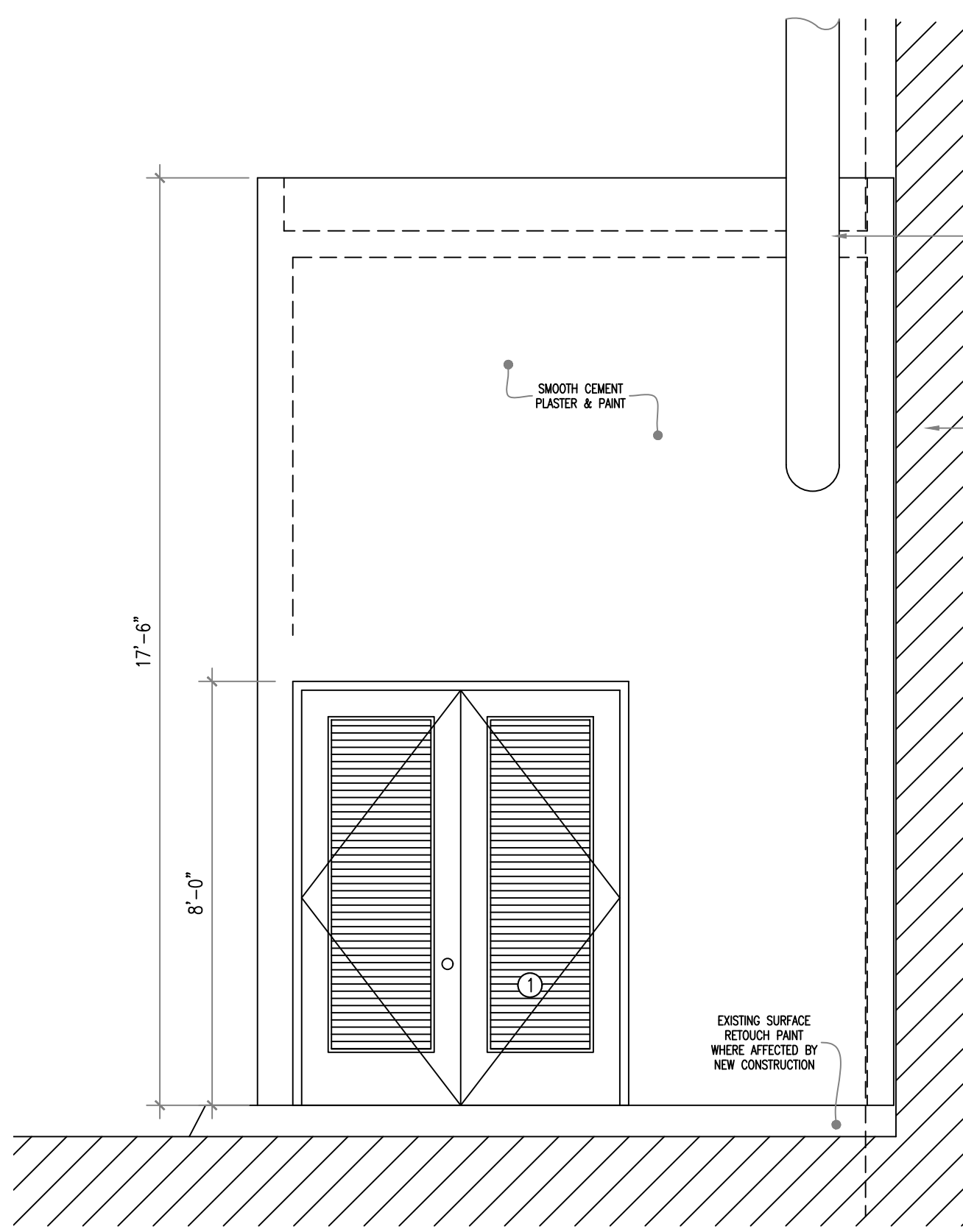


ROOF PLAN
 SCALE: 3/8"=1'-0"

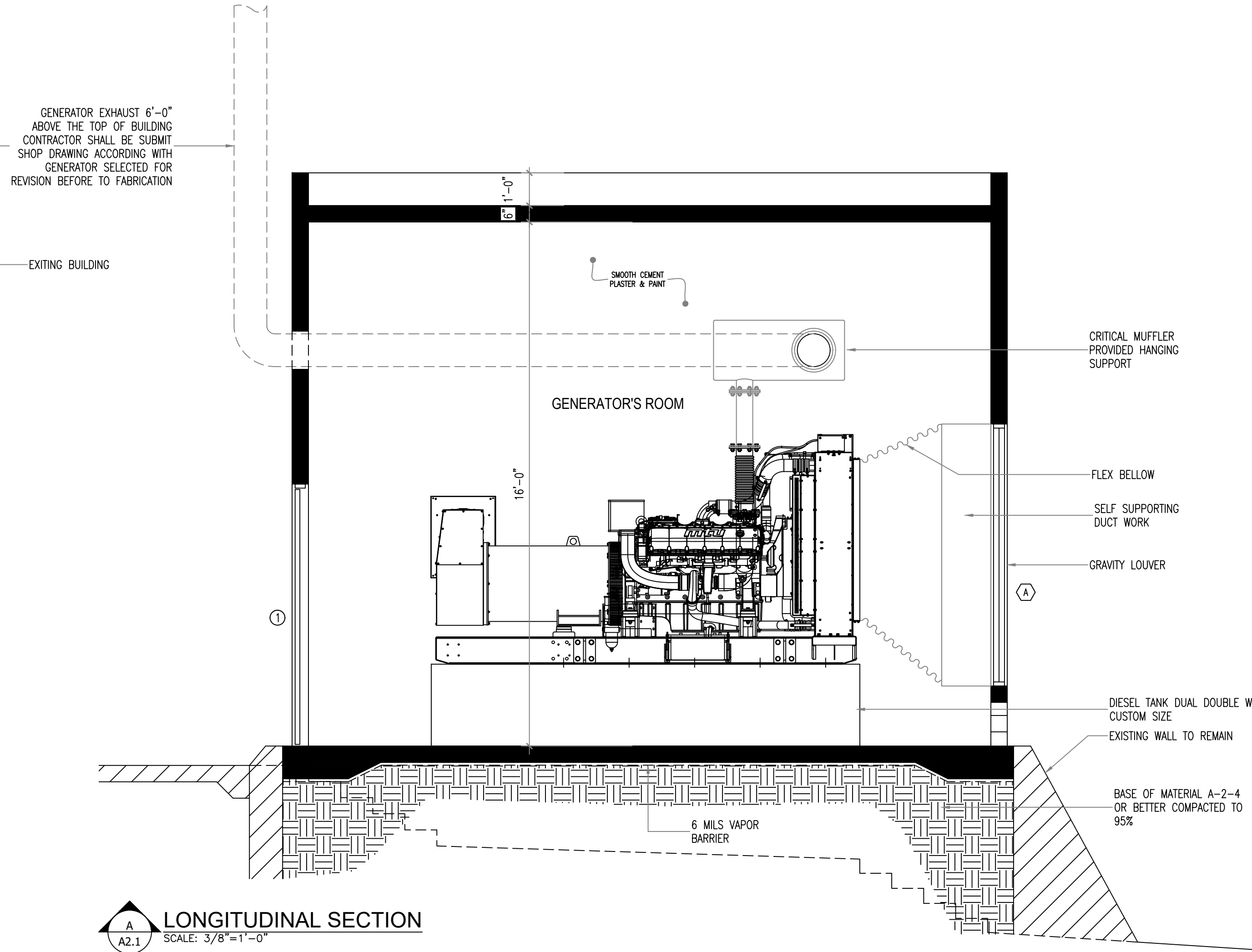


GENERATOR ROOM BLOW-UP PLAN
 SCALE: 3/8"=1'-0"

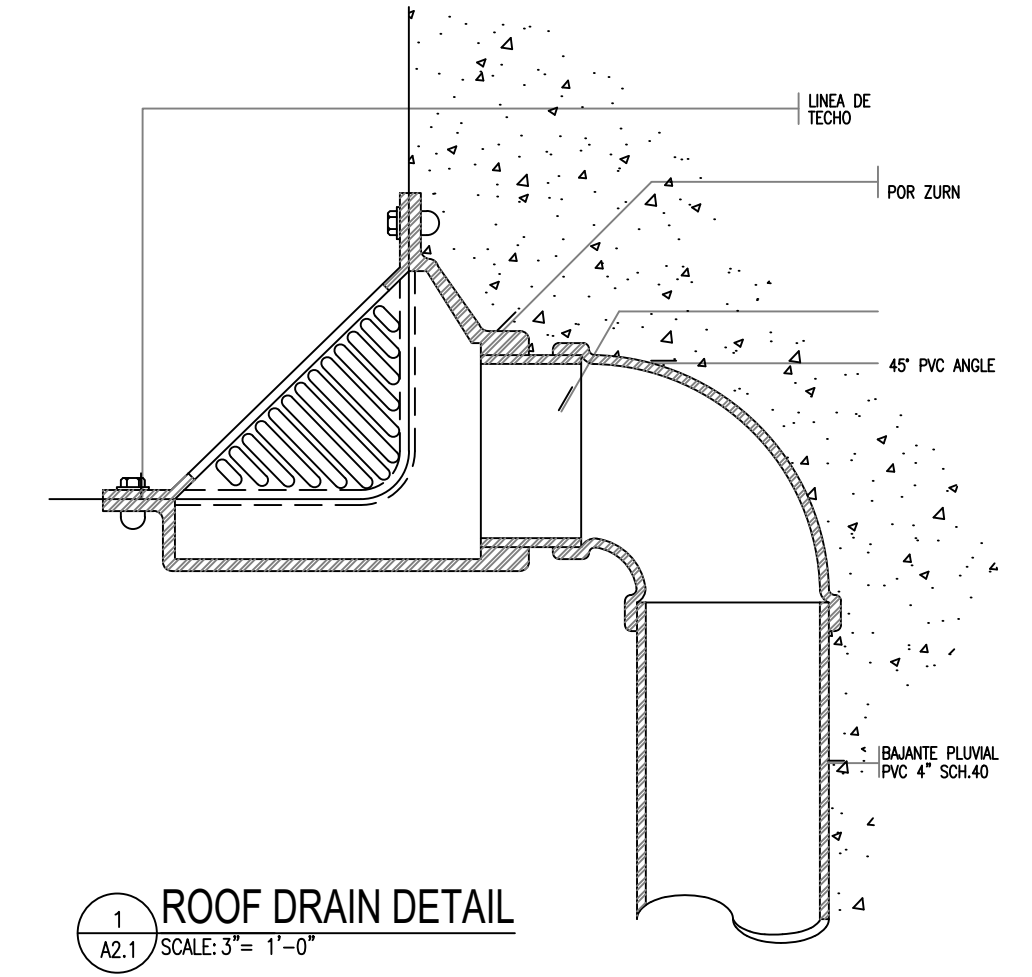
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1 WEST ELEVATION
A2.1 SCALE: 3/8"=1'-0"



A LONGITUDINAL SECTION
A2.1 SCALE: 3/8"=1'-0"



1 ROOF DRAIN DETAIL
A2.1 SCALE: 3"=1'-0"

SYMBOL	DATE	BY

DRAFTING DESING

REVISIONS

ELEVATION & SECTION
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A2.1

GENERAL:

- THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE STRUCTURAL ENGINEER OF ANY CONDITION WHICH, IN HIS OPINION, MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS TO THE STRUCTURE.
- THE FOLLOWING REFERENCE DOCUMENTS, THEIR COMMENTARIES AND THE STANDARDS REFERENCED THEREIN, APPLY TO DESIGN, FABRICATION AND CONSTRUCTION PRACTICES TO BE ADHERED TO REGARD TO THE WORK SHOWN ON THE DRAWINGS:
 - A) PUERTO RICO BUILDING REGULATION 2018 & INTERNATIONAL RESIDENTIAL CODE (IBC 2018)
 - B) ACI MANUAL OF CONCRETE PRACTICE (LATEST).
 - C) ACI BLDG. CODE REQUIREMENTS FOR REINFORCED CONCRETE.
 - E) AWS STRUCTURAL WELDING CODE.
- ALL ASTM DESIGNATIONS SHALL BE AS AMENDED TO DATE.
- SPECIFIC NOTES & DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES & TYPICAL DETAILS.
- THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE STRUCTURAL DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING & SHORING FOR ALL STRUCTURAL MEMBERS OR AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE PROPER ALIGNMENT OF THE STRUCTURE AFTER THE INSTALLATION OF ALL STRUCTURAL AND FINISH MATERIALS.

FOUNDATIONS:

- SOIL CONSULTANT SHALL INSPECT FOOTING EXCAVATIONS TO VERIFY FOUNDATION DEPTHS PRIOR TO PLACEMENT OF FORMS AND/OR REINFORCING STEEL.
- ALL BACKFILL SHALL BE RECOMPACTED TO 95 PERCENT OF MAXIMUM DENSITY AS PER SOIL REPORT (ASTM D1557 MODIFIED PROCTOR).
- THE TEST BORINGS FOR THIS PROJECT WERE PERFORMED BY:
- ALL EXCAVATION WORK SHALL BE PERFORMED WITHOUT AFFECTING THE STABILITY AND INTEGRITY OF EXISTING NEIGHBORING STRUCTURES.
- THE CONTRACTOR SHALL PROVIDE ALL DEWATERING AS REQUIRED DURING THE EXCAVATION AND CONSTRUCTION OF THE FOUNDATION WORK.
- ALL COLUMN FOOTINGS SHALL BE CENTERED ON THE COLUMN CENTERLINES, UNLESS OTHERWISE NOTED.
- ALL EXISTING UNDERGROUND UTILITIES IN THE AREA OF THE NEW CONSTRUCTION SHALL BE RELOCATED UNLESS OTHERWISE NOTED ON THE DRAWINGS BEFORE ANY NEW FOUNDATION WORK IS STARTED. EXISTING SITE ELEMENTS AND UTILITIES, MANHOLES, CATCH BASINS, ETC. ADJACENT TO NEW CONSTRUCTION EXCAVATIONS SHALL BE PROTECTED BY SHEETING AND/OR SHORING. THIS PROTECTION SHALL BE PROVIDED AND DESIGNED BY THE CONTRACTOR AND HIS PROFESSIONAL ENGINEER WHO SHALL BE TOTALLY RESPONSIBLE FOR ITS DESIGN AND INSTALLATION.
- THE CONTRACTOR SHALL COORDINATE ALL FOUNDATION WORK WITH ALL UNDERGROUND UTILITIES. ALL NEW UNDERGROUND UTILITIES OR PIPES SHALL NOT BE PLACED BELOW THE FOOTINGS. IF ANY SUCH CONDITION OCCURS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND DROP THE BOTTOM OF FOOTING TO CLEAR THE PIPE.
- BACKFILL AGAINST WALLS SHALL FOLLOW THE CRITERIA NOTED. AS A MINIMUM, WALLS MUST HAVE REACHED THEIR 28 DAY DESIGN STRENGTH OR BE IN PLACE 14 DAYS, WHICHEVER IS LONGER. FOR EXTERIOR AND INTERIOR BASEMENT AND/OR RETAINING WALLS, BACKFILL SHALL BE PLACED EVENLY ON BOTH SIDES TO THE FLOOR SUBGRADE LEVEL. EQUIPMENT USED TO COMPACT THE BACKFILL WILL BE SUCH AS TO LIMIT PRESSURES ON THE WALLS TO THE DESIGN VALUES AND TO BE REVIEWED AND ACCEPTED BY THE OWNER'S GEOTECHNICAL ENGINEER.
- PROVIDE STANDARD STEEL PIPE SLEEVES FOR ALL PIPES PASSING THROUGH NEW CONCRETE WALLS AND NEATLY CORED HOLES A MINIMUM OF ONE PIPE SIZE LARGER THAN NEW PIPE THROUGH EXISTING CONCRETE WALLS WHERE SHOWN ON THE DRAWINGS. COORDINATE CORED HOLES WITH SEALANT, ETC., REQUIREMENTS WITH RELATED SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT FOR THE EXCAVATION USING SUCH TECHNIQUES AS SOIL NAILING, TIEBACKS OR SOLDIER PILES, ALONE OR COMBINED WITH OPEN EXCAVATIONS AS ALLOW BY THE EXISTING CONDITIONS AND SOIL STABILITY.
- FOR ADDITIONAL REQUIREMENTS SEE TYPICAL DETAILS AND THE SPECIFICATIONS.

CONCRETE:

- ALL CONCRETE SHALL BE STONE CONCRETE UTILIZING AGGREGATE CONFORMING TO ASTM C33. CEMENT SHALL BE TYPE I CONFORMING TO ASTM C150.
- CONCRETE STRENGTH SHALL BE AT 28 DAYS:

LOCATION	STRENGTH (KSI)	MAX W/C RATIO
A. MAIN BUILDING FOUNDATIONS	3,500 PSI	0.50
GROUND SLAB	3,500	0.50
COLUMNS & WALLS	4,000	0.50
ELEVATED SLABS & BEAMS	4,000	0.50
- CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS,

A. FOUNDATION MAT:	- 2" BOTTL., 1" TOPD.	COLUMNS & BEAMS	- 1 1/2"
B. CONCRETE AGAINST EARTH (FORMED):	1 1/2" UP TO #5.	ELEVATED SLABS	- 3/4"
	- 2" #6 & ABOVE F.	ROOF SLABS	- 3/4" BOTTL, 1 1/2" TOP
C. CONCRETE PEDESTALS	- 2"	G. WALLS	- 3/4"
- ALL PEDESTAL AND WALLS BELOW GRADE SHALL BE FORMED CONCRETE.
- BEFORE CONCRETE IS PLACED THE CONTRACTOR SHALL COORDINATE AND CHECK WITH ALL TRADES TO ENSURE THE PROPER PLACEMENT OF ALL OPENINGS, SLEEVES, INSERTS, CURBS, DEPRESSIONS, ETC. RELATING TO THE WORK, AS SHOWN IN THE DRAWINGS. ANY CHANGE OR DISCREPANCY SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
- NO JOINT, OPENING, SLOT OR GROOVE OTHER THAN THAT SHOWN ON PLANS SHALL BE PERMITTED WITHOUT PREVIOUS APPROVAL BY THE ENGINEER. ALL CONSTRUCTION JOINT SURFACES SHALL BE CLEANED AND ROUGHENED TO 1/4" AMPLITUDE (UNID.) AND TREATED AS INSTRUCTED IN THE ACI MANUAL OF CONCRETE PRACTICE.
- ALL CONCRETE WORK SHALL BE CURED FOR A MINIMUM OF 7 CONSECUTIVE DAYS IN ACCORDANCE WITH ACI STANDARDS.
- SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR CONCRETE EQUIPMENT PADS AND FOUNDATIONS REQUIRED.

- ALL CONCRETE USED TO PATCH EXISTING FLOOR SLABS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. THE CONCRETE TYPE SHALL BE THE SAME AS THE EXISTING ADJACENT CONCRETE.
- FOR ADDITIONAL REQUIREMENTS SEE TYPICAL DETAILS AND SPECIFICATIONS.

MASONRY:

- MASONRY WALLS SHALL BE CONSTRUCTED OF NORMAL WEIGHT UNITS CONFORMING TO ASTM C90, TYPE 1.
- BLOCK UNITS SHALL BE SUFFICIENTLY MOIST AT TIME OF LAYING TO PREVENT DEHYDRATION OF MORTAR AND GROUT AND SHALL BE FREE OF ALL SUBSTANCES WHICH MIGHT IMPAIR THE BOND OF THE BLOCK TO MORTAR AND GROUT.
- MORTAR SHALL BE MACHINE MIXED TYPE 'S' CONSISTING OF, BY VOLUME, 1 PART CEMENT, 1/2 PART LIME PUTTY AND DAMP LOOSE AGGREGATE NOT LESS THAN 2 1/4 TIMES NOR MORE THAN 3 TIMES THE SUM OF THESE PARTS.
- GROUT SHALL BE MACHINE MIXED BY VOLUME AND CONSIST OF 1 PART CEMENT, 1/10 PART LIME PUTTY AND 2 TO 3 PARTS SAND. GROUT SPACES MORE THAN 4 IN. IN WIDTH MAY HAVE NOT MORE THAN 2 PARTS PEA GRAVEL ADDED TO COMPONENTS DESCRIBED ABOVE.
- CEMENT FOR MORTAR AND GROUT SHALL BE LOW ALKALI TYPE CONFORMING TO ASTM C150.
- MORTAR AND GROUT SHALL HAVE THE FOLLOWING 28 DAYS STRENGTHS:

F'm	MORTAR	GROUT
1,500 PSI	1,800 PSI	2,000 PSI
- CONCRETE MASONRY UNIT COMPRESSIVE STRENGTH TO BE 2,000 P.S.I. ON THE NET AREA.
- THE SPECIFIED MASONRY STRENGTH F'M MAY BE VERIFIED BY THE UNIT STRENGTH METHOD OR BY MASONRY PRISM TESTING (SPECIAL INSPECTION)
- ALL WALLS SHALL BE GROUTED AT CELLS W/REBARS, U.N.D. MAXIMUM GROUT LIFT SHALL NOT EXCEE
- SEE ARCHITECTURAL DRAWINGS FOR BLOCK SIZE, COLOR, TEXTURE, BONDING PATTERN & JOINTING.
- HORIZONTAL REINFORCEMENT SHALL BE DUR-O-WAL, AS FOLLOWS:
 - A) 6" CMU STANDARD WEIGHT TRUSS @ 16"
 - B) 8" CMU EXTRA HEAVY WEIGHT TRUSS @ 8"
- PROVIDE TEMPORARY BRACING FOR MASONRY WALLS DURING ENTIRE ERECTION OF WALLS AND UNTIL THE MORTAR HAS DEVELOPED ADEQUATE STRENGTH. TEMPORARY BRACES SHALL NOT BE REMOVED UNTIL AT LEAST 7 DAYS HAVE ELAPSED SINCE THE WALL WAS COMPLETELY ERECTED.
- PROVIDE CONTINUOUS BOND BEAMS AT THE FOLLOWING LOCATIONS:
 - WHERE INDICATED IN SECTIONS AND DETAILS ON THE DRAWINGS.
 - AT THE TOP OF ALL MASONRY WALLS (WITHIN TOP 2 COURSES)
 - AT EVERY 10'-0" O.C. OF MASONRY WALL HEIGHT.
 - AT THE TOP OF PARAPETS
 - AT THE TOP OF ALL MASONRY WALLS BELOW STRIP WINDOW SILLS.
 REINFORCE BOND BEAMS AS INDICATED, OR WITH (4) #5 CONTINUOUS MINIMUM.
- FOR ADDITIONAL REQUIREMENTS SEE TYPICAL DETAILS AND THE SPECIFICATIONS.

REINFORCING STEEL:

- A. ALL REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60.
- ALL BAR BENDS SHALL BE MADE COLD.
- BAR LAPS SHALL BE MADE AWAY FROM POINTS OF MAXIMUM STRESS OR AT LOCATIONS SHOWN ON THE DRAWINGS. LAP SPLICES SHALL BE CLASS "B" AS PER ACI 318-05.
- FIELD WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY WELDERS SPECIFICALLY CERTIFIED FOR REINFORCING STEEL.
- PRIOR TO WELDING THE "CARBON EQUIVALENT" (CE) OF STEEL SHALL BE DETERMINED. REINFORCING STEEL WHOSE "CE" CAN NOT BE IDENTIFIED OR WHOSE "CE" EXCEEDS 0.75% SHALL NOT BE WELDED, EXCEPT FOR REINFORCING STEEL CONFORMING TO ASTM A706.
- WELDING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH A PROCEDURE ESTABLISHED BY A CERTIFIED TESTING LABORATORY FOR THE MATERIAL BEING WELDED. PROCEDURE SHALL BE BASED ON THE CARBON CONTENT OF THE REINFORCING AND SHALL ESTABLISH PREHEATING REQUIREMENTS TO SATISFACTORILY COMPLETE THE WORK.

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL BE A992 OR A36
- HOLLOW STRUCTURAL STEEL SECTION SHALL BE ASTM A500, GRADE B OR C
- WELDING ELECTRODES SHALL BE E70XX (MIN WELD SIZE 3/16")
- FASTENING BOLTS SHALL BE A325-N
- CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ORDERING ANY MATERIAL

MISCELLANEOUS:

- ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER DRAWINGS RELATED TO THE WORK
- ALL CONSTRUCTION JOINTS MADE IN EXTERIOR WALLS OR ROOF SLABS AND CISTERN WALLS SHALL CONTAIN WATERSTOPS AND SHALL HAVE REINFORCEMENT CONTINUOUS ACROSS THE JOINTS
- PROVIDE DAMMPROOFING MEMBRANE AGAINST ALL UNDERGROUND WALLS AND WALLS EXPOSED TO EARTH BACKFILL
- ALL WATERSTOPS SHALL BE INSTALLED SECURELY IN ACCORDANCE WITH THE SPECIFICATIONS. THE WATERSTOPS SHALL BE PLACED CONTINUOUSLY THROUGH OUT THE LENGTH OF THE CONSTRUCTION JOIN
- TRANSVERSE REINFORCEMENT ALONG A CURVED MEMBER SHALL BE RADIAL ABOUT THE CENTER LINE OF THE CURVE.
- CONCRETE SURFACES LEADING TO DRAINS SHALL BE SLOPED TOWARD DRAIN AND THE ADJACENT SURFACES WARPED AS REQUIRED TO SATISFY AN ADEQUATED DRAINAGE FLOW
- ALL EXPOSED CONCRETE EDGES AND CORNERS SHALL BE CHAMFERED WITH A 3/4" TIMES 45° CHAMFER UNLESS NOTED OTHERWISE
- BACKFILL BEHIND BASEMENT WALLS SHALL BE NOT PLACED UNTIL AFTER TOP OF WALL IS BRACED BY FIRST FLOOR SLAB.
- POST-INSTALLED FASTENERS (DRILL-IN CONCRETE FASTENERS) SHALL BE HILTI HVA ADHESIVE SYSTEM, UNLESS NOTED OTHERWISE)
- FL. FINISHES, SLAB STEPS, FLOOR AND ROOF SLOPE FOR DRAINAGE AS WELL AS FLOOR DEPRESSIONS SHALL BE PER ARCHITECTURAL DWGS.
- ALL WATERPROOFING MEMBRANES FOR CISTERN, RET. WALLS, PONDS, PITS, ETC. SHALL BE PER ARCHITECTURAL DWGS.
- WATER STOPS SHALL BE 3/8"x6" FLAT RIBBED PVC

DESIGN LOADS

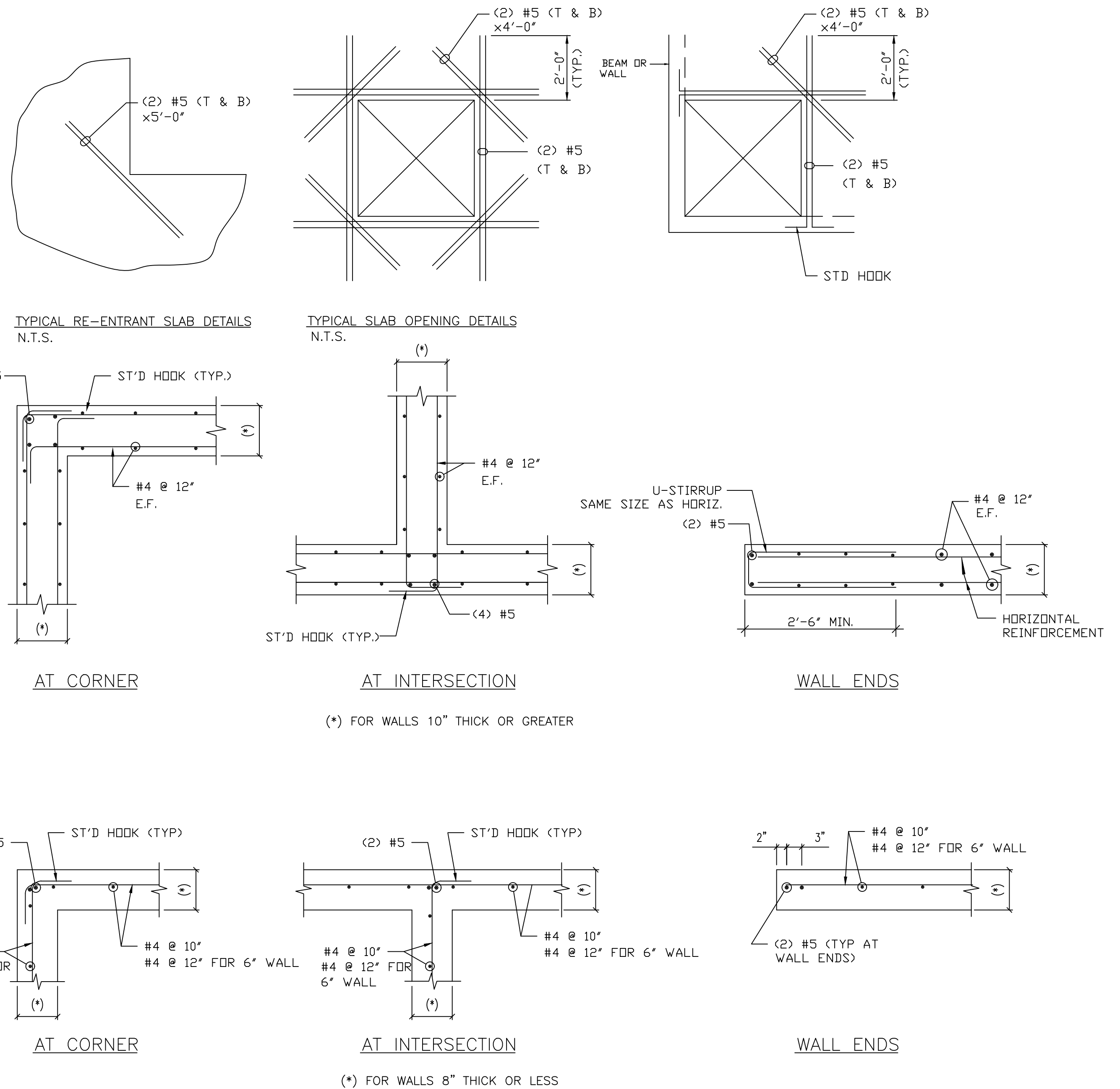
FLOOR LIVE LOADS	IRC 2018
ELEVATED SLABS	40 PSF
TYPICAL ROOF LOAD	40 PSF
ROOF COMMON GATHERING AREAS	100 PSF
STAIRS, CORRIDORS & BALCONIES	100 PSF
LATERAL LOADS - WIND	ASCE 7-05

LEGEND FOR SECTION /DETAIL:

- LEGEND FOR SECTION/DETAIL CROSS REFERENCING
 - SECTION /DETAIL DESIGNATION
 - DWG WHERE SECTION /DETAIL IS SHOWN

2. SLAB REINF:

- | | | | |
|----------------|-------|---|----------------------|
| TOP BARS | EW | - | EACH WAY |
| BOTT BARS | EF | - | EACH FACE |
| WALL/COL BELOW | T & B | - | TOP & BOTTOM |
| | CONT | - | CONTINUOUS |
| | CLR | - | CLEAR |
| | TDC | - | TOP OF CONCRETE |
| | EL. | - | ELEVATION |
| | TOS | - | TOP OF SLAB |
| | BDF | - | BOTTOM OF FOUNDATION |



TYPICAL WALL REINFORCEMENT DETAILS

SCALE: 3/4"=1'-0"

DRAFTING DESING

REVISIONS

GENERATOR'S ROOM
STRUCTURAL DETAIL
CALLE PROGRESO, BO. PUEBLA, AGUADILLA, PR.

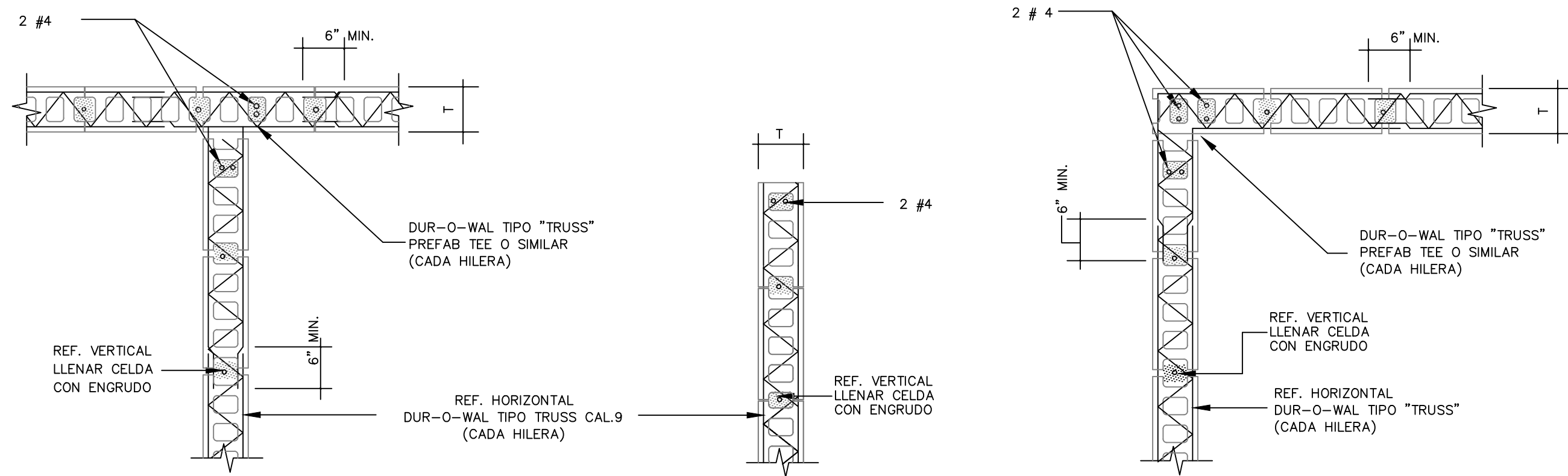
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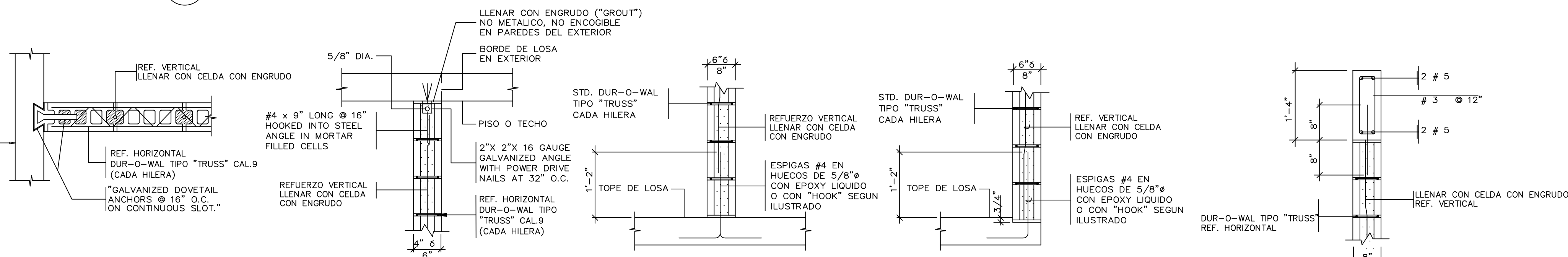


EN INTERSECCION

FINAL DE PARED

EN ESQUINA

A DETALLE TIPICO DE REFUEZO DE PARED DE BLOQUES
S-0.1



PARED TIPICA DE BLOQUES A PARED DE HORMIGON

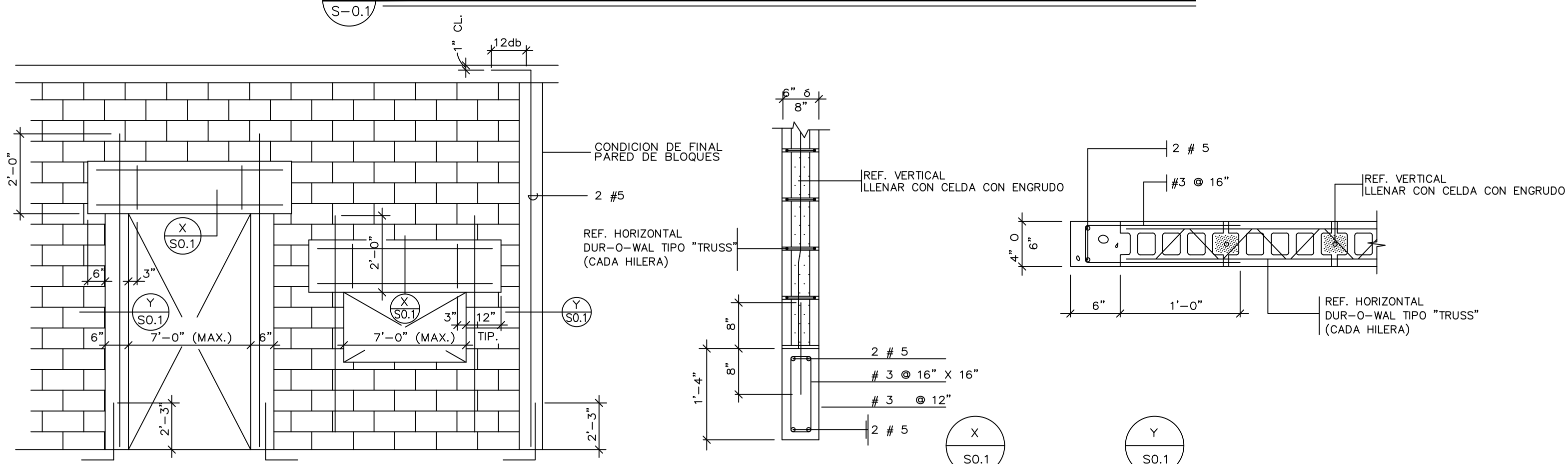
BAJO LOSA DE PISO O TECHO

EN LOSAS DE PISO

BORDE EXTERIOR EN LOSA DE PISO

TOPE DE PARED

B DETALLES TIPICOS DE ANCLAJE DE PARED DE BLOQUES
S-0.1



C ELEVACION TIPICA PARED DE BLOQUES
S-0.1

D SECCION TIPICA DE BORDE DE PARED DE BLOQUES
S-0.1

ENPALME EN TENSION
(F'c = 3000 psi)

BAR	#3	#4	#5	#6	#7	#8
Ld (TOP)	21"	29"	36"	56"	67"	88"
Ld (OTHER)	16"	22"	27"	36"	52"	68"

(F'c = 4000 psi)

BAR	#3	#4	#5	#6	#7	#8
Ld (TOP)	24"	24"	30"	44"	58"	76"
Ld (OTHER)	16"	20"	24"	34"	46"	60"

LARGO DE DESARROLLO (DERECHO)
SCHEDULE (F'c = 3000 psi)

BAR	#3	#4	#5	#6	#7	#8
Ld (TOP)	22"	30"	37"	45"	52"	68"
Ld (OTHER)	16"	21"	27"	32"	40"	52"

(F'c = 4000 psi)

BAR	#3	#4	#5	#6	#7	#8
Ld (TOP)	14"	19"	23"	33"	45"	59"
Ld (OTHER)	12"	15"	18"	25"	34"	45"

LARGO DESARROLLO (HOOK)
SCHEDULE (F'c = 3000 psi)

BAR	#3	#4	#5	#6	#7	#8
Ld	6'	8'	10'	12'	14'	16'

SCHEDULE (F'c = 4000 psi)

BAR	#3	#4	#5	#6	#7	#8
Ld	6'	6'	8'	8'	10'	12'

DRAFTING DESING

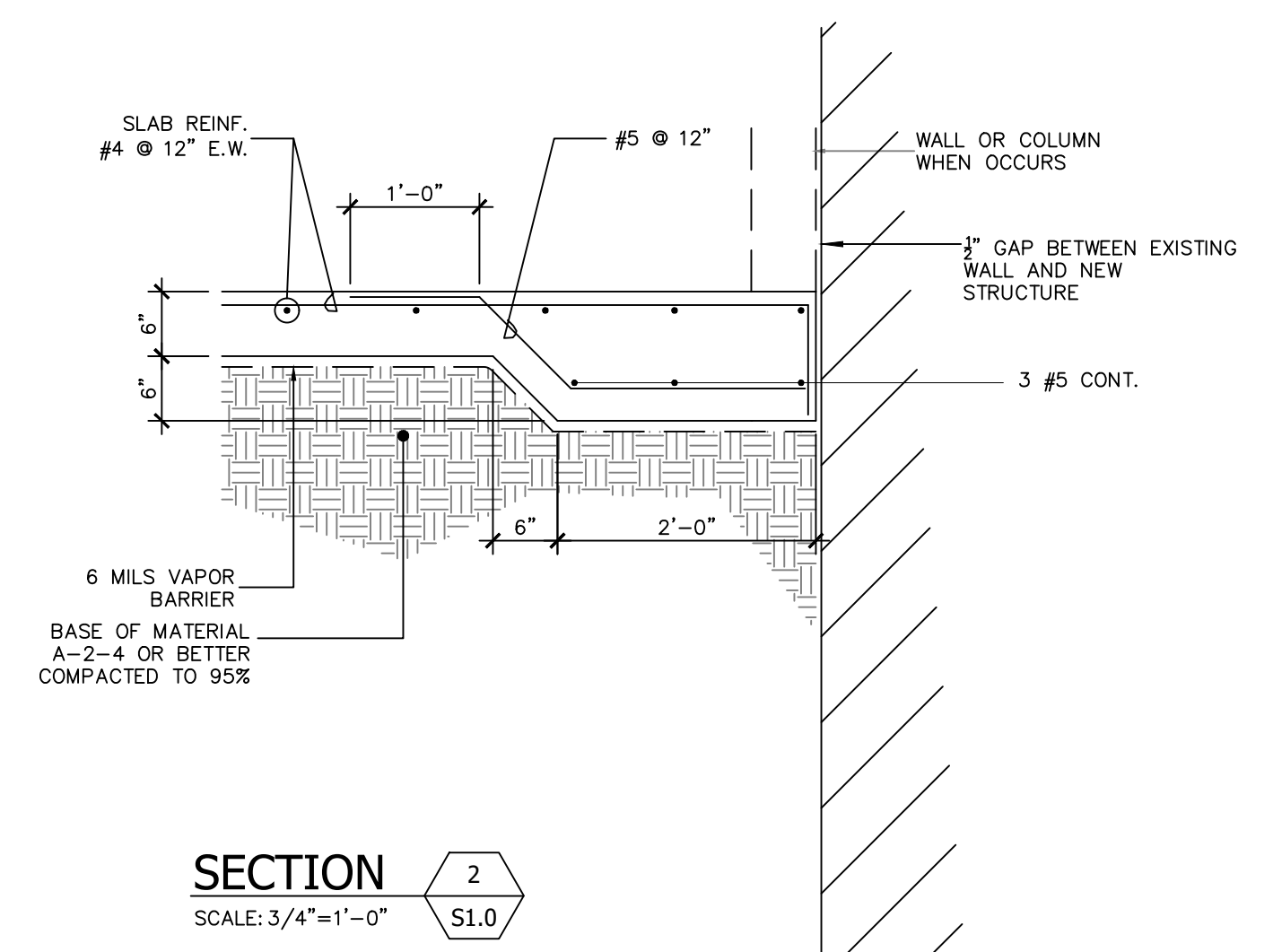
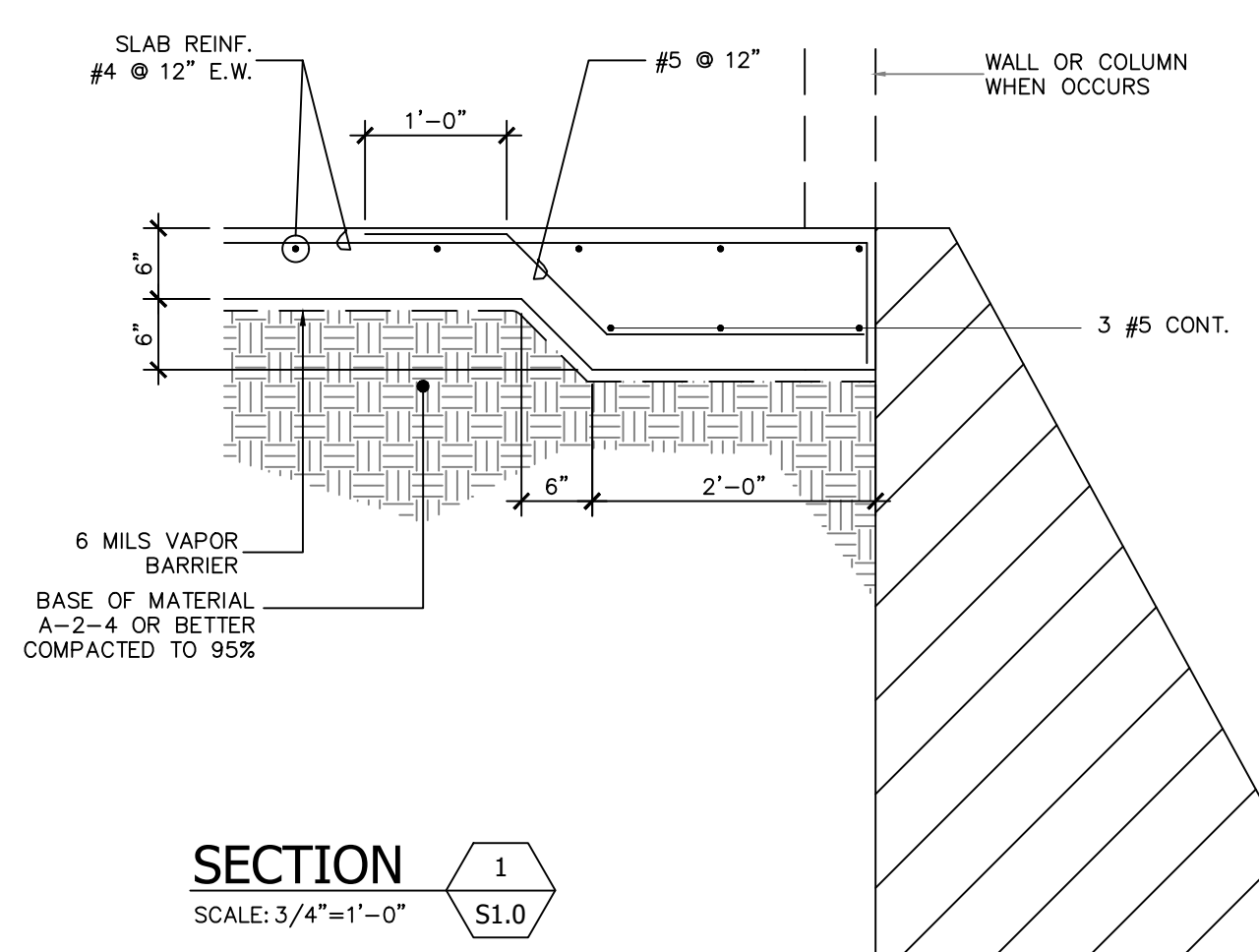
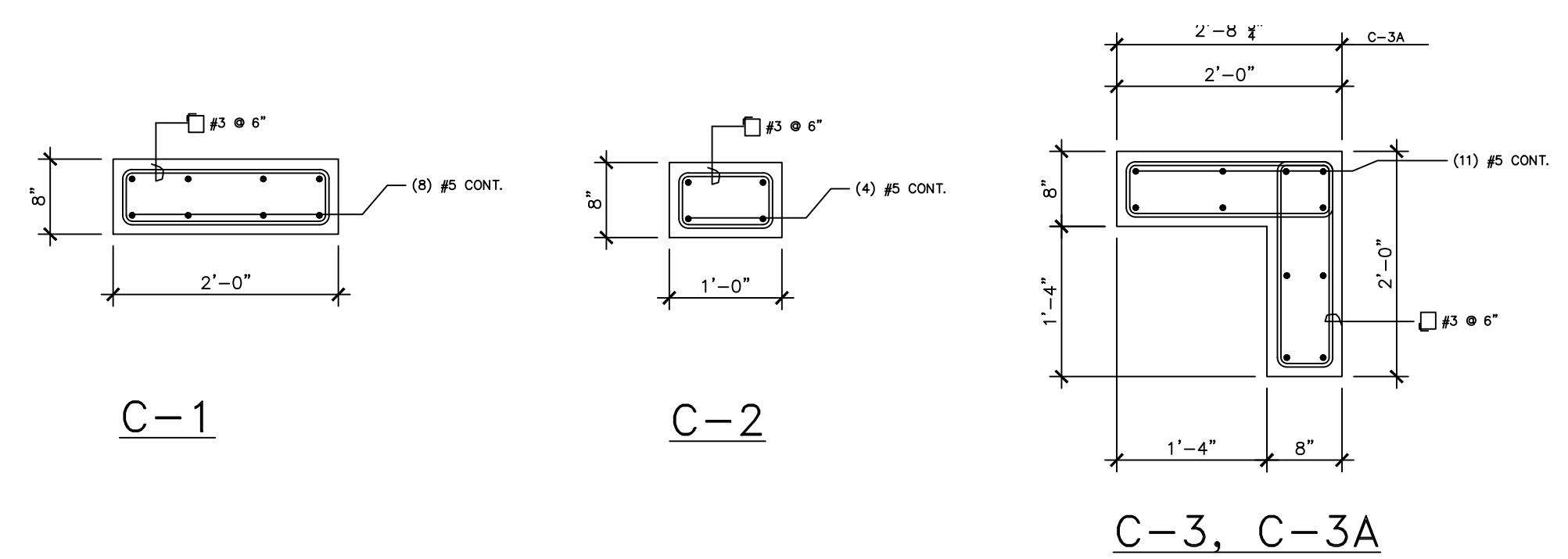
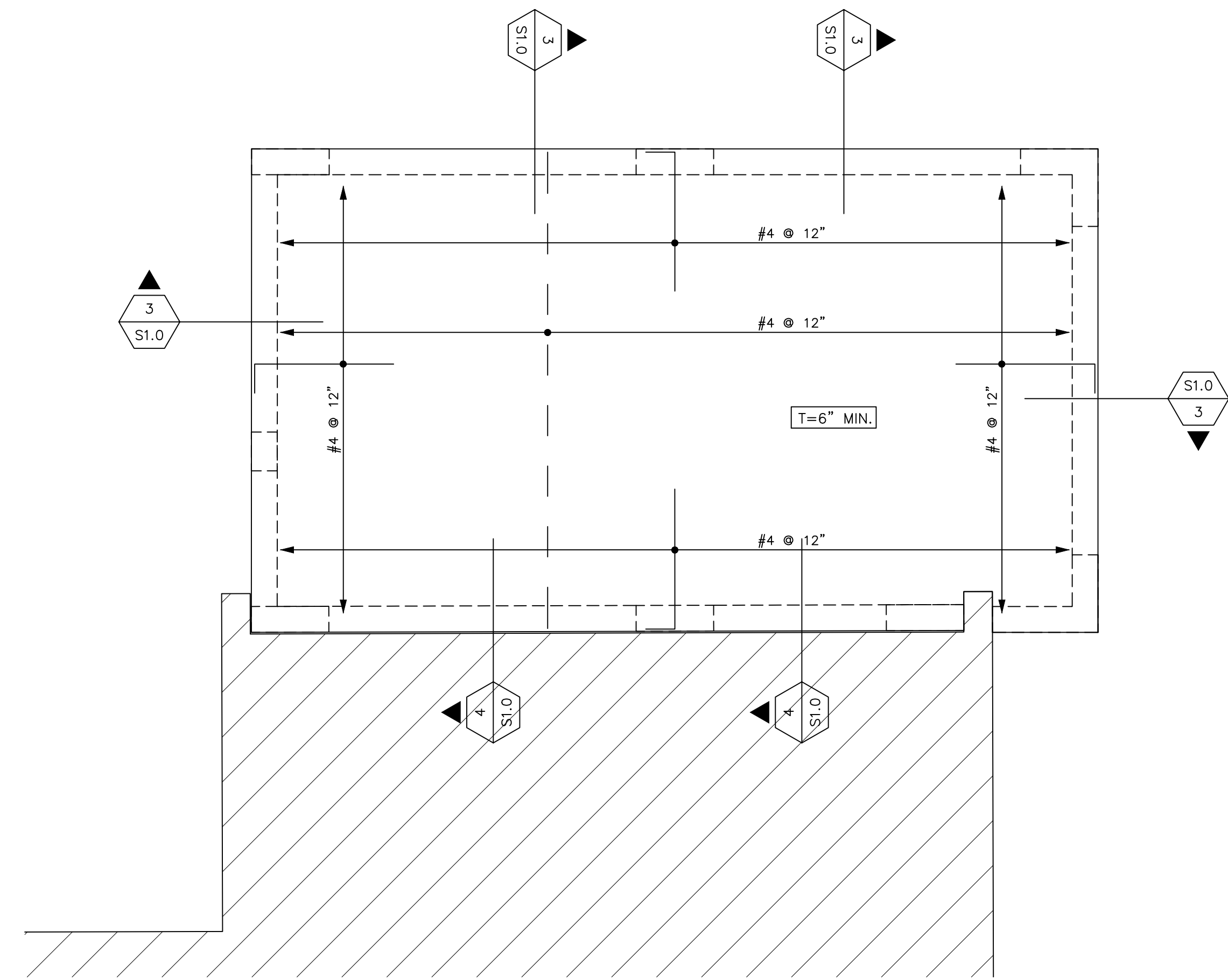
REVISIONS

GENERATOR'S ROOM
STRUCTURAL DETAIL
CALLE PROGRESO, BO. PUEBLLO, AGUADILLA, PR.

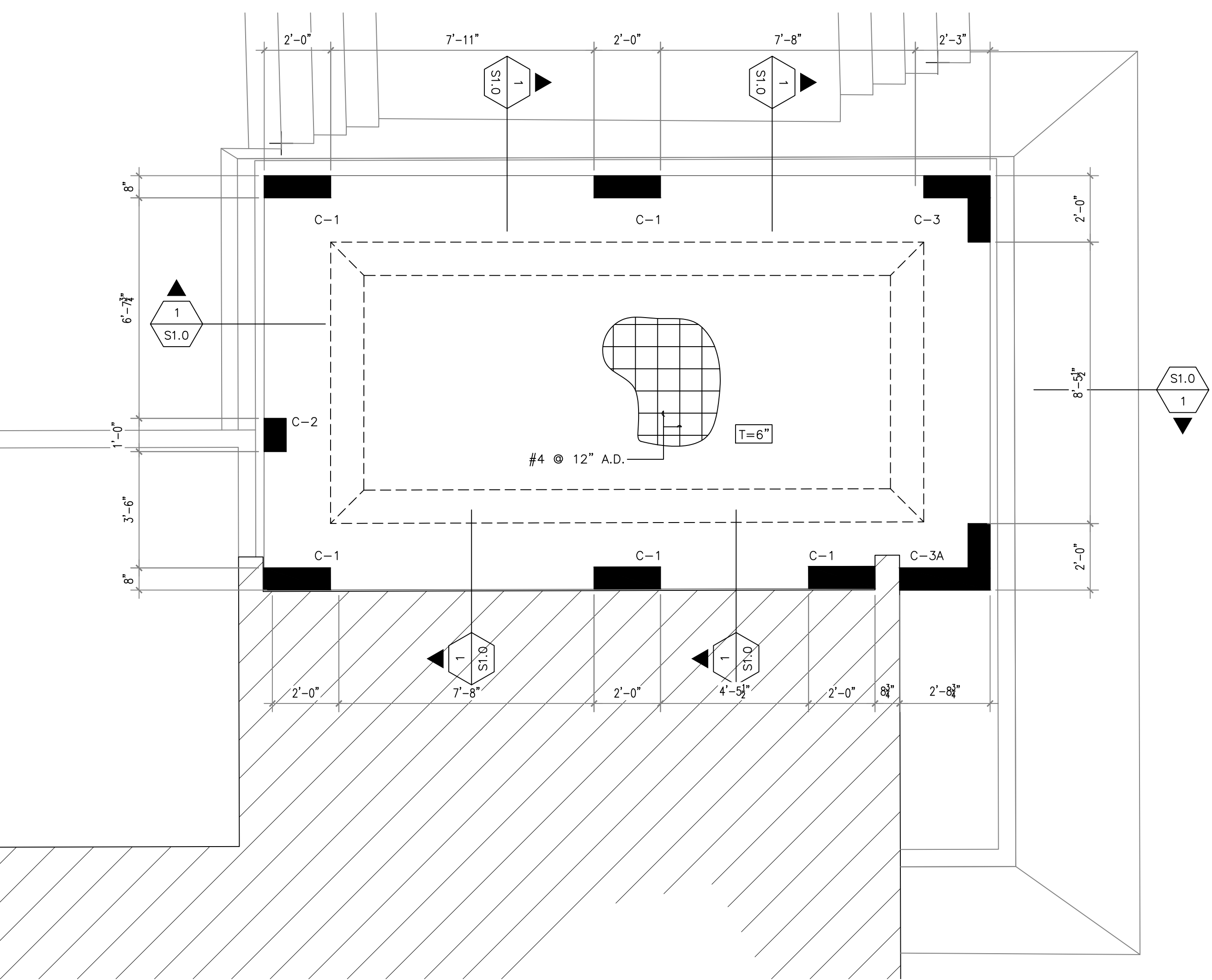
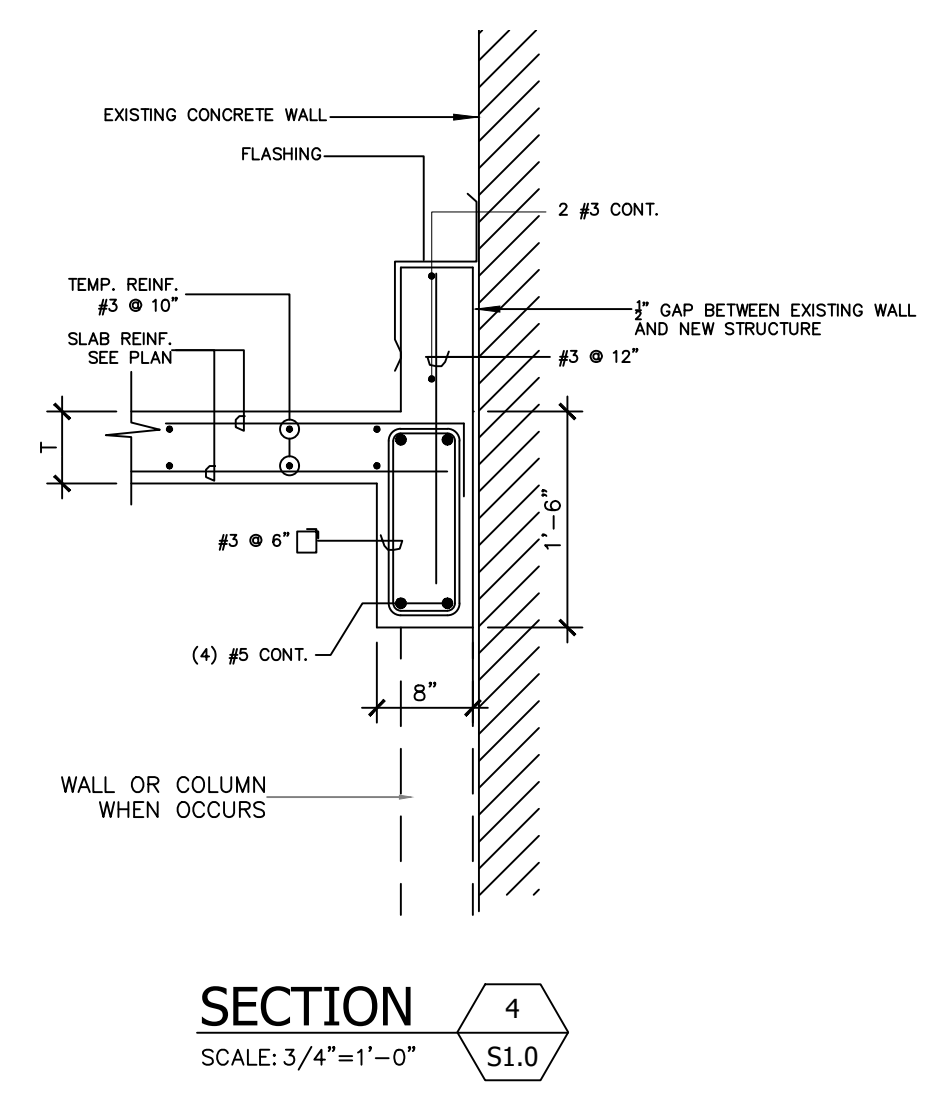
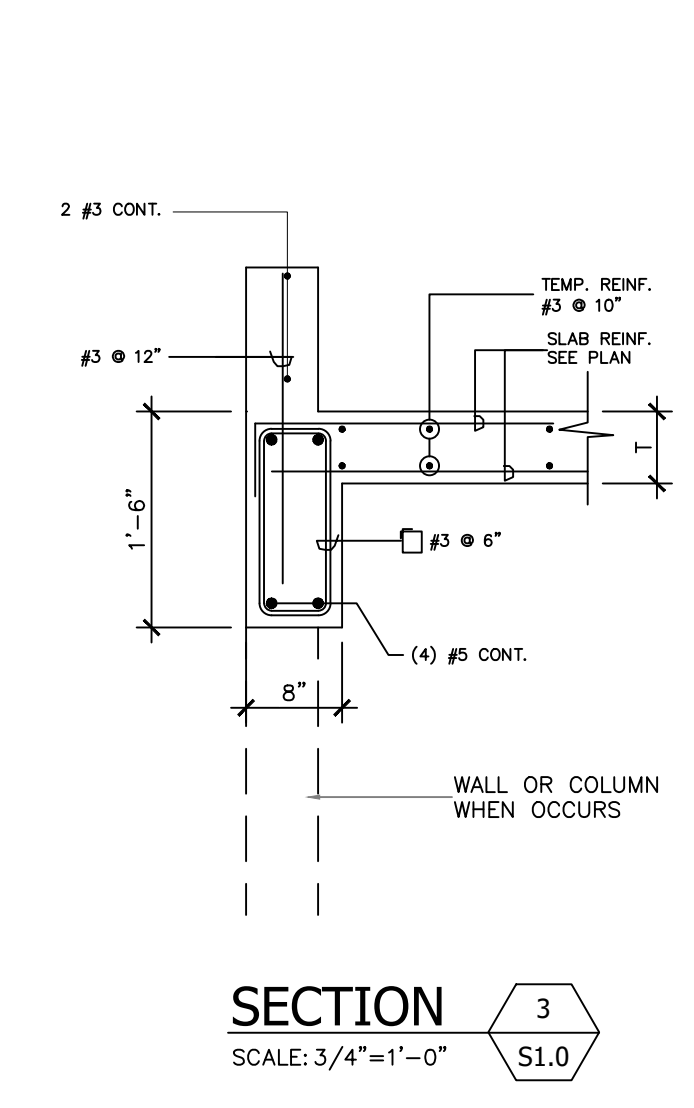
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Revised by:
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STRUCTURAL ROOF PLAN
SCALE: 3/8"=1'-0"



SYMBOL	DATE	BY

DRAFTING DESIGNS
REVISIONS
GENERATOR'S ROOM
STRUCTURAL DETAIL
CALLE PROGRESO, BO. PUEBLO, AGUADILLA, PR.

STAMP:



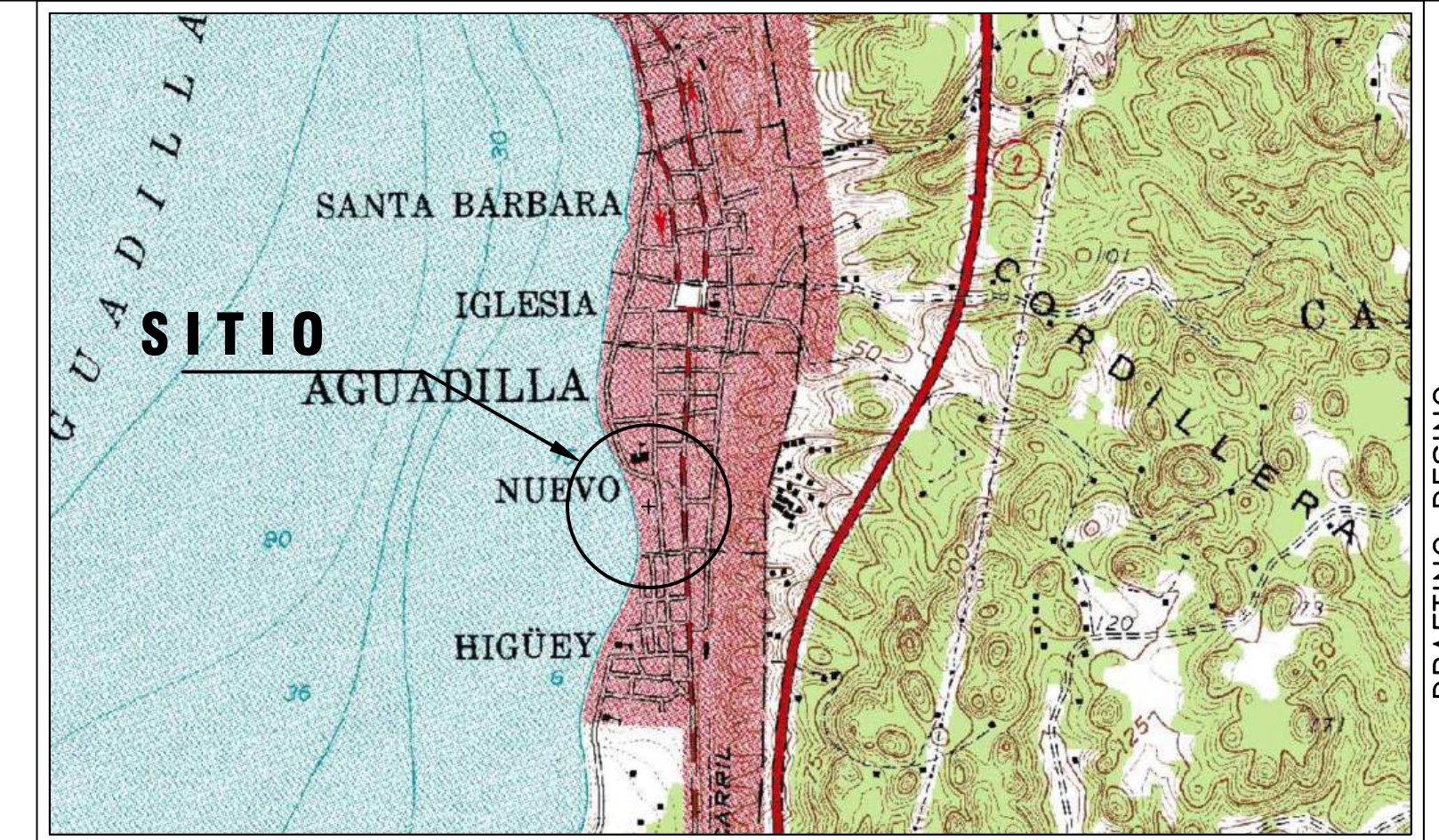
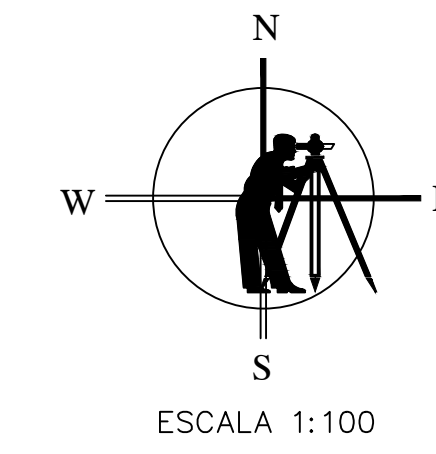
Project:
Drawing by:
Revised by:
ING. GARCIA

THE DESIGNERS HEREBY EXPRESSLY RESERVE THEIR COPYRIGHT AND PROPERTY RIGHTS IN THESE PLANS. DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING WRITTEN PERMISSION AND CONSENT FROM DESIGNERS. NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT FIRST OBTAINING SAID WRITTEN PERMISSION AND CONSENT.

EXISTING SITE PLAN

NEW 750 KVA EMERGENCY GENERATOR AT CENTRO JUDICIAL DE AGUADILLA

AGUADILLA, PUERTO RICO.



TOPOGRAFICO (TOPOGRAFICO) ESCALA 1:20,000
 Coordenadas Nad83 x: 123793.2935, y: 265673.9920 (Lat: 18.42533539, Lon: -67.15466086)

Catastro 045-036-288-01
 Coordenadas Nad83 x: 123793.2935, y: 265673.9920 (Lat: 18.42533539, Lon: -67.15466086)

X: 123786.778

X: 123806.778

X: 123826.778

Y: 265676.304

Y: 265676.304

X: 123786.778

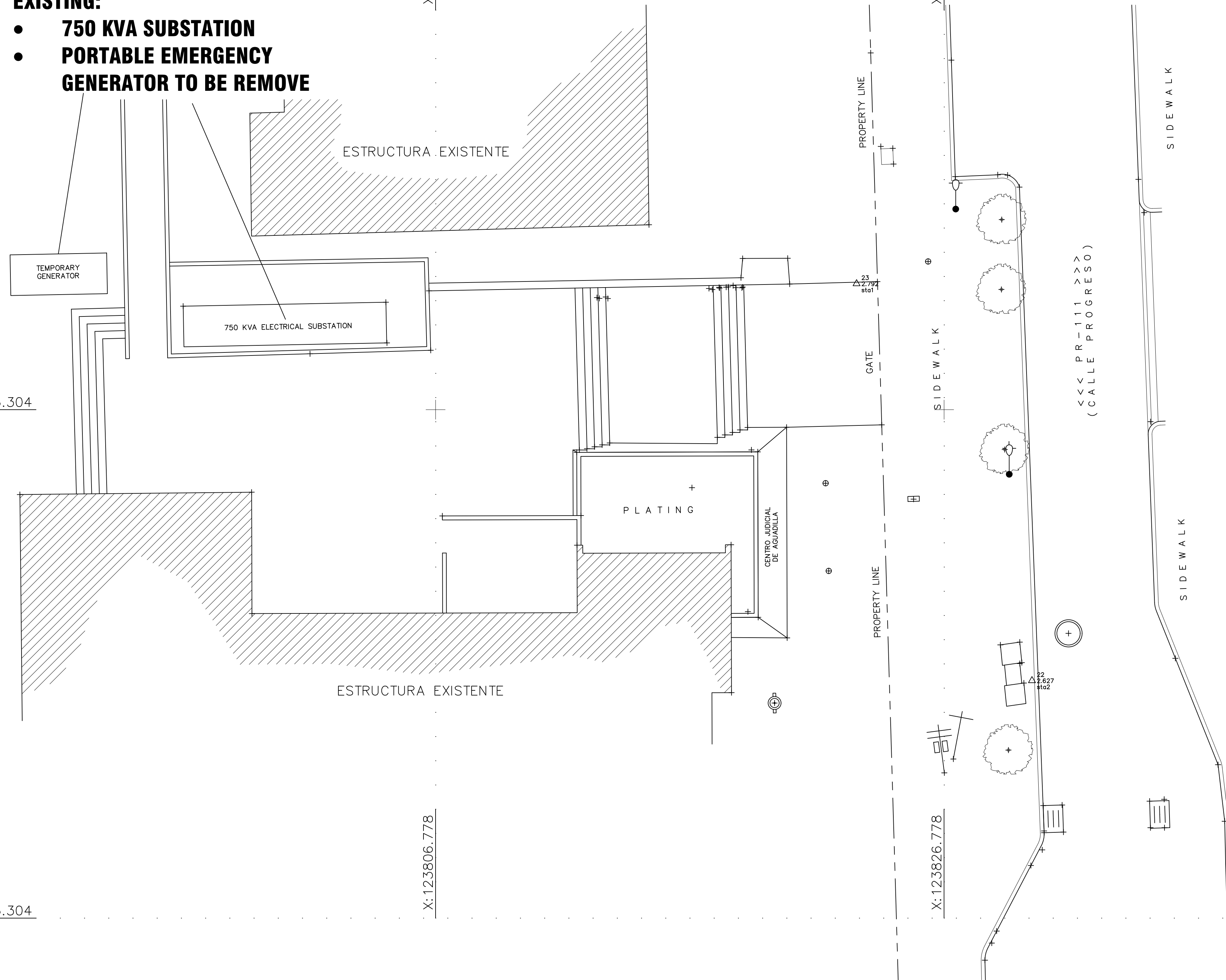
X: 123806.778

X: 123826.778

Y: 265656.304

Y: 265656.304

- EXISTING:**
- 750 KVA SUBSTATION
 - PORTABLE EMERGENCY GENERATOR TO BE REMOVE



EXISTING SITE

SCALE: 1/100

DRAFTING DESING

REVISIONS

SYMBOL DATE BY

EXISTING SITE PLAN

CALLE PROGRESO, BLD. PUEBLD, AGUADILLA, PR.

STAMP:

CERTIFICACIÓN DEL DISEÑADOR / DESIGNER'S CERTIFICATION

1. Certifico que soy ingeniero, agrónomo o arquitecto, licenciado y colegiado en cumplimiento con la Ley 173 de 1988, según enmendada, y estoy autorizado por el dueño del proyecto a presentar estos planos de construcción ante LUMA Energy como operador y administrador del Sistema de Transmisión y Distribución de la AEE. I certify that I am a licensed and registered engineer, surveyor, or architect in compliance with Act 173 of 1988, as amended and authorized by the project or land owner to submit these construction plans to LUMA Energy as operator and administrator of the Transmission and Distribution System of the Puerto Rico Electric Power Authority.

2. En armonía con las disposiciones de la Ley Núm. 135 de 15 de Junio de 1987, según enmendada, conocida como Ley de Certificación de Planos a Proyecto, certifico que prepare 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 Gerencia de Permisos, LUMA Energy y el Manual de Práctica Profesional del CIAPR. En compliance with Act No. 135 of June 15, 1987, as amended known as the "Construction Plans or Projects Certification Act," I certify that I prepared the electric design for this project in accordance with the codes, standards, rules, and regulations approved by LUMA, Puerto Rico Planning Board and Permits Management Office and the CIAPR Professional Practice Manual.

FIRMA DEL DISEÑADOR / DESIGNER'S SIGNATURE

LUMA ENDOSO / ENDORSEMENT

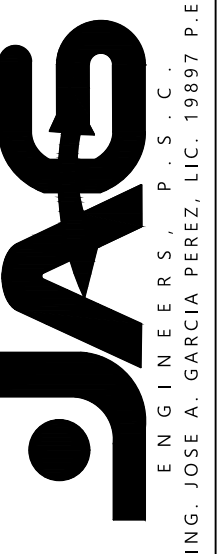
Nombre del Proyecto / Project Name: Generador de Emergencia Centro Judicial de Aguadilla
 Número de Proyecto / Project Number: 20-4-0163 GEN
 Carga / Load: 0 Revisión / Revision: 1

ENDOSADO POR / ENDORSED BY

1. LUMA endosa el diseño eléctrico mostrado en estos planos de construcción basándose en la certificación sometida por el diseñador en cumplimiento con la Ley Núm. 135 del 15 de Julio de 1987, según enmendada. LUMA endosa el diseño eléctrico mostrado en estos planos de construcción basados en la certificación presentada por el diseñador en cumplimiento con la Ley 135 of July 15, 1987, as amended.

2. LUMA no asume responsabilidad sobre el diseño certificado. El endoso por parte de LUMA no releva al 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 de Seguridad, códigos, patrones, normas y reglamentos vigentes de LUMA y de otras agencias de gobierno, así como leyes federales y estatales, vigentes al inicio de las obras. LUMA does not assume responsibility over the certified design. LUMA's endorsement does not relieve the designer from the professional responsibility assumed with the certification of these project's plans. This endorsement relieves neither the builder nor private inspector from compliance with standing dispositions from: National Electric Code, National Electric Safety Code, construction standards, norms, and regulations from LUMA and other government agencies as well as federal and state laws ruling by the time construction begins.

3. El presente endoso tiene vigencia de un (1) año. De iniciar las obras eléctricas dentro de este término, mediante notificación previa a LUMA, el endoso mantendrá su vigencia hasta la terminación de las mismas. En caso de que no se certifique obra eléctrica en ese periodo, este endoso perderá su vigencia. Este endoso no es para completar proceso de Cuestión, Tránsito y Garantía del equipo. Para esto se necesita cumplir con todo lo dispuesto en el Reglamento de Servicios Para la Autoridad de Energía Eléctrica (202) de 2021. This endorsement is valid for one (1) year. If electrical works have begun during this year, with prior notification to LUMA, the endorsement will be valid until work's completion. In case there is no certified electrical work during this period, this endorsement will lose its validity. This endorsement is not to constitute an assessment or to complete the Assignment, Transfer and Quarantine process of the equipment. For this, it is necessary to comply with all the provisions of the Esameants Regulation for the Puerto Rico Electric Power Authority (282 of 2007).



Project:
 Drawing by:
 Revised by:
 ING. GARCIA

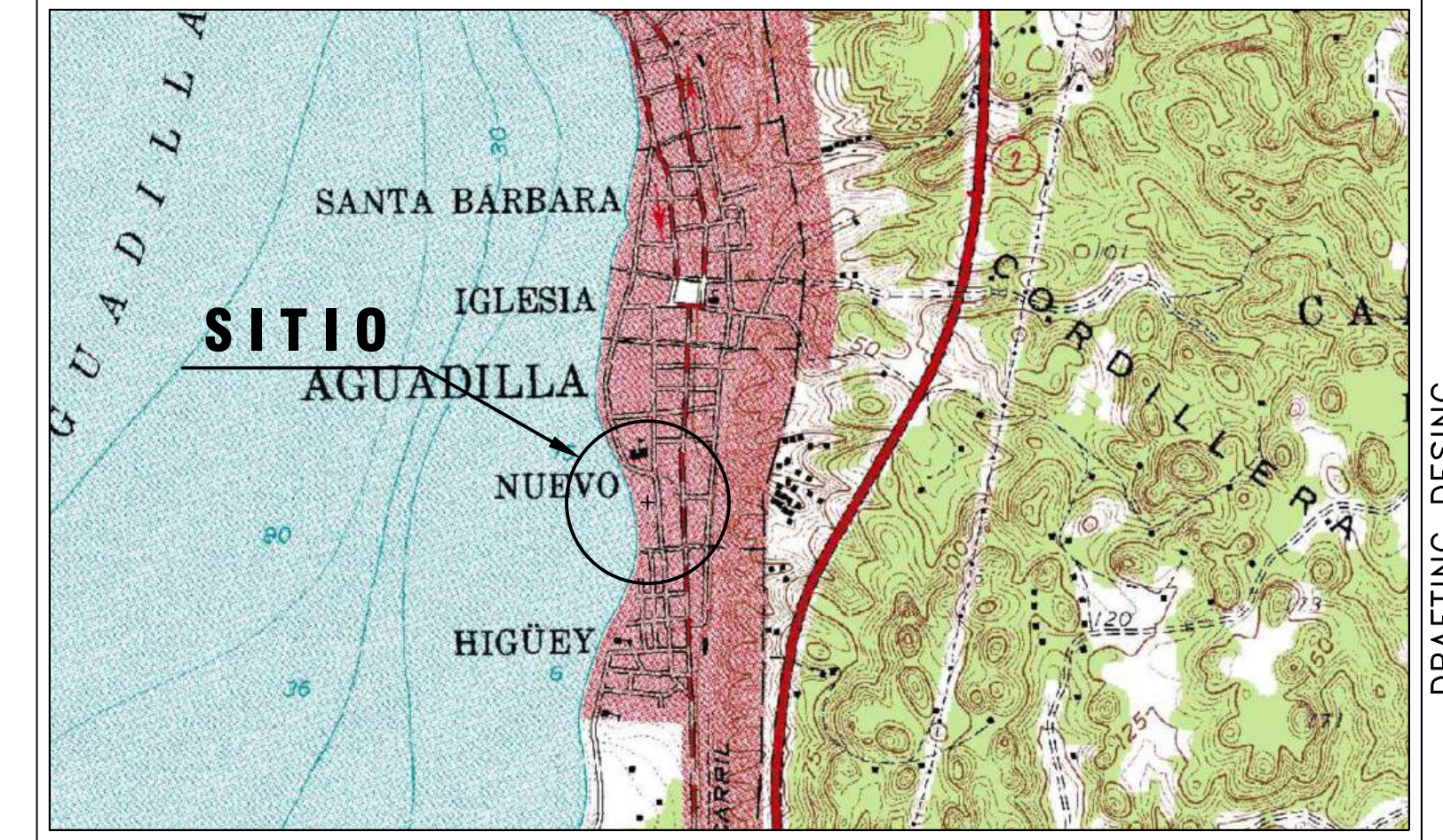
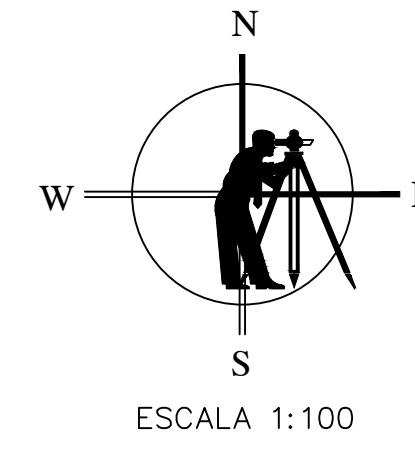
8 of 12

ES1.0

PROPOSED SITE PLAN

NEW 750 KVA EMERGENCY GENERATOR AT CENTRO JUDICIAL DE AGUADILLA

AGUADILLA, PUERTO RICO.

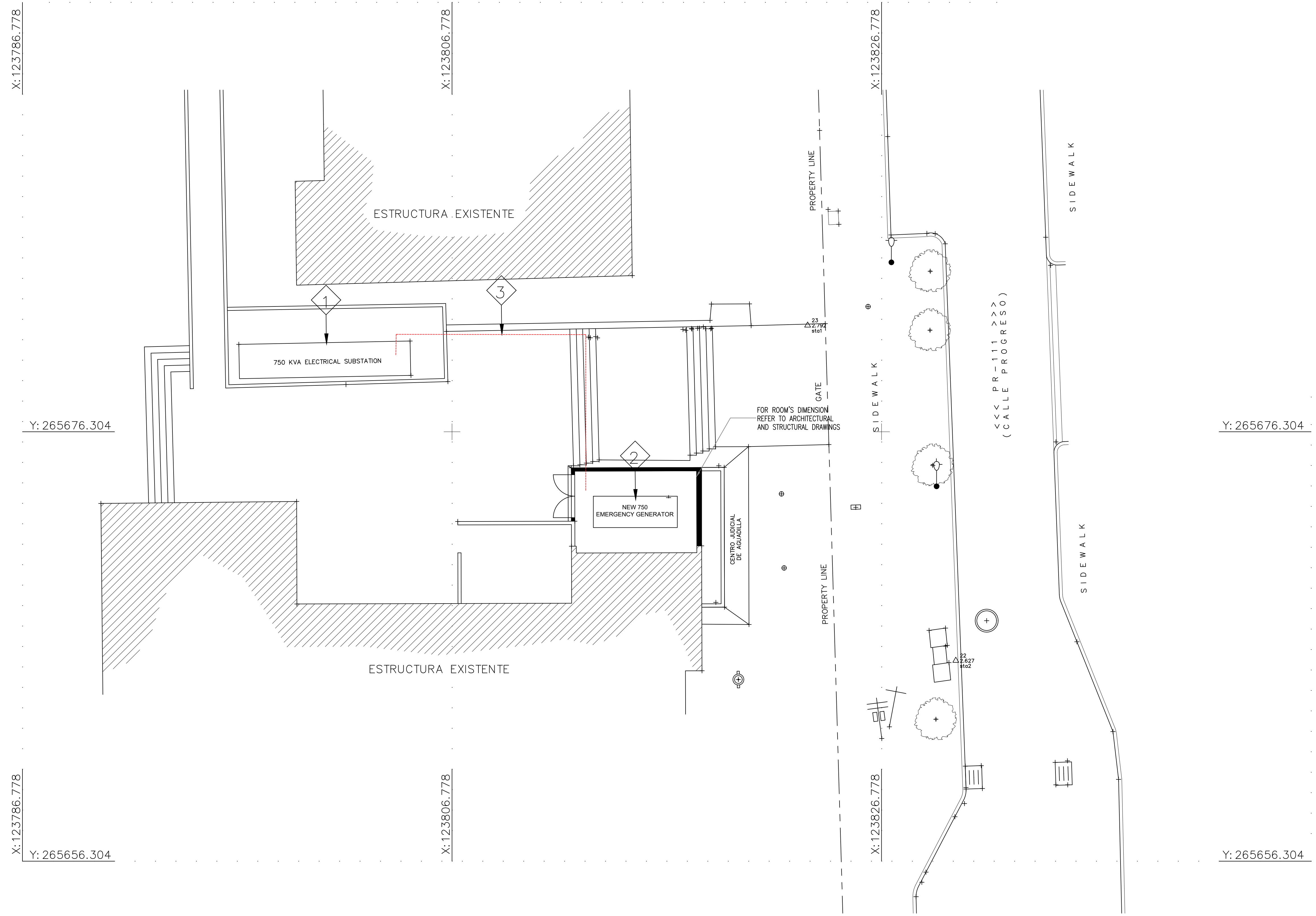


TOPOGRAFICO (TOPOGRAFICO) ESCALA 1:20,000
 Coordenadas Nad83 x: 123793.2935, y: 265673.9920 (Lat: 18.42533539, Lon: -67.15466086)

Catastro 045-036-288-01
 Coordenadas Nad83 x: 123793.2935, y: 265673.9920 (Lat: 18.42533539, Lon: -67.15466086)

LEGEND:

1. EXISTING ELECTRICAL SUBSTATION
 - 1.1. EXISTING PRIMARY SECTION.
 - 1.2. EXISTING TRANSFORMER CABINET: 3 - 250 KVA POLE TYPE TRANSFORMERS, 750 KVA TOTAL, 4.16 KV (PRIMARY VOLTAGE), 277/480 V (SECONDARY VOLTAGE).
 - 1.3. EXISTING METERING CABINET.
 - 1.4. EXISTING AUTOMATIC TRANSFER SWITCH ASCO 1,200 AMP. 277/480 V
 - 1.5. EXISTING CENTRO JUDICIAL'S SECONDARY CABINET MDP WITH MAIN BREAKER DE 1,200 A, 3 POLES -
2. NEW EMERGENCY GENERATOR 750 KVA, 277/480 VOLTS WITH 2,000 GALS. SUBBASE DIESEL TANK, AT NEW ELECTRICAL ROOM. IT SHALL COMPLY WITH UL 2200 Y UL 142.
3. NEW GENERATOR FEEDERS (FROM GENERATOR TO EXISTING AUTOMATIC TRANSFER SWITCH) - 3 SETS OF 4#350KCMILL RHH, CU AND 1#3 AWG RHH, CU AS GROUND AT 4" PVC SCH. 80" EACH ONE. ADD TWO 1" PVC SCH 80 FOR SIGNAL/COMMUNICATIONS WIRES AND BATTERY CHARGER CIRCUIT. ADDITIONAL 1" PVC SCH 80 FOR GENERATOR ROOM ELECTRICAL CIRCUITS (REFER TO DETAIL 1 ON SHEET ES1.2 AND THE FINAL ROUTE ON SHEET ES1.3)



Version 3

CERTIFICACIÓN DEL DISEÑADOR / DESIGNER'S CERTIFICATION

1. Certifico que soy ingeniero, agrónomo o arquitecto, licenciado y colegiado en cumplimiento con la Ley 173 de 1988, según enmendada, y estoy autorizado por el dueño del proyecto a presentar estos planos de construcción ante LUMA Energy como operador y administrador del Sistema de Transmisión y Distribución de la AEE. I certify that I am a licensed and registered engineer, surveyor, or architect in compliance with Act 173 of 1988, as amended and authorized by the project or land owner to submit these construction plans to LUMA Energy as operator and administrator of the Transmission and Distribution System of the Puerto Rico Electric Power Authority.

2. En armonía con las disposiciones de la Ley Núm. 135 de Junio de 1987, según enmendada, conocida como Ley de Certificación de Planos y Proyectos, 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 Gerencia de Permisos, Luma Energy y el Manual de Práctica Profesional del CIAPR. En compliance with Act No. 135 of June 16, 1987, as amended known as the "Construction Plans or Projects Certification Act," I certify that I prepared the electric design for this project in accordance with the codes, standards, rules, and regulations approved by LUMA, Puerto Rico Planning Board and Permits Management Office and the CIAPR Professional Practice Manual.

FIRMA DEL DISEÑADOR / DESIGNER'S SIGNATURE

LUMA **ENDOSO / ENDORSEMENT**

Nombre del Proyecto / Project Name: Generador de Emergencia Centro Judicial de Aguadilla

Número de Proyecto / Project Number: 20-4-0163 GEN

Carga / Load: (kVA): 0 Revisión / Revision: 1

ENDOSADO POR / ENDORSED BY

1. LUMA endosa el diseño eléctrico mostrado en estos planos de construcción basándose en la certificación sometida por el diseñador en cumplimiento con la Ley Núm. 135 del 16 de junio de 1987, según enmendada. LUMA endosa el diseño eléctrico design shown in these construction plans based on the certification presented by the designer in compliance with Act 135 of June 16, 1987, as amended.

2. LUMA no asume responsabilidad sobre el diseño certificado. El endoso por parte de LUMA no releva al 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 de Seguridad, códigos, patrones, normas y reglamentos vigentes de LUMA y de otras agencias de gobierno, así como leyes federales y estatales, vigentes al inicio de las obras. LUMA does not assume responsibility over the certified design. LUMA's endorsement does not relieve the designer from the professional responsibility assumed with the certification of these project's plans. This endorsement relieves neither the builder nor private inspector from compliance with standing dispositions from: National Electric Code, National Electric Safety Code; construction standards, norms, and regulations from LUMA and other government agencies as well as federal and state laws ruling by the time construction begins.

3. El presente endoso tiene vigencia de un (1) año. De iniciar las obras eléctricas dentro de este término, mediante notificación previa a LUMA, el endoso mantendrá su vigencia hasta la terminación de los mismos. En caso de que no se certifique obra eléctrica en ese periodo, este endoso perderá su vigencia. Este endoso no es para completar proceso de Cuestión, Tránsito y Garantía del equipo. Para esto es necesario cumplir con todo lo dispuesto en el Reglamento de Servidumbre Para la Autoridad de Energía Eléctrica (202) de 2021. This endorsement is valid for one (1) year. If electrical works have begun during this period, with prior notification to LUMA, the endorsement will be valid until work's completion. In case there is no certified electrical work during this period, this endorsement will lose its validity. This endorsement is not to constitute an assent or to complete the Assignment, Transfer and Quarters process of the equipment. For this, it is necessary to comply with all the provisions of the Easements Regulation for the Puerto Rico Electric Power Authority (282 of 2007).

DRAFTING DESING

REVISIONS

SYMBOL	DATE	BY

PROPOSED SITE PLAN

CALLE PROGRESO, BO. PUEBLD, AGUADILLA, PR.

STAMP:

ING. JOSE A. GARCIA PEREZ, LIC. 1987 P.E.

Project: _____

Drawing by: _____

Revised by: **ING. GARCIA**

9 of 12

ES1.1

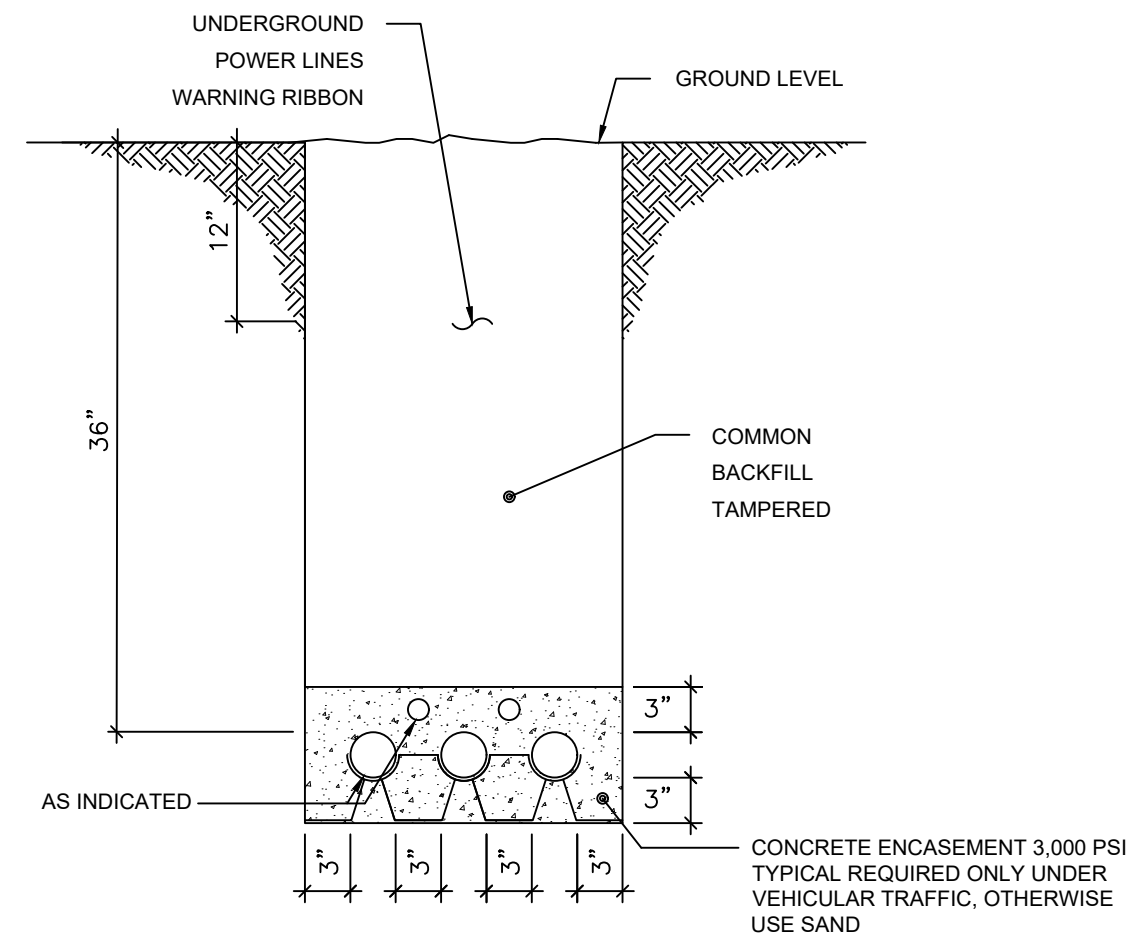
SYMBOL	DATE	BY

DRAFTING DESING
 SINGLE LINE DIAGRAM,
 DETAIL & GENERAL NOTES
 CALLE PROGRESO, BO. PUEBLLO, AGUADILLA, PR.

STAMP:

Project:
 Drawing by:
 Revised by:
 ING. GARCIA

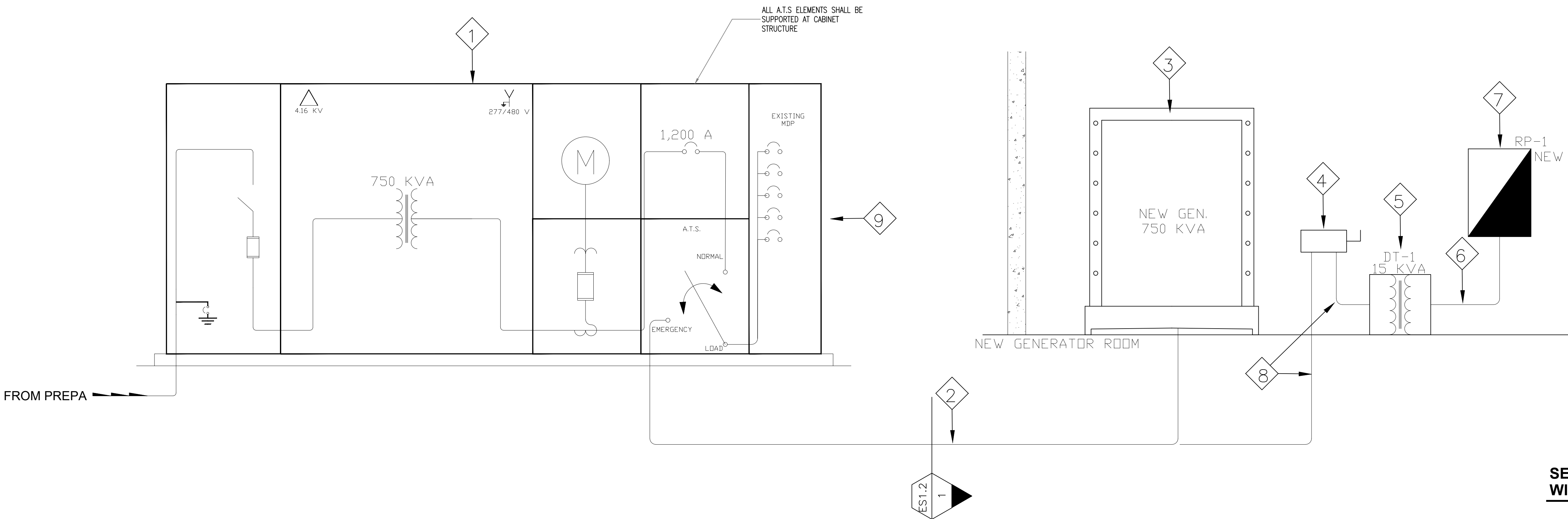
10 of 12
 ES1.2



**SECTION 1: UNDERGROUND GENERATOR FEEDERS (3)
 WITH BATTERY CHARGER CIRCUIT (1) AND SIGNALS (1)**
 SCALE: N.T.S.

NOTA:
 1. LA CERTIFICACIÓN ELÉCTRICA PARA LA INSTALACIÓN DEL GENERADOR TIENE QUE ESPECIFICAR EL TIPO DE INTERRUPTOR DE DOBLE TIRO UTILIZADO, SEA MANUAL O AUTOMÁTICO, ESTA CERTIFICACIÓN TIENE QUE ACOMPAÑARSE CON EL FORMULARIO "REGISTRO DE LA PLANTA DE EMERGENCIA" Y SERÁN ENTREGADOS POR EL CONTRATISTA ELÉCTRICO JUNTO CON EL DOCUMENTO DE NOTIFICACIÓN DE COMIENZO DE PROYECTO EN LA SECCIÓN DE INSPECCIONES DE LA REGIÓN DE MAYAGÜEZ.
 2. EL DUEÑO TIENE TODAS LAS TAPAS ORIGINALES DEL GABINETES PARA SER REINSTALADAS.

CERTIFICACIÓN DEL DISEÑADOR / DESIGNER'S CERTIFICATION <small>Version 3</small>	
<small>1. Certifico que soy ingeniero, egresado en su debido tiempo y otorgado en cumplimiento con la Ley 173 de 1988, según enmendada, y estoy autorizado por el dueño del proyecto a presentar estos planos de construcción ante LUMA Energy como operador y administrador del Sistema de Transmisión y Distribución de la AEE. I certify that I am an licensed and registered engineer, surveyor or architect in compliance with Act 173 of 1988, as amended and authorized by the project or land owner to submit these construction plans to LUMA Energy as operator and administrator of the Transmission and Distribution System of the Puerto Rico Electric Power Authority.</small>	
<small>2. En armonía con las disposiciones de la Ley Núm. 135 de 15 de Junio de 1987, según enmendada, conocida como Ley de Certificación de Planos a Proyectos, certifico que prepare 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 Gerencia de Permisos, Luma Energy y el Manual de Prácticas Profesionales del CIAPR. I, in compliance with Act No. 135 of June 15, 1987, as amended known as the "Construction Plans or Projects Certification Act", I certify that I prepared the electric design for this project in accordance with the codes, Standards, rules, and regulations approved by LUMA, Puerto Rico Planning Board and Permits Management Office and the CIAPR Professional Practice Manual.</small>	
FIRMA DEL DISEÑADOR / DESIGNER'S SIGNATURE	
LUMA ENDOSO / ENDORSEMENT	
Nombre del Proyecto / Project Name: <u>Generador de Emergencia Centro Judicial de Aguadilla</u> Número de Proyecto / Project Number: <u>20-4-0163 GEN</u> Carga / Load: (kVA): <u>0</u> Revisión / Revision: <u>1</u>	
ENDOSADO POR / ENDORSED BY	
<small>1. LUMA endosa el diseño eléctrico mostrado en estos planos de construcción basándose en la certificación sometida por el diseñador en cumplimiento con la Ley Núm. 135 del 15 de julio de 1987, según enmendada. / LUMA endorses the electric design shown in these construction plans based on the certification presented by the designer in compliance with Act 135 of July 15, 1987, as amended.</small>	
<small>2. LUMA no asume responsabilidad sobre el diseño certificado. El endoso por parte de la LUMA no releva al 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 de Seguridad, códigos, patrones, normas y reglamentos vigentes de LUMA y de otras agencias de gobierno, así como leyes federales y estatales, vigentes al inicio de las obras. / LUMA does not assume responsibility over the certified design. LUMA's endorsement does not relieve the designer from the professional responsibility assumed with the certification of these project's plans. This endorsement relieves neither the builder nor private inspector from compliance with standing dispositions from: National Electric Code, National Electric Safety Code; construction standards, norms, and regulations from LUMA and other government agencies as well as federal and state laws ruling by the time construction begins.</small>	
<small>3. El presente endoso tiene vigencia de un (1) año. De iniciar las obras eléctricas dentro de este término, mediante notificación previa a LUMA, el endoso mantendrá su vigencia hasta la terminación de las mismas. En caso de que no se certifique obra eléctrica en ese periodo, este endoso perderá su vigencia. Este endoso no es para consultar servidumbre ni para cualquier proceso de Cuota, Traspaso y Garantía del equipo. Para esto es necesario cumplir con todo lo dispuesto en el Reglamento de Servidumbre Para la Autoridad de Energía Eléctrica (CROE) de 2007. / This endorsement is valid for one (1) year. If electrical works have begun during this year, with prior notification to LUMA, the endorsement will still be valid until work's completion. In case there is no certified electrical work during this period, the endorsement will lose its validity. This endorsement is not to consult an easement or to complete the Assignment, Transfer and Guarantee process of the equipment. For this, it is necessary to comply with all the provisions of the Easements Regulation for the Puerto Rico Electric Power Authority (7282 of 2007).</small>	



NEW ELECTRICAL SINGLE LINE DIAGRAM
 SCALE: N.T.S.

SINGLE LINE DIAGRAM LEGEND:

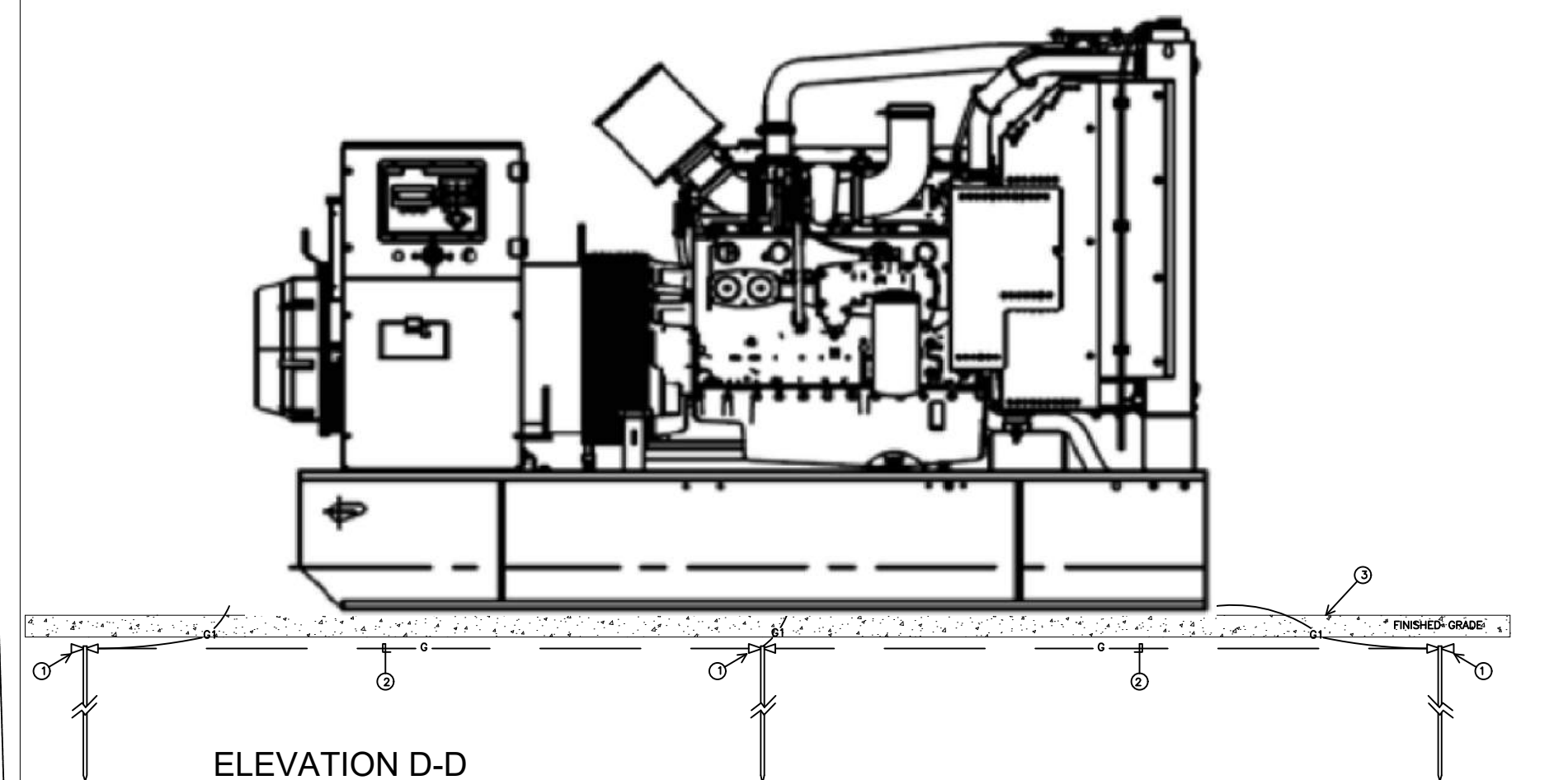
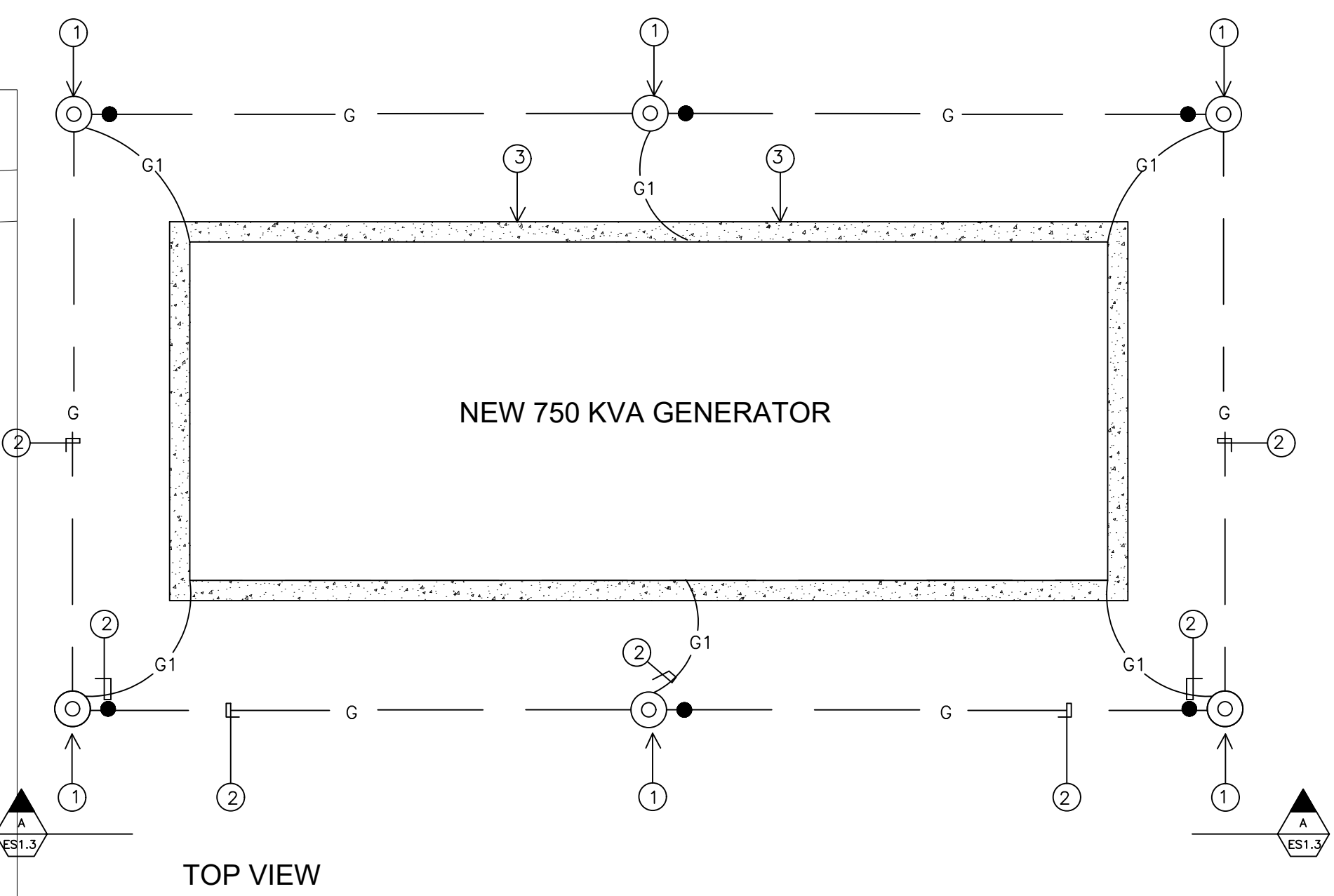
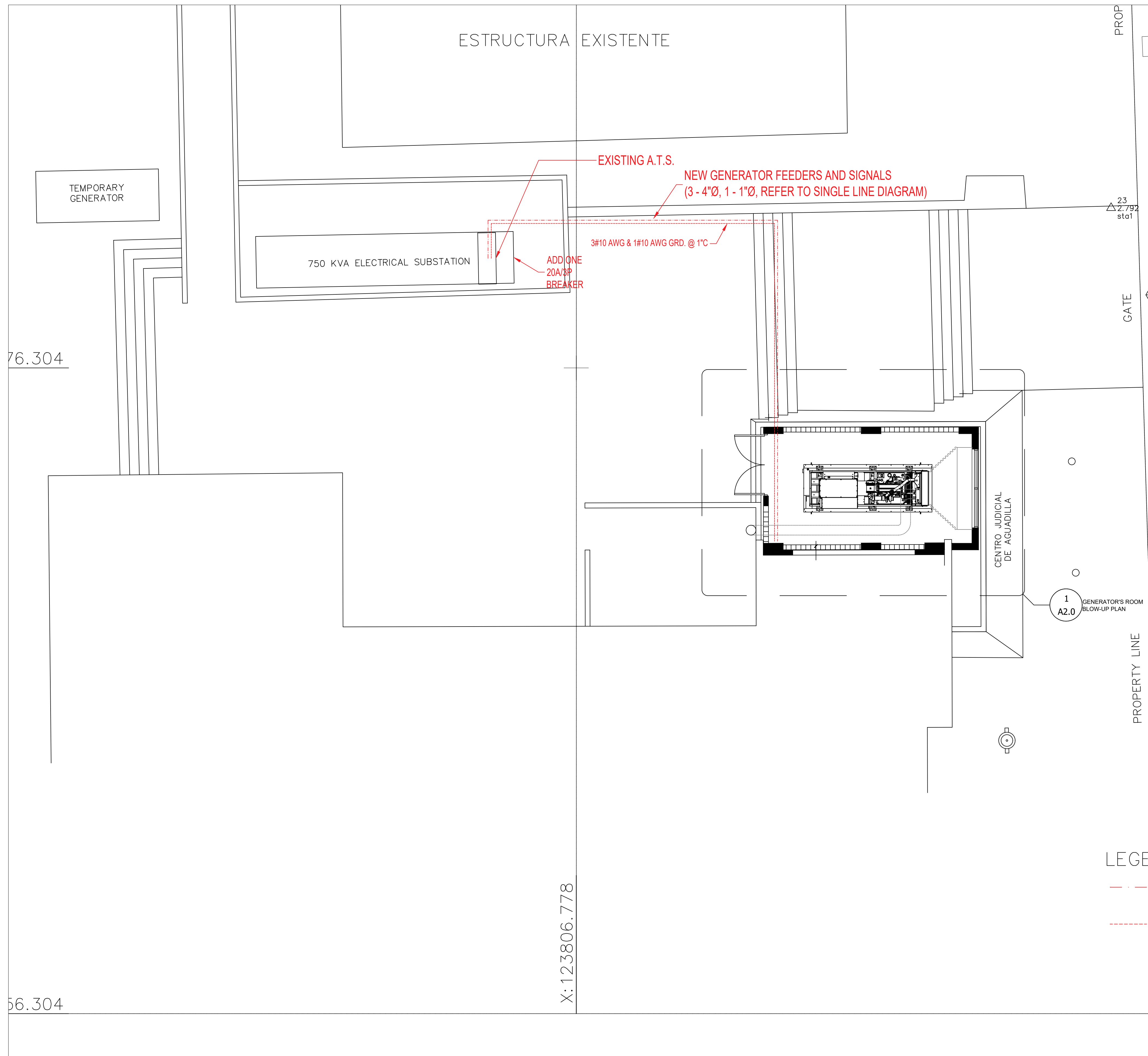
1. EXISTING SUBSTATION
 - 1.1. EXISTING PRIMARY SECTION.
 - 1.2. EXISTING TRANSFORMER CABINET: 3 - 250 KVA POLE TYPE TRANSFORMERS, 750 KVA TOTAL, 4.16 KV (PRIMARY VOLTAGE), 277/480 V (SECONDARY VOLTAGE)..
 - 1.3. EXISTING METERING CABINET.
 - 1.4. EXISTING CENTRO JUDICIAL'S SECONDARY CABINET, MAIN BREAKER DE 1,200 A, 3 POLES
 - 1.5. EXISTING AUTOMATIC TRANSFER SWITCH ASCO 1,200 A, 277/480 VOLTS.
 - 1.6. EXISTING MAIN DISTRIBUTION PANEL (MDP)
2. NEW GENERATOR FEEDERS (FROM GENERATOR TO EXISTING AUTOMATIC TRANSFER SWITCH) - 3 SETS OF #350KCMILL RHH, CU AND #13 AWG RHH, CU AS GROUND AT 4" PVC SCH. 80" EACH ONE. ADD ONE (1) 1" PVC SCH 80 FOR SIGNAL/COMMUNICATIONS WIRES. REFER TO DETAIL 1 ON SHEET ES1.2.
3. NEW EMERGENCY GENERATOR 750 KVA, 277/480 VOLTS, 3 PH, UL CERTIFIED, WITH MAIN BREAKER OF 1,200 A, 480V, 3 POLES, WITH 2,000 GAL. SUBBASE DIESEL TANK, AT NEW ELECTRICAL ROOM. IT SHALL COMPLY WITH UL 2200 Y UL 142.
4. NEW 30AMP, 480V, 3 POLES MANUAL SWITCH.
5. NEW DRY TRANSFORMER 480V (PRIMARY) TO 120/208V (SECONDARY, NEMA 1.
6. NEW GENERATOR'S ACCESSORIES ELECTRICAL PANEL FEEDERS - #8 AWG RHH & #6 AWG RHH, CU , GROUND AT 1" PVC SCH 80.
7. NEW GENERATOR'S ACCESSORIES ELECTRICAL PANEL (RP-1) 120/208V, 100AMP, 3PU, 4W, 12 POLES.
8. NEW DRY TRANSFORMER PRIMARY FEEDERS FOR GENERATOR ROOM ELECTRICAL CIRCUITS TO EXISTING LP-B ELECTRICAL PANEL. - #3/10 AWG RHH & #14/10 AWG RHH, CU , GROUND AT 1" PVC SCH 80.
9. EXISTING ELECTRICAL PANEL MDP, 277/480V, ADD NEW 20 AMP/3 POLES BREAKER.

1. **GENERAL NOTES**
- 1.1. THESE DRAWINGS COINCIDE WITH DRAWINGS SUBMITTED TO THE PERMITS AND REGULATIONS ADMINISTRATION
- 1.2. THE PROJECT'S OWNER IS RESPONSIBLE TO PROCESS AND OBTAIN, BEFORE WORK STARTING DATE (COMIENZO DE OBRA), ALL REQUIRED ENDORSEMENTS, PERMITS, AND RIGHT OF WAY BY GOVERNMENT, FEDERAL, STATE, MUNICIPAL AND PRIVATE AGENCIES CONCERNING THE DEVELOPMENT OF THE PROPOSED PROJECT TYPE.
- 1.3. THE PROJECT'S OWNER SHALL CONTRACT THE SERVICES OF A LICENSED AND COLLEGIATED PROFESSIONAL ENGINEER TO INSPECT ALL ELECTRICAL CONSTRUCTION WORK IN ACCORDANCE WITH LAW NUMBER 7 OF JULY 19, 1985 AS AMENDED, AND WITH THE PREPA REGULATIONS FOR CERTIFICATION OF ELECTRICAL CONSTRUCTION DRAWINGS. THE OWNER SHALL NOTIFY PREPA WHO HAS BEEN ASSIGNED AS PRIVATE INSPECTOR BEFORE CONSTRUCTION PROJECT STARTS.
- 1.4. THE EXECUTION OF ELECTRICAL WORK, AS PER DRAWINGS, SHALL BE DONE ACCORDING TO ELECTRICAL INDUSTRY'S BEST PRACTICES, AND CONSTRUCTED ACCORDING TO RULES AND REGULATIONS ADOPTED BY PREPA AND/OR OTHER CONCERNING GOVERNMENT AGENCIES, AND WITH CODES STANDARDS BY NEC, NESC, AND OTHER REQUIREMENTS BY IEEE, NFPA, NEMA AND ANSI.
- 1.5. THE CONTRACTOR IS NOT AUTHORIZED TO MAKE VARIATIONS TO THAT WHICH WAS DESIGNED ON THESE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONSULT WITH DESIGNER OR DESIGNATED PROJECT'S INSPECTOR ANY DOUBTS OR QUESTIONS REGARDING DRAWINGS INTERPRETATION, WORK EXECUTION, TECHNICAL SPECIFICATIONS OR DISCREPANCIES BETWEEN FIELD EXISTING CONDITIONS AND CONSTRUCTION DRAWINGS.
- 1.6. THE OWNER OR ELECTRICAL CONTRACTOR SHALL NOTIFY PREPA BEFORE PROJECT WORK STARTS BY SUBMITTING THE WORK START NOTIFICATION DOCUMENT AT THE APPROPRIATE PREPA REGIONAL OFFICE'S ENGINEERING DEPARTMENT, AT LEAST 15 DAYS PRIOR TO WORK START.
- 1.7. THE PRIVATE INSPECTOR AND THE ELECTRICAL CONTRACTOR ARE RESPONSIBLE OF ATTENDING TO THE PRECONSTRUCTION MEETING WHICH WILL BE COORDINATED BY THE APPROPRIATE PREPA REGIONAL OFFICE'S ENGINEERING DEPARTMENT.
- 1.8. ALL WORK TO BE DONE ON ENERGIZED LINES, INCLUDING THE PROJECT'S GRID CONNECTION POINT, SHALL BE MADE BY PREPA PERSONNEL. THE OWNER OR ITS REPRESENTATIVE MUST ASSUME (PAY) ALL EQUIPMENT, MATERIALS, AND LABOR COST. THE OWNER OR ITS REPRESENTATIVE SHALL REQUEST PREPA A COST ESTIMATE FOR THIS PROJECT, THAT WHICH WILL HAVE A VALIDITY OF 90 DAYS.
- 1.9. IT IS PROHIBITED TO REALIZE ANY TYPE OF WORK WITHIN PREPA'S RIGHT OF WAY WITHOUT PREPA'S WRITTEN AUTHORIZATION.
- 1.10. PREPA SHALL NOT APPROVE PROJECT CONNECTIONS WITH RIGHT OF WAY INVASION OR THAT DO NOT OBSERVE REQUIRED SAFETY CLEARANCES.

2. **SPECIAL NOTES**
- 2.1 THE PROJECT'S OWNER WILL PAY TO PREPA:
 - [X] MOUNT OF \$ 0.00 EXISTING ELECTRICAL SYSTEM IMPROVEMENT, TO ACCOUNT #CIG 419.06.
 - [] REQUIRED WORK EVALUATED FOR THIS PROJECT FROM THIS CONTRIBUTION IS MADE ACCORDING TO THE PROPOSED LOAD AS ESTABLISHED BY THE REGULATIONS FOR DETERMINING AND COLLECTING CONTRIBUTIONS FROM INDIVIDUALS OR INSTITUTIONS OF ACTIVE DEVELOPMENT PROJECTS.
- 2.2 PREPA SHALL NOT CONNECT THE PROJECT TO THE GRID UNTIL THE OWNER HAS ESTABLISHED REQUIRED RIGHT OF WAY ACCORDING WITH THE REGULATIONS FOR PREPA RIGHT OF WAY. THIS NOTE APPLIES TO ANY RIGHT OF WAY REQUIRED, BE IT WITHIN OR WITHOUT THE PROJECT'S LIMITS.
- 2.3 THE INSTALLATION OF METERING DEVICES SHALL BE COORDINATED WITH THE CORRESPONDING PREPA REGIONAL METERING OFFICE. THE DESIGNER OR THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THIS OFFICE THE SELECTION AND LOCATION OF METERING EQUIPMENT AND MATERIALS.
- 2.4 THE INSTALLATION OF SUBSTATIONS, TRANSFORMERS OR OTHER ELECTRICAL EQUIPMENT ABOVE SEWER SYSTEM OR WATER LINES IS PROHIBITED.

3. **MATERIALS**
- 3.1 ALL EQUIPMENT AND MATERIALS TO BE USED DURING CONSTRUCTION MUST COMPLY WITH IEEE, ANSI, NEMA AND ASTM STANDARDS.
- 3.2 THE CONTRACTOR IS RESPONSIBLE TO VERIFY WITH PREPA THAT ALL MATERIAL AND EQUIPMENT TO BE USED HAS BEEN APPROVED BY PREPA PREVIOUS TO INSTALLATION. PREPA RESERVES THE RIGHT TO ACCEPT ANY EQUIPMENT TO BE TRANSFERRED.
- 3.3 ALL EQUIPMENT AND MATERIALS, INCLUDING TRANSFORMERS AND SUBSTATION ENCLOSURES, TO BE INSTALLED WITHIN ONE MILE OF A SALT WATER BODY SHALL BE MADE OF STAINLESS STEEL, WITH THE EXCEPTION OF METERING BASES.
- 3.4 UNDERGROUND SYSTEM SHALL USE 15KV CABLE TERMINATIONS FOR DISTRIBUTION VOLTAGES, AND 46KV, FOR 38KV LINES.
- 3.5 OVERHEAD SYSTEM SHALL USE 15KV POLYMER INSULATORS FOR DISTRIBUTION VOLTAGES, AND 46KV, FOR 38KV LINES.
- 3.6 THE CONTRACTOR SHALL BE RESPONSIBLE TO LABEL ANY TRANSFORMER TO BE TRANSFERRED TO PREPA WITH A PROPERTY NUMBER PROVIDED BY THE RESPECTIVE DISTRIBUTION ENGINEERING DEPARTMENT.
4. **SYSTEMS**
- 4.1 THE PROJECT OWNER SHALL BE RESPONSIBLE OF PERFORMING ACCEPTANCE TESTS OF PRIMARY AND SECONDARY CABLES WITH TERMINATIONS. TEST RESULTS SHALL BE WITHIN PREPA ACCEPTANCE PARAMETERS. ACCEPTANCE TESTS SHALL BE COORDINATED WITH A REPRESENTATIVE OF THE RESPECTIVE DISTRIBUTION ENGINEERING DEPARTMENT'S INSPECTION OFFICE.
- 4.2 CABLE SHALL BE PROTECTED AGAINST HUMIDITY AND ABRASIONS DURING INSTALLATION. THE CONTRACTOR IS RESPONSIBLE TO INSTALL CABLES USING ONLY RECOMMENDED PULLING PRACTICES TO PREVENT EXCEEDING THE SPECIFIED PULLING TENSION.
- 4.3 MANHOLE LIDS TO BE INSTALLED ON THE PLANTING AREA SHALL BE PROTECTED BY A REINFORCED CONCRETE SLAB AS SPECIFIED IN PREPA STANDARD URD-52.
- 4.4 RISER CONDUIT SHALL BE PVC SCHEDULE 80 OR FIBERGLASS, AS APPROVED BY PREPA, IN ALL PROJECTS LOCATED WITHIN ONE MILE OF A SALT WATER BODY.
- 4.4 UNDERGROUND TRENCHES FOR ELECTRICAL DUCTS SHALL BE INSPECTED BY PREPA BEFORE BACKFILLING AND COMPACTING.
- 4.5 UNDERGROUND TRENCH FOR ELECTRICAL DUCTS EXPOSED TO VEHICULAR TRAFFIC SHALL BE PROTECTED BY A CONCRETE ENVELOPE. THESE TRENCHES SHALL HAVE A 13 INCH CLEARANCE FROM OTHER UTILITY INSTALLATIONS.
- 4.6 THE CONTRACTOR SHALL PROVIDE A REPLACEMENT MATCHING FUSE FOR EVERY FUSE INSTALLED IN EACH SUBSTATION OR TRANSFORMER.
- 4.7 CONNECTORS USED GROUNDING ANTENNAS AND SUBSTATION SHALL BE EXOTHERMIC WELDING (THERMO-WELDED) OR COMPRESSION TYPE.
- 4.8 THE CONTRACTOR SHALL PROVIDE A FISHWIRE IN EVERY SPARE CONDUIT.
- 4.9 EVERY DISTRIBUTION SYSTEM SHALL HAVE A MAXIMUM GROUND TO EARTH RESISTANCE OF 10 OHMS. A GROUNDING ROD SHALL BE INSTALLED TO GROUND THE NEUTRAL WIRE EVERY FOURTH POLE OR 1,000 FEET, AND IN EVERY TRANSFORMER.
- 4.10 EVERY POLE CONCRETE BASE SHALL INCLUDE TWO SPARE CONDUITS FOR FUTURE USE, AS REQUIRED BY PREPA.
- 4.11 POLE BASES SHALL BE INSPECTED BY PREPA DURING CONSTRUCTION.

- P.R.E.P.A. NOTES:**
1. ALL WORK ON EXISTING LINES SHALL BE DONE BY P.R.E.P.A. AT OWNERS EXPENSE.
 2. CONTRACTOR TO COORDINATE POINT OF CONNECTION AT P.R.E.P.A. LOCAL OFFICE BEFORE CONSTRUCTION BEGINS. SUBMITTAL OF WRITTEN EVIDENCE IS REQUIRED.
 3. ALL EQUIPMENT SHALL BE CONSTRUCTED ACCORDING TO ANSI, NEMA, AND P.R.E.P.A. STANDARDS.
 4. INSTALL APPROVED PREFABRICATED RELIEF STRESS CONES AT ALL TERMINATIONS OF PRIMARY CABLE AS REQUIRED.
 5. BLADES AND FUSES SHALL ALWAYS BE CLEARED AT LEAST SIX (6) INCHES FROM METAL PARTS.
 6. OPEN BLADE OF FUSES PRIMARY SWITCH SHALL BE DEENERGIZED WHEN OPEN.
 7. CONTRCTOR SHALL SUPPLY ONE SPARE FUSE FOR EACH PRIMARY HOLDER.
 8. AT ONE (1) MILE FROM THE SEA ALL EQUIPMENT SHALL BE STAINLESS STEEL.
 9. CONTRACTOR SHALL COORDINATE ELECTRICAL CROSSING OVER HIGHWAYS WITH THE DEPARTMENT OF PUBLIC WORKS.
 10. ALL CONSTRUCTION WORK SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND CONSTRUCTION DRAWINGS. THE LATEST EDITION OF THE NEC SHALL BE FOLLOWED EXCEPT WHERE LOCALS ARE MORE STRINGENT, IN WHICH CASE, LOCAL REGULATIONS SHALL GOVERN.
 11. METER SHALL BE BY ALL MEANS ACCESSIBLE TO P.R.E.P.A. METER READERS.
 12. TRANSFORMER TO BE INSTALLED SHALL COMPLY WITH COMPENSATED LOSS PARAMETERS AS DESCRIBED IN P.R.E.P.A. CIRCULAR 94-06.
 13. P.R.E.P.A. ENDORSEMENT OF THIS PROJECT WILL EXPIRE IN ONE YEAR AFTER EMISSION.
 14. ALL NEW ELECTRICAL RIGHT OF WAYS SHALL BE GRANTED TO P.R.E.P.A., PRIOR TO FINAL CONNECTION TO P.R.E.P.A. ELECTRICAL SYSTEM.
 15. THE COST OF THE PRIMARY LINE CONNECTION HAS TO BE COORDINATED WITH P.R.E.P.A. AND IT WILL BE AT OWNERS EXPENSE.
 16. THE OWNER MUST COORDINATE WITH P.R.E.P.A. REGIONAL OFFICE THE PRIMARY VOLTAGE BEFORE PURCHASING TRANSFORMERS.
 17. THE OWNER WILL PAY P.R.E.P.A. FOR IMPROVEMENTS OF DISTRIBUTION LINES. ALL PAYMENTS MUST BE MADE BEFORE CONSTRUCTION BEGINS.
 18. "SE UTILIZARÁN AISLADORES DEL TIPO POLIMERO DE SILICON SEGÚN COMUNICADO 00-02".



- ITEMS DESCRIPTION:**
- 3" X 10'-0" COPPERCLAD GROUND ROD.
 - #4 BARE COOPER WIRE @ 2'-6" BELOW FINISHED GRADE.
 - NEW ELECTRICAL ROOM CONCRETE PAD AS PER STRUTURAL DRAWINGS.

GENERATOR'S GROUND SYSTEM

- LEGEND:**
- NEW GENERATOR FEEDERS ROUTE
 - NEW DRY TRANSFORMER FEEDERS

GENERATOR'S FEEDERS ROUTE (UNDERGROUND AND FIRST LEVEL MERGE)
SCALE: N.T.S.

X: 123806.778

66.304

76.304

CERTIFICACIÓN DEL DISEÑADOR / DESIGNER'S CERTIFICATION	
<p>1. Certifico que soy ingeniero, agrónomo o arquitecto, licenciado y colegiado en cumplimiento con la Ley 173 de 1980, según enmendada, y estoy autorizado por el dueño del proyecto a presentar estos planos de construcción ante LUMA Energy como operador y administrador del Sistema de Transmisión y Distribución de la AEE. I certify that I am a licensed and registered engineer, surveyor, or architect in compliance with Act 173 of 1980, as amended and authorized by the project or land owner to submit these construction plans to LUMA Energy as operator and administrator of the Transmission and Distribution System of the Puerto Rico Electric Power Authority.</p> <p>2. En armonía con las disposiciones de la Ley Núm. 135 de 15 de junio de 1987, según enmendada, conocida como Ley de Certificación de Planos y Proyectos, 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 Gerencia de Permisos, LUMA Energy y el Manual de Prácticas Profesionales del CIAPR. En compliance with Act No. 135 of June 15, 1987, as amended known as the Construction Plans or Projects Certification Act, I certify that I prepared the electric design for this project in accordance with the codes, standards, rules, and regulations approved by LUMA, Puerto Rico Planning Board and Permits Management Office and the CIAPR Professional Practice Manual.</p>	
FIRMA DEL DISEÑADOR / DESIGNER'S SIGNATURE	
LUMA ENDOSO / ENDORSEMENT	
Nombre del Proyecto / Project Name:	Generador de Emergencia Centro Judicial de Aguadilla
Número de Proyecto / Project Number:	20-4-0163 GEN
Carga / Load: (kVA):	0
Revisión / Revision:	1
ENDOSADO POR / ENDORSED BY	
<p>1. LUMA endosa el diseño eléctrico mostrado en estos planos de construcción basándose en la certificación sometida por el diseñador en cumplimiento con la Ley Núm. 135 del 15 de julio de 1987, según enmendada. / LUMA endorses the electric design shown in these construction plans based on the certification presented by the designer in compliance with Act 135 of July 15, 1987, as amended.</p> <p>2. LUMA no asume responsabilidad sobre el diseño certificado. El endoso por parte de LUMA no releva al 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 de Seguridad, códigos, patrones, normas y reglamentos vigentes de LUMA y de otras agencias de gobierno, así como leyes federales y estatales, vigentes al inicio de las obras. / LUMA does not assume responsibility over the certified design. LUMA's endorsement does not relieve the designer from the professional responsibility assumed with the certification of these project's plans. This endorsement relieves neither the builder nor private inspector from compliance with standing dispositions from: National Electric Code, National Electric Safety Code, construction standards, norms, and regulations from LUMA and other government agencies as well as federal and state laws ruling by the time construction begins.</p> <p>3. El presente endoso tiene vigencia de un (1) año. De iniciar las obras eléctricas dentro de este término, mediante notificación previa a LUMA, el endoso mantendrá su vigencia hasta la terminación de las mismas. En caso de que no se certifique obra eléctrica en ese periodo, este endoso perderá su vigencia. Este endoso no es para completar servidumbre ni para completar proceso de Cesión, Traspaso y Garantía del equipo. Para esto es necesario cumplir con todo lo dispuesto en el Pagamiento de Servidumbre Para la Autoridad de Energía Eléctrica (FRSE de 2007). This endorsement is valid for one (1) year. If electrical works have begun during this year, with prior notification to LUMA, the endorsement will be valid until work's completion. In case there is no certified electrical work during this period, this endorsement will lose its validity. This endorsement is not to complete the Assignment, Transfer and Guarantee process of the equipment. For this, it is necessary to comply with all the provisions of the Esasments Regulation for the Puerto Rico Electric Power Authority (282 of 2007).</p>	

DRAFTING DESING

ELECTRICAL ROOM DETAILS AND GROUND MAT
CALLE PROGRESO, BO. PUEBLA, AGUADILLA, PR.

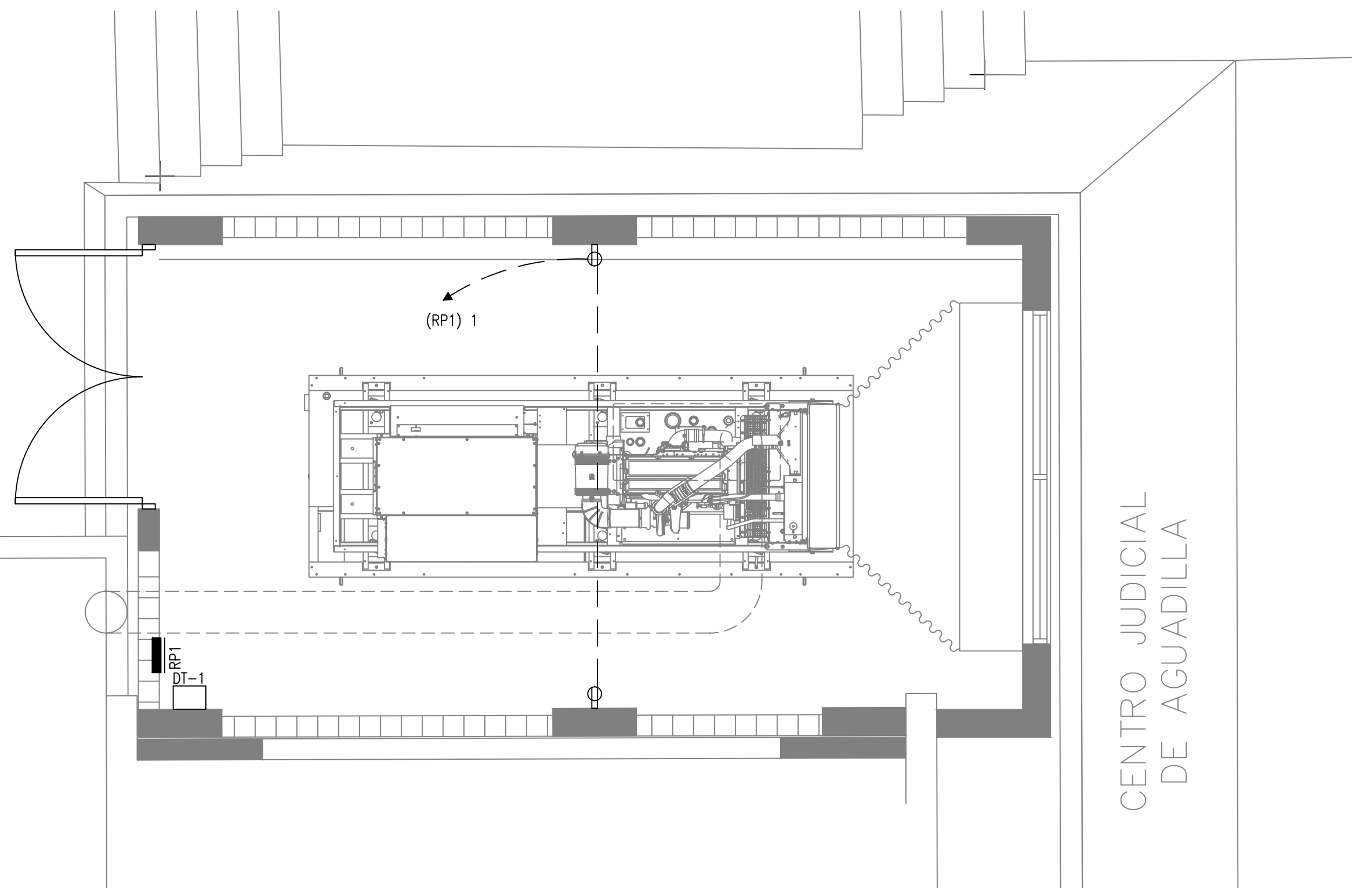
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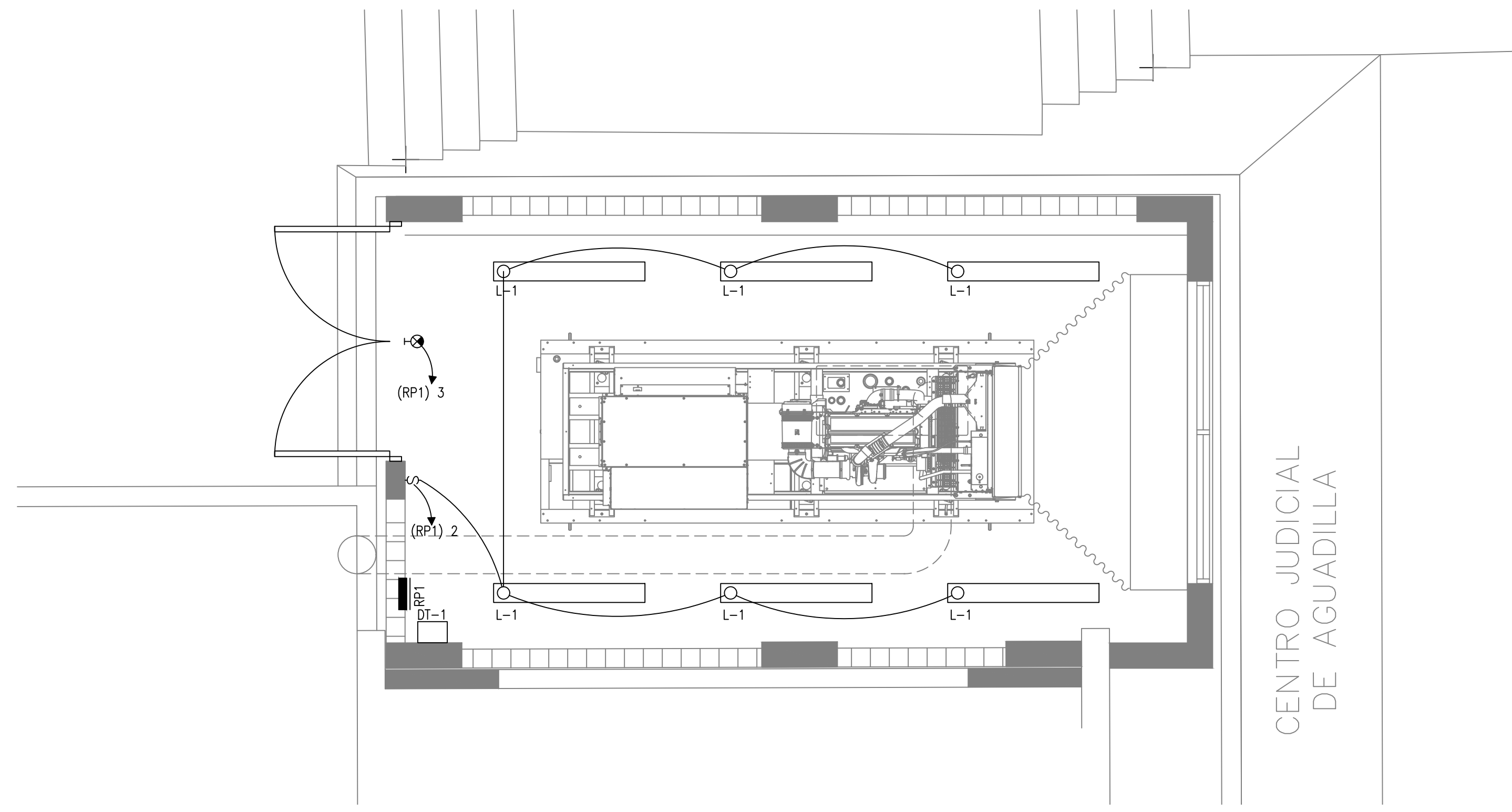
Project:
Drawing by:
Revised by:
ING. GARCIA

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ES1.3



FIRST FLOOR PLAN - POWER DISTRIBUTION
SCALE: 3/8" = 1'-0"



FIRST FLOOR PLAN - LIGHTING DISTRIBUTION
SCALE: 3/8" = 1'-0"

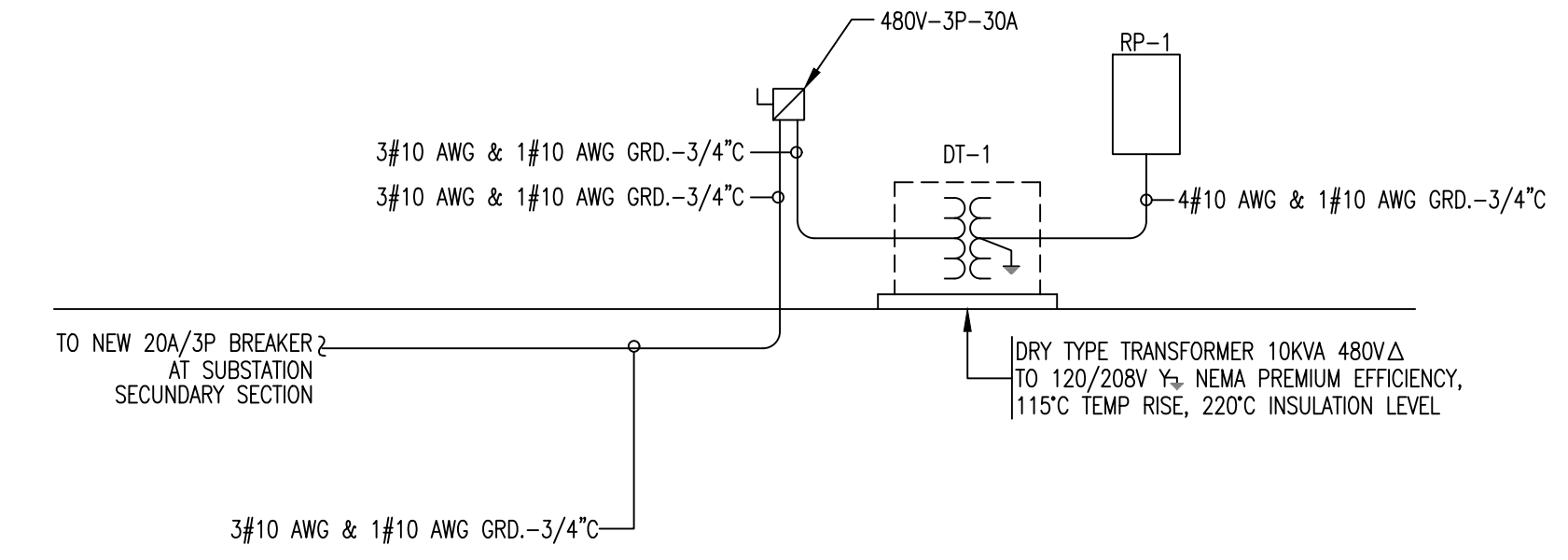
LEGEND:

- CEILING LIGHTING OUTLET LOWER CASE LETTER DENOTES CONTROLLING SWITCH
- WALL LIGHTING OUTLET 6"-6"A.F.F. UNLESS OTHERWISE NOTED, LOWER CASE LETTER DENOTES CONTROLLING SWITCH
- JUNCTION BOX MOUNTED WITHIN HUNG CEILING SPACE
- WALL MOUNTED JUNCTION BOX HEIGHT AS SHOWN.
- FLUORESCENT FIXTURES
- DUPLEX RECEPTACLE 20A-125V-3W GROUNDING TYPE 1'-6" A.F.F. COLOR TO BE SELECTED BY ARCHITECT, DECORA TYPE
- SAME AS ABOVE BUT AT 6" ABOVE COUNTER BACK SPLASH
- DUPLEX RECEPTACLE EQUAL TO ABOVE BUT WITH GROUND FAULT INTERRUPTER
- DUPLEX RECEPTACLE 20A-125V-3W GROUNDING TYPE WITH G.F.I. 3'-6" A.F.F.
- DUPLEX RECEPTACLE 20A-125V-3W GROUNDING, COMPUTER GRADE, ORANGE COLORED
- SINGLE RECEPTACLE 20A-250V-3W GROUNDING TYPE. MATCH RECEPTACLE TO APPLIANCES PLUG, COLOR BY ARCHITECT.
- DEVICES IN MODULAR PARTITION FURNISHED BY MODULE MANUFACTURER
- 3 GANG STAMPED STEEL FLOOR BOX, TWO COMPARTMENTS FOR POWER AND SIGNALING. PROVIDE COVER COMPATIBLE WITH FLOOR FINISHES AND SPARE BLACK COVERS.
- ▲ TELEPHONE OUTLET WALL MOUNTED - 1'-6"A.F.F. UNLESS OTHERWISE NOTED. DECORA TYPE, COLOR TO BE SELECTED BY ARCHITECT
- ▲ TELEPHONE/DATA WALL OUTLET - 1'-6" A.F.F. UNLESS OTHERWISE NOTED, DECORA TYPE, COLOR TO BE SELECTED BY ARCHITECT
- TELEPHONE/DATA OUTLET IN MODULAR PARTITION, FURNISHED BY MODULE MANUFACTURER.
- TV OUTLET HEIGHT AS SHOWN
- CONNECTION TO MOTORIZED CURTAIN
- 1000WATT-120V-DIMMER-LUTRON MAESTRO SERIES- 4'-0"A.F.F.
- SINGLE POLE SWITCH 20A-125V-3W QUIET TYPE, DECORA TYPE 4'-0" A.F.F. COLOR TO BE SELECTED BY ARCHITECT
- WALL SINGLE POLE SWITCH - OCCUPANCY/VACANCY SENSOR. DUAL TECHNOLOGY LUTRON MAESTRO
- DISCONNECT SWITCH, HEAVY DUTY TYPE NEMA 1 UNLESS OTHERWISE NOTED, VOLTS, AMPS POLES AS NOTED 5'-0"A.F.F.
- COMBINATION BREAKER-MAGNETIC STARTER WITH H-0-A STATION AND PILOT LIGHTS ON COVER, 120V CONTROL CIRCUIT, 3 OL RELAYS AND 1-NO, 1-NC CONTACTS. SIZE, POLES AND VOLTAGE AS SHOWN- 5'-0"A.F.F.
- MANUAL STARTER FOR FRACTIONAL H.P. MOTOR, SINGLE POLE UNLESS OTHERWISE SHOWN & O.L. PROTECTION SIZED AS PER MOTOR NAME PLATE FLA.
- CONDUIT RUN EXPOSED
- CONDUIT RUN IN HUNG CEILING OR WALLS.
- CONDUIT RUN IN FLOOR FILL OR IN CEILING BELOW
- CIRCUIT BREAKER PANELBOARD-SEE PANEL SCHEDULE FOR DESCRIPTION. 6'-0"A.F.F. TO TOP OF PANEL.
- EXIT SIGN, LED, 4W, 120V/277V SELF POWERED, NICKEL CADMIUM BATTERY, 90 MINUTES DURATION BATTERY, CEILING MOUNTED, NOT LESS THAN 80" AFF. DARKNESS AREA DENOTES LIGHTING FACE EQUAL TO MODEL SEL-M-REC-60-R4-SD AS MANUFACTURED BY COOPER LIGHTING.

Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamp	Filename	Lumens per Lamp	Lumens Multiplier	LLF	Wattage	Efficiency	Distribution	Notes
L-1	6	Lithonia Lighting	EFT 2 32	TOUGH TASK, TUBULAR FLUORESCENT, 4', 2 LAMP T8, LINEAR FLUORESCENT, ACRYLIC TUBE	TWO 32-WATT T8 LINEAR FLUORESCENT.	2	EFT_2_32.ies	3100	1	0.9	58	83%	DIRECT, SC=0=1.25, SC=90=1.42	
L-2	1	COOPER Lighting	SEL-M-REC-60-R4-SD	EMERGENCY LIGHTING	LED - 4W	1		300	1	0.9	4	83%	DIRECT, SC=0=1.25, SC=90=1.42	

PANEL SCHEDULE

LOAD DESCRIPTION	FRAME	TRIP	CKT. NO.	TRIP	FRAME	LOAD DESCRIPTION
RECEPTACLES	BAB	20	1 2	20	BAB	LAMPS
EXIT LAMP	BAB	20	3 4	20	BAB	SPARE
SPARE	BAB	20	5 6	20	BAB	SPARE
-	-	-	7 8	-	BAB	-
-	-	-	9 10	-	BAB	-
-	-	-	11 12	-	-	-



ONE LINE DIAGRAM
N.T.S.

DRAFTING DESING

SYMBOL	DATE	BY

POWER & LIGHTING PLAN
CALLE PROGRESO, BO. PUEBLA, AGUADILLA, PR

STAMP:



Project:
Drawing by:
Revised by:
ING. GARCIA

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