A PROJECT FOR:

CITY OF ALAMOGORDO

REPLACE EMERGENCY GENERATOR AT ALAMOGORDO POLICE DEPARTMENT

ALAMOGORDO, NEW MEXICO

PROJECT LOCATION
700 VIRGINIA AVENUE
ALAMOGORDO, NEW MEXICO

LOCATION MAP
SCALE: NONE

INDEX OF DRAWINGS:

SCOPE OF WORK:

A. REMOVE THE EXISTING GENERATOR. INSTALL A NEW OFCI GENERATOR AND ATS.

B. PNM SHALL REPLACE OVERHEAD DELTA SERVICE WITH NEW PAD MOUNT 120/208V SERVICE.

C. THE EXISTING ELECTRICAL RISER DIAGRAM SHALL BE REPLACED AND REBUILT.

D. THE BUILDING WILL BE VACATED FOR 2 WEEKS TO ALLOW THE WORK.

E. CONTRACTOR SHALL COORDINATE ALL WORK WITH CITY, PNM, PD & FD AS NEEDED.

THE GENERATOR AND ATS SHALL POWER THE ENTIRE BUILDING.

100% SUBMITTAL
DATE: 12/20/2018
SET NO._____

RBM ENGINEERING INC.
1065 S. MAIN ST. BLDG D STE. A
LAS CRUCES, NM 88005
(575) 647-1554
FAX (575) 647-1563
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BRYAN R. MORRIS NEW MEXICO 20195 PROFESSIONAL ENGINEER
12-20-18

REV.	DATE	ACTION	DESCRIPTION	BY	APVD
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ALAMOGORDO
POLICE DEPARTMENT
700 VIRGINIA AVENUE ALAMOGORDO, N.M. 88310

COVER SHEET

PROJECT NUMBER	Scale	AS SHOWN	CV-1
2031.00	Date	12/20/18	
Drwn. RBM Chkd. RBM	Apvd. RBM	SH___OF___	

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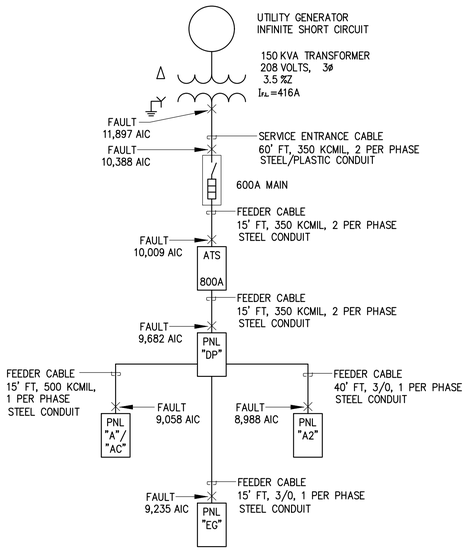


THEREFORE, NEW/EXISTING PANELS AND BREAKERS TO BE ADDED TO EXISTING PANELS SHALL HAVE AN AIC RATING OF 10,000 AIC MIN.

1 / E1 **SHORT CIRCUIT CALC.**

SCALE: NONE

ELECTRICAL SYMBOL LEGEND

CONDUIT, RACEWAYS, AND WIRING

- CONDUIT EXPOSED. RIGID, IMC, EMT OR PVC SCH 80. SEE SPECS.
- CONDUIT CONCEALED IN WALLS OR CEILING CONSTRUCTION RIGID, IMC OR EMT. SEE SPECS.
- HOME RUN TO PANELBOARD–NUMBER OF ARROWS INDICATES NUMBER OF BREAKER HANDLES.
- WHITE (NEUTRAL), PHASE (HOT), GREEN GRD. WIRE; SWITCH LEG; DASHES ACROSS CONDUIT OR CABLE INDICATE THREE (3) OR MORE WIRES #12 AWG SOLID COPPER UNLESS NOTED OTHERWISE.
- PE UG — PRIMARY VOLTAGE UNDERGROUND ELECTRICAL. 2'–0" MIN. BELOW GRADE. RIGID, IMC, PVC SCH 40 OR PVC SCH 80. SEE SPECS.
- UG — UNDERGROUND ELECTRICAL. 2'–0" MIN. BELOW GRADE. RIGID, IMC, PVC SCH 40 OR PVC SCH 80. SEE SPECS.
- UP — CONDUIT TURNED UP
- DW — CONDUIT TURNED DOWN
- GROUND

EQUIPMENT

- (M)OR(G) — MOTOR OUTLET AND CONNECTION. EQUIPMENT TYPE AS NOTED.
- SAFETY SWITCH, PROVIDED AND INSTALLED UNDER DIV. 16. TO HAVE POLES AND RATING REQUIRED. NEMA 3R IF INSTALLED OUTDOORS.
- PANELBOARD SURFACE MOUNTED.
- EXISTING PANELBOARD SURFACE MOUNTED.
- EXISTING PANELBOARD FLUSH MOUNTED.
- SPECIAL CABINET OR EQUIPMENT AS NOTED, SURFACE MOUNTED.
- "TTB" TELEPHONE TERMINAL BOARD 3/4"x4'x8' (U.N.O) INTERIOR GRADE PLYWOOD. MOUNT ON WALL SHOWN. PROVIDE #6 COPPER INSULATED GROUND WIRE TO WATER LINE OR MAIN BUILDING GROUND. THE BOARD SHALL BE PAINTED WITH FIRE RETARDANT PAINT. APPLY 2 COATS AND PAINT ALL 6 SIDES OF THE BOARD.
- T — TRANSFORMER.

WIRING DEVICES

HEIGHTS NOTED ARE TO CENTER LINE FROM FLOOR.

AS THE CONTRACTED AND LICENSED INSTALLER ON THE PROJECT NOTED ON THE TITLE BLOCK THIS CONTRACTOR WARRANTS AND GUARANTEES THAT ALL CONTROL AND OPERATING MECHANISMS HE/SHE INSTALLS WILL COMPLY WITH THE ACCESSIBILITY STANDARD AS ADOPTED AND MODIFIED BY THE STATE, WHETHER THE STANDARD IS ADAAG, LATEST EDITION OR ICC/ANSI A 117.1, LATEST EDITION. REACH RANGES SHALL BE COMPLIED WITH. THESE INCLUDE FORWARD REACH AND SIDE REACH, BOTH UNOBSTRUCTED AND OBSTRUCTED. THIS GUARANTEE SHALL EXTEND FOR THE TIME PERIOD AS NECESSARY FOR THE STATE ACCESSIBILITY INSPECTOR TO MAKE THE FINAL ON SITE ACCESSIBILITY INSPECTION. IN ANY CASE THE TIME PERIOD SHALL NOT EXCEED 36 MONTHS BEYOND THE DATE OF SUBSTANTIAL COMPLETION. ANY DEFICIENCIES FOUND BY THE ACCESSIBILITY STATE INSPECTOR ON THE ACCESSIBILITY FINAL INSPECTION SHALL BE CORRECTED WITHIN 30 DAYS BY THIS CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER. THE HEIGHTS CALLED FOR BY THE LEGEND AND AS SHOWN ON THE PLANS ARE SO SELECTED TO BE IN COMPLIANCE, HOWEVER CONSTRUCTION ADJUSTMENTS OCCUR IN THE FIELD OFTEN WITH OUT THE KNOWLEDGE OF THE ENGINEER, WHEN THIS HAPPENS THE CONTRACTOR IS AUTHORIZED AND EXPECTED TO ADJUST THE DEVICE HEIGHT IN THE FIELD AS NECESSARY.

- $ — SINGLE POLE WALL SWITCH, 2 INDICATES 2 POLE SW–3 INDICATES 3 WAY SW–4 INDICATES 4 WAY SW–P INDICATES SW WITH PILOT LIGHT,– D INDICATES INC DIMMER SW, DF INDICATES FLUORESCENT DIMMER SW, +44" OR AS NOTED.
- GFCI — GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE–20A, 125V, 2P, 3W–IN WALL +18" OR AS NOTED.
- J — JUNCTION OR OUTLET BOX IN WALL. HEIGHT AS NOTED. ALL BOXES SHALL BE ACCESSIBLE.
- J — JUNCTION OR OUTLET BOX IN CEILING. ALL BOXES SHALL BE ACCESSIBLE.

IN CMU WALL CONSTRUCTION ROUGH–IN BOXES FOR WIRING DEVICES MAY BE ADJUSTED ABOVE 18" OR BELOW 44" AS APPROVED IN THE FIELD TO HELP MINIMIZE CUTS IN CMU BLOCKS, AS LONG AS THE HEIGHTS ARE IN KEEPING WITH ADA HEIGHTS.

MISCELLANEOUS

- MECHANICAL EQUIPMENT DESIGNATION– SEE MECHANICAL EQUIPMENT SCHEDULE.
- KEYED NOTE

WP	WEATHERPROOF
AFF	ABOVE FINISH FLOOR
EM	EMERGENCY
E OR EX	EXISTING
UNO	UNLESS NOTED OTHERWISE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER

GENERAL NOTES

A. THESE PLANS ARE SCHEMATIC AND DO NOT SHOW EXACT LOCATION OF EQUIPMENT, CONDUIT ROUTING, OBSTRUCTIONS, ETC. PLANS ARE TO BE USED AS A GENERAL GUIDELINE AND ARE NOT INTENDED TO BE SPECIFIC INSTALLATION INSTRUCTIONS. CONTRACTOR SHALL CONSTRUCT ACCORDING TO CODE AND/OR MANUFACTURER'S INSTALLATION INSTRUCTIONS.

B. DRAWINGS ARE BASED UPON ARCHITECTURAL BUILDING PLANS AND/OR FIELD OBSERVATIONS. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND ROUTINGS.

C. CONTRACTOR SHALL EXPECT TO MAKE SOME ROUTING ADJUSTMENTS DURING THE COURSE OF CONSTRUCTION. COORDINATE CHANGES WITH ARCHITECT AND KEEP RECORD OF CHANGES FOR AS–BUILTS.

D. CONTRACTOR IS BE RESPONSIBLE FOR PROVIDING A NEW TYPED DIRECTORY FOR ALL ELECTRICAL PANELS INCLUDING EXISTING PANELS MODIFIED DURING THE PROCESS OF CONSTRUCTION.

E. CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT AND INSPECTION FEES REQUIRED BY THE GOVERNING BODIES.

F. CONTRACTOR IS EXPECTED TO REMOVE PORTIONS OF EXISTING HARD CEILING, LAY–IN CEILING, TILES, AND/OR GRID FOR INSTALLATION OF NEW ELECTRICAL CONDUIT AND WIRE FOR NEW WORK SHOWN AND SCHEDULED. CONTRACTOR SHALL BE RESPONSIBLE FOR STORING AND PROTECTING ITEMS MENTIONED ABOVE DURING CONSTRUCTION AND REPLACE IF NECESSARY. REPLACE CEILING TYPES DAMAGED DURING CONSTRUCTION TO MATCH EXISTING.

G. CONTRACTOR SHALL ROUTE AND RUN ALL POWER SEPARATE FROM ANY AND ALL SPECIAL SYSTEMS CONDUIT AND WIRING. ALL SPECIAL SYSTEMS UTILIZING CONDUIT SHALL BE PROVIDED WITH PULL STRING AND STUBBED/ROUTED TO AN ACCESSIBLE CEILING.

H. ALL CONDUIT SHALL BE CONCEALED IN WALLS, EXCEPT WHERE NOTED OTHERWISE. IF SHOWN OR NOTED TO BE EXPOSED, CONDUIT RUNS SHALL BE NEATLY GROUPED TOGETHER AND BE SQUARE AND TRUE TO THE BUILDING LINES. ALL CONDUIT SHALL BE SUPPORTED TO THE STRUCTURE.

I. CONTRACTOR SHALL COORDINATE WITH THE OWNER TO CONFIRM AND LOCATE ANY AND ALL UNDERGROUND LINES PRIOR TO TRENCHING. ANY UNDERGROUND LINES THAT ARE IDENTIFIED AND BECOME DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER AND/OR PROJECT.

J. CONTRACTOR IS RESPONSIBLE FOR BACKFILLING ALL TRENCHES AT THE END OF WORKING HOURS EACH DAY FOR SAFETY. IF CONTRACTOR DOES NOT COMPLY, THEN THEY ARE RESPONSIBLE FOR FENCING THE ENTIRE WORK AREA. ALL TRENCHES MADE ARE TO BE TAMPED TO THE APPROVED TAMPED BACKFILL COMPACTION AS STATED ON THE DRAWINGS.

STATE OF NM NOTES

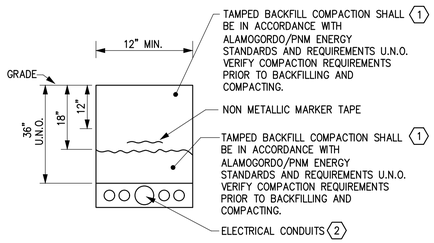
A. THE MOUNTING HEIGHT OF WIRING OR CONTROL DEVICES (SWITCHES, OUTLETS, CONTROLS, DATA JACKS, PHONE JACKS, THERMOSTATS, FIRE ALARM, ELECTRIC DOOR PUSH BUTTONS, ETC.) MUST BE MOUNTED TO COMPLY WITH THE STATE OF NEW MEXICO STANDARDS FOR ACCESSIBILITY. SPECIFICALLY, OUTLETS MUST BE MOUNTED AT MINIMUM 18" A.F.F. TO THE BOTTOM OF THE BOX, AND SWITCHES AND OTHER CONTROLS AT 44" A.F.F. TO THE BOTTOM OF THE BOX UNLESS NOTED OTHERWISE. DEVICES ABOVE COUNTER TOPS AND OBSTRUCTIONS SHALL COMPLY WITH ANSI 117.1.

B. THE DESIGN OF THE PROJECT IS BASED ON COPPER WIRE, #12 AWG AS THE MINIMUM SIZE. THE BRANCH CIRCUIT WIRING SYSTEM SHALL LIMIT VOLTAGE DROP TO 5% AT THE FURTHEST OUTLET. THE CONTRACTOR SHALL UTILIZE LARGER WIRE SIZES AS NEEDED TO MAINTAIN THIS LIMIT. IT WILL NOT BE UNCOMMON FOR #10 AWG TO BE REQUIRED. AS A RULE OF THUMB, BRANCH CIRCUIT CONDUCTOR LENGTHS LONGER THAN 80' MAY REQUIRE #10 AWG WIRING. CONTRACTOR SHALL UPGRADE WIRING AS NEEDED WHETHER SHOWN ON THE PLANS OR NOT TO COMPLY WITH THE STATE OF NEW MEXICO STANDARDS FOR VOLTAGE DROP.

C. THE CONTRACTOR MAY INSTALL UP TO 6 CURRENT CARRYING CONDUCTORS IN A CONDUIT. LOADINGS ARE BASED ON DERATINGS FOR UP TO 6 CONDUCTORS AND AN AMBIENT TEMPERATURE OF 122 DEGREES F. THE CONTRACTOR MUST REVISE AMPACITIES FOR OTHER CONDITIONS. CONTACT THE ENGINEER IF NECESSARY.

TRENCH KEYED NOTES

1. CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, TESTING, AND BACKFILLING FOR ALL ELECTRICAL UG CONDUIT SYSTEMS SHOWN ON THIS PROJECT. IF TAMPED BACKFILL FAILS CITY OF ALAMOGORDO/PNM ENERGY REQUIREMENTS, ADDITIONAL TAMPING WILL BE REQUIRED UNTIL MET. ADDITIONAL COST TO THE PROJECT WILL NOT BE ACCOUNTABLE FOR RE–COMPACTION FOR FAILED TESTING. VERIFY COMPACTION REQUIREMENTS WITH ENTITIES MENTIONED ABOVE.
2. CONTRACTOR SHALL UTILIZE A SINGLE TRENCH FOR MULTIPLE CONDUIT IN CLOSE PROXIMITY.



2 / E1 **TRENCH DETAIL**

SCALE: NONE

PANEL **DP** — DESCRIPTION 208/120V, 3PH, 4W, 600 AMP MAIN LUGS ONLY, 10,000 AIC, SURFACE MOUNTED, OUTDOOR WP, NEUTRAL BAR, GROUND BAR

CCT NO.	LOAD DESCRIPTION	BKR SIZE	LOAD (VA)	PHASE A	PHASE B	PHASE C	LOAD (VA)	BKR SIZE	LOAD DESCRIPTION	CCT NO
1	EXISTING PNL "AC"	400/3	15011	33611			18600			
			15011		30611		15600	400/3	NEW PNL "A"	2
			15011			30611	15600			
3	EXISTING PNL "LPC"	225/3	4506	4506						
			4506		12826		8320	200/3	EXISTING PNL "A2"	4
			4506			12826	8320		(1-PHASE LOAD)	
5	EXISTING PNL "EG"	225/3	8320	8320						
	(1-PHASE LOAD)		8320		8320			200/3	PROVISIONS ONLY	6
						0				
7	PROVISIONS ONLY	125/3		0						
					0			125/3	PROVISIONS ONLY	8
						0				
				46437	51757	43437				
			Total KVA	141.6	208V	393	Amps			

Softex Systems, Panel_Ed v1.1a

PANEL **A** — DESCRIPTION 208/120V, 3PH, 4W, 400 AMP MAIN LUGS ONLY, 10,000 AIC, SURFACE MOUNTED, DOOR-IN-DOOR, NEUTRAL BAR, GROUND BAR

CCT NO.	LOAD DESCRIPTION	BKR SIZE	LOAD (VA)	PHASE A	PHASE B	PHASE C	LOAD (VA)	BKR SIZE	LOAD DESCRIPTION	CCT NO
1	EXISTING LOAD	60/2	2400	4800			2400	60/2	EXISTING LOAD	2
3	***	***	2400		4800		2400	***	***	4
5	EXISTING LOAD	60/2	2400			4800	2400	60/2	EXISTING LOAD	6
7	***	***	2400	4800			2400	***	***	8
9	EXISTING LOAD	20/1	900		1800		900	20/1	EXISTING LOAD	10
11	EXISTING LOAD	20/1	900			1800	900	20/1	EXISTING LOAD	12
13	EXISTING LOAD	20/1	900	1800			900	20/1	EXISTING LOAD	14
15	EXISTING LOAD	20/1	900		1800		900	20/1	EXISTING LOAD	16
17	EXISTING LOAD	20/1	900			1800	900	20/1	EXISTING LOAD	18
19	EXISTING LOAD	20/1	900	1800			900	20/1	EXISTING LOAD	20
21	EXISTING LOAD	20/1	900		1800		900	20/1	EXISTING LOAD	22
23	EXISTING LOAD	20/1	900			1800	900	20/1	EXISTING LOAD	24
25	EXISTING LOAD	20/1	900	1800			900	20/1	EXISTING LOAD	26
27	EXISTING LOAD	20/1	900		1800		900	20/1	EXISTING LOAD	28
29	EXISTING LOAD	20/1	900			1800	900	20/1	EXISTING LOAD	30
31	EXISTING LOAD	20/1	900	1800			900	20/1	EXISTING LOAD	32
33	EXISTING LOAD	20/1	900		1800		900	20/1	EXISTING LOAD	34
35	EXISTING LOAD	20/1	900			1800	900	20/1	EXISTING LOAD	36
37	EXISTING LOAD	20/1	900	1800			900	20/1	EXISTING LOAD	38
39	EXISTING LOAD	20/1	900		1800		900	20/1	EXISTING LOAD	40
41	EXISTING LOAD	20/1	900			1800	900	20/1	EXISTING LOAD	42
				18600	15600	15600				
			Total KVA	49.8	208V	138	Amps			

Softex Systems, Panel_Ed v1.1a

LOAD SUMMARY CALC.

THE PURPOSE OF THIS PROJECT IS TO REMOVE AND REPLACE THE EXISTING ELECTRICAL SERVICE FOR THE BLDG. NO NEW LOAD IS TO BE INTRODUCED AT THIS TIME.

EXISTING:

12 MONTH PEAK DEMAND LOAD BY PNM:	96.288 KW
DIVIDE BY .85 PF:	113.28 KVA
MULTIPLY BY 125%	141.60 KVA
TOTAL IN AMPS: (208V, 3ø)	393 AMPS

THEREFORE, A 600A SERVICE SHALL BE PROVIDED.

RBM ENGINEERING INC.
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LAS CRUCES, NM 88005
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BRYAN R. MORRIS — NEW MEXICO — 20195 — PROFESSIONAL ENGINEER

12-20-18

REV	DATE	ACTION	DESCRIPTION	BY	APVD
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ALAMOGORDO

POLICE DEPARTMENT

700 VIRGINIA AVENUE ALAMOGORDO, N.M. 88310

ELECTRICAL LEGEND, NOTES AND SCHEDULES

PROJECT NUMBER 2031.00	Scale AS SHOWN		E1
	Date 12/20/18		
Drwn. RBM	Chkd. RBM	Apvd. RBM	SH 1 OF 3

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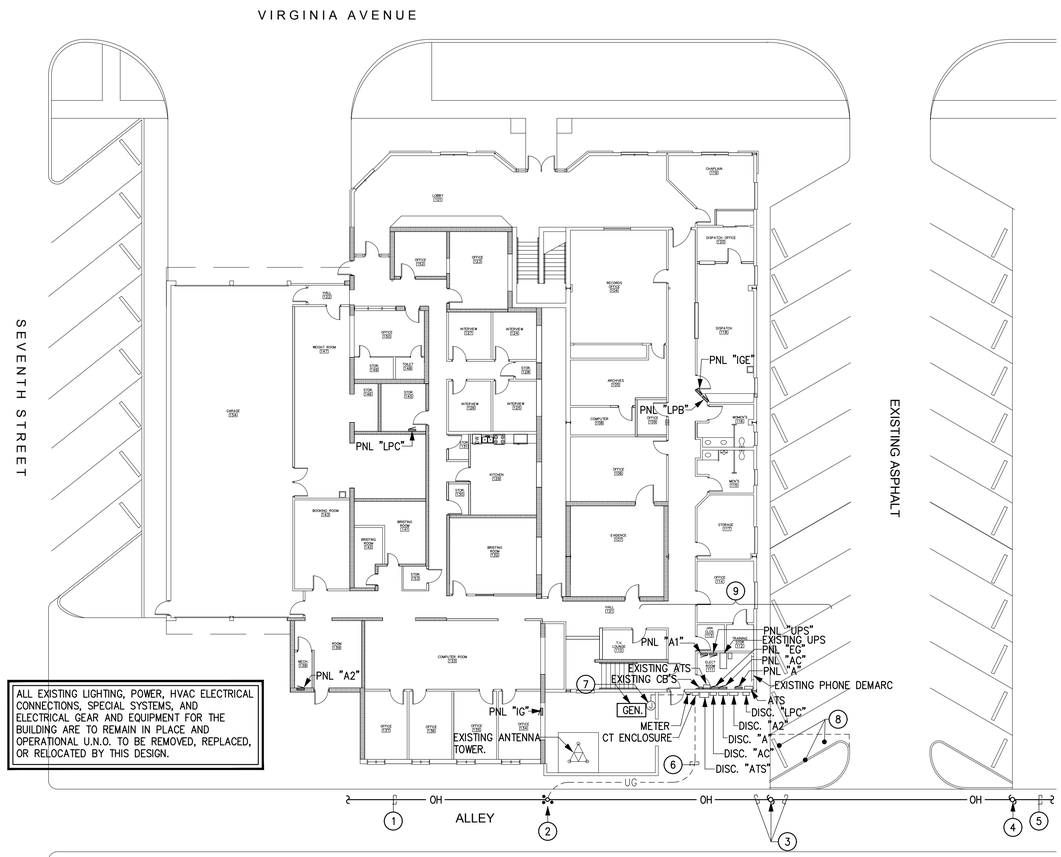


CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND SPOTTING ALL UNDERGROUND LINES, INCLUDING VALVE WIRING. COORDINATE WITH OWNER PRIOR TO TRENCHING.

1/E2 ELECTRICAL DEMOLITION SITE PLAN

SCALE: 1/16"=1'-0"

RISER KEYED NOTES

1. EXISTING 3ø, POLE-TOP XFMRS ARE SCHEDULED TO BE REMOVED AND REPLACED WITH A NEW 1ø XFMR. WORK BY PNM ENERGY. COORDINATE OUTAGES WITH PNM ENERGY AND THE OWNER.
2. CONTRACTOR SHALL REMOVE EXISTING LATERAL SHOWN AND ABANDON CONDUIT IN PLACE. COORDINATE THE REMOVAL OF THE WIRE AND OUTAGE REQUIRED WITH PNM ENERGY PRIOR TO ANY WORK.
3. CONTRACTOR SHALL DISCONNECT EXISTING FEEDER SHOWN FROM DISCONNECT NOTED TO BE REMOVED. MAINTAIN FEEDER FOR RECONNECTION TO NEW GUTTER TO BE IMPLEMENTED AT THIS LOCATION. REFER TO PANEL SCHEDULE "DP" AND THE PARTIAL NEW WORK POWER RISER DIAGRAM FOR MORE INFORMATION AND DIRECTION.
4. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING PANEL SHOWN WITH NEW. REFER TO THE PANEL SCHEDULES AND NEW WORK RISER DIAGRAM FOR MORE INFORMATION AND DIRECTION.
5. CONTRACTOR SHALL DISCONNECT EXISTING FEEDER/BRANCH CIRCUITS FROM PANEL NOTED TO BE REMOVED. MAINTAIN FEEDERS/BRANCH CIRCUITS FOR RECONNECTION TO NEW PANEL "A" TO BE IMPLEMENTED AT THIS LOCATION. REFER TO PANEL SCHEDULE "A" AND THE PARTIAL NEW WORK RISER DIAGRAM FOR MORE INFORMATION AND DIRECTION.

GENERAL DEMO NOTES

A. ANY EQUIPMENT SHOWN TO BE REMOVED THAT IS CONNECTED TO EQUIPMENT TO REMAIN (LIGHTING, HVAC ELECTRICAL CONNECTIONS, OUTLETS, ETC.), CONTRACTOR IS RESPONSIBLE FOR PROVIDING SPLICE BOXES ABOVE EXISTING/NEW ACCESSIBLE CEILINGS TO MAINTAIN CIRCUITRY AND FUNCTIONALITY TO THOSE ITEMS. REROUTE AND/OR RELOCATE EXISTING CIRCUITS AS NECESSARY TO ACCOMMODATE NEW WORK SHOWN AND NOTED ON THESE PLANS.

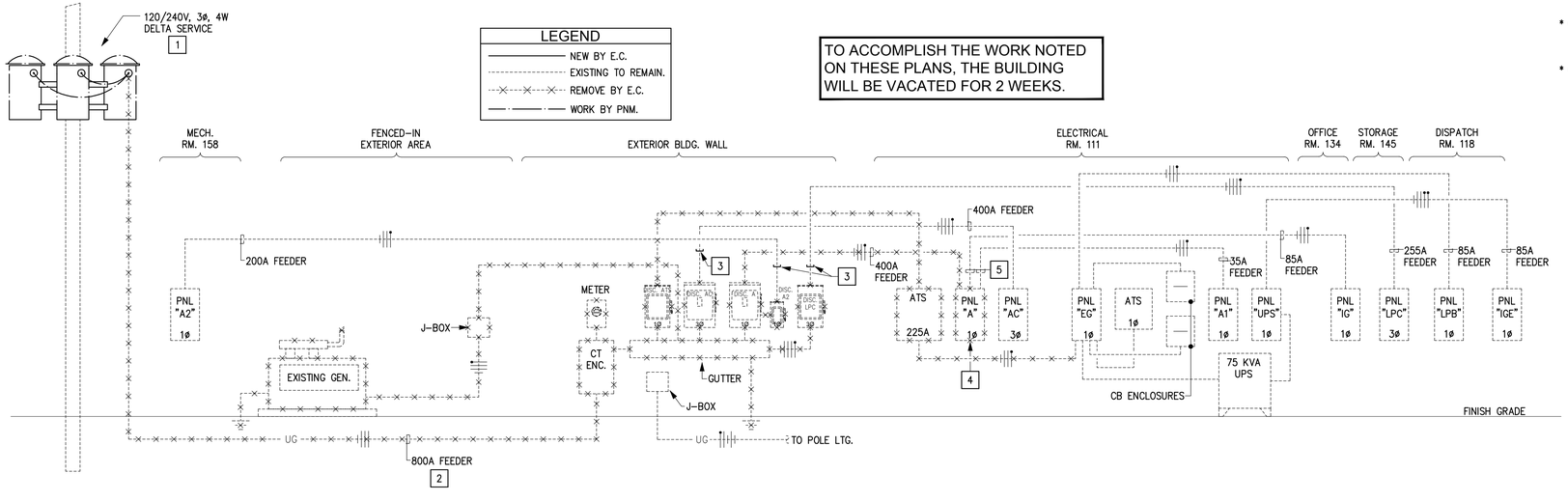
B. DEMOLITION OF WIRING, DISCONNECTS, AND/OR EQUIPMENT THAT IS SUBJECT TO REMAIN OR BE RE-LOCATED, CONTRACTOR IS RESPONSIBLE FOR RE-CONNECTION OF THAT EQUIPMENT IMMEDIATELY AND MAKE OPERATIONAL.

C. CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL UN-USED EXISTING LOW VOLTAGE CABLING, WIRING, AND/OR CONDUIT (CCTV, PA, FA, INTERCOM, DATA/PHONE, ETC.) BACK TO THE POINT OF SOURCE OR TO THE POINT WHERE EXISTING EQUIPMENT WILL REMAIN IN OPERATION. ANY EXISTING LOW VOLTAGE CABLING, WIRING, AND/OR CONDUIT TAGGED TO REMAIN SHALL BE PROPERLY SUPPORTED FROM THE STRUCTURE WITH J-HOOKS OR CONDUIT. COORDINATE WITH WNMU'S IT AND ENGINEERING DEPARTMENT PRIOR TO ANY WORK. SALVAGE ANY EXISTING SPECIAL SYSTEM DEVICES REMOVED TO THE OWNER.

D. CONTRACTOR SHALL RE-USE EXISTING CONDUIT PENETRATIONS AND CONDUIT SYSTEMS WHERE APPLICABLE. IF NOT RE-USED, PATCH, PAINT, AND REPAIR AS REQUIRED. IN ALL CASES, CUT, PATCH, PAINT, AND REPAIR TO MATCH EXISTING CONDITIONS AND/OR AS NOTED ON THE ARCHITECTURAL DRAWINGS. BLANK PLATES WILL NOT BE MEANS OF PATCHING.

SITE KEYED NOTES

1. EXISTING PNM ENERGY 3ø, OH, DISTRIBUTION LINES TO REMAIN IN PLACE AND OPERATIONAL.
2. EXISTING POLE WITH 3ø, POLE-TOP XFMRS ARE TO BE REMOVED AND REPLACED WITH A NEW 1ø, POLE-TOP XFMR. WORK BY PNM ENERGY.
3. EXISTING OH TRIPLEX AND COMMUNICATION LINES TO BE REWORKED FOR NEW PNM ENERGY WOOD POLE TO BE PROVIDED AT THIS LOCATION. WORK BY PNM ENERGY AND LOCAL PHONE COMPANY. COORDINATE WORK WITH BOTH ENTITIES.
4. EXISTING PNM ENERGY WOOD DISTRIBUTION POLE TO REMAIN IN PLACE AND OPERATIONAL.
5. EXISTING OH TRIPLEX AND COMMUNICATION LINES TO REMAIN IN PLACE AND OPERATIONAL.
6. APPROXIMATE UG ROUTING FOR EXISTING SERVICE LATERAL TO BUILDING ELECTRICAL SERVICE. CONTRACTOR SHALL REMOVE WIRE AND ABANDON CONDUIT IN PLACE. COORDINATE OUTAGE WITH PNM ENERGY AND OWNER PRIOR TO ANY WORK.
7. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING GENERATOR AT THIS LOCATION WITH NEW. REFER TO THE NEW WORK PLAN AND RISER DIAGRAMS FOR MORE INFORMATION AND DIRECTION.
8. AT THIS LOCATION, CONTRACTOR SHALL REMOVE CAR STOP AND SIGN IN ORDER TO PREP AREA FOR NEW PNM ENERGY PAD-MOUNT XFMR. CONTRACTOR SHALL POUR CONCRETE AS REQUIRED FOR NEW PNM ENERGY XFMR TO SIT ON. REFER TO THE NEW WORK SITE PLAN AND RISER DIAGRAMS FOR MORE INFORMATION AND DIRECTION.
9. CONTRACTOR SHALL REMOVE, REPLACE, AND MODIFY EXISTING ELECTRICAL SERVICE AND ELECTRICAL GEAR IN RM. 111. REFER TO THE DEMO AND NEW WORK RISER DIAGRAMS FOR MODIFICATIONS REQUIRED.



2/E2 PARTIAL DEMOLITION RISER DIAGRAM

SCALE: NONE

EXISTING GENERATOR SCOPE OF WORK

THE LIST OF ITEMS NOTED BELOW ARE FOR CLARIFICATION.

* CONTRACTOR SHALL REMOVE EXISTING GAS GENERATOR AND ATS NOTED ON THE RISER TO BE DEMOED IN THEIR ENTIRETY.
* SALVAGE GAS GENERATOR AND ATS BACK TO THE OWNER AT THE CITY OF ALAMOGORDO'S MAINTENANCE YARD AT 2600 N. FLORIDA AVE.,
* CONTRACTOR SHALL REMOVE ALL ASSOCIATED ELECTRICAL CONNECTIONS TO AND FROM GENERATOR IN THEIR ENTIRETY, AND
* CONTRACTOR SHALL DISCONNECT AND CAP GAS LINE CONNECTION TO GENERATOR AT TEE.

NEW MEXICO "ONE CALL SYSTEM" IT'S THE LAW
CALL TWO WORKING DAYS BEFORE YOU DIG IN NEW MEXICO #1-800-321-2537 (US) #811 (NM)

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BRYAN R. MORRIS NEW MEXICO 20195 PROFESSIONAL ENGINEER
12-20-18

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ALAMOGORDO

POLICE DEPARTMENT

700 VIRGINIA AVENUE ALAMOGORDO, N.M. 88310

ELECTRICAL DEMOLITION FLOOR PLAN

PROJECT NUMBER	Scale: AS SHOWN	E2
2031.00	Date: 12/20/18	
Drwn. RBM Chkd. RBM	Apvd. RBM	SH. 2 OF 3

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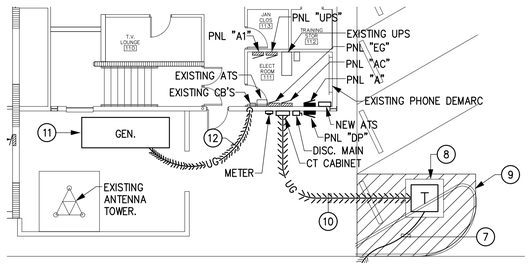
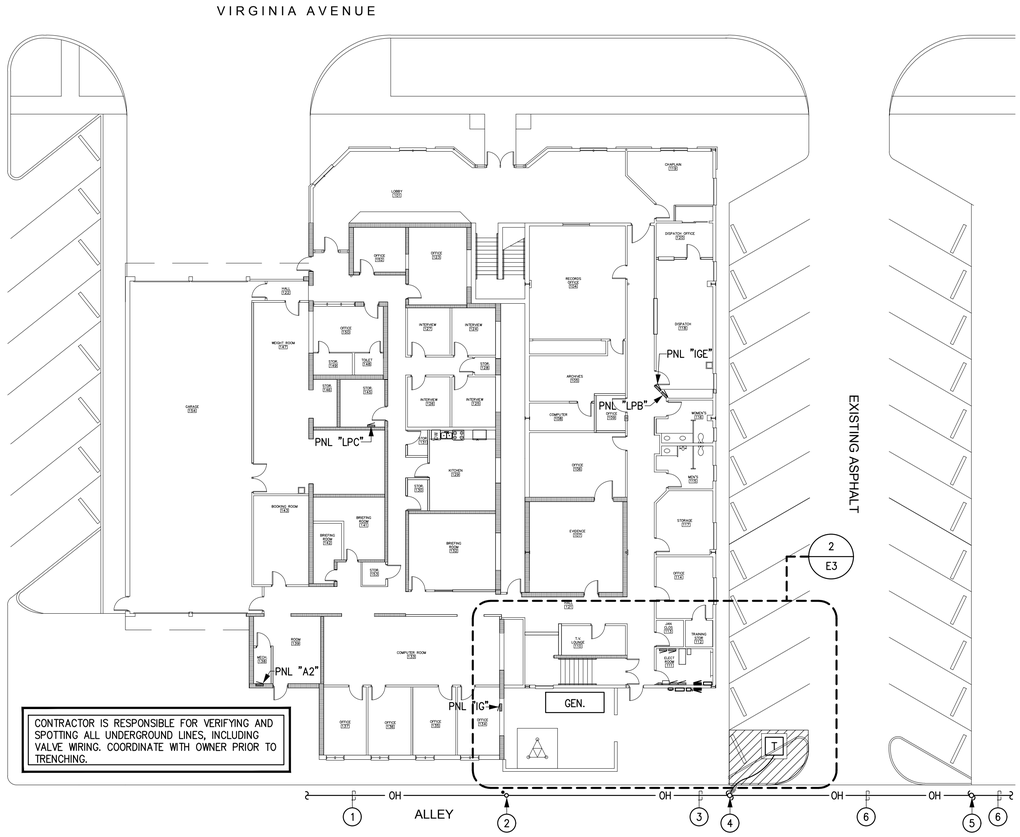


2 / E3 ENLARGED NEW WORK SITE PLAN

SCALE: 3/32"=1'-0"



CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND SPOTTING ALL UNDERGROUND LINES, INCLUDING VALVE WIRING. COORDINATE WITH OWNER PRIOR TO TRENCHING.

NEW GENERATOR SCOPE OF WORK

THE LIST OF ITEMS NOTED BELOW ARE FOR CLARIFICATION.

* CONTRACTOR SHALL INSTALL OWNER PROVIDED DIESEL GENERATOR AND ATS AS NOTED ON THE RISER DIAGRAM. PICK UP GENERATOR AND ATS FROM THE CITY OF ALAMOGORDO'S MAINTENANCE SHOP ON 2600 FLORIDA AVE.,
* CONTRACTOR SHALL PREP EXISTING CONCRETE AT LOCATION OF REMOVED GENERATOR FOR NEW GENERATOR TO BE INSTALLED ON. CUT, PATCH, AND REPAIR CONCRETE AS NECESSARY FOR GENERATOR TO SIT ON. REPAIR TO MATCH PRE-CONSTRUCTION CONDITIONS,
* CONTRACTOR SHALL PROVIDE A FULL TANK OF DIESEL GAS FOR GENERATOR SUB-BASE FUEL TANK AND GENERATOR, AND
* CUMMINS ROCKY MOUNTAIN SHALL PROVIDE WATER, ANTI-FREEZE, OIL, AND BOTH START-UP AND LOAD BANK TESTING FOR NEW GENERATOR.

1 / E3 ELECTRICAL NEW WORK SITE PLAN

SCALE: 1/16"=1'-0"

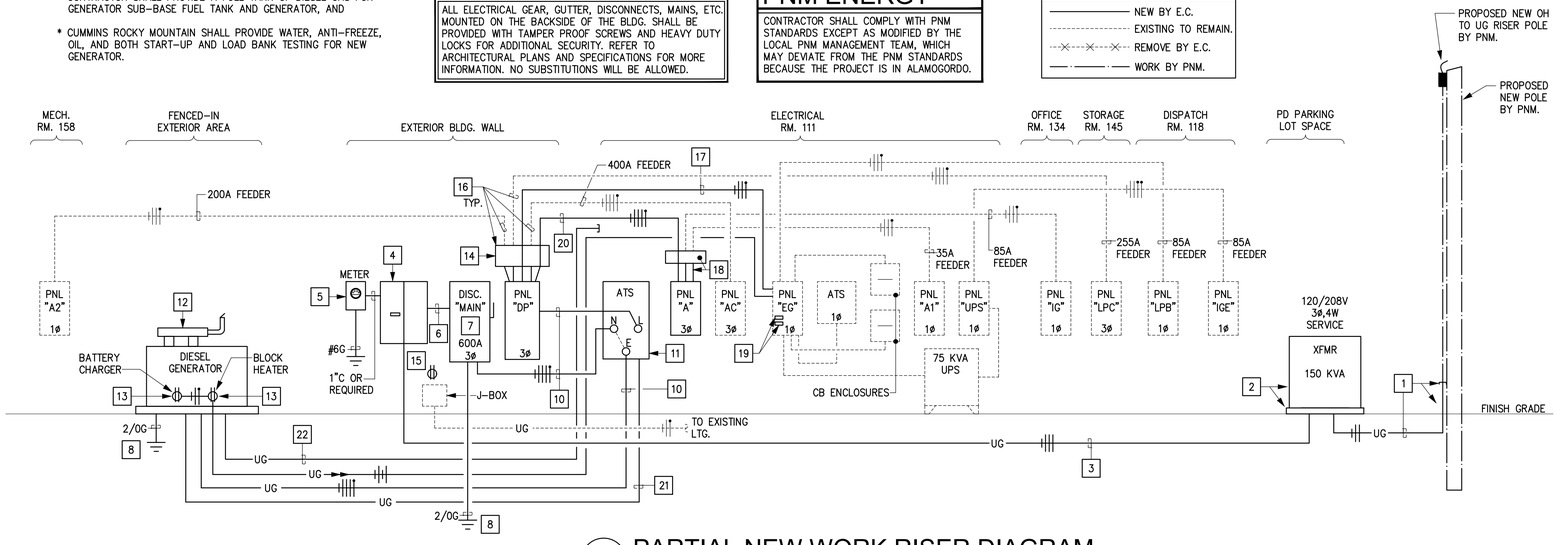
ALL ELECTRICAL GEAR, GUTTER, DISCONNECTS, MAINS, ETC. MOUNTED ON THE BACKSIDE OF THE BLDG. SHALL BE PROVIDED WITH TAMPER PROOF SCREWS AND HEAVY DUTY LOCKS FOR ADDITIONAL SECURITY. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR MORE INFORMATION. NO SUBSTITUTIONS WILL BE ALLOWED.

PNM ENERGY

CONTRACTOR SHALL COMPLY WITH PNM STANDARDS EXCEPT AS MODIFIED BY THE LOCAL PNM MANAGEMENT TEAM, WHICH MAY DEVIATE FROM THE PNM STANDARDS BECAUSE THE PROJECT IS IN ALAMOGORDO.

LEGEND

- NEW BY E.C.
- EXISTING TO REMAIN.
- REMOVE BY E.C.
- WORK BY PNM.



3 / E3 PARTIAL NEW WORK RISER DIAGRAM

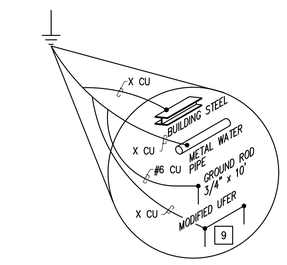
SCALE: NONE

RISER KEYED NOTES

1. NEW 3ø, UG PRIMARY CABLE. CONTRACTOR SHALL PROVIDE CONDUIT AND TRENCHING AS REQUIRED PER PNM STANDARDS FOR PNM INSTALLED UG PRIMARY CABLES TO BE ROUTED THRU. PROVIDE (3)-2"C, ONE PER EACH PHASE. STUB CONDUIT AS SHOWN AT XFMR AND THE OTHER END 5' A.F.F AT THE NEW PNM POLE SHOWN FOR PNM CONNECTION. COORDINATE WITH PNM PRIOR TO ANY WORK AND ROUTING. REFER TO THE SITE PLAN AND TRENCH DETAIL FOR MORE INFORMATION AND INSTALLATION.
2. NEW 120/208V, 3ø, 150KVA PAD-MOUNT TRANSFORMER. CONTRACTOR SHALL PROVIDE A CONCRETE PAD FOR PNM PAD-MOUNT TRANSFORMER. COORDINATE WITH PNM FOR TYPE AND SIZE OF CONCRETE PAD REQUIRED FOR NEW TRANSFORMER PRIOR TO ANY WORK. REFER TO THE SITE PLAN FOR LOCATION.
3. CONTRACTOR SHALL PROVIDE (2)-3"C IN PARALLEL EACH WITH (4)-350KCMIL CU. WIRE.
4. CONTRACTOR SHALL PROVIDE A N3R, 250V, 600A, 3ø, 4W, CT ENCLOSURE PER PNM ENERGY REQUIREMENTS. ENCLOSURE SHALL FOLLOW IN ACCORDANCE WITH PNM STANDARD, MS-3-8.0 OR AS REQUIRED BY PNM. VERIFY PRIOR TO ORDERING.
5. CONTRACTOR SHALL PROVIDE A N3R, 120V/208V, 3ø, METER WITH PROPER GROUNDING AS REQUIRED BY PNM ENERGY. COORDINATE AND VERIFY METER TYPE WITH PNM PRIOR TO ORDERING.
6. CONTRACTOR SHALL PROVIDE (2)-3"C IN PARALLEL EACH WITH (4)-350KCMIL CU. WIRE AND (1)-2/0G.
7. CONTRACTOR SHALL PROVIDE A N3R, 250V, 600A, 3P+SN, FUSED SAFETY SWITCH WITH (3)-600A FUSES. LABEL DISCONNECT TO READ AS NOTED. DISCONNECT SHALL FOLLOW IN ACCORDANCE WITH PNM ENERGY STANDARDS.
8. CONTRACTOR SHALL PROVIDE GROUNDING AS NOTED IN THE GROUNDING DETAIL WITH WIRE SIZE SHOWN.
9. CONTRACTOR SHALL PROVIDE A MODIFIED UFER. PROVIDE AT LEAST 20 FEET OF CU. WIRE SIZE NOTED, IN DIRECT CONTACT WITH THE EARTH AT A DEPTH BELOW THE EARTH'S SURFACE OF NOT LESS THAN 30 INCHES INSTALLED IN A CONTINUOUS TRENCH THAT IS AT LEAST 20 FEET IN LENGTH, AUGMENTED WITH A MINIMUM OF 2, 8 FOOT GROUND RODS SPACED A MINIMUM OF 20 FEET APART. ALL CONNECTIONS SHALL BE LISTED FOR GROUNDING.
10. CONTRACTOR SHALL PROVIDE (2)-3"C IN PARALLEL EACH WITH (4)-350KCMIL CU. WIRE AND (1)-1/0G.
11. CONTRACTOR SHALL INSTALL AND CONNECT OWNER PROVIDED 120/208V, 3ø, 4W, 800A 3P, AUTO TRANSFER SWITCH (ATS) AS SHOWN. COORDINATE WITH THE OWNER TO PICK UP ATS AT THE CITY OF ALAMOGORDO'S MAINTENANCE SHOP ON 2600 FLORIDA AVE.
12. CONTRACTOR SHALL INSTALL AND CONNECT OWNER PROVIDED 120/208V, 3ø, 4W, 150KW DIESEL GENERATOR WITH AN 600A ENCLOSED CB AND SUB-BASE FUEL TANK AS SHOWN. COORDINATE WITH THE OWNER TO PICK UP GENERATOR AT THE CITY OF ALAMOGORDO'S MAINTENANCE SHOP ON 2600 FLORIDA AVE.
13. CONTRACTOR SHALL PROVIDE WP, GFCI OUTLETS SHOWN FOR GENERATOR BLOCK HEATER AND BATTERY CHARGER. POWER OUTLETS TO EXISTING PANEL NOTED. REFER TO THE SITE PLAN FOR LOCATION OF PANEL. UPDATE DIRECTORY.
14. CONTRACTOR SHALL PROVIDE AN 8"X8"X LENGTH REQUIRED R.T. GUTTER ABOVE PANEL AS SHOWN. CONDUCTORS SHALL BE CUT AND STRIPPED AT SAME LENGTHS AS PERMITTED PER THE NEC. PROVIDE WITH 400A MIN. RATED ILSCO POWER DISTRIBUTION BLOCKS IN GUTTER SYSTEM FOR CONNECTIONS TO EXISTING PANELS SHOWN. EQUALLY SPACE BLOCKS IN GUTTER AND LABEL TO KNOW WHICH PANELS THEY ARE FEEDING.
15. CONTRACTOR SHALL PROVIDE A WP, GFCI OUTLET AS SHOWN PER ARTICLE 210.64 OF THE NEC. POWER OUTLET TO CLOSEST, NON-SWITCHED, 120V, CONVENIENCE OUTLET INSIDE BLDG.
16. CONTRACTOR SHALL CONNECT MAINTAINED EXISTING FEEDERS AS SHOWN TO GUTTER. EXTEND WITH SAME SIZE CONDUIT AND WIRE. REFER TO PANEL SCHEDULE "DP" FOR MORE INFORMATION.
17. CONTRACTOR SHALL PROVIDE A 2"C WITH (3)-3/0 WIRE AND (1)-#6G.
18. CONTRACTOR SHALL INSTALL NEW GUTTER AND PANEL "A" AS SHOWN. GUTTER SHALL BE A 6"X6"X LENGTH REQUIRED NEMA 1 GUTTER. REWORK ALL EXISTING FEEDERS/BRANCH CIRCUITS TO THIS LOCATION FOR RECONNECTION TO NEW PANEL NOTED. EXTEND WITH SAME SIZE CONDUIT AND WIRE. REFER TO PANEL SCHEDULE "A" FOR MORE INFORMATION.
19. CONTRACTOR SHALL PROVIDE (2)-20A/1P CB'S TO POWER GENERATOR OUTLETS SHOWN. CB'S SHALL BE COMPATIBLE WITH EXISTING SQUARE D PANEL AND HAVE AN AIC RATING AS NOTED ON THE SHORT CIRCUIT CALCULATION DETAIL. UPDATE DIRECTORY AS REQUIRED.
20. CONTRACTOR SHALL PROVIDE A 3 1/2"C WITH (4)-500KCMIL WIRE AND (1)-#3G.
21. CONTRACTOR SHALL PROVIDE A 1 1/4"C FOR GENERATOR CONTROL WIRING TO TRANSFER SWITCH. PROVIDE LOW VOLTAGE WIRING AS REQUIRED BY THE GENERATOR MANUFACTURER. REFER TO THE NEW WORK SITE PLAN FOR ROUTING AND CONDUIT/WIRE LENGTH REQUIRED.
22. CONTRACTOR SHALL PROVIDE (1)-1 1/4"C WITH FULL LENGTH PULLSTRING FOR FUTURE REMOTE ANNUNCIATOR. STUB CONDUIT INTO ELECTRICAL RM. 111 ADJACENT TO NEW ATS. REFER TO THE NEW WORK SITE PLAN FOR ROUTING AND CONDUIT LENGTH REQUIRED.

SITE KEYED NOTES

1. EXISTING PNM ENERGY 3ø, OH, DISTRIBUTION LINES TO REMAIN IN PLACE AND OPERATIONAL.
2. EXISTING POLE WITH NEW 120/240V, 1ø POLE-TOP XFMR. WORK BY PNM ENERGY.
3. NEW PNM ENERGY 3ø, OH, DISTRIBUTION LINES. WORK BY PNM ENERGY.
4. NEW PNM ENERGY OH TO UG RISER POLE. WORK BY PNM ENERGY.
5. EXISTING PNM ENERGY WOOD DISTRIBUTION POLE TO REMAIN IN PLACE AND OPERATIONAL.
6. EXISTING PNM ENERGY OH TRIPLEX AND COMMUNICATION LINES TO REMAIN IN PLACE AND OPERATIONAL
7. PROPOSED UG ROUTING FOR NEW PNM ENERGY, 3ø, PRIMARY CABLING FROM RISER POLE TO XFMR SHOWN. CONDUIT BY E.C., CABLE BY PNM. CONTRACTOR SHALL SAW-CUT, TRENCH, PATCH, AND REPAIR EXISTING CONCRETE WALKWAY/ASPHALT TO MATCH PRE-CONSTRUCTION CONDITIONS WHEN WORK IS COMPLETED. COORDINATE INSTALLATION WITH PNM ENERGY AND OWNER PRIOR TO ANY WORK.
8. PROPOSED LOCATION FOR NEW 120/208V, 3ø, PAD-MOUNT XFMR. COORDINATE INSTALLATION WITH PNM ENERGY. REFER TO THE RISER DIAGRAM FOR MORE DIRECTION.
9. CONTRACTOR SHALL PROVIDE CONCRETE AT THIS LOCATION FOR NEW PNM ENERGY XFMR TO SIT ON. CONCRETE PAD SHALL BE FLUSH WITH EXISTING CURBING. COORDINATE WITH PNM ENERGY PRIOR TO WORK.
10. PROPOSED UG ROUTING FOR NEW SERVICE LATERAL TO NEW ELECTRICAL SERVICE FOR THE BLDG. CONTRACTOR SHALL SAW-CUT, TRENCH, PATCH, AND REPAIR EXISTING CONCRETE WALKWAY/ASPHALT TO MATCH PRE-CONSTRUCTION CONDITIONS WHEN WORK IS COMPLETED. COORDINATE OUTAGE AND INSTALLATION WITH PNM ENERGY PRIOR TO ANY WORK.
11. LOCATION OF NEW DIESEL GENERATOR. REFER TO THE NEW WORK RISER DIAGRAM FOR MORE DIRECTION.
12. PROPOSED UG ROUTING FOR NEW GENERATOR FEEDER, BRANCH CIRCUITS, CONTROL WIRING, AND FUTURE REMOTE ANNUNCIATOR. CONTRACTOR SHALL SAW-CUT, TRENCH, PATCH, AND REPAIR EXISTING CONCRETE WALKWAY/ASPHALT TO MATCH PRE-CONSTRUCTION CONDITIONS WHEN WORK IS COMPLETED. COORDINATE OUTAGE AND INSTALLATION WITH THE OWNER PRIOR TO ANY WORK. REFER TO THE TRENCHING DETAIL FOR MORE DIRECTION.
13. REFER TO THE NEW WORK RISER DIAGRAM FOR MODIFICATIONS REQUIRED FOR THE NEW ELECTRICAL SERVICE FOR THE BLDG. AND EXISTING ELECTRICAL GEAR IN RM. 111.



4 / E3 GROUNDING DETAIL

SCALE: NONE

RBM ENGINEERING INC.
1065 S. MAIN ST. BLDG D STE. A
LAS CRUCES, NM 88005
(575) 647-1554
FAX (575) 647-1563
rbm@rbm.cc

BRYAN R. MORRIS NEW MEXICO 20195 PROFESSIONAL ENGINEER
12-20-18

REV	DATE	ACTION	DESCRIPTION	BY	APVD
1				---	---
2				---	---
3				---	---
4				---	---
5				---	---

ALAMOGORDO

POLICE DEPARTMENT

700 VIRGINIA AVENUE ALAMOGORDO, N.M. 88310

ELECTRICAL NEW WORK FLOOR PLAN

PROJECT NUMBER	Scale	AS SHOWN	E3
2031.00	Date	12/20/18	
Drwn. RBM	Chkd. RBM	Apvd. RBM	SH 3 OF 3

NEW MEXICO "ONE CALL SYSTEM" IT'S THE LAW
CALL TWO WORKING DAYS BEFORE YOU DIG IN NEW MEXICO #1-800-321-2537 (US) #811 (NM)

H:\2018 Projects\1804\Drawings\Shts-Elec\1804 E3 Electrical New Work Floor Plan 12/20/2018 8:29 AM cwilson