

GENERAL NOTES

- SCOPE: PROVIDE AND INSTALL ALL ELECTRICAL AND MECHANICAL SYSTEMS AS INDICATED AND REQUIRED, COMPLETE AND OPERABLE.
- FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, SERVICES AND SKILLED SUPERVISION NECESSARY FOR THE CONSTRUCTION, RIGGING, ERECTION, INSTALLATION, CONNECTION, TESTING AND ADJUSTMENT OF ALL CIRCUITS AND ELECTRICAL EQUIPMENT SPECIFIED HEREIN OR SHOWN, OR NOTED ON THE DRAWINGS. DELIVER MATERIALS AND EQUIPMENT TO SITE PROTECTED, COMPLETE IN ALL RESPECTS, READY FOR INSTALLATION.
- APPLICABLE CODES, REGULATIONS & PRACTICES: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES, REGULATIONS & PUBLICATIONS:
 - MARYLAND BUILDING PERFORMANCE STANDARDS.
 - ICC INTERNATIONAL BUILDING CODE, 2012 EDITION
 - ICC INTERNATIONAL MECHANICAL CODE, 2012 EDITION
 - ICC INTERNATIONAL PLUMBING CODE, 2012 EDITION
 - NFPA 30, FLAMABLE AND COMBUSTIBLE LIQUIDS CODE, 2012 EDITION
 - NFPA 37, INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES, 2012 EDITION
 - NFPA 70, NATIONAL ELECTRICAL CODE, 2011
 - NFPA 70E, ELECTRICAL SAFETY IN THE WORKPLACE
 - NFPA 101, LIFE SAFETY CODE, 2012
 - NFPA 110, EMERGENCY AND STANDBY POWER SYSTEMS, 2012 EDITION
 - NFPA 72, NATIONAL FIRE ALARM CODE, 2012
 - MARYLAND ACCESSIBILITY CODE, 2012
 - DISTRICT OF COLUMBIA CONSTRUCTION CODE AND STANDARDS APPLY
- DRAWINGS ARE DIAGRAMMATIC AND REPRESENT THE INTENT OF THE PLANS AND SPECIFICATIONS. MANUFACTURER AND CATALOG NUMBERS ARE USED HERE STRICTLY AS REFERENCE. THEY REPRESENT THE TYPE, SIZE, CONSTRUCTION, PERFORMANCE AND LEVEL OF QUALITY DESIRED. EQUIPMENT AND APPURTENANCES FROM OTHER MANUFACTURERS THAT MATCH OR SURPASS THE CHARACTERISTICS OF THOSE REFERENCED WILL BE ACCEPTABLE, SUBJECT TO APPROVAL BY THE COTR.
- CONSULT PLANS AND DETAILS FOR TYPES OF CONSTRUCTION, HEAD ROOM, FINISHES, FURRED CEILINGS, EXACT LOCATION OF FIXTURES, EQUIPMENT AND EXACT DIMENSIONS. COUNTY PROJECT OFFICER'S REPRESENTATIVE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THOSE DRAWINGS.
- COORDINATE MOUNTING HEIGHT OF DEVICES ON FINISHED WALLS TO PROVIDE A NEAT AND SYMMETRICAL APPEARANCE. SEE PLANS, ELEVATIONS AND DETAILS FOR HEIGHTS AND LOCATIONS OF RACEWAYS, DEVICES, AND OTHER ELECTRICAL DEVICES.
- ALL DEMOLITION, CUTTING AND PATCHING, AND INSTALLATION OF MATERIALS, CONDUITS, WIRING, AND DEVICES SHALL BE DONE IN A PROFESSIONAL MANNER IN ACCORDANCE WITH NECA 1. SHALL CONFORM TO APPLICABLE CODES, REGULATIONS AND MANUFACTURER'S RECOMMENDATIONS, AND SHALL BE COMPLETED IN A MANNER ACCEPTABLE TO THE COTR. PROVIDE PATCHING SURFACE TO MATCH ADJACENT SURFACE, AND ALSO PAINT COLOR TO MATCH ADJACENT FINISHING COLOR.
- MATERIALS AND SUBSTITUTIONS: THE CONTRACTOR SHALL SUBMIT A LIST OF ALL MATERIALS TO THE COTR FOR APPROVAL. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PERMISSION IN WRITING.
- MOUNTING HEIGHTS, UNLESS OTHERWISE NOTED, ARE TO CENTERLINE OF EQUIPMENT.
- CONDUITS: ALL CONDUITS SHALL BE NEW AND SHALL BE CUT TO EXACT LENGTHS TO SUIT THE FIELD CONDITIONS. BURRS SHALL BE REMOVED. PROVIDE BUSHINGS WHERE CONDUIT ENDS ARE EXPOSED TO CABLING.
- CONDUIT SYSTEMS: CONDUIT SHALL BE PVC FOR UNDERGROUND CONDUITS, RGS FOR OUTDOOR EXPOSED CONDUITS AND EMT (ELECTRIC METALLIC TUBING) FOR INDOOR INSTALLATION. ALUMINUM CONDUIT SHALL NOT BE PERMITTED. MINIMUM SIZE OF CONDUIT IS 3/4". RUN CONDUIT PARALLEL TO WALLS AND CEILING.
- OUTLET BOXES: FOUR INCH SQUARE FOR SWITCHES AND RECEPTACLES. AT LOCATIONS WHERE BOXES ARE RECESSED IN DRYWALL, PROVIDE DEVICES WITH RINGS AND PLATES APPROPRIATE TO THE TYPE OF CONSTRUCTION. EXPOSED BOXES LESS THAN 6 FT AFF SHALL NOT HAVE KNOCKOUTS ACCESSIBLE TO OCCUPANTS.
- WIRING DEVICES: DUPLEX RECEPTACLE, NEMA 5-20R AND COVER PLATE.
- WIRE AND CABLE: TYPE THWN OR XHHW, 600 VOLT, COPPER CONDUCTORS, COLOR CODED. THE MINIMUM SIZE SHALL BE #12 AWG, 75°C TEMPERATURE RATING PER NEC.
- GROUNDING: ALL SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH THE NEC, RECOMMENDED PRACTICES OF IEEE STD 1100, AND ALL LOCAL CODES. CONDUIT OR CABLE ARMOR SHALL NOT BE SOLE MEANS OF GROUNDING FOR ANY CIRCUIT.
- IDENTIFICATION: PROVIDE EQUIPMENT ENCLOSURES WITH ENGRAVED LAMINATE PLACARDS DISPLAYING EQUIPMENT DESIGNATION AND SOURCE OF POWER. LABEL PULL, JUNCTION & OUTLET BOXES USING INDELIBLE MARKER OR OTHER PERMANENT MEANS INSIDE THE COVER WITH ALL CIRCUIT NUMBERS CONTAINED INSIDE.
- PROVIDE TYPED, ACCURATE PANEL SCHEDULES FOR ALL PANELS WITHIN THE SCOPE OF WORK. INCLUDE ALL FINAL ROOM NUMBERS SERVED BY EACH CIRCUIT.
- TESTING: ALL ELECTRICAL WORK SHALL BE TESTED AS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION, USING NETA STANDARD METHODS AND EQUIPMENT.
- CLEANING: REMOVE FROM SITE ALL MATERIALS NOT USED IN THIS PROJECT. CLEAR ALL DEBRIS FROM AREA OF WORK AND LEAVE SITE IN CLEAN CONDITION. CLEAN ALL EQUIPMENT ENCLOSURES, INSIDE AND OUTSIDE.
- MAINTAIN EXISTING CIRCUITS, CONDUITS AND FEEDERS PASSING THROUGH AND SERVING UNDISTURBED AREAS. RESTORE THESE ITEMS TO MAINTAIN CONTINUITY WHERE INTERRUPTED BY DEMOLITION OR POWER TRANSFER. THE COTR SHALL BE NOTIFIED OF POWER OUTAGES 48 HOURS IN ADVANCE.
- DO NOT DISTURB ANY WIRING WHOSE ORIGIN, FUNCTION AND UTILITY ARE UNKNOWN WITHOUT PRIOR APPROVAL FROM THE COTR. FIELD VERIFY ALL CIRCUITS IN WORK AREAS (IN CONTRACT) PRIOR TO START OF WORK.
- PROVIDE FIRESTOPPING FOR ALL CONDUIT PENETRATIONS THROUGH WALLS AND FLOOR SLABS.
- PHASES OF WORK: CONTRACTOR SHALL SUBMIT ANTICIPATED SCHEDULE OF PHASING AND TOTAL CONSTRUCTION TIME.
- TEMPORARY WORK TO MAINTAIN SERVICES AT ALL TIMES.

GENERAL DEMOLITION NOTES

- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS TO DETERMINE EXTENT OF DEMOLITION WORK PRIOR TO INSTALLATION OF NEW WORK.
- ALL CUTTING AND PATCHING SHALL BE PERFORMED IN A WORKMANLIKE MANNER ACCEPTABLE TO THE COTR.
- OTHER DEVICES & EQUIPMENT FOUND ON WALLS TO BE DEMOLISHED, BUT NOT SHOWN ON DRAWINGS, SHALL ALSO BE REMOVED, UNLESS OTHERWISE NOTED.
- DURING DEMOLITION, VERIFY THAT JUNCTION BOXES ARE CORRECTLY LABELED WITH CIRCUITS CONTAINED WITHIN.
- CONTRACTOR SHALL COORDINATE AND REQUEST PERMISSION FOR SHUTDOWN OF EXISTING SERVICES. THE CONTRACTOR SHALL SEND A NOTICE TO THE COTR TWO DAYS IN ADVANCE PRIOR TO OUTAGE. NOTICE TIME AND MANNER OF SHUTDOWN SHALL BE SCHEDULED AND APPROVED BY THE COTR.
- CONTRACTOR SHALL REMOVE FROM SITE ALL ELECTRICAL EQUIPMENT AND MATERIALS NOT UTILIZED IN THIS CONTRACT AND SHALL DISPOSE OF PROPERLY OR AS DIRECTED BY THE COTR.

ABBREVIATIONS

A	AMPERE
AC	ALTERNATE CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATELY
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
°C	DEGREES CELSIUS
CEIL	CEILING
COMM	COMMUNICATION
COTR	CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE
DC	DIRECT CURRENT
DEMO	DEMOLITION, DEMOLISH
DIA	DIAMETER
DISC	DISCONNECT
DN	DOWN
DWG	DRAWING
E	EXISTING
EA	EACH
E.C.	EMPTY CONDUIT
EDPA	EMERGENCY DISTRIBUTION PANEL
EF	EXHAUST FAN
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
ENT	ELECTRICAL NONMETALLIC TUBING, ENTERING
EQ	EQUAL, EQUALIZER
EX.	EXISTING
F	DEGREES FAHRENHEIT
FL	FLOOR
FLA	FULL LOAD AMPERES
FLUOR	FLUORESCENT
FMC	FLEXIBLE METALLIC CONDUIT
FNC	FLEXIBLE NONMETALLIC CONDUIT
FT	FEET
G	GROUND
GALV	GALVANIZED
GFI	GROUND FAULT INTERRUPT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
HZ	HERTZ (CYCLES PER SECOND)
IN	INCHES
JB	JUNCTION BOX
K	KELVINS
kW	KILOWATT
kVA	KILO VOLT- AMPERE
LFC	LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT
LSI	LONG, SHORT AND INSTANTANEOUS FAULT CIRCUIT BREAKER PROTECTION
LSIG	LONG, SHORT, INSTANTANEOUS AND GROUND FAULT CIRCUIT-BREAKER PROTECTION
LTS	LIGHTS
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MFR	MANUFACTURER
MH	MOUNTING HEIGHT
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
No.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
PH	PHASE
PIR	PASSIVE INFRARED
PNL	PANELBOARD
RCP	REFLECTED CEILING PLAN
REC, RECEPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
SF	SQUARE FEET
SW	SWITCH
TEL/DATA	TELEPHONE/DATA COMMUNICATION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT, WIRE
W/	WITH
WP	WEATHER PROOF
XFMR	TRANSFORMER

POWER SYMBOLS

	PANELBOARD.
	DISCONNECT SWITCH.
	CURRENT TRANSFORMER.
	POWER TRANSFORMER
	MOLDED CASE CIRCUIT BREAKER.
	NEW EQUIPMENT.
	END OF DEMOLITION
	CONNECT TO EXISTING
	DEMOLITION KEY NOTES
	NEW WORK KEY NOTES.
	BRANCH CIRCUIT HOMERUN TO PANELBOARD EXPOSED IN CEILING OR WALLS.
	CONDUITS RUNNING BELOW GRADE.
	CONDUITS RUNNING EXPOSED.
	COMBINATION MOTOR STARTER (HOA TYPE) MOTOR RATED AND DISCONNECT SWITCH
	AUTOMATIC TRANSFER SWITCH.
	CONDUITS TO BE DEMOLISHED.
	EQUIPMENT TO BE DEMOLISHED.

DRAWN BY AL
 DESIGNED BY AL
 REVIEWED BY MB

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 45509 EXPIRATION DATE: 06-04-2016

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 BID ISSUE

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DYRS NEW GENERATOR INSTALLATION
GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

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