

MEMPHIS INTERNATIONAL AIRPORT

MEMPHIS, TENNESSEE



OWNER / SPONSOR:
MEMPHIS-SHELBY COUNTY AIRPORT AUTHORITY
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

MSCAA PROJECT NUMBER 19-1423-30

BID SET

NOVEMBER 06, 2024



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Memphis, TN 38018
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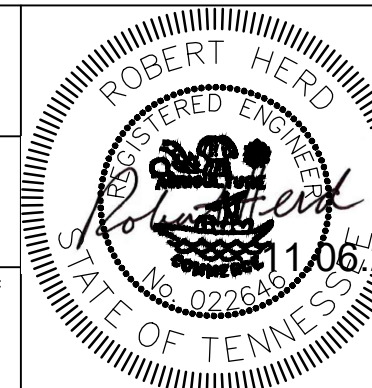
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NO.	DESCRIPTION	DATE
1	xxxxxx	xx

MSCAA NO.
19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
SHEET INDEX

RVT. FILE NAME

G.01 SHEET INDEX

DATE

11.06.2024

SCALE

NONE

DWG NO.

G.01

GENERAL PROJECT NOTES:

1. WORK SHALL NOT START UNTIL APPROVED BY THE PROGRAM MANAGER. PRIOR TO THE START OF WORK ON THE PROJECT, THE CONTRACTOR SHALL SUBMIT THE FOLLOWING INFORMATION FOR REVIEW BY THE PROGRAM MANAGER:
 - A DETAILED PROGRESS SCHEDULE SHOWING THE PROPOSED SCHEDULE OF WORK.
2. THE CONTRACTOR IS ADVISED THAT FAILURE TO COMPLETE WORK IN THE ALLOTTED TIME—INCLUDING INTERMEDIATE MILESTONE AND TOTAL PROJECT TIME—WILL RESULT IN THE ASSESSMENT OF LIQUIDATED DAMAGES.
3. THE CONTRACTOR SHALL COMPLY WITH ALL CITY OF MEMPHIS REQUIREMENTS FOR WEIGHT LIMITS, CLEANING AND MAINTENANCE OF STREETS FOR ALL OPERATIONS ON CITY STREETS AND CONNECTIONS. ANY DAMAGE DONE TO THE ROADWAYS DUE TO THE CONTRACTOR'S EQUIPMENT OR HAULING OPERATIONS SHALL BE REPAIRED, TO THE OWNER'S SATISFACTION, AT NO COST TO THE OWNER.
4. REFER TO THE PROJECT SPECIFICATIONS FOR SITE SECURITY REQUIREMENTS.
5. THE CONTRACTOR SHALL CONDUCT ACTIVITIES IN A SAFE AND SECURE MANNER AS SPECIFIED HEREIN AND IN THE SPECIFICATIONS AND IN ACCORDANCE WITH ALL REGULATORY REQUIREMENTS.
6. ALL FACILITIES SHALL BE PROTECTED AND ANY DAMAGES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. UNLESS OTHERWISE SPECIFIED, ALL TESTS REQUIRED BY PLANS OR SPECIFICATIONS FOR ACCEPTANCE SHALL BE INITIATED BY THE PROGRAM MANAGER AND PAID FOR BY THE OWNER. RETESTS OF ANY FAILED TEST SHALL BE AT THE CONTRACTOR'S EXPENSE. QUALITY CONTROL TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
8. AIRPORT TELEPHONE NUMBERS:
 - FIRE/POLICE EMERGENCY RESPONSE ONLY PHONE: 901-922-8333
 - FIRE/POLICE NON-EMERGENCY PHONE: 901-922-8298
 - AIRPORT OPERATIONS PHONE: 901-922-8117
9. UTILITIES WILL NOT BE INTERRUPTED WITHOUT PRIOR COORDINATION AND APPROVAL FROM THE MSCAA BUILDING MAINTENANCE MANAGER, TELEPHONE NUMBER (901) 922-8615, OR THE MAINTENANCE SERVICE DESK AT (901) 922-8040. APPROVAL IS REQUIRED FOR EACH AND EVERY INTERRUPTION. A MINIMUM OF A WEEK NOTICE IS REQUIRED FOR UTILITY INTERRUPTIONS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A CLEAN CONSTRUCTION SITE AND ANY SPACE USED FOR THE REMOVAL OF DEBRIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE CAUSED BY CONSTRUCTION TO AS GOOD OR BETTER CONDITION.
11. THE SCHEDULE OF CONSTRUCTION EFFORTS AND REMOVAL OF DEBRIS SHALL BE COORDINATED SO AS NOT TO DISRUPT OTHER TENANTS OR ENDANGER THE SAFETY OF THE PUBLIC. FINAL APPROVAL SHALL BE THE RESPONSIBILITY OF MSCAA DEVELOPMENT DIVISION.
12. ALL SALVAGED EQUIPMENT AS DESIGNATED BY THE OWNER SHALL BE RETURNED TO MSCAA AT THEIR DESIGNATED LOCATION FOR THEIR USE OR DISPOSED OF OFF SITE AS DIRECTED BY MSCAA.
13. ONE PRINTED SET OF COMPLETED REDLINE AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE PROGRAM MANAGER UPON COMPLETION OF THE PROJECT.
14. CONTRACTOR MUST REFERENCE MSCAA DESIGN GUIDE AND BECOME FAMILIAR WITH STANDARDS BEFORE COMMENCING WORK. NOTIFY OWNER IF ANY DISCREPANCIES ARE FOUND BETWEEN THESE STANDARDS AND CONSTRUCTION DOCUMENTS.

SAFETY NOTES:

1. THE CONTRACTOR SHALL HAVE ACCESS TO THE AIRPORT ONLY AT THOSE LOCATIONS DESIGNATED ON THE PLANS. ALL OTHER ACCESS SHALL BE BY SPECIAL REQUEST AND SUBJECT TO APPROVAL BY THE OWNER.
2. AIRCRAFT OPERATIONS SHALL HAVE PRIORITY OVER ALL VEHICLES, EQUIPMENT AND PERSONNEL. THE CONTRACTOR SHALL EMPLOY STRICT MEASURES TO PREVENT ANY CONFLICT BETWEEN HIS PERSONNEL AND AIRCRAFT ON ANY ACTIVE AIRFIELD PAVEMENT. THE CONTRACTOR SHALL REMAIN CLEAR OF ACTIVE RUNWAYS AND TAXIWAYS.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE CLEANUP AND DISPOSAL OF ALL TRASH AND DEBRIS CREATED BY WORK OR PERSONNEL. NO BURNING IS ALLOWED ON SITE. ALL TRASH AND DEBRIS MUST BE DISPOSED OF OFF-SITE.
4. THE CONTRACTOR SHALL COMPLY WITH ALL SECURITY REQUIREMENTS SPECIFIED HEREIN. THE CONTRACTOR SHALL DESIGNATE IN WRITING TO THE PROGRAM MANAGER THE NAME OF HIS "CONTRACTOR SECURITY OFFICER."
5. THE CONTRACTOR—THROUGH THE CONTRACTOR SECURITY OFFICER—SHALL ESTABLISH AND MAINTAIN A LIST OF CONTRACTOR AND SUB-CONTRACTOR VEHICLES AUTHORIZED TO OPERATE ON THE SITE. VEHICLE PERMITS SHALL BE ASSIGNED IN ACCORDANCE WITH AIRPORT SECURITY PROCEDURES.
6. THE WORK AREA IS OUTSIDE SIDA; THEREFORE MSCAA BADGING REQUIREMENTS WILL NOT APPLY. THE CONTRACTOR SHALL KEEP THE SITE SECURE AT ALL TIMES AND CONTROL WHO HAS ACCESS TO THE SITE. THE CONTRACTOR SHALL PROVIDE THEIR OWN LOCK TO BE INTERCONNECTED WITH THE OWNER'S LOCK SO BOTH PARTIES CAN ACCESS THE SITE AT ANY TIME.
7. ALL CONTRACTOR VEHICLES SHALL DISPLAY IN FULL VIEW COMPANY LOGOS CONSPICUOUSLY PLACED ON EACH SIDE OF THE VEHICLE. LOGOS SHALL BE AT LEAST 12" SQUARE WITH LETTERS AT LEAST 4" HIGH. AT ALL TIMES, ALL VEHICLES OPERATING IN THE ACTIVE AOA SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO FAA CRITERIA FOR MAINTENANCE AND EMERGENCY VEHICLES.
8. THE CONTRACTOR SHALL PROVIDE CAUTION TAPE AROUND WORK AREAS TO PROTECT ALL EXPOSED LIVE PARTS.

HAUL ROUTE NOTES:

1. HAUL ROADS TO BE USED UNDER THIS PROJECT SHALL BE THOSE INDICATED ON THE DRAWINGS OR OTHERWISE SPECIFICALLY DESIGNATED BY THE PROGRAM MANAGER. ALL CONTRACTOR VEHICLES AND TRAFFIC SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION AREAS OR HAUL ROUTES. IF THE SPECIFIED HAUL ROUTES ARE NOT CONSIDERED BY THE OWNER OR THE PROGRAM MANAGER TO BE OF SUFFICIENT STRENGTH TO ACCOMMODATE CONSTRUCTION TRAFFIC, THE CONTRACTOR WILL BE REQUIRED TO REBUILD THE HAUL ROUTES TO SUCH CONDITION AS IS NECESSARY FOR CONSTRUCTION TRAFFIC TO PROCEED. THIS ADDITIONAL HAUL ROAD CONSTRUCTION WILL BE COMPLETED WITH NO ADDITIONAL COMPENSATION.
2. CONTRACTOR'S ACCESS TO THE SITE SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROGRAM MANAGER. THE CONTRACTOR SHALL NOT PERMIT ANY UNAUTHORIZED CONSTRUCTION PERSONNEL OR TRAFFIC ON THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL TO AND FROM THE VARIOUS CONSTRUCTION AREAS ON THE SITE. DIRECTIONAL SIGNING AT THE ACCESS GATE AND ALONG THE DELIVERY ROUTE TO THE STORAGE AREA OR WORK SITE SHALL BE AS DIRECTED BY THE PROGRAM MANAGER.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE.
4. IF THE CONTRACTOR'S WORK REQUIRES THAT ANY HAUL ROADS ARE NECESSARY OVER AND ABOVE THOSE SHOWN HEREIN, THE CONTRACTOR SHALL SUBMIT A PLAN OF SAME FOR APPROVAL BY THE PROGRAM MANAGER.
5. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL CONTACT THE PROGRAM MANAGER TO DETERMINE WHETHER THE HAUL ROUTES USED BY THE CONTRACTOR NEED REPAIR DUE TO CONSTRUCTION USE. IF THE PROGRAM MANAGER OR OWNER DETERMINES THAT THE HAUL ROUTES ARE IN NEED OF REPAIR, THE CONTRACTOR SHALL MAKE THE NECESSARY REPAIRS TO THE HAUL ROUTES WITH NO ADDITIONAL COMPENSATION.

PROPOSED WORK SEQUENCE:

GENERAL:

1. IT IS INTENDED THE SCOPE OF WORK IN THIS PROJECT CAN BE INSTALLED SAFELY WITHOUT HAVING ANY POWER OUTAGES. THE CONTRACTOR IS EXPECTED TO DO ALL WORK NECESSARY PRIOR TO THE ARRIVAL OF THE NEW CAPACITOR BANK TO PROMOTE THE INSTALLATION WITHOUT AN OUTAGE.
2. IT IS INTENDED THE DURATION OF TIME THE SYSTEM IS WITHOUT A CAPACITOR BANK IS MINIMIZED TO 48 HOURS. THE CONTRACTOR IS EXPECTED TO PREPARE THE SITE AND DO ALL WORK NECESSARY TO MINIMIZE THIS DURATION. THE CONTRACTOR SHALL DEVELOP AND PRESENT ON SITE A DETAILED WORK SEQUENCE PLAN FOR APPROVAL FROM THE OWNER PRIOR TO THE CHANGEOVER. WORK RELATED TO JCI MONITORING AND REMOTE CONTROLS AND OTHER MISCELLANEOUS WORK CAN FOLLOW IN THE DAYS AFTER THE CHANGEOVER. IT IS EXPECTED THE NEW CAPACITOR BANK CAN BE PLACED, CONNECTED AND BROUGHT INTO AUTOMATIC OPERATION WITHIN THE 48 HOUR WINDOW.
3. IN THE EVENT THAT AN OUTAGE IS REQUIRED THE ONLY TIME ANY AREA OF THE AIRPORT CAN BE WITHOUT POWER IS FROM APPROXIMATELY 10PM TO 4AM ON ANY GIVEN DAY. THE ONLY EXCEPTION TO THIS IS FOR ANY AREAS OR TIMES SPECIFICALLY APPROVED BY THE OWNER ON AN INDIVIDUAL BASIS. ALL POWER OUTAGES MUST BE COORDINATED WITH THE OWNER WITH A MINIMUM OF ONE WEEK ADVANCE NOTICE/REQUEST. THE REQUEST SHOULD INCLUDE A SPECIFIC WORK SEQUENCE FOR REVIEW BY THE OWNER AND ENGINEER. PRIOR TO ACCEPTANCE, THE CONTRACTOR MAY BE REQUIRED TO WALK THROUGH EACH STEP OF THE PROCESS WITH THE OWNER AND ENGINEER AT THE SPECIFIC SITE LOCATION TO PROVIDE REASONABLE ASSURANCE POWER CAN BE RESTORED AT 4AM THE FOLLOWING MORNING. IF THE POWER OUTAGE REQUEST INVOLVES SEVERAL BACK TO BACK EVENINGS, THE WORK SEQUENCE MUST DETAIL EACH OF THE DAY'S WORK AND HOW MANY EVENINGS WILL BE INVOLVED.
4. CONTRACTOR TO REUSE EXISTING FOUNDATION ANCHOR RODS AND NUTS TO FASTEN REPLACEMENT EQUIPMENT TO EXISTING FOUNDATION. PROVIDE NEW PLATE WASHERS 3/8"x1 1/2"x1 1/2" WITH A STANDARD HOLE AT ANCHOR LOCATIONS BELOW NUT. DRILL NEW HOLES IN NEW EQUIPMENT FLANGES AS REQUIRED TO ACCOMMODATE THE EXISTING ANCHOR RODS. FIELD MEASURE EXISTING ANCHOR ROD, SIZES AND LOCATIONS AND PROVIDE NEW REPLACEMENT CABINETS WITH HOLES TO ACCOMMODATE THE EXISTING ANCHOR RODS, NEW PLATE WASHERS, & EXISTING/NEW NUTS.
5. IF NEW ANCHORS HAVE TO BE INSTALLED, DRILL & ANCHOR NEW ADHESIVE ANCHORS IN NEW LOCATION; CLEAN HOLES PER ADHESIVE ANCHOR MANUFACTURER INSTRUCTIONS; AND ANCHOR TO EXISTING CONCRETE (f'c=3,000PSI) USING AT-XP BY SIMPSON STRONG-TIE, HIT-HY 200A V3 BY HILTI CORPORATION, AC2004 BY DEWALT, OR APPROVED EQUAL. CONCRETE EMBEDMENT SHALL BE 6" ON ADHESIVE ANCHORS, TYPICAL.



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ENGINEER

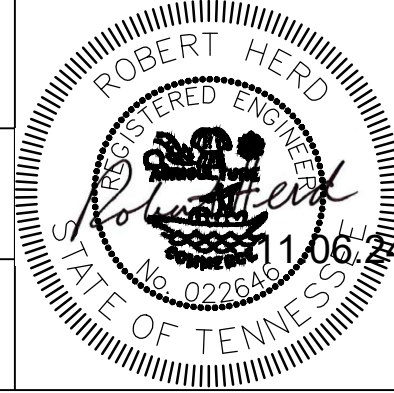


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






MSCAA NO.
 19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
GENERAL PROJECT & SAFETY NOTES

RVT. FILE NAME
G.03 GEN PROJECTS & SAFETY NOTES

DATE 11.06.2024	DWG NO. G.03
SCALE NONE	

	CONTINUATION
	TRANSFORMER
	MISCELLANEOUS PANEL
	EQUIPMENT CONNECTION
	JUNCTION BOX – J-BOX
	DUPLEX RECEPTACLE
	120/208V 3PH, 4W PANELBOARD
	277/480V 3PH, 4W PANELBOARD
	NOTE INDICATION
	CLEARANCE SPACE
	WIRE IN CONDUIT RUN OVERHEAD – CONCEALED IN OR ABOVE CEILING IN WALL OR EXPOSED ON STRUCTURE
	WIRE IN CONDUIT RUN CONCEALED BELOW FLOOR, IN WALL OR BELOW GRADE
	INDICATES GROUNDING CONDUCTOR
	TEMPORARY CABLE – PROVIDE AS INDICATED ON DRAWINGS

PNL	PANEL
APPROX.	APPROXIMATELY
C	CONDUIT
EX.	EXISTING CONDITION
GND	GROUND
LTB	LOAD TERMINAL BOX
LV	LOW VOLTAGE
MLO	MAIN LUG ONLY
MV	MEDIUM VOLTAGE
MVSS	MEDIUM VOLTAGE SELECTOR SWITCH
N/A	NOT APPLICABLE
PBB	PASSENGER BOARDING BRIDGE
RGA	RIGID ALUMINUM CONDUIT
RGS	RIGID GALVANIZED STEEL CONDUIT
SWBD	SWITCHBOARD
TYP	TYPICAL
UOI	UNLESS OTHERWISE INDICATED
PCA	PRECONDITIONED AIR
DISC	DISCONNECT
MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR

1 LEGEND
SCALE: NONE



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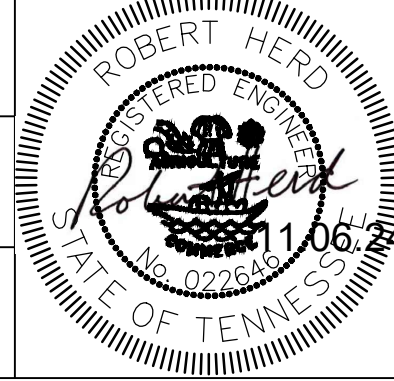
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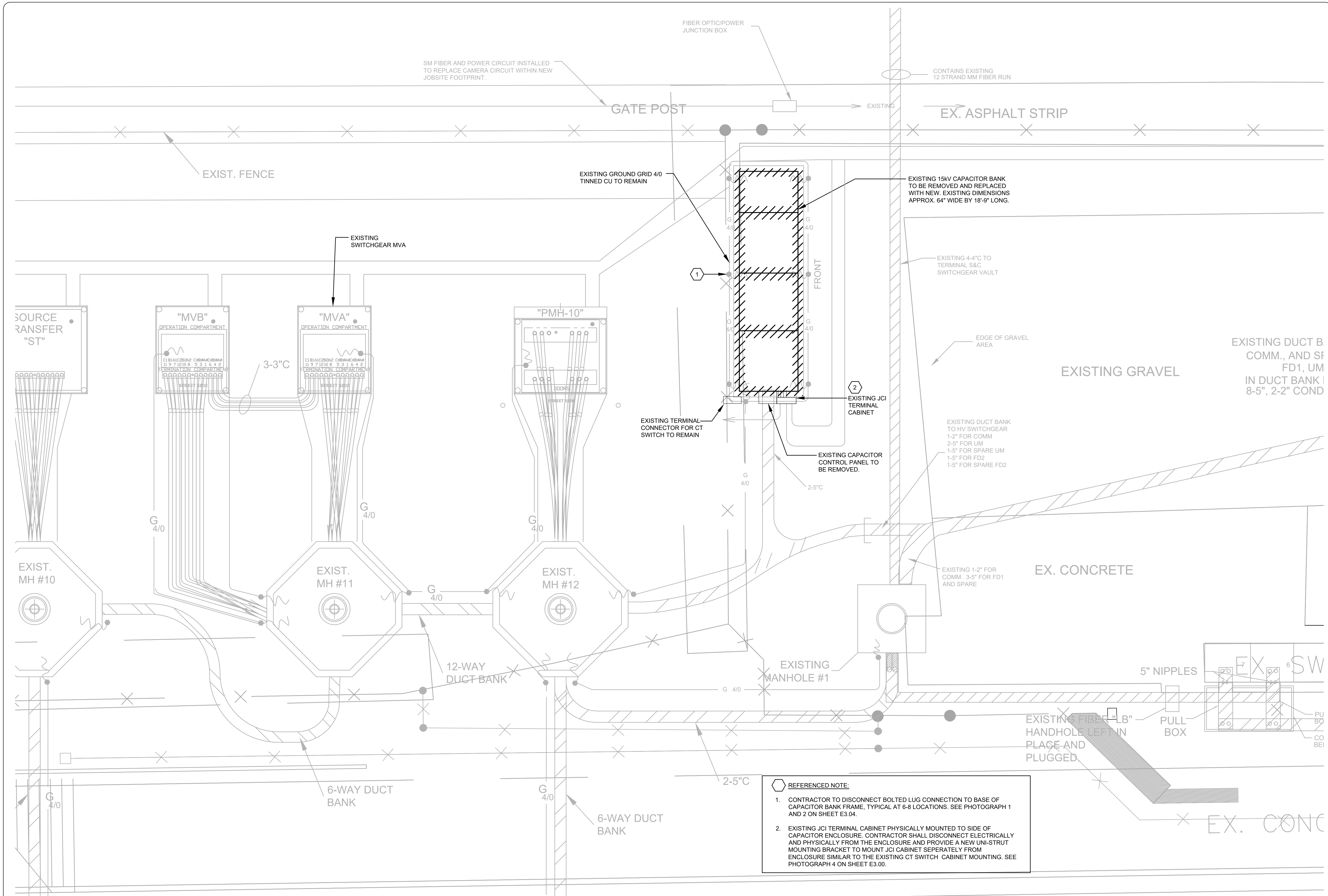
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MSCAA NO.
19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
LEGEND

RVT. FILE NAME E1.00 LEGEND	
DATE 11.06.2024	DWG NO.
SCALE NONE	E1.00



SM FIBER AND POWER CIRCUIT INSTALLED TO REPLACE CAMERA CIRCUIT WITHIN NEW JOBSITE FOOTPRINT.

CONTAINS EXISTING 12 STRAND MM FIBER RUN

GATE POST

EX. ASPHALT STRIP

EXIST. FENCE

EXISTING GROUND GRID 4/0 TINNED CU TO REMAIN

EXISTING 15KV CAPACITOR BANK TO BE REMOVED AND REPLACED WITH NEW. EXISTING DIMENSIONS APPROX. 64" WIDE BY 18'-9" LONG.

EXISTING SWITCHGEAR MVA

EXISTING 4-4" TO TERMINAL S&C SWITCHGEAR VAULT

SOURCE TRANSFER "ST"

"MVB" OPERATION COMPARTMENT

"MVA" OPERATION COMPARTMENT

"PMH-10"

EXISTING GRAVEL

EXISTING DUCT BANK COMM., AND SF FD1, UM IN DUCT BANK 8-5", 2-2" COND

EXISTING TERMINAL CONNECTOR FOR CT SWITCH TO REMAIN

EXISTING JCI TERMINAL CABINET

EXISTING DUCT BANK TO HV SWITCHGEAR 1-2" FOR COMM 2-5" FOR UM 1-5" FOR SPARE UM 1-5" FOR SPARE FD2

EXISTING CAPACITOR CONTROL PANEL TO BE REMOVED.

EX. CONCRETE

EXISTING 1-2" FOR COMM. 3-5" FOR FD1 AND SPARE

EXIST. MH #10

EXIST. MH #11

EXIST. MH #12

EXISTING MANHOLE #1

5" NIPPLES

12-WAY DUCT BANK

EXISTING "LB" PLACE AND PLUGGED

PULL BOX

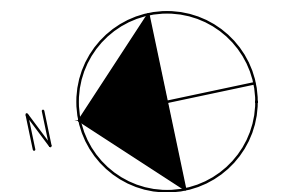
6-WAY DUCT BANK

6-WAY DUCT BANK

REFERENCED NOTE:

1. CONTRACTOR TO DISCONNECT BOLTED LUG CONNECTION TO BASE OF CAPACITOR BANK FRAME, TYPICAL AT 6-8 LOCATIONS. SEE PHOTOGRAPH 1 AND 2 ON SHEET E3.04.
2. EXISTING JCI TERMINAL CABINET PHYSICALLY MOUNTED TO SIDE OF CAPACITOR BANK FRAME. CONTRACTOR SHALL DISCONNECT ELECTRICALLY AND PHYSICALLY FROM THE ENCLOSURE AND PROVIDE A NEW UNI-STRUT MOUNTING BRACKET TO MOUNT JCI CABINET SEPARATELY FROM ENCLOSURE SIMILAR TO THE EXISTING CT SWITCH CABINET MOUNTING. SEE PHOTOGRAPH 4 ON SHEET E3.00.

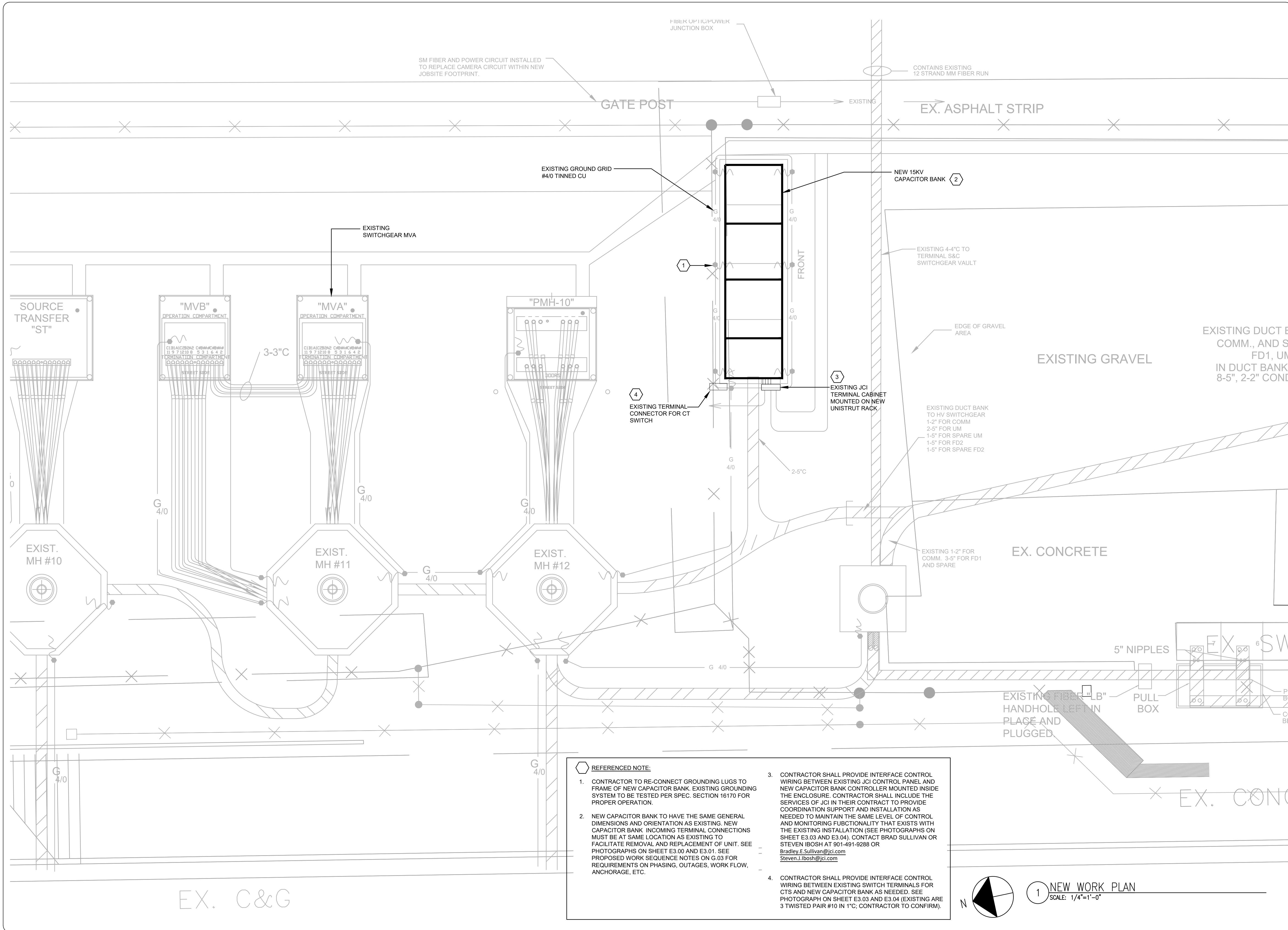
EX. C&G



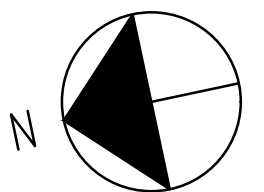
1 NEW WORK PLAN - DEMOLITION
SCALE: 1/4" = 1'-0"

REVISIONS

NO.	DESCRIPTION	DATE
1	xxxxx	xx



- REFERENCED NOTE:**
- CONTRACTOR TO RE-CONNECT GROUNDING LUGS TO FRAME OF NEW CAPACITOR BANK. EXISTING GROUNDING SYSTEM TO BE TESTED PER SPEC. SECTION 16170 FOR PROPER OPERATION.
 - NEW CAPACITOR BANK TO HAVE THE SAME GENERAL DIMENSIONS AND ORIENTATION AS EXISTING. NEW CAPACITOR BANK INCOMING TERMINAL CONNECTIONS MUST BE AT SAME LOCATION AS EXISTING TO FACILITATE REMOVAL AND REPLACEMENT OF UNIT. SEE PHOTOGRAPHS ON SHEET E3.00 AND E3.01. SEE PROPOSED WORK SEQUENCE NOTES ON G.03 FOR REQUIREMENTS ON PHASING, OUTAGES, WORK FLOW, ANCHORAGE, ETC.
 - CONTRACTOR SHALL PROVIDE INTERFACE CONTROL WIRING BETWEEN EXISTING JCI CONTROL PANEL AND NEW CAPACITOR BANK CONTROLLER MOUNTED INSIDE THE ENCLOSURE. CONTRACTOR SHALL INCLUDE THE SERVICES OF JCI IN THEIR CONTRACT TO PROVIDE COORDINATION SUPPORT AND INSTALLATION AS NEEDED TO MAINTAIN THE SAME LEVEL OF CONTROL AND MONITORING FUNCTIONALITY THAT EXISTS WITH THE EXISTING INSTALLATION (SEE PHOTOGRAPHS ON SHEET E3.03 AND E3.04). CONTACT BRAD SULLIVAN OR STEVEN IBOSH AT 901-491-9288 OR Bradley.E.Sullivan@jci.com or Steven.Ibosh@jci.com
 - CONTRACTOR SHALL PROVIDE INTERFACE CONTROL WIRING BETWEEN EXISTING SWITCH TERMINALS FOR CTS AND NEW CAPACITOR BANK AS NEEDED. SEE PHOTOGRAPH ON SHEET E3.03 AND E3.04 (EXISTING ARE 3 TWISTED PAIR #10 IN 1\"/>



1 NEW WORK PLAN
SCALE: 1/4" = 1'-0"

REVISIONS		
NO.	DESCRIPTION	DATE
1	xxxxx	xx



1 EXISTING CAPACITOR BANK END/FRONT VIEW
SCALE: NONE



2 EXISTING CAPACITOR BANK END/FRONT VIEW
SCALE: NONE



3 EXISTING SWITCHGEAR MVA
SCALE: NONE



4 EXISTING CAPACITOR BANK CONTROL CABINETS W/ CONDUITS
SCALE: NONE



5 EXISTING CAPACITOR BANK AREA
SCALE: NONE

EXISTING CT SWITCH TERMINAL CABINET

EX MAIN CONTROLLER

EX JCI TERMINAL CABINET



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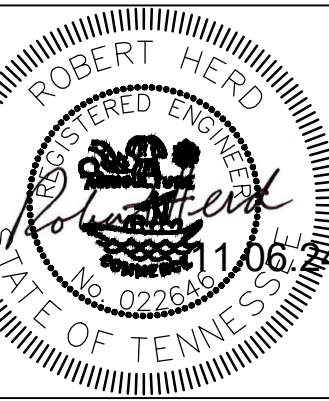
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MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
PHOTO SHEET #1



1 EXISTING MAIN CAPACITOR BANK SWITCH
SCALE: NONE



RECONNECT EXISTING CONDUCTOR GROUNDING SHIELD.

2 EXISTING INCOMING CONDUCTORS
SCALE: NONE



3 EXISTING MAIN CAPACITOR BANK SWITCH
SCALE: NONE



4 EXISTING MAIN CAPACITOR BANK SWITCH
SCALE: NONE



5 EXISTING INCOMING CONDUCTORS
SCALE: NONE



TERMINALS APPROXIMATELY 20-24" ABOVE GRADE

6 EXISTING CAPACITOR BANK BOLTED TERMINAL CONNECTION
SCALE: NONE



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REVISIONS

NO.	DESCRIPTION	DATE
1	xxxxxx	xx

MSCAA NO.
19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
PHOTO SHEET #2

RVT. FILE NAME
E3.00 - E3.04 PHOTO SHEETS

DATE 11.06.2024	DWG. NO. E3.01
SCALE NONE	



1 EXISTING CAPACITORS
SCALE: NONE



2 EXISTING CAPACITORS
SCALE: NONE



3 EXISTING SINGLE PHASE TRANSFORMER
SCALE: NONE



4 EXISTING GROUNDING SWITCH
SCALE: NONE



5 EXISTING GROUNDING SWITCH
SCALE: NONE



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www.rgroup.biz



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ENGINEER



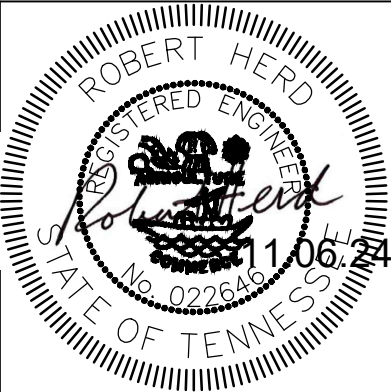
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901.820.0820 phone • 901.863.1001 fax
www.allenandhoshall.com

ARCHITECT JOB NO.
20008-Txx

DRAWN BY:
JVB

CHECKED BY:
RTH

APPROVED BY:
RTH



CONSULTANT JOB NO.
63233

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NO.	DESCRIPTION	DATE
1	xxxxxx	xx

MSCAA NO.
19-1423-30

PROJECT:
**MEDIUM VOLTAGE
CAPACITOR BANK
REPLACEMENT**

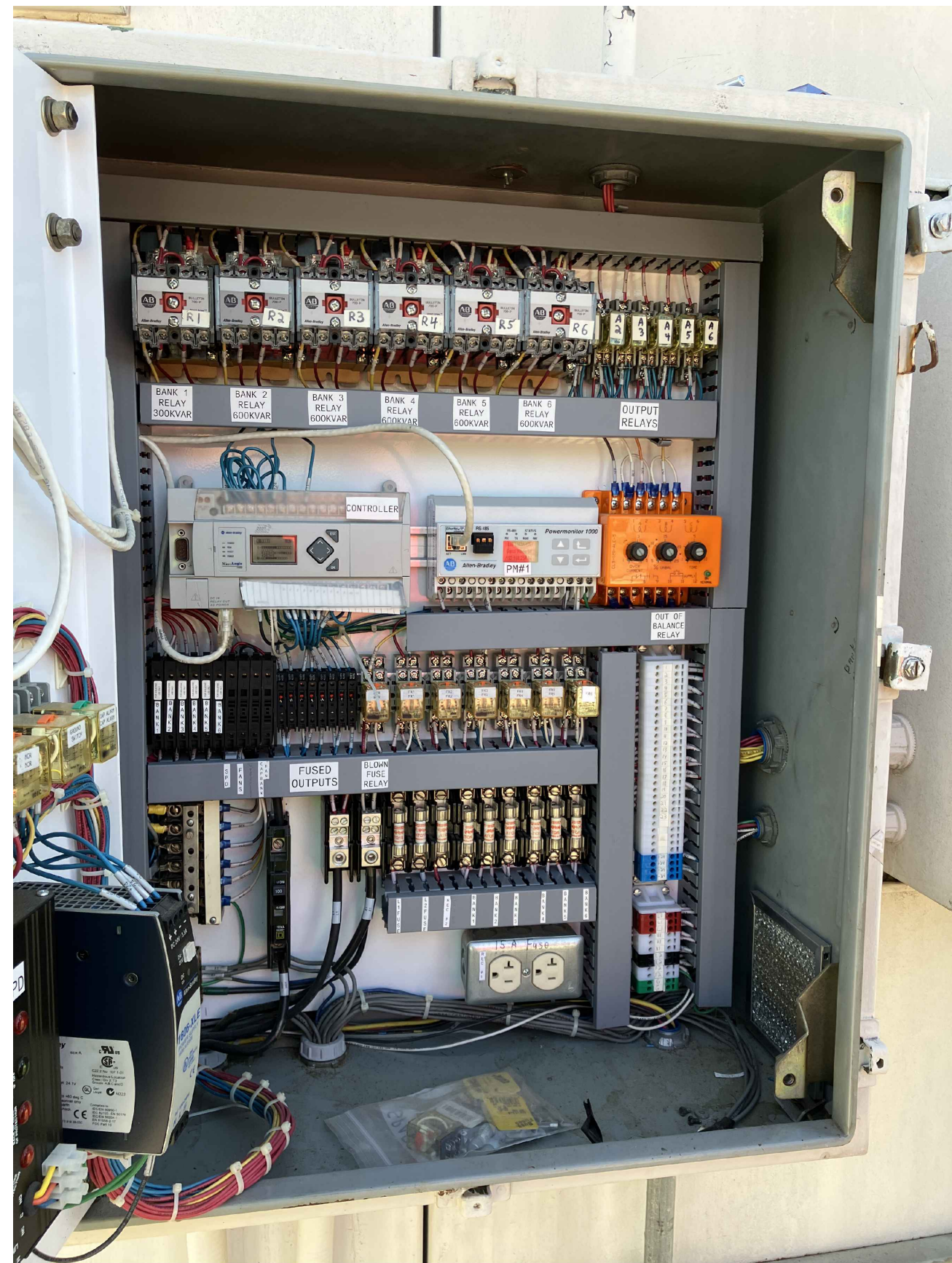
SHEET TITLE:
PHOTO SHEET #3

RVT. FILE NAME
E3.00 - E3.04 PHOTO SHEETS

DATE
11.06.2024

DWG. NO.
E3.02

SCALE
NONE



1 EXISTING MAIN CONTROLLER
SCALE: NONE



2 EXISTING MAIN CONTROLLER
SCALE: NONE



3 EXISTING MAIN CONTROLLER
SCALE: NONE



4 EXISTING CONTROLS CABINETS
SCALE: NONE



5 EXISTING JCI TERMINAL CABINET
SCALE: NONE



6 EXISTING SWITCH TERMINALS FOR CT'S
SCALE: NONE



ENGINEER



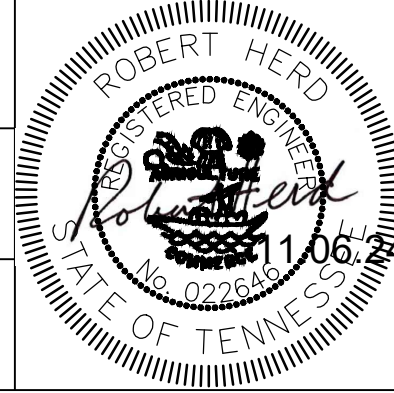
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1	xxxxxx	xx

MSCAA NO.
19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
PHOTO SHEET #4

RVT. FILE NAME
E3.00 - E3.04 PHOTO SHEETS

DATE
11.06.2024

SCALE
NONE

DWG NO.
E3.03



1 EXISTING GROUNDING LUG CONNECTION TO FRAME
SCALE: NONE



2 EXISTING #4/0 GROUNDING CONDUCTORS
SCALE: NONE



3 EXISTING CONTROLS CABINET
SCALE: NONE



4 EXISTING CONTROLS CONDUITS
SCALE: NONE

EXISTING CT SWITCH TERMINAL CABINET

MAIN CONTROLLER

JCI PANEL



5 EXISTING CONTROLS CABINETS
SCALE: NONE



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NO.	DESCRIPTION	DATE
1	xxxxxx	xx

MSCAA NO.
19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
PHOTO SHEET #5

RVT. FILE NAME
E3.00 - E3.04 PHOTO SHEETS

DATE
11.06.2024

SCALE
NONE

DWG. NO.
E3.04

VISTA #1 - ELEVATION

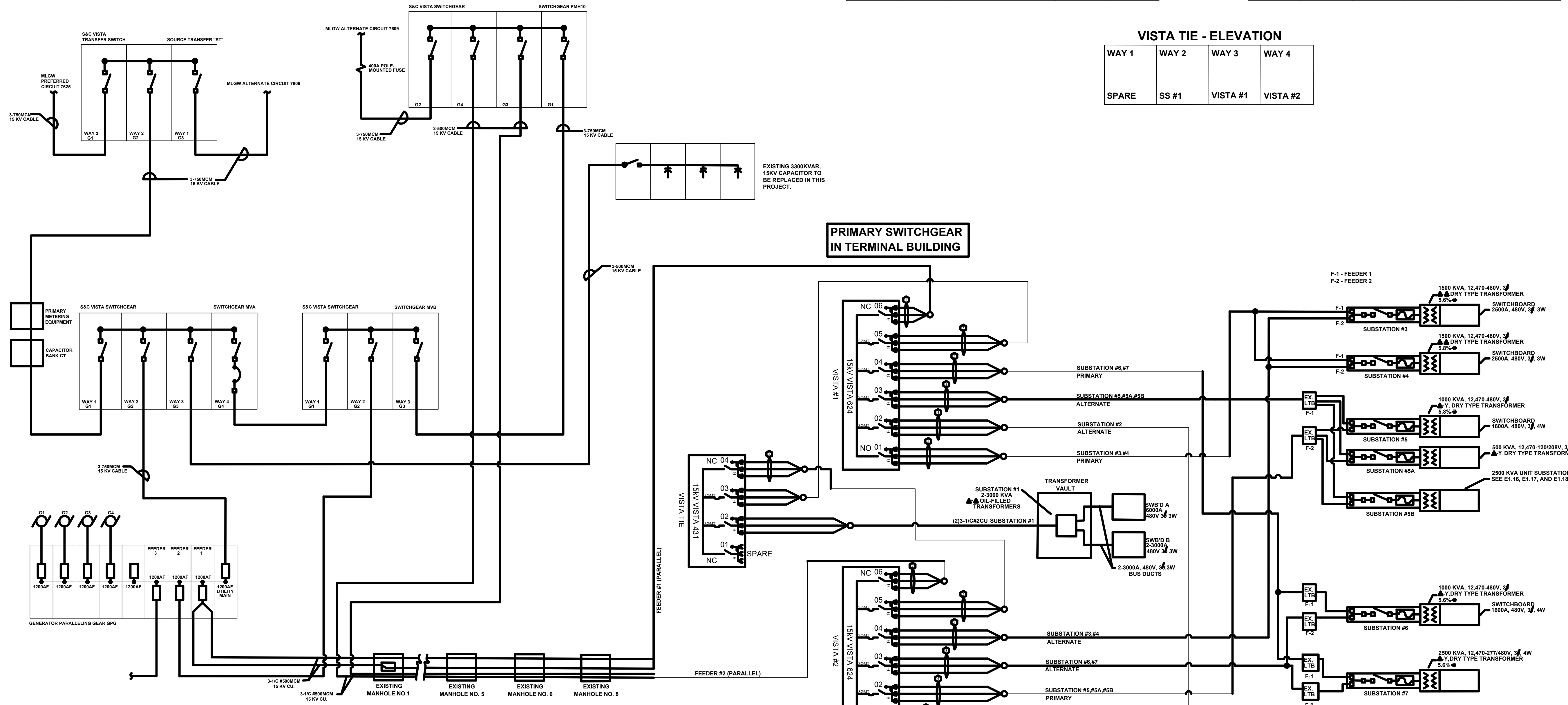
WAY 1	WAY 2	WAY 3	WAY 4	WAY 5	WAY 6
SS #3, 4	SS #2	SS #5, 5A, 5B	SS #6, 7	VISTA TIE	FEEDER 1 AIRWAYS

VISTA #2 - ELEVATION

WAY 1	WAY 2	WAY 3	WAY 4	WAY 5	WAY 6
SS #2	SS #5, 5A, 5B	SS #6, 7	SS #3, 4	VISTA TIE	FEEDER 2 AIRWAYS

VISTA TIE - ELEVATION

WAY 1	WAY 2	WAY 3	WAY 4
SPARE	SS #1	VISTA #1	VISTA #2



MANHOLE LOCATIONS

- MANHOLE #1 - NORTH END OF CAPACITOR BANK
- MANHOLE #2 - WEST OF RUNWAY 18R
- MANHOLE #3 - EAST OF RUNWAY 18R
- MANHOLE #4 - WEST OF TAXIWAY NOV
- MANHOLE #5 - WEST OF GATE A-21
- MANHOLE #6 - CENTER OF THE DRIVE, SOUTH OF THE WEST BRIDGE
- MANHOLE #7 - REMOVED
- MANHOLE #8 - WEST OF BAGBELT #5 IN THE CENTER OF THE DELTA BAGBELT EAST ENTRANCE

FEEDER DESIGNATIONS

- FEEDER 1: F-1
- FEEDER 2: F-2

1 RISER DIAGRAM - EXISTING ONE LINE DIAGRAM
SCALE: NO SCALE

FOR REFERENCE ONLY



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MSCAA NO.
19-1423-30

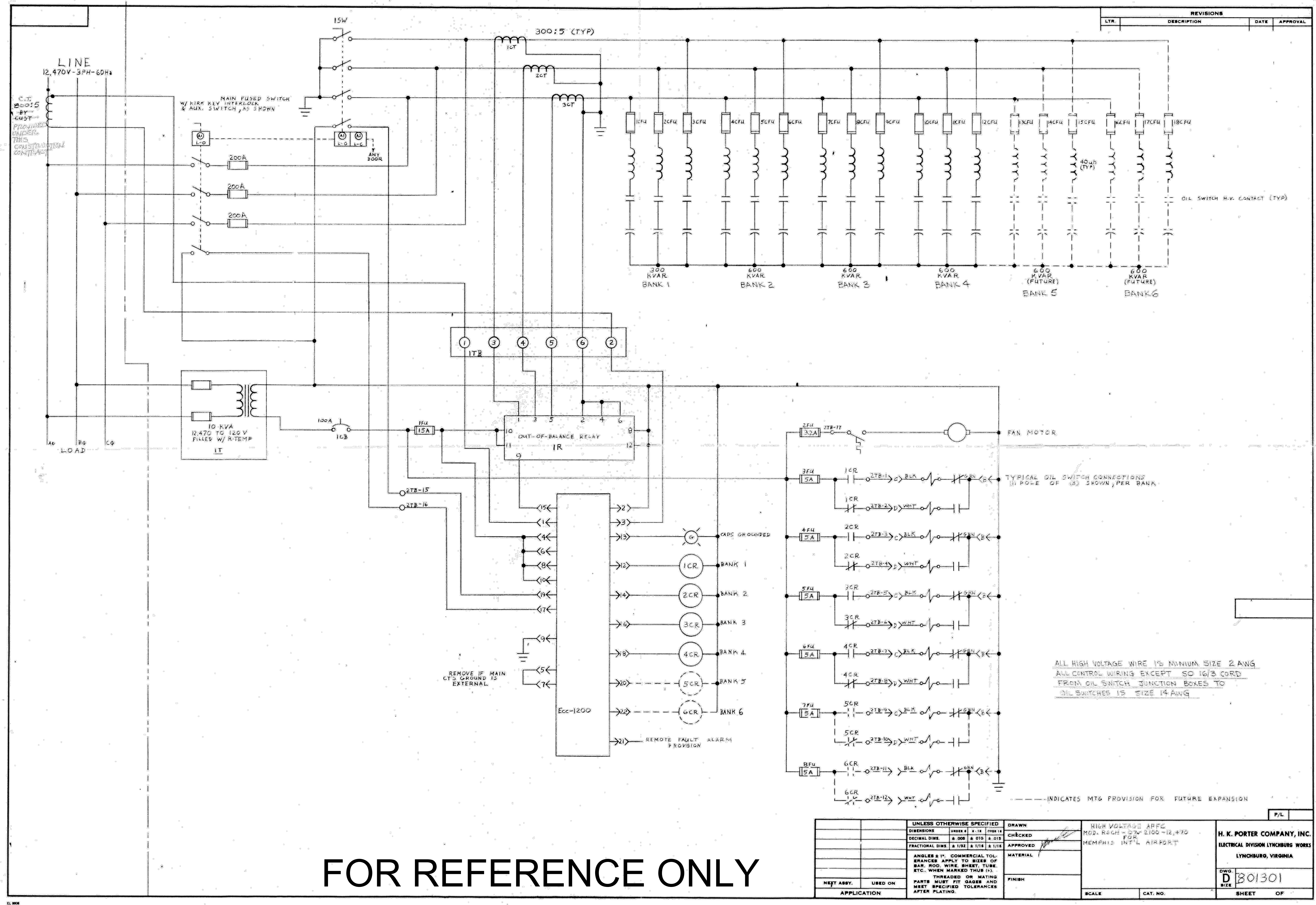
PROJECT:

MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:

EXISTING ONE-LINE DIAGRAM

RVT. FILE NAME E4.00 EXISTING ONE LINE DIAGRAM	
DATE 11.06.2024	DWG NO. E4.00
SCALE NONE	



REVISIONS			
LTR.	DESCRIPTION	DATE	APPROVAL

FOR REFERENCE ONLY

UNLESS OTHERWISE SPECIFIED		DRAWN	HIGH VOLTAGE APFC	H. K. PORTER COMPANY, INC. ELECTRICAL DIVISION LYNCHBURG WORKS LYNCHBURG, VIRGINIA
DIMENSIONS	UNDER 1/8" OVER 1/8"	CHECKED	MOD. R3GH - 07-2100-12,470	
DECIMAL DIMS	± .008 ± .010 ± .015	APPROVED	FOR	DWG. D SIZE 301301
FRACTIONAL DIMS	± 1/32 ± 1/16 ± 1/8	FINISH	MEMPHIS INT'L AIRPORT	
ANGLES & 1" COMMERCIAL TOLERANCES APPLY TO SIZES OF BAR, ROD, WIRE, SHEET, TUBE, ETC. WHEN MARKED THUS (±)		APPLICATION	SCALE	SHEET OF
THREADS ON MATING PARTS MUST FIT GAGES AND MEET SPECIFIED TOLERANCES AFTER PLATING.			CAT. NO.	

TAKE OFF WITH US
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DRAWN BY:
JVB
 CHECKED BY:
RTH
 APPROVED BY:
RTH

CONSULTANT JOB NO.
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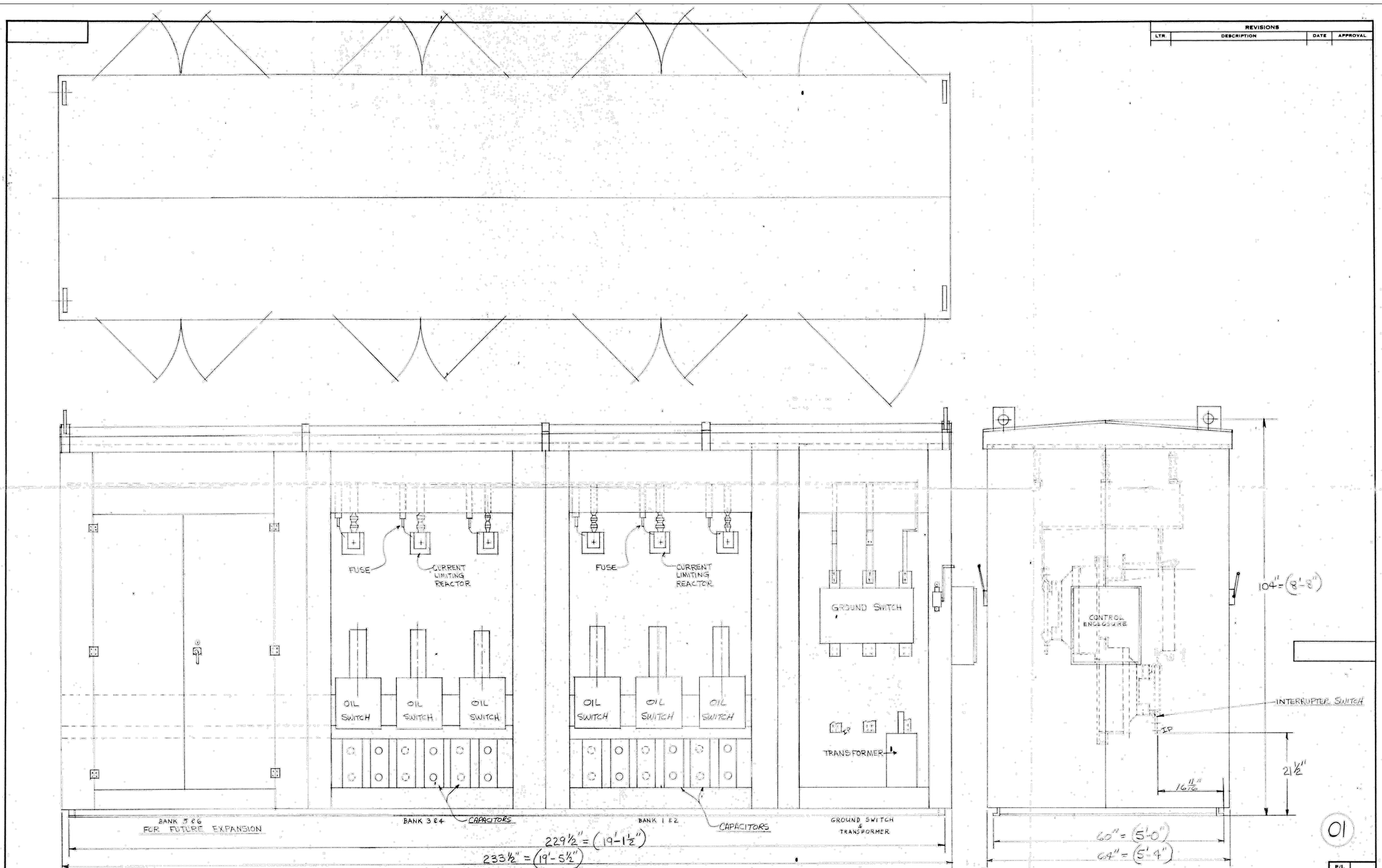
REVISIONS		
NO.	DESCRIPTION	DATE
1	xxxxx	xx

MSCAA NO.
 19-1423-30

PROJECT:
MEDIUM VOLTAGE CAPACITOR BANK REPLACEMENT

SHEET TITLE:
EXISTING CAPACITOR BANK DRAWING NO. 1

RVT. FILE NAME
E4.01 EXISTING CAPACITOR BANK NO. 1
 DATE
11.06.2024
 SCALE
NONE
 DWG. NO.
E4.01



ALL HIGH VOLTAGE WIRING CLEARANCE
ARE 12" LINE TO LINE
7" LINE TO GROUND

FOR REFERENCE ONLY

UNLESS OTHERWISE SPECIFIED		DRAWN 6-10-86 RCP	
DIMENSIONS	USERS 8 1/8 OVER 14	CHECKED	RSCH-07W-2100-12470
DECIMAL DIMS.	± .005 ± 0.01 ± 0.015	APPROVED	HIGH VOLTAGE UNIT
FRACTIONAL DIMS.	± 1/32 ± 1/16 ± 1/8	MATERIAL 11% HRS GUT FUSE BOLTED TO STRUCTURAL STEEL FRAME	H. K. PORTER COMPANY, INC. ELECTRICAL DIVISION LYNCHBURG WORKS LYNCHBURG, VIRGINIA
ANGLES & 1% COMMERCIAL TOL- ERANCES APPLY TO SIZES OF BAR, ROD, WIRE, SHEET, TUBE, ETC. WHEN MARKED THUS (1% THREADED OR MATING PARTS MUST FIT GAGES AND MEET SPECIFIED TOLERANCES AFTER PLATING.	FINISH ANSI 70 SST BLUES	SCALE	FOR MEMPHIS INTERNATIONAL AIRPORT
NEXT ASSY.	USED ON	CAT. NO.	TOWNSHIP D 860016
APPLICATION			SHEET OF

1 EXISTING CAPACITOR BANK DRAWING NO. 2
SCALE: NO SCALE

REVISIONS

NO.	DESCRIPTION	DATE
1	xxxxx	xx

MSCAA NO.
19-1423-30