

DEPARTMENT OF THE ARMY
Omaha District, Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

:NOTICE: Failure to acknowledge : Solicitation No. DACA45 02 B 0004
:all amendments may cause rejec- :
:tion of the bid. See FAR : Date of Issue: 04 JAN 2002
:52.214-3 of Section 00100 : **New Date of Opening: 12 FEB 2002**

Amendment No. 0001
28 January 2002

SUBJECT: Amendment No. 0001 to Specifications and Drawings for Construction of
REPLACE SECONDARY ELECTRICAL SERVICE - LINE 3A at IOWA AAP, IOWA
Solicitation No. DACA45 02 B 0004.

TO: Prospective Bidders and Others Concerned

1. The specifications and drawings for subject project are hereby modified as follows (revise all specification indices, attachment lists, and drawing indices accordingly).

a. Specifications. (Descriptive Changes.)

- (1) **Section 00010, Page 1**, delete date and time of bid opening shown and substitute "12 FEB 2002" at "2:00 p.m."
- (2) **Section 01040, Page 3**, paragraph 1.3, 3rd line, after "...\$" add "12,500.00" on the blank line.
- (3) **Section 16375, Page 16**, paragraph 2.10.2.2, for Maximum symmetrical interrupting capacity, delete "[____]" and substitute "16 kA".
- (4) **Section 16415, Page 9**, paragraph 1.2.3.2, lines 1 & 2, delete "Class I, Division 2" and substitute "Class II, Division 1". Delete last sentence and substitute: "Equipment shall be suitable for Group E, F, and G."
- (5) **Section 16415, Page 20**, deletes title and contents of paragraph 2.33 in entirety and substitute "NOT USED".

b. Drawings (Not Reissued). The following drawing sheets of drawing code F 812-42-01 are revised as indicated below with latest revision date of 28 January 2002. These drawings are not reissued with this amendment.

- (1) **FOR ALL EXTERIOR P5 SHEETS**, add the following General Sheet Note to the drawings:

"General Sheet Note

1. ALL EXISTING TRANSFORMERS SHALL BE DISCONNECTED IN PLACE

AND ABANDONED IN PLACE. THIS NOTE SUPERSEDES ALL PREVIOUS NOTES ABOUT TRANSFORMERS BEING TURNED OVER TO THE CONTRACTING OFFICER."

- (2) **SHEET P5.01**, at drawing coordinate 2B, Pole 3A-98, delete "NEW P.P., 40/2" and substitute "NEW P.P. 45/2 SEE SHEET E.7".
- (3) **SHEET P5.01**, at drawing coordinate 1B, Pole 3A-97, delete "NEW P.P., 40/2" and substitute "NEW P.P. 45/2, SEE SHEET E.7".
- (4) **SHEET P5.01**, at drawing coordinate 1B, leader note, delete "NEW 4' X 4' X 4' TYPE G MANHOLE" and substitute "NEW 6' X 6' X 6' TYPE D MANHOLE".
- (5) **ON ALL SERIES "E" (ELECTRICAL) SHEETS**, add the following General Sheet Notes to the drawings:

General Sheet Notes

- 1. ALL NEW PANELS THAT ARE NOT CLASSIFIED AS CLASS II DIVISION 1 GROUP E, F, & G SHALL BE NEMA 12. ALL NEW PANELS INSTALLED SHALL HAVE ALL BREAKERS CAPABLE OF BEING LOCKED IN THE OFF POSITION.
 - 2. "COVERS FOR EXISTING PANELS USED AS JUNCTION BOXES SHALL HAVE A 12 GA STEEL PLATE COVER, WITH GASKET, HAVE ONE PRIME COAT, AND ONE MACHINE GRAY COAT OF PAINT. ALL CIRCUIT SPLICES SHALL BE MADE THROUGH TERMINAL STRIPS MOUNTED IN EXISTING PANEL CABINETS.
 - 3. ALL EXISTING TRANSFORMERS SHALL BE DISCONNECTED IN PLACE AND ABANDONED IN PLACE. THIS NOTE SUPERSEDES ALL PREVIOUS NOTES ABOUT TRANSFORMERS BEING TURNED OVER TO THE CONTRACTING OFFICER."
- (6) **SHEET E.2**, PHOTOS #3 & #7, leader note, delete "DISCONNECT ON POLE AND REMOVE EXISTING 300 KVA 480V TRANSF TURN OVER TO CONTRACTING OFFICER." and substitute "DISCONNECT ON POLE, AT TRANSFORMER AND AT BUILDING AND ABANDON IN PLACE."
 - (7) **SHEET E.5**, NOTES: delete contents of Note 1., and substitute the following:

"WHEN NEW POWER SYSTEM IS OPERATING FROM 3A-03-1, DISCONNECT PANEL AND TRANSFORMER AND ABANDON IN PLACE"
 - (8) **SHEET E.7**, Revise sheets in accordance with attached Sketch Nos. 1 and 2
 - (9) **SHEET E.9A**, Title block delete "INFORMATION DRAWING (PHOTOGRAPHS)" and substitute "BUILDING 3A-03-1 (PHOTOGRAPHS)".
 - (10) **SHEET E.11**, Revise in accordance with attached Sketch No. 3
 - (11) **SHEET E.12**, At drawing coordinate 4B, center top of sheet,

delete "NEW FEED IS FROM BLDG 3A-03-1 SEE SHEETS E.7 & E.10"
and substitute "NEW FEED IS FROM BLDG 3A-03-1 SEE SHEETS E.7
& E.10, 4#4/0, 1#2 GND, 3"C"

(12) SHEET E.14, Revise in accordance with attached Sketch No. 4.

(13) SHEET E.16, Note 1, line 2, delete "E.20" and substitute
"E.21"

(14) SHEET E.16, Add new Note 4.:

"4. Lightning Protection and specification 13100 applies only
to new addition shown on the sheet E.16 and sheet
+A1.01."

(15) SHEET E.17, Note 1., delete "SHALL BE RATED FOR CLASS II
DIVISION 1 GROUP E" and substitute "SHALL BE RATED FOR CLASS
II DIVISION 1 GROUP E, F, & G."

(16) SHEET E.17, Revise in accordance with attached Sketch Nos. 5
and 6.

(17) SHEET E.21, Revise in accordance with attached Sketch Nos. 7

(18) SHEET E.23, At drawing coordinate 3A, bottom of sheet, delete
"ALL WIRING & EQUIPMENT IN THIS AREA SHOULD BE RATTED CLASS
II DIVISION 1 GROUP E" and substitute "ALL WIRING & EQUIPMENT
IN THIS BUILDING SHOULD BE RATTED CLASS II DIVISION 1 GROUP
E, F, & G".

(19) SHEET E.25, At drawing coordinate 4B, bottom left sheet,
delete "EXISTING 4#500kCM TO MDP1 IN 3A-050-1E SEE PHOTO #9
SHEET P5.03 AND P5.06" and substitute "EXISTING 4#500kCM IN
JUNCTION BOX TO MDP1 IN 3A-05-1E SEE PHOTO #9, SHEETS P5.03
AND P5.06, AND SEE SHT E.26 FOR BREAKER SIZE".

(20) SHEET E.25, Revise in accordance with attached Sketch No. 8

(21) SHEET E.26A, PHOTOGRAPH #16, leader note, delete "NEW 350 AMP
BREAKER LOCATION" and substitute "NEW 400 AMP BREAKER
LOCATION".

c. Drawings (New). The following "For Information Only" (FIO) on
drawing sheet on switchgear is issued with this amendment.

(1) SHEET FIO1

2. This amendment is a part of the bidding papers and its receipt shall be
acknowledged on the Standard Form 1442. All other conditions and requirements
of the specifications remain unchanged. If the bids have been mailed prior to
receiving this amendment, you will notify the office where bids are opened, in
the specified manner, immediately of its receipt and of any changes in your bid
occasioned thereby.

a. Hand-Carried Bids shall be delivered to the U.S. Army Corps of
Engineers, Omaha District, Contracting Division (Room 301), 106 South 15th
Street, Omaha, Nebraska 68102-1618.

b. Mailed Bids shall be addressed as noted in Item 8 on Page 00010-1 of Standard Form 1442.

3. Bids will be received until 2:00 p.m., local time at place of bid opening, 12 FEB 2002.

Attachments:

Sketches in 1.b. above

FIO Drawing in 1.c. above

U.S. Army Engineer District, Omaha
Corps of Engineers
106 South 15th Street
Omaha, Nebraska 68102-1618

28 JAN 2002
mrp/4413

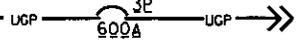
TO 750 KVA TRANSF.
SEE SHEET E.1.0 AND
FOR CONTINUATION

THREE (3) SETS OF
4550 KCMIL 144/0
IN EACH 4 C



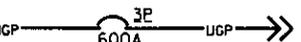
COOPER POWER SYSTEMS
KYLE TYPE WF1
PADMOUNTED SWITCHGEAR
VACUUM FAULT INTERRUPTER
OR APPROVED
EQUAL SEE NOTE 1.

AERIAL TO UNDERGROUND
STRUCTURE SEE SHEET E.1.0



COOPER POWER SYSTEMS
KYLE TYPE WF1
PADMOUNTED SWITCHGEAR
VACUUM FAULT INTERRUPTER
OR APPROVED
EQUAL SEE NOTE 1.

AERIAL TO UNDERGROUND
STRUCTURE SEE SHEET E.1.0



FUSED CUTOUTS



FUSED CUTOUTS



PROVIDE NEW
2 - NEW 45 FOOT
CLASS 4 POLES

CIRCUIT #1 ON POLE 3A-98

POLE 3A-97
SEE NOTE 2

POLE 3A-98
SEE NOTE 2

CIRCUIT #2 ON POLE 3A-97

NEW ELECTRICAL DISTRIBUTION DETAIL

NO SCALE

SKETCH No. 1
As # 1001

\$\$ - THINK VALUE ENGINEERING - \$\$

Symbol	Revisions	Date	Approved
△	GENERAL REVISIONS		

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
F.A.F.
(402) 221-4840

IOWA A&P
REPLACE ELECTRICAL SERVICES - LINE 3A
PN 003379
IOWA

ELECTRICAL PLAN BLDG. 3A-03-1

Submitted by: MUSSELL, J. BROOK Date:	Fig. Scale Ratio: B-1	Date: DECEMBER 2001	Sheet number: E7
Spec. No.: DAICA 45-02-9-0034	Design File: APZ108.1.DGN	Drawing Code: F 812-42-01	
Contract No.: DAICA 45	Chief, Electrical Section		

TO 3A-01, PNL MDP A,
4#500 KCM, 1#4/0GND, 4"C

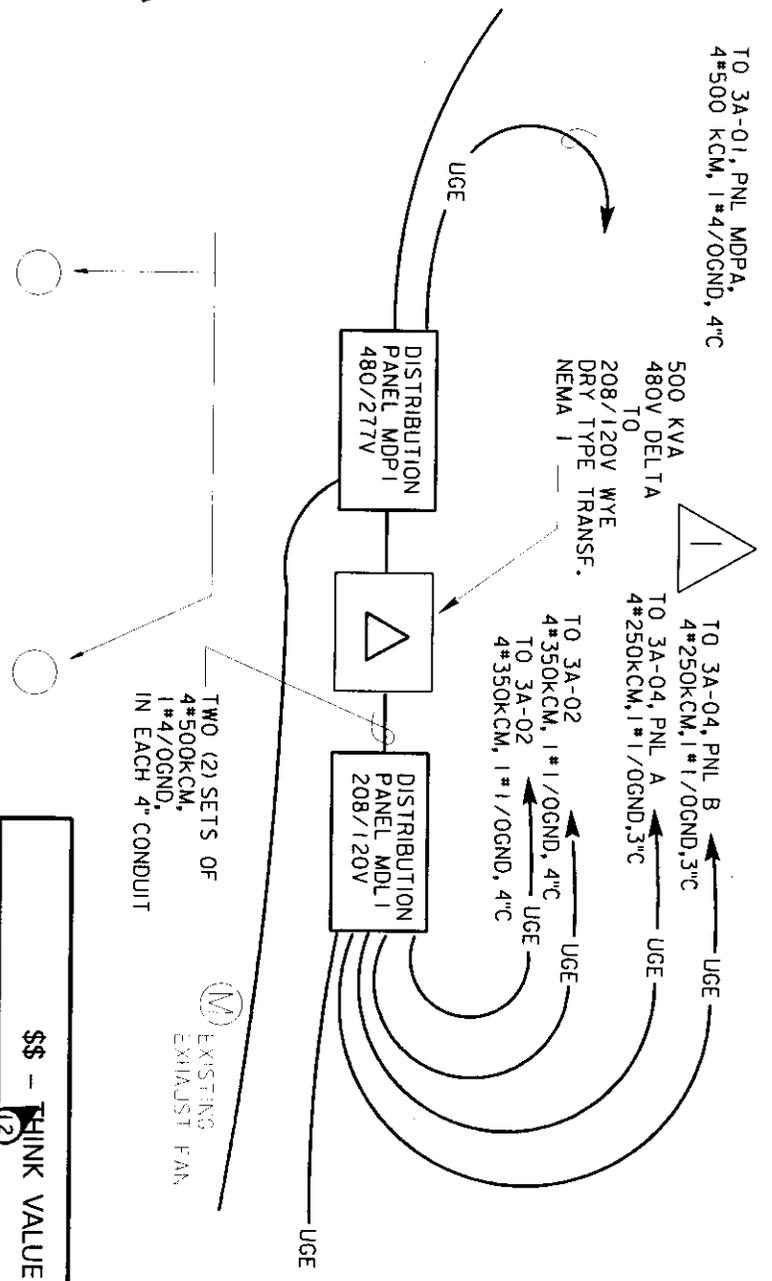
500 KVA
480V DELTA
TO
208/120V WYE
DRY TYPE TRANSF.
NEMA 1

TO 3A-04, PNL B
4#250KCM, 1#1/0GND, 3"C
TO 3A-04, PNL A
4#250KCM, 1#1/0GND, 3"C

TO 3A-02
4#350KCM, 1#1/0GND, 4"C
TO 3A-02
4#350KCM, 1#1/0GND, 4"C

TWO (2) SETS OF
4#500KCM,
1#4/0GND,
IN EACH 4" CONDUIT

(M) EXISTING
EXHAUST FAN



SKETCH No. Z
Am# 0001

11
6

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Revisions

Symbol	Descriptions	Date	Approved
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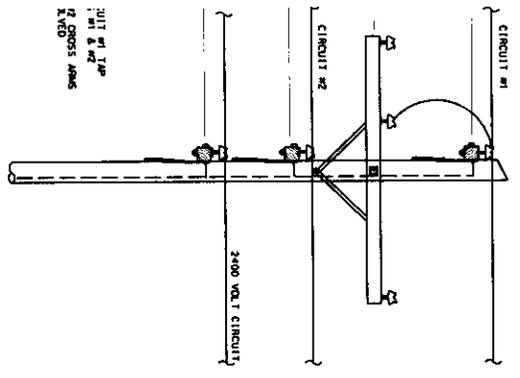
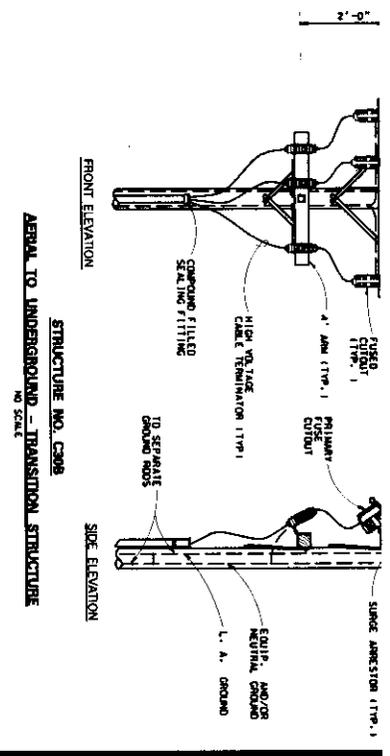
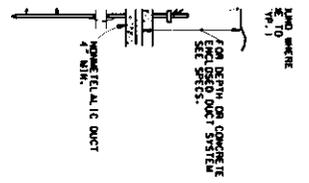
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
F.A.F.
(402) 221-4540

IOWA AAP
REPLACE ELECTRICAL SERVICES - LINE 3A
PN 003379
IOWA A

ELECTRICAL PLAN BLDG. 3A-03-1

Submitted by: RUSSELL J. BROICH Date:	Plot Scale Ratio: 8:1	Date: DECEMBER 2001	Sheet reference number: E7
Spec. No.: DACA 45 -02-B-0004	Design File: AP2703-1.DGN	Drawing Code: F 812-42-01	
Contract No.: DACA 45			



SKETCH NO. 3
 Am # 0001

ALL SCALES SHOWN ARE BASED ON A STANDARD DRAWING SIZE OF 36" X 48" OR LARGER UNLESS OTHERWISE NOTED. SIZE OF PAPER, X BEING IF ANY OTHER SIZE DRAWINGS ARE FURNISHED OR PLOTTED THE CONTRACTOR SHALL ADJUST THE SCALES ACCORDINGLY. THE CONTRACTOR SHALL ALSO ADVISE HIS SUB-CONTRACTORS OF THE ABOVE.

\$\$ - THINK VALUE ENGINEERING - \$\$

Symbol	Description	Date	Approved
△	GENERAL REVISIONS		

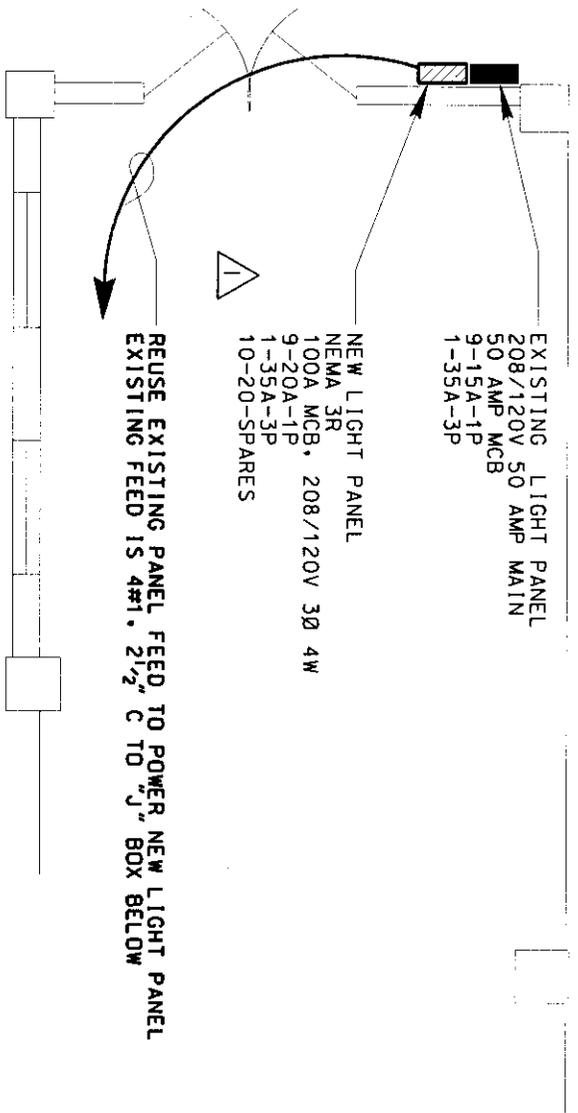
U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 OMAHA, NEBRASKA

ELECTRICAL DETAILS
BLDG. 3A-09-1

Designed by: RENEWAL & REPAIR
 1402-271-4040

IOWA MAP REFERENCE ELECTRICAL SERVICES - LINE 3A
 PM DISTRICT

Submitted by: RENEWAL & REPAIR Date:	Desk Scale Ratio: 1/16 Drawing No.: 42703-ED-001 Date: 12-18-00	Date: DECEMBER 2001	Sheet Number: EM
Checked by: [Signature]	Design No.: 42-8-004 Date: 12-18-00	Drawing Code: F 812-42-01	



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Revisions

Symbol	Descriptions	Date	Approved
Δ	GENERAL REVISIONS		

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:
FREDRICK A. FRANTIA
(402) 221-4540

IOWA AAP
REPLACE ELECTRICAL SERVICES - LINE 3A
PN 003379

IOWA A

**BUILDING 3A-05-1
ELECTRICAL PLAN
SECOND FLOOR**

Submitted by:
RUSSELL J. BROICH
Date:

Plot Scale Ratio: 4:1
Design File: AP2751-2.DGN

Date: DECEMBER 2001

Sheet reference number:

Spec. No.:
DACA 45 -02-B-0004
Contract No.:
DACA 45

Drawing Code:

F 812-42-01

E.14

Chief: ELECTRICAL Section

FI ORR PLAN
BUILDING 3A-05-1
2ND FLOOR
SCALE = 1/4"=1'-0"

*SKETCH No. 4
Am # 0001*

BLDG
3A-50-2



SKETCH No. 5
Am # 0001

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Revisions		
Symbol	Descriptions	Date
Δ	GENERAL REVISIONS	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

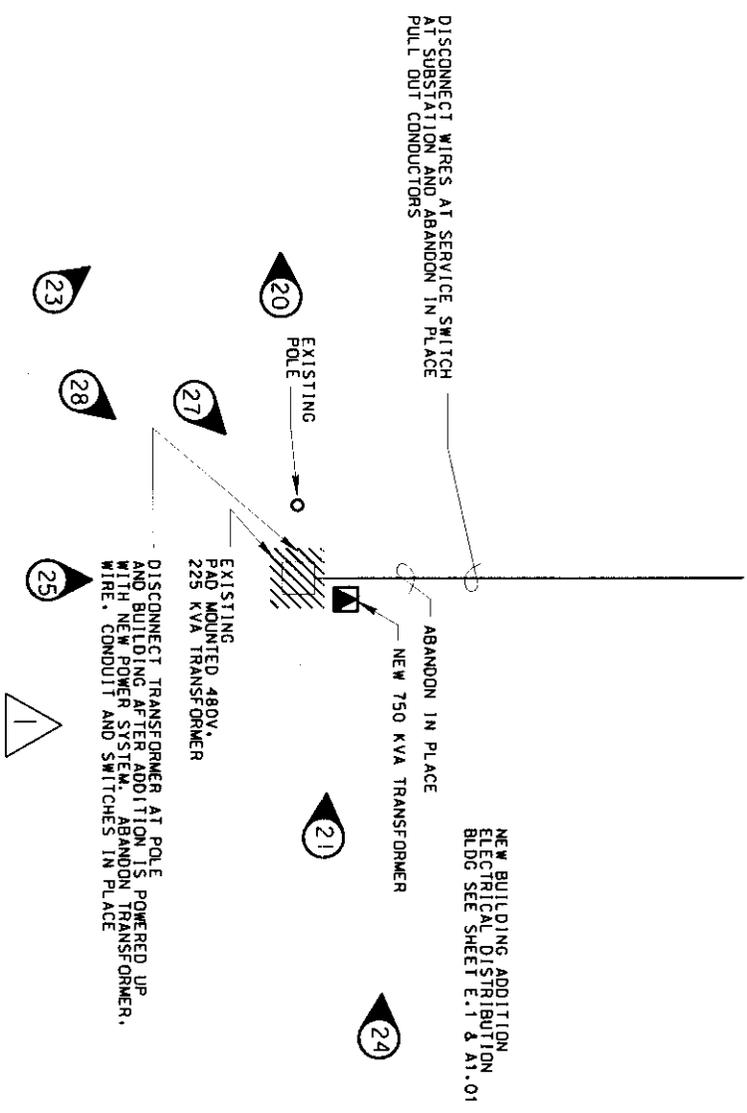
Designed by:
FREDRICK A. FRANTIA
(402) 221-4540

IOWA AAP
REPLACE ELECTRICAL SERVICES - LINE 3A
PN 003379

IOWA A

**BUILDING 3A-05-2
ELECTRICAL PLAN**

Submitted by: RUSSELL J. BROICH	PLOT Scale Ratio: X	Date: DECEMBER 2001	Sheet reference number: E.17
Date:	Design File: ap2752-2.dgn	Drawing Code: F 812-42-01	
	Spec. No.: DACA 45 -02-B-0004		
	Contract No.: DACA 45		



SKETCH NO. 16
 AM # 20701

\$\$\$ - THINK VALUE ENGINEERING - \$\$\$

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△	GENERAL REVISIONS		

U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 OMAHA, NEBRASKA

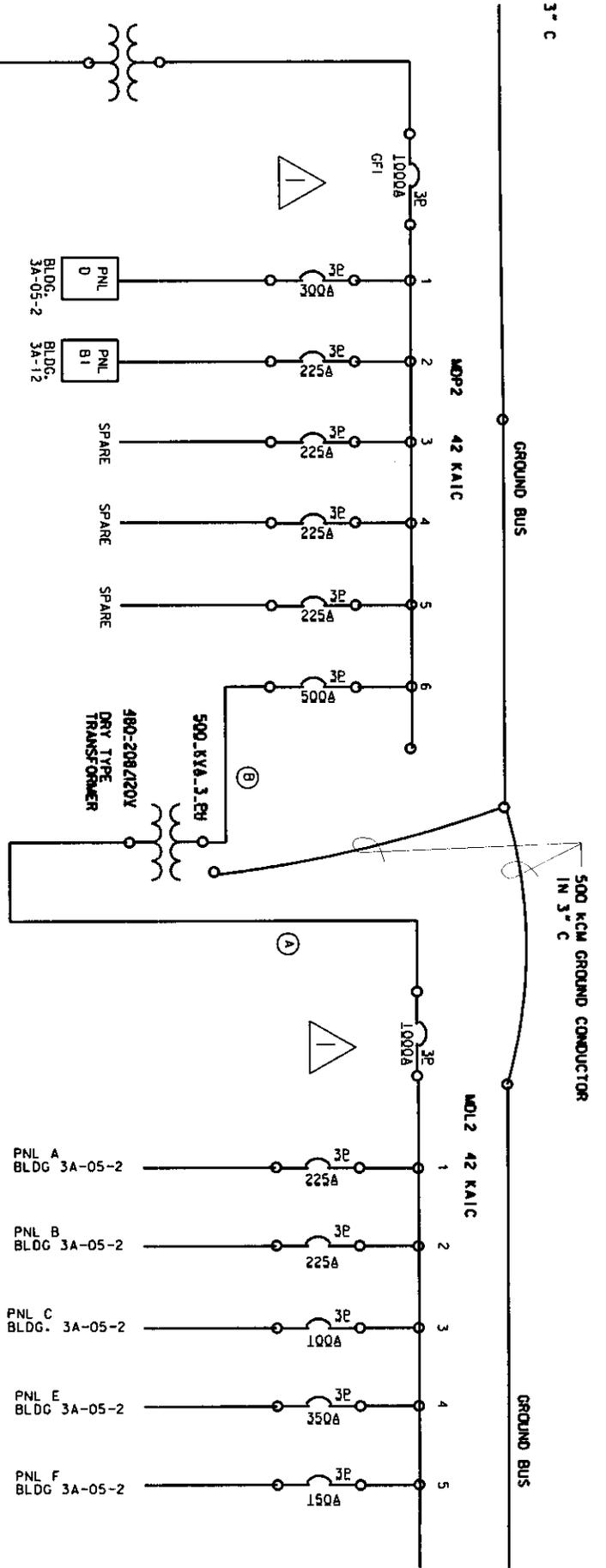
Designed by: IOWA MAP
 FREDRICK A. PRANTA
 (402) 221-4540
 REPLACE ELECTRICAL SERVICES - LINE 3A
 PN 003379

**BUILDING 3A-05-2
 ELECTRICAL PLAN**

Submitted by: RUSSELL J. BENOCH Date:	Plot Scale Ratio: X	Date: DECEMBER 2001	Sheet reference number: E:17
Spec. No.: DACX 46 -02 B-0004	Design File: 902752-2.dgn	Drawing Code: F 812-42-01	
Contract No.: DACDA 49			

1 # 500 KCM, 3" C
SEE NOTE #1

TO 2400V
ON POLE
OVER HEAD
TO
UNDER
GROUND
CONSTRUCTION
SEE SPECS



SKETCH No. 7
Ava # 1000 1

THE CONTRACTOR SHALL ALSO ADVISE HIS SUB-CONTRACTORS OF THE ABOVE.

\$\$ - THINK VALUE ENGINEERING - \$\$

Symbol	Revisions	Date	Approved
Δ	GENERAL REVISIONS		

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

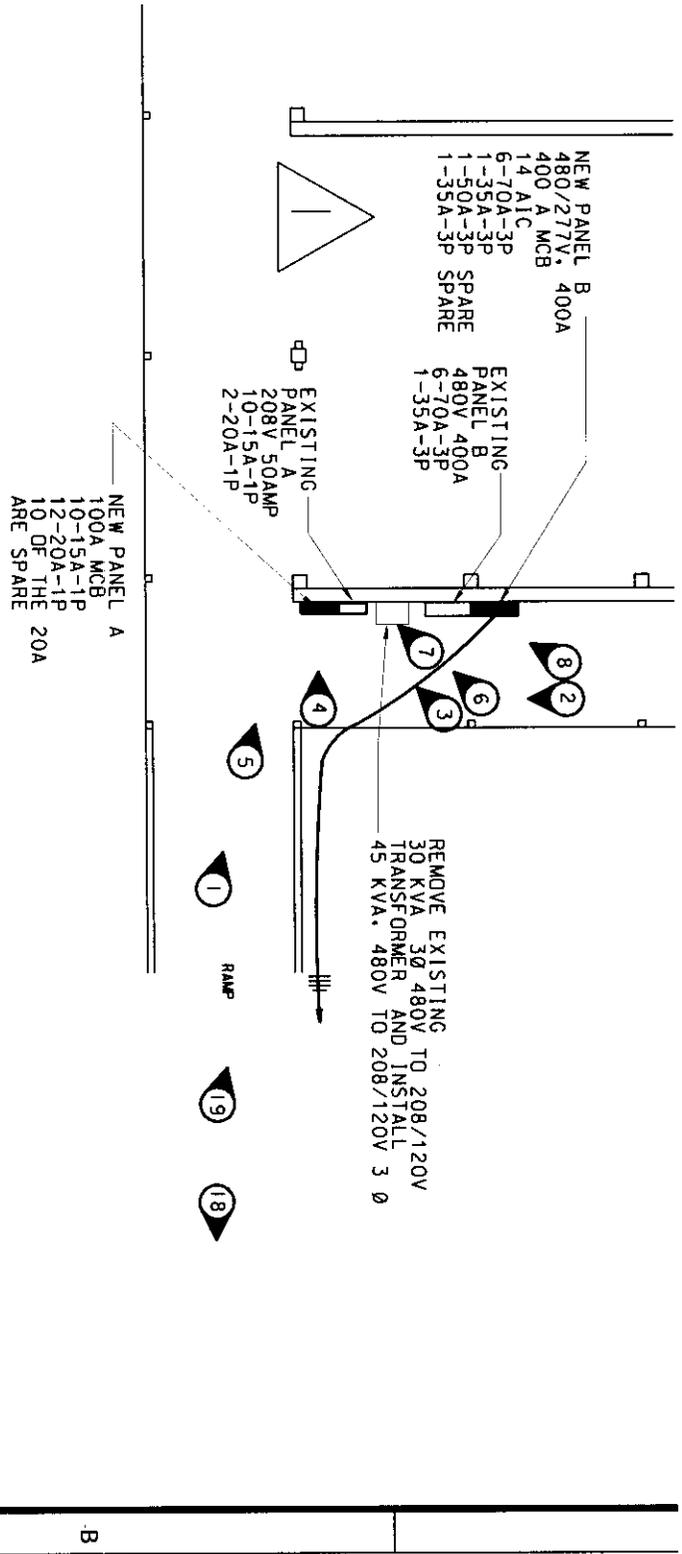
Designed by:
FREDRICK A. FRANTA
(402)-271-4540

IOWA AAP
REPLACE ELECTRICAL SERVICES - LINE 3A
PN 003379

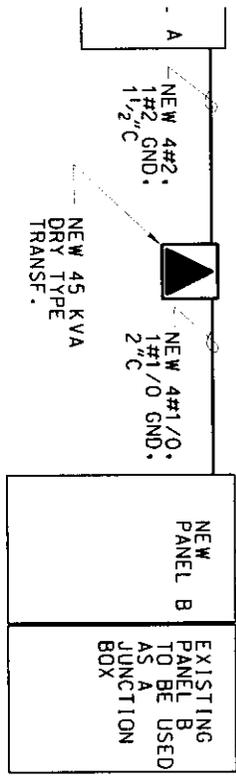
IOWA
A

**BUILDING 3A-05-2
ONE LINE & SCHEDULES**

Submitted by: RUSSELL J. BRODICH Date:	Plot Scale Ratio: 9.6:1	Date: DECEMBER 2001	Sheet reference number: E21
Design File: ap2752-610gn	Spec. No.: DACA 45 -02-B-0004	Drawing Code: F 812-42-01	
Contract No.: DACA 45	Chief: ELECTRICAL Section		



4/0 GND, 4" C BOX IN RAMP SEE SHIT P5.06, " J" BOX ET, THIS



CTRICAL DISTRIBUTION DETAIL

SKETCH No 8
AMH 10/20

ALL SCALES SHOWN ARE BASED ON A STANDARD DRAWING SIZE OF 28" X 40" OR METRIC DRAWING SIZE OF B4mm X 594mm. IF ANY OTHER SIZE DRAWINGS ARE FURNISHED OR PLOTTED THE CONTRACTOR SHALL ADJUST THE SCALES ACCORDINGLY. THE CONTRACTOR SHALL ALSO ADVISE HIS SUB-CONTRACTORS OF THE ABOVE.

\$\$\$ - THINK VALUE ENGINEERING - \$\$\$

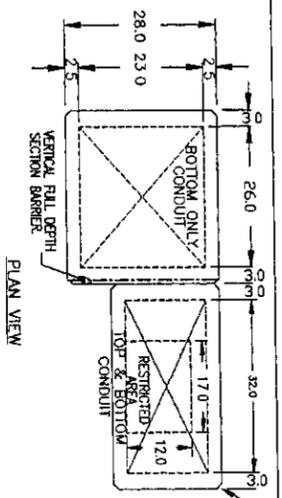
Symbol	Descriptions	Date	Approved
A	GENERAL REVISIONS		

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by: IOWA AAP
FREDRICK A. FRANTA
44021 221-4540
REPLACE ELECTRICAL SERVICES - LINE 3A
PN 003379

BUILDING 3A-20-1

Submitted by:	RUSSELL J. BENOCH Chief, Electrical Section	Plot Scale Ratio:	8 : 1	Date:	DECEMBER 2001	Sheet reference number:	E 25
Date:		Design File:	90272011.dgn	Drawing Code:	F 812-42-01		
		Spec. No.:	DACA 45 - 02-8-0004				
		Contract No.:	DACA 45				

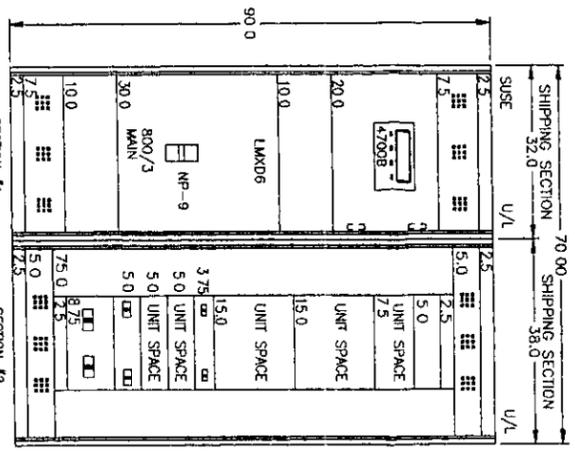


PAISED LINES INDICATE AVAILABLE CONDUIT AREA FOR EACH SECTION. SHAVED AREA IS RESTRICTED TO 12.0 INCHES MAXIMUM FOR BRANCHING POINTS.

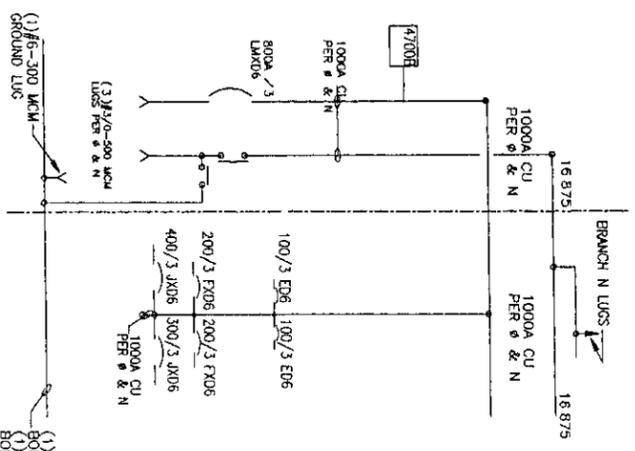
NAMEPLATE SCHEDULE "A"

NO	ENGAGING
NO	SWITCHBOARD MDP

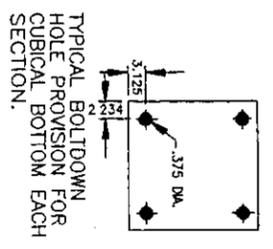
2.5" x 5.0" ENGRAVED NAMEPLATE, BLACK W/ WHITE CORE



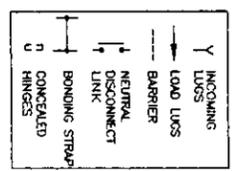
FRONT VIEW
36 AW 480Y/27V
800A MAINS
800A NEUTRAL
ITEM 5112



(1) 1/4" x 625" CU
ROUTED TO EACH SECTION
(1) 1/4" x 625" CU
BONDING STRAP



TYPICAL BOLT-DOWN HOLE PROVISION FOR CUBICAL BOTTOM EACH SECTION.



LEGEND

MOLDED CASE BREAKERS
NUMBER & SIZE LUG PER LEG

FRAME TYPE	AMPS	CONNECTORS
ED4, ED6, ETL	15-20	1-#1-#10 AMPS (CU OR AL)
ED6, HED4, HED6	25	1-#10-#10 AMPS (CU OR AL)
	30-100	1-#10-#10 (CU OR AL)
	110-125	1-#2/0-1 (AL)
	70-250	1-#4 AMPS-350 MCM (CU)
	200-400	1-#2-#4 AMPS-500 MCM (CU)
	250-400	1-#2-#4 AMPS-500 MCM (CU)
	400-800	2-#1 AMPS-500 MCM (CU OR AL)
	700-800	3-#1/2-500 MCM (CU OR AL)
	800-1200	4-250-500 MCM (CU OR AL)

AMPACITY RATING

SECTION	MAINS	SUPPLY SECTION
#1	NEUTRAL	800
#2	NEUTRAL	800

CONSTRUCTION-SWITCHBOARD IS BUILT AND LABELED PER UL 891 IN EFFECT STANDARD AT TIME OF MANUFACTURE

INCOMING SERVICE
-AMPERES: 800
-VOLTS: 480Y/27V
-SYSTEM: 3 PHASE/1 4 WIRE

INTERRUPTING-THE SHORT CIRCUIT INTERRUPTING CAPABILITY IS 25000 RMS SYMMETRICAL AMPERES AT 480 VOLTS BASED ON THE LARGEST SHORT CIRCUIT CURRENT RATING OF THE INDIVIDUAL DR SERIES RATED COMBINATION DEVICE INSTALLED AT TIME OF MANUFACTURE. THE BUSBARS STRUCTURE IS CONSTRUCTED TO WITHSTAND FAULTS OF 42000 RMS SYMMETRICAL AMPERES.

FUSES
-FUSES ARE NOT FURNISHED UNLESS FUSE AMPERAGE IS MARKED ON ONE LINE DIAGRAM.

ENCLOSURE
-ENCLOSURE IS TYPE NEMA 1 FOR INDOOR APPLICATION. CUBICLE FRAMES AND COVERS ARE CONSTRUCTED FROM CODE GAUGE STEEL. LIFTING EYES ARE PROVIDED.

EXTERIOR FINISH
-ASA 61 GREY PAINT

TERMINATIONS-FRONT ACCESS REQUIRED

BUS BARS -COPPER SIZED ON BASIS OF 65 DEG. C MAX. TEMP. RISE.

INTERRUPTING CAPACITY RATING - SYMMETRICAL AMPS
BREAKER 120V 240V 480V 600V LUG#

ED6 30-100A	65K	25K	18K	LN1E100
FXD6 70-250A	65K	35K	18K	TA1F350
JXD6 200-400A	65K	35K	25K	TA2J6500
LXKD6 500-800A	65K	50K	25K	TA3K500

ABBREVIATIONS

'SUSE' INDICATES THAT THE MARKED SECTION IS SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT AND IS SO IDENTIFIED.

'UL' INDICATES THAT THE MARKED SECTION COMPLIES WITH ALL APPLICABLE UNDERWRITERS LABORATORIES STANDARDS AND IS IDENTIFIED WITH A UL LABEL.

'UNIT SPACE' INDICATES UNOCCUPIED AREA INTENDED FOR FUTURE USE

4700 - SIEMENS DIGITAL POWER METER CAT. # 4700BRMC312HN

REF DRAWING 75-9199 WIRING DIAG FOR 4700B POWER METER

MASON & HAGGER JOB 3A-05-1

NO	REVISIONS	BY & DATE	CHD	APP
1				

PO	SI198456	DATE	08-28-96
BY	AM	ENC LUG	7170
DATE	08-28-96	ENC LUG	7170
DATE	08-28-96	ENC LUG	7170
DATE	08-28-96	ENC LUG	7170

Siemens Energy & Automation, Inc.
Atlanta, Georgia

The information only (FID)

DATA FID 1