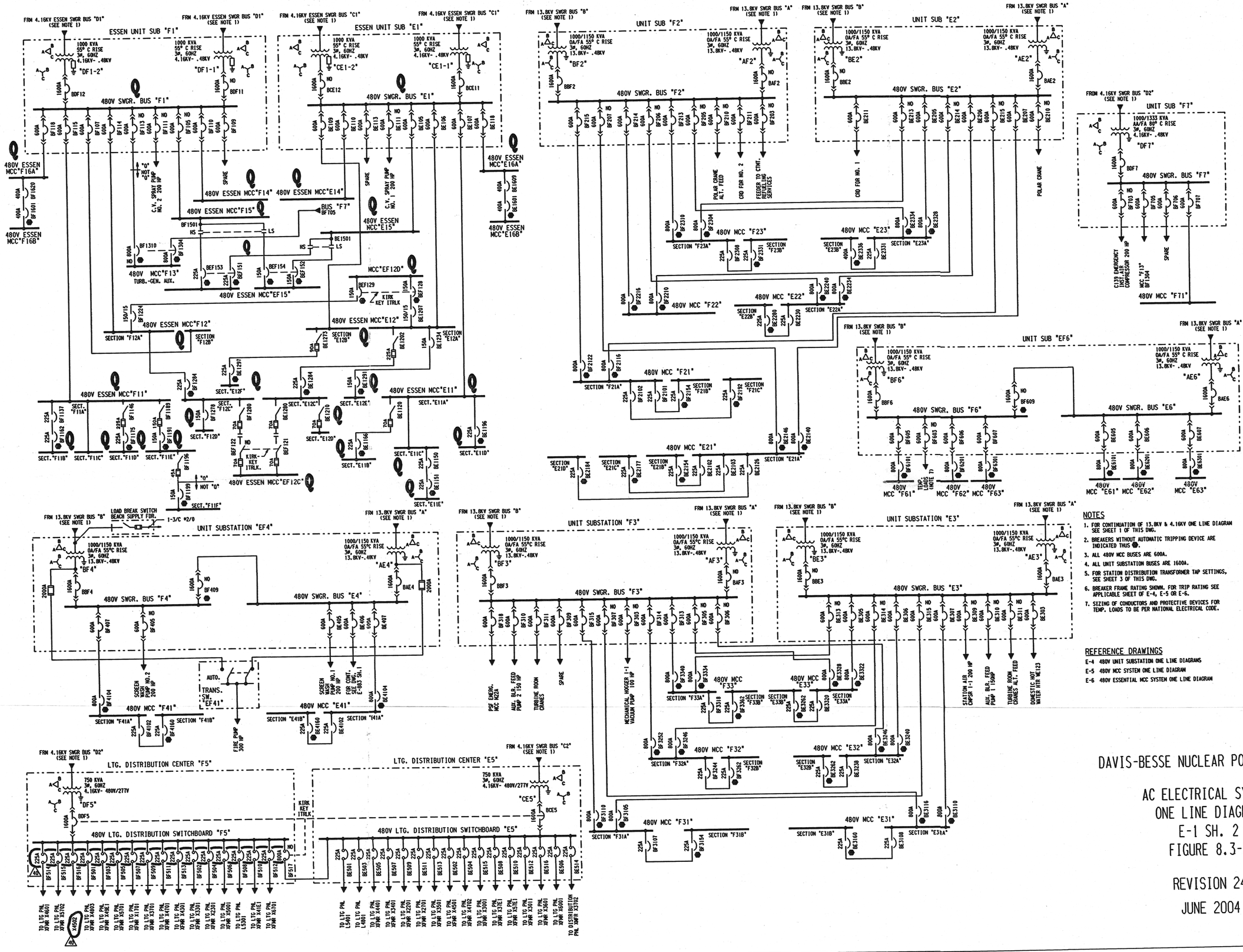
ESSEN UNIT SUB "F1"
ESSEN UNIT SUB "E1"
UNIT SUB "F2"
UNIT SUB "E2"
UNIT SUB "F7"
UNIT SUB "EF6"
UNIT SUBSTATION "EF4"
UNIT SUBSTATION "F3"
UNIT SUBSTATION "E3"
LTG. DISTRIBUTION CENTER "F5"
LTG. DISTRIBUTION CENTER "E5"
480V SWGR. BUS "F1"
480V SWGR. BUS "E1"
480V SWGR. BUS "F2"
480V SWGR. BUS "E2"
480V SWGR. BUS "F7"
480V SWGR. BUS "F6"
480V SWGR. BUS "E6"
480V SWGR. BUS "F4"
480V SWGR. BUS "E4"
480V SWGR. BUS "F3"
480V SWGR. BUS "E3"
480V LTG. DISTRIBUTION SWITCHBOARD "F5"
480V LTG. DISTRIBUTION SWITCHBOARD "E5"
480V ESSEN MCC"F16A"
480V ESSEN MCC"F16B"
480V ESSEN MCC"E16A"
480V ESSEN MCC"E16B"
480V ESSEN MCC"F14"
480V ESSEN MCC"E14"
480V ESSEN MCC"F15"
480V ESSEN MCC"E15"
480V ESSEN MCC"EF15"
480V MCC"F13" TURB.-GEN. AUX.
MCC"EF12D"
480V ESSEN MCC"F12"
480V ESSEN MCC"E12"
480V ESSEN MCC"F11"
480V ESSEN MCC"E11"
480V ESSEN MCC"EF12C"
480V MCC "F23"
480V MCC "E23"
480V MCC "F22"
480V MCC "E22"
480V MCC "F21"
480V MCC "E21"
480V MCC "F41"
480V MCC "E41"
480V MCC "F32"
480V MCC "E32"
480V MCC "F33"
480V MCC "E33"
480V MCC "F31"
480V MCC "E31"
480V MCC "F71"
480V MCC "F61"
480V MCC "F62"
480V MCC "F63"
480V MCC "E61"
480V MCC "E62"
480V MCC "E63"
"DF1-2"
"DF1-1"
"CE1-2"
"CE1-1"
"BF2"
"AF2"
"BE2"
"AE2"
"DF7"
"BF6"
"AE6"
"BF4"
"AE4"
"BF3"
"AF3"
"BE3"
"AE3"
"DF5"
"CE5"
FRM 4.16KV ESSEN SWGR BUS "D1" (SEE NOTE 1)
FRM 4.16KV ESSEN SWGR BUS "C1" (SEE NOTE 1)
FRM 4.16KV SWGR BUS "D2" (SEE NOTE 1)
FRM 4.16KV SWGR BUS "C2" (SEE NOTE 1)
FRM 13.8KV SWGR BUS "A" (SEE NOTE 1)
FRM 13.8KV SWGR BUS "B" (SEE NOTE 1)
LOAD BREAK SWITCH BEACH SUPPLY FDR.
1-3/C #2/0
C.V. SPRAY PUMP NO. 2 200 HP
C.V. SPRAY PUMP NO. 1 200 HP
SPARE
BUS "F7" BF705
POLAR CRANE ALT. FEED
CRD FOR NO. 2
FEEDER TO CTMT. REFUELING SERVICES
CRD FOR NO. 1
POLAR CRANE
C139 EMERGENCY AIR LOCK COMPRESSOR 200 HP
MCC "F13" BF1304
SCREEN WASH PUMP NO.2 200 HP
SCREEN WASH PUMP NO.1 200 HP
CORE DOOR CONT. E-1983 SH.
FIRE PUMP 300 HP
PSF EMERG. MCC H22A
AUX. BLR. FEED PUMP # 150 HP
TURBINE ROOM CRANES
MECHANICAL HOGGER (-) VACUUM PUMP 100 HP
STATION AIR COMPSR 1-1 200 HP
AUX. BLR. FEED PUMP 1 150HP
TURBINE ROOM CRANES ALT. FEED
DOMESTIC HOT WATER HTR NE123
KIRK KEY ITRLK
TEMPO LOADS TO BE ENERGIZED FROM 480V MCC "F61"
TO LTG PNL L5401
TO LTG PNL L5501
TO DISTRIBUTION PNL XFMR X3102
NOTES
1. FOR CONTINUATION OF 13.8KV & 4.16KV ONE LINE DIAGRAM SEE SHEET 1 OF THIS DWG.
2. BREAKERS WITHOUT AUTOMATIC TRIPPING DEVICE ARE INDICATED THUS ●.
3. ALL 480V MCC BUSES ARE 600A.
4. ALL UNIT SUBSTATION BUSES ARE 1600A.
5. FOR STATION DISTRIBUTION TRANSFORMER TAP SETTINGS, SEE SHEET 3 OF THIS DWG.
6. BREAKER FRAME RATING SHOWN. FOR TRIP RATING SEE APPLICABLE SHEET OF E-4, E-5 OR E-6.
7. SIZING OF CONDUCTORS AND PROTECTIVE DEVICES FOR TEMP. LOADS TO BE PER NATIONAL ELECTRICAL CODE.
REFERENCE DRAWINGS
E-4 480V UNIT SUBSTATION ONE LINE DIAGRAMS
E-5 480V MCC SYSTEM ONE LINE DIAGRAM
E-6 480V ESSENTIAL MCC SYSTEM ONE LINE DIAGRAM
DAVIS-BESSE NUCLEAR POWER STATION
AC ELECTRICAL SYSTEM
ONE LINE DIAGRAM
E-1 SH. 2
FIGURE 8.3-2
REVISION 24
JUNE 2004
D-02
DB 03-26-04 DFN=1:/ELEC/E1SH2.DGN