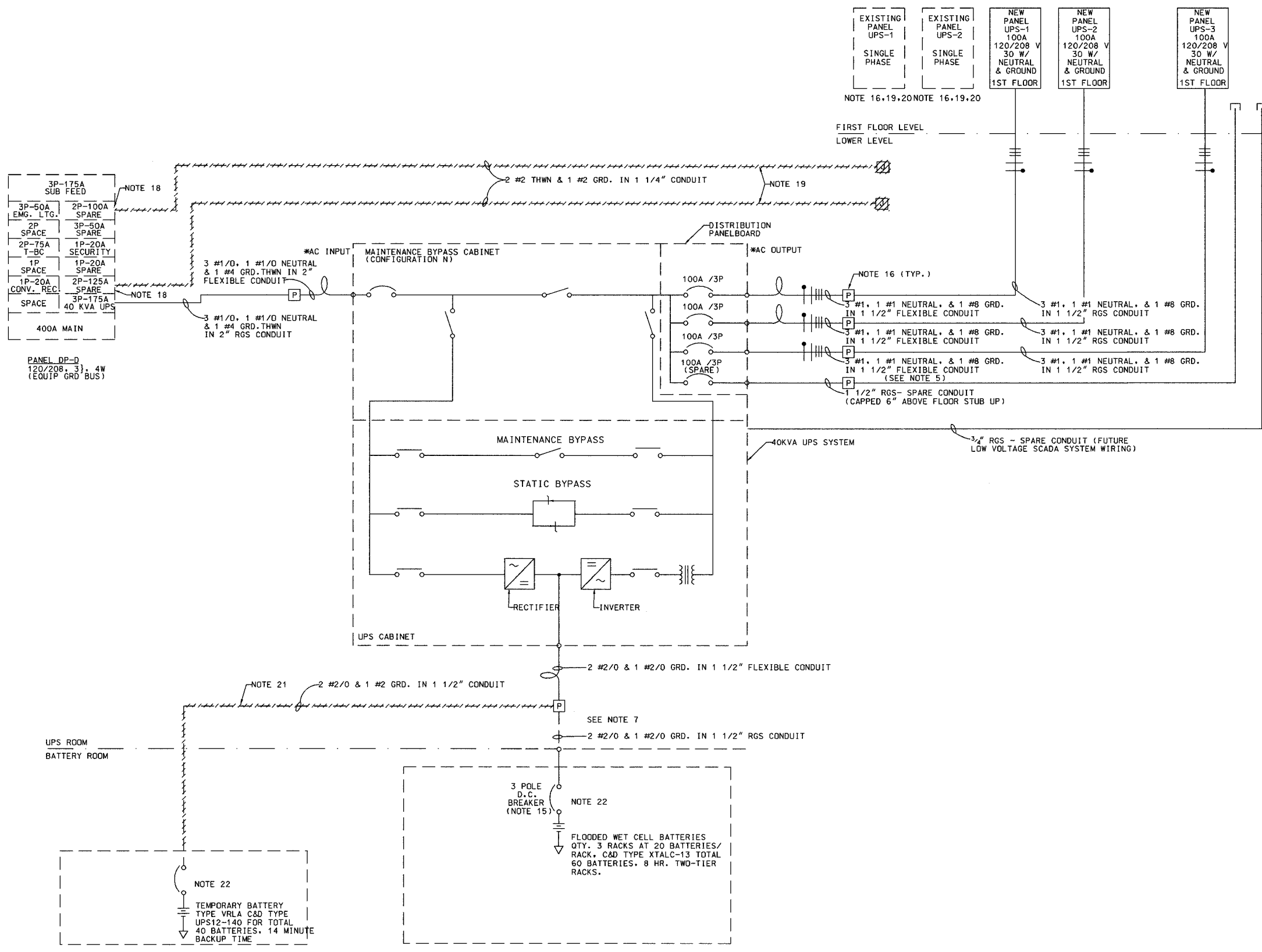


SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	910
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES**
- INSTALL IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES
  - INPUT SOURCE MUST BE SOLIDLY GROUND WYE.
  - A NEUTRAL IS REQUIRED FROM THE AC INPUT SOURCE.
  - WHEN THE LOAD REQUIRES A NEUTRAL, THE NEUTRAL CONDUCTOR SHOULD BE FULL CAPACITY (OR LARGER FOR NON-LINEAR LOADS).
  - UPS OUTPUT NEUTRAL CONNECTION MUST BE CONNECTED TO THE AC INPUT SOURCE NEUTRAL. THE EQUIPMENT GROUND CONNECTION MUST BE CONNECTED TO THE SYSTEM GROUND BUS.
  - POWER CABLES FROM UPS DC LINK TO BATTERIES SHOULD BE SIZED FOR A TOTAL MAXIMUM 2 VOLT LINE DROP AT MAXIMUM DISCHARGE CURRENT.
  - DC POWER WIRING IS PROVIDED BY ELECTRICAL CONTRACTOR.
  - UPS AC INPUT AND AC OUTPUT CABLES MUST BE RUN IN SEPARATE CONDUIT.
  - CONTROL WIRING AND POWER WIRING MUST BE RUN IN SEPARATE CONDUITS.
  - SEE ELECTRICAL SPECIFICATION FOR UPS CONFIGURATION.
  - ALL LUGS TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
  - ALL WIRE WILL BE THWN, UNLESS OTHERWISE NOTED.
  - REFERENCE CONSTRUCTION PHASING FOR THE TIMELY INSTALLATION AND REMOVAL OF EQUIPMENT
  - DURING NORMAL UPS OPERATIONS, SHORT TERM CURRENT DEMAND FROM THE AC INPUT SOURCE MAY REACH 10 TIMES THE UPS FULL LOAD OUTPUT CURRENT RATING. THE INSTANTANEOUS TRIP SETTING OF THE UPSTREAM AC INPUT FEEDER BREAKER MUST BE SET ACCORDINGLY.
  - SEE 40KVA BREAKER DETAIL, SHEET DT-121
  - CONTRACTOR TO INTERCEPT EXISTING BRANCH CIRCUIT WIRING AND TRANSFER LOADS FROM EXISTING SINGLE PHASE PANELS UPS-1 & UPS-2 TO NEW THREE PHASE PANELS UPS-1 & UPS-2 RESPECTIVELY.
  - AFTER SUCCESSFUL TRANSFER OF LOADS FROM 5KVA UPS TO NEW 40KVA UPS THE EXISTING 100A BREAKER TO REMAIN IN PANELBOARD AS SPARE.
  - AFTER SUCCESSFUL TRANSFER OF LOADS FROM 10KVA UPS TO NEW 40KVA UPS THE EXISTING 125A BREAKER TO REMAIN IN PANELBOARD AS SPARE.
  - CONTRACTOR TO REMOVE PANEL AND FEEDER WIRING AFTER NEW UPS SYSTEM HAS BEEN INSTALLED AND HAS BEEN ACCEPTED BY IDOT AS BEING A COMPLETE AND WORKABLE SYSTEM.
  - EXISTING UPS PANELS UPS-1, UPS-2 TO BE REMOVED, INCLUDING ALL FEEDER CONDUIT AND WIRING, UPON COMPLETION OF INSTALLATION OF NEW 3 UPS PANEL UPS-1,2.
  - TEMPORARY WIRING TO BE REMOVED BETWEEN TEMPORARY SEALED BATTERY CABINET AND PULL BOX AFTER CUTOVER TO NEW FLOODED WET CELL BATTERIES.
  - SIZE BREAKER PER MANUFACTURER'S RECOMMENDATION.

**LEGEND**

EXISTING CONDUIT AND OR EQUIPMENT TO BE REMOVED

DT-12C

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31st STREET to I-57
NAME	DATE	
		PROPOSED SINGLE LINE DIAGRAM 40 KVA UPS SYTEM
SCALE: NOT TO SCALE		DRAWN BY: SST
DATE: October 29, 2004		CHECKED BY: CS

**Edwards AND Kelcey**  
 ONE NORTH FRANKLIN  
 CHICAGO, IL 60606  
 PHONE: (312) 251-3000  
 FAX: (312) 251-3015  
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\*EXTERNAL OVERCURRENT PROTECTION BY ELECTRICAL CONTRACTORS  
 — FIELD SUPPLIED WIRING BY ELECTRICAL CONTRACTOR  
 WIRE SIZE, CONDUIT SIZE

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