

SUSITNA HYDROELECTRIC PROJECT

SWITCHING STATIONS AND SUBSTATIONS

SINGLE LINE DIAGRAMS

UNIVERSITY OF ALASKA
ARCTIC ENVIRONMENTAL INFORMATION
1982

**FINAL DRAFT
MARCH 1982
FIGURES**

Prepared by:



ALASKA POWER AUTHORITY

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FIGURES**

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1 - SWITCHING STATIONS AND SUBSTATIONS

SINGLE LINE DIAGRAMS

This document contains the single line diagrams for the four terminal and intermediate stations discussed in Section 14.5 of the Feasibility Report. Each station is represented by the following figures:

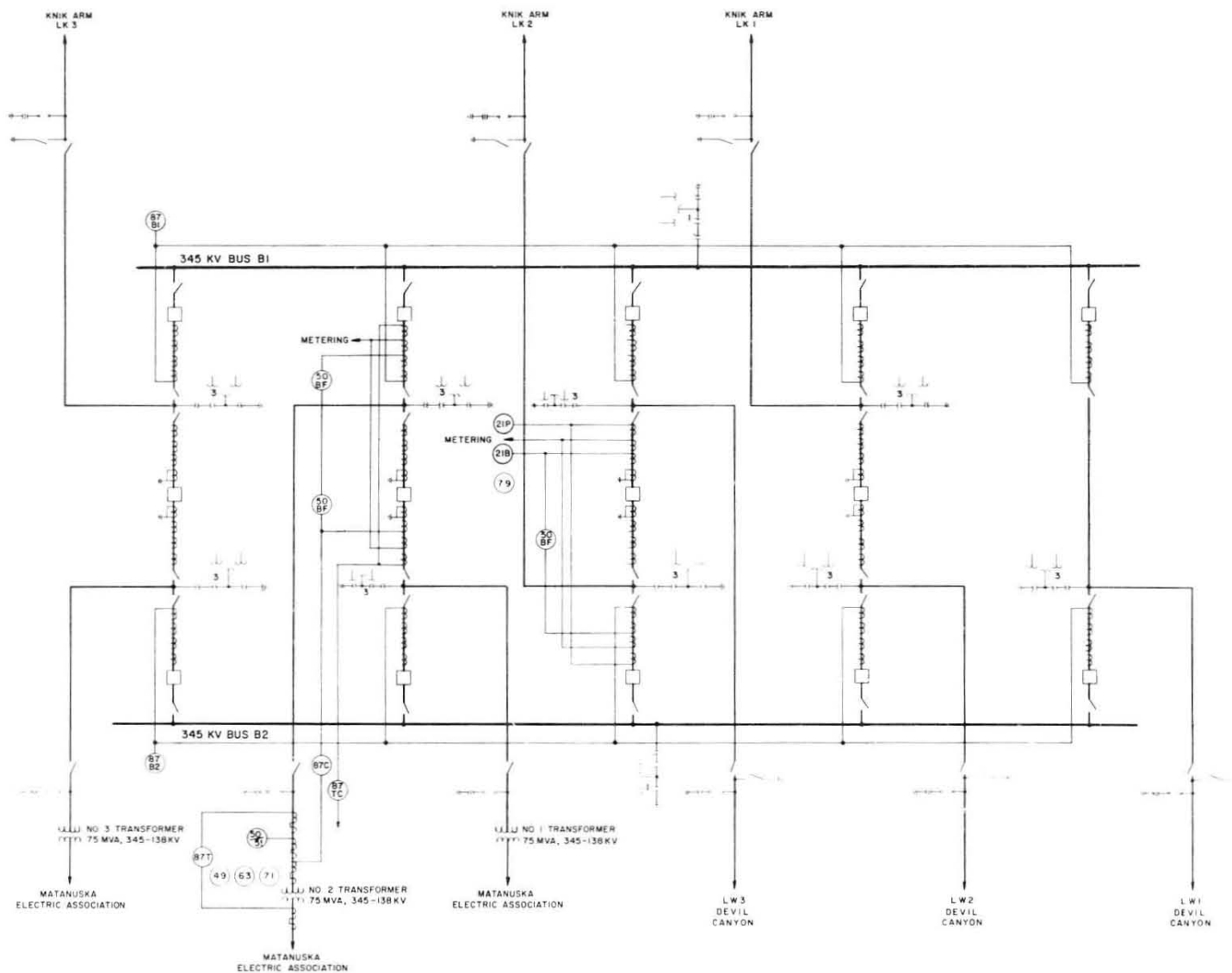
Figure 1 - Willow Substation - Single Line Diagram

Figure 2 - Knik Arm Substation - Single Line Diagram

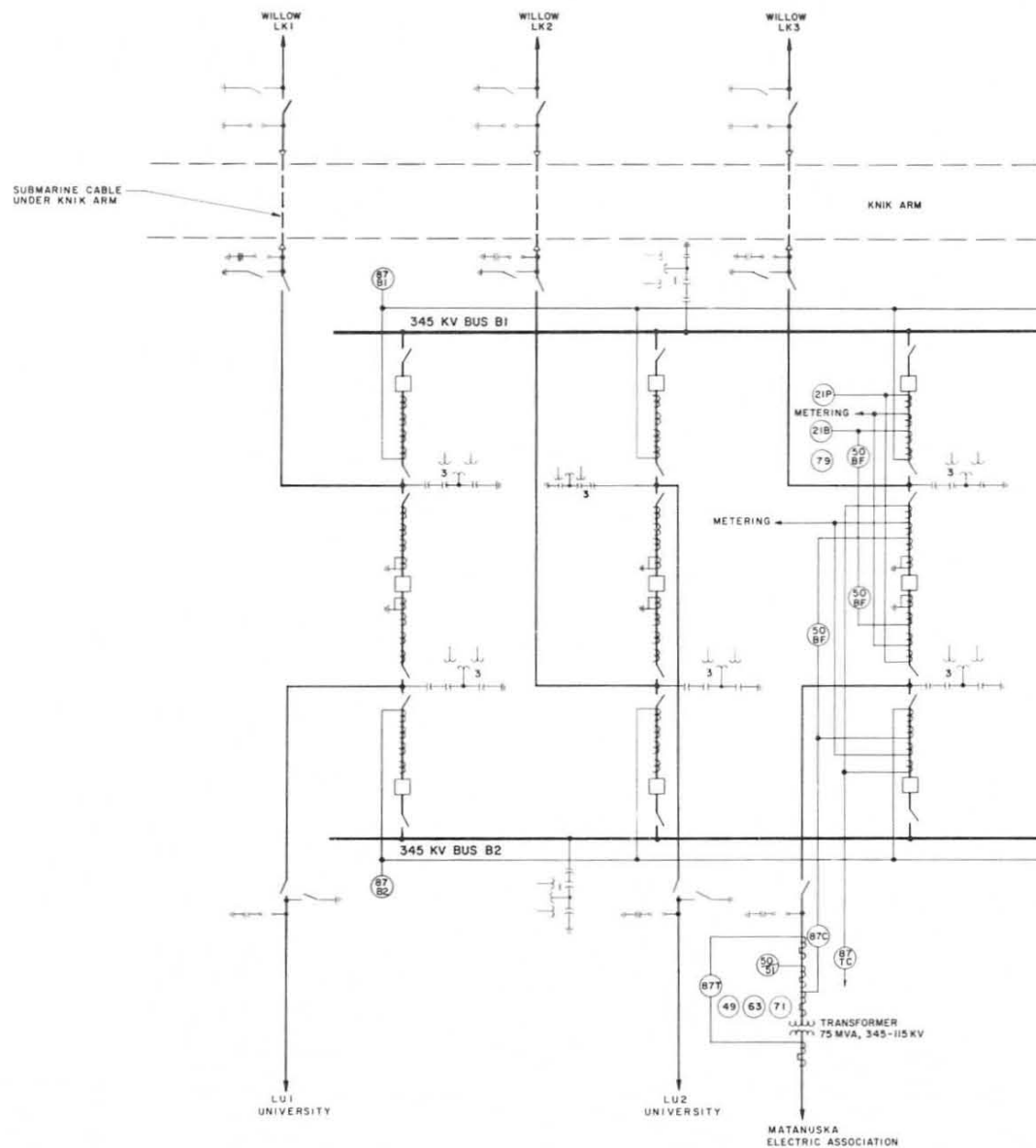
Figure 3 - University Substation - Single Line Diagram

Figure 4 - Ester Substation - Single Line Diagram

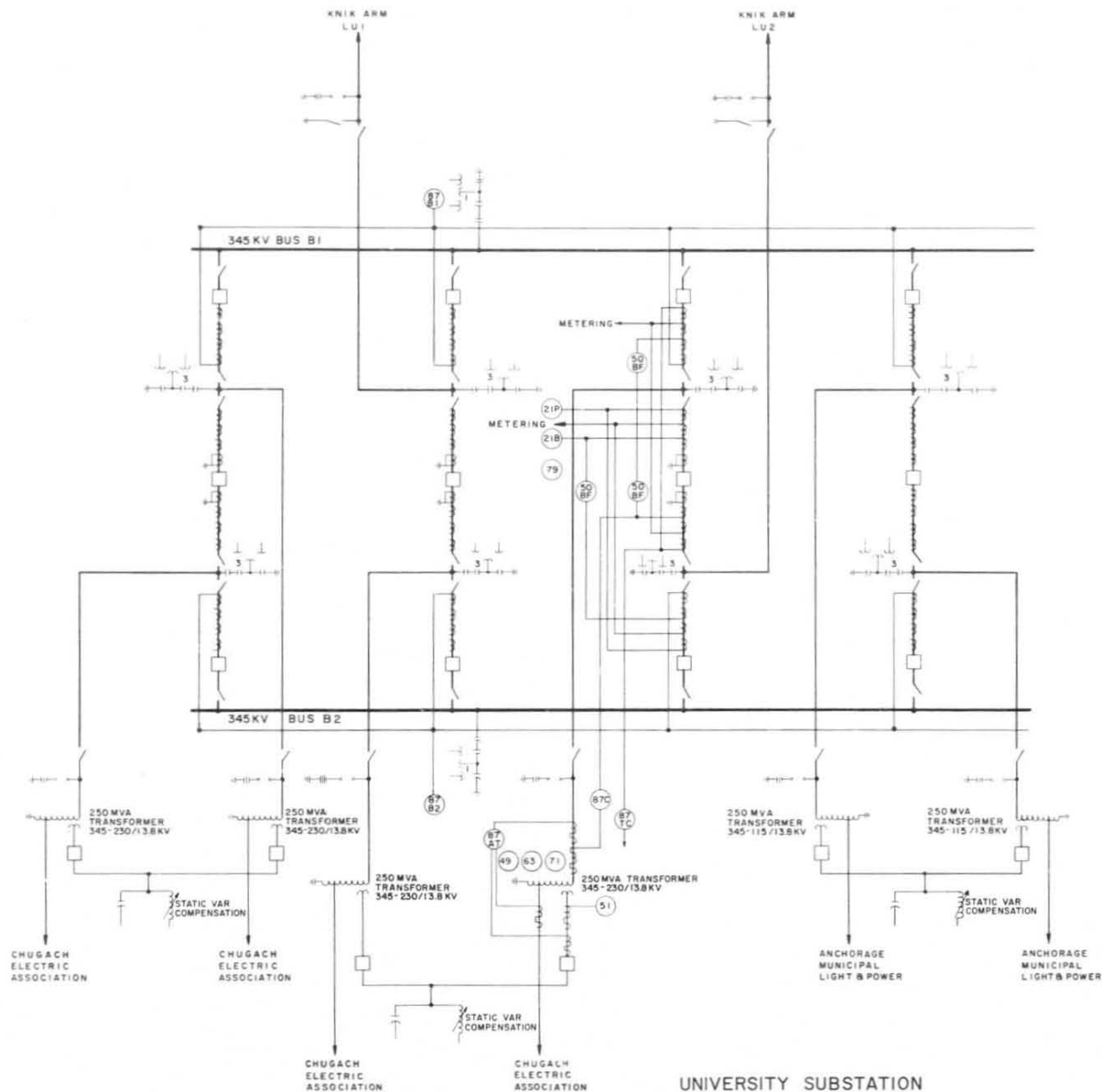
The substations are part of the 345-kV transmission system and serve as intermediate switching stations or as terminal stations at the major load centers. The single line diagrams depict a "breaker-and-a-half" arrangement of the station and also show the proposed relay protection schemes for transmission line and major equipment.



WILLOW SUBSTATION
SINGLE LINE DIAGRAM



KNIK ARM SUBSTATION
SINGLE LINE DIAGRAM



UNIVERSITY SUBSTATION
SINGLE LINE DIAGRAM

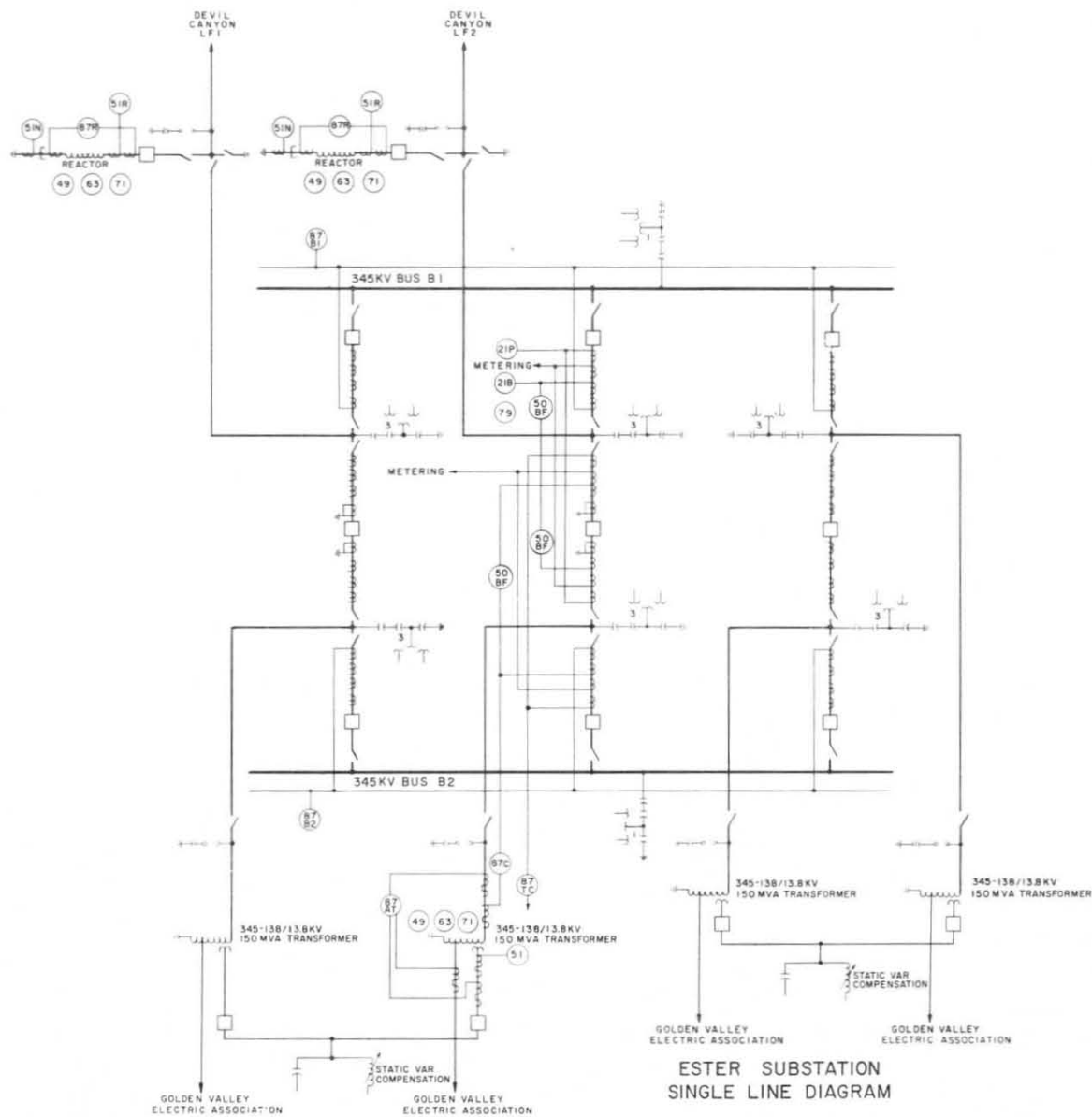


FIGURE 4