



Planned

(1

1.

2.

3.

(1

1.

2.



Planned Line in :

(1994)

- 1. Ilala Line (132kV)
- 2. Tandale Line (33kV)
- 3. Chang'ombe Line (33kV)

(1996)

- 1. FZ-III Line (132kV)
- 2. Kunduchi Line (33kV)
- 3. Kariakoo Line (33kV)



Tegeta

Mbezi

Ubungo

Friendship Textile

Tanduale

Mikocheni

Msasani

OB

Upanga

City Centre

1
2
3
4
5



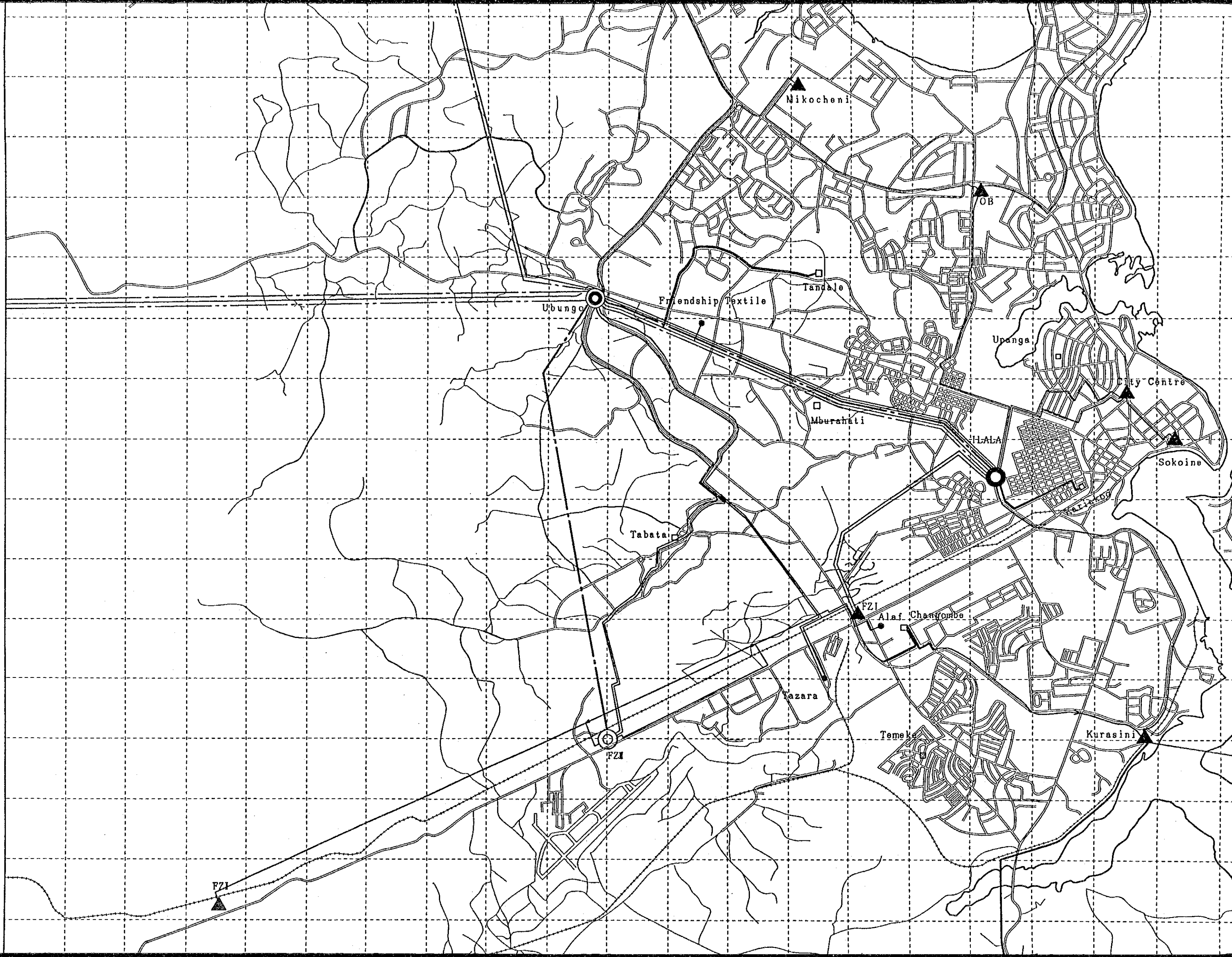
Planned Line in :

(1994)

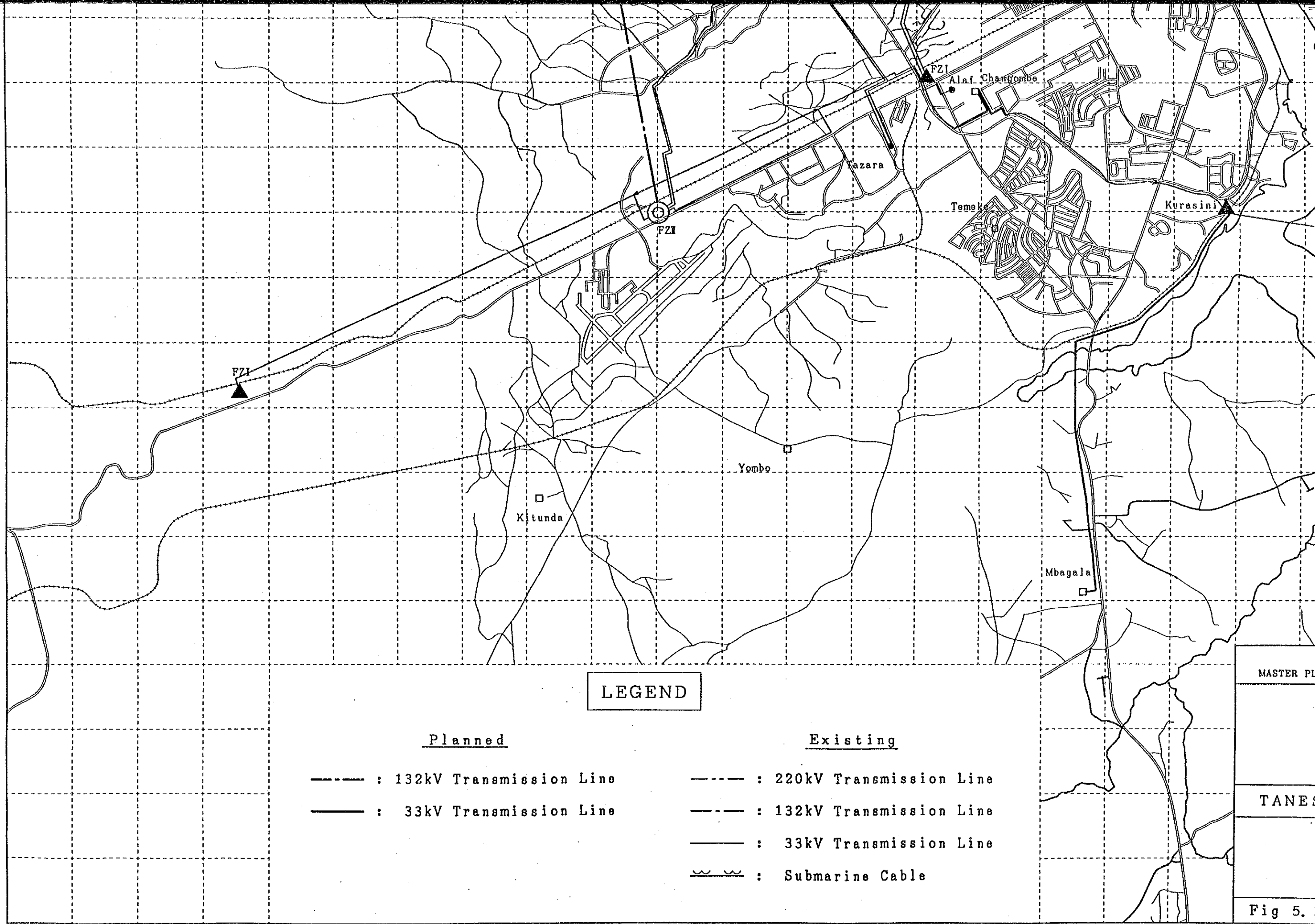
- 1. Ilala Line (132kV)
- 2. Tandale Line (33kV)
- 3. Chang'ombe Line (33kV)

(1996)

- 1. FZ-III Line (132kV)
- 2. Kunduchi Line (33kV)
- 3. Kariakoo Line (33kV)
- 4. Mbagala Line (33kV)
- 5. Tabata Line (33kV)

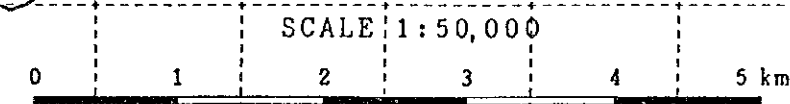
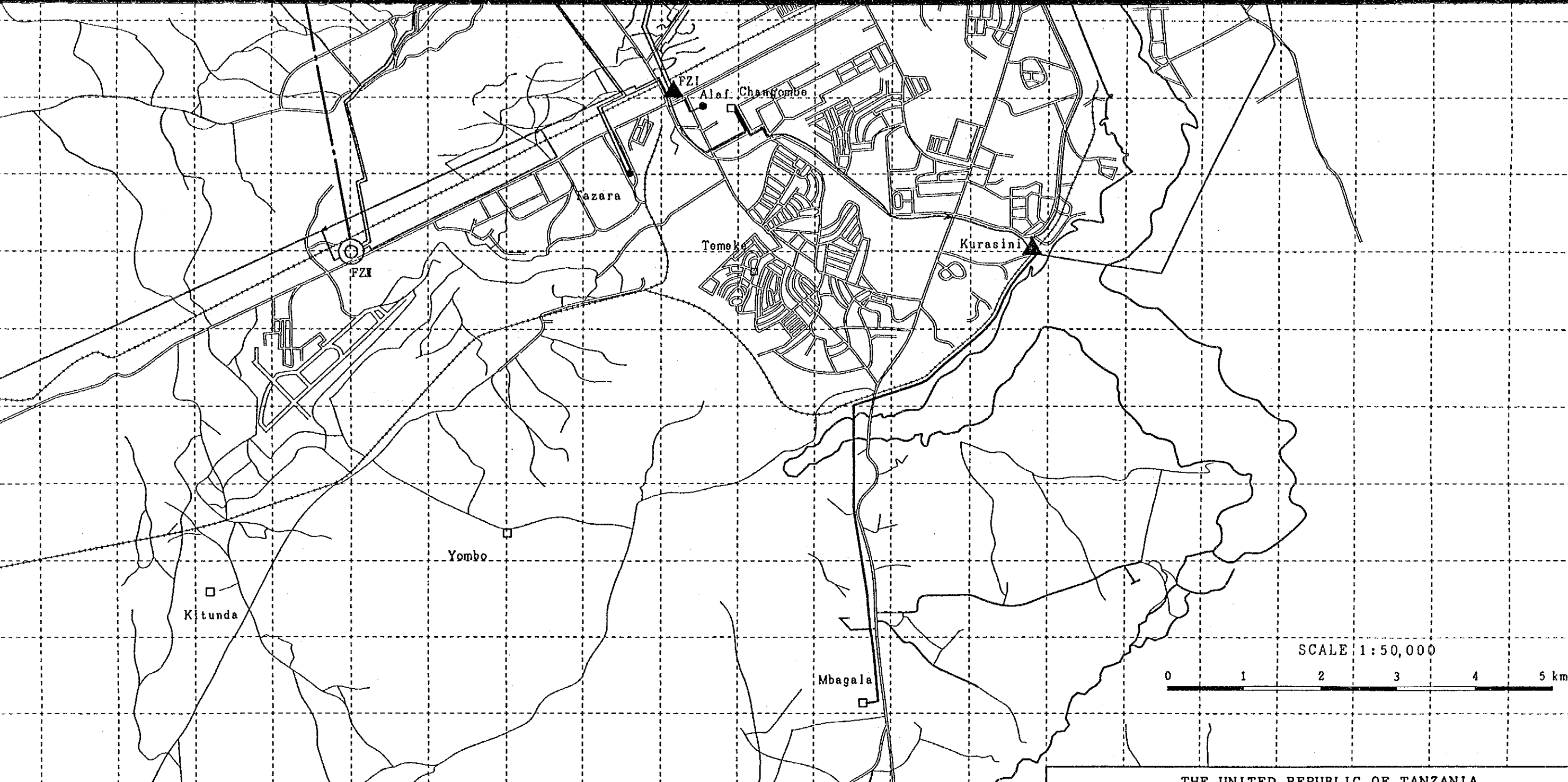






LEGEND

- | <u>Planned</u> | <u>Existing</u> |
|-------------------------------------|-------------------------------------|
| — · — · — : 132kV Transmission Line | — · — · — : 220kV Transmission Line |
| — : 33kV Transmission Line | — · — · — : 132kV Transmission Line |
| | — : 33kV Transmission Line |
| | ~ ~ ~ : Submarine Cable |



LEGEND

- | | | | |
|----------------|---------------------------|-----------------|---------------------------|
| <u>Planned</u> | | <u>Existing</u> | |
| - - - - - | : 132kV Transmission Line | - - - - - | : 220kV Transmission Line |
| - - - - - | : 33kV Transmission Line | - - - - - | : 132kV Transmission Line |
| - - - - - | : 33kV Transmission Line | - - - - - | : 33kV Transmission Line |
| - - - - - | : Submarine Cable | | |

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

**TRANSMISSION LINE ROUTE
 IN SHORT-TERM PLAN**

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN	
DR :	SUBMITTED :	
TR :	RECOMMENDED :	
CK :	APPROVED :	

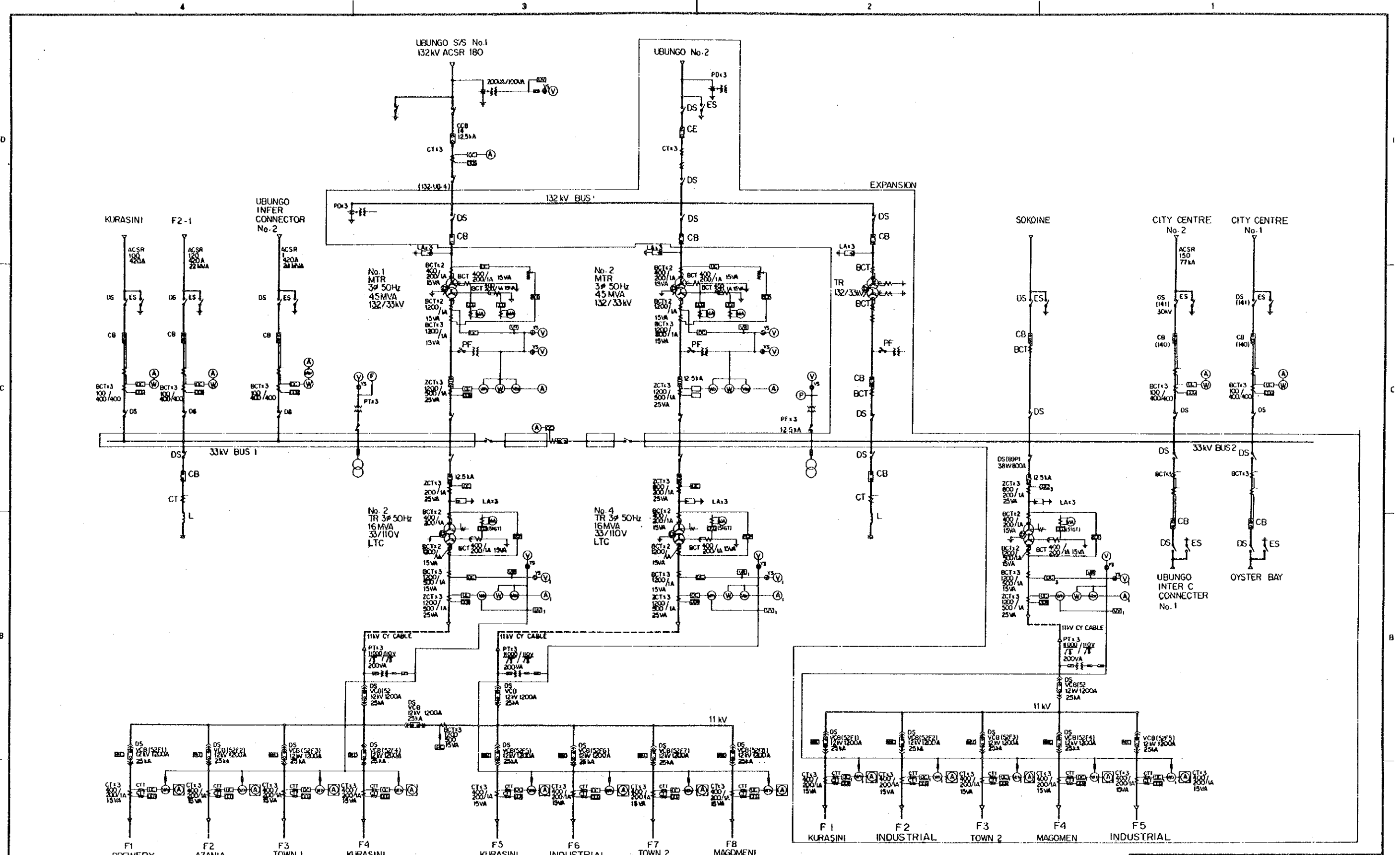


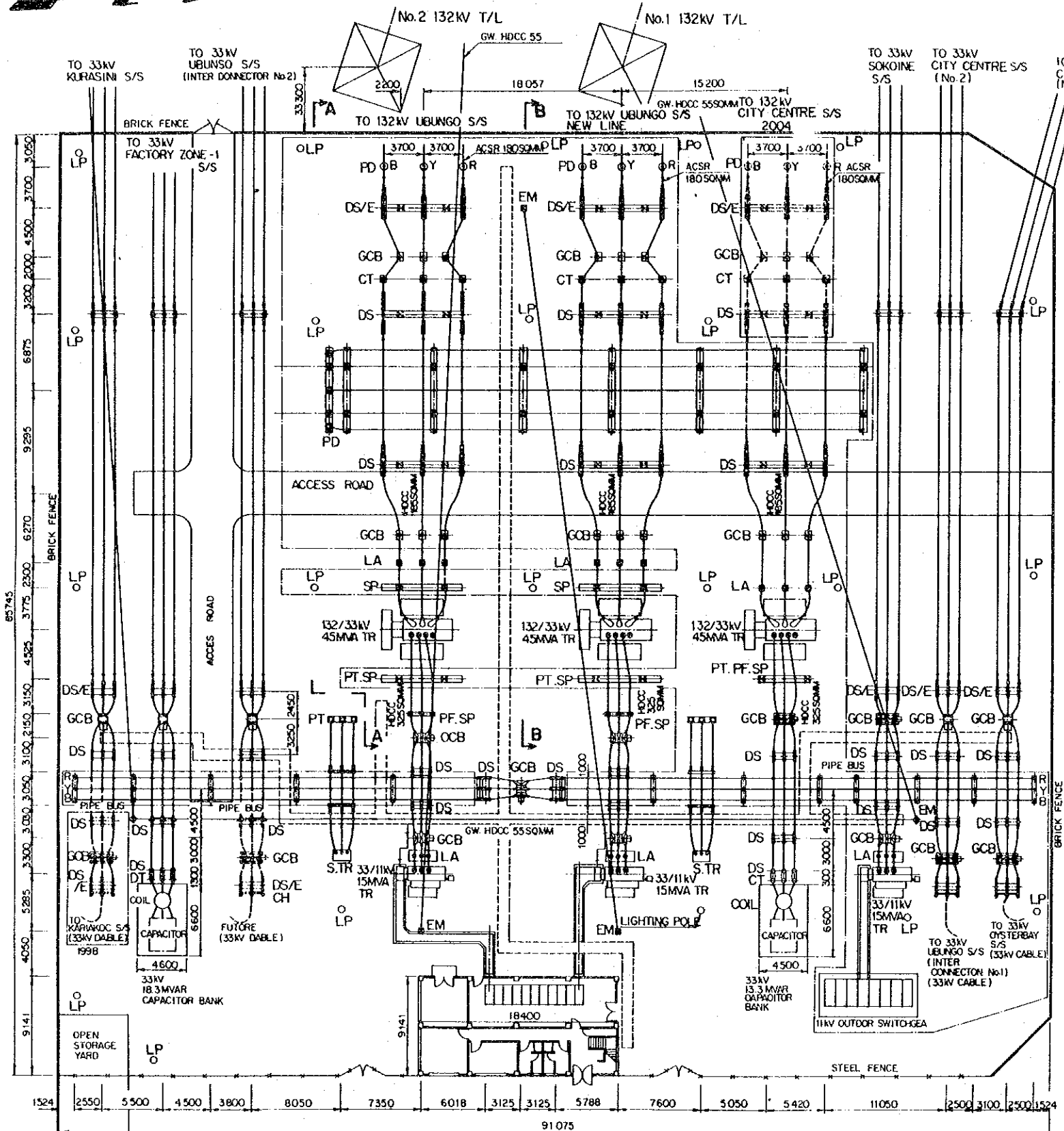
Fig.5. 4-8-1

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

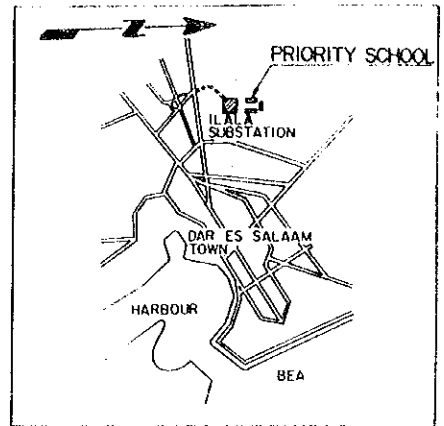
**SINGLE LINE DIAGRAM OF
 ILALA SUBSTATION**

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

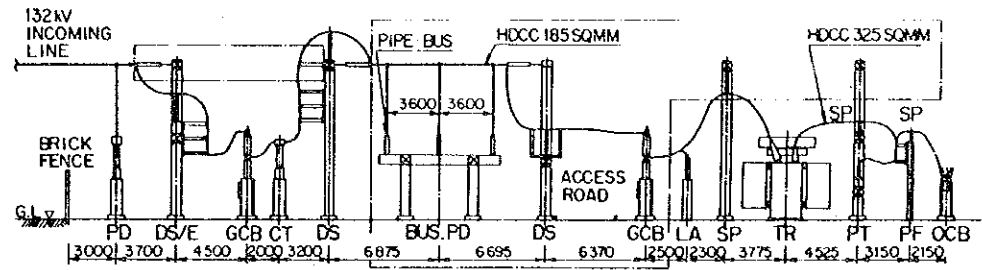
LOCATION	DATE	DESCRIPTION	BY
REVISION			



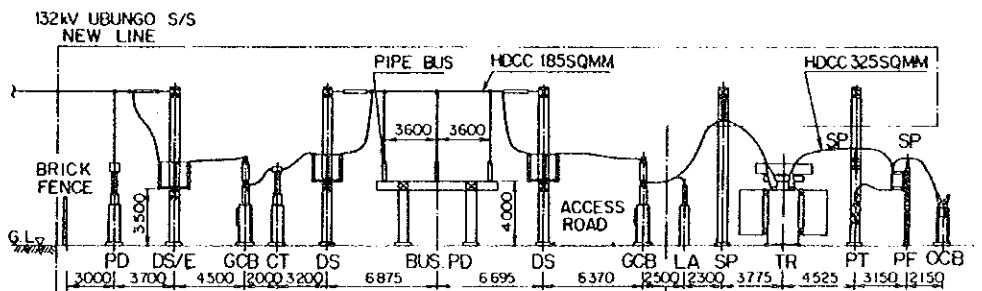
PLAN



LOCATION MAP (NONE SCALE)



SECTION A-A



SECTION B-B

- LEGEND**
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S. TR : STATION TRANSFORMER
 - EM : EARTH MAST
 - PD : POTENTIAL DEVICE
 - DS : DISCONNECTING SWITCH
 - CT : CURRENT TRANSFORMER
 - PT : POTENTIAL TRANSFORMER

- NOTE**
1. [] : EXPANSION AND REHABILITATION AREA
 2. [] : FUTURE EXPANSION AREA

Fig. 5.4-8-2

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF ILALA SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

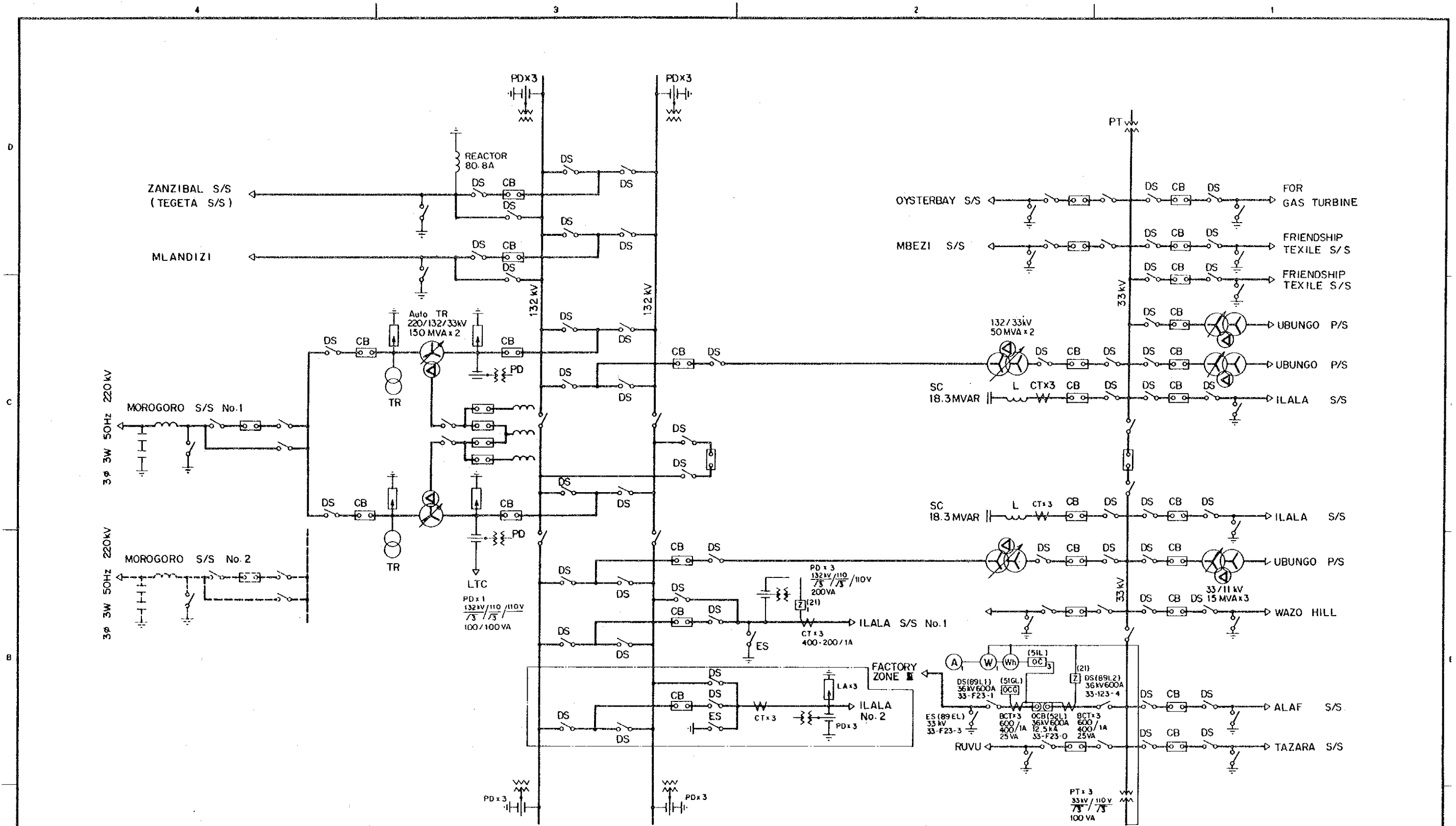


Fig. 5.4 - 9 - 1

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF UBUNGO SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

LEGEND

- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- PD : POTENTIAL DEVICE
- DS : DISCONNECTING SWITCH
- CT : CURRENT TRANSFORMER

NOTE

- 132KV FEEDER EXPANSION AREA

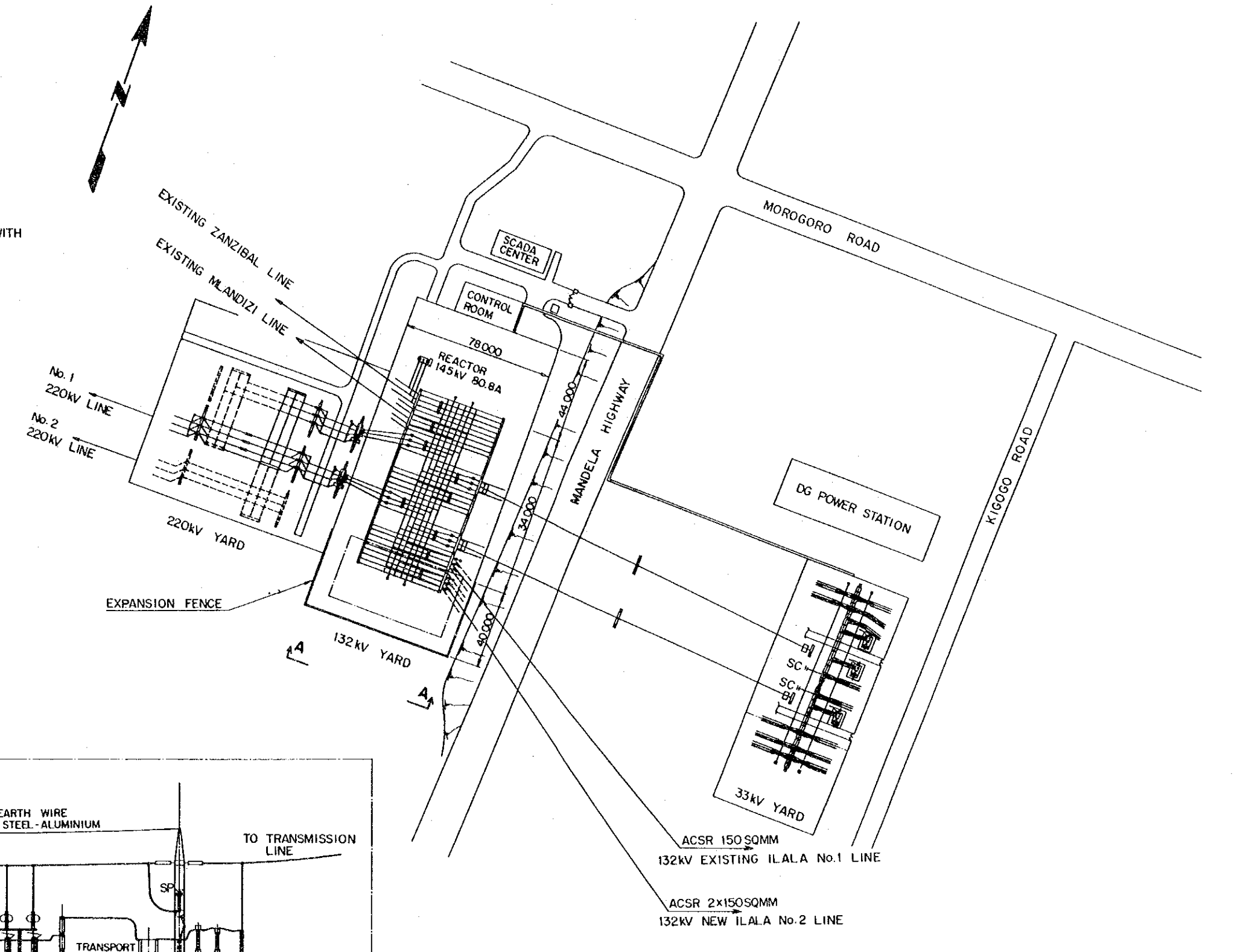
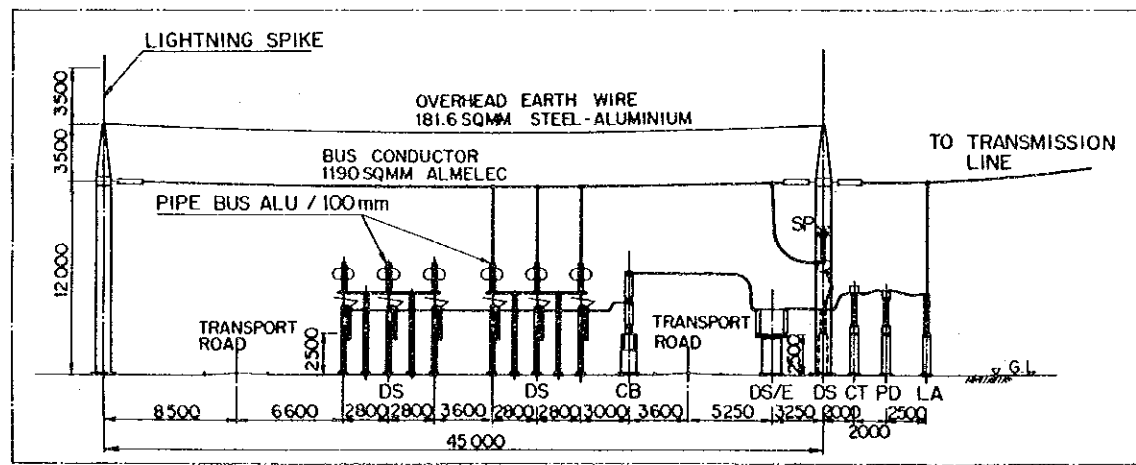


Fig. 5.4-9-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF UBUNGO SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CE.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

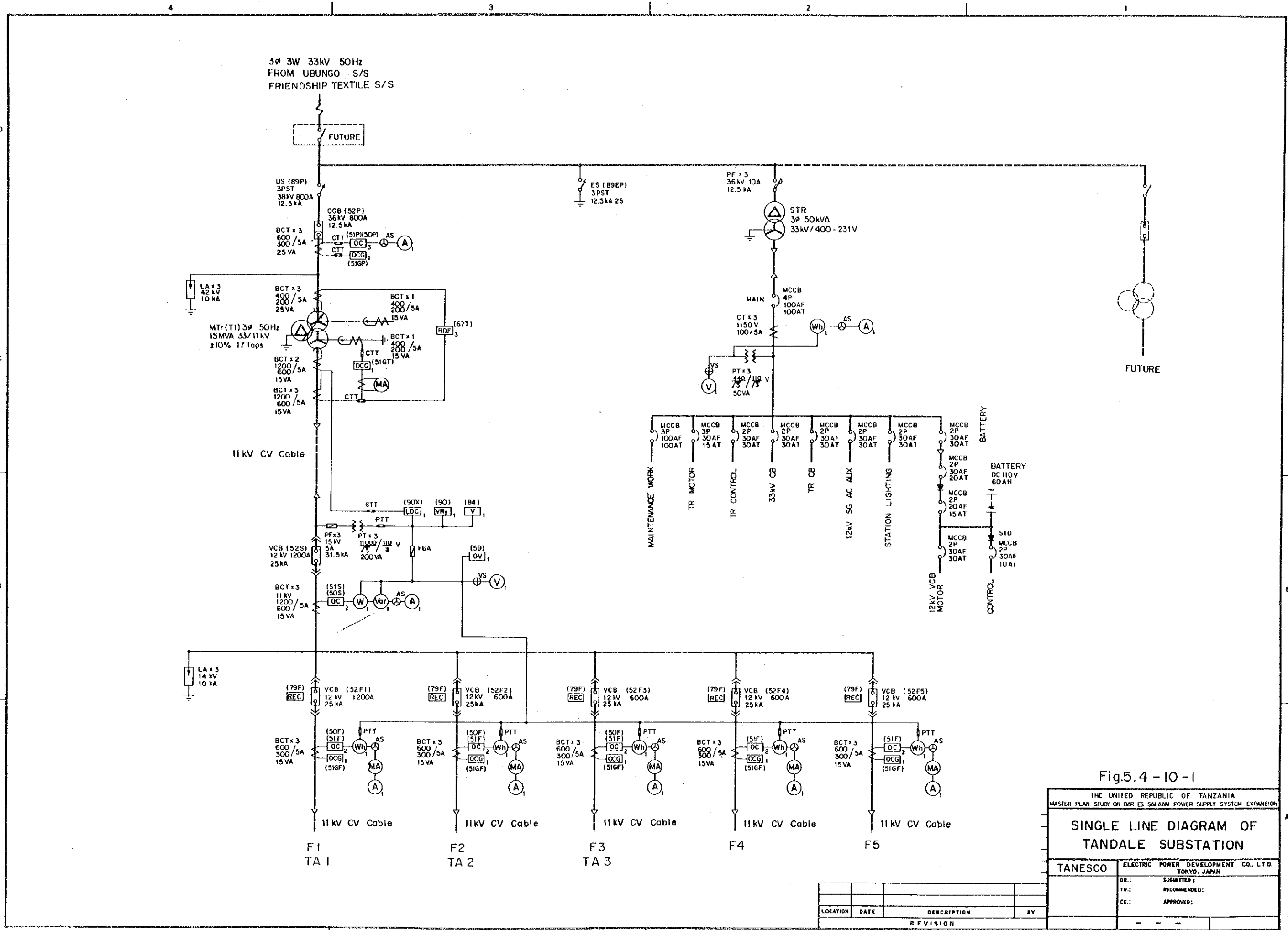
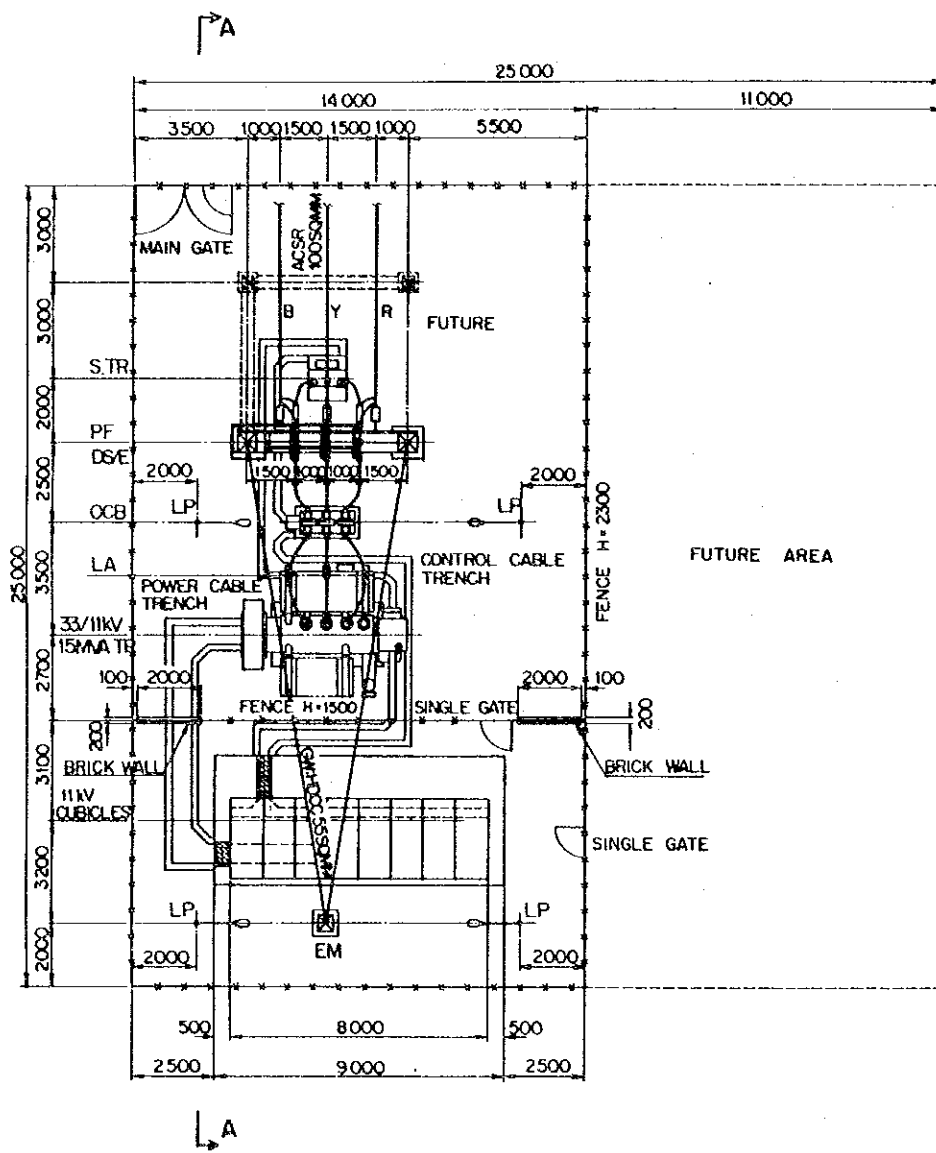


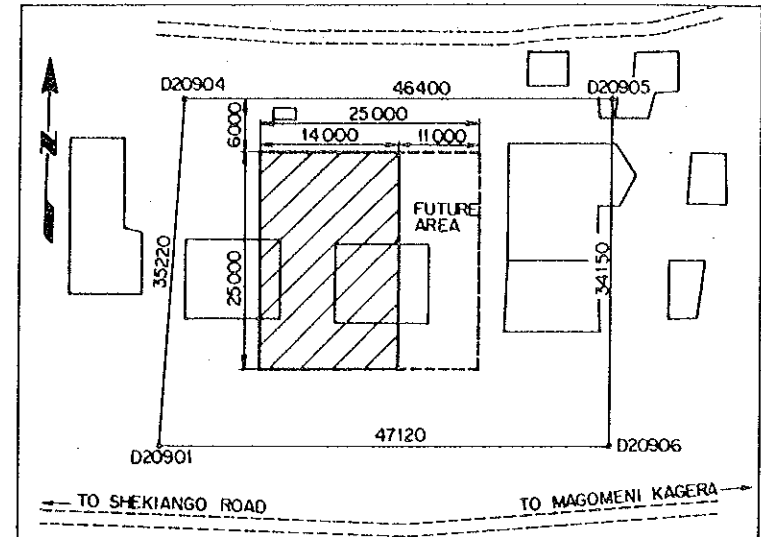
Fig.5.4 - 10 - 1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DRR ES SALAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF TANDALE SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
DR:	SUBMITTED:
TR:	RECOMMENDED:
CK:	APPROVED:
LOCATION	DATE
DESCRIPTION	BY
REVISION	

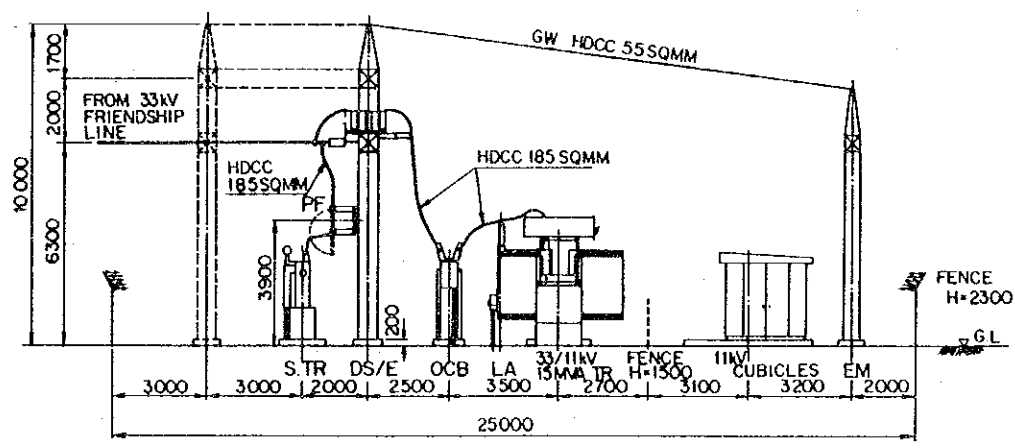


PLAN

- LEGEND**
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - TR : 15MVA MAIN TRANSFORMER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S.TR : STATION TRANSFORMER
 - EM : EARTH MAST
- NOTE**
- FUTURE EXPANSION



LOCATION MAP (NONE SCALE)



SECTION A - A

Fig. 5.4 - 10-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF TANDALE SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
DR:	SUBMITTED:
TR:	RECOMMENDED:
CK:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

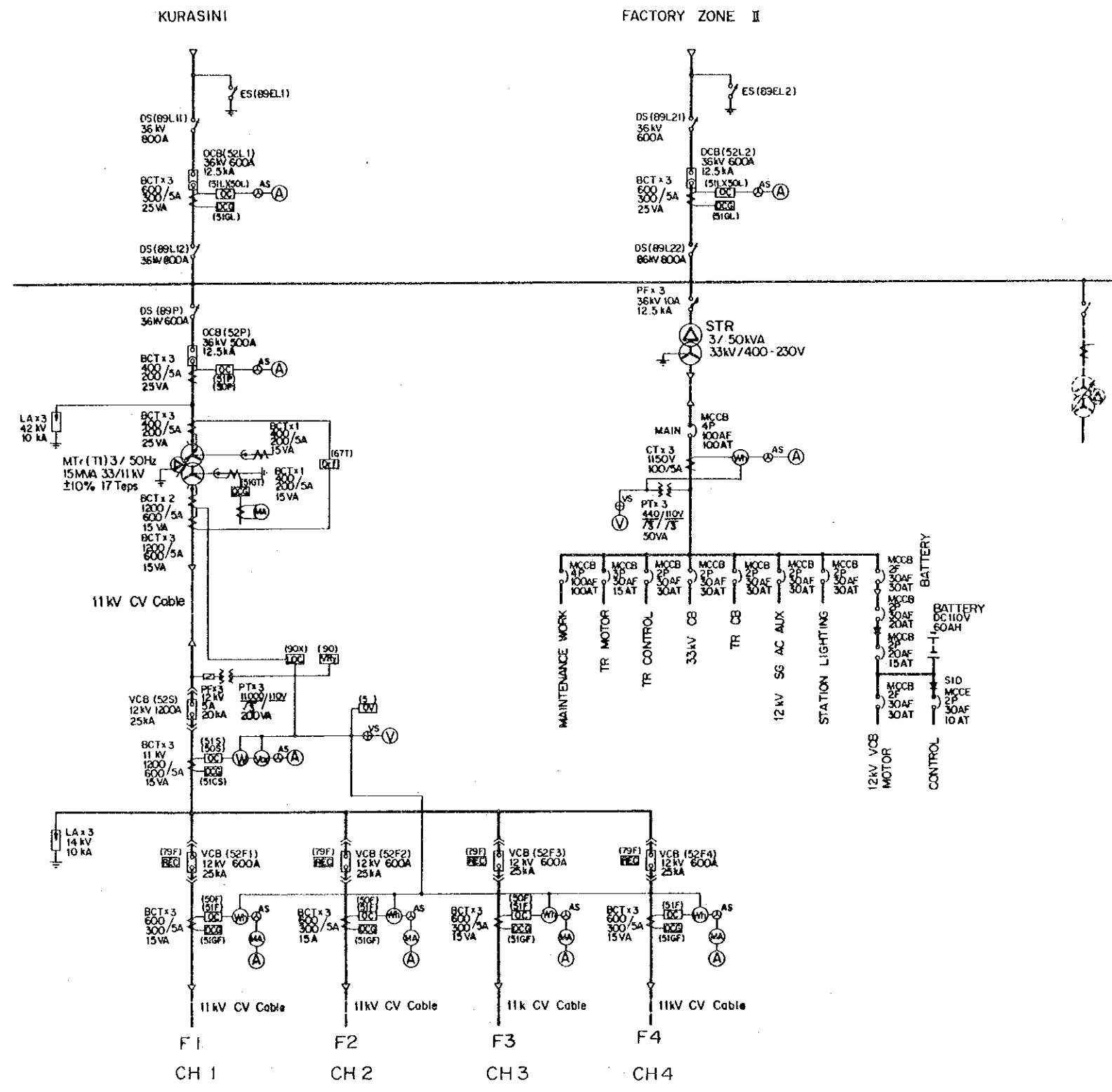
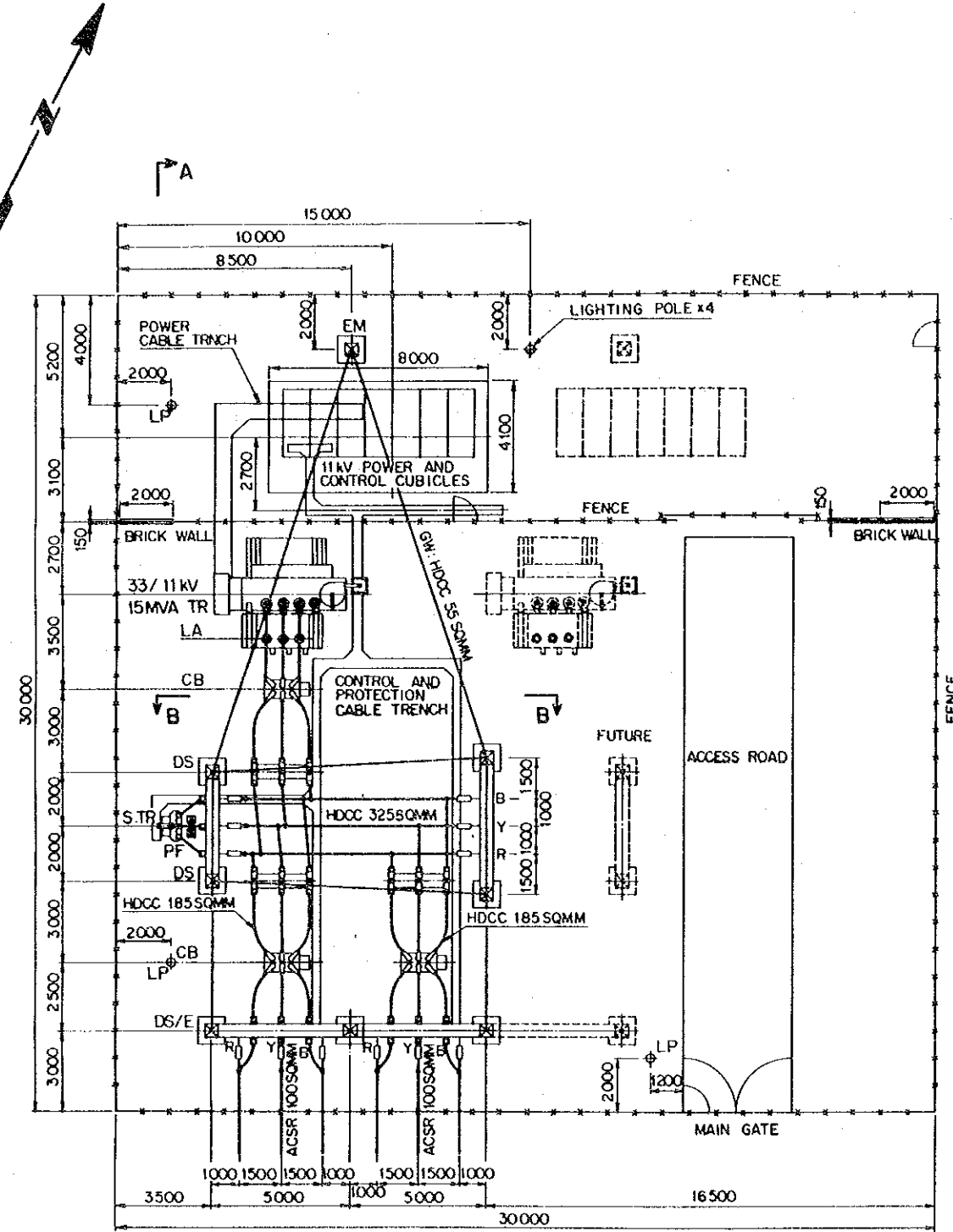


Fig.5.4 - 11-1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF CHANG'OMBE SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

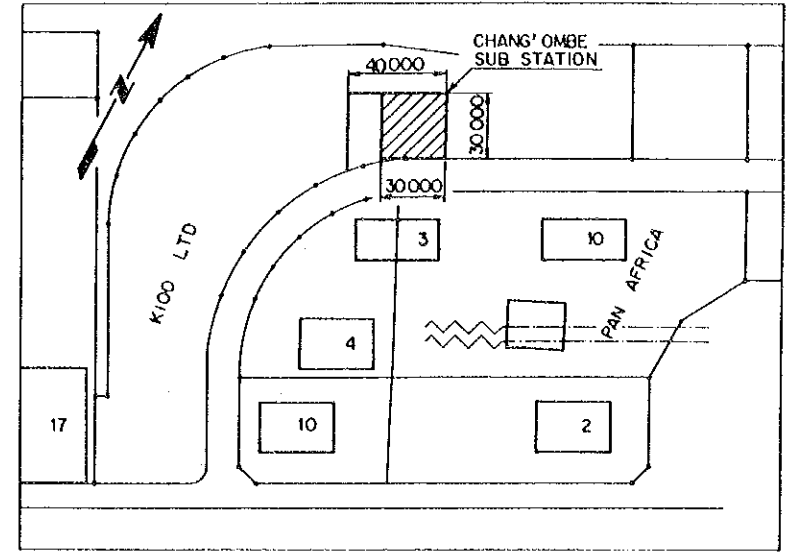
LOCATION	DATE	DESCRIPTION	BY
REVISION			



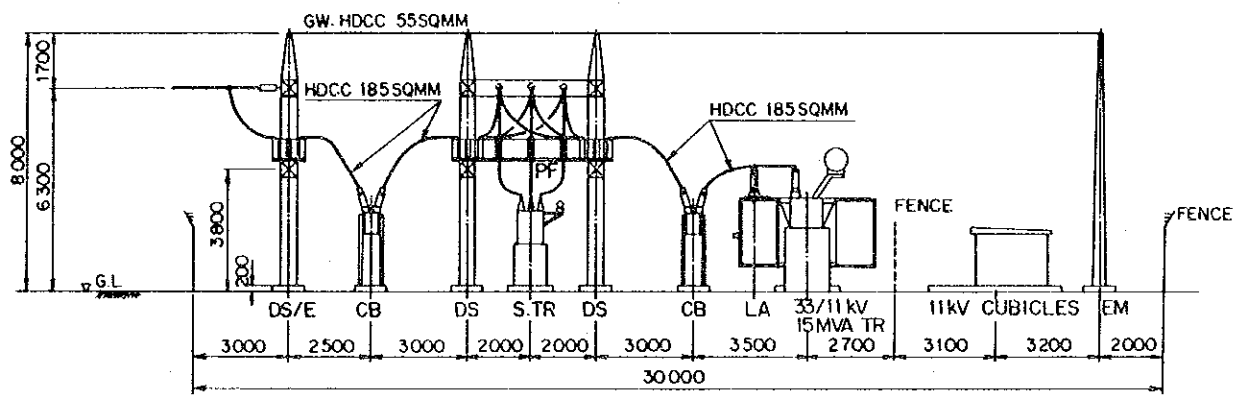
FROM 33kV KURASINI SUBSTATION
FROM 33kV FACTORY ZONE-1 SUBSTATION

PLAN

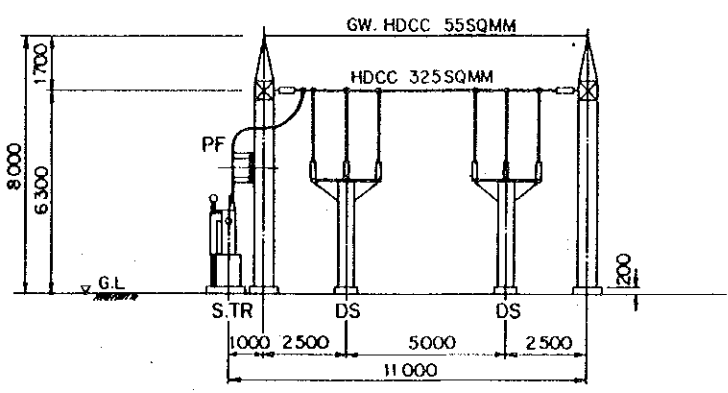
- LEGEND**
- DE/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - DS : DISCONNECTING SWITCH
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - TR : 15MVA MAIN TRANSFORMER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S.TR : STATION TRANSFORMER
 - EM : EARTH MAST
- NOTE**
- FUTURE EXPANSION



LOCATION MAP (NONE SCALE)



SECTION A - A



SECTION B - B

Fig.5.4 - 11-2

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF CHANG'OMBE SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

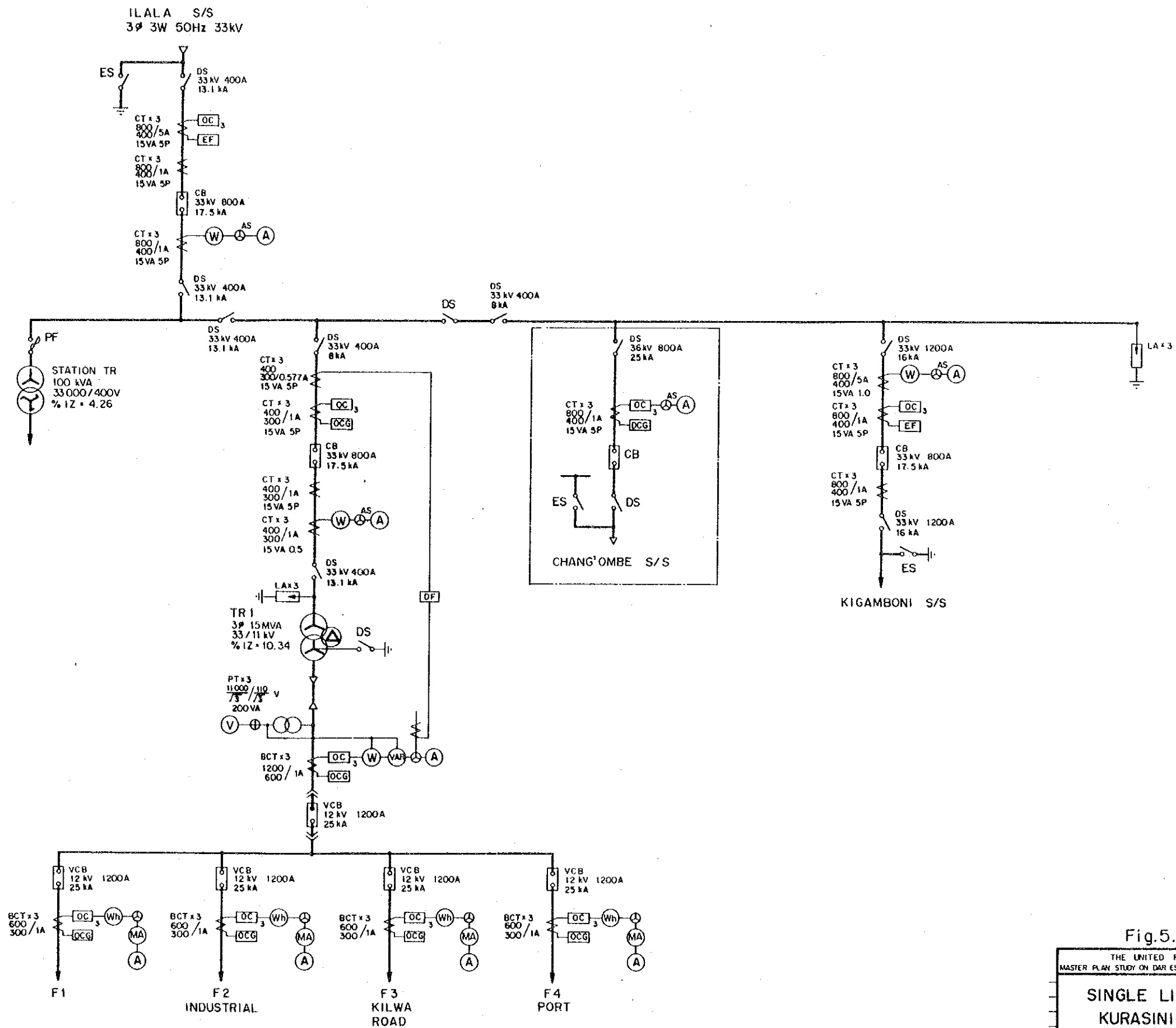
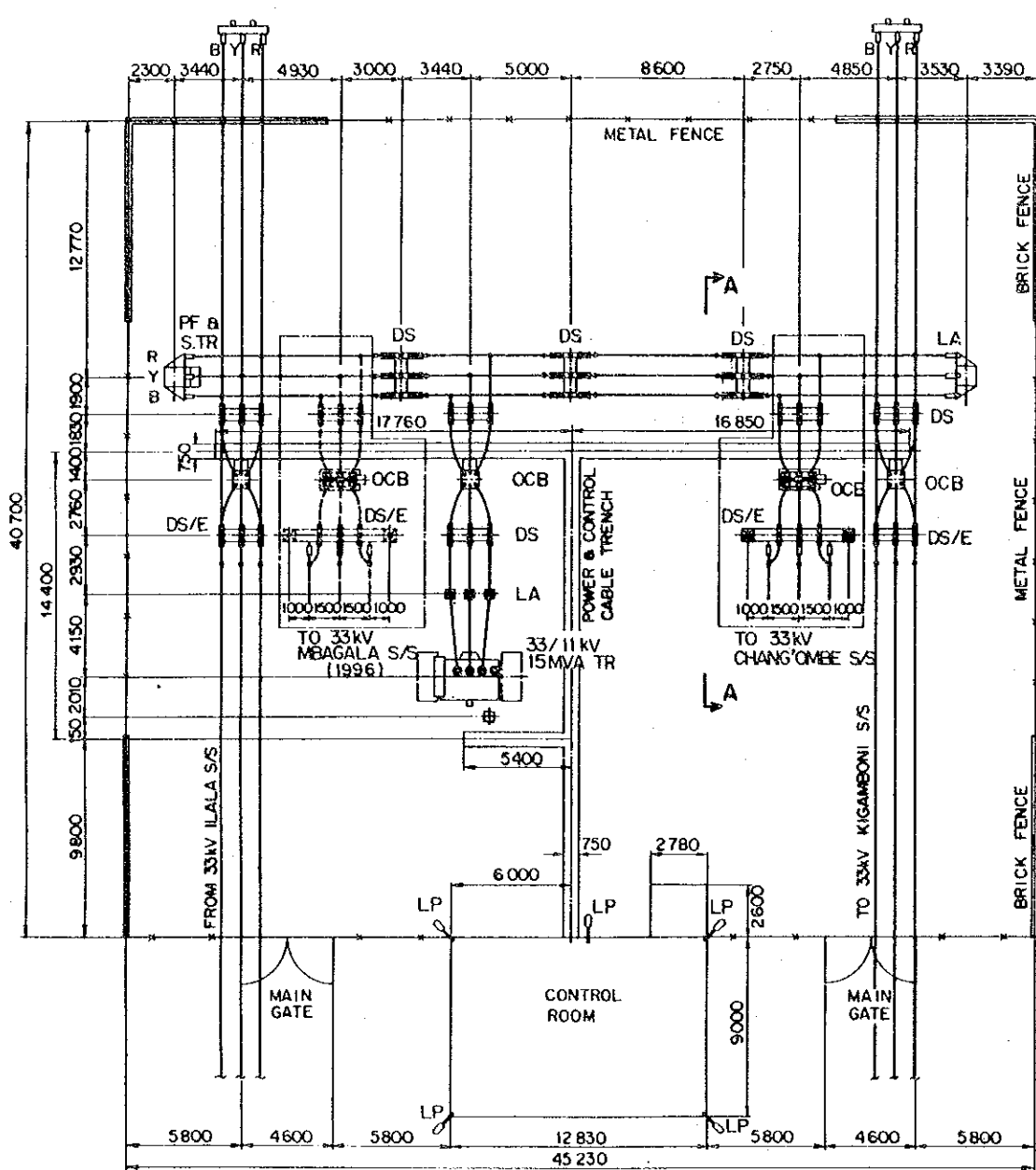


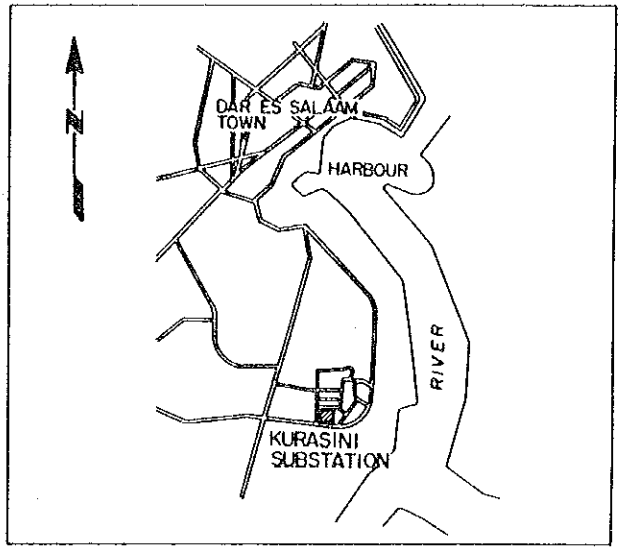
Fig.5.4 - 12-1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF KURASINI SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:
LOCATION	DATE
REVISION	

LOCATION	DATE	DESCRIPTION	BY
REVISION			



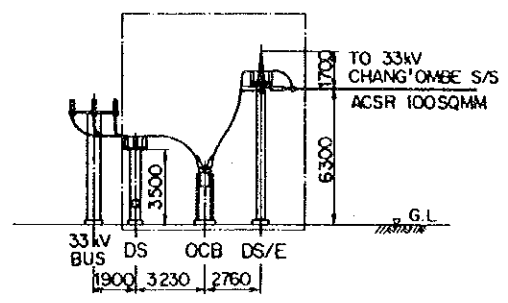
PLAN



LOCATION MAP (NONE SCALE)

- LEGEND**
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - DS : DISCONNECTING SWITCH
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - TR : 15MVA MAIN TRANSFORMER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S. TR : STATION TRANSFORMER

- NOTE**
- 1. [Symbol] : EXPANSION FEEDER
 - 2. [Symbol] : FUTURE FEEDER



SECTION A - A

Fig. 5.4 - 12-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF KURASINI SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

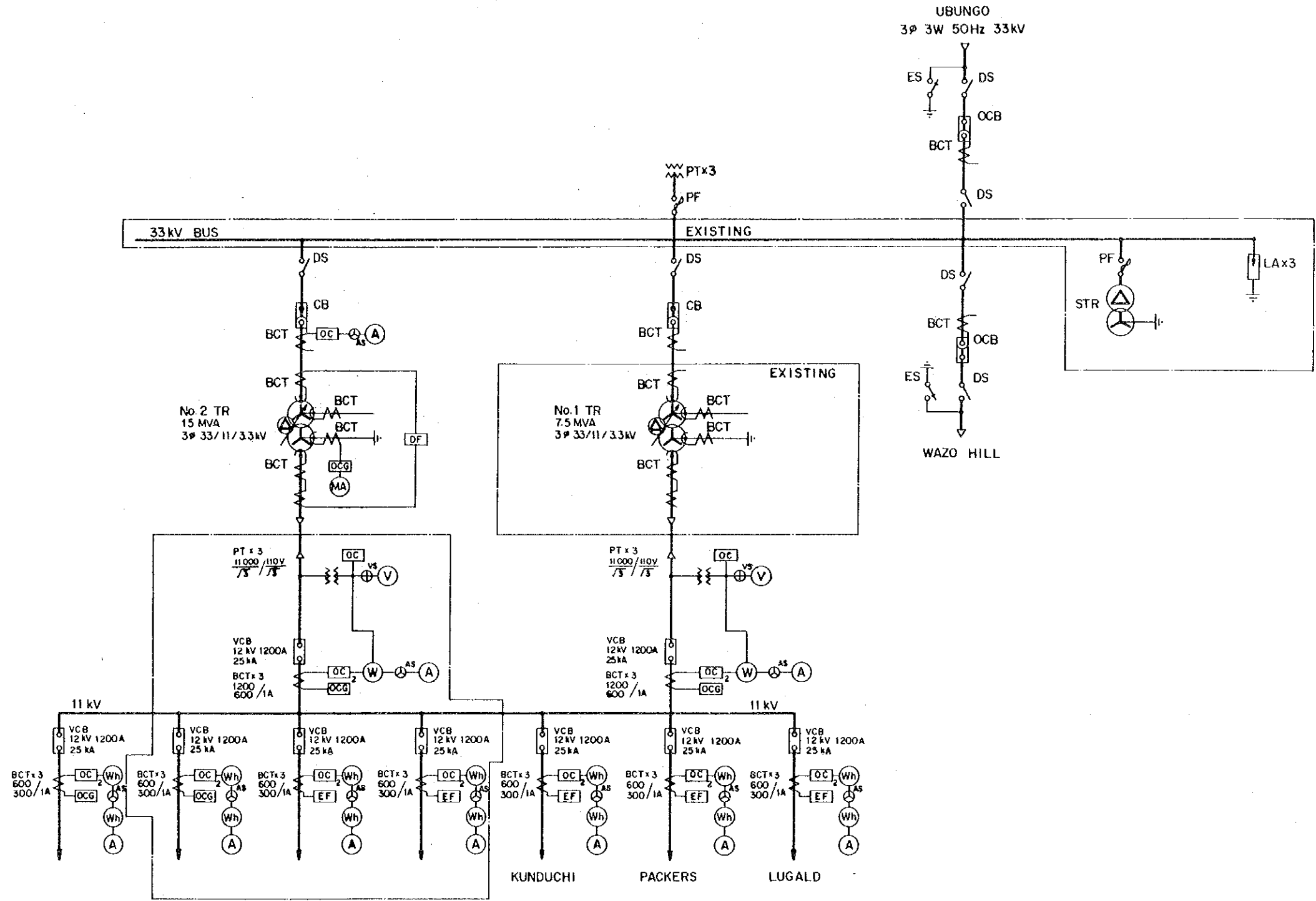
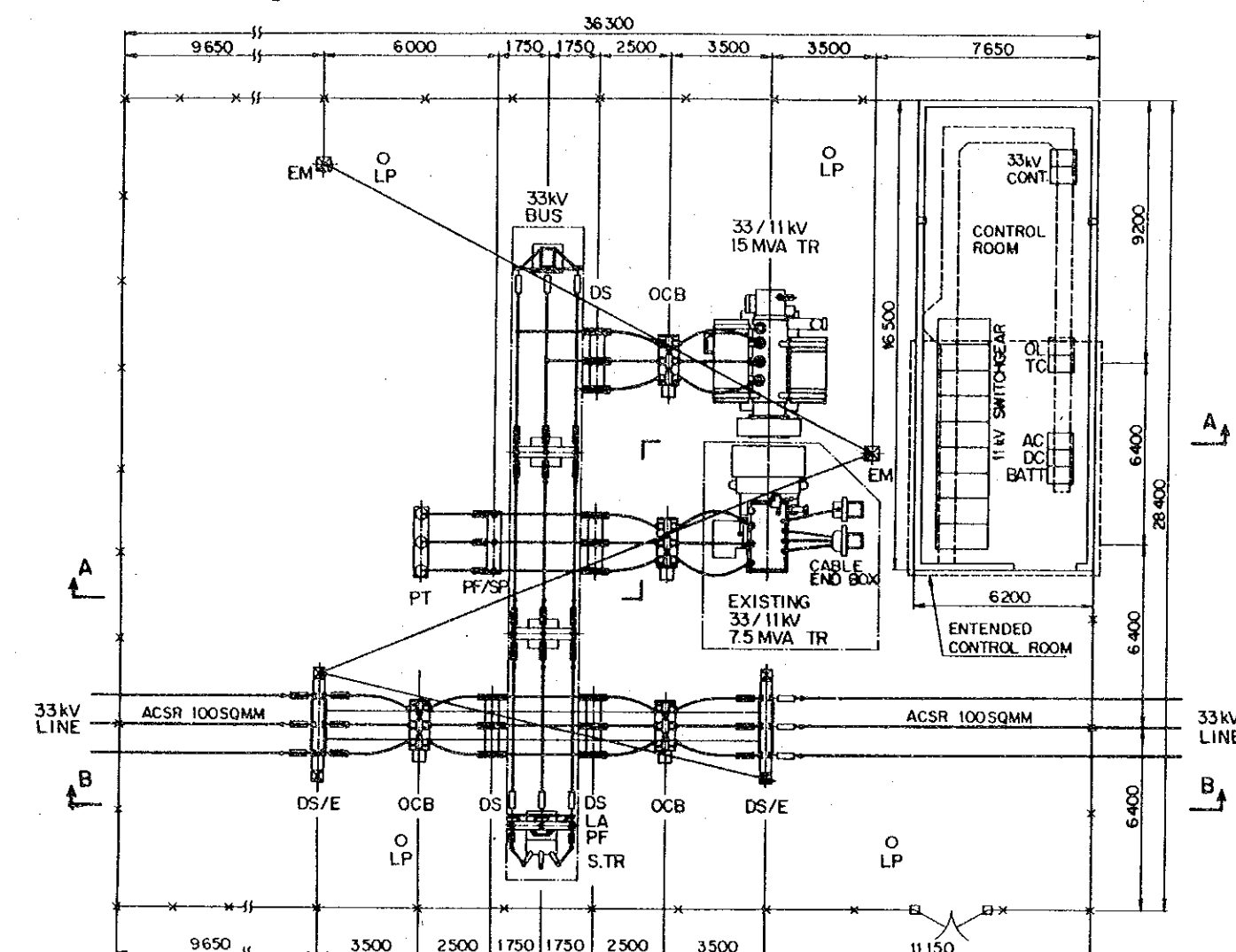


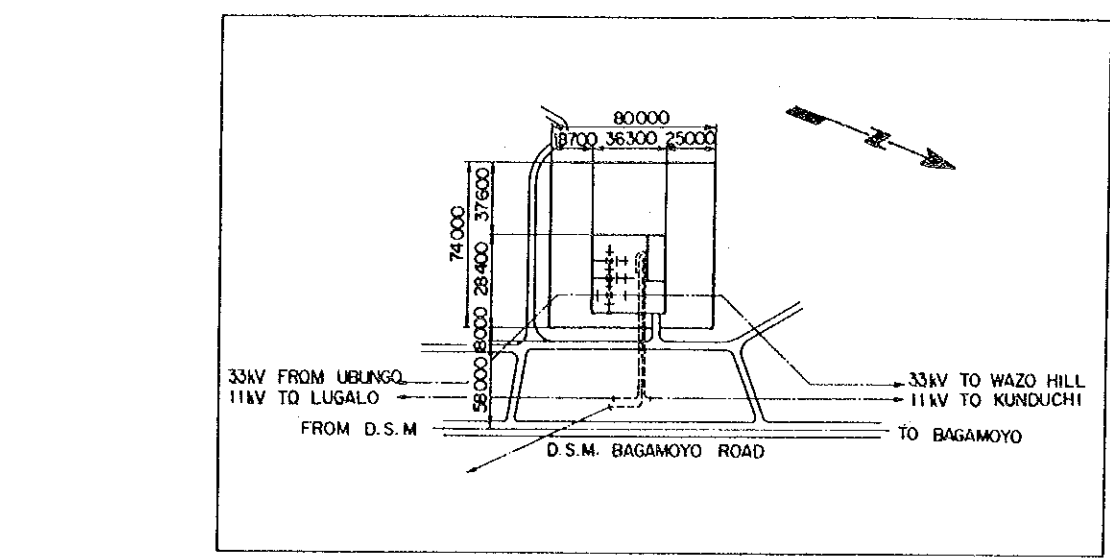
Fig. 5.4-13-1

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF MBEZI SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

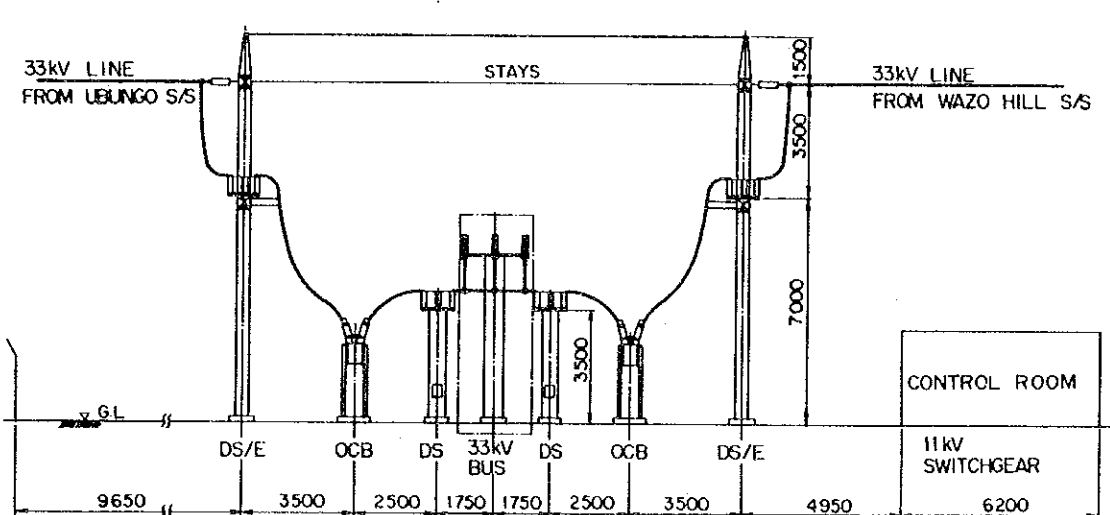
LOCATION	DATE	DESCRIPTION	BY
REVISION			



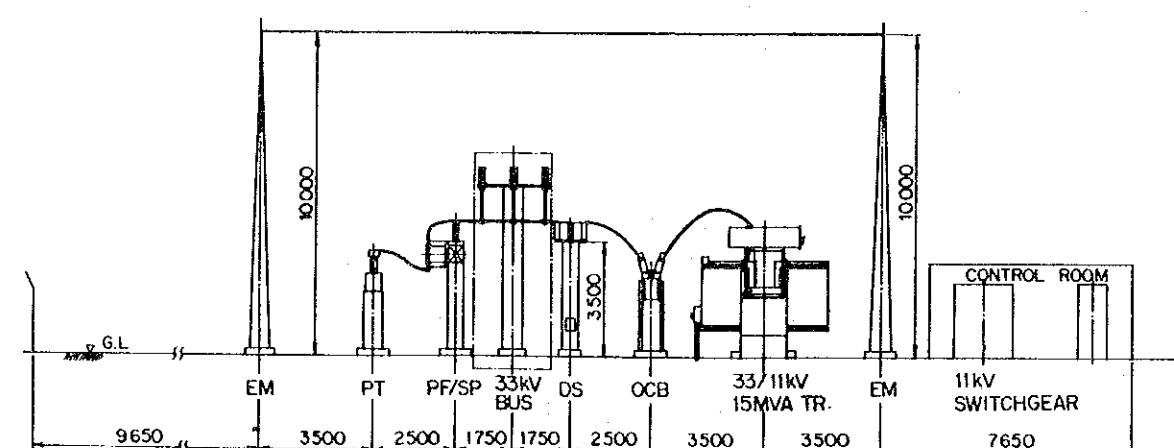
PLAN



LOCATION MAP (NONE SCALE)



SECTION B - B



SECTION A - A

LEGEND

- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- OCB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- LP : LIGHTING POLE
- PF : POWER FUSE
- S.TR : STATION TRANSFORMER
- EM : EARTH MAST
- DS : DISCONNECTING SWITCH

NOTE

- : EXISTING STRUCTURE & 7.5 MVA TRANSFORMER
- * EXISTING 33/11 kVA, 7.5MVA TRANSFORMER SHOULD BE SHIFTED UNDER REHABILITATION WORK FOR INSTALLATION OF NEW PRIMARY CIRCUIT BREAKER.

Fig.5.4 - 13-2

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

LAYOUT OF MBEZI SUBSTATION

TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

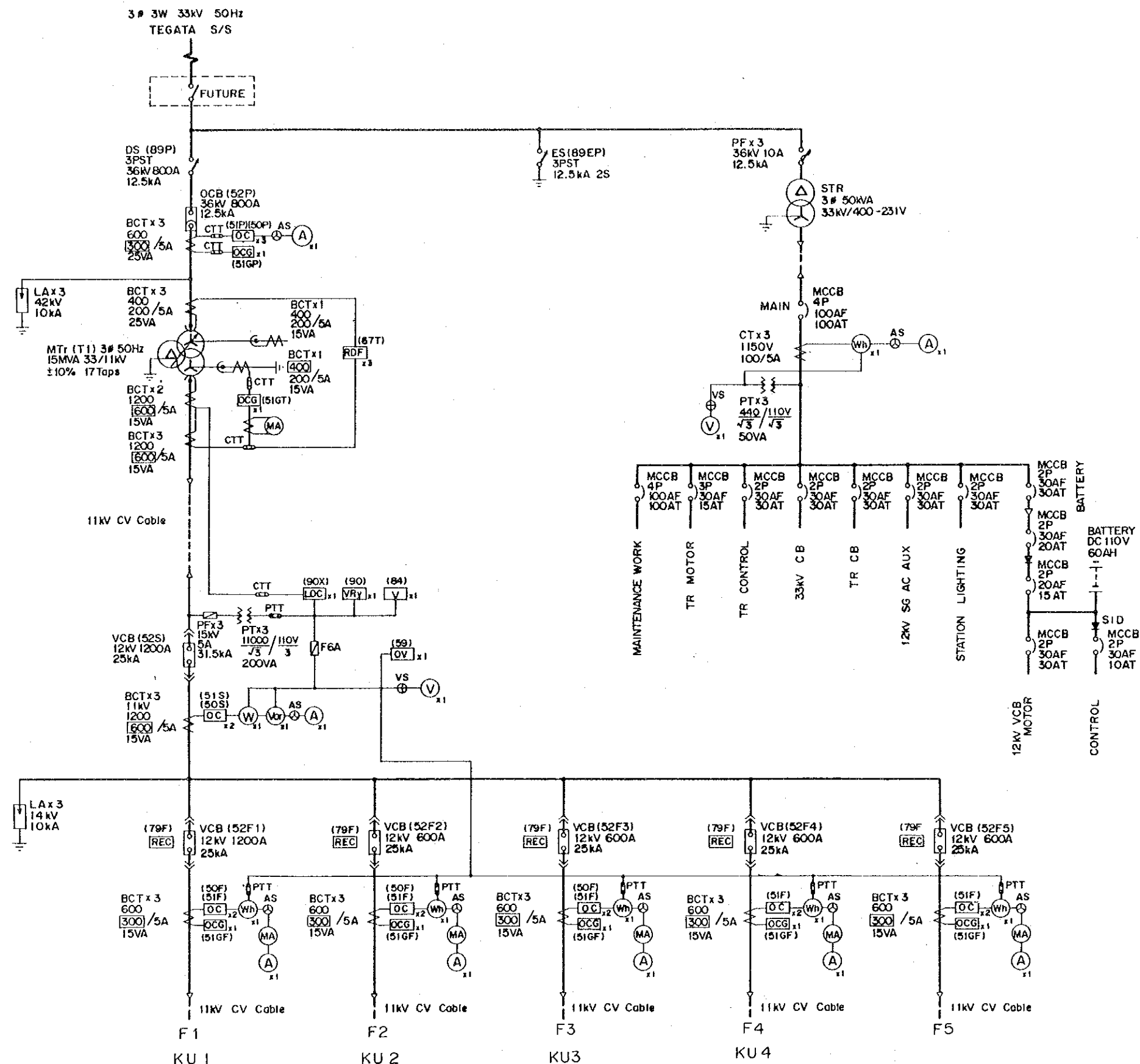


Fig.5.4 - 14-1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION			
SINGLE LINE DIAGRAM OF KUNDUCHI SUBSTATION			
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN		
DR.:	SUBMITTED:		
TR.:	RECOMMENDED:		
CR.:	APPROVED:		
LOCATION	DATE	DESCRIPTION	BY
REVISION			

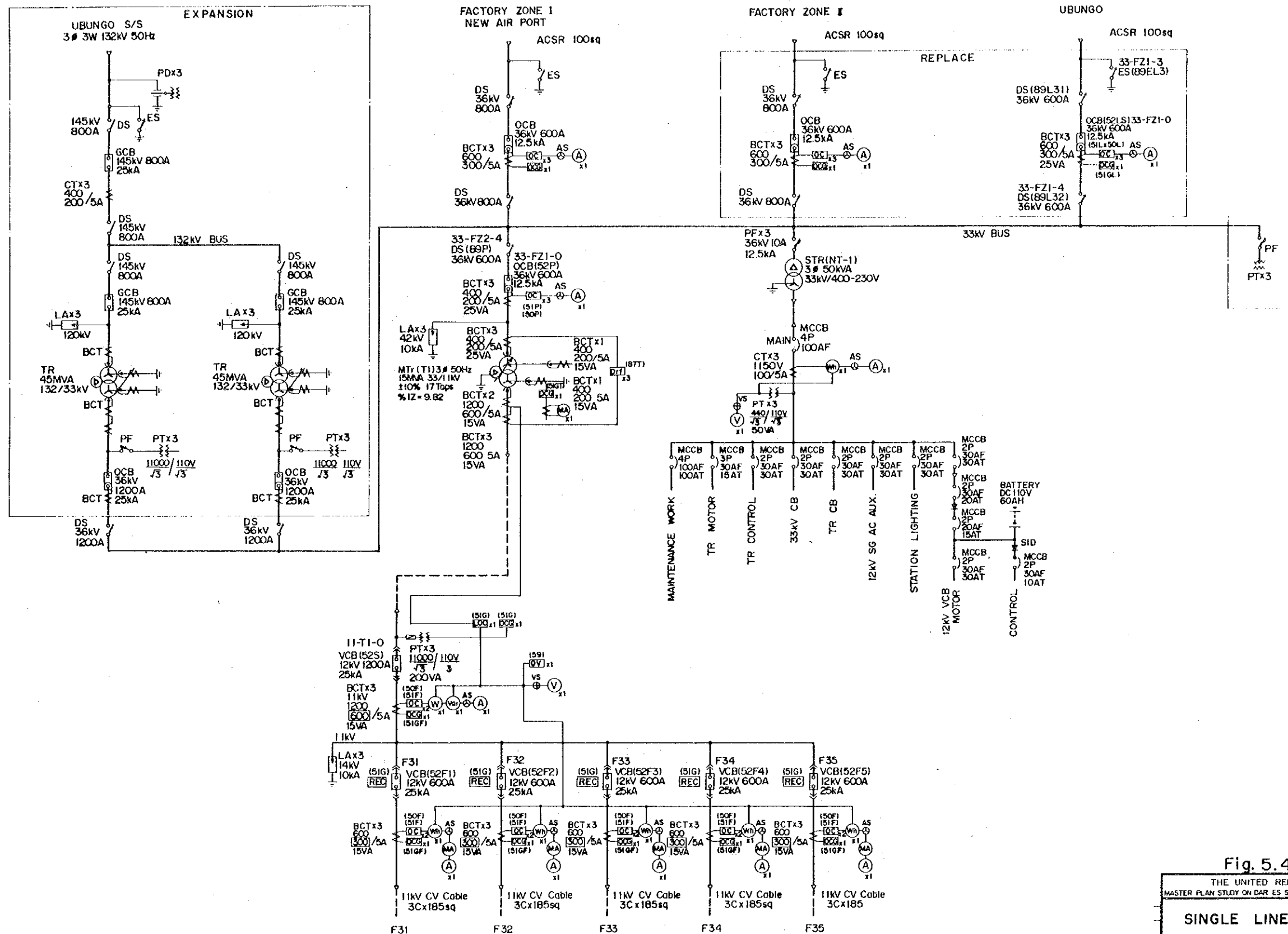


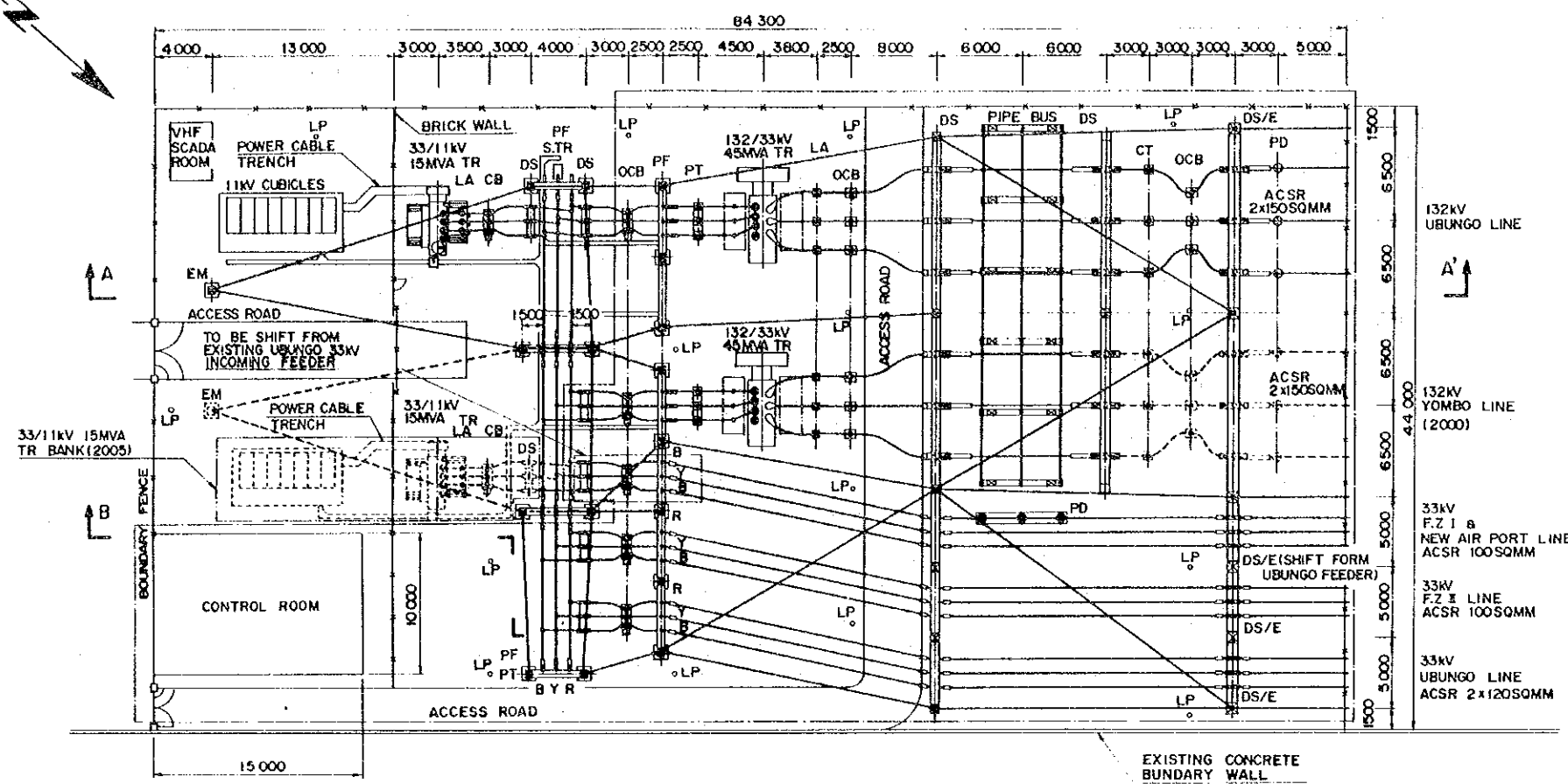
Fig. 5.4 - 15 - 1

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

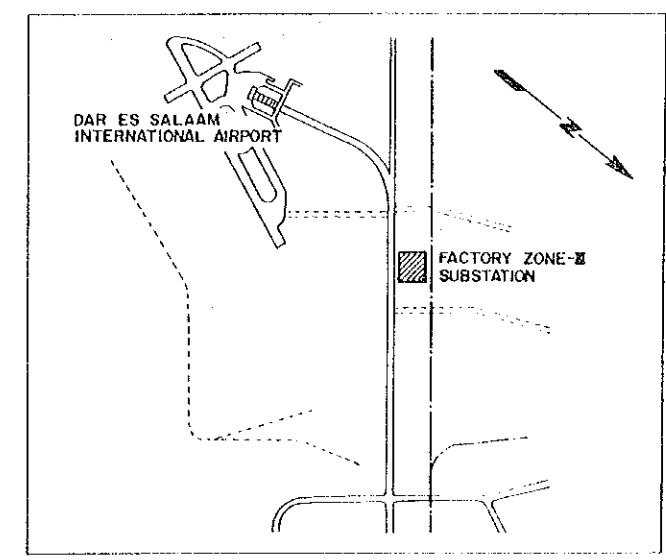
**SINGLE LINE DIAGRAM OF
 FACTORY ZONE III SUBSTATION**

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

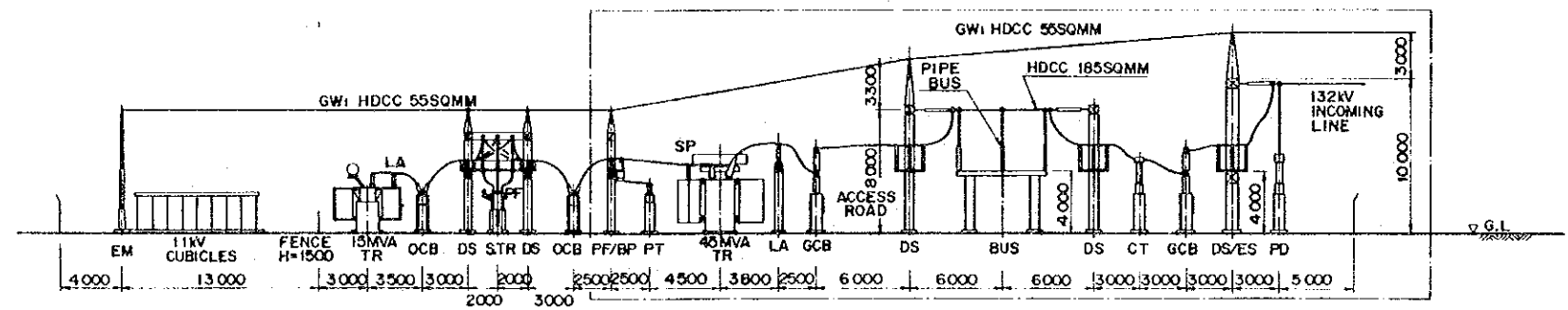
LOCATION	DATE	DESCRIPTION	BY
REVISION			



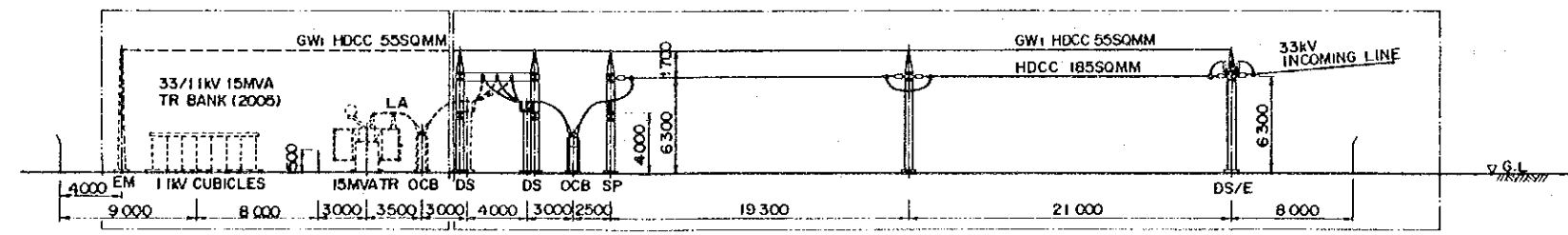
PLAN



LOCATION MAP
(NONE SCALE)



SECTION A-A'



SECTION B-B'

- LEGEND :
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S.TR : STATION TRANSFORMER
 - EM : EARTH MAST
 - PD : POTENTIAL DEVICE
 - DS : DISCONNECTING SWITCH
 - CT : CURRENT TRANSFORMER
 - PT : POTENTIAL TRANSFORMER

- NOTE :
- 1. [] : EXPANSION AND REHABILITATION AREA
 - 2. - - - : FUTURE EXPANSION

Fig.5.4 -15-2

THE UNITED REPUBLIC OF TANZANIA
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

LAYOUT OF FACTORY ZONE III SUBSTATION

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

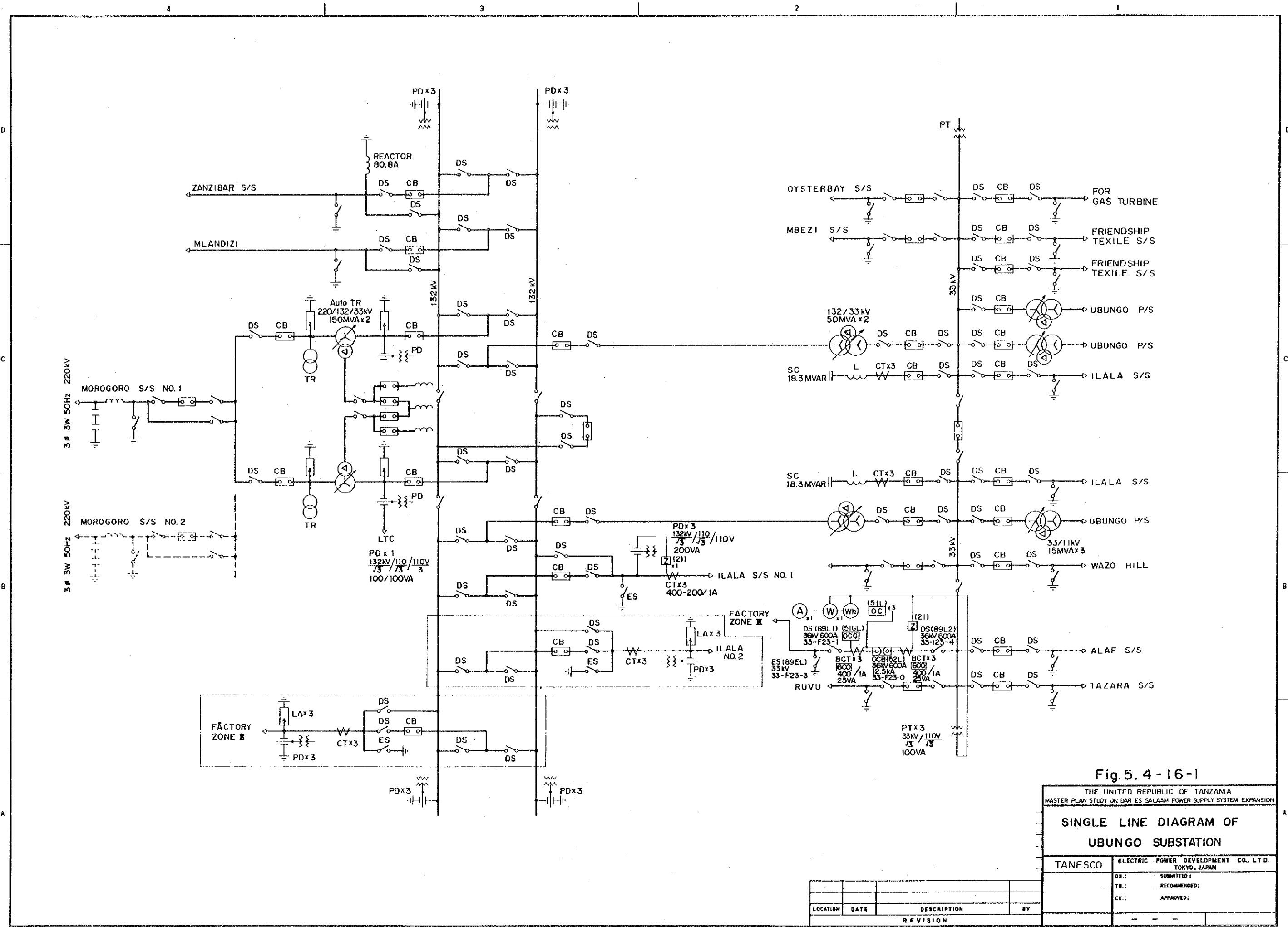



Fig. 5.4-16-1

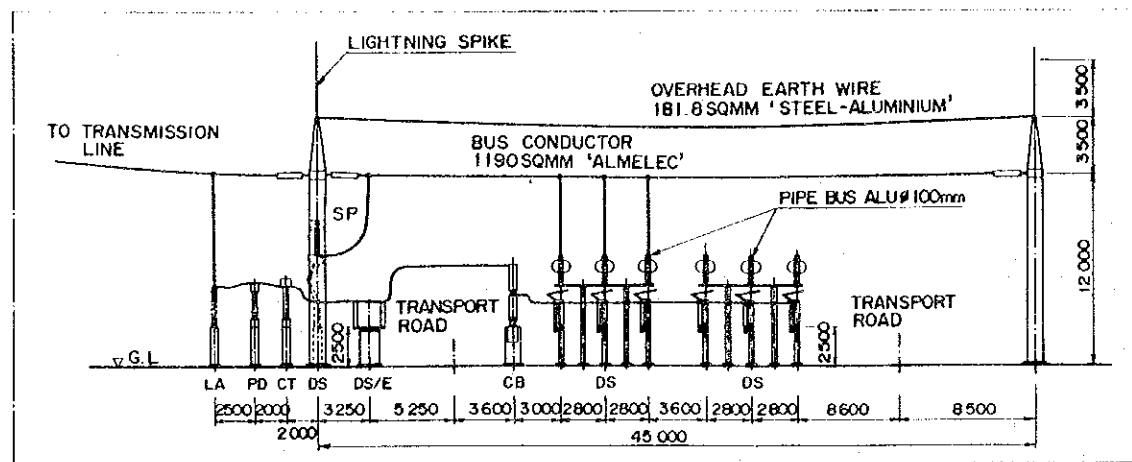
THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION			
SINGLE LINE DIAGRAM OF UBUNGO SUBSTATION			
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN		
DR.:	SUBMITTED:		
TR.:	RECOMMENDED:		
CE.:	APPROVED:		
LOCATION	DATE	DESCRIPTION	BY
REVISION			

LEGEND :

- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- PD : POTENTIAL DEVICE
- DS : DISCONNECTING SWITCH
- CT : CURRENT TRANSFORMER

NOTE :

- I.  132KV FEEDER EXPANSION AREA



SECTION A-A'

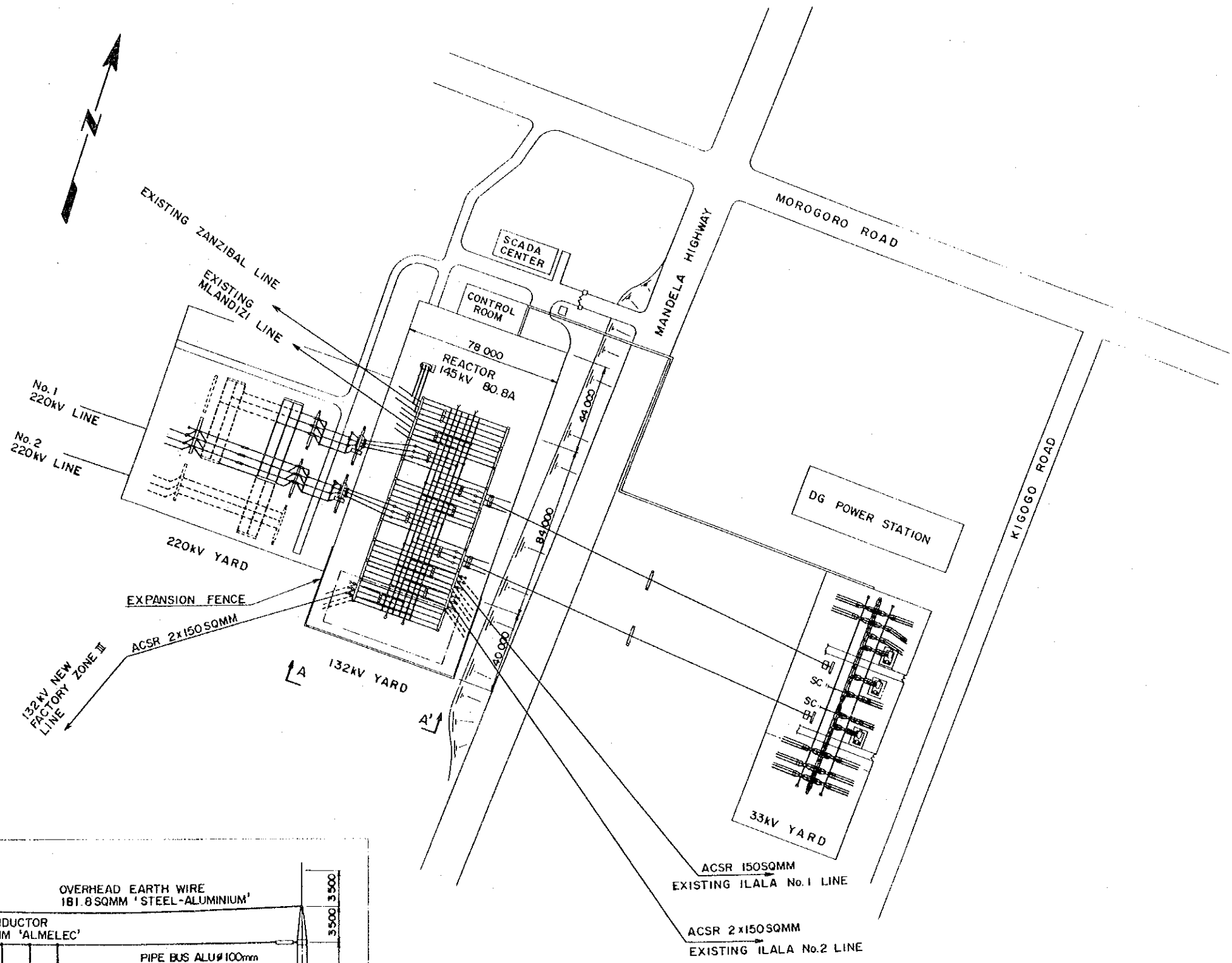


Fig.5.4 - 16-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF UBUNGO SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

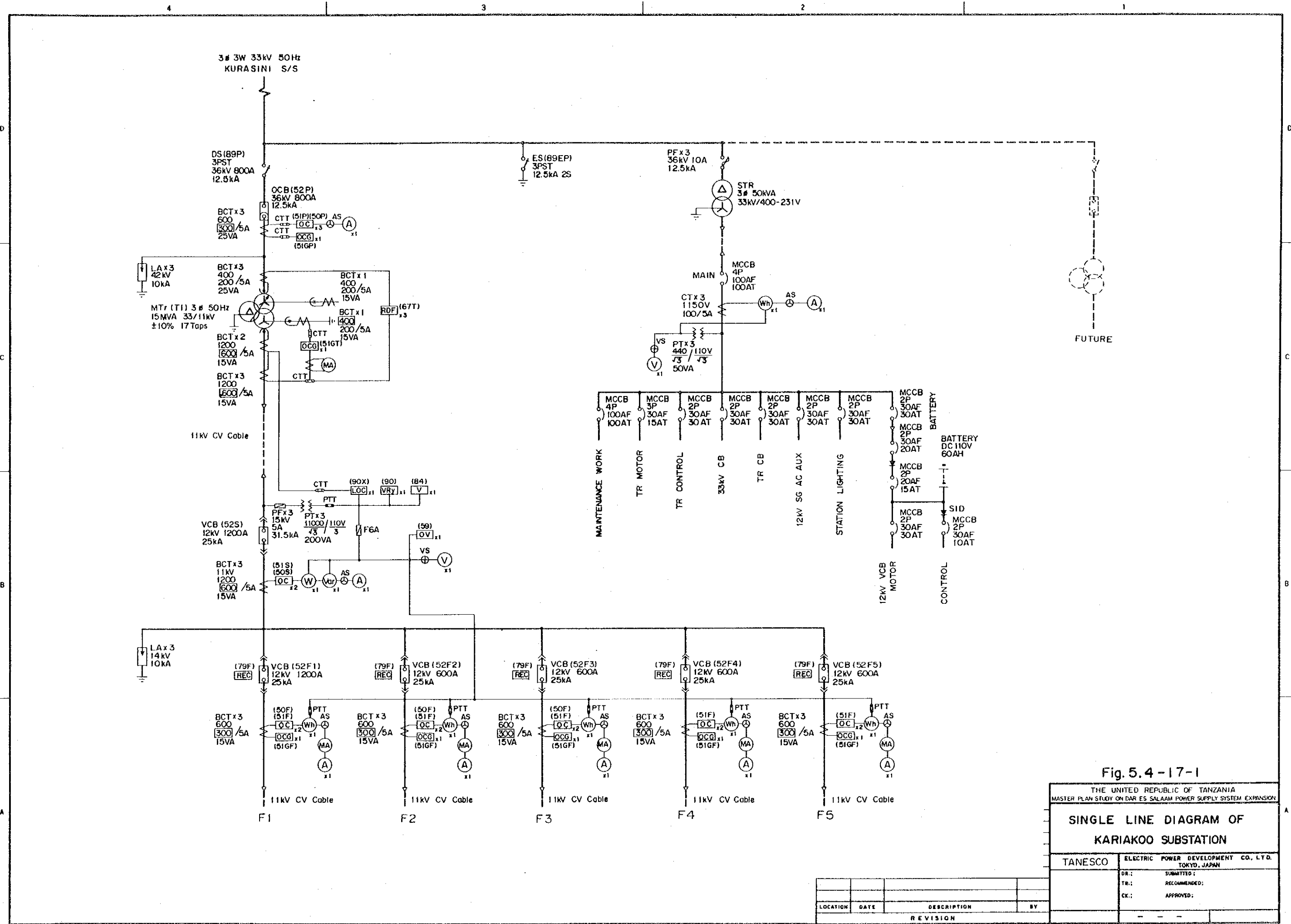


Fig. 5.4 - 17-1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION			
SINGLE LINE DIAGRAM OF KARIAKOO SUBSTATION			
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN		
DR.:	SUBMITTED:		
TR.:	RECOMMENDED:		
CK.:	APPROVED:		
LOCATION	DATE	DESCRIPTION	BY
REVISION			

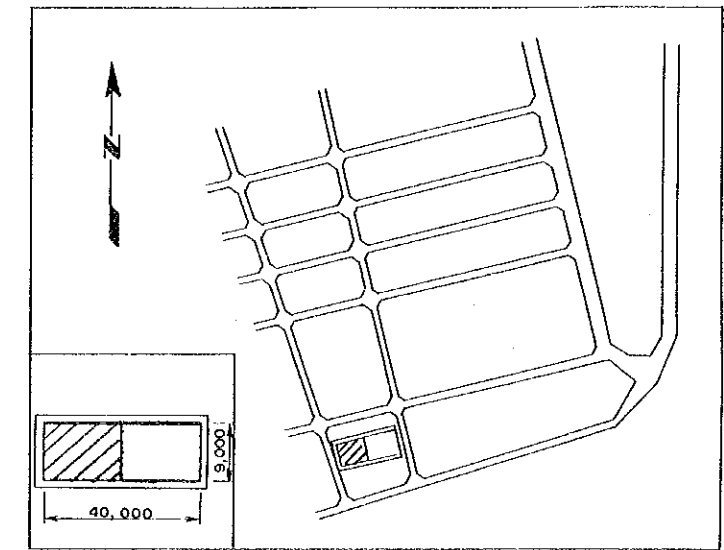


LEGEND :

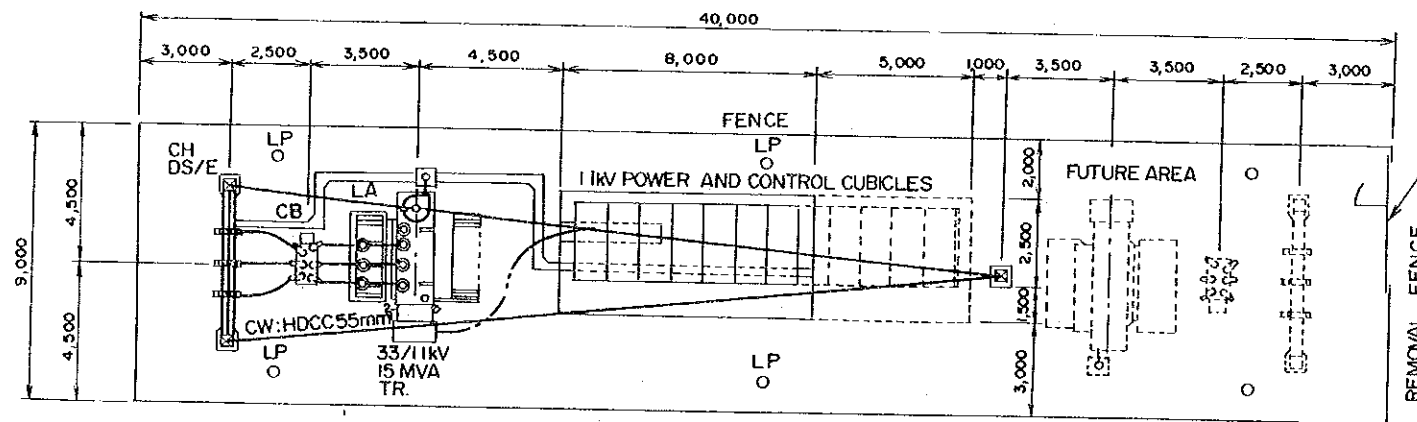
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- TR : 15MVA MAIN TRANSFORMER
- LP : LIGHTING POLE
- PF : POWER FUSE
- S.TR : STATION TRANSFORMER
- EM : EARTH MAST

NOTE :

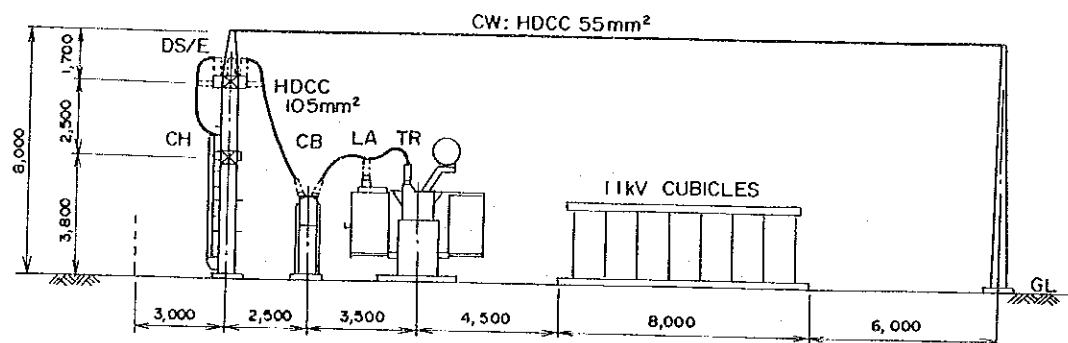
- I. --- FUTURE EXPANSION



LOCATION MAP
(NONE SCALE)



PLAN



SECTION

Fig. 5.4 - 17-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF KARIAKOO SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
F.R.:	RECOMMENDED:
C.K.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

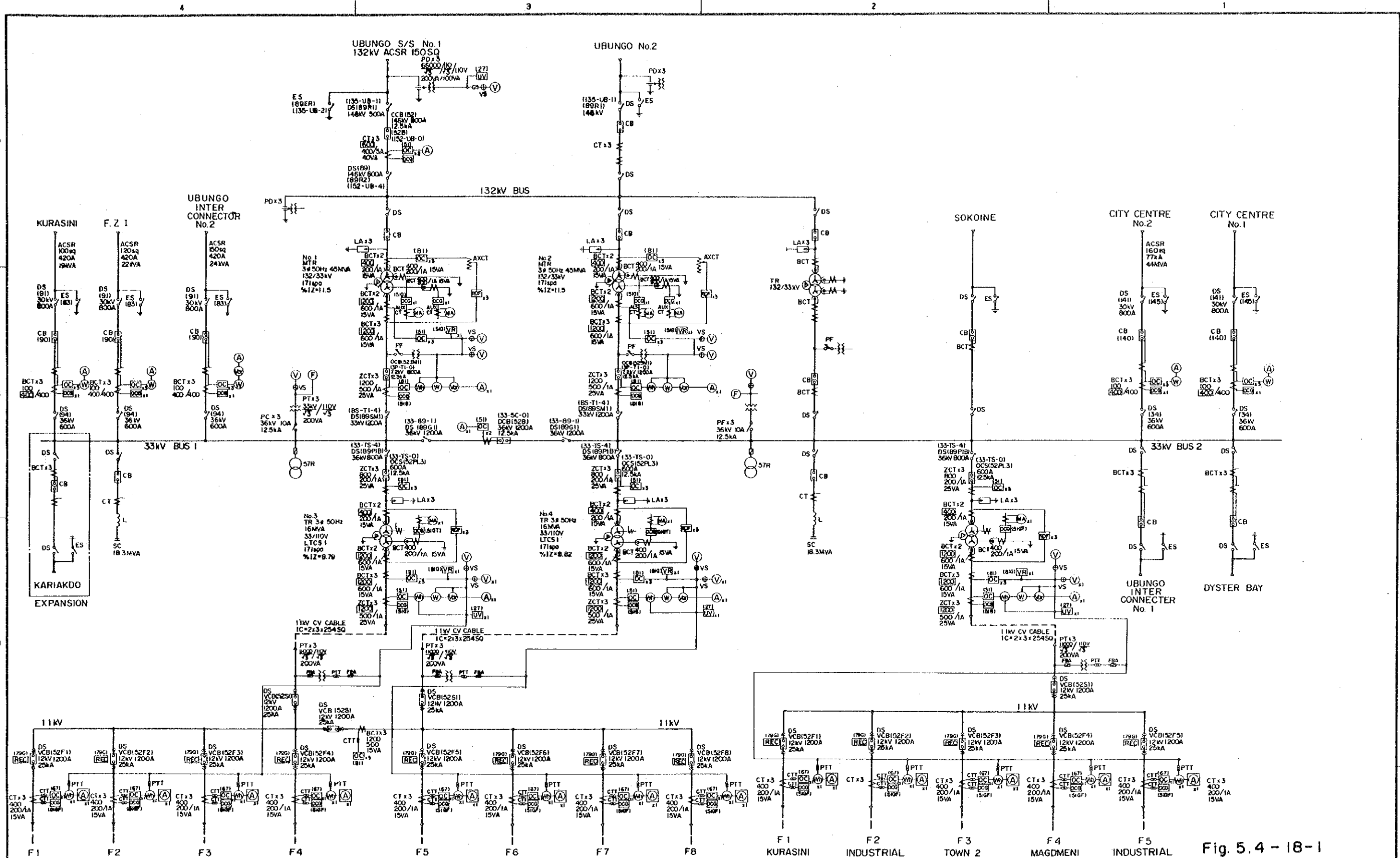


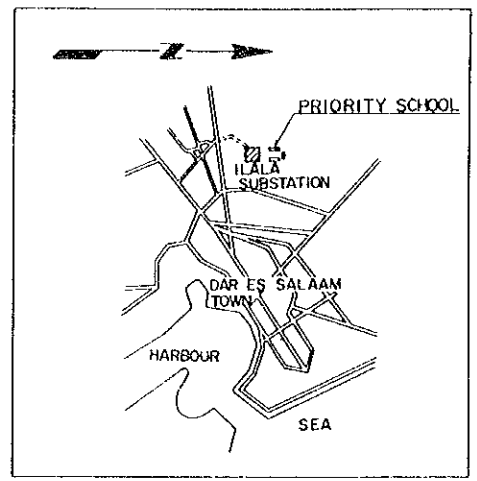
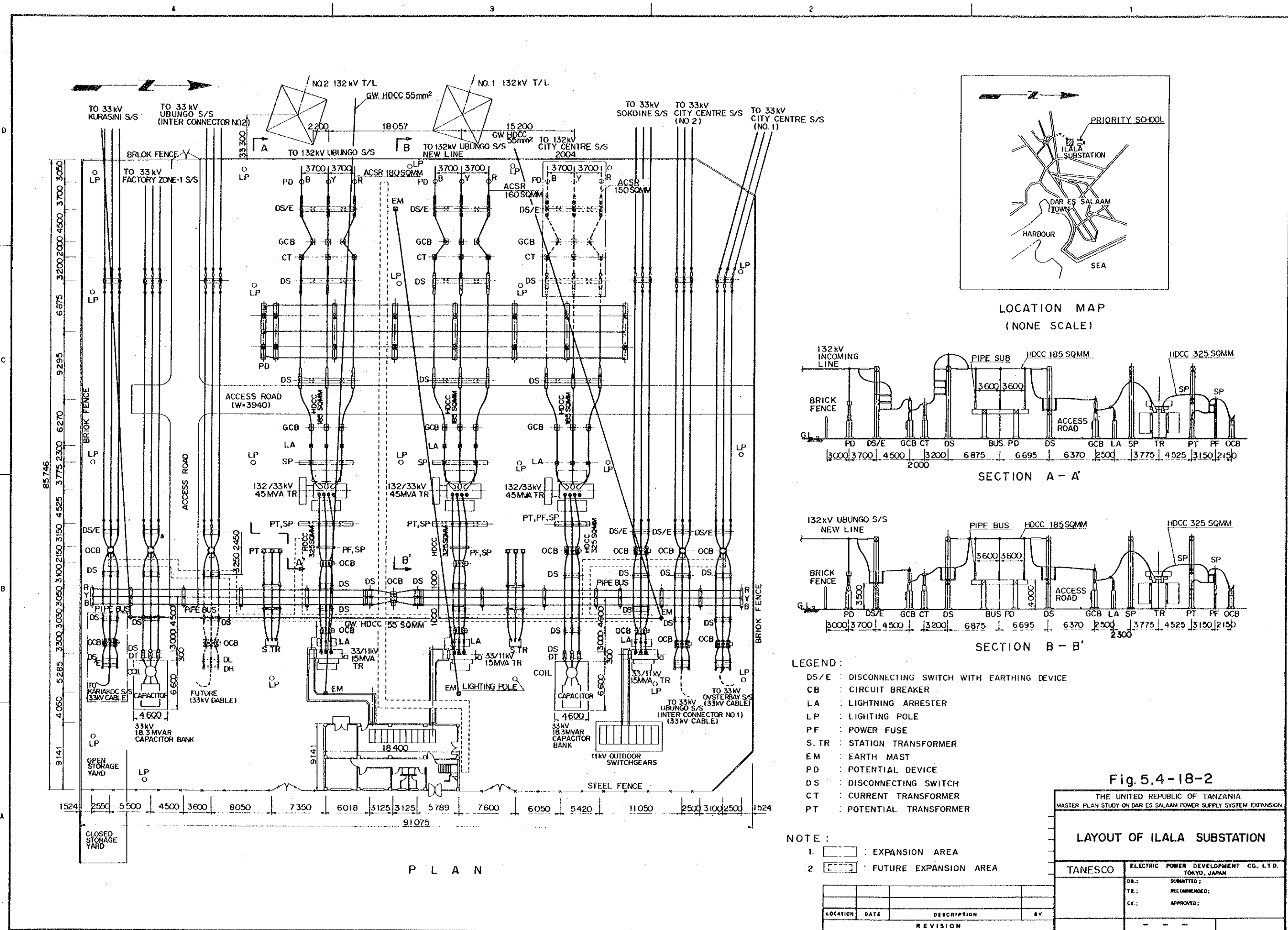
Fig. 5.4 - 18-1

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

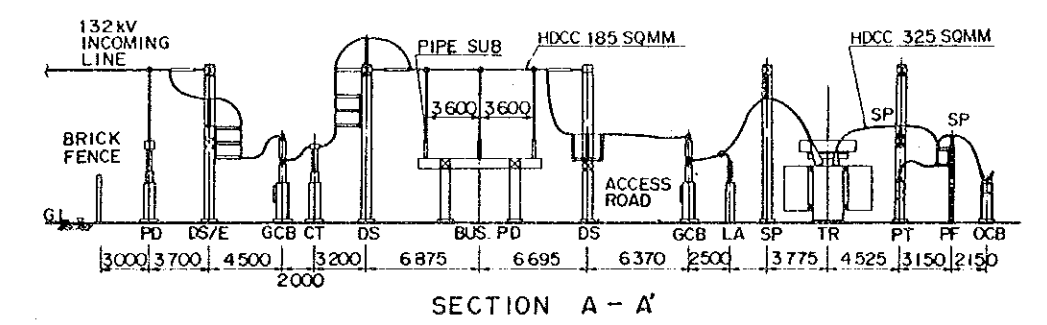
**SINGLE LINE DIAGRAM OF
 ILALA SUBSTATION**

TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR:	SUBMITTED:
TR:	RECOMMENDED:
CK:	APPROVED:

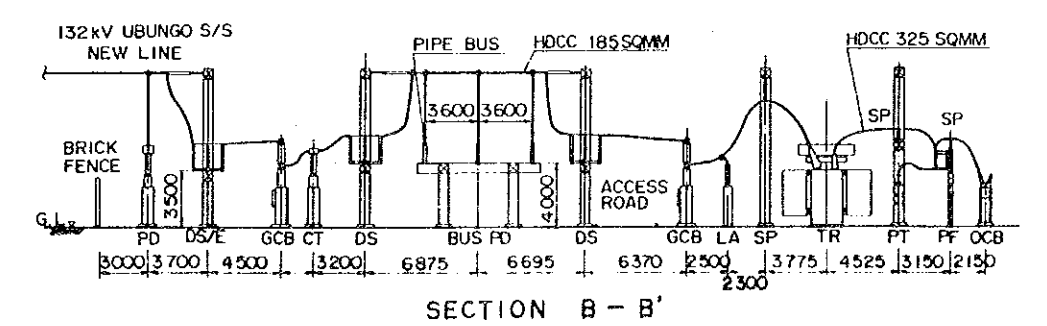
LOCATION	DATE	DESCRIPTION	BY
REVISION			



LOCATION MAP
(NONE SCALE)



SECTION A - A'



SECTION B - B'

- LEGEND:
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S. TR : STATION TRANSFORMER
 - EM : EARTH MAST
 - PD : POTENTIAL DEVICE
 - DS : DISCONNECTING SWITCH
 - CT : CURRENT TRANSFORMER
 - PT : POTENTIAL TRANSFORMER

- NOTE:
1. [Dashed Box] : EXPANSION AREA
 2. [Dotted Box] : FUTURE EXPANSION AREA

Fig. 5.4-18-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF ILALA SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CE.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

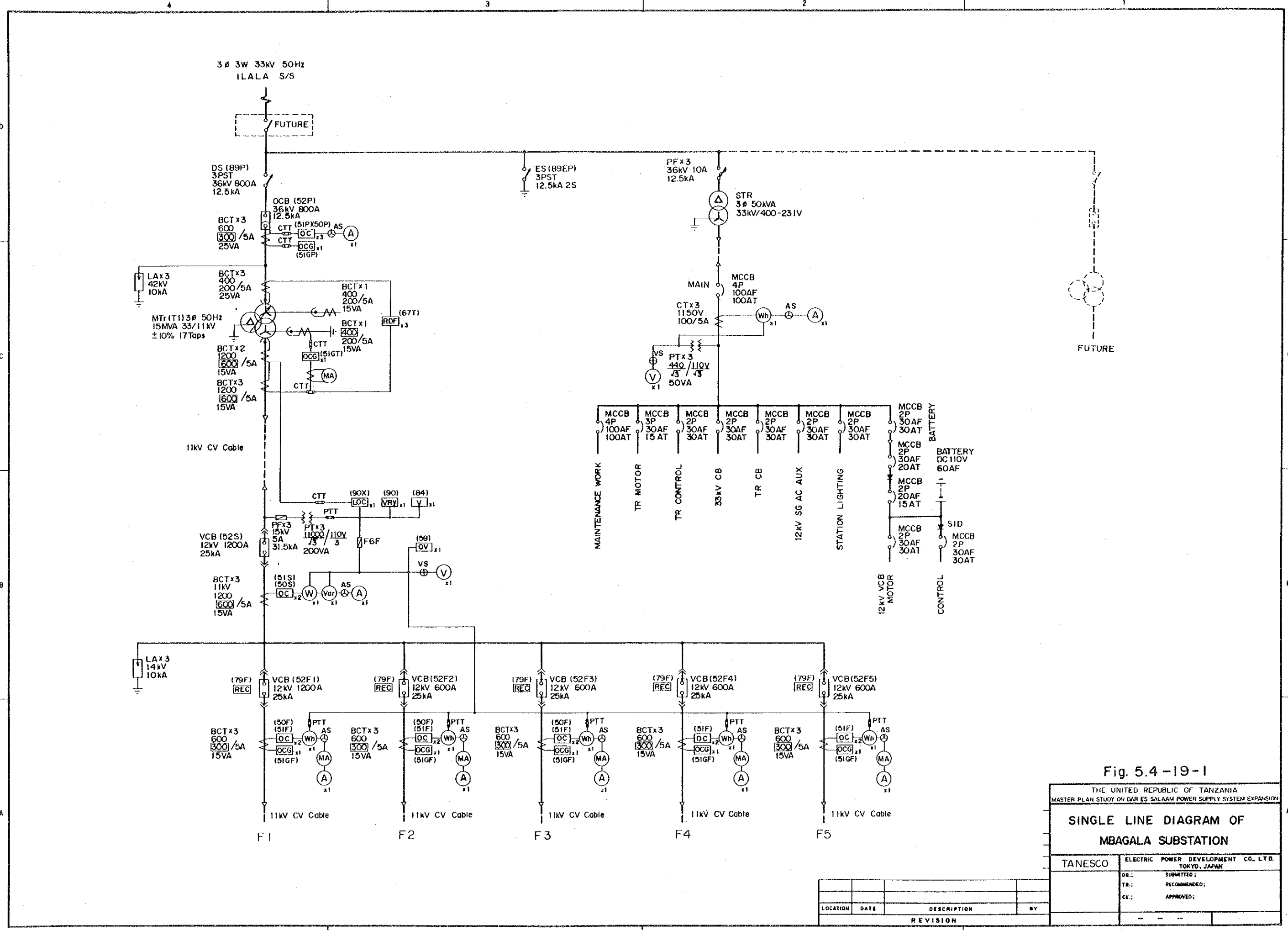
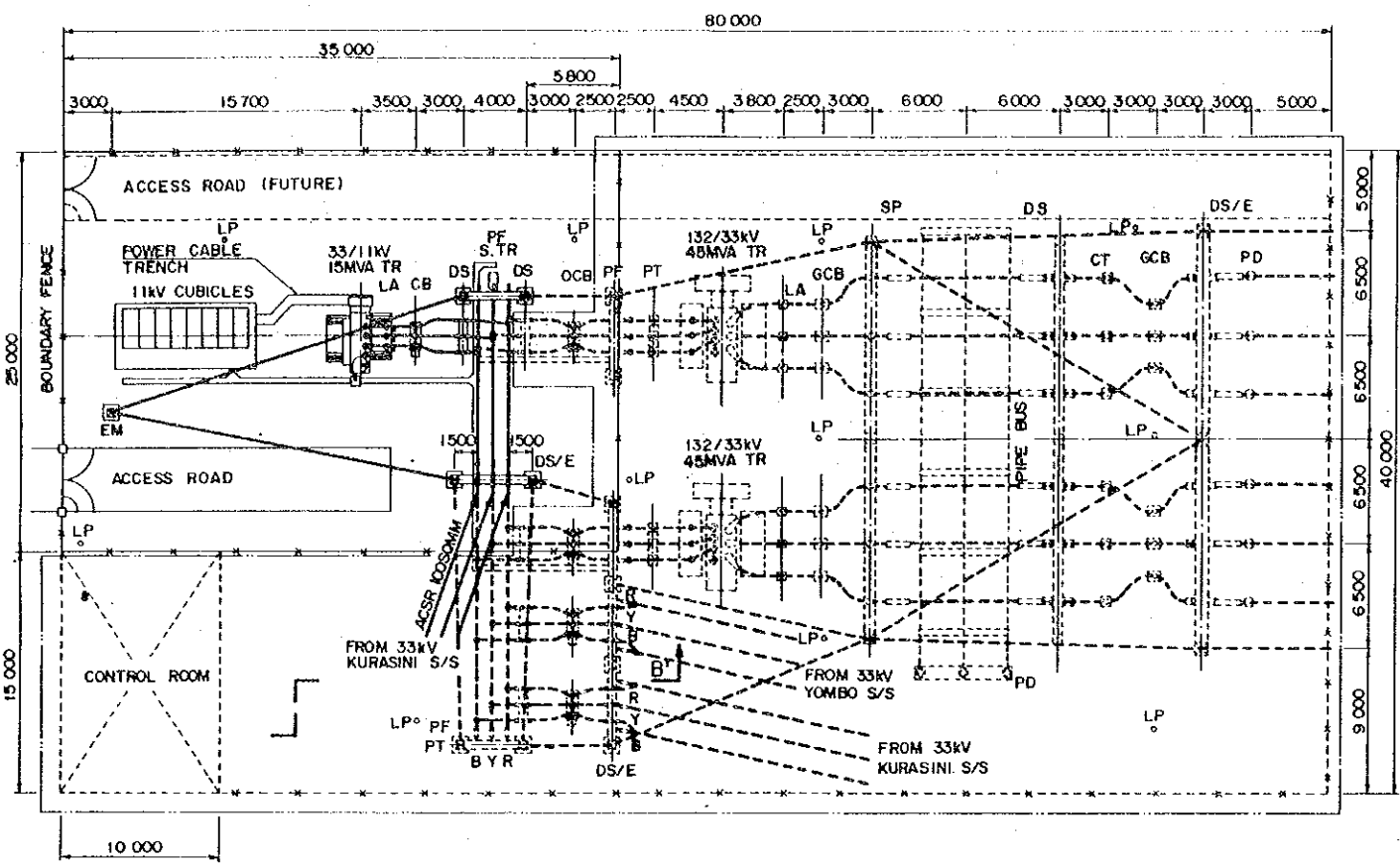
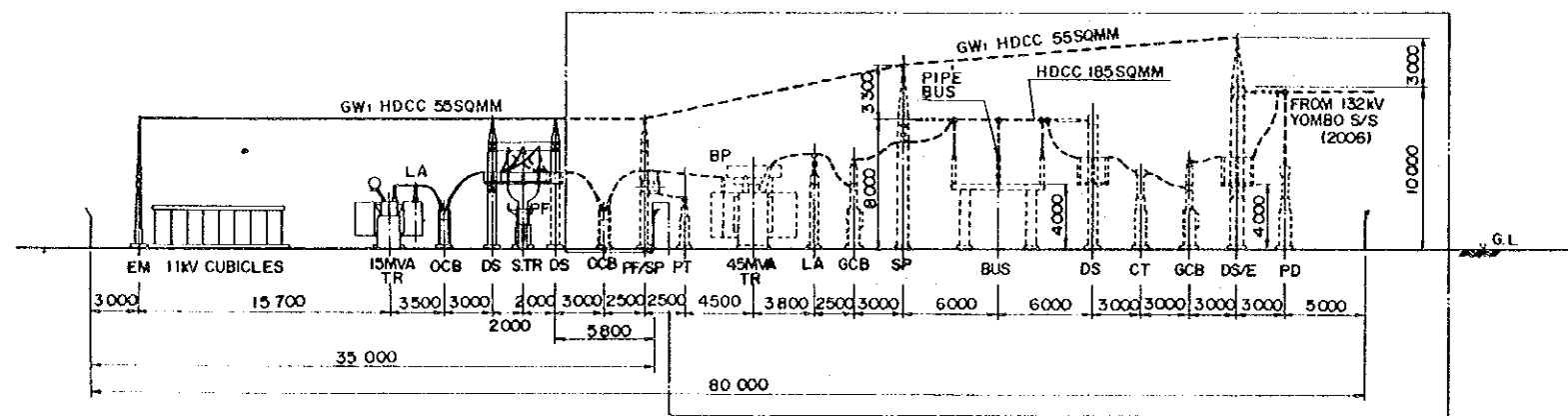


Fig. 5.4-19-1

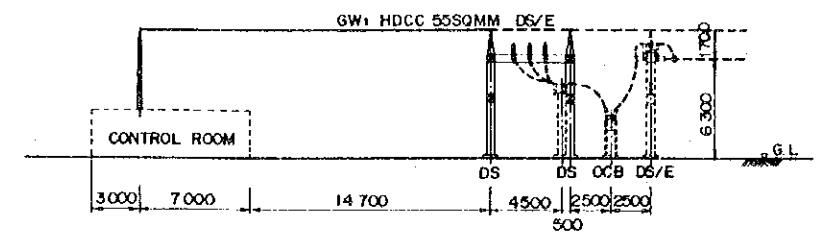
THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION			
SINGLE LINE DIAGRAM OF MBAGALA SUBSTATION			
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN		
DR:	SUBMITTED:		
TR:	RECOMMENDED:		
CR:	APPROVED:		
LOCATION	DATE	DESCRIPTION	BY
REVISION			



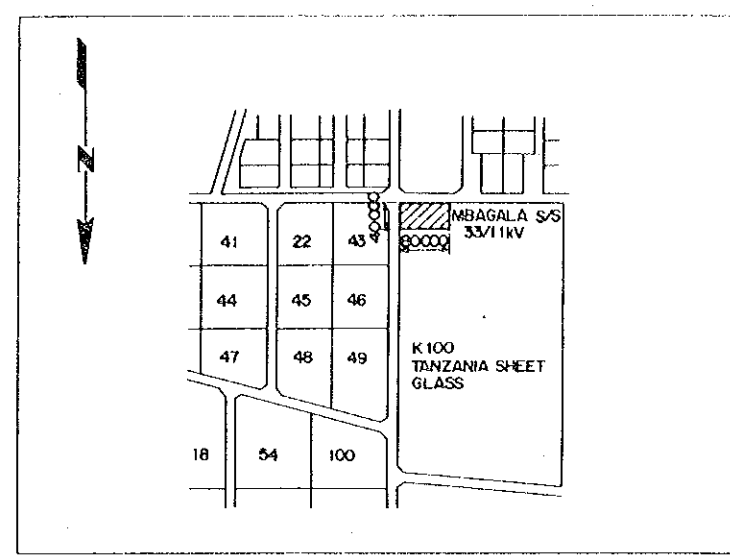
P L A N



SECTION A - A'



SECTION B - B'



LOCATION MAP
(NONE SCALE)

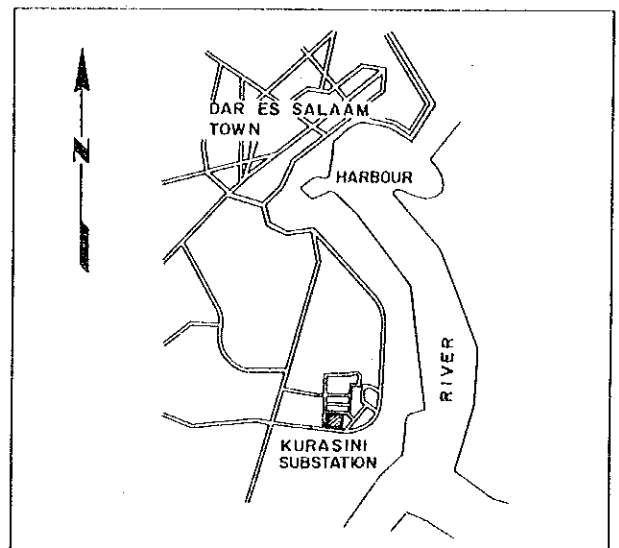
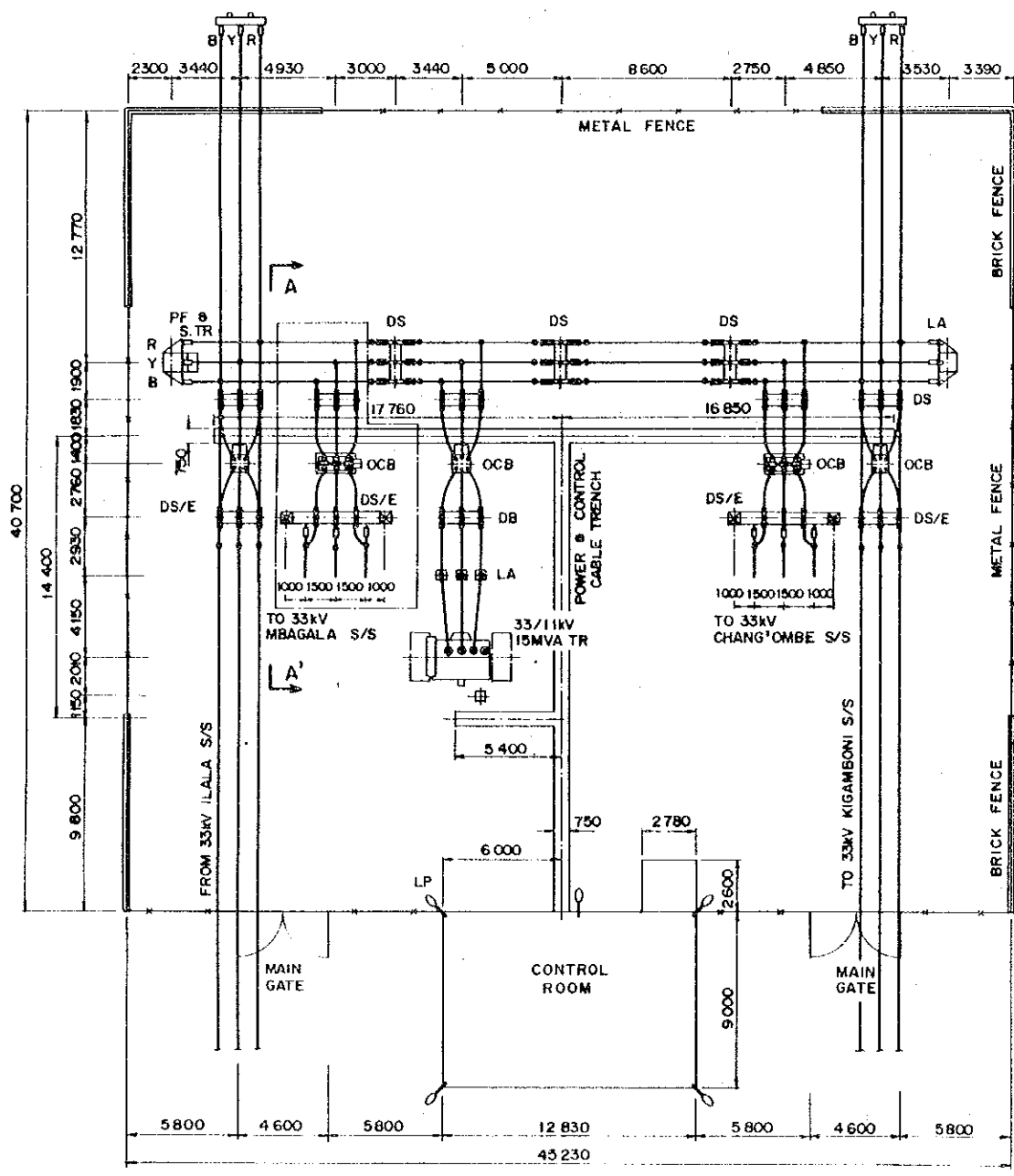
- LEGEND :
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S.TR : STATION TRANSFORMER
 - EM : EARTH MAST
 - PD : POTENTIAL DEVICE
 - DS : DISCONNECTING SWITCH
 - CT : CURRENT TRANSFORMER
 - PT : POTENTIAL TRANSFORMER

NOTE :

1. [Dashed Box] : FUTURE EXPANSION AREA

Fig. 5.4 - 19 - 2

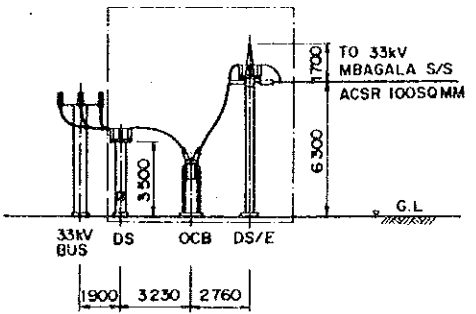
THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION			
LAYOUT OF MBAGALA SUBSTATION			
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN		
DR.:	SUBMITTED:		
TR.:	RECOMMENDED:		
CE.:	APPROVED:		
LOCATION	DATE	DESCRIPTION	BY
REVISION			



LOCATION MAP
(NONE SCALE)

- LEGEND :
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - DS : DISCONNECTING SWITCH
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - TR : 15MVA MAIN TRANSFORMER
 - LP : LIGHTING POLE
 - PF : POWER FUSE
 - S.TR : STATION TRANSFORMER

NOTE :
I. [] : EXPANSION FEEDER



SECTION A - A'

Fig 5.4 -20-2

THE UNITED REPUBLIC OF TANZANIA
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

LAYOUT OF KURASINI SUBSTATION

ELECTRIC POWER DEVELOPMENT CO., LTD.
TOKYO, JAPAN

DR.: SUBMITTED
TR.: RECOMMENDED
CE.: APPROVED

LOCATION	DATE	DESCRIPTION	BY
REVISION			

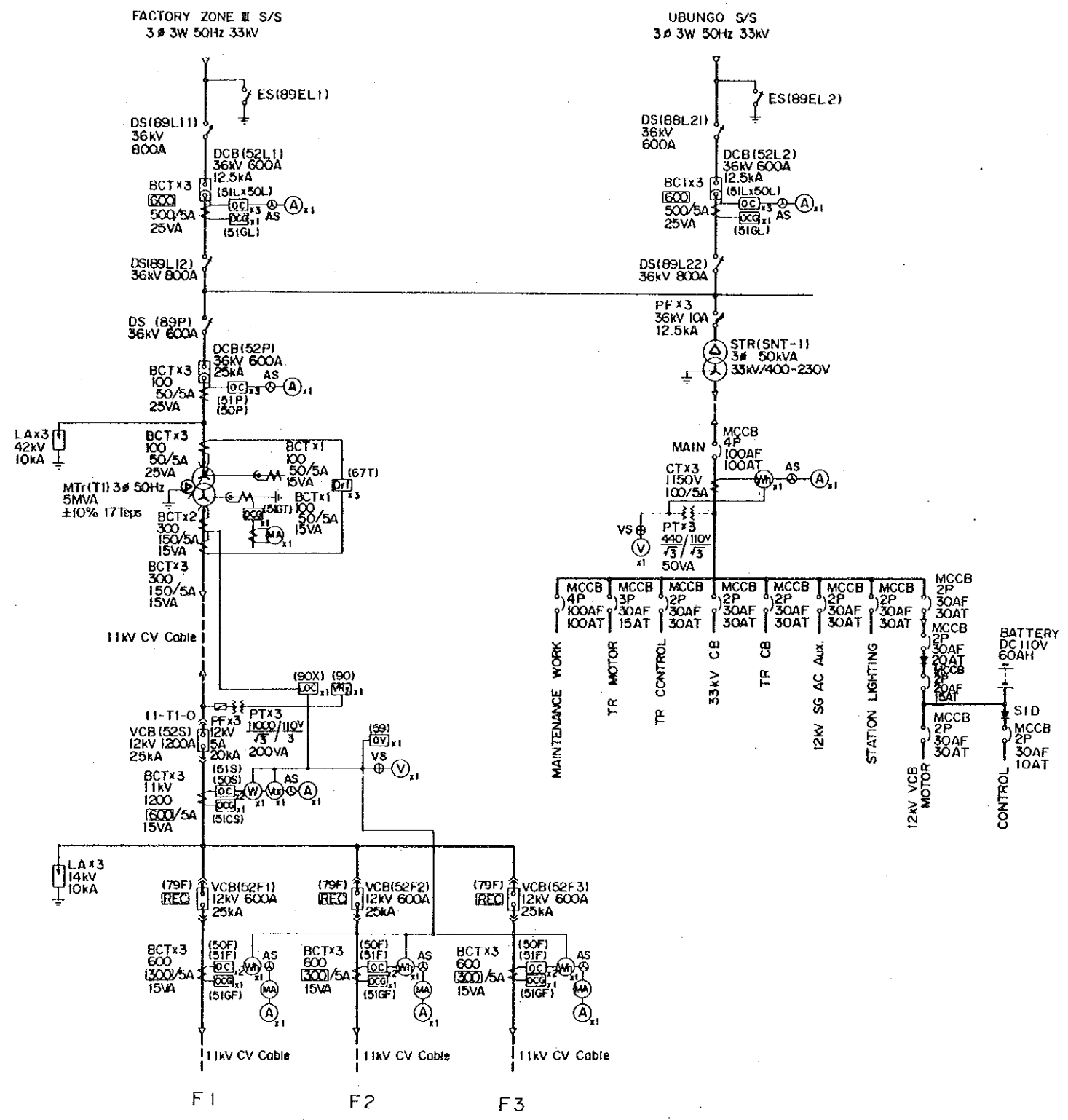
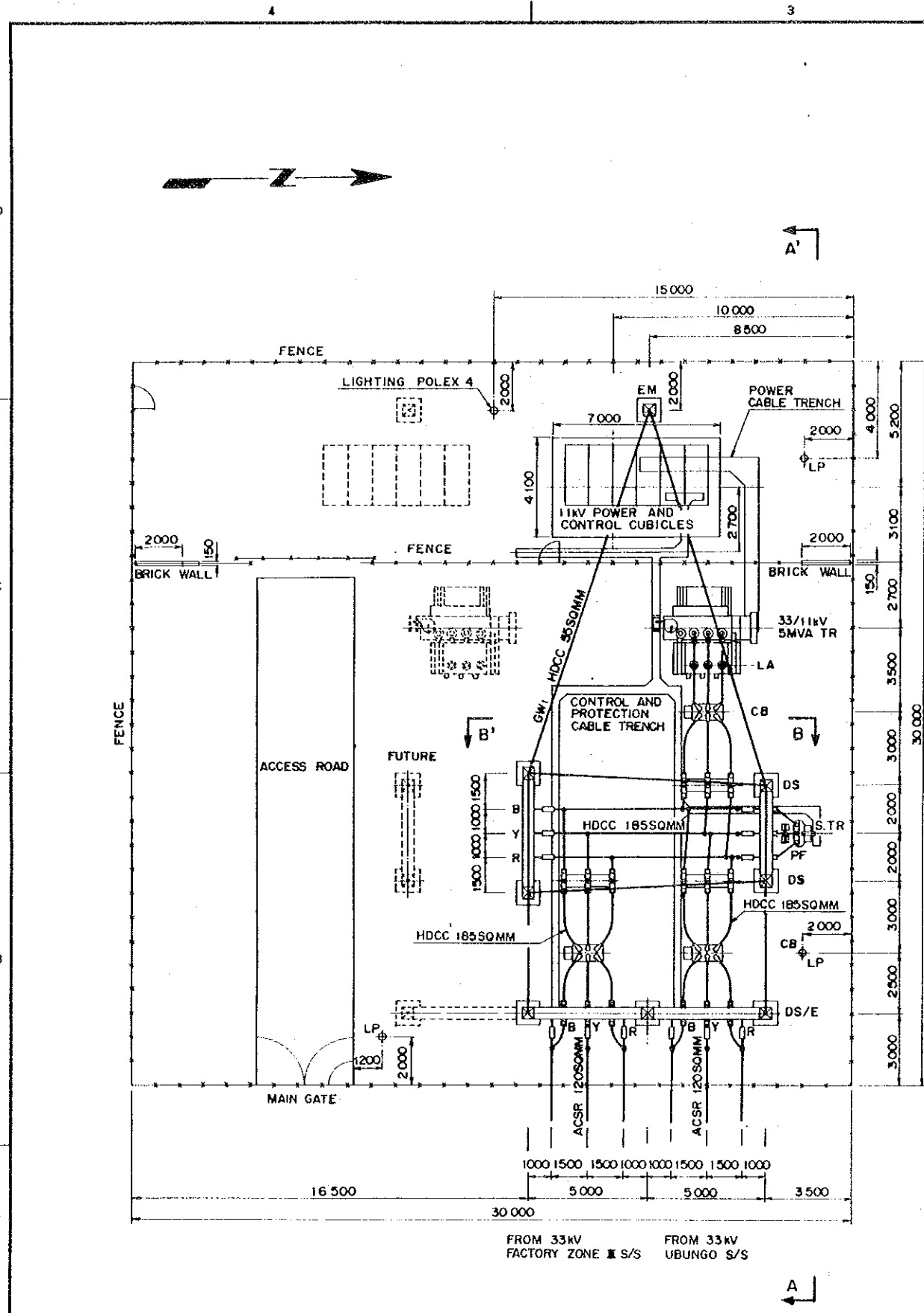


Fig. 5.4-21-1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF TABATA SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO. LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:
LOCATION	DATE
REVISION	



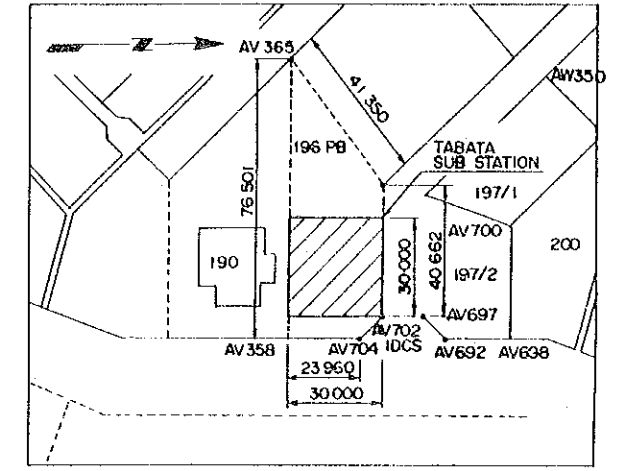
P L A N

LEGEND :

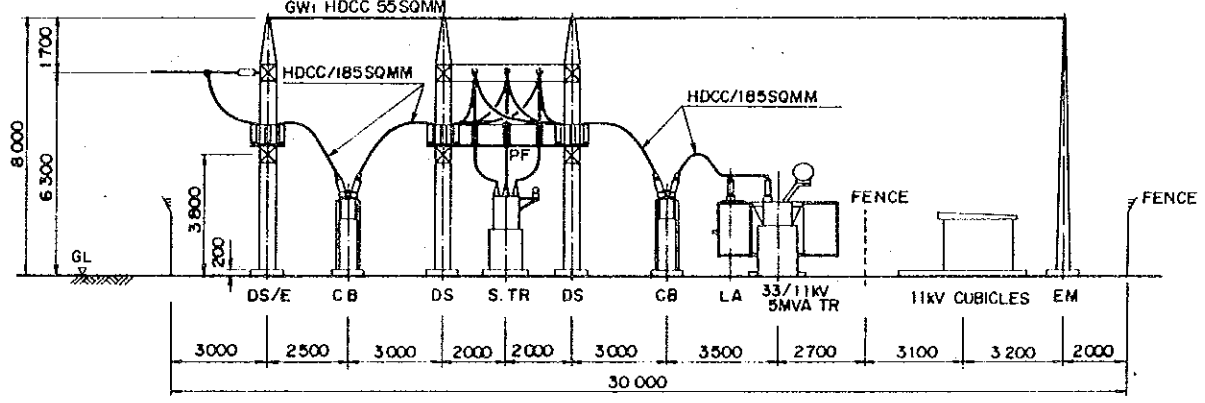
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- DS : DISCONNECTING SWITCH
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- TR : 5MVA MAIN TRANSFORMER
- LP : LIGHTING POLE
- PF : POWER FUSE
- S.TR : STATION TRANSFORMER
- EM : EARTH MAST

NOTE :

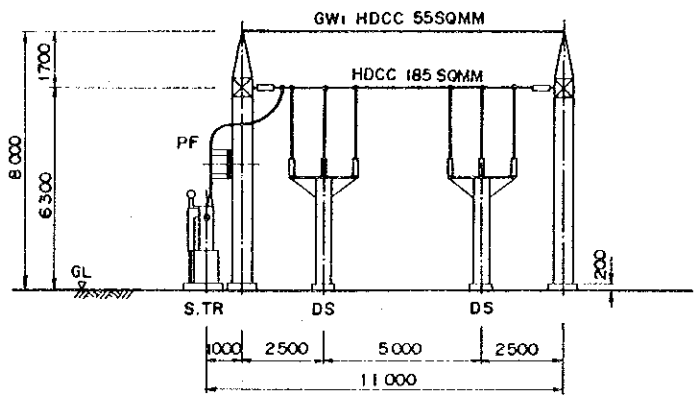
1.-----FUTURE EXPANSION



LOCATION MAP
(NONE SCALE)



SECTION A-A'

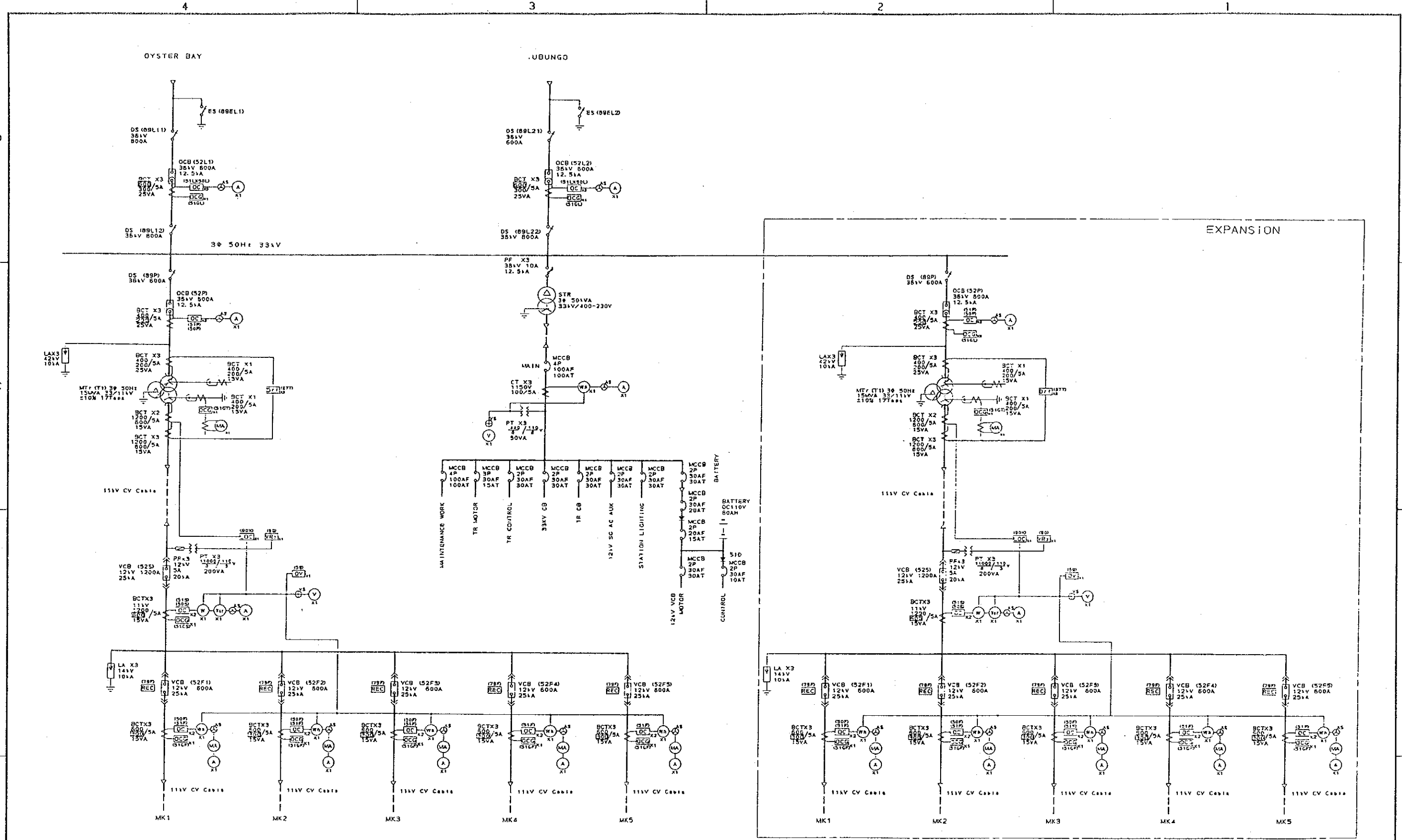


SECTION B-B'

Fig. 5.4-21-2

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF TABATA SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
DR.:	SUBMITTED:
TR.:	RECOMMENDED:
CK.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			



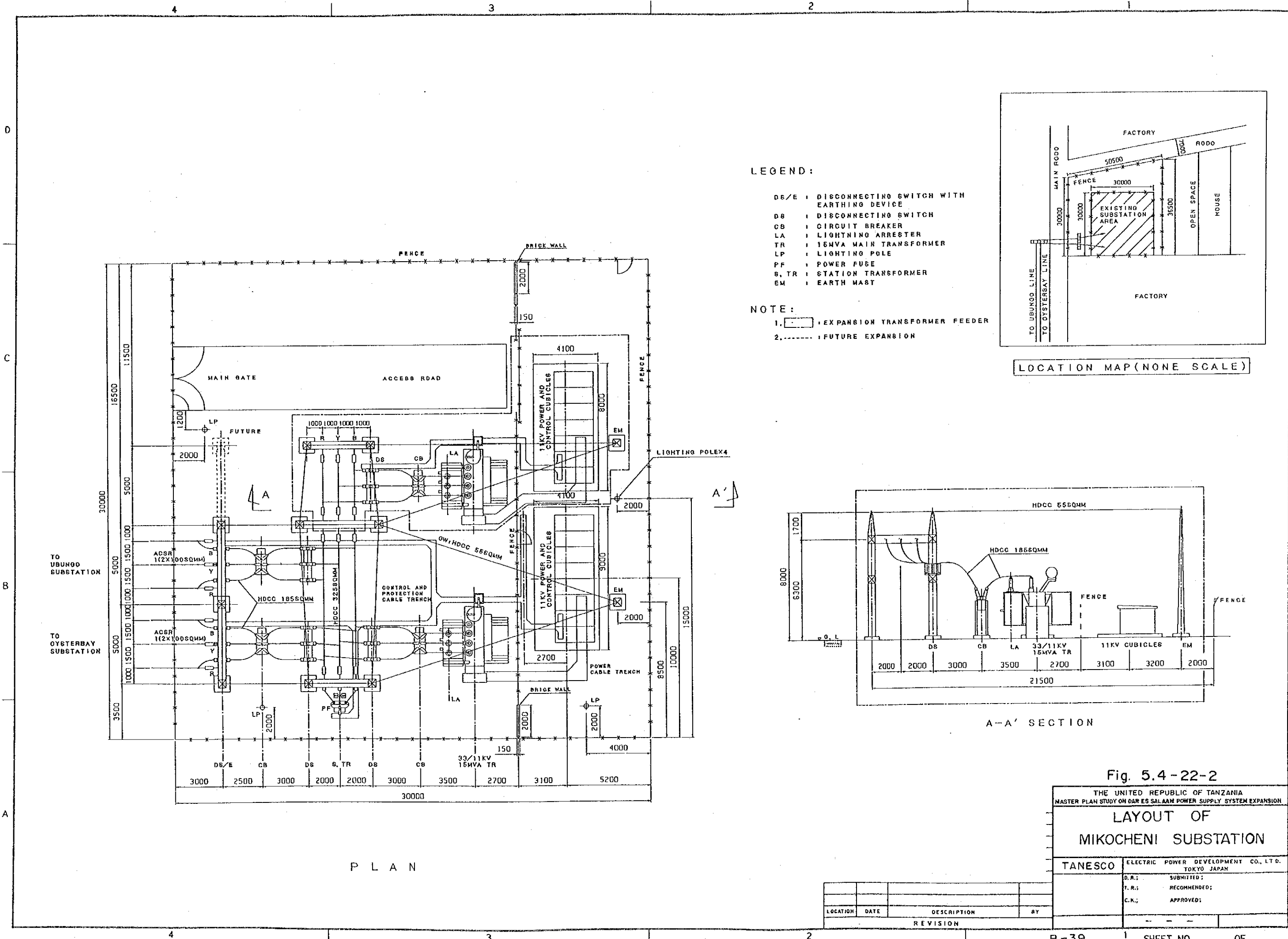
THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

SINGLE LINE DIAGRAM OF MIKOCHENI SUBSTATION

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.K.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

Fig. 5.4-22-1

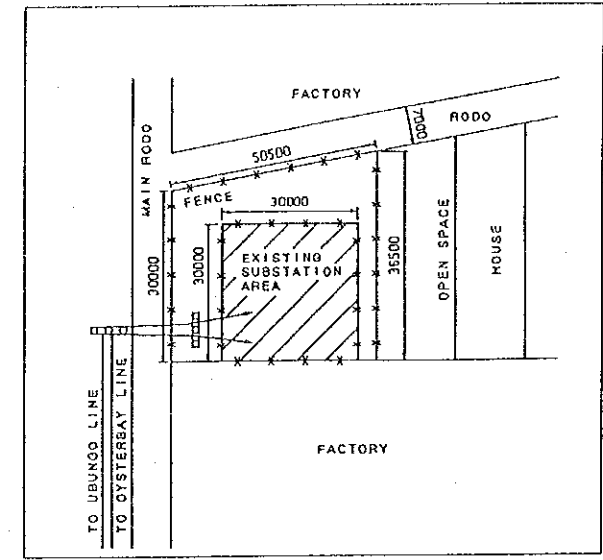


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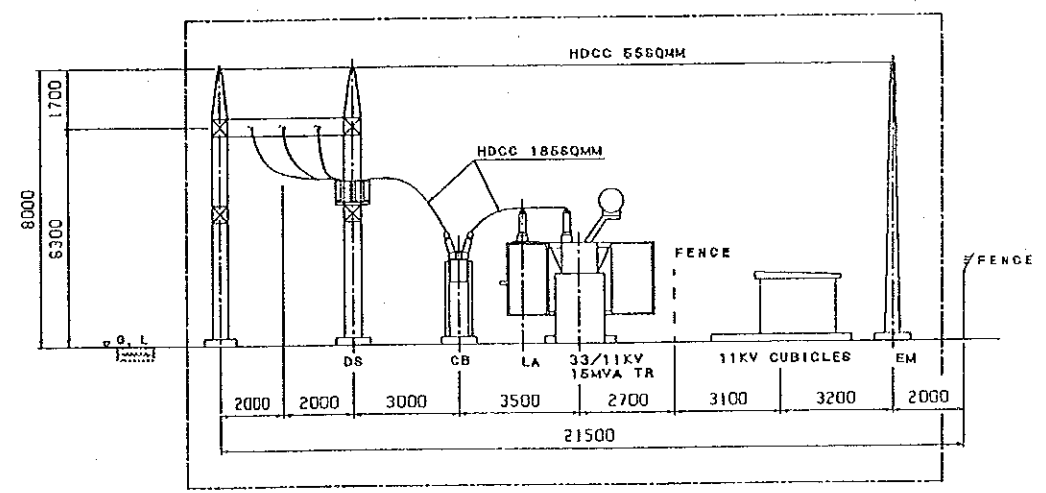
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- DS : DISCONNECTING SWITCH
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- TR : 15MVA MAIN TRANSFORMER
- LP : LIGHTING POLE
- PF : POWER FUSE
- S. TR : STATION TRANSFORMER
- EM : EARTH MAST

NOTE :

1. [Symbol] : EXPANSION TRANSFORMER FEEDER
2. [Symbol] : FUTURE EXPANSION



LOCATION MAP (NONE SCALE)



A-A' SECTION

P L A N

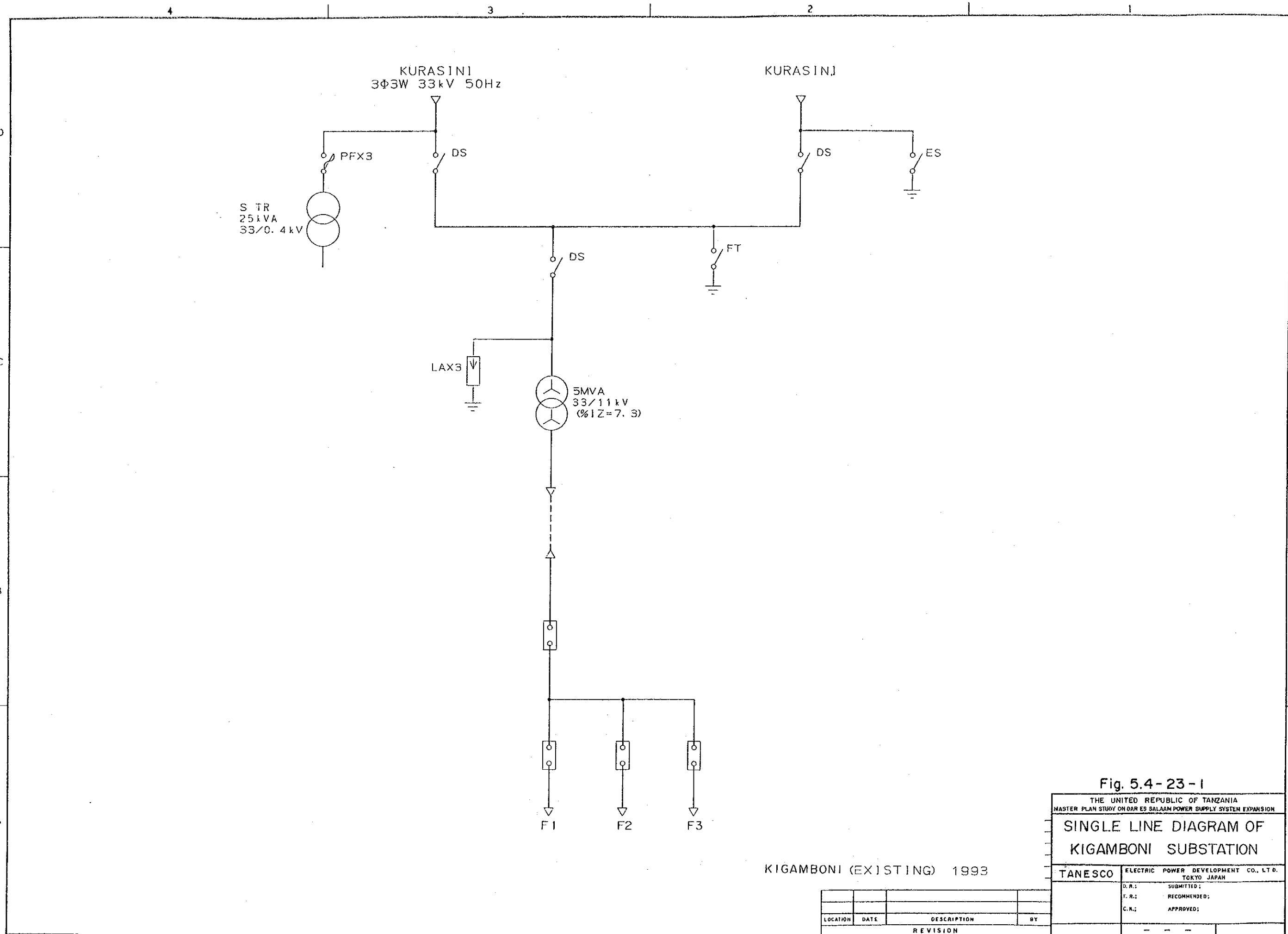
Fig. 5.4-22-2

THE UNITED REPUBLIC OF TANZANIA
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

**LAYOUT OF
MIKOCHENI SUBSTATION**

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.N.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			



KIGAMBONI (EXISTING) 1993

Fig. 5.4-23-1

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF KIGAMBONI SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D. R.:	SUBMITTED:
F. R.:	RECOMMENDED:
C. R.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

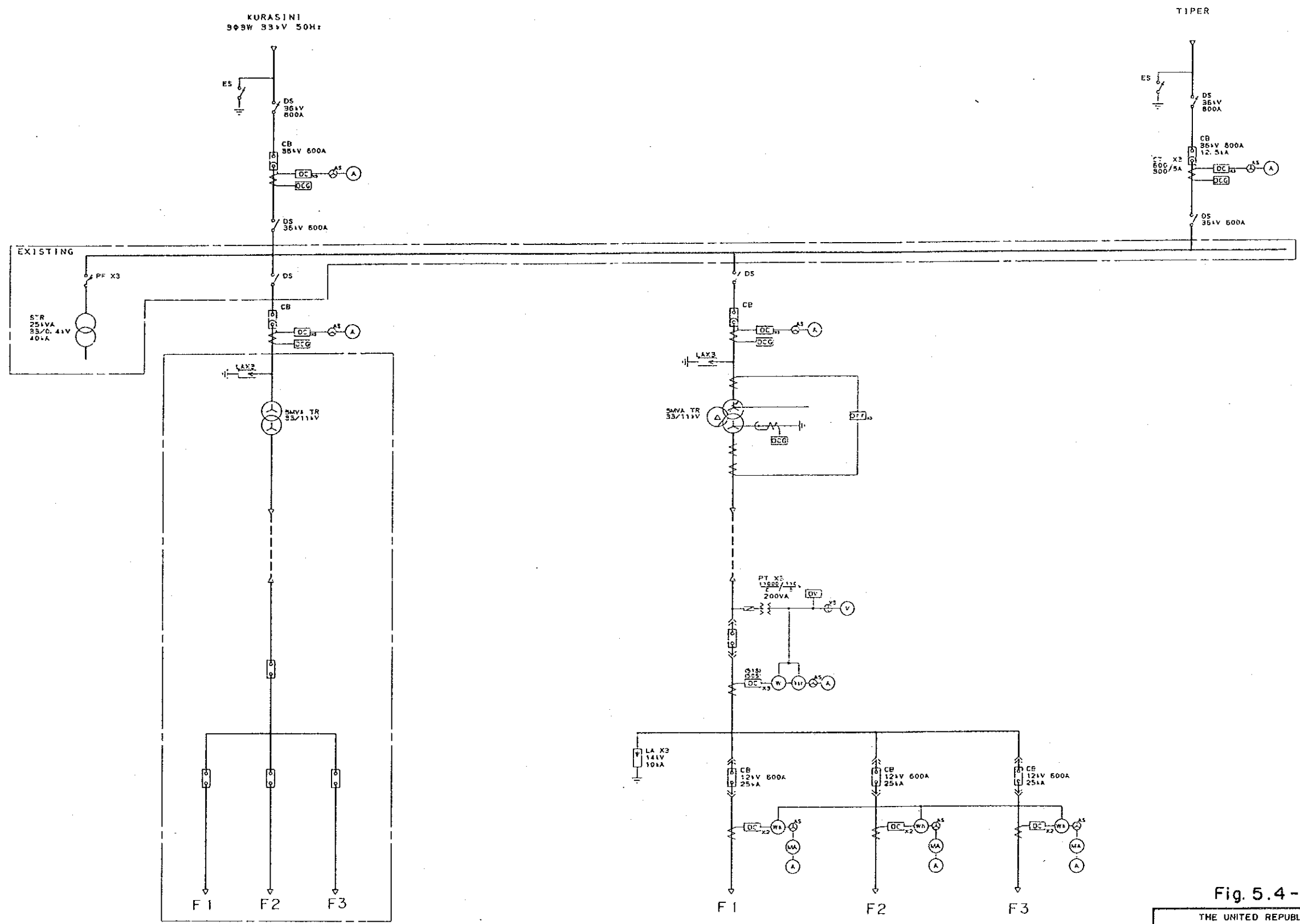
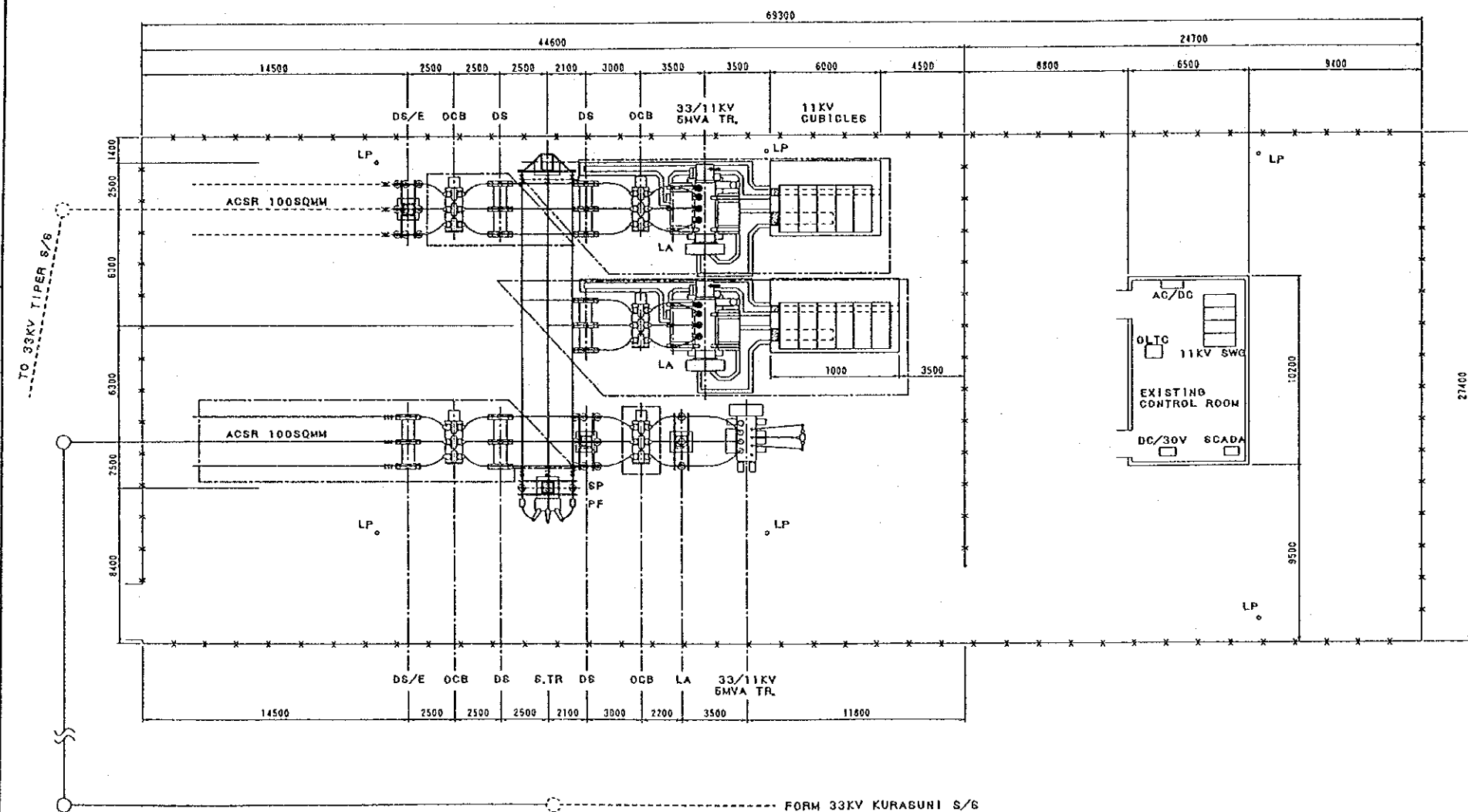
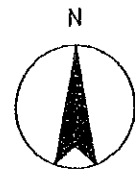


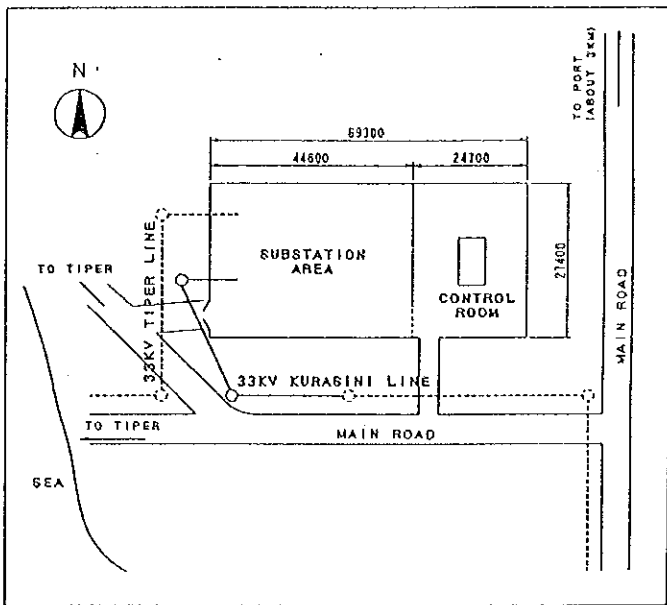
Fig. 5.4-23-2

THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF KIGAMBONI SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.K.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			



P L A N



LOCATION MAP (NONE SCALE)

LEGEND:

- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- TR : SMVA MAIN TRANSFORMER
- S. TR : STATION TRANSFORMER
- CB : CIRCUIT BREAKER
- DS : DISCONNECTING SWITCH
- SP : STATION POST INSULATOR
- LA : LIGHTNING ARRESTER
- PF : POWER FUSE
- LP : LIGHTING POLE

NOTE:

1. [Symbol] : EXPANSION & REHABILITATION AREA
2. [Symbol] : FUTURE EXPANSION (2002 STAGE)

Fig. 5.4 - 23-3

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAJM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF KIGAMBONI SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
F.R.:	RECOMMENDED:
C.A.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

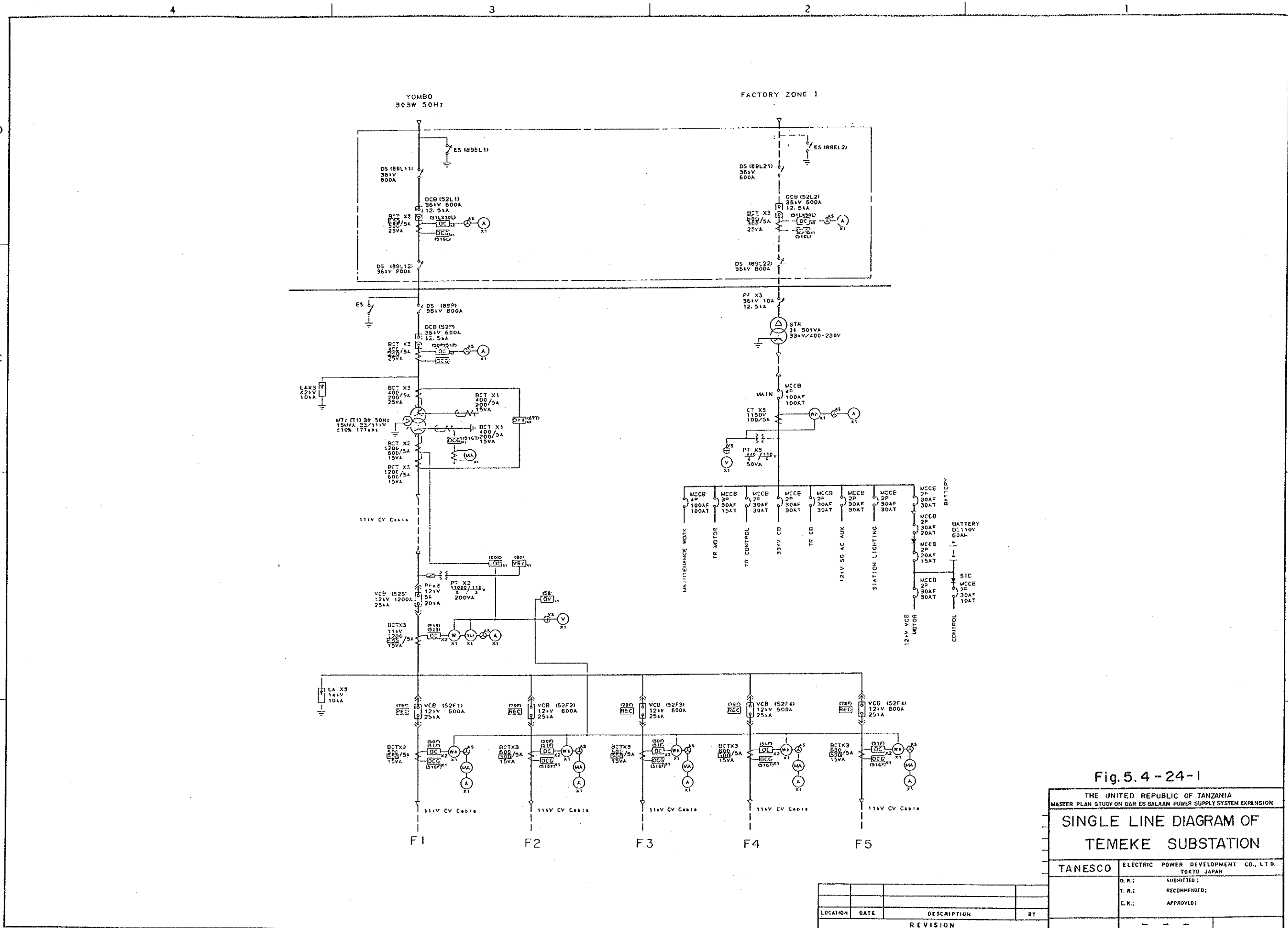


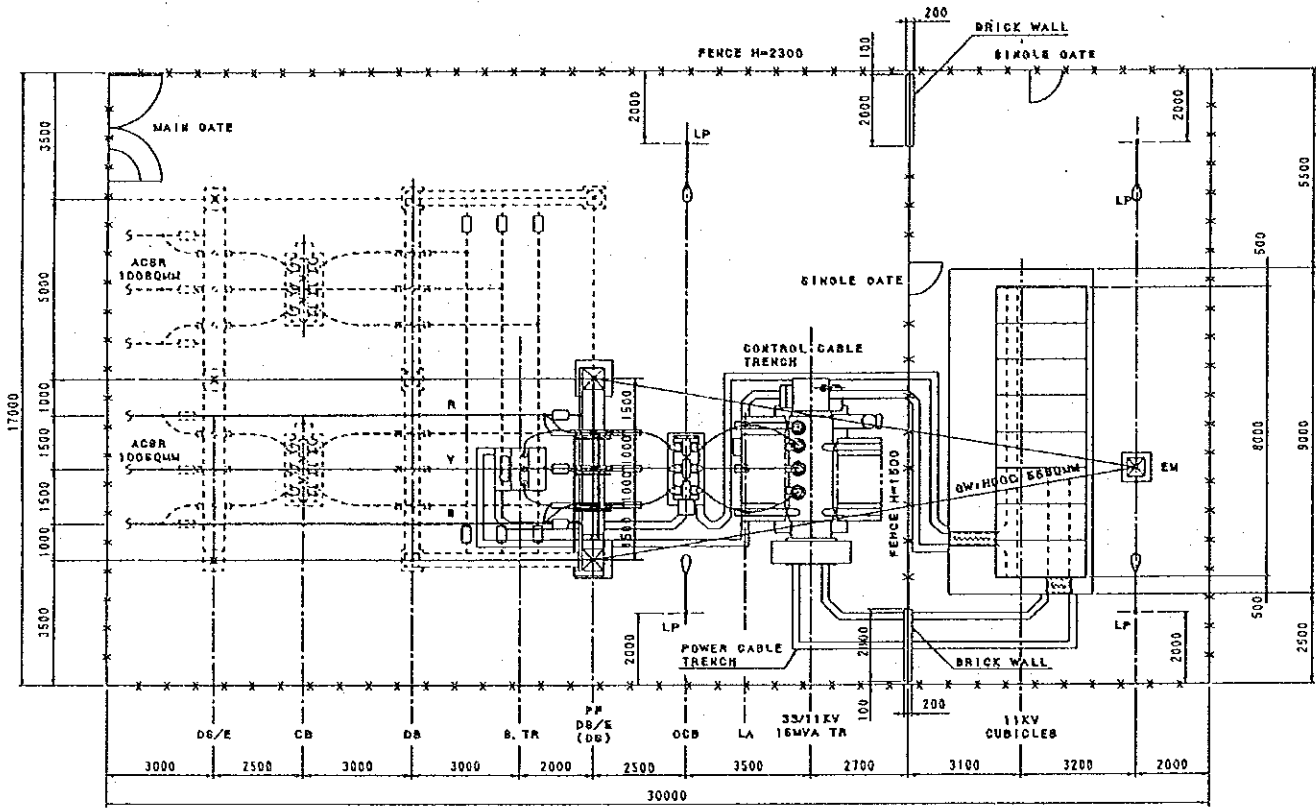
Fig. 5.4-24-1
 THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION
**SINGLE LINE DIAGRAM OF
 TEMEKE SUBSTATION**
 TANESCO | ELECTRIC POWER DEVELOPMENT CO., LTD.
 TOKYO JAPAN
 O.R.: SUBMITTED;
 T.R.: RECOMMENDED;
 C.K.: APPROVED;
 LOCATION DATE DESCRIPTION BY
 REVISION

FUTURE
(FROM 33KV E.Z. 1)
(BRANCH LINE)

FROM 33KV
YOMBO 5/8

A

A



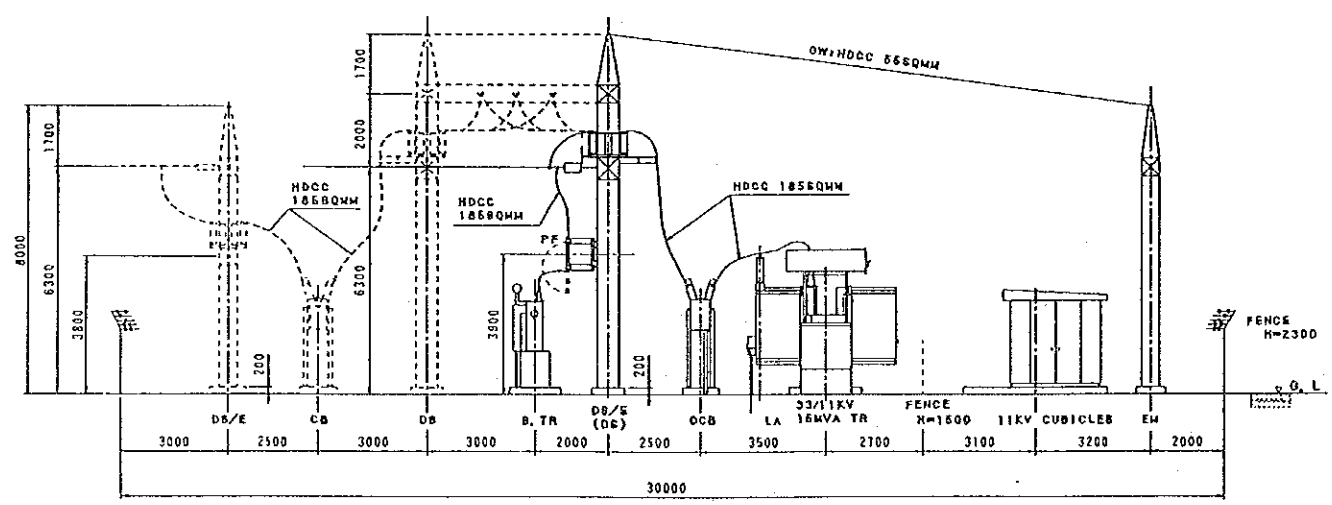
P L A N

LEGEND:

- DB/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- TR : 15MVA MAIN TRANSFORMER
- LP : LIGHTING POLE
- PF : POWER FUSE
- B. TR : STATION TRANSFORMER
- EM : EARTH MAST

NOTE:

- 1. ----- FUTURE EXPANSION



SECTION A-A'

Fig. 5.4 - 24 - 2

THE UNITED REPUBLIC OF TANZANIA
MASTER PLAN STUDY ON DAR ES SALAAN POWER SUPPLY SYSTEM EXPANSION

**LAYOUT OF
TEMEKE SUBSTATION**

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D. R.:	SUBMITTED:
T. R.:	RECOMMENDED:
C. R.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

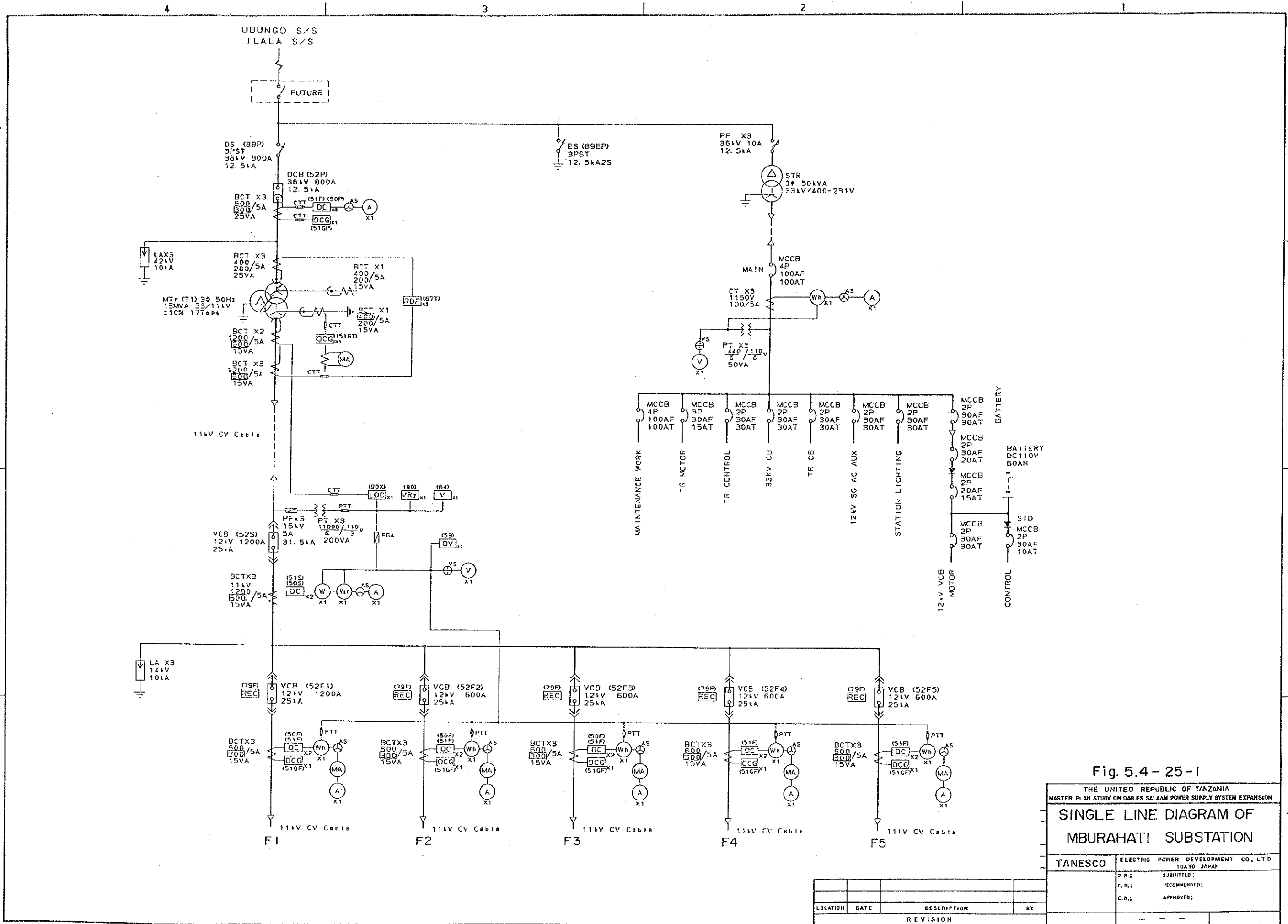


Fig. 5.4-25-1

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION
**SINGLE LINE DIAGRAM OF
 MBURAHATI SUBSTATION**

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.R.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

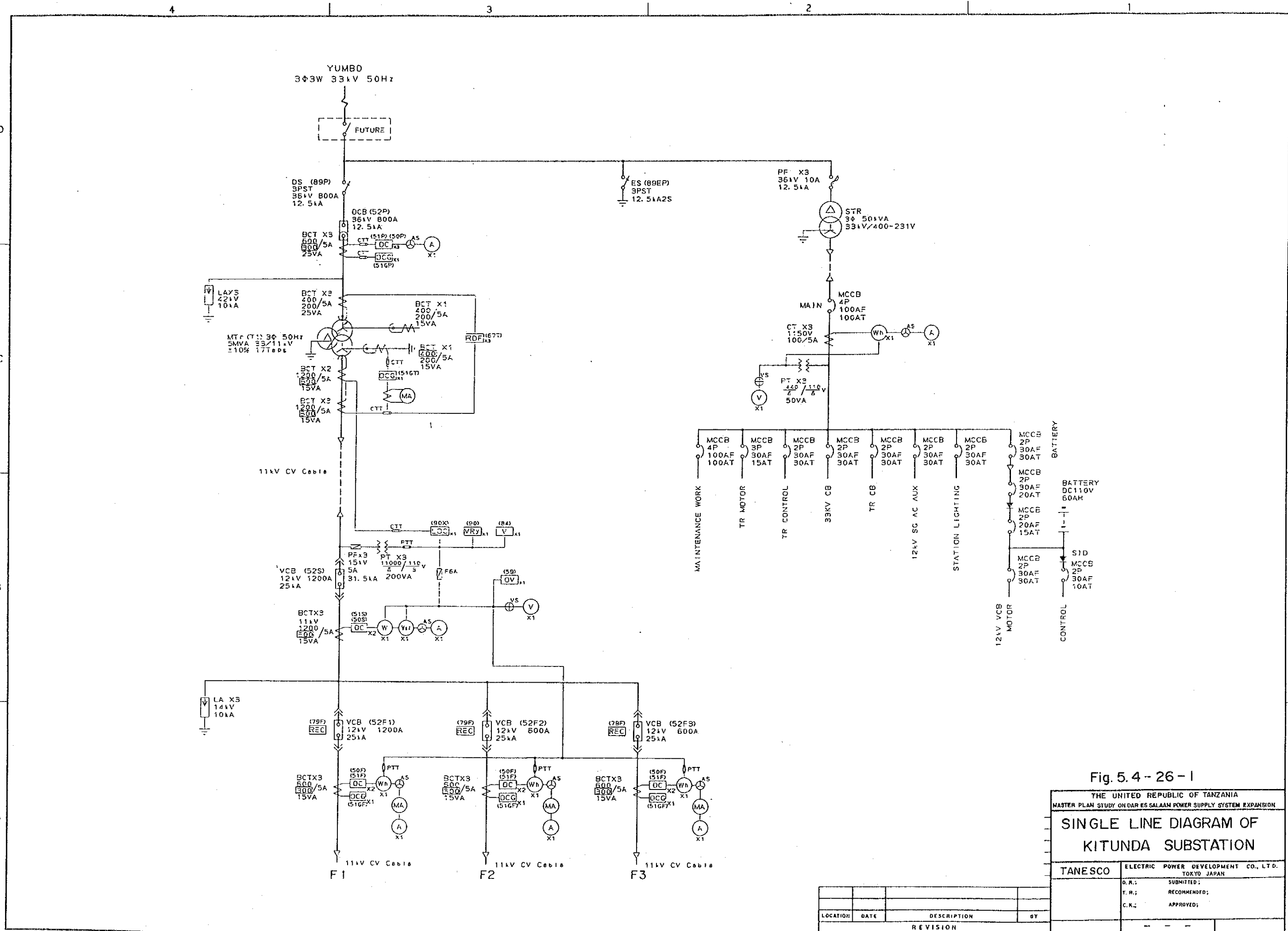
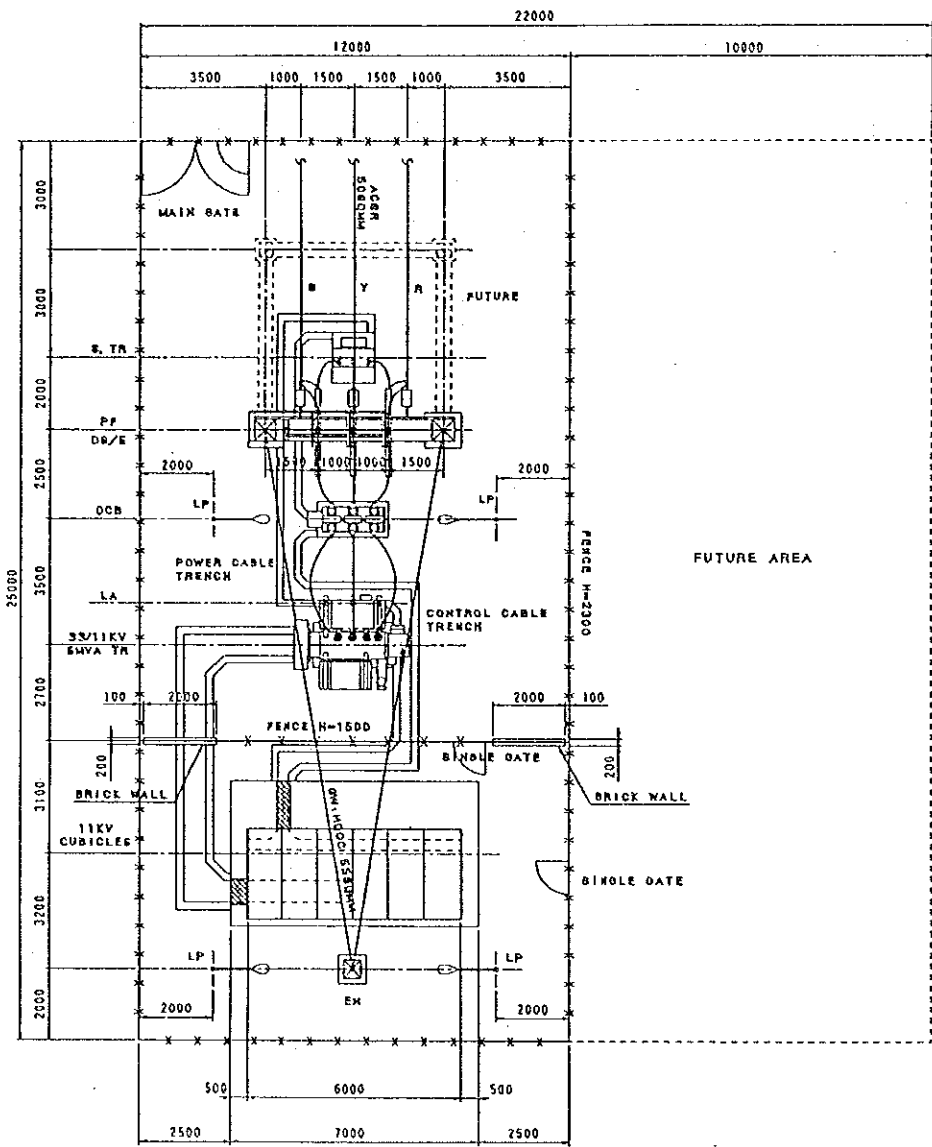


Fig. 5.4 - 26 - 1

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF KITUNDA SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED;
T.R.:	RECOMMENDED;
C.K.:	APPROVED;
LOCATION	DATE
DESCRIPTION	BY
REVISION	



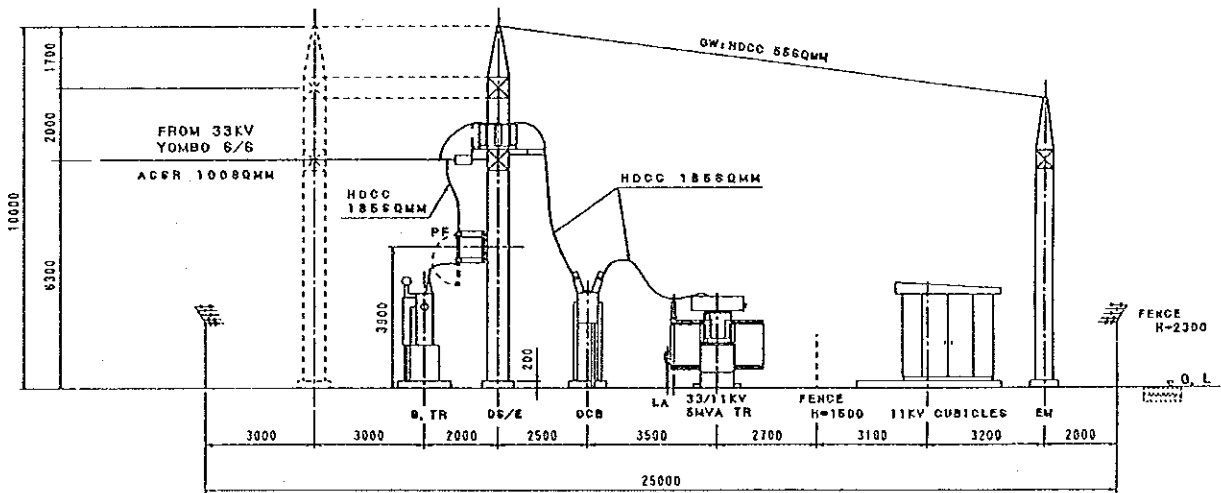
P L A N

LEGEND:

- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
- CB : CIRCUIT BREAKER
- LA : LIGHTNING ARRESTER
- TR : 5MVA MAIN TRANSFORMER
- LP : LIGHTING POLE
- PF : POWER FUSE
- S. TR : STATION TRANSFORMER
- EM : EARTH MAST

NOTE:

- 1. ----- FUTURE EXPANSION



SECTION A-A'

Fig. 5.4- 26-2

THE UNITED REPUBLIC OF TANZANIA	
MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
LAYOUT OF KITUNDA SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.R.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

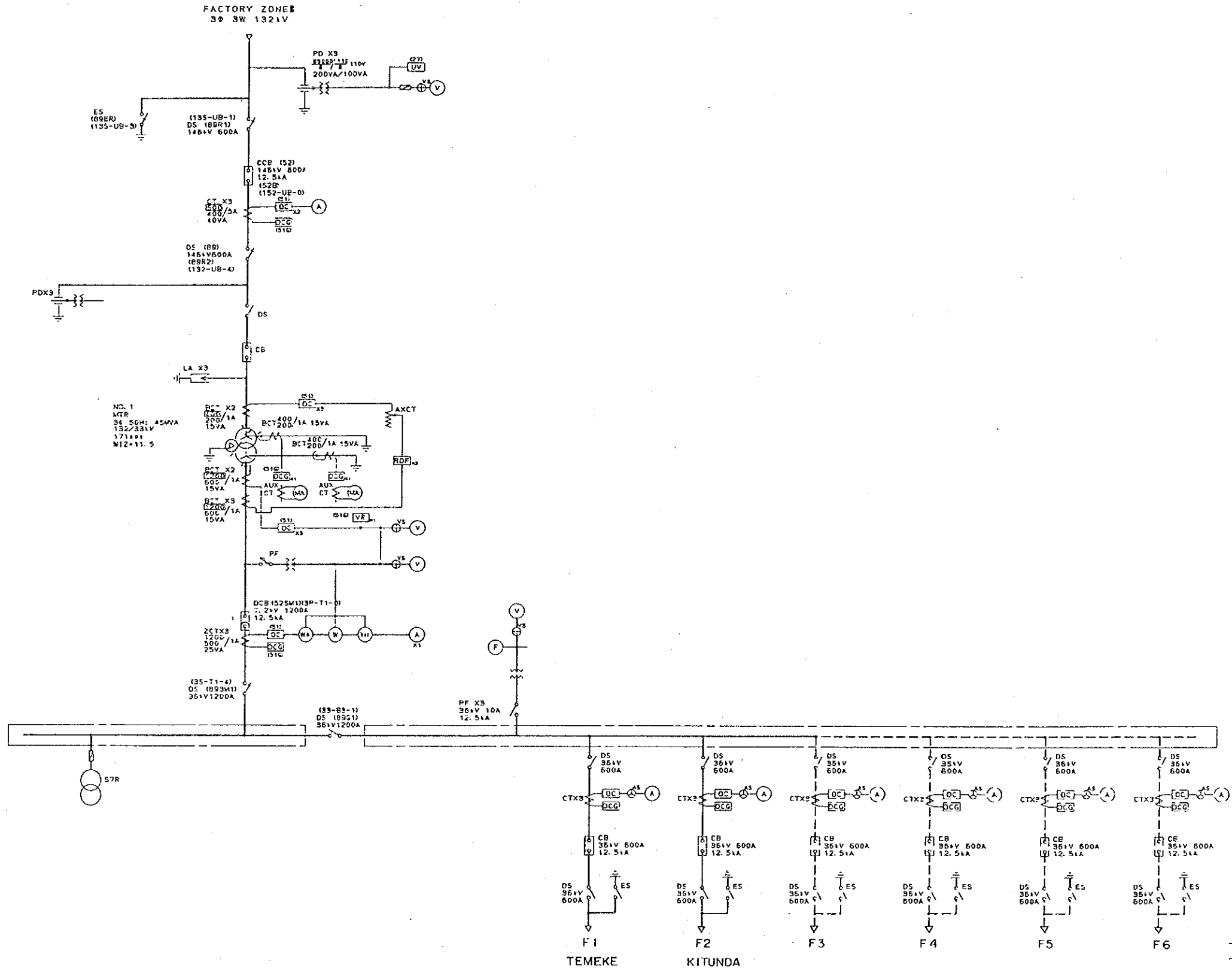
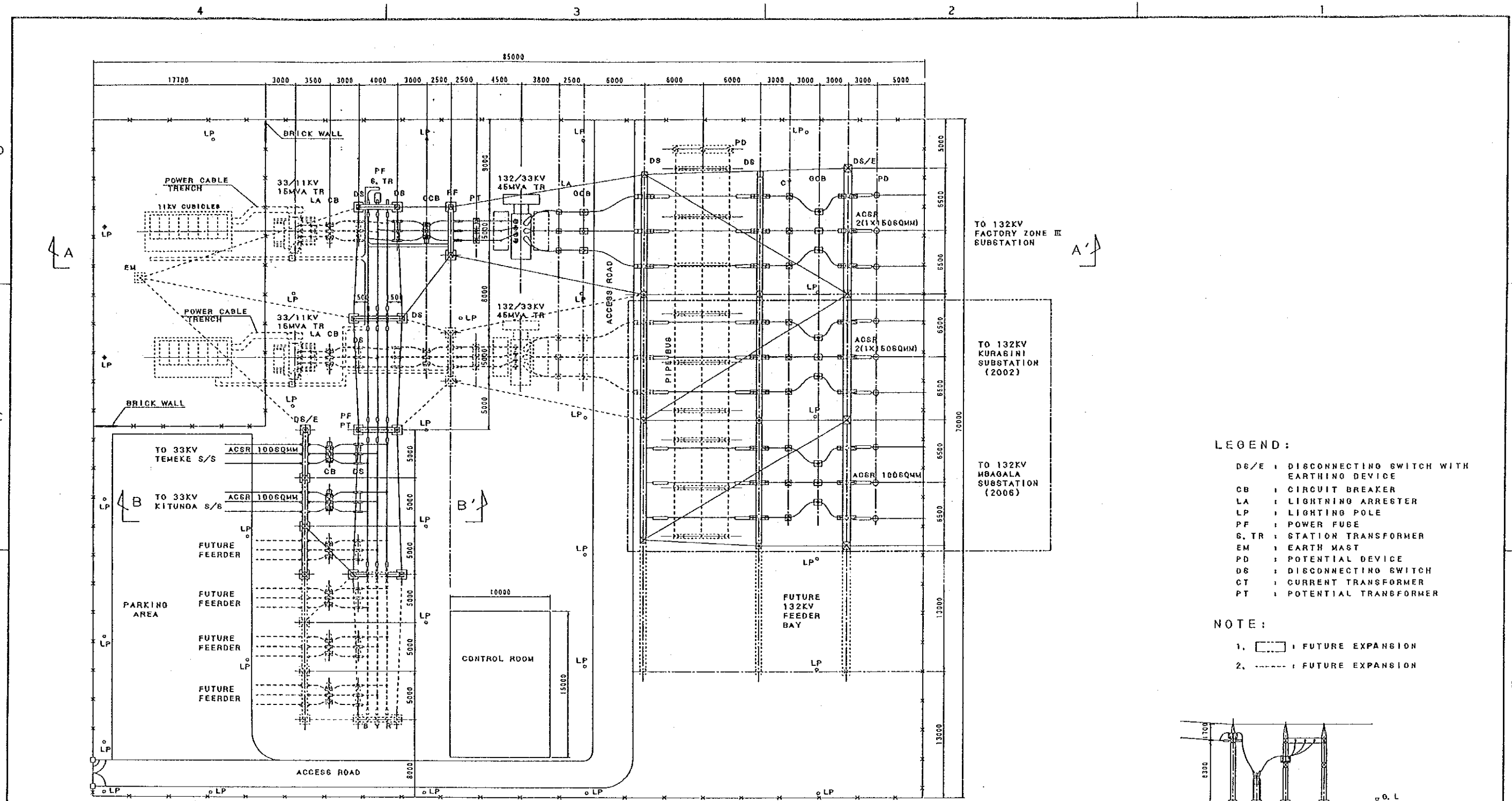


Fig. 5.4-27-1

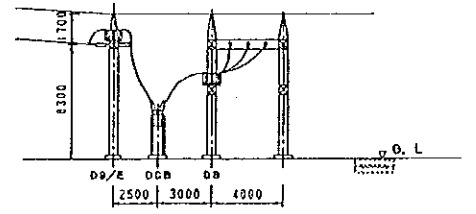
THE UNITED REPUBLIC OF TANZANIA MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION	
SINGLE LINE DIAGRAM OF YOMBO SUBSTATION	
TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.R.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			

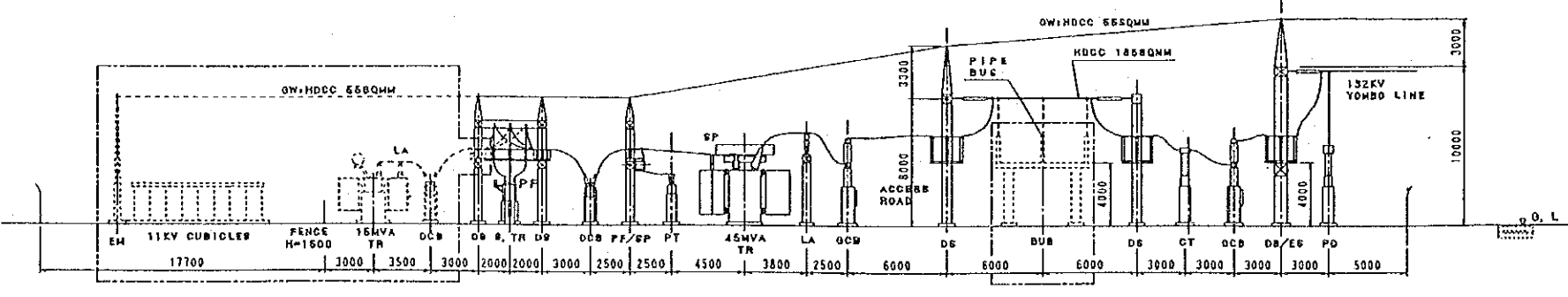


- LEGEND:**
- DS/E : DISCONNECTING SWITCH WITH EARTHING DEVICE
 - CB : CIRCUIT BREAKER
 - LA : LIGHTNING ARRESTER
 - LP : LIGHTNING POLE
 - PF : POWER FUSE
 - S. TR : STATION TRANSFORMER
 - EM : EARTH MAST
 - PD : POTENTIAL DEVICE
 - DS : DISCONNECTING SWITCH
 - CT : CURRENT TRANSFORMER
 - PT : POTENTIAL TRANSFORMER

- NOTE:**
1. [Dashed Box] : FUTURE EXPANSION
 2. [Dotted Line] : FUTURE EXPANSION



SECTION B-B'



SECTION A-A'

Fig. 5.4 -27-2

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION

LAYOUT OF YOMBO SUBSTATION

TANESCO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO JAPAN
D.R.:	SUBMITTED;
T.R.:	RECOMMENDED;
C.K.:	APPROVED;

LOCATION	DATE	DESCRIPTION	BY
REVISION			

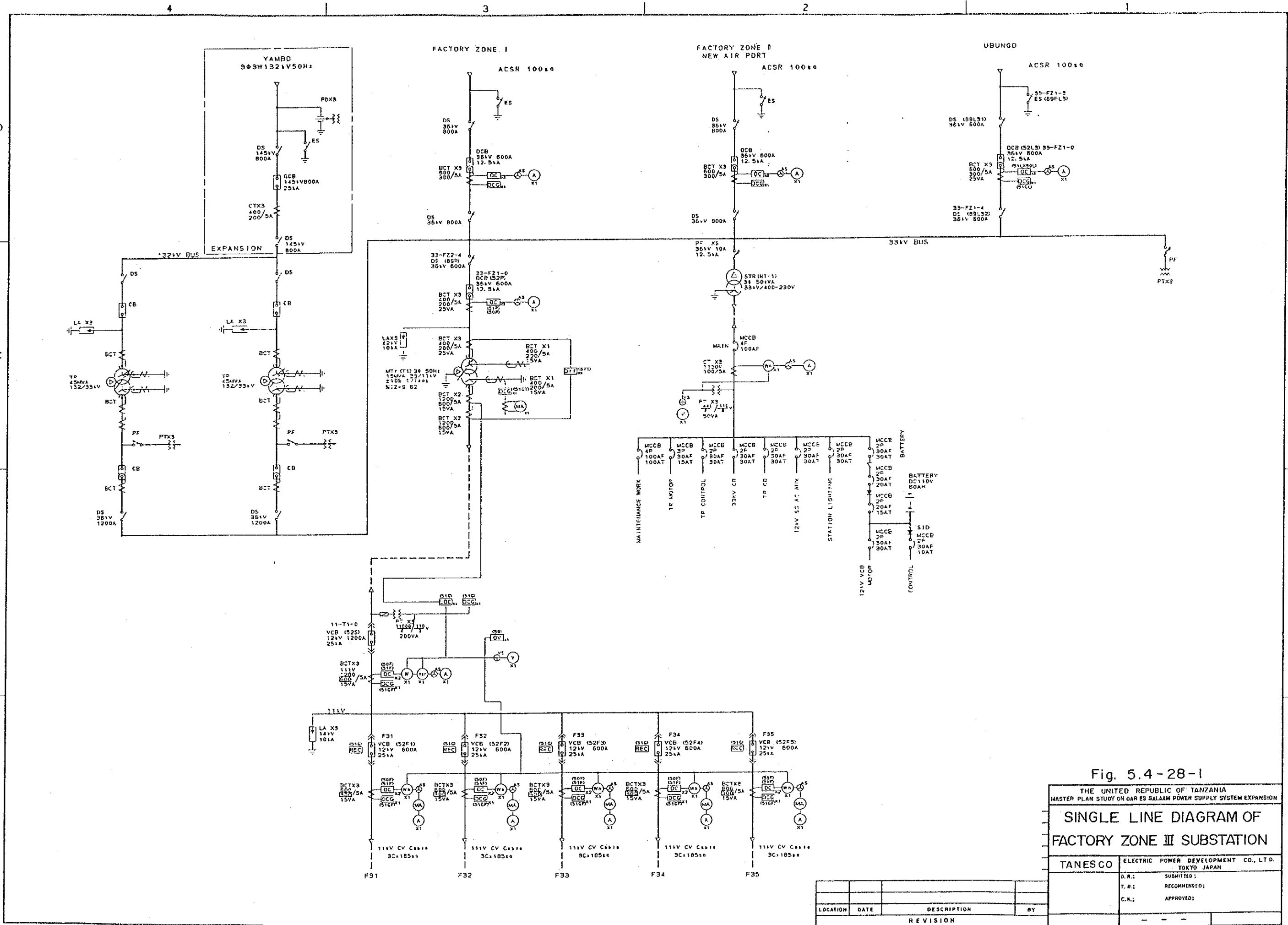


Fig. 5.4-28-1

THE UNITED REPUBLIC OF TANZANIA
 MASTER PLAN STUDY ON DAR ES SALAAM POWER SUPPLY SYSTEM EXPANSION
**SINGLE LINE DIAGRAM OF
 FACTORY ZONE III SUBSTATION**

TANES CO	ELECTRIC POWER DEVELOPMENT CO., LTD. TOKYO, JAPAN
D.R.:	SUBMITTED:
T.R.:	RECOMMENDED:
C.K.:	APPROVED:

LOCATION	DATE	DESCRIPTION	BY
REVISION			