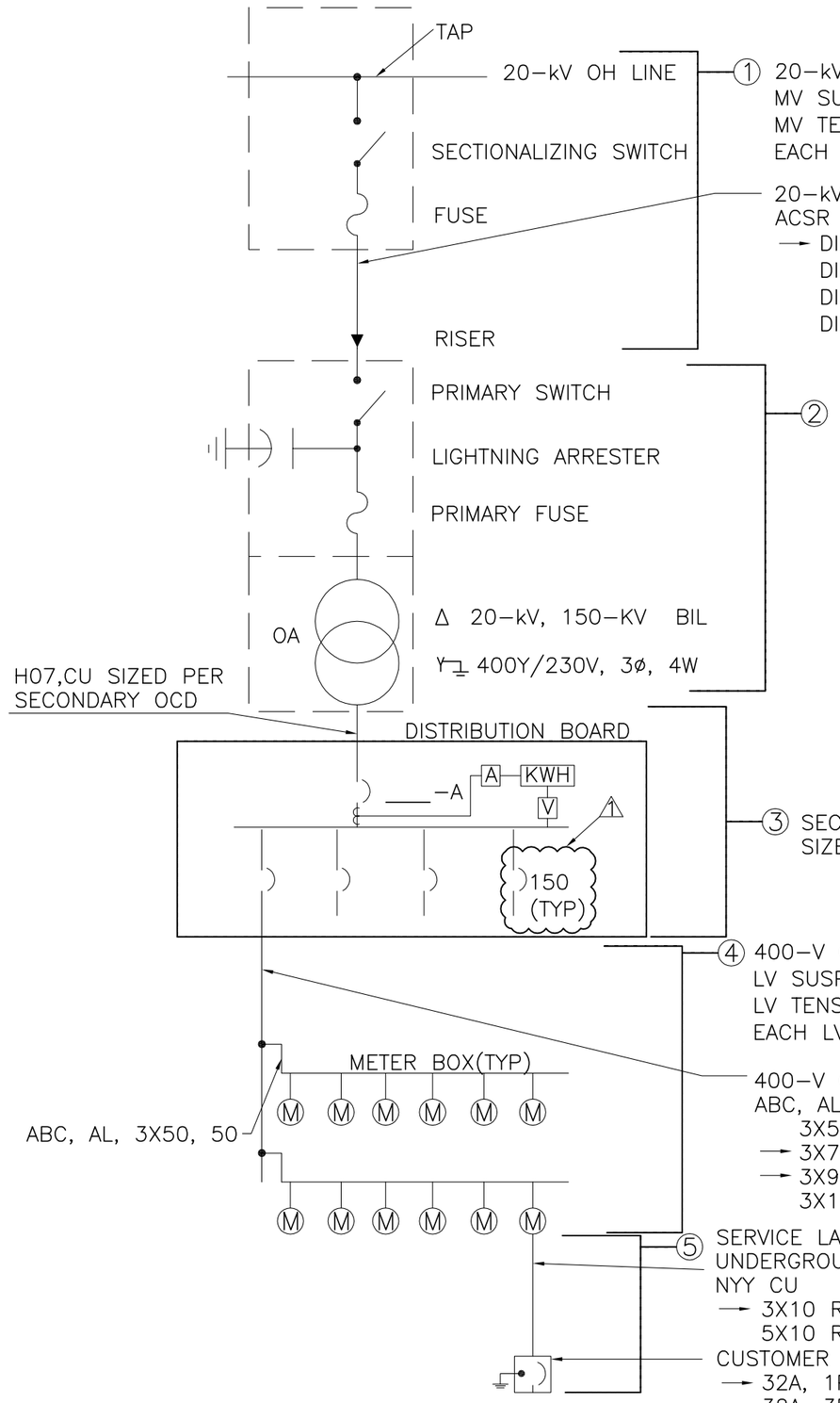


① 20–kV OHL
MV SUSPENSION (TANGENT) POLES, SINGLE 2,000–MM CROSS ARM, DABS AS–01, 2XAS–05, AS–07, MV–301C
MV TENSION (ANGLE) POLES, DOUBLE 2,000–MM CROSS ARMS, DABS AS–03, 1XAS–05, 6XAS–09, MV–308C
EACH MV TENSION (ANGLE) POLE IS GUYED. MV GUY, DABS AN–S1, GU–S1, GU–102C

20–kV OH LINE
ACSR
→ DIN 70/12
DIN 95/15
DIN 120/20
DIN 185/30

② 2

SECONDARY TRANSFORMER SUBSTATION & DISTRIBUTION BOARD

TRANSFORMER kVA	MCB (A)	TAP C/ø, 3P+N (mm^2)	BCB (A)
25	50	1 X 50	NONE
40	80	1 X 50	NONE
63	120	1 X 50	NONE
100	200	1 X 120	2 X 150
160	300	1 X 240	3 X 150
250	500	2 X 150	5 X 150
400	800	3 X 185	7 X 150
630	1200	5 X 185	12 X 150
1000	2000	8 X 240	10 X 250

③ SECONDARY 400–V DISTRIBUTION
SIZE TRANSFORMER SECONDARY OCD PER TRANSFORMER SIZE

④ 400–V OH TO METER BOXES
LV SUSPENSION (TANGENT) POLES, DABS AS–11, LV–101
LV TENSION (ANGLE) POLES, DABS AS–12, AS–13, LV–102
EACH LV TENSION (ANGLE) POLE IS GUYED. LV GUY, DABS AN–S1, GU–S1, GU–101C

400–V OH LINE
ABC, AL
3X50, 50
→ 3X70, 50
→ 3X95, 70
3X120, 70

⑤ SERVICE LATERALS AND SE DISCONNECTS
UNDERGROUND SERVICE LATERAL
NYY CU
→ 3X10 RE
5X10 RE
CUSTOMER SERVICE DISCONNECT
→ 32A, 1P
32A, 3P

NOTE:
MATERIALS SHALL CONFORM TO DABS DISTRIBUTION STANDARDS, CHAPTER U DABS STANDARD TECHNICAL DATA SHEETS, CHAPTER Y, DABS TECHNICAL SPECIFICATIONS, CHAPTERS A THROUGH S, AND DABS CHAPTER Z–3 INFORMATION ON SPECIFIC ITEMS OF SUPPLY, CHAPTERS D,H,I,N,O,S.

NOT FOR CONSTRUCTION

UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS.

This project was made possible by the United States Agency for International Development and the generous support of the American People through USAID Global Architecture and Engineering IQC Contracts.

CONCEPT DESIGN

	DESCRIPTION	DATE	APR
2	ADDED SECONDARY TABLE	12/20/2010	
1	CHANGED SIZE OF OCD	12/18/2010	
SYMB			

DESIGNED BY: MAL
DRN BY: AS
CHK BY: MAL
DATE: 12/31/2010
SUBMITTED BY: TETRA TECH
FILE NO.: LT0025–E–100

USAID FROM THE AMERICAN PEOPLE

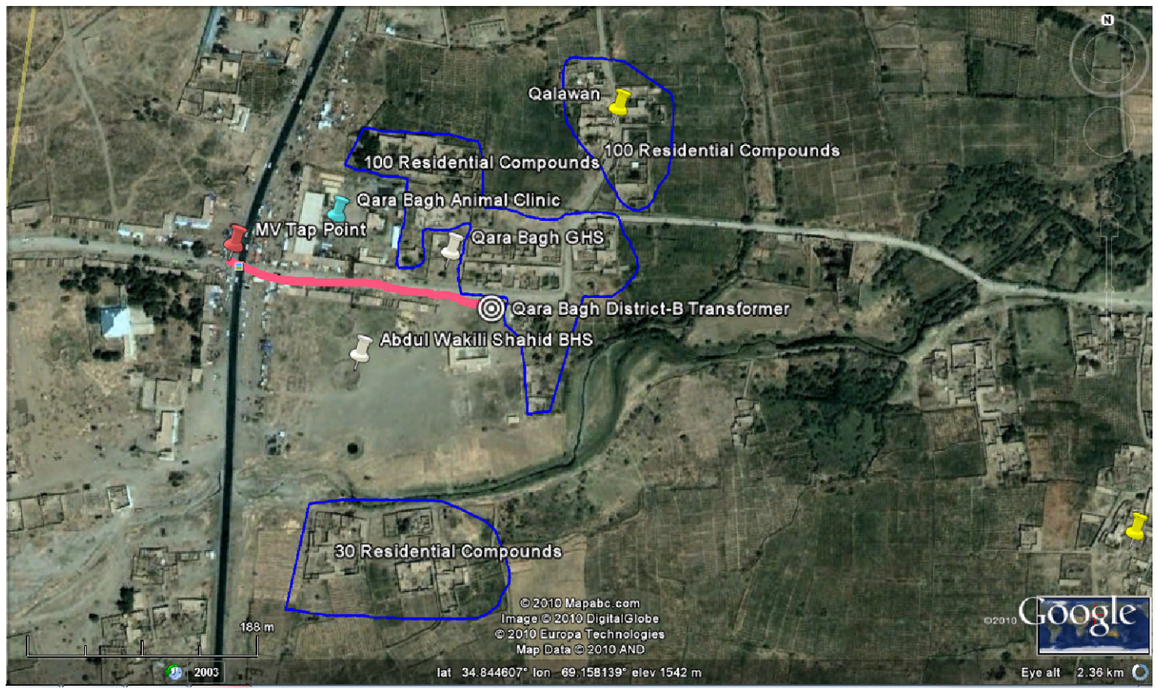
AESP

USAID – OIEE
42 VILLAGES ELECTRIFICATION
ELECTRICAL
ONE–LINE DIAGRAM

DRAFT 12/28/2010 2:58 PM

SHEET REFERENCE NUMBER:
LT0025 E–100

P:\1298\Work Orders\WO–LT\WO–LT–0025 RC–East Villages Electrification\SupportDocs_MEP_FP\Kabul\Qara Bagh\Qara Bagh District–B\Conceptual\110104 WOLT0025 Qara Bagh District–B_E–100.dwg 12/28/2010 2:58:09 PM Ahmadyar, Ahmad Shabir



CONCEPT DESIGN

This project was made possible by the United States Agency for International Development and the generous support of the American People through USAID Global Architecture and Engineering IQC Contracts.

DESIGNED BY:	DWN BY:	CHK BY:
AS	AS	MAL

DATE: 01/04/2011
SUBMITTED BY: TETRA TECH
FILE NO.: LT0025-E-139

USAID FROM THE AMERICAN PEOPLE

AESP

USAID – OIEE
42 VILLAGES ELECTRIFICATION
QARA BAGH DISTRICT-B
AERIAL IMAGE

SHEET REFERENCE NUMBER:
LT0025
E-139

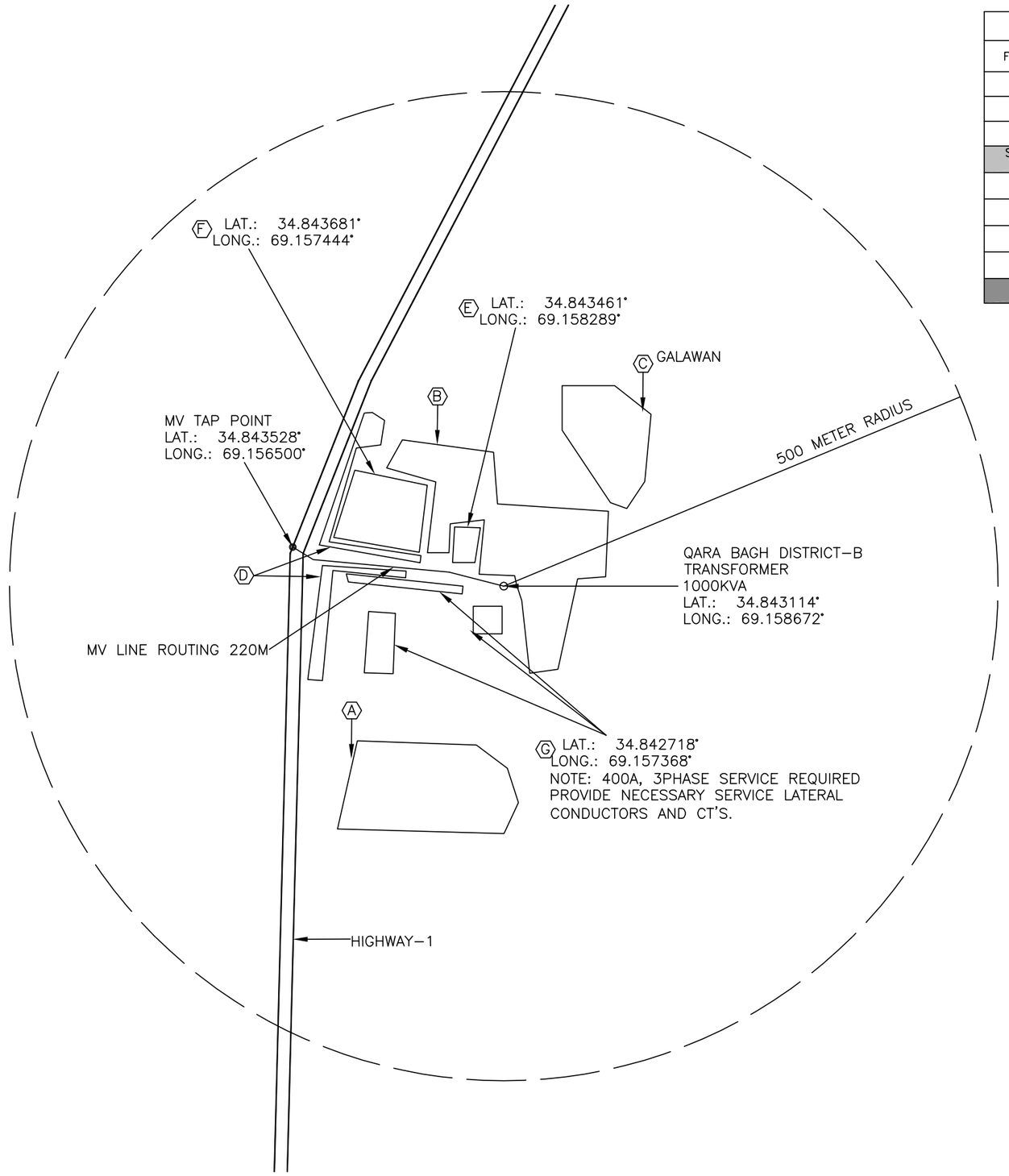
DRAFT 12/28/2010 3:01 PM

50 0 50 100 150 200
1:5000

NOT FOR CONSTRUCTION

UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS.

P:\1298\Work Orders\WO-LT\WO-LT-0025 RC-East Villages Electrification\SupportDocs_MEP_FP\Kabul\Qara Bagh\Qara Bagh District-B\Conceptual\110104 WOLT0025 Qara Bagh District-B.dwg 12/28/2010 3:01:13 PM Ahmadyar, Ahmad Shabir



SUMMARY TABLE					
FIGURE	TYPE OF CUSTOMER	NUMBER OF CUSTOMER	AREA M^2	DENSITY M^2/CUSTOMER	ESTIMATED PEAK COINCIDENTAL KW
A	RESIDENTIAL COMPOUNDS	30	14,391	480	21
B	RESIDENTIAL COMPOUNDS	100	19,594	196	70
C	RESIDENTIAL COMPOUNDS	100	7,869	79	70
SUB TOTAL LOAD OF RESIDENTIAL COMPOUNDS		230	41,854	182	161
D	BAZAAR	120	600		120
E	QARA BAGH GHS	1	500		25
F	ANIMAL CLINIC	1	600		30
G	QARA BAGH BHS	1	3,000		150
TOTAL LOAD		353	46,554	132	486

N

CONCEPT DESIGN

This project was made possible by the United States Agency for International Development and the generous support of the American People through USAID Global Architecture and Engineering IQC Contracts.

NO.	DESCRIPTION	DATE	APP.

DESIGNED BY: AS	DATE: 01/04/2011	
DWN. BY: AS	SUBMITTED BY: TETRA TECH	
CHK. BY: MAL	FILE NO.: LT0025–E–140	

USAID FROM THE AMERICAN PEOPLE

AESP

USAID – OIEE
42 VILLAGES ELECTRIFICATION
QARA BAGH DISTRICT–B
CONCEPT DESIGN

SHEET REFERENCE NUMBER:
LT0025
E–140

DRAFT 12/28/2010 3:00 PM

50 0 50 100 150 200
1:5000

NOT FOR CONSTRUCTION

UNLESS OTHERWISE NOTED, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS.

P:\1298\Work Orders\WO–LT\WO–LT–0025 RC–East Villages Electrification\SupportDocs_MEP_FP\Kabul\Qara Bagh\Qara Bagh District–B\Conceptual\110104 WOLT0025 Qara Bagh District–B.dwg 12/28/2010 3:00:48 PM Ahmadyar, Ahmad Shabir