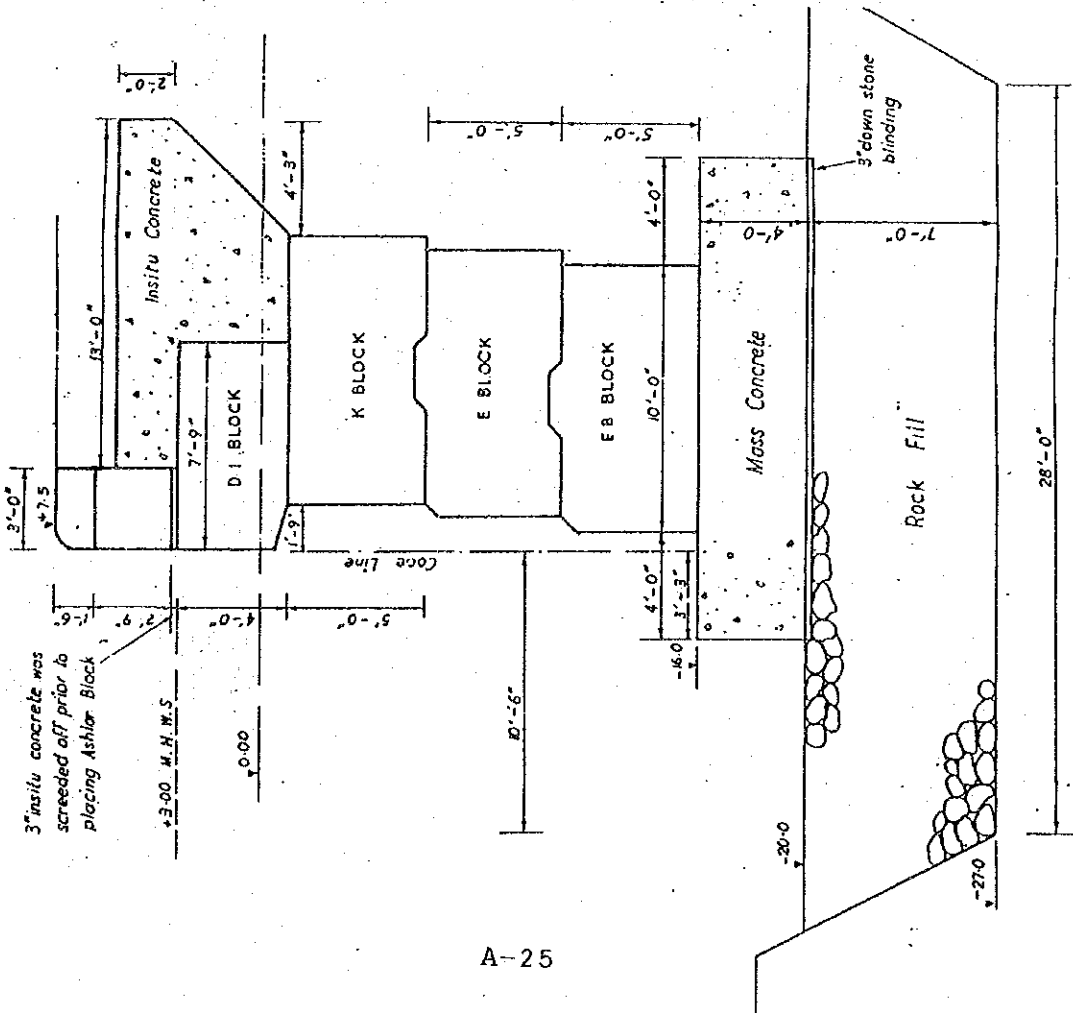
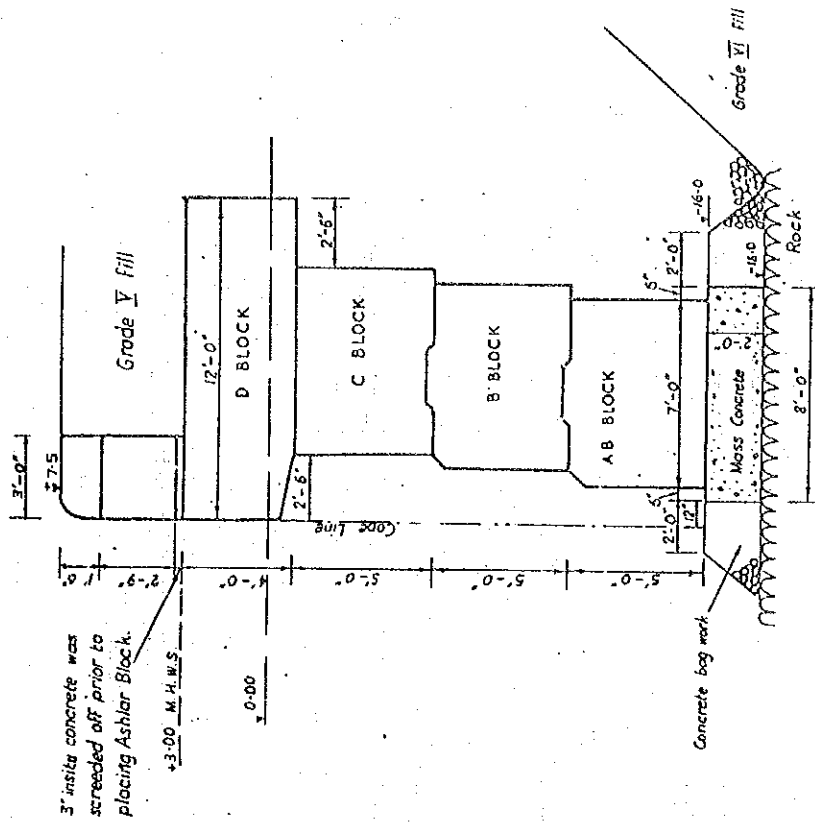
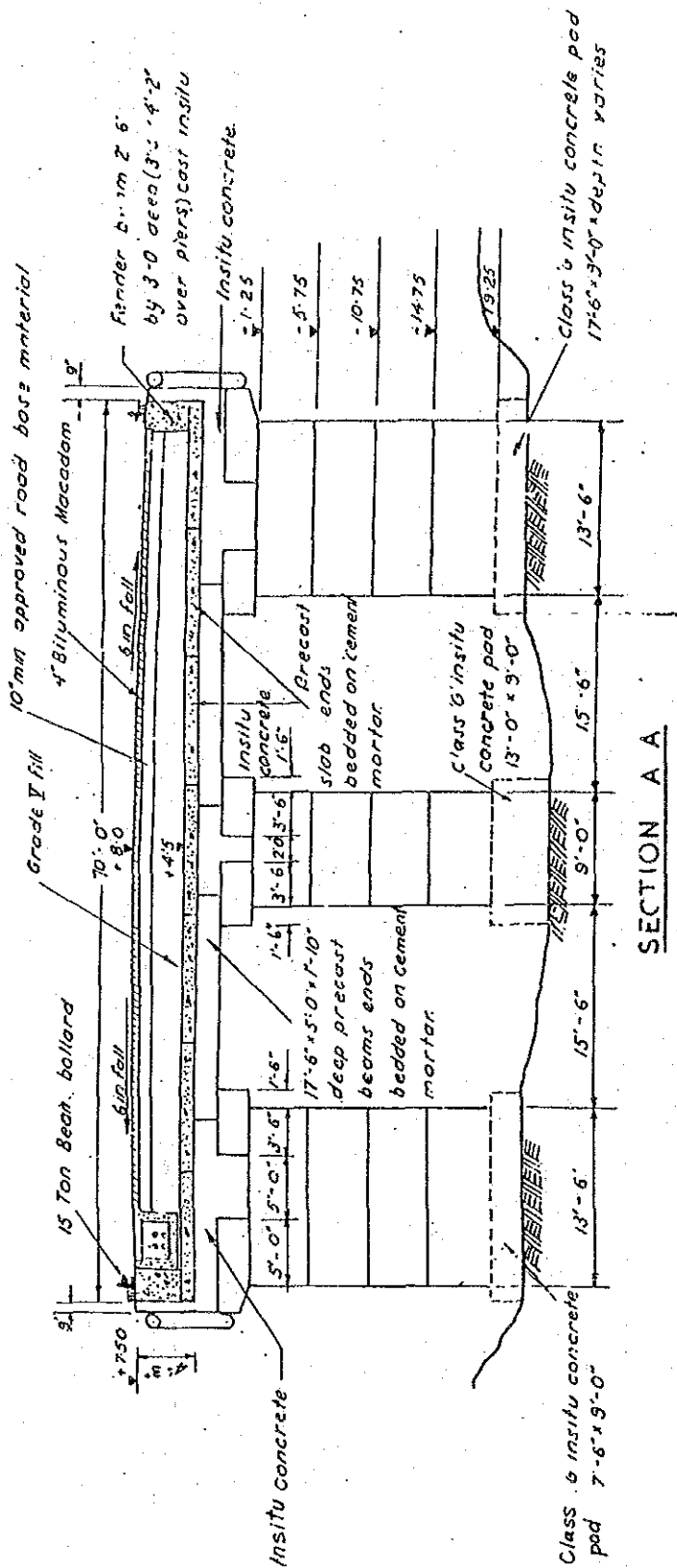
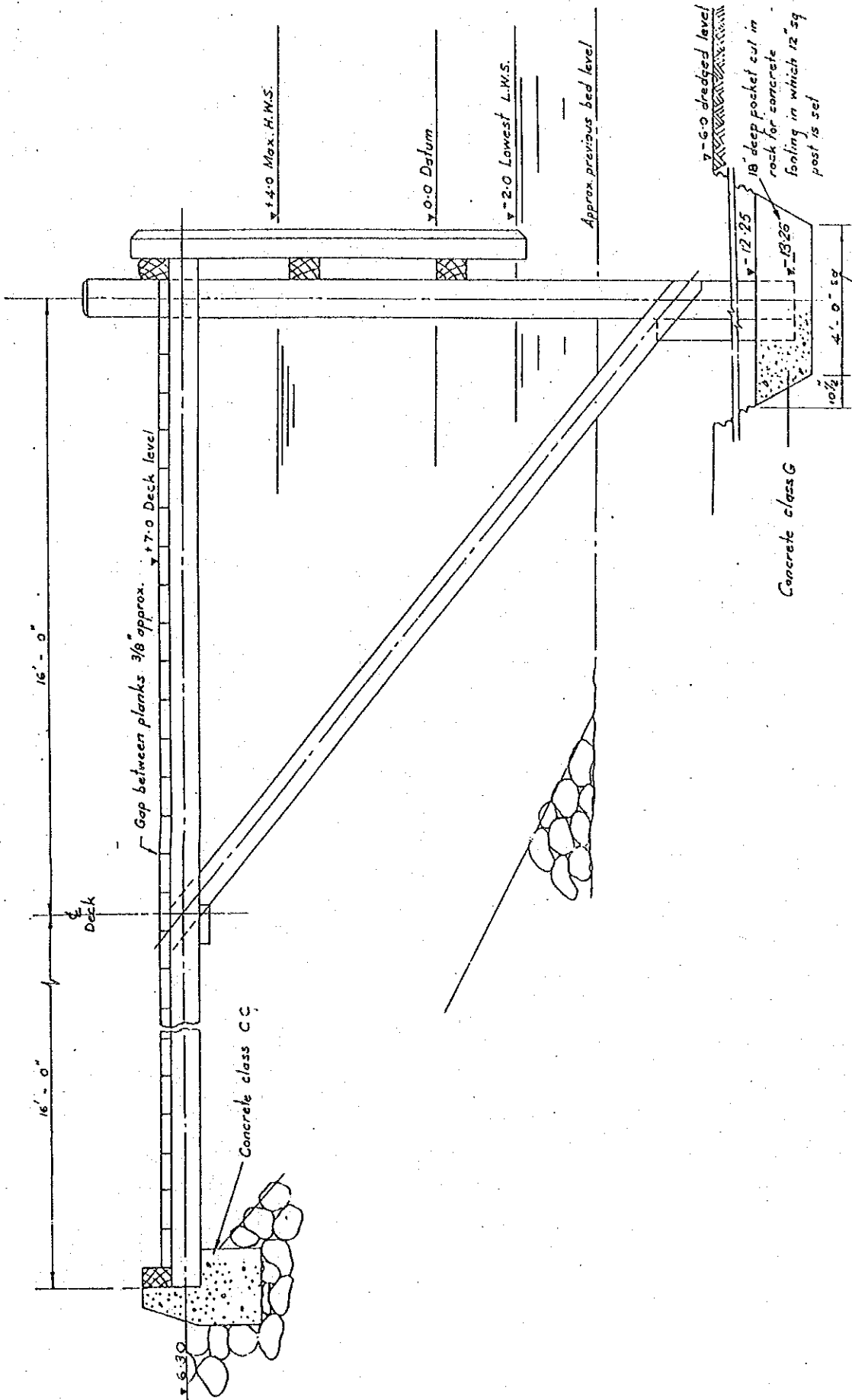


Appendix 2.5.1 : Existing Structural Drawing

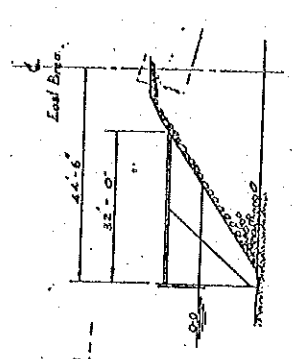
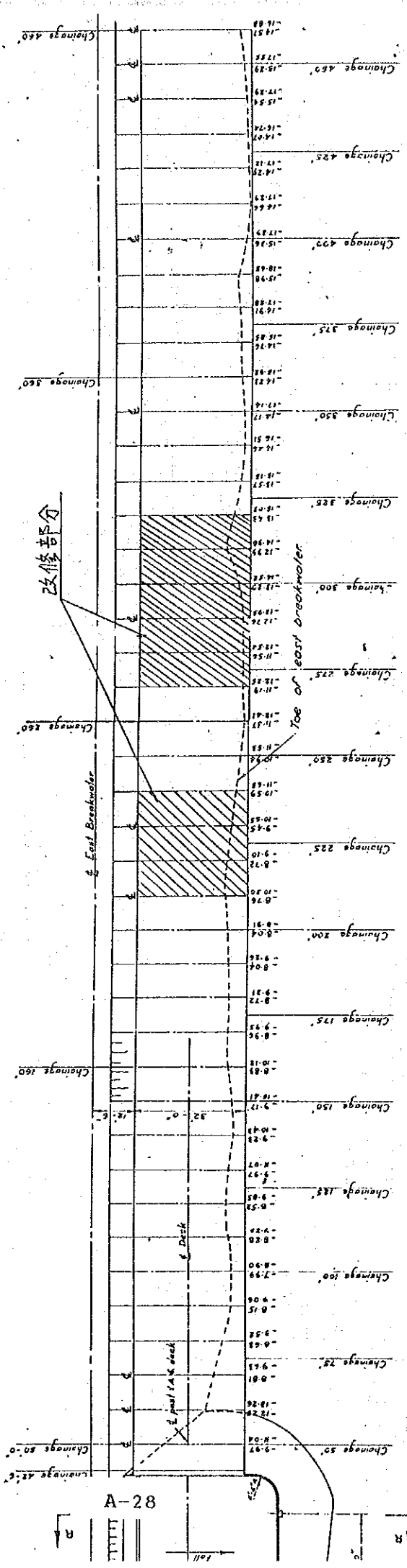
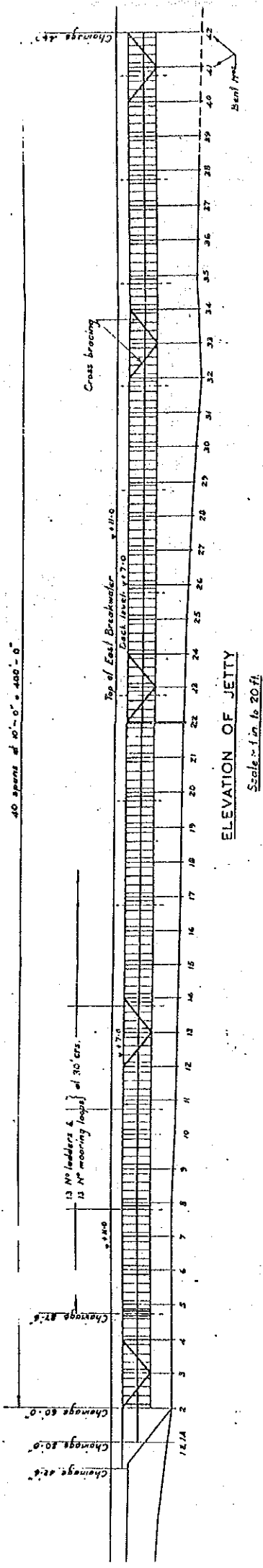






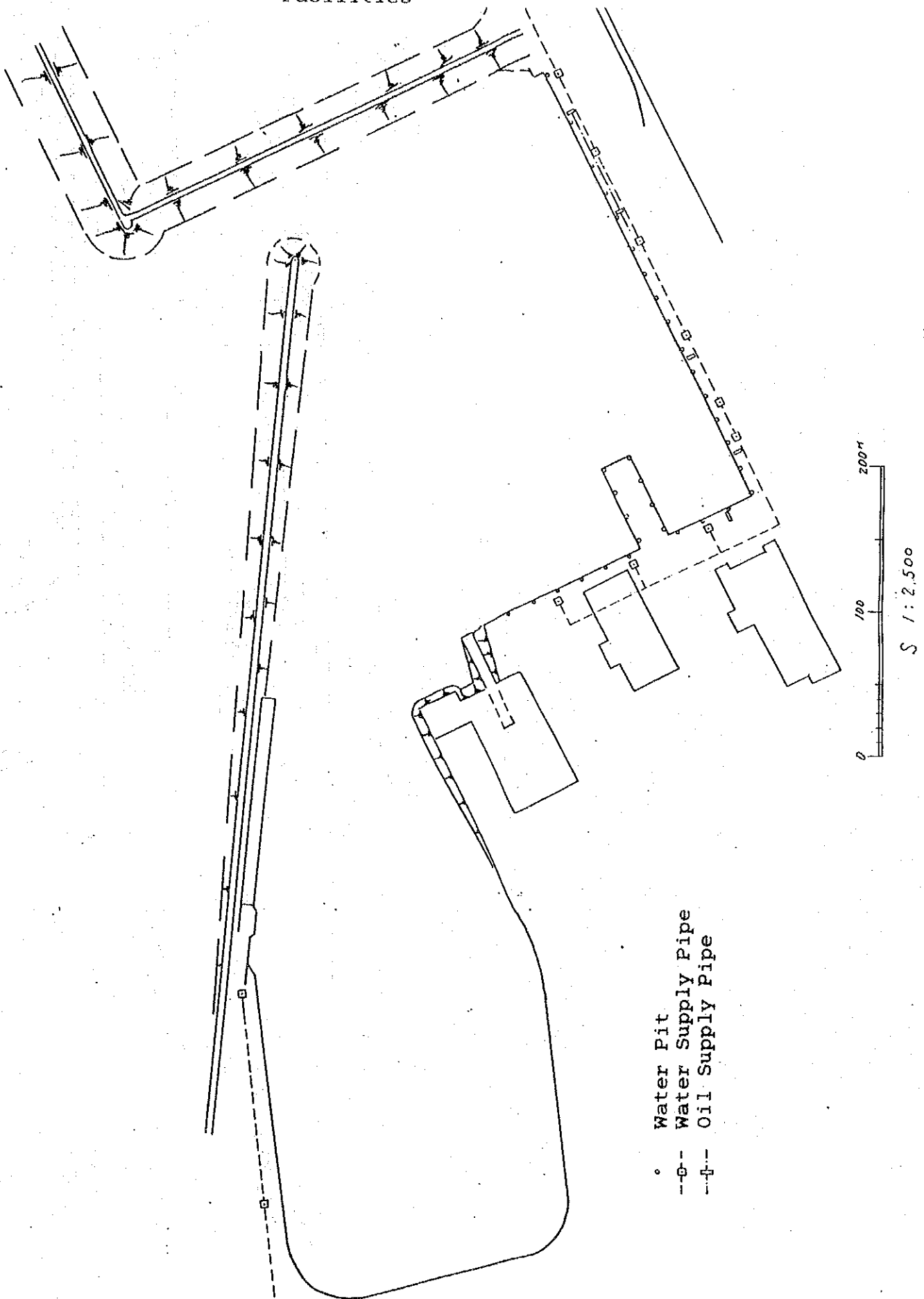
SECTION A-A

Scale - $\frac{3}{8}$ in. to 1 ft.

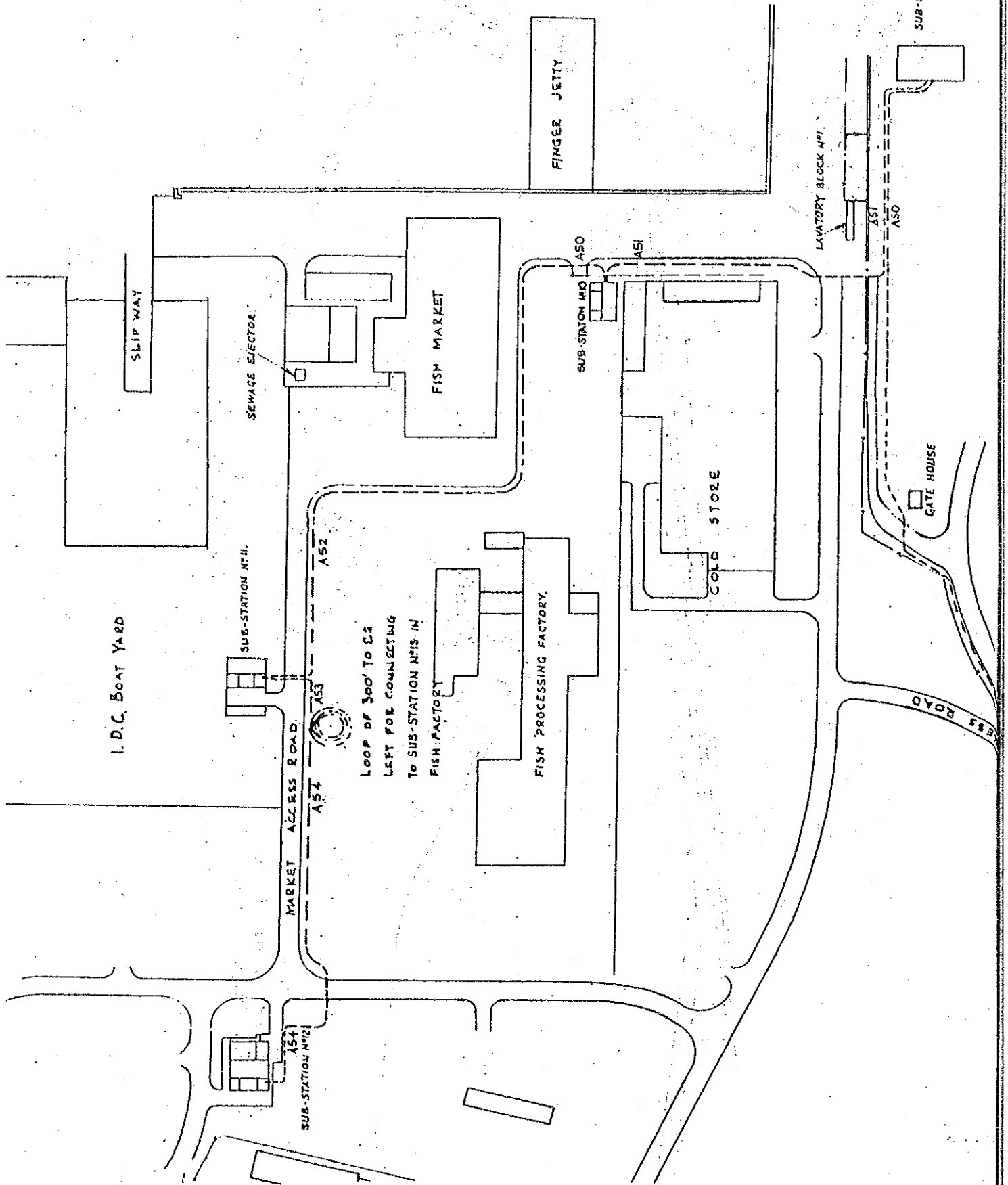


END ELEVATION

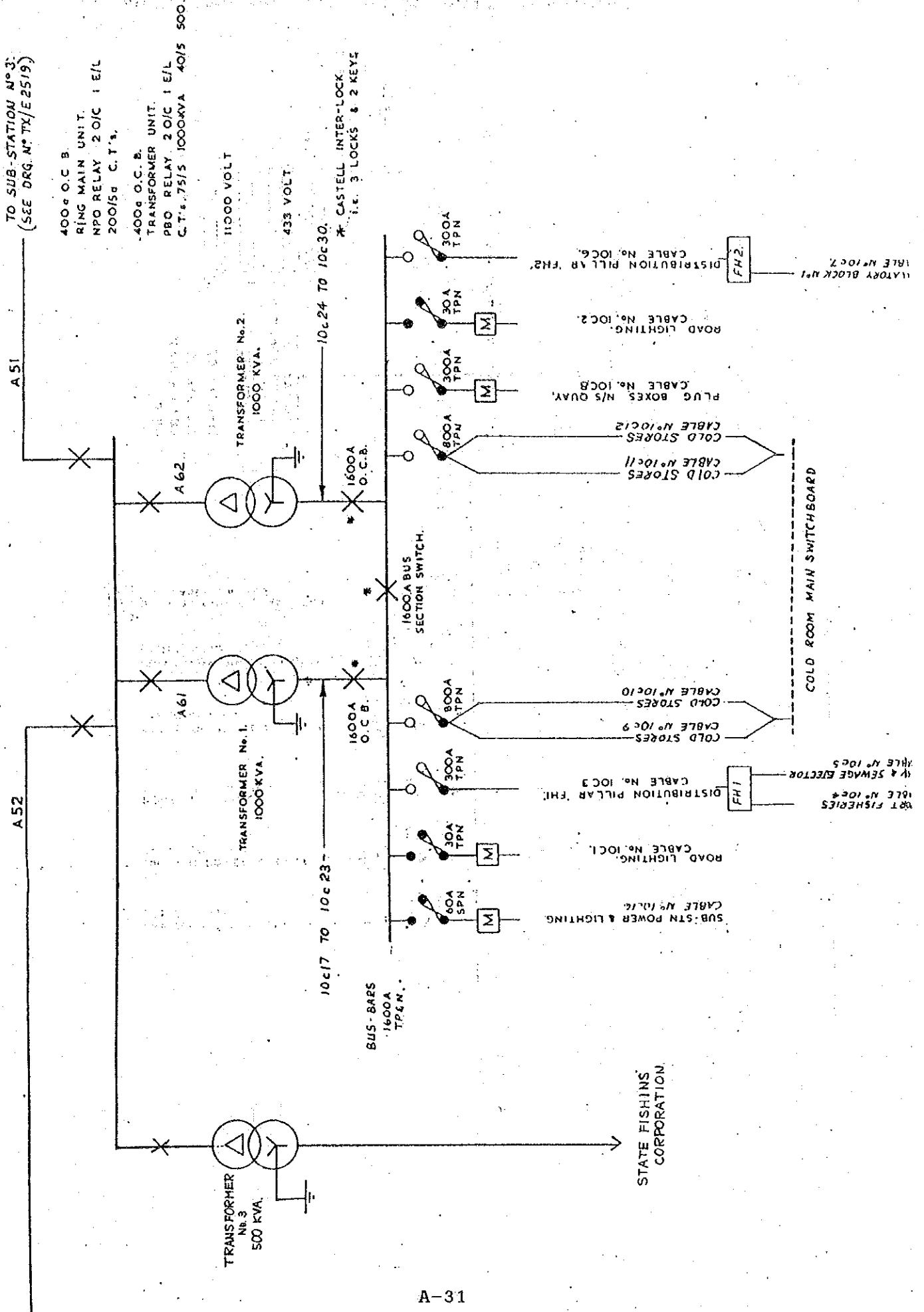
Appendix 2.5.2 : Existing Plan of Water Supply and Oil Supply Facilities



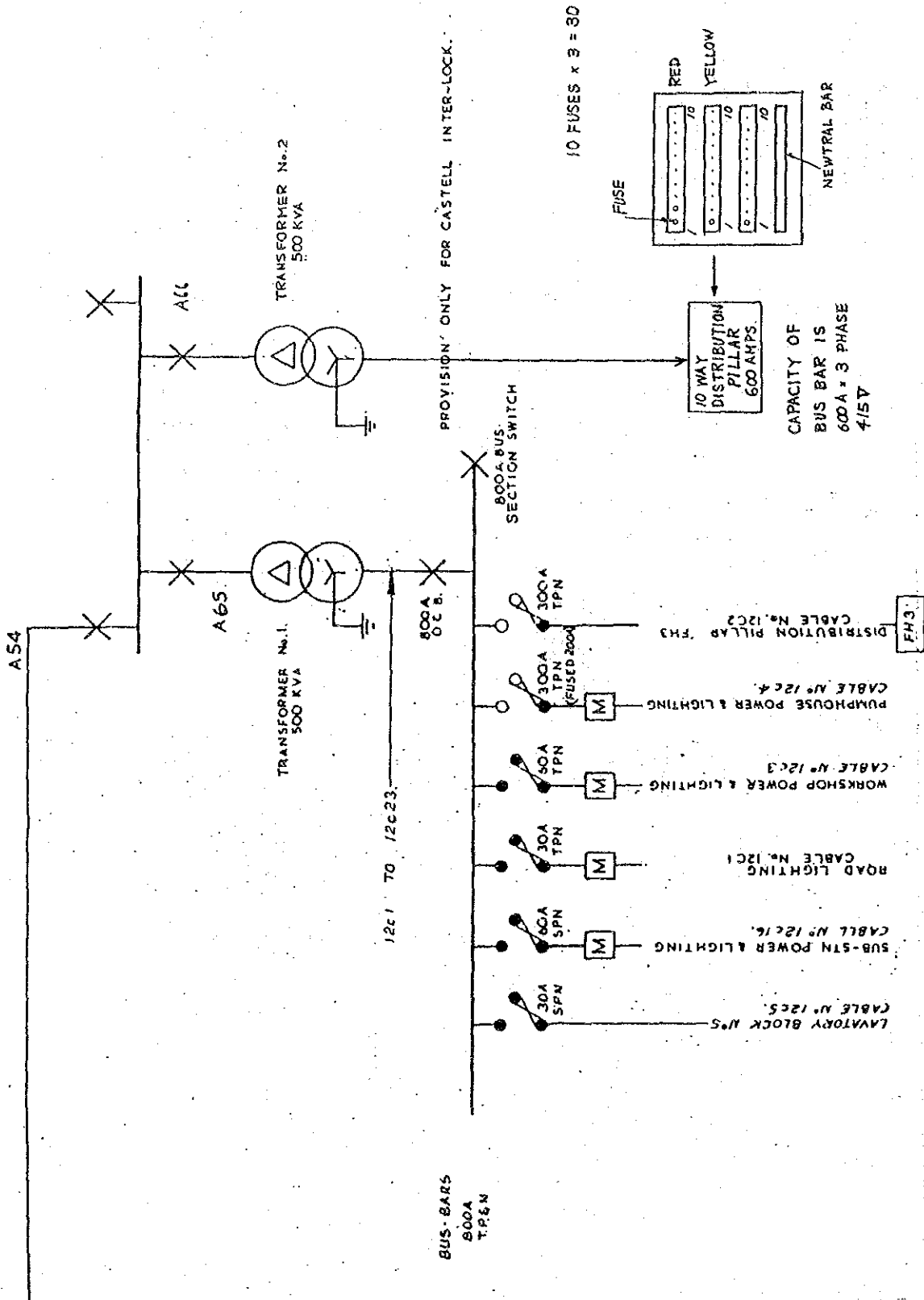
Appendix 2.5.3 : Existing Plan of Electric Wiring Diagram

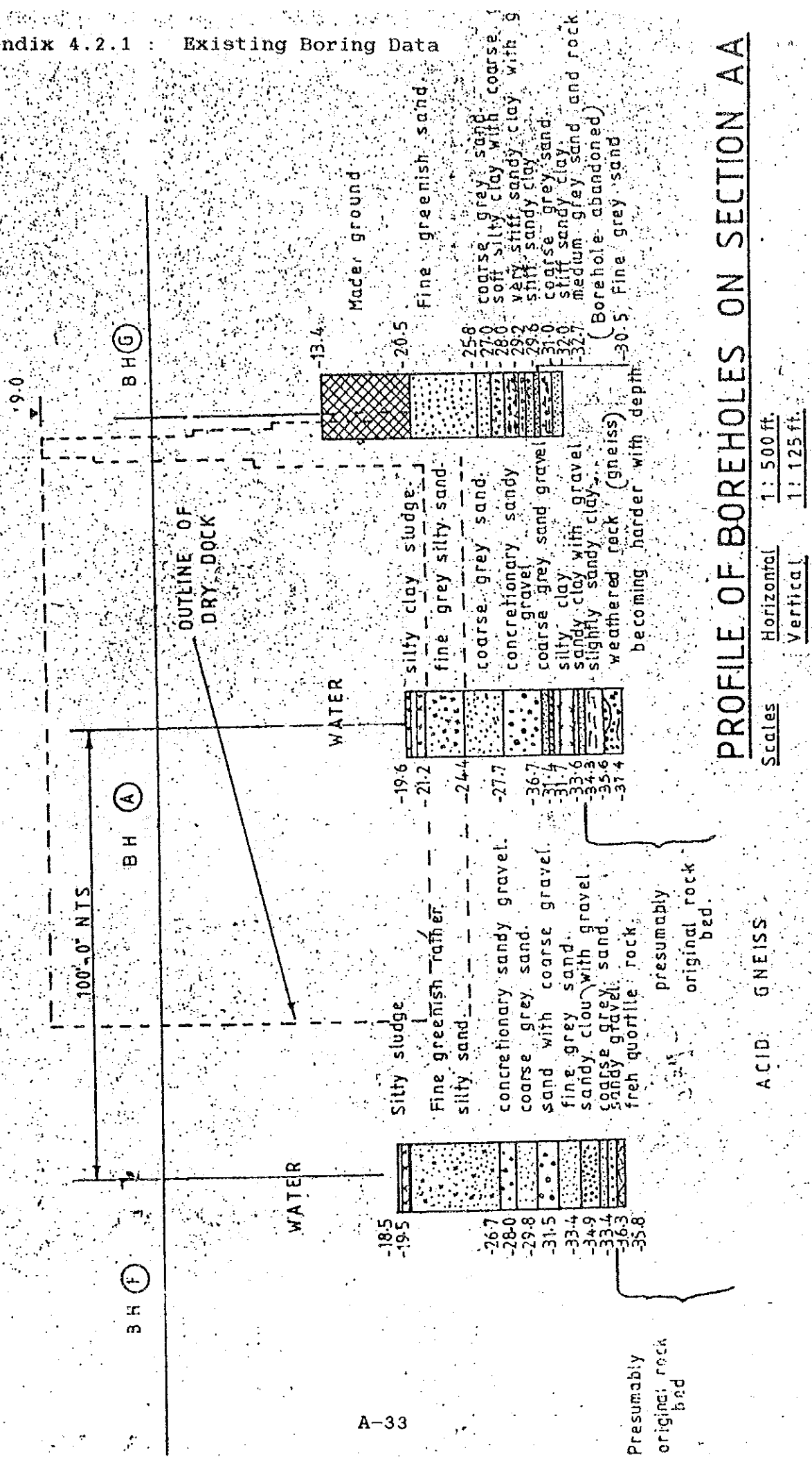


Appendix 2.5.4 : Skeleton of Existing Sub-station No.10



Appendix 2.5.5 : Skeleton of Existing Sub-station Nos.11 and 12



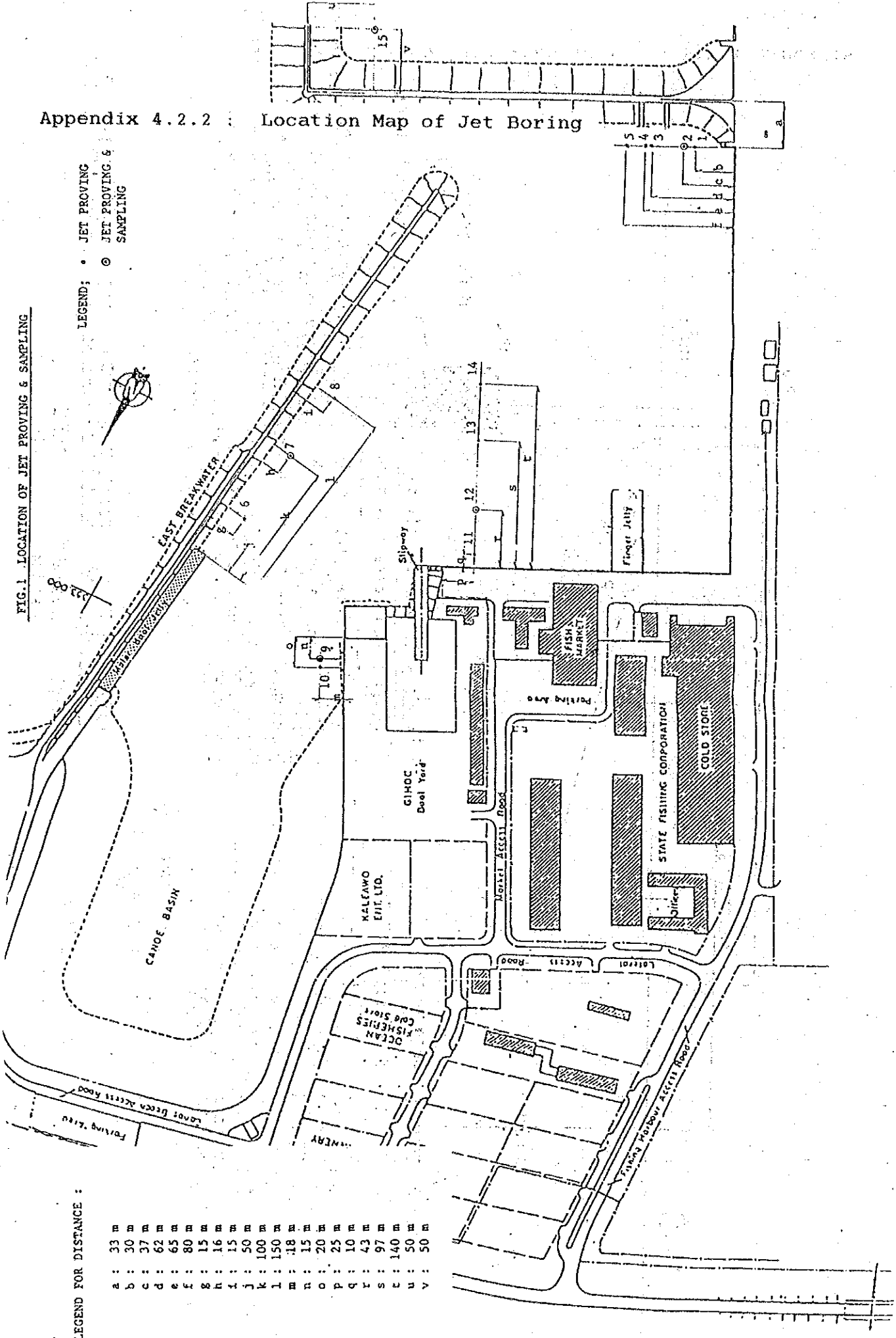


PROFILE OF BOREHOLES ON SECTION AA

Appendix 4.2.2 : Location Map of Jet Boring

FIG.1. LOCATION OF JET PROVING & SAMPLING

LEGEND; • JET PROVING
 ⊙ JET PROVING & SAMPLING





LEGEND FOR DISTANCE :

- a : 33 m
- b : 30 m
- c : 37 m
- d : 62 m
- e : 65 m
- f : 80 m
- g : 15 m
- h : 16 m
- i : 15 m
- j : 50 m
- k : 100 m
- l : 150 m
- m : 18 m
- n : 15 m
- o : 20 m
- p : 25 m
- q : 10 m
- r : 43 m
- s : 97 m
- t : 140 m
- u : 50 m
- v : 50 m

Appendix 4.2.3 : Results of Jet Boring

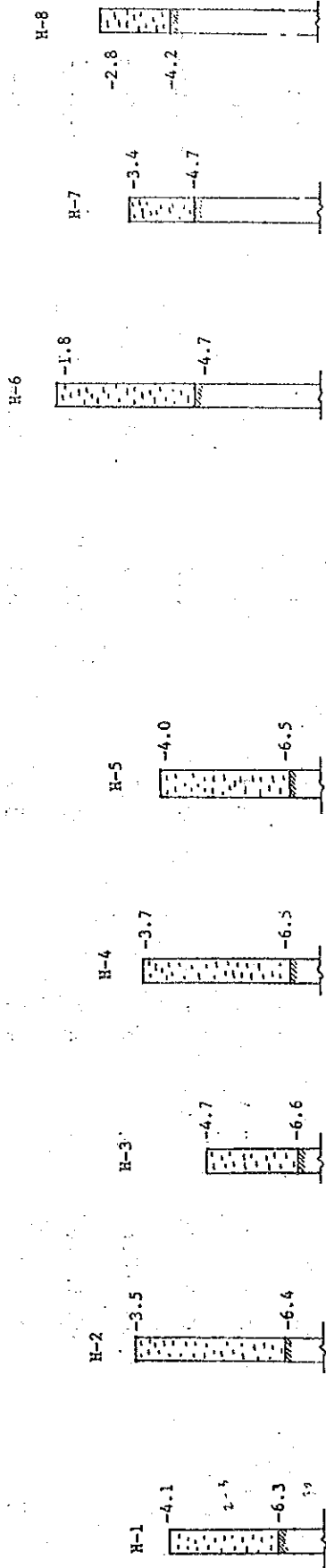
FIG. 2 PROFILE OF JET PROVING HOLES

LEGEND;  SOFT LAYER
 HARD BED

SECTION 6 - 8

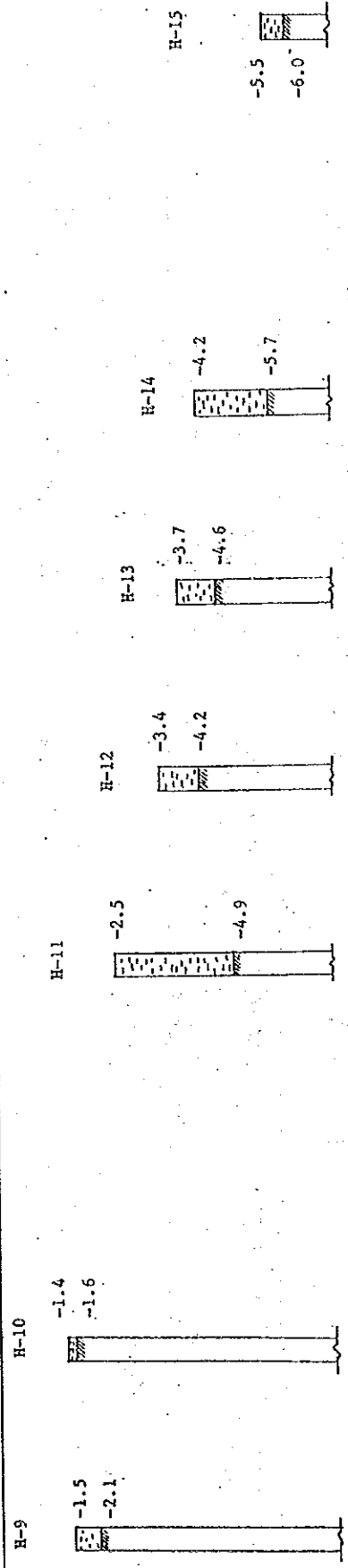
SECTION 11 - 5

DL ± 0



SECTION 9 - 10

DL ± 0



SECTION 11 - 14

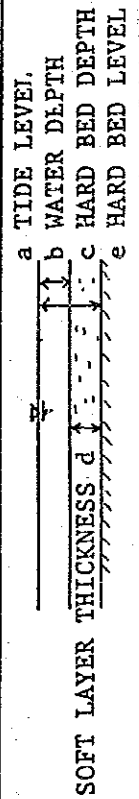
SECTION 15

FIELD DATA OF JET PROVING

(UNIT m)

LOCATION NO.	TIDE LEVEL a	WATER DEPTH b	HARD BED DEPTH c	SOFT LAYER THICKNESS d = c - b	HARD BED LEVEL e = a - c	REMARKS
1	DL + 1.2	5.3	7.5	2.2	DL - 6.3	Hard bed is like rock.
2	DL + 1.2	4.7	7.6	2.9	DL - 6.4	- ditto -
3	DL + 1.0	5.7	7.6	1.9	DL - 6.6	- ditto -
4	DL + 0.9	4.6	7.4	2.8	DL - 6.5	- ditto -
5	DL + 0.8	4.8	7.3	2.5	DL - 6.5	Hard bed is like sandy gravel.
6	DL + 1.4	3.2	6.1	2.9	DL - 4.7	- ditto -
7	DL + 1.4	4.8	6.1	1.3	DL - 4.7	- ditto -
8	DL + 1.4	4.2	5.6	1.4	DL - 4.2	- ditto -
9	DL + 1.2	2.7	3.3	0.6	DL - 2.1	- ditto -
10	DL + 1.1	2.5	2.7	0.2	DL - 1.6	- ditto -
11	DL + 0.6	3.1	5.5	2.4	DL - 4.9	- ditto -
12	DL + 0.6	4.0	4.8	0.8	DL - 4.2	- ditto -
13	DL + 0.5	4.2	5.1	0.9	DL - 4.6	- ditto -
14	DL + 0.5	4.7	6.2	1.5	DL - 5.7	- ditto -
15	DL + 0.5	6.0	6.5	0.5	DL - 6.0	- ditto -

NOTE:



Appendix 4.2.4 : Results of Tide Observation

Hourly Tidal Observation

Area : Ghana
 Station : Tema
 Latitude : 5°37'
 Longitude : 0°00'
 Duration : 88/06
 Unit : cm

Date	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Sum	Mean
29	99	112	121	118	102	79	55	41	40	58	80	105	128	145	147	131	111	90	63	36	18	15	29	50	1973	82.2
30	75	100	116	124	117	100	75	51	40	40	56	78	104	129	145	149	140	119	88	51	23	9	10	25	1964	81.8
31	50	82	108	124	128	117	95	72	49	38	40	55	79	109	132	146	147	133	102	71	36	9	3	9	1934	80.6
1	36	64	95	116	132	133	117	93	67	46	37	42	61	87	113	133	147	142	132	97	60	28	9	2	1989	82.9
2	14	40	70	101	124	135	133	114	85	58	39	33	42	64	91	116	138	148	142	120	87	51	19	4	1968	82.0
3	2	16	46	82	110	131	139	131	111	88	65	48	43	53	75	96	118	135	141	133	108	75	42	16	2004	83.5
4	5	9	26	57	86	111	129	136	129	108	84	61	41	32	46	73	98	119	132	135	125	99	70	40	1951	81.3
5	19	8	14	34	60	91	116	134	139	129	111	86	60	51	50	59	76	94	110	123	123	114	94	67	1962	81.8
6	43	24	19	25	43	67	91	114	130	140	133	115	92	65	50	48	56	74	90	104	115	120	110	90	1958	81.6
7	70	47	31	21	28	46	70	94	116	135	142	134	114	90	70	53	47	51	64	78	93	105	110	105	1914	79.8
8	91	71	49	35	28	35	51	71	96	120	136	142	132	116	98	74	55	50	55	70	88	107	115	112	1997	83.2
9	100	86	71	58	49	45	47	62	81	106	126	143	150	144	123	98	70	52	43	46	56	73	89	104	2022	84.3
10	113	111	101	83	62	49	43	47	63	86	112	133	145	146	138	115	89	64	43	32	35	49	68	85	2012	83.8
11	104	116	117	108	90	71	51	43	47	63	88	112	134	146	145	133	110	79	51	30	23	33	53	75	2022	84.3
12	96	112	121	123	112	92	70	51	45	53	73	93	115	138	149	145	129	102	73	41	21	17	26	46	2043	85.1



Monthly Mean
 29 days
 Sum 29783
 Mean 82.7

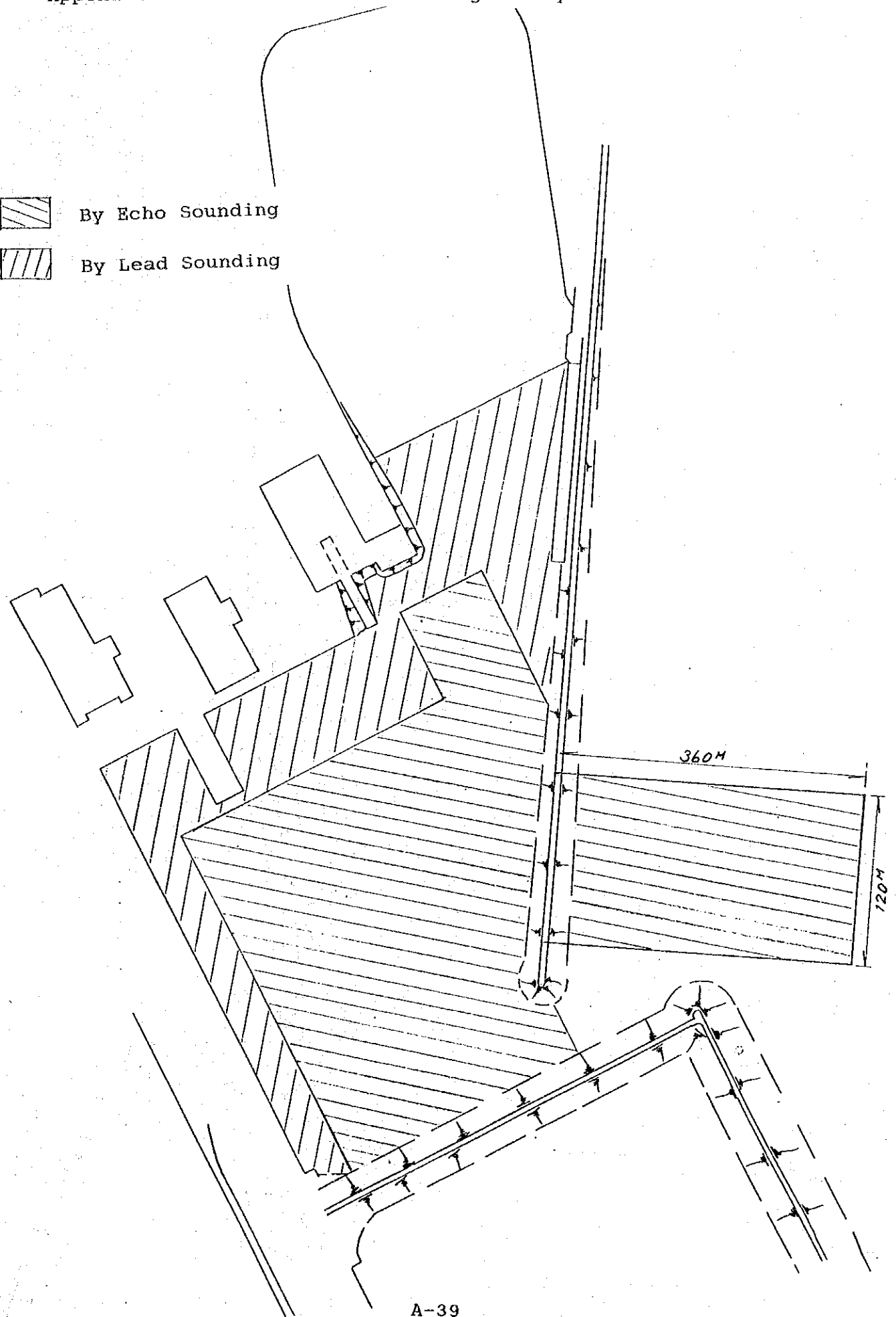
Hourly Tidal Observation (High & Low Water Level)

Area : Ghana
 Station : Tema
 Latitude : 5°37'
 Longitude : 0°00'
 Duration : 88/06
 Unit : cm

Date	H.W.		L.W.		H.W.		L.W.	
29	2:20	122	7:40	39	13:35	148	20:40	14
30	3:10	124	8:30	38	14:50	149	21:25	8
31	3:40	129	9:20	37	15:30	148	22: 5	3
1	4:30	134	10:10	37	16:15	148	22:50	2
2	5:25	136	10:55	33	17:10	148	23:40	0
3	6:10	139	11:40	42	17:50	141	:	
4	7: 0	136	0:20	5	18:40	136	12:50	32
5	7:50	139	1: 0	8	19:20	124	13:40	48
6	9:10	140	1:55	19	20:50	120	14:40	47
7	9:50	142	3:10	21	21:50	111	16:10	47
8	10:45	143	4:10	28	22:10	116	17: 5	50
9	11:50	150	5:15	44	:		18:10	43
10	0:20	114	5:55	43	12:40	147	19:15	31
11	1:40	117	7:10	43	13:35	147	19:50	23
12	2:40	124	7:55	45	14:20	150	20:45	17

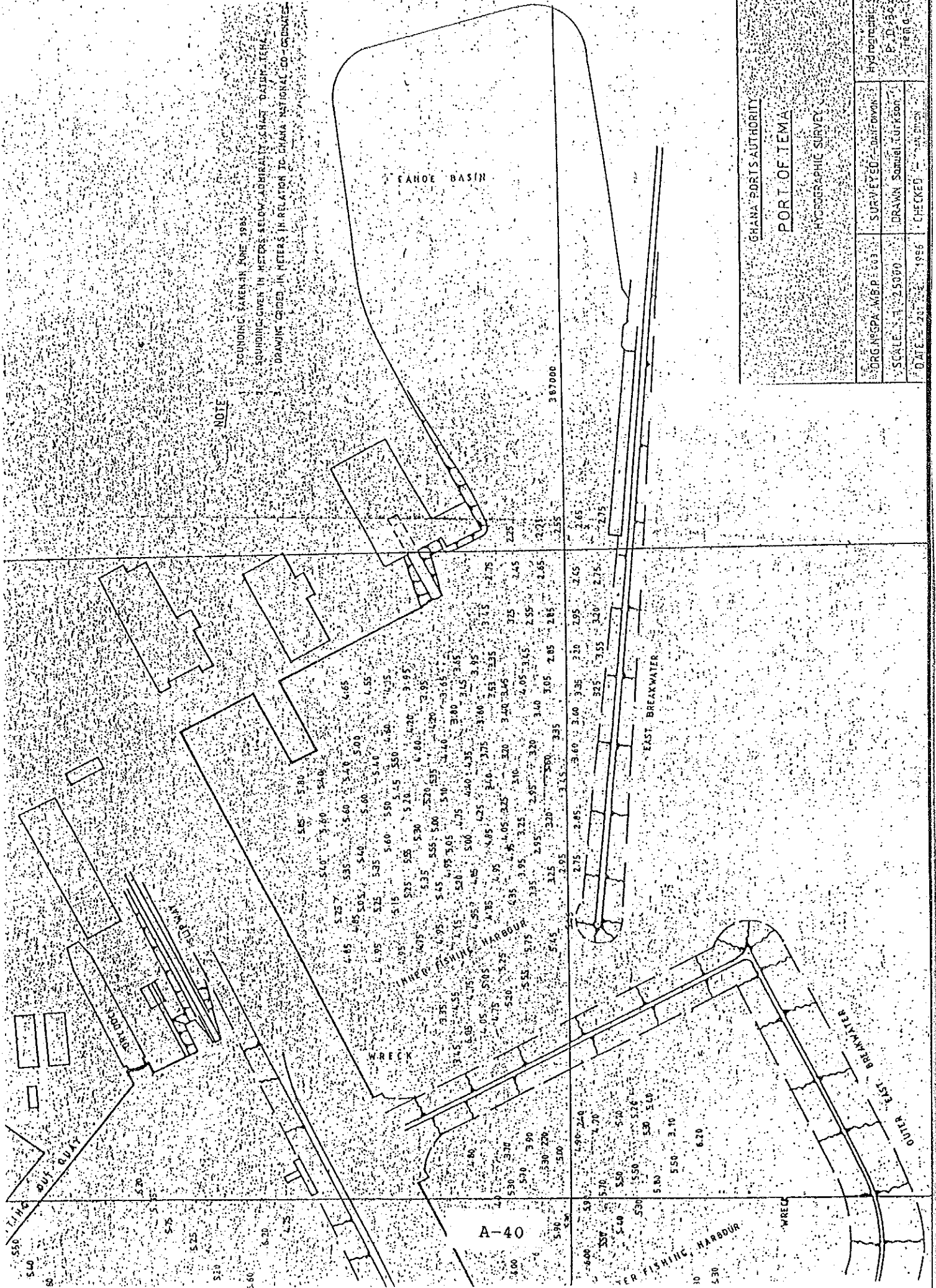
Appendix 4.2.5 : Area for Sounding Survey

-  By Echo Sounding
-  By Lead Sounding



A-39
0 50 100 200M
1/3520

Appendix 4.2.6 : Previous Sounding Survey Map



NOTE

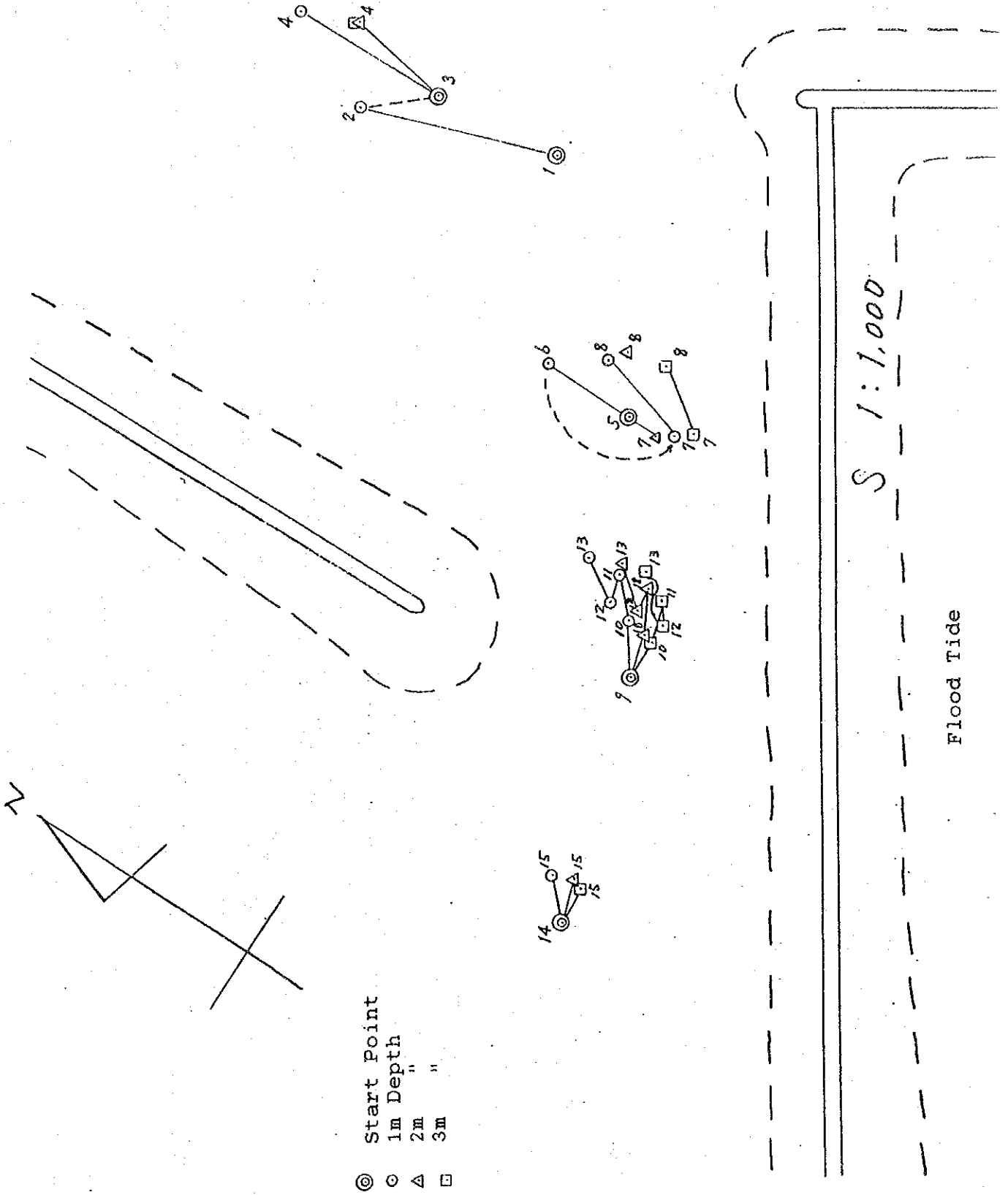
- 1. SOUNDING TAKEN IN ONE 1985.
- 2. SOUNDING GIVEN IN METERS BELOW ADMIRALTY CHART DATUM (T.M.D.).
- 3. DRAWING CHECKED IN METERS IN RELATION TO GHANA NATIONAL CO-ORDINATE.

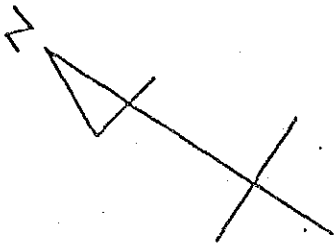
GHANA PORTS AUTHORITY		HYDROGRAPHIC SURVEY UNIT	
PORT OF TEMA		HYDROGRAPHIC SURVEY	
ORGANISMA: M.S.P. 003	SURVEYED: DATED: 1985	PROJECT: 1000	DATE: 1985
SCALE: 1:25000	DRAWN: Samuel Turkson	CHECKED: [Signature]	DATE: 1986

A-40

367000

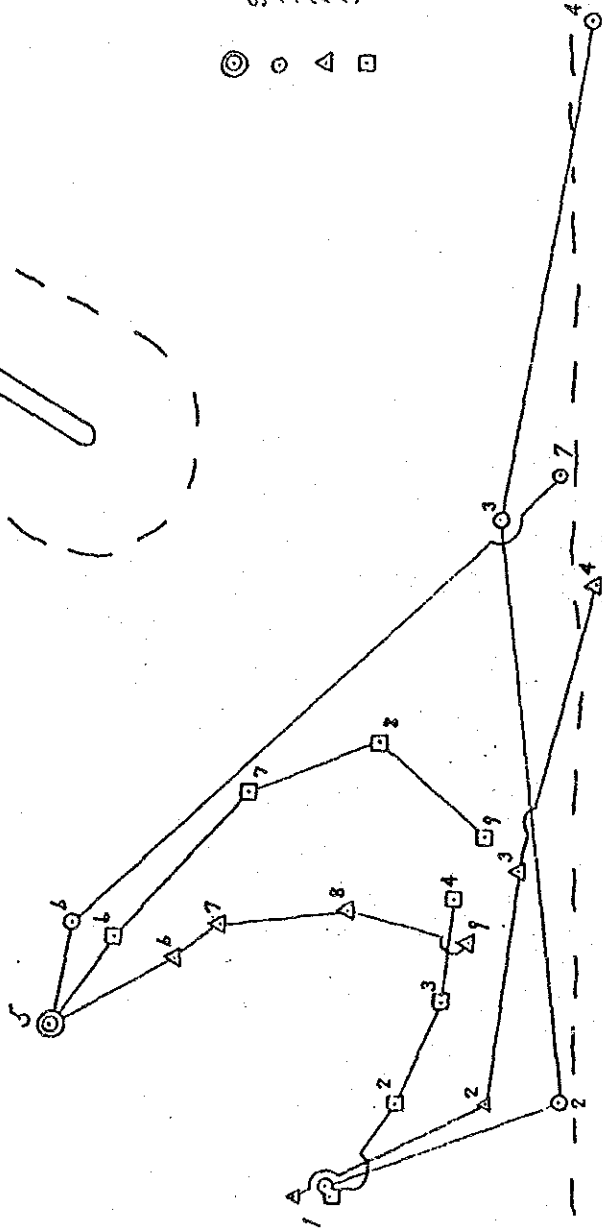
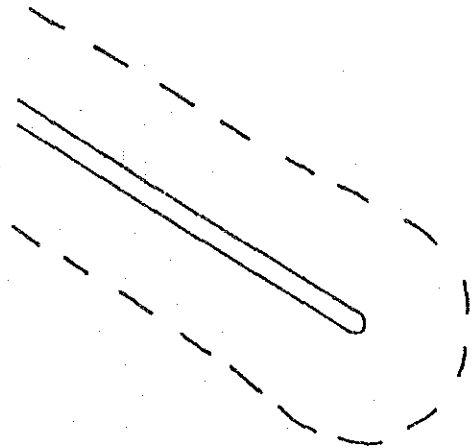
Appendix 4.2.7 : Current Observation Results





Start Point
1m Depth
2m Depth
3m Depth

⊙ ○ △ □



S 1 : 1,000

Ebb Tide

JICA