

APPENDIX

CHAPTER 5 TRAFFIC STUDIES

Appendix Table 5.2.1.1 SCHEDULE OF TRAFFIC SURVEY

| Location No. | C.C. Division | Township Engineer | Date | Instruction | Survey Location | Checking Coding |
|--------------|---------------|-------------------|-------------------------------|-----------------------------------|---|-----------------|
| 101 | Pegu | Prome | Dec. 22 (Sun) 15:00 | Prome T.E./ Shwedaung T.E. | Shwedaung Ferry Junction (Mile Post 174) | |
| 102 | | | Dec. 23 (Mon) 6:00 - 6:00 | | Prome-Magwe-Pakkaung Junction (Prome - Pakkaung) | |
| 103 | | | Dec. 23 (Mon) 6:00 - 18:00 | | Prome-Magwe-Pakkaung Junction (Prome - Magwe) | |
| 201 | | | Dec. 23 (Mon) | | Prome Railway Station | |
| 301 | | | Dec. 24 (Tue) | | Prome - Sinde (PB. Private) | Shwedaung T.E. |
| 302 | | | Dec. 24 (Tue) | | Prome - Padaung (PB. Private) | |
| 303 | | | Dec. 24 (Tue) | | Prome - Sinde (ZC, H.I.C.) | |
| 304 | | Shwedaung | Dec. 24 (Tue) | | Prome - Sinde (ZC, I.W.T.C./ co-operative) | Prome T.E. |
| | | Prome | Dec. 26-27 | | | |
| 104 | Pegu | Padaung | Dec. 25 (Wed) 13:00 | Western Highway Project Office | | |
| | Irrawaddy | Kyangin | Dec. 25 (Wed) 16:00 | Kyangin Railway Station | | |
| 105 | Pegu | Padaung | Dec. 26 (Tue) 6:00 - 18:00 | | Okshitpin Junction (with 106 and 107) | |
| 106 | | | | | | |
| 107 | | | | | | |

| Location No. | C.C. division | Township Engineer | Date | Instruction | Survey Location | Checking Coding |
|-------------------|---------------|------------------------------------|-----------------------|-------------|--|---|
| 202 | Irrawaddy | Kyangin | Dec. 26 (Thu) | | Kyangin Railway Station | |
| | Pegu | Padaung | Dec 27 (Fri) | | | Western Highway |
| | Magwe | Myede | Dec 26 (Thu) 15:00 | Myede T.E. | | |
| 305 | | | Dec .27 (Fri) | | Myede-Thayetn (PB, Co-operative/ SSB, Co-operative) | |
| 306 | | | Dec. 27 (Fri) | | Myede-Thayet (ZC, Cement Factory) | Myeie T.E. |
| | | | Dec. 28 (Sat) | | | |
| | Magwe | Magwe (Magwe, Chauk, Minhla) | Dec.29 (Sun) 10:00 | Magwe T.E. | | |
| 307 | | Minhla | Dec. 30 (Mon) | | Patanago-Minhla (PB, Private/ ZC, H.I.C.) | |
| 308 | | Magwe | Dec. 30 (Mon) | | Magwe-Minbu (ZC, Co-operative) | |
| 309 | | Chauk | Dec. 30 (Mon) | | Chauk-Seikpyu (PS, Co-operative/ SSB, Co-operative) | |
| 310 ¹⁾ | | | | | Chauk-Yanangyao (ZC, M.O.C.) | |
| 311 ¹⁾ | | | | | Chauk-Lanywa (ZC, M.N.F.) | |
| 315 | | | | | Chauk-Wazi (PS, Co-operative) | |
| | | Minhla, Magwe, Chauk | Dec. 31 (Tue) | | | Minhla T.E. Magwe T.E. Chauk T.E. |

| Location No. | C.C. Division | Township Engineer | Date | Instruction | Survey Location | Checking Coding |
|--------------|---------------|-------------------|-----------------------|--------------|---|-----------------|
| | Magwe | Pakokku | Jan. 1 (Wed) 13:00 | Pakokku T.E. | | |
| 312 | | | Jan. 2 (Thu) | | Nyaung U - Kyunchaung (ZC, Co-operative/SSB, Private) | |
| 313 | | | Jan. 2 (Thu) | | Pakokku - Nyaung U (PB, Private) | |
| | | | Jan. 3 (Fri) | | | Pakokku T.E. |
| | Sagaing | Monywa | Jan. 2 (Thu) | Monywa | | |
| 314 | | | Jan. 3 (Fri) | | Manywa - Nyaung Bin Gyi (Tagged ZC & ZC, Co-operative/ SB, Private) | |
| | | | Jan. 4 (Sat) | | | Monywa T.E. |

Notes: 1) Traffic survey was not allowed on Z-crafts operated by M.O.C. and M.N.F..

- 2) PB = Passenger Boat
 ZC = Z-craft
 SB = Small Boat
 SSB = Small Speed Boat
 H.I.C. = Heavy Industry Corporation
 M.O.C. = Monywa Oil Corporation
 M.N.F. = Money Note Factory

3) The crossing of Yenangyaung - Thangaing was not surveyed because the volume is small. The total was counted at 450 persons using P.Bs and S.S.Bs. The distribution of origin destination was assumed to be equal to that in Chauk - Seikpyu.

Appendix Table 5.2.1.2 OD INTERVIEW SURVEY FORM
(Z-CRAFT/BOAT & RAILWAY PASSENGER)

| | | | | | | | | | | | | | | | | |
|-------------|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Survey Hour | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| Survey Band | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

Survey Date: _____ Weather: _____ Name of Location: _____ Location No.: _____

Supervisor: _____ Supervisor: _____ Direction: _____

Departure Time: _____ Arrival Time: _____

| Question | Passenger No.1 | Passenger No.2 | Passenger No.3 | Passenger No.4 |
|--|--|--|--|--|
| (A.1) From where are you coming? (Origin) | 1. Passenger 2. Passenger with Bicycle (A.1) Origin Township Division/State | 1. Passenger 2. Passenger with Bicycle (A.1) Origin Township Division/State | 1. Passenger 2. Passenger with Bicycle (A.1) Origin Township Division/State | 1. Passenger 2. Passenger with Bicycle (A.1) Origin Township Division/State |
| (A.2) To where are you going? (Destination) | Zone No. Destination Township Division/State | Zone No. Destination Township Division/State | Zone No. Destination Township Division/State | Zone No. Destination Township Division/State |
| (B) What is your access and egress (mode / time in minute)? | Zone No. (B.1) Access Mode (B.2) Access Time (B.3) Egress Mode (B.4) Egress Time | Zone No. (B.1) Access Mode (B.2) Access Time (B.3) Egress Mode (B.4) Egress Time | Zone No. (B.1) Access Mode (B.2) Access Time (B.3) Egress Mode (B.4) Egress Time | Zone No. (B.1) Access Mode (B.2) Access Time (B.3) Egress Mode (B.4) Egress Time |
| (C) What is your trip purpose? | (C) Trip purpose | (C) Trip purpose | (C) Trip purpose | (C) Trip purpose |
| (D) How many minutes do you wait for the departure? | (D) Waiting Time | (D) Waiting Time | (D) Waiting Time | (D) Waiting Time |
| (E) If a bridge is constructed over the Irtwaddy River near Proma, do you use it? | (E) 1. Yes, 2. No. | (E) 1. Yes, 2. No. | (E) 1. Yes, 2. No. | (E) 1. Yes, 2. No. |

Appendix Table 5.2.1.3 OD INTERVIEW SURVEY FORM (VEHICLES)

Sheet No. _____

| | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Survey Hour Band | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|------------------|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

Only for the vehicle by using Z-craft/Boat

Departure Time: _____

Arrival Time: _____

Survey Date: _____ Name of Location: _____ Location No. _____

Type of Vehicle: _____

Supervisor: _____ Direction: _____

Weather: _____

| | | |
|--|------------------------------|-----------|
| 1. Motorcycle | 3. Buses, Pickups | 6. Others |
| 2. Passenger Cars | 4. Light Trucks | |
| | 5. Heavy Trucks | |
| Question | | |
| (A) Number of passengers including driver/assistant? | | |
| - Only for trucks - | | |
| (B) Loading Capacity (tons), Loaded Cargo, Cargo Volume? | | |
| (C-1) From where are you coming? (Origin) | | |
| Note: * : Facility | | |
| 1. Living House | 4. Farm, Forestry, Fishery | |
| 2. Manufacturing Factory | 5. Warehouse | |
| 3. Shops, Offices | 6. Traffic Terminal | |
| | 7. Other | |
| (C-2) To where are you going? (Destination) | | |
| (D) What is your trip purpose? | | |
| 1. To Home | 5. Shopping | |
| 2. To go to Work | | |
| 3. To School | 6. To Farm, Forestry Fishery | |
| 4. Working | 7. Others | |
| - Only for the Z-craft - | | |
| (E) How many minutes do you wait for the Z-craft service? | | |
| (F) If a bridge is constructed over the Irrawaddy River near Prome, do you use it? | | |

| Type of Vehicle | | Vehicle No. 1 | | Vehicle No. 2 | | Vehicle No. 3 | | Vehicle No. 4 | |
|-------------------------|------|-------------------------|------|-------------------------|------|-------------------------|------|-------------------------|------|
| (A) Number of Passenger | | (A) Number of Passenger | | (A) Number of Passenger | | (A) Number of Passenger | | (A) Number of Passenger | |
| (B.1) Loading Capacity | | (B.1) Loading Capacity | | (B.1) Loading Capacity | | (B.1) Loading Capacity | | (B.1) Loading Capacity | |
| (B.2) Loaded Cargo | | (B.2) Loaded Cargo | | (B.2) Loaded Cargo | | (B.2) Loaded Cargo | | (B.2) Loaded Cargo | |
| (B.3) Cargo Volume | | (B.3) Cargo Volume | | (B.3) Cargo Volume | | (B.3) Cargo Volume | | (B.3) Cargo Volume | |
| 0 | 1/2 | 0 | 1/2 | 0 | 1/2 | 0 | 1/2 | 0 | 1/2 |
| Full | Over | Full | Over | Full | Over | Full | Over | Full | Over |
| (C.1) Origin | | (C.1) Origin | | (C.1) Origin | | (C.1) Origin | | (C.1) Origin | |
| Township | | Township | | Township | | Township | | Township | |
| Division/State | | Division/State | | Division/State | | Division/State | | Division/State | |
| * Facility | | * Facility | | * Facility | | * Facility | | * Facility | |
| Zone No. | | Zone No. | | Zone No. | | Zone No. | | Zone No. | |
| (C.2) Destination | | (C.2) Destination | | (C.2) Destination | | (C.2) Destination | | (C.2) Destination | |
| Township | | Township | | Township | | Township | | Township | |
| Division/State | | Division/State | | Division/State | | Division/State | | Division/State | |
| * Facility | | * Facility | | * Facility | | * Facility | | * Facility | |
| Zone No. | | Zone No. | | Zone No. | | Zone No. | | Zone No. | |
| (D) Trip Purpose | | (D) Trip Purpose | | (D) Trip Purpose | | (D) Trip Purpose | | (D) Trip Purpose | |
| (E) Waiting Time | | (E) Waiting Time | | (E) Waiting Time | | (E) Waiting Time | | (E) Waiting Time | |
| (F) 1. Yes, 2. No | | (F) 1. Yes, 2. No | | (F) 1. Yes, 2. No | | (F) 1. Yes, 2. No | | (F) 1. Yes, 2. No | |

Appendix Table 5.2.1.4 TRAFFIC COUNT SURVEY FORM

Name of Location: _____

Location No: _____

Direction: _____

Survey Date: _____

Weather: _____

Name of Surveyor: _____

Name of Supervisor: _____

Sketch

| Type of Vehicle | Motorvehicle | | | | | | Others. | |
|------------------|--------------|-----------------------|----------------|--------------|--------------|--------|-----------------|--------------------|
| | Motorcycle | Passenger Cars | Cars | Trucks | | Others | - | - |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Survey Hour Band | Motorcycle | Passenger Cars, Jeeps | Buses Pick-ups | Light Trucks | Heavy Trucks | Others | Trishaw Bicycle | Ox and Horse carts |
| 06:00-07:00 | | | | | | | | |
| 07:00-08:00 | | | | | | | | |
| 08:00-09:00 | | | | | | | | |
| 09:00-10:00 | | | | | | | | |
| 10:00-11:00 | | | | | | | | |
| 11:00-12:00 | | | | | | | | |
| 12:00-13:00 | | | | | | | | |
| 13:00-14:00 | | | | | | | | |
| 14:00-15:00 | | | | | | | | |
| 15:00-16:00 | | | | | | | | |
| 16:00-17:00 | | | | | | | | |
| 17:00-18:00 | | | | | | | | |
| 18:00-19:00 | | | | | | | | |
| 19:00-20:00 | | | | | | | | |
| 20:00-21:00 | | | | | | | | |
| 21:00-22:00 | | | | | | | | |
| 22:00-23:00 | | | | | | | | |
| 23:00-24:00 | | | | | | | | |
| 00:00-01:00 | | | | | | | | |
| 01:00-02:00 | | | | | | | | |
| 02:00-03:00 | | | | | | | | |
| 03:00-04:00 | | | | | | | | |
| 04:00-05:00 | | | | | | | | |
| 05:00-06:00 | | | | | | | | |
| Total (16 hours) | | | | | | | | |
| Total (24 hours) | | | | | | | | |

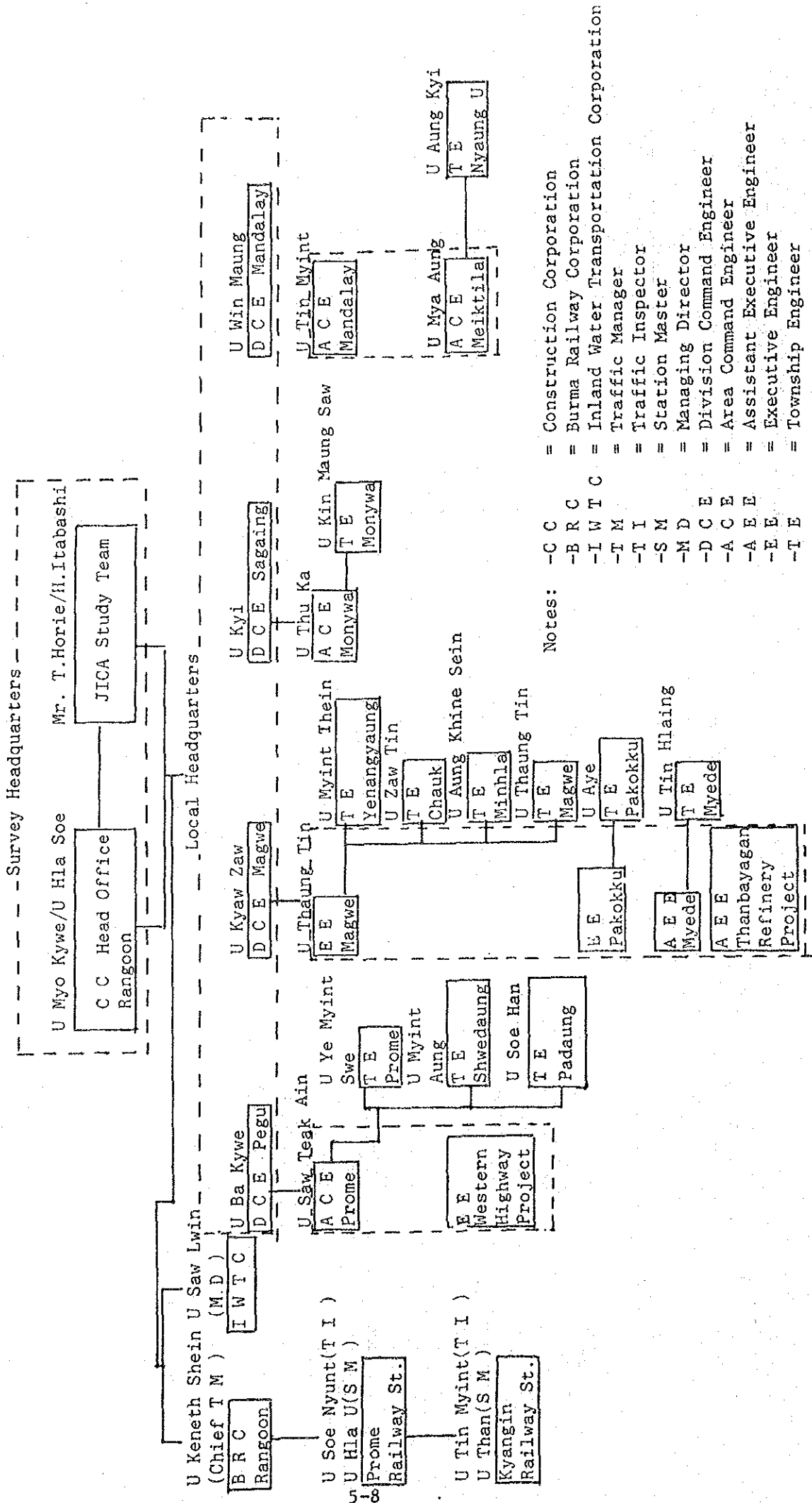
Appendix Table 5.2.1.5 TRAFFIC COUNT SURVEY FORM
 (Z-CRAFT/PASS. BOAT/RAILWAY)

Name of Location _____ Survey Date _____

Location No: _____ Weather _____ Supervisor _____ Sheet No _____

| No | Direction | Time | only for the Z craft/Pass.boat/other boats | | Type of User | | | | | | | | |
|----|------------------------|----------------------|--|-------------|--------------|------------|------------------|----------------|--------------|--------------|--------|-----------------|--------------------|
| | | | Type of Boat | Operated by | Passenger | Motorcycle | Pass. Cars Jeeps | Buses Pick-ups | Light Trucks | Heavy Trucks | Others | Trisraw Bicycle | Ox and Horse Carbs |
| 1 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 2 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 3 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 4 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 5 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 6 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 7 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 8 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 9 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 10 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 11 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |
| 12 | From _____ To _____ | Departure Time _____ | | | | | | | | | | | |
| | | Arrival Time _____ | | | | | | | | | | | |

Appendix Fig. 5.2.1.1 SURVEY SYSTEM



Notes:

- C C = Construction Corporation
- B R C = Burma Railway Corporation
- I W T C = Inland Water Transportation Corporation
- T M = Traffic Manager
- T I = Traffic Inspector
- S M = Station Master
- M D = Managing Director
- D C E = Division Command Engineer
- A C E = Area Command Engineer
- A E E = Assistant Executive Engineer
- E E = Executive Engineer
- T E = Township Engineer

Appendix Table 5.2.2.1 OD MATRICES IN 1985 (VEHICLES) (1)

| | (Unit=Vehicles/day) | | | | | | | | | | | | | | | | | | | | Total |
|----------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 |
| 02 Tharravaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 03 Prome | 2 | 0 | 0 | 23 | 0 | 1 | 4 | 1 | 12 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| 04 Padaung | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 30 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 06 Thayet | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 07 Magwe | 2 | 0 | 0 | 1 | 0 | 5 | 0 | 3 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 08 Mibbu | 2 | 0 | 2 | 0 | 1 | 0 | 12 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 17 |
| 09 Sandoway | 0 | 0 | 11 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 20 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 11 Pakokku | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 3 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 8 | 0 | 4 | 0 | 26 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Rangoon | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 8 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salween | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 24 |
| Total | 9 | 0 | 37 | 38 | 1 | 7 | 30 | 10 | 20 | 4 | 23 | 2 | 7 | 0 | 0 | 0 | 26 | 0 | 31 | 30 | 275 |

| | (Unit=Vehicles/day) | | | | | | | | | | | | | | | | | | | | Total |
|----------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02 Tharravaddy | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 Prome | 0 | 0 | 0 | 15 | 0 | 1 | 0 | 0 | 9 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28 |
| 04 Padaung | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 14 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06 Thayet | 2 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 1 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 07 Magwe | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 08 Mibbu | 1 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 11 |
| 09 Sandoway | 0 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 13 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 2 | 0 | 17 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Rangoon | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 17 |
| 20 Salween | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 |
| Total | 5 | 0 | 17 | 22 | 1 | 5 | 16 | 6 | 16 | 2 | 17 | 2 | 5 | 0 | 0 | 0 | 15 | 0 | 15 | 16 | 160 |

Appendix Table 5.2.2.1 OD MATRICES IN 1985 (VEHICLES) (2)

| | (Unit=Vehicles/day) | | | | | | | | | | | | | | | | | | | | Total |
|----------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02 Tharrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 Prome | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 04 Padaung | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 09 Sandozay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 Nyauung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17 Rangoon | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| Total | 2 | 0 | 10 | 7 | 0 | 2 | 9 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 53 |

| | (Unit=Vehicles/day) | | | | | | | | | | | | | | | | | | | | Total |
|----------------|---------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02 Tharrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 Prome | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 04 Padaung | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08 Minbu | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 09 Sandozay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 Nyauung U | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17 Rangoon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 0 | 10 | 9 | 0 | 0 | 5 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 62 |

Appendix Table 5.2.2.2 ACCESS TIME AND ACCESS MODE (FERRY PASSENGERS)

| MODE | TIME (in minutes) | | | | | | | TOTAL | AVERAGE | NO. ANS. |
|--------------------------|-------------------|-------|-------|--------|---------|------|---------|-------|---------|----------|
| | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | | | | |
| 1 WALKING | 3042 | 3853 | 1091 | 232 | 53 | 24 | 8295 | 19. | 15 | |
| 2 BICYCLE , TRISHAW | 36.7 | 46.4 | 13.2 | 2.8 | 0.6 | 0.3 | 100.0 X | | | |
| | 1451 | 1161 | 596 | 239 | 59 | 45 | 3551 | 26. | 13 | |
| 3 MOTORCYCLE | 40.9 | 32.7 | 16.8 | 6.7 | 1.7 | 1.3 | 100.0 X | | | |
| | 26 | 0 | 0 | 0 | 0 | 0 | 26 | 7. | 0 | |
| 4 PASSENGER CARS , JEEPS | 100.0 | 0. | 0. | 0. | 0. | 0. | 100.0 X | | | |
| | 68 | 124 | 411 | 363 | 247 | 251 | 1464 | 127. | 1 | |
| 5 BUSES , PICK-UPS | 4.6 | 8.5 | 28.1 | 24.8 | 16.9 | 17.1 | 100.0 X | | | |
| | 133 | 582 | 776 | 889 | 925 | 544 | 3849 | 123. | 2 | |
| 6 TRUCKS | 3.5 | 15.1 | 20.2 | 23.1 | 24.0 | 14.1 | 100.0 X | | | |
| | 13 | 27 | 25 | 85 | 122 | 80 | 352 | 216. | 0 | |
| 7 RAILWAY | 3.7 | 7.7 | 7.1 | 24.1 | 34.7 | 22.7 | 100.0 X | | | |
| | 4 | 0 | 3 | 3 | 16 | 30 | 56 | 467. | 5 | |
| 8 Z-CRAFT , BOATS | 7.1 | 0. | 5.4 | 5.4 | 28.6 | 53.6 | 100.0 X | | | |
| | 0 | 23 | 9 | 8 | 2 | 2 | 44 | 54. | 2 | |
| 9 OTHERS | 0. | 52.3 | 20.5 | 18.2 | 4.5 | 4.5 | 100.0 X | | | |
| | 823 | 602 | 339 | 94 | 39 | 53 | 1950 | 37. | 10 | |
| (TOTAL) | 42.2 | 30.9 | 17.4 | 4.8 | 2.0 | 2.7 | 100.0 X | | | |
| | 5560 | 6372 | 3250 | 1913 | 1463 | 1029 | 19587 | 56. | 0 | |
| NO ANSWER | 28.4 | 32.5 | 16.6 | 9.8 | 7.5 | 5.3 | 100.0 X | | | |
| | 24 | 23 | 22 | 4 | 0 | 0 | 73 | 23. | 3- | |
| | 32.9 | 31.5 | 30.1 | 5.5 | 0. | 0. | 100.0 X | | | |

Appendix Table 5.2.2.3 EGRESS TIME AND EGRESS MODE (FERRY PASSENGERS)

| MODE | TIME (in minutes) | | | | | | | TOTAL | AVERAGE | NO. ANS. |
|--------------------------|-------------------|-------|-------|--------|---------|------|---------|-------|---------|----------|
| | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | | | | |
| 1 WALKING | 3616 | 2759 | 984 | 239 | 34 | 16 | 7648 | 18. | 24 | |
| 2 BICYCLE , TRISHAW | 47.3 | 36.1 | 12.9 | 3.1 | 0.4 | 0.2 | 100.0 X | | | |
| | 1265 | 1364 | 637 | 108 | 42 | 0 | 3416 | 20. | 31 | |
| 3 MOTORCYCLE | 37.0 | 39.9 | 18.6 | 3.2 | 1.2 | 0. | 100.0 X | | | |
| | 0 | 4 | 7 | 0 | 0 | 0 | 11 | 27. | 0 | |
| 4 PASSENGER CARS , JEEPS | 0. | 36.4 | 63.6 | 0. | 0. | 0. | 100.0 X | | | |
| | 43 | 161 | 385 | 378 | 282 | 323 | 1572 | 340. | 4 | |
| 5 BUSES , PICK-UPS | 2.7 | 10.2 | 24.5 | 24.0 | 17.9 | 20.5 | 100.0 X | | | |
| | 42 | 457 | 673 | 1066 | 1050 | 868 | 4156 | 169. | 0 | |
| 6 TRUCKS | 1.0 | 11.0 | 16.2 | 25.6 | 25.3 | 20.9 | 100.0 X | | | |
| | 21 | 17 | 63 | 58 | 115 | 58 | 332 | 175. | 0 | |
| 7 RAILWAY | 6.3 | 5.1 | 19.0 | 17.5 | 34.6 | 17.5 | 100.0 X | | | |
| | 15 | 7 | 27 | 8 | 11 | 58 | 126 | 263. | 0 | |
| 8 Z-CRAFT , BOATS | 11.9 | 5.6 | 21.4 | 6.3 | 8.7 | 46.0 | 100.0 X | | | |
| | 11 | 25 | 19 | 1 | 3 | 50 | 109 | 553. | 0 | |
| 9 OTHERS | 10.1 | 22.9 | 17.4 | 0.9 | 2.8 | 45.9 | 100.0 X | | | |
| | 879 | 862 | 242 | 112 | 76 | 29 | 2180 | 27. | 0 | |
| (TOTAL) | 40.3 | 38.6 | 11.1 | 5.1 | 3.5 | 1.3 | 100.0 X | | | |
| | 5892 | 5636 | 3037 | 1970 | 1613 | 1402 | 19550 | 85. | 0 | |
| NO ANSWER | 30.1 | 28.8 | 15.5 | 10.1 | 8.3 | 7.2 | 100.0 X | | | |
| | 8 | 18 | 20 | 16 | 2 | 31 | 95 | 261. | 7 | |
| | 8.4 | 18.9 | 21.1 | 16.8 | 2.1 | 32.6 | 100.0 X | | | |

Appendix Table 5.2.2.4 TRIP PURPOSE COMPOSITION

| Ferry Passengers | | | | | | | | | |
|--------------------|--------------|--------------|-------------|--------------|--------------|------------|--------------|------------------|------------|
| LOCATION | PURPOSE | | | | | | | TOTAL | NO ANS. |
| | 1 HOME | 2 WORK | 3 SCHOOL | 4 WORKING | 5 SHOPP. | 6 FARM | 7 OTHERS | | |
| 301 | 750 29.6 | 357 14.1 | 98 3.9 | 127 5.0 | 690 27.3 | 18 0.7 | 490 19.4 | 2530 100.0 x | 35 |
| 302 | 61 81.3 | 6 8.0 | 0 0. | 0 0. | 4 5.3 | 0 0. | 4 5.3 | 75 100.0 x | 0 |
| 303 | 262 37.7 | 37 5.3 | 7 1.0 | 40 5.8 | 81 11.7 | 0 0. | 268 38.6 | 695 100.0 x | 0 |
| 304 | 173 44.4 | 50 12.8 | 0 0. | 79 20.3 | 31 7.9 | 0 0. | 57 14.6 | 390 100.0 x | 0 |
| 305 | 637 25.6 | 553 22.2 | 21 0.8 | 205 8.2 | 228 9.2 | 25 1.0 | 820 32.9 | 2489 100.0 x | 17 |
| 307 | 197 44.2 | 109 24.4 | 30 6.7 | 16 3.6 | 24 5.4 | 6 1.3 | 64 14.3 | 446 100.0 x | 0 |
| 308 | 1287 44.6 | 740 25.6 | 88 3.0 | 65 2.3 | 281 9.7 | 0 0. | 427 14.8 | 2888 100.0 x | 13 |
| 309 | 599 33.6 | 225 12.6 | 10 0.6 | 258 14.5 | 519 29.1 | 8 0.4 | 163 9.2 | 1784 100.0 x | 0 |
| 312 | 59 21.8 | 71 26.2 | 19 7.0 | 12 4.4 | 54 19.9 | 2 0.7 | 54 19.9 | 271 100.0 x | 0 |
| 313 | 184 38.1 | 48 9.9 | 36 7.5 | 12 2.5 | 39 8.1 | 21 4.3 | 143 29.6 | 483 100.0 x | 1 |
| 314(1) | 838 33.5 | 461 18.4 | 89 3.6 | 291 11.6 | 428 17.1 | 18 0.7 | 375 15.0 | 2500 100.0 x | 10 |
| 314(2) | 2166 44.2 | 358 7.3 | 115 2.3 | 232 4.7 | 940 19.2 | 22 0.4 | 1070 21.8 | 4903 100.0 x | 21 |
| 315 | 34 21.5 | 18 11.4 | 0 0. | 20 12.7 | 33 20.9 | 2 1.3 | 51 32.3 | 158 100.0 x | 2 |
| FERRY (TOTAL) | 7247 37.0 | 3033 15.5 | 513 2.6 | 1357 6.9 | 3352 17.1 | 122 0.6 | 3988 20.3 | 19612 100.0 x | 99 |

| Vehicles on Z-craft | | | | | | | | |
|---------------------|-------------|--------------|-------------|--------------|-------------|------------|--------------|----------------|
| Location | Purpose | | | | | | | TOTAL |
| | 1 HOME | 2 WORK | 3 SCHOOL | 4 WORKING | 5 SHOPP. | 6 FARM | 7 OTHERS | |
| 303 ZC | 6 11.3 | 23 43.4 | | 7 13.2 | 5 9.4 | | 12 22.6 | 53 100.0 |
| 304 ZC | 6 8.1 | | 1 1.4 | 52 70.2 | 10 1.4 | 2 2.7 | 3 4.1 | 74 100.0 |
| 306 ZC | | 2 100.0 | | | | | | 2 100.0 |
| 307 ZC | | 8 88.9 | 1 11.1 | | | | | 9 100.0 |
| 308 ZC | 4 13.8 | 19 65.5 | 1 3.4 | | | | 5 17.2 | 29 100.0 |
| 312 ZC | 2 4.9 | 4 9.8 | | | | | 35 85.4 | 41 100.0 |
| 314(1)ZC | 7 11.1 | 23 36.5 | 0 | 7 11.1 | 6 9.5 | 2 3.2 | 18 28.6 | 63 100.0 |
| Ferry ZC (Total) | 25 (9.2) | 79 (29.2) | 3 (1.1) | 66 (24.4) | 21 (7.7) | 4 (1.5) | 73 (26.9) | 271 (100.0) |

Appendix Table 5.2.2.5 WAITING TIME (FERRY VEHICLES)

| LOCATION | TYPE | TIME (in minutes) | | | | | | TOTAL | AVERAGE | NO ANS. |
|-----------|---------|-------------------|-------|-------|--------|---------|------|---------|---------|------------|
| | | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | | | |
| 303 ZC | P. CARS | 1 | 2 | 9 | 4 | 0 | 0 | 16 | 44. | 0 |
| | BUSES | 6.3 | 12.5 | 56.3 | 25.0 | 0. | 0. | 100.0 x | | |
| | TRUCKS | 1 | 0 | 5 | 0 | 0 | 0 | 6 | 27. | 0 |
| | TOTAL | 16.7 | 0. | 83.3 | 0. | 0. | 0. | 100.0 x | | |
| | TOTAL | 6.5 | 9.7 | 32.3 | 19.4 | 32.3 | 0. | 100.0 x | 53 | 59. |
| 304 ZC | P. CARS | 0 | 1 | 1 | 5 | 0 | 0 | 7 | 51. | 0 |
| | BUSES | 0. | 14.3 | 14.3 | 71.4 | 0. | 0. | 100.0 x | | |
| | TRUCKS | 2 | 11 | 3 | 2 | 2 | 0 | 20 | 15. | 4 |
| | TOTAL | 10.0 | 55.0 | 15.0 | 10.0 | 10.0 | 0. | 100.0 x | | |
| | TOTAL | 2 | 8 | 21 | 3 | 6 | 0 | 40 | 46. | 0 |
| 306 ZC | P. CARS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| | BUSES | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0 |
| | TRUCKS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 2 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 2 |
| | TOTAL | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 307 ZC | P. CARS | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 10. | 2 |
| | BUSES | 0. | 0. | 100.0 | 0. | 0. | 0. | 100.0 x | | |
| | TRUCKS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| | TOTAL | 2 | 1 | 0 | 0 | 4 | 1 | 8 | 158. | 0 |
| | TOTAL | 25.0 | 12.5 | 0. | 0. | 50.0 | 12.5 | 100.0 x | 9 | 143. |
| 308 ZC | P. CARS | 1 | 1 | 0 | 1 | 1 | 0 | 4 | 51. | 0 |
| | BUSES | 25.0 | 25.0 | 0. | 25.0 | 25.0 | 0. | 100.0 x | | |
| | TRUCKS | 4 | 2 | 0 | 2 | 0 | 0 | 8 | 28. | 0 |
| | TOTAL | 50.0 | 25.0 | 0. | 25.0 | 0. | 0. | 100.0 x | | |
| | TOTAL | 1 | 4 | 5 | 2 | 1 | 4 | 17 | 103. | 0 |
| 312 ZC | P. CARS | 0 | 0 | 1 | 2 | 3 | 0 | 6 | 105. | 0 |
| | BUSES | 0. | 0. | 0 | 3 | 2 | 0 | 5 | 108. | 0 |
| | TRUCKS | 0 | 0 | 7 | 4 | 9 | 10 | 30 | 289. | 0 |
| | TOTAL | 0 | 0 | 23.3 | 13.3 | 30.0 | 33.3 | 100.0 x | | |
| | TOTAL | 0. | 0. | 8 | 9 | 14 | 10 | 41 | 240. | 0 |
| 314(1) ZC | P. CARS | 8 | 7 | 2 | 0 | 0 | 0 | 17 | 13. | 0 |
| | BUSES | 47.1 | 41.2 | 11.8 | 0. | 0. | 0. | 100.0 x | | |
| | TRUCKS | 5 | 6 | 4 | 2 | 0 | 2 | 19 | 116. | 0 |
| | TOTAL | 26.3 | 31.6 | 21.1 | 10.5 | 0. | 10.5 | 100.0 x | | |
| | TOTAL | 8 | 11 | 10 | 1 | 2 | 0 | 32 | 78. | 0 |
| FERRY ZC | P. CARS | 10 | 11 | 14 | 12 | 4 | 0 | 51 | 42. | 2 |
| | BUSES | 19.6 | 21.6 | 27.5 | 23.5 | 7.8 | 0. | 100.0 x | | |
| | TRUCKS | 12 | 19 | 12 | 9 | 4 | 2 | 58 | 66. | 4 |
| | TOTAL | 20.7 | 32.8 | 20.7 | 15.5 | 6.9 | 3.4 | 100.0 x | | |
| | TOTAL | 15 | 27 | 53 | 16 | 32 | 15 | 158 | 115. | 2 |
| FERRY ZC | P. CARS | 9.5 | 17.1 | 33.5 | 10.1 | 20.3 | 9.5 | 100.0 x | | |
| | BUSES | 37 | 57 | 79 | 37 | 40 | 17 | 267 | 91. | 8 |
| | TRUCKS | 13.9 | 21.3 | 29.6 | 13.9 | 15.0 | 6.4 | 100.0 x | | |
| | TOTAL | 10 | 11 | 14 | 12 | 4 | 0 | 51 | 42. | 2 |
| | TOTAL | 13.9 | 21.3 | 29.6 | 13.9 | 15.0 | 6.4 | 100.0 x | | |

Appendix Table 5.2.2.6 WAITING TIME (FERRY PASSENGERS)

| LOCATION | TIME (in minutes) | | | | | | TOTAL | AVERAGE | NO. ANS. |
|----------|-------------------|--------------|--------------|------------|------------|----------|------------------|---------|----------|
| | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240+ | | | |
| 301 | 427 16.6 | 800 31.2 | 1260 49.1 | 78 3.0 | 0 0. | 0 0. | 2565 100.0 % | 27. | 0 |
| 302 | 46 61.3 | 12 16.0 | 5 6.7 | 4 5.3 | 8 10.7 | 0 0. | 75 100.0 % | 31. | 0 |
| 303 | 165 23.7 | 331 47.6 | 151 21.7 | 48 6.9 | 0 0. | 0 0. | 695 100.0 % | 24. | 0 |
| 304 | 151 44.3 | 108 31.7 | 25 7.3 | 13 3.8 | 44 12.9 | 0 0. | 341 100.0 % | 30. | 49 |
| 305 | 1112 44.8 | 585 23.6 | 668 26.9 | 85 3.4 | 32 1.3 | 0 0. | 2482 100.0 % | 21. | 24 |
| 307 | 287 64.3 | 102 22.9 | 55 12.3 | 2 0.4 | 0 0. | 0 0. | 446 100.0 % | 13. | 0 |
| 308 | 1066 38.2 | 1107 39.6 | 601 21.5 | 14 0.5 | 6 0.2 | 0 0. | 2794 100.0 % | 18. | 107 |
| 309 PB | 249 41.6 | 301 50.3 | 45 7.5 | 3 0.5 | 0 0. | 0 0. | 598 100.0 % | 16. | 108 |
| 309 SSB | 557 78.8 | 150 21.2 | 0 0. | 0 0. | 0 0. | 0 0. | 707 100.0 % | 9. | 371 |
| 312 | 56 20.7 | 32 11.8 | 134 49.4 | 30 11.1 | 19 7.0 | 0 0. | 271 100.0 % | 37. | 0 |
| 313 | 95 19.9 | 161 33.8 | 128 26.8 | 76 15.9 | 15 3.1 | 2 0.4 | 477 100.0 % | 34. | 7 |
| 314(1) | 1521 61.5 | 702 28.4 | 228 9.2 | 22 0.9 | 0 0. | 0 0. | 2473 100.0 % | 12. | 37 |
| 314(2) | 2668 54.4 | 1689 34.5 | 477 9.7 | 60 1.2 | 7 0.1 | 0 0. | 4901 100.0 % | 14. | 23 |
| 315 | 32 21.8 | 29 19.7 | 86 58.5 | 0 0. | 0 0. | 0 0. | 147 100.0 % | 26. | 13 |
| FERRY | 8432 44.4 | 6109 32.2 | 3863 20.4 | 435 2.3 | 131 0.7 | 2 0.0 | 18972 100.0 % | 18. | 739 |

Appendix 5.2.3 Railway Passenger Survey and Road Vehicle Survey

A. Railway Survey

1). Surveys

Origin-destination interview was carried out for departure passengers at Prome and Kyangin railway stations. As data of the number of tickets sold at Prome and Kyangin railway stations were given in the survey, the total number can be confirmed. Traffic counting was not conducted.

The survey was carried out on trains on a weekday. The survey locations are shown in Fig. 5.2.1.

Survey data : December 23, 1985 - Prome
December 26, 1985 - Kyangin

Survey hours : Prome railway station
Lv. 6:00 (Interview on the train)
Lv. 22:00 (Interview at the station)

Kyangin railway station
Lv. 5:00 (Interview on the train)
Lv. 13:00 (Interview at the station)
Lv. 13:40 (-do-)

Survey Location : 2 railway stations: Prome railway station on Rangoon-Prome line and Kyangin railway station on Bassein-Kyangin line.

Direction : Loading Direction

Interviewees : Railway passengers

The interview items to passengers were the same as that of the ferry passenger survey.

2). Survey Results

a) Passenger Traffic Volume

Appendix Table 5.2.3.1 shows the data of the number of tickets sold and the number of sample interviews at Prome and Kyangin railway stations.

Appendix Table 5.2.3.1 SOLD TICKETS AND INTERVIEWS

| Location | Name of Location | Number of Tickets Sold | Interview |
|----------|-------------------------|------------------------|-----------|
| 201 | Prome Railway Station | | |
| | Lv. 6:00 | 205 | 146 |
| | Lv. 22:00 | 274 | 128 |
| 202 | Kyangin Railway Station | 293 | 100 |
| | Lv. 5:00 | 293 | 100 |
| | Lv. 13:00 | 268 | 100 |
| | Lv. 13:40 | 133 | 48 |

b) Origin and Destination

Appendix Table 5.2.3.2 shows the railway passenger OD matrix in 1985/86 at Prome and Kyangin railway stations, respectively. The OD matrices were established by assuming that there were the same number of arriving passengers at these stations.

Of 479 departure passengers at Prome Station, 191 (40%) were within Zone 3 (Prome), 86 (9%) were to Zone 2 (Tharrawaddy) and 139 (29%) to Zone 17 (Rangoon). Those coming from the west side of the DIA and leaving the station by trains were 49 (10%).

At Kyangin Station, departing passengers were 694 with 3 trains. Of these passengers, 27 (4%) were to Zone 17 (Rangoon), while 426 (61%) were to Zone 16 (the southern part of Irrawaddy Division). There were 185 passengers (27%) who used trains only in Zone 1 (Kyangin and the surroundings).

c) Access and Egress

Access time to the station and its transportation modes are compared in Appendix Table 5.2.3.3. Egress time from station and its transportation modes are also compared in Appendix Table 5.2.3.4. Access time was 33 and 34 minutes at Prome and Kyangin, respectively. At Prome Station, 289 persons (64%) of the total 450 came to the station on foot, bicycles, and by trishaw and the number of persons coming across the river was 49 (10%). At Kyangin

Appendix Table 5.2.3.2 OD MATRICES IN 1985 (RAILWAY PASSENGERS)

| Location=201(Prome Railway Station) | (Unit=Passengers/day) | | | | | | | | | | | | | | | | | | | | Total |
|-------------------------------------|-----------------------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 9 |
| 02 Tharrawaddy | 0 | 0 | 86 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 |
| 03 Prome | 6 | 86 | 382 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 4 | 139 | 0 | 0 | 0 | 631 |
| 04 Padaung | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 6 | 0 | 0 | 24 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06 Thayet | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 12 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 Pakokku | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 12 Pegu | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 13 Mandalay | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 17 Rangoon | 3 | 0 | 139 | 8 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 160 |
| 18 Karen | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 9 | 98 | 631 | 24 | 0 | 12 | 2 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 8 | 160 | 6 | 0 | 0 | 958 |

| Location=202(Kyangin Railway Station) | (Unit=Passengers/day) | | | | | | | | | | | | | | | | | | | | Total |
|---------------------------------------|-----------------------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 370 | 0 | 19 | 18 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 280 | 27 | 0 | 0 | 0 | 724 |
| 02 Tharrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| 03 Prome | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 100 |
| 04 Padaung | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 43 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 06 Thayet | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 33 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 11 Pakokku | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 280 | 5 | 78 | 22 | 3 | 23 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 426 |
| 17 Rangoon | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 30 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 724 | 5 | 100 | 43 | 3 | 33 | 5 | 3 | 0 | 2 | 0 | 12 | 0 | 0 | 2 | 426 | 30 | 0 | 0 | 0 | 1388 |

Appendix Table 5.2.3.3 ACCESS TIME AND ACCESS MODE (RAILWAY PASSENGERS)

| | | LOCATION = 201 (EGRESS) | | | | | | | | |
|--------------------------|-------------------|-------------------------|-------|-------|--------|---------|---------|-------|---------|----------|
| MODE | TIME (in minutes) | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | TOTAL | AVERAGE | NO. ANS. |
| 1 WALKING | 75 | 78 | 38 | 4 | 2 | 0 | 197 | 20. | 0 | |
| | 38.1 | 39.6 | 19.3 | 2.0 | 1.0 | 0. | 100.0 X | | | |
| 2 BICYCLE , TRISHAW | 12 | 15 | 20 | 2 | 4 | 0 | 53 | 39. | 0 | |
| | 22.6 | 28.3 | 37.7 | 3.8 | 7.5 | 0. | 100.0 X | | | |
| 3 MOTORCYCLE | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 15. | 0 | |
| | 0. | 100.0 | 0. | 0. | 0. | 0. | 100.0 X | | | |
| 4 PASSENGER CARS , JEEPS | 0 | 6 | 36 | 0 | 2 | 0 | 44 | 36. | 0 | |
| | 0. | 13.6 | 81.8 | 0. | 4.5 | 0. | 100.0 X | | | |
| 5 BUSES , PICK-UPS | 11 | 22 | 61 | 4 | 2 | 0 | 100 | 31. | 0 | |
| | 11.0 | 22.0 | 61.0 | 4.0 | 2.0 | 0. | 100.0 X | | | |
| 6 TRUCKS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 | |
| | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | | |
| 7 RAILWAY | 2 | 0 | 6 | 0 | 0 | 2 | 10 | 170. | 0 | |
| | 20.0 | 0. | 60.0 | 0. | 0. | 20.0 | 100.0 X | | | |
| 8 Z-CRAFT , BOATS | 0 | 0 | 12 | 0 | 0 | 1 | 13 | 142. | 0 | |
| | 0. | 0. | 92.3 | 0. | 0. | 7.7 | 100.0 X | | | |
| 9 OTHERS | 6 | 6 | 7 | 0 | 0 | 0 | 19 | 19. | 0 | |
| | 31.6 | 31.6 | 36.8 | 0. | 0. | 0. | 100.0 X | | | |
| (TOTAL) | 106 | 129 | 180 | 10 | 10 | 3 | 238 | 33. | 0 | |
| | 24.2 | 29.5 | 41.1 | 2.3 | 2.3 | 0.7 | 100.0 X | | | |
| NO ANSWER | 16 | 18 | 4 | 3 | 0 | 0 | 41 | 19. | 0 | |
| | 39.0 | 43.9 | 9.8 | 7.3 | 0. | 0. | 100.0 X | | | |

| | | LOCATION = 202 (EGRESS) | | | | | | | | |
|--------------------------|------|-------------------------|-------|-------|--------|---------|---------|-------|---------|----------|
| MODE | | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | TOTAL | AVERAGE | NO. ANS. |
| 1 WALKING | 86 | 119 | 48 | 31 | 9 | 0 | 293 | 27. | 0 | |
| | 29.4 | 40.6 | 16.4 | 10.6 | 3.1 | 0. | 100.0 X | | | |
| 2 BICYCLE , TRISHAW | 47 | 121 | 65 | 9 | 0 | 0 | 242 | 23. | 0 | |
| | 19.4 | 50.0 | 26.9 | 3.7 | 0. | 0. | 100.0 X | | | |
| 3 MOTORCYCLE | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 25. | 0 | |
| | 0. | 100.0 | 0. | 0. | 0. | 0. | 100.0 X | | | |
| 4 PASSENGER CARS , JEEPS | 0 | 0 | 5 | 3 | 11 | 7 | 26 | 168. | 0 | |
| | 0. | 0. | 19.2 | 11.5 | 42.3 | 26.9 | 100.0 X | | | |
| 5 BUSES , PICK-UPS | 6 | 19 | 41 | 12 | 5 | 8 | 91 | 67. | 0 | |
| | 6.6 | 20.9 | 45.1 | 13.2 | 5.5 | 8.8 | 100.0 X | | | |
| 6 TRUCKS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 | |
| | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | | |
| 7 RAILWAY | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 30. | 0 | |
| | 0. | 0. | 100.0 | 0. | 0. | 0. | 100.0 X | | | |
| 8 Z-CRAFT , BOATS | 0 | 0 | 2 | 0 | 3 | 24 | 29 | 338. | 0 | |
| | 0. | 0. | 6.9 | 0. | 10.3 | 82.8 | 100.0 X | | | |
| 9 OTHERS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 | |
| | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | | |
| (TOTAL) | 139 | 261 | 164 | 55 | 28 | 39 | 286 | 49. | 0 | |
| | 20.3 | 38.0 | 23.9 | 8.0 | 4.1 | 5.7 | 100.0 X | | | |
| NO ANSWER | 2 | 2 | 0 | 0 | 2 | 2 | 8 | 143. | 0 | |
| | 25.0 | 25.0 | 0. | 0. | 25.0 | 25.0 | 100.0 X | | | |

Appendix Table 5.2.3.4 EGRESS TIME AND EGRESS MODE (RAILWAY PASSENGERS)

| LOCATION = 201 (ACCESS) | | | | | | | | | |
|---------------------------|-------------------|-------|-------|--------|---------|------|---------|---------|---------|
| MODE | TIME (in minutes) | | | | | | TOTAL | AVERAGE | NO ANS. |
| | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | | | |
| 1 WALKING | 98 | 110 | 19 | 6 | 1 | 0 | 234 | 17. | 0 |
| 2 BICYCLE , TRISHAW | 41.9 | 47.0 | 8.1 | 2.6 | 0.4 | 0. | 100.0 X | | |
| | 18 | 27 | 4 | 4 | 0 | 0 | 53 | 21. | 0 |
| 3 MOTORCYCLE | 34.0 | 50.9 | 7.5 | 7.5 | 0. | 0. | 100.0 X | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| 4 PASSENGER CARS , JEEPS | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | |
| | 2 | 6 | 12 | 4 | 8 | 2 | 34 | 98. | 0 |
| 5 BUSES , PICK-UPS | 5.9 | 17.6 | 35.3 | 11.8 | 23.5 | 5.9 | 100.0 X | | |
| | 2 | 18 | 26 | 17 | 2 | 0 | 65 | 44. | 0 |
| 6 TRUCKS | 3.1 | 27.7 | 40.0 | 26.2 | 3.1 | 0. | 100.0 X | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| 7 RAILWAY | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| 8 Z-CRAFT , BOATS | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | |
| | 0 | 3 | 30 | 2 | 12 | 0 | 47 | 70. | 0 |
| 9 OTHERS | 0. | 6.4 | 63.8 | 4.3 | 25.5 | 0. | 100.0 X | | |
| | 2 | 10 | 3 | 2 | 0 | 0 | 17 | 27. | 0 |
| (TOTAL) | 11.8 | 58.8 | 17.6 | 11.8 | 0. | 0. | 100.0 X | | |
| | 122 | 174 | 94 | 35 | 23 | 2 | 450 | 34. | 0 |
| NO ANSWER | 27.1 | 38.7 | 20.9 | 7.8 | 5.1 | 0.4 | 100.0 X | | |
| | 9 | 17 | 3 | 0 | 0 | 0 | 29 | 16. | 0 |
| | 31.0 | 58.6 | 10.3 | 0. | 0. | 0. | 100.0 X | | |

| LOCATION = 202 (ACCESS) | | | | | | | | | |
|---------------------------|-------------------|-------|-------|--------|---------|------|---------|---------|---------|
| MODE | TIME (in minutes) | | | | | | TOTAL | AVERAGE | NO ANS. |
| | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240- | | | |
| 1 WALKING | 81 | 138 | 17 | 16 | 0 | 0 | 252 | 19. | 0 |
| 2 BICYCLE , TRISHAW | 32.1 | 54.8 | 6.7 | 6.3 | 0. | 0. | 100.0 X | | |
| | 39 | 36 | 6 | 3 | 2 | 0 | 86 | 18. | 0 |
| 3 MOTORCYCLE | 45.3 | 41.9 | 7.0 | 3.5 | 2.3 | 0. | 100.0 X | | |
| | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 5. | 0 |
| 4 PASSENGER CARS , JEEPS | 100.0 | 0. | 0. | 0. | 0. | 0. | 100.0 X | | |
| | 6 | 9 | 9 | 3 | 20 | 20 | 67 | 138. | 0 |
| 5 BUSES , PICK-UPS | 9.0 | 13.4 | 13.4 | 4.5 | 29.9 | 29.9 | 100.0 X | | |
| | 3 | 12 | 55 | 33 | 35 | 63 | 201 | 188. | 0 |
| 6 TRUCKS | 1.5 | 6.0 | 27.4 | 16.4 | 17.4 | 31.3 | 100.0 X | | |
| | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 16. | 0 |
| 7 RAILWAY | 0. | 100.0 | 0. | 0. | 0. | 0. | 100.0 X | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| 8 Z-CRAFT , BOATS | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | |
| | 0 | 0 | 3 | 3 | 5 | 31 | 42 | 267. | 0 |
| 9 OTHERS | 0. | 0. | 7.1 | 7.1 | 11.9 | 73.8 | 100.0 X | | |
| | 21 | 6 | 8 | 5 | 0 | 0 | 40 | 21. | 0 |
| (TOTAL) | 52.5 | 15.0 | 20.0 | 12.5 | 0. | 0. | 100.0 X | | |
| | 153 | 204 | 98 | 63 | 62 | 114 | 694 | 94. | 0 |
| NO ANSWER | 22.0 | 29.4 | 14.1 | 9.1 | 8.9 | 16.4 | 100.0 X | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 0 |
| | 0. | 0. | 0. | 0. | 0. | 0. | n. | X | |

Station, 338 persons (49%) of the total 694 came on foot, bicycles and by trishaw. There were 42 persons (6%) who came to the station by ferry.

d) Trip Purpose

Trip purpose composition for passengers is shown in Appendix Table 5.2.3.5. Passenger trips for "shopping" and "home" have higher percentages than other purposes classified by total for the two railway stations giving a percentage composition of 23.4% and 20.4%, respectively.

Appendix Table 5.2.3.5 TRIP PURPOSE COMPOSITION (RAILWAY PASSENGERS)

| Purpose | 1 | 2 | 3 | 4 | 5 | 6 | 7 | TOTAL |
|----------|------|------|--------|---------|--------|------|--------|--------|
| Location | HOME | WORK | SCHOOL | WORKING | SHOPP. | FARM | OTHERS | |
| 201 | 123 | 85 | 8 | 36 | 1118 | 0 | 109 | 479 |
| | 25.7 | 17.7 | 1.7 | 7.5 | 24.6 | 0.0 | 22.8 | 100.0% |
| 202 | 115 | 70 | 61 | 84 | 155 | 3 | 218 | 686 |
| | 16.8 | 10.2 | 6.0 | 12.2 | 22.6 | 0.4 | 31.8 | 100.0% |
| RAIL | 238 | 155 | 49 | 120 | 273 | 3 | 327 | 1165 |
| (TOTAL) | 20.4 | 13.3 | 4.2 | 10.3 | 23.4 | 0.3 | 28.1 | 100.0% |

e) Waiting Time

Waiting time of departure for passengers at Prome railway station are shown in Appendix Table 5.2.3.6. Waiting time at Kyangin railway station is not available because surveyors neglected to fill in this item of survey form.

Average waiting time for all passengers at the Prome railway station is 31 minutes.

Appendix Table 5.2.3.6 WAITING TIME AT PROME RAILWAY STATION
(Railway Passenger)

| Location | Time (in minutes) | | | | | | TOTAL | AVERAGE | NO | ANS. |
|-----------------|-------------------|-------|-------|--------|---------|-------|--------|---------|-----|------|
| | 1-15 | 15-30 | 30-60 | 60-120 | 120-240 | 240-- | | | | |
| 201 | 76 | 191 | 171 | 15 | 26 | 0 | 479 | 31. | 0 | |
| | 15.9 | 39.9 | 35.7 | 3.1 | 5.4 | 0. | 100.0% | | | |
| 202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0. | 694 | |
| | 0. | 0. | 0. | 0. | 0. | 0. | 0. % | | | |
| RAIL (TOTAL) | 76 | 91 | 171 | 15 | 26 | 0 | 479 | 31. | 694 | |
| | 15.9 | 39.9 | 35.7 | 3.1 | 5.4 | 0. | 100.0% | | | |

B. Roadside OD Interview Survey

1). Surveys

Roadside OD interview survey comprised two kinds of surveys as follows:

- Roadside OD interview survey, and
- Traffic counting

The survey was conducted at three roadsides on two weekdays with details as follows. The survey location is shown in Fig. 5.2.1.

- Survey date : December 23 and 26, 1985
- Survey hour : 12 hours from 6:00 to 18:00
- Survey location : 1. Shwedaung Ferry Junction on Rangoon-Prome Road, M1 174. No. 101
2-1. Okshitpin Junction on the road to Padaung (east side) No. 105
2-2. Okshitpin Junction on Western Highway (north side) No. 106
- Direction : Both directions
- Type of vehicles : 1. Motorcycles
2. Passenger cars and Jeeps
3. Buses and Pick-ups

4. Light trucks
5. Heavy trucks

Interview : At survey locations, policemen were stationed at roadsides to stop vehicles for an interview. Interview was conducted on those halted vehicles. The following types of special vehicles were not stopped for interview but were included in the traffic count survey as indicated:

1. Army vehicles
2. Trucks for construction

The interview items were origin, destination, trip purpose, etc. The interview form is shown in Appendix Table 5.2.1.2.

2). Survey Results

Cross-sectional traffic volumes and the numbers of interviewed samples are shown in Appendix Table 5.2.3.11.

a) Origin and Destination

Appendix Table 5.2.3.7 shows the vehicle OD matrices per day in 1985/86 based on the results of the roadside OD interview survey. Three types of OD matrices, passenger cars (consisting of cars and Jeeps), buses (consisting of pick-ups and buses) and trucks (consisting of light trucks and heavy trucks) are considered as the basic type of motor vehicles as shown in the matrices.

b) Trip Purpose

Trip purpose composition on vehicle passengers is shown in Appendix Table 5.2.3.8. Passenger trips for "working" have the highest percentage among the purposes classified by total for the three roadsides giving a composition of 47.9%.

Appendix Table 5.2.3.7 OD MATRICES IN 1985 (ROAD) (1)

| | Location=101 Passenger Cars | | | | | | | | | | | | | | | | | | | | Total |
|----------------|-----------------------------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 02 Tharrawaddy | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 03 Prome | 0 | 2 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 113 |
| 04 Padaung | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Rangoon | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salangyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 2 | 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 132 |

| | Location=101 Buses | | | | | | | | | | | | | | | | | | | | Total |
|----------------|--------------------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02 Tharrawaddy | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 Prome | 0 | 13 | 338 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 0 | 25 |
| 04 Padaung | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 410 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07 Magwe | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 6 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Rangoon | 0 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salangyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 14 | 386 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 63 | 0 | 0 | 0 | 0 | 472 |

Appendix Table 5.2.3.7 OD MATRICES IN 1985 (ROAD) (2)

| | Location=101 Trucks | | | | | | | | | | | | | | | | | | | | Total | |
|----------------|---------------------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|-----|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02 Tharrawaddy | 0 | 3 | 17 | 0 | 3 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| 03 Prome | 3 | 6 | 245 | 2 | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 300 |
| 04 Padaung | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 |
| 05 Myede | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 11 |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07 Magwe | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 63 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| 10 Nyaung U | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Rangoon | 0 | 0 | 19 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3 | 20 | 300 | 2 | 11 | 0 | 70 | 0 | 0 | 3 | 0 | 9 | 3 | 0 | 0 | 96 | 0 | 0 | 0 | 0 | 0 | 517 |

| | Location=101 All Vehicles | | | | | | | | | | | | | | | | | | | | Total | |
|----------------|---------------------------|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|-------|------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | |
| 01 Kyangin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| 02 Tharrawaddy | 0 | 3 | 45 | 0 | 3 | 0 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 |
| 03 Prome | 3 | 21 | 674 | 2 | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 823 |
| 04 Padaung | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 9 |
| 05 Myede | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 11 |
| 06 Thayet | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07 Magwe | 0 | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 0 | 72 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| 10 Nyaung U | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 10 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 Rangoon | 0 | 0 | 48 | 0 | 2 | 0 | 24 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 77 |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3 | 36 | 790 | 2 | 13 | 0 | 72 | 0 | 0 | 3 | 1 | 11 | 3 | 0 | 0 | 187 | 0 | 0 | 0 | 0 | 0 | 1121 |

Appendix Table 5.2.3.7 OD MATRICES IN 1985 (ROAD) (3)

| | Location=105/106 Passenger Cars | | | | | | | | | | | | | | | | | | | | Total |
|----------------|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 7 | |
| 02 Tharravaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 03 Prome | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 04 Padaung | 3 | 0 | 4 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 95 | |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 09 Sandoway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 16 Irrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 17 Rangoon | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 20 Salinsyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total | 10 | 0 | 4 | 86 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 115 | |

| | Location=105/106 Buses | | | | | | | | | | | | | | | | | | | | Total |
|----------------|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-------|
| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 01 Kyangin | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 14 | |
| 02 Tharravaddy | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| 03 Prome | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | |
| 04 Padaung | 32 | 0 | 4 | 59 | 0 | 18 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 122 | |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 06 Thayet | 0 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 10 | |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 09 Sandoway | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 16 Irrawaddy | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | |
| 17 Rangoon | 2 | 0 | 0 | 6 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | |
| 18 Karen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 20 Salinsyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total | 35 | 0 | 6 | 91 | 0 | 18 | 9 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 6 | 0 | 0 | 183 | |

Appendix Table 5.2.3.7 OD MATRICES IN 1985 (ROAD) (4)

Location=105/106 Trucks

| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|----------------|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| 01 Kyangin | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 02 Tharrawaddy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03 Prome | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04 Padaung | 6 | 0 | 7 | 255 | 0 | 18 | 0 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 299 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06 Thayet | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 |
| 09 Sandoway | 0 | 0 | 4 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 26 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 Rakhine | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 16 Irrawaddy | 0 | 0 | 4 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 17 Rangoon | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 18 Karen | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 36 | 0 | 31 | 287 | 0 | 36 | 0 | 0 | 12 | 0 | 1 | 7 | 0 | 0 | 0 | 6 | 23 | 0 | 0 | 0 | 439 |

Location=105/106 All Vehicles

| | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|----------------|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| 01 Kyangin | 0 | 0 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 37 |
| 02 Tharrawaddy | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 03 Prome | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 04 Padaung | 43 | 0 | 15 | 393 | 0 | 36 | 0 | 0 | 9 | 0 | 1 | 0 | 0 | 0 | 2 | 6 | 11 | 0 | 0 | 0 | 516 |
| 05 Myede | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06 Thayet | 0 | 0 | 0 | 7 | 0 | 18 | 7 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 40 |
| 07 Magwe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08 Minbu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09 Sandoway | 0 | 0 | 6 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 |
| 10 Nyaung U | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 32 |
| 11 Pakokku | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 Pegu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 Mandalay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 Chin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15 Rakhine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 Irrawaddy | 0 | 0 | 4 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 17 Rangoon | 13 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 18 Karen | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 |
| 19 Sagaing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 Salingyi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 81 | 0 | 41 | 464 | 0 | 54 | 9 | 0 | 32 | 0 | 1 | 7 | 0 | 0 | 2 | 7 | 39 | 0 | 0 | 0 | 737 |

Note: Data obtained from the OD interview survey at loctions 105 and 106 were combined by using computer.

Appendix Table 5.2.3.8 TRIP PURPOSE COMPOSITION (ROAD)

| Purpose | 1 | 2 | 3 | 4 | 5 | 6 | 7 | TOTAL NO ANS. | |
|-----------------|------------|--------------|------------|--------------|--------------|------------|--------------|-----------------|-----|
| Location | HOME | WORK | SCHOOL | WORKING | SHOPP. | FARM | OTHERS | | |
| 101 | 328 3.0 | 681 6.1 | 332 3.0 | 5582 50.3 | 3500 31.5 | 89 0.8 | 583 5.3 | 11095 100.0% | 312 |
| 105+106 | 409 4.1 | 1594 15.8 | 28 0.3 | 4561 45.2 | 1355 13.4 | 440 4.4 | 1695 16.8 | 10082 100.0% | 0 |
| ROAD (TOTAL) | 737 3.5 | 2275 10.7 | 360 1.7 | 10143 479 | 4855 22.9 | 529 2.5 | 2278 10.8 | 21177 100.0% | 312 |

c) Commodities Carried by Trucks

Classification of the commodities carried by trucks is the same as that of carried by Z-craft ferries. Appendix Table 5.2.3.9 shows the movement of commodities carried by trucks, summarized from the result of the OD interview survey.

Appendix Table 5.2.3.9 COMMODITIES CARRIED BY TRUCKS (ROAD)

| Commodities | North-bound | South-bound | Total |
|------------------------------|-------------|-------------|----------|
| Location = 101 | Vehicles | Vehicles | Vehicles |
| 1 Food Grains | 90 | 30 | 120 |
| 2 Fruits and Vegetables | 0 | 24 | 24 |
| 3 Fuels | 9 | 9 | 18 |
| 4 Timber, Bamboo | 3 | 3 | 6 |
| 5 Machinery and Manufactures | 0 | 3 | 3 |
| 6 Stones, Earth, Cement | 0 | 16 | 16 |
| 7 Cotton, Tobacco | 6 | 0 | 6 |
| 8 Textile, Clothes | 0 | 0 | 0 |
| 9 Others | 27 | 54 | 81 |
| (Total) | 135 | 139 | 274 |
| 0 Empty | 0 | 0 | 0 |
| No Answer | 3 | 7 | 10 |

| Commodities | North-bound | South-bound | Total |
|------------------------------|-------------|-------------|----------|
| Location = 105+106 | Vehicles | Vehicles | Vehicles |
| 1 Food Grains | 36 | 12 | 48 |
| 2 Fruits and Vegetables | 0 | 0 | 0 |
| 3 Fuels | 7 | 36 | 43 |
| 4 Timber, Bamboo | 55 | 11 | 66 |
| 5 Machinery and Manufactures | 3 | 18 | 21 |
| 6 Stones, Earth, Cement | 15 | 0 | 15 |
| 7 Cotton, Tobacco | 0 | 0 | 0 |
| 8 Textile, Clothes | 0 | 0 | 0 |
| 9 Others | 34 | 76 | 110 |
| (Total) | 150 | 153 | 303 |
| 0 Empty | 0 | 0 | 0 |
| No Answer | 0 | 6 | 6 |
| Location = Road (Total) | Vehicles | Vehicles | Vehicles |
| 1 Food Grains | 126 | 42 | 168 |
| 2 Fruits and Vegetables | 0 | 24 | 24 |
| 3 Fuels | 16 | 45 | 61 |
| 4 Timber, Bamboo | 58 | 14 | 72 |
| 5 Machinery and Manufactures | 3 | 21 | 24 |
| 6 Stones, Earth, Cement | 15 | 16 | 31 |
| 7 Cotton, Tobacco | 6 | 0 | 6 |
| 8 Textile, Clothes | 0 | 0 | 0 |
| 9 Others | 61 | 130 | 191 |
| (Total) | 285 | 292 | 577 |
| 0 Empty | 0 | 0 | 0 |
| No Answer | 3 | 13 | 16 |

d) Passenger Occupancy

Passenger occupancy on each types of vehicles is summarized as shown in Appendix Table 5.2.3.10. Passenger occupancy of buses (buses and pick-ups) on the roads is higher than those on the ferries.

Passenger occupancy of trucks is high compared with ones in other countries. It is common for trucks to carry passengers with cargoes.

Appendix Table 5.2.3.10 PASSENGER OCCUPANCY (ROAD)

| Type of Vehicle | Vehicles | Passen- gers | Average | No Answer |
|------------------|----------|-----------------|---------|-----------|
| 1 Motorcycle | 59 | 103 | 1.7 | 0 |
| 2 Passenger Cars | 247 | 1116 | 4.5 | 0 |
| 3-1 Buses | 401 | 10842 | 27.0 | 0 |
| 3-2 Pick-ups | 254 | 2444 | 9.6 | 0 |
| 3 (Buses) | 655 | 13286 | 20.3 | 0 |
| 6 Trucks | 871 | 7087 | 8.1 | 85 |
| (Total) | 1832 | 21592 | 11.8 | 85 |

C. Traffic Counting on Roads

1). Surveys

The surveys were conducted at seven road cross-sections on the major roads on both sides of Irrawaddy River on two weekdays as follows. The locations are shown in Fig. 5.2.1.

- Survey date : December 23 and 26, 1985
- Survey hours : 12 hours from 6:00 - 18:00 and 24 hours from 6:00 - 6:00 (No. 101)
- Survey location : Both directions
- Type of vehicles :
- 1. Motorcycle
 - 2. Passenger cars, Jeeps
 - 3. Pick-ups, Buses
 - Motor vehicles 4. Light trucks
 - 5. Heavy trucks
 - 6. Others
 - 7. Trishaws, Bicycles
 - Others 8. Ox and Horse carts

The form used for recording the traffic volume is attached in Appendix Table 5.2.1.4.

2). Survey Results

Cross-sectional traffic volume counted at each location is shown in Appendix Table 5.2.3.11.

Appendix Table 5.2.3.11 RESULTS OF TRAFFIC COUNT SURVEY

| Location No. | Name of Location | Counted (Veh./12 hrs) (Only Motor Vehicles) | Interview |
|--------------|--|--|-----------|
| 101 | Shwedaung Jetty J/C | 857 | 775 |
| 102 | Prome, Myede, Paukaung J/C (Prome - Paukaung Rd.) | *(1,269) 348 | - |
| 103 | -do- (Prome - Mandalay Rd.) | 469 | - |
| 104 | Okshitpin J/C (South) | 766 | - |
| 105 | -do- (East) | 437 | 385 |
| 106 | -do- (North) | 111 | 110 |
| 107 | -do- (West) | 216 | - |

Note: * The figure in parentheses is 24 hour traffic volume.

Appendix Table 5.3.1.1 RIVER CROSSING CARGOES BY FERRIES

| Interviews | | | | |
|-------------------------|-------------------------|---------------------------|----------------------|--------------|
| Crossings | Sources | Persons Carried | Tons Carried | Tons/Persons |
| Monywa - Salingyi | Monywa Township | 1,450,000/Yr = 4,000/d | 72,300/Yr = 198/d | 0.049 |
| Prome - Sinde | Jetties & Markets | 4,000/d | 130t/d | 0.030 |
| Magwe - Minbu | Jetties & boatmen | 2,000/d | 50t/d | 0.025 |
| Yenanchaung | Jetties & boatmen | 450/d | 30t/d | 0.065 |
| Total | | 14,450/d | 408t/d | 0.039 |
| | | Passengers per day * | Tons/person | Tons/day |
| Eight Crossing Total | Approximately 20,250 | | 0.039 | 789.8 |

* Based on the traffic surveys stated in 5.2 of Chapter 5.

Remark: Those who gave the data are shown in the Table. It was difficult to get similar data in other routes, no statistical data were shown. Accordingly, the above average figure of 0.04 ton/person day is used to estimate the total volume of cargoes in both directions carried by various types of ferry boats. Cargoes carried by vehicles on Z-craft are not included.

Appendix Table 5.3.3.1 TRANSPORT MODES OF ENTERPRISES ON THE RIVER BANK

| Zone Town | 4 | | | | | | | | | | | | | |
|-----------------------------------|---------|-----|-----------------------|-----------------|---------|--------|--------|---|-------|----|------|----|----------------------|-----|
| | Padaung | | Thayet | | Malon | | Minlha | | Chank | | Wazi | | Kyun Chaung Salingyi | |
| Enterprise Outputs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Vehicles, engines | | | Electric Eq. cable | Cement | | | | | | | | | | |
| Machine engine | | | | | | | | | | | | | | |
| Tractors, batteries | | | | | | | | | | | | | | |
| Oil refine | | | | | | | | | | | | | | |
| Bank notes | | | | | | | | | | | | | | |
| fertilizer concentrate | | | | | | | | | | | | | | |
| A) Modal distribution in percent | | | | | | | | | | | | | | |
| -1 Input 1) | | | | | | | | | | | | | | |
| Boat-rail | | | | | | | | | | | | | | 25 |
| Truck (2-craft) | 25 | 9 | 2 | | 7 | | | | | | | | | 50 |
| Boat-truck | 75 | 91 | 98 | S 88 2) L 12 | 93 | 8 | | | 73 | | 40 | | | 25 |
| Boat | | | | | | 92 | | | 23 | | 60 | | | |
| -2 Output | | | | | | | | | | | | | | |
| Boat-rail | | | | | | | | | | | | | | |
| Truck (2-craft) | 40 | 100 | | | 26 | | | | | | | | | |
| Boat-truck | 60 | | S 80 2) L 20 | | 74 | 8 | 100 | | 82 | 1 | | | | 100 |
| Boat | | | | 100 | | 92 | | | 18 | | 99 | | | |
| B) Nos of trips by boat per month | | | | | | | | | | | | | | |
| Arrive | | | 4 | | 3 | 180 | | | 2 | | 35 | | | 25 |
| Depart | | | 3 | | 3 | 180 | | | 2 | | 35 | | | 25 |
| C) Main destination/origin 3) | | | | | | | | | | | | | | |
| Input from | RGN, P | | | MDY, RGN | RGN | | | | | | | | RGN | |
| Output | RGN | | | RGN | AMD, CO | RGN, P | MGW, P | | RGN | AC | | | RGN, MDY | |

Source : from each enterprise through CC-MOC, (April 1986)

Notes : 1) Locally produced input materials, such as lime stone, crude oil, etc. are not shown.

2) S means short distant haulage and L means long distant haulage.

3) RGN - Rangoon, P - Prome, MDY - Mandalay, AMD - Agriculture Mechanization Dept.,
Co - Cooperative, AC - Agriculture Corporation.

Appendix Table 5.3.3.2 COMPARISON OF TRANSPORT FARE
(FREIGHT) (KYAT PER TON)

| | | | RGN - Prome | | RGN - Magwe | | RGN - Nyaung U | |
|---------------|-------|--------------------|-------------|--------|-------------|--------|-----------------|--------|
| | | | ml | Fare | ml | Fare | ml | Fare |
| Rice | Road | RTC Truck | 180 | 109.00 | 331 | 192.00 | 412 | 237.00 |
| | Rail | BRC Wagon | 161 | 30.17 | - | - | - | - |
| | River | IWTC Barge | 260 | 23.96 | 374 | 32.04 | 475 | 39.51 |
| Fertilizer | Road | RTC Truck | 180 | 107.00 | 331 | 185.00 | 412 | 227.00 |
| | Rail | BRC Wagon | 161 | 30.17 | - | - | - | - |
| | River | IWTC barge | 260 | 20.84 | 374 | 27.38 | 475 | 33.91 |
| Cement | Road | RTC Truck | 180 | 107.00 | 331 | 185.00 | 412 | 227.00 |
| | Rail | BRC Wagon | 161 | 30.17 | - | - | - | - |
| | River | IWTC Barge | 260 | 20.84 | 374 | 27.38 | 475 | 33.91 |
| General Cargo | Road | Private Truck | 180 | 144.00 | 331 | 278.00 | 475 | 556.00 |
| | Rail | BRC Wagon | 161 | 62.88 | - | - | - | - |
| | River | Private Barge | 260 | 46.67 | 374 | 61.91 | 475 | 77.47 |
| Timber | Road | RTC Truck | 180 | 96.00 | - | - | Mandalay 430 | 229.00 |
| | Rail | BRC Wagon | 161 | 25.00 | - | - | 385 | 33.24 |
| | River | Timber Corporation | - | - | - | - | 500 | 10.00 |

Remarks : Calculation by using fare-distance tables of each Corporation.

River : Average ship size : 220 ton capacity.
Miles are quoted from freight rate calculation table of IWTC.

Rail : Covered wagon : 30 ton capacity

Road : A 6.5 ton truck RTC. But General cargo is assumed to be carried by private trucks.

Appendix Table 5.4.2.1 TRAFFIC COUNTING, 1980 - 1985

| | Type | 1980 | | 1981 | | 1982 | | 1983 | | 1984 | | 1985 | |
|----------------------------------|------|-----------|-------|-----------|-------|------------|-------|-----------|-------|----------------------------|-------|-----------|-------|
| | | Mile Post | | Mile Post | | Mile Post | | Mile Post | | Mile Post | | Mile Post | |
| Pegu (RGN-Mandalay) | P.V | 53/3 | 2,604 | - | - | 35/7 | 1,357 | 35/7 | 1,974 | 35/7 | 2,089 | 35/7 | 2,452 |
| | S.V | - | 95 | - | - | - | 764 | - | 694 | - | 602 | - | 663 |
| Pegu (RGN-Mandalay) | P.V | 48/0 | 1,630 | - | - | 48/0 | 5,036 | 49/4 | 3,131 | 49/6 | 4,524 | 49/6 | 3,775 |
| | S.V | - | 269 | - | - | - | 2,038 | - | 4,575 | - | 6,648 | - | 2,828 |
| Taungoo (RGN-Mandalay) | P.V | - | - | - | - | - | - | 60/4 | - | 60/4 | 1,683 | - | - |
| | S.V | - | - | - | - | - | - | - | - | - | 601 | - | - |
| Meikhtila (RGN-Mandalay) | P.V | 175/5 | 1,370 | - | - | - | - | 175/6 | - | 175/6 | 1,367 | - | - |
| | S.V | - | 587 | - | - | - | - | - | - | - | 1,282 | - | - |
| Kyaukpadaung (Magwe-Mandalay) | P.V | - | - | 172/3 | 2,022 | - | - | 172/3 | - | 172/3 | 1,424 | - | - |
| | S.V | - | - | - | 1,100 | - | - | - | - | - | 1,487 | - | - |
| Myede (Promwe-Magwe) | P.V | - | - | 343/5 | 861 | - | - | 345/0 | 1,275 | - | - | - | - |
| | S.V | - | - | 29 | - | - | - | 364 | - | - | - | - | - |
| Kyaukpadaung (Magwe-Mandalay) | P.V | - | - | 396/0 | 691 | Peinhnedaw | 401/0 | 666 | 666 | Kyaukpadaung (Entrance) | 612 | 398/7 | 529 |
| | S.V | - | - | 345 | - | 959 | - | 410 | - | 665 | - | - | 392 |
| Myede (Promwe-Magwe) | P.V | - | - | - | - | Sebauk | 396/4 | 824 | 824 | 396/0 | 668 | 396/7 | 573 |
| | S.V | - | - | - | - | 250 | - | 134 | 134 | 720 | - | - | 77 |
| | | | | | | | | | | | | 220/4 | 388 |
| | | | | | | | | | | | | | 856 |

Notes: P.V as powered vehicles, S.V as slow moving non-powered vehicles.
Source: Construction Corporation (June, 1986).

Appendix Table 5.4.2.2 TRANSPORT ACTIVITIES OF THE COUNTRY

| | 1975/76 | 1980/81 | 1982/83 | 1985/86 ¹ | Per annum growth (%) | | |
|--|-----------|-----------|-----------|----------------------|----------------------|--------------------|--------------------|
| | | | | | 1975/76 to 1980/81 | 1980/81 to 1982/83 | 1982/83 to 1985/86 |
| Transport Sector | 585.1 | 763.6 | 926.9 | 1,071.9 | 6.1 | 7.0 | 5.0 |
| GDP | 11,561.7 | 15,717.6 | 1,765.3 | 20,674.6 | 6.0 | 5.6 | 5.4 |
| In million Kyat, 1969/70 prices | | | | | | | |
| Freight in '000 tons (internal movement) | 47,596 | 68,580 | 77,416 | 88,241 | 6.4 | 5.2 | 4.5 |
| Passengers, domestic ² ('000 persons) | 215,232 | 215,166 | 241,611 | 229,533 | 0.6 | 1.3 | -1.7 |
| ('000 pass miles) | 2,911,161 | 3,185,301 | 3,516,345 | 3,642,271 | 2.3 | 2.7 | 1.2 |

Source: Reports to the Pyithu Hluttaw

- 1 Provisional
- 2 BRC, IWTC, RTC. Private operators are not covered.

Appendix Table 5.4.4.1 INPUT DATA ON THE TRANSPORTATION NETWORK

| | Ferries | Roads | Railways |
|------------------------------|--|--|--|
| A. Direction Estimate | | | |
| 1 Travelling | | | |
| - average speed | Crossing time, Appendix Tables 10.2.1.1 and 10.2.1.3 | 25 m /H on surfaced roads 10 m /H on earth-gravel roads | - 20 m /H |
| - waiting time | At Jetties Passengers: Appendix Table 10.2.1.3 Cargo: Twice of passenger Vehicle: Appendix Table 10.2.1.1 | | At railway station Passenger: 30 minutes/ Cargo: four times of passenger |
| 2 Fares | | | |
| | Passenger on boats: Appendix Table 10.2.1.3 Cargo: K 150/3.8 tons per boat and transfer cost K 1/80 kg on and off the boat. Vehicles: Appendix Table 10.2.1.1 | Passenger on bus K 0.12/m Cargo, vehicle's time cost is used (Appendix Table 10.2.2.4) | Passenger: K 0.068/m Cargo: K 0.405/m per ton and transfer cost K 1.-/80 kg on and off the wagon. |
| 3 Time value | | | |
| | Passenger: 1983/84, K 2.67/H per person Cargo: no value | Passenger: 1983/84 K 2.67/H per person Cargo: no value | Passenger: 1983/84 K 2.67/H per person Cargo: no value |
| 4 Others | | | |
| | Approach service to the jetty use the same data of roads. | Average loading Bus: 22.6 persons Pick-up bus: 9.7 persons Small vehicle: 7.0 persons Truck: 3.3 tons | Approach service to the station uses the same data of roads. |
| B. Economic analysis | | | |
| Economic cost | | | |
| | Passenger boat: Appendix Table 10.2.1.4 Cargo: half of the passenger boat Z-craft: Appendix Table 10.2.1.2 | Vehicle operating cost: Appendix Table 10.2.2.4 Small vehicle K 1.15/m Pick-up bus K 1.31/m Bus K 2.64/m Truck K 2.80/m | Train: Appendix Table 10.2.3.2 K 0.044/seat per mile K 0.236/ton per mile |

Note: 1 After determining the minimum path with and without the Bridge Project, the input data of A2 Fares are replaced by the economic cost. Without changing the other data and conditions, the economic savings in transport cost are estimated by comparing with and without the Project.

Appendix Table 5.4.4.2 OVERALL ZONE-PAIR TRIPS, PASSENGERS IN 1993/94

(A : Total)

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|-----|-----|------|------|-----|------|-----|------|-----|------|------|----|-----|-----|-------|-------|
| 2 | 3 | 0 | 54 | 3 | 1 | 3 | 2 | 10 | 3 | 1 | - | - | 4 | 18 | 2 | 113 |
| 3 | 15 | 304 | 4159 | 436 | 7 | 94 | 12 | 44 | 174 | 72 | 8 | - | 14 | 107 | 2 | 5448 |
| 5 | 3 | 18 | 90 | 3181 | 5 | 28 | 1 | - | 2 | 7 | - | - | 7 | 10 | 1 | 3360 |
| 7-0 | 16 | 4 | 38 | 230 | 76 | 3798 | 10 | 8 | 1 | 220 | 45 | 1 | 34 | 21 | 5 | 4558 |
| 7-1 | 3 | 3 | 1 | 4 | 469 | 69 | 2 | 1 | - | 3 | 1 | - | 11 | 4 | 1 | 572 |
| 7-2 | 3 | 1 | - | 1 | 5 | 26 | 373 | 5 | - | 42 | 2 | - | 6 | 2 | 1 | 467 |
| 7-3 | 7 | - | - | 1 | 1 | 7 | 3 | 2384 | - | 187 | 4 | - | 3 | 1 | 3 | 2581 |
| 10 | 50 | 2 | 1 | 3 | 5 | 82 | 30 | 118 | 1 | 387 | 328 | 3 | 18 | 14 | 17 | 1037 |
| 12 | - | 4 | 14 | 17 | - | 5 | - | - | - | 8 | - | - | 1 | - | - | 49 |
| 13 | 29 | 4 | 2 | 72 | 3 | 72 | 14 | 41 | 1 | 75 | 17 | 2 | 21 | 13 | 395 | 761 |
| 17 | 24 | 161 | 147 | 111 | 9 | 118 | 7 | 19 | 83 | 120 | 25 | 2 | 74 | 105 | 228 | 1231 |
| 18 | - | - | - | 12 | - | - | - | - | - | - | - | - | - | - | 17 | 29 |
| 19 | - | 6 | 2 | 6 | 2 | 20 | 15 | 5 | 1 | 406 | 18 | 20 | 34 | 18 | 10361 | 10912 |
| Total | 153 | 516 | 4518 | 4077 | 583 | 4320 | 469 | 2633 | 266 | 1488 | 448 | 28 | 275 | 311 | 11031 | 31116 |

THROUGH ROAD BRIDGE, PASSENGERS

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|----|-----|------|------|-----|-----|-----|-----|-----|------|------|----|----|-----|-----|-------|
| 2 | 2 | 4 | 24 | 2 | 1 | 2 | 1 | 5 | 1 | 1 | - | - | 3 | 8 | 2 | 56 |
| 3 | 9 | 127 | 1366 | 435 | 5 | 72 | 8 | 20 | 80 | 48 | 4 | - | 9 | 53 | 1 | 2237 |
| 5 | 1 | 13 | 75 | 627 | - | 4 | - | - | 7 | 3 | - | - | 3 | 6 | - | 734 |
| 7-0 | - | 2 | 17 | 1 | - | - | - | - | - | - | - | - | - | 9 | - | 29 |
| 7-1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 2 | - | 4 |
| 7-2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 1 |
| 7-3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 10 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 7 | - | 8 |
| 12 | - | 2 | 7 | 11 | - | 3 | - | - | - | 3 | - | - | 1 | - | - | 27 |
| 13 | - | 2 | 1 | 21 | - | - | - | - | - | - | - | - | - | 6 | - | 30 |
| 17 | 14 | 78 | 69 | 70 | 6 | 68 | 4 | 9 | 40 | 68 | 11 | 1 | 44 | 51 | 128 | 661 |
| 18 | - | - | - | 8 | - | - | - | - | - | - | - | - | - | - | 9 | 17 |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 26 | 231 | 1559 | 1175 | 12 | 149 | 13 | 34 | 123 | 123 | 15 | 1 | 60 | 143 | 140 | 3804 |

THROUGH RAIL-CUM-ROAD BRIDGE, ROADS, PASSENGERS

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|----|-----|-----|-----|-----|-----|-----|-----|----|------|------|----|----|----|----|-------|
| 2 | 1 | 2 | 11 | 2 | - | 1 | - | 2 | - | - | - | - | 2 | 5 | 1 | 27 |
| 3 | 5 | 70 | 760 | 200 | 3 | 49 | 4 | 10 | 50 | 43 | 2 | - | 5 | 38 | - | 1239 |
| 5 | - | 7 | 37 | 325 | - | 2 | - | - | 1 | 1 | - | - | 1 | 3 | - | 377 |
| 7-0 | - | 1 | 14 | 1 | - | - | - | - | - | - | - | - | - | 5 | - | 21 |
| 7-1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 2 |
| 7-2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 7-3 | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 | - | 4 |
| 10 | - | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | 16 |
| 12 | - | 1 | 7 | 5 | - | 1 | - | - | - | - | - | - | - | 3 | - | 18 |
| 13 | - | 1 | 1 | 13 | - | - | - | - | - | - | - | - | 23 | 30 | 73 | 396 |
| 17 | 8 | 59 | 43 | 32 | 3 | 32 | 2 | 5 | 27 | 53 | 6 | - | 23 | 30 | 4 | 8 |
| 18 | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 14 | 142 | 873 | 582 | 6 | 85 | 6 | 17 | 78 | 99 | 8 | - | 31 | 89 | 78 | 2108 |

THROUGH RAIL-CUM-ROAD BRIDGE, RAILWAYS, PASSENGERS

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|----|-----|-----|-----|-----|-----|-----|-----|----|------|------|----|----|----|----|-------|
| 2 | 1 | 3 | 19 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | - | - | 1 | 4 | 1 | 38 |
| 3 | 5 | 89 | 835 | 236 | 2 | 25 | 4 | 10 | 33 | 5 | 2 | - | 4 | 18 | 1 | 1267 |
| 5 | 1 | 7 | 39 | 335 | - | 2 | - | - | 1 | 2 | - | - | 2 | 3 | - | 392 |
| 7-0 | - | 1 | 4 | - | - | - | - | - | - | - | - | - | - | 4 | - | 9 |
| 7-1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 2 |
| 7-2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 1 |
| 7-3 | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | - | 4 |
| 10 | - | 1 | - | - | - | - | - | - | - | 2 | - | - | - | 1 | - | 13 |
| 12 | - | 1 | - | 7 | - | 2 | - | - | - | - | - | - | - | 3 | - | 12 |
| 13 | - | 1 | - | 3 | - | - | - | - | - | - | - | - | - | 28 | 70 | 372 |
| 17 | 7 | 31 | 42 | 57 | 4 | 51 | 3 | 6 | 18 | 20 | 7 | 1 | 27 | 28 | 5 | 9 |
| 18 | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 14 | 135 | 939 | 648 | 7 | 81 | 8 | 19 | 53 | 30 | 9 | 1 | 35 | 63 | 77 | 2119 |

Appendix Table 5.4.4.3 OVERALL ZONE-PAIR CARGO MOVEMENT IN TONS, 1993/94

(A : Total)

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|------|------|-------|-------|------|-------|------|------|-------|-------|------|-----|------|------|-------|--------|
| 2 | 1.3 | 1.4 | 6.8 | 0.5 | 0.2 | 0.3 | 0.1 | - | 0.4 | 0.5 | - | 0.1 | 1.3 | 3.8 | 0.4 | 17.1 |
| 3 | 2.0 | 11.3 | 282.0 | 17.1 | 0.4 | 11.7 | 0.3 | 1.0 | 104.2 | 11.7 | 0.1 | 0.2 | 2.4 | 8.7 | 0.6 | 453.7 |
| 5 | 0.7 | 1.1 | 11.3 | 64.9 | 0.5 | 18.5 | 0.2 | - | 0.2 | 0.3 | - | 0.1 | 1.0 | 2.0 | 0.3 | 99.1 |
| 7-0 | 2.5 | 23.5 | 0.8 | 68.1 | 6.1 | 98.2 | 1.1 | 0.5 | 0.3 | 109.2 | 1.3 | 0.3 | 6.0 | 2.3 | 0.8 | 321.0 |
| 7-1 | 0.7 | 0.3 | 0.2 | 0.3 | 11.3 | 5.2 | 0.3 | 0.1 | 0.1 | 0.4 | 0.1 | 0.1 | 1.4 | 0.8 | 0.3 | 21.6 |
| 7-2 | 0.6 | 0.2 | - | 0.2 | 0.4 | 2.3 | 7.6 | 0.4 | - | 1.1 | 0.1 | - | 0.9 | 0.5 | 0.2 | 14.5 |
| 7-3 | 1.0 | 0.2 | - | 0.2 | 0.2 | 0.6 | 0.3 | 48.9 | - | 4.0 | 0.3 | 0.1 | 0.7 | 0.5 | 0.3 | 57.3 |
| 10 | 5.8 | 0.6 | 0.2 | 5.7 | 0.5 | 18.8 | 1.4 | 3.9 | 0.3 | 30.7 | 15.4 | 0.5 | 2.7 | 2.4 | 2.1 | 91.0 |
| 12 | - | - | - | 0.5 | - | - | - | - | - | - | - | - | - | - | - | 0.5 |
| 13 | 8.0 | 1.5 | 0.4 | 1.8 | 0.6 | 3.3 | 1.1 | 1.2 | 0.5 | 42.5 | 0.8 | 0.8 | 5.8 | 6.6 | 8.4 | 83.3 |
| 17 | 13.5 | 27.8 | 29.4 | 5.1 | 1.0 | 17.0 | 1.5 | 0.9 | 88.6 | 77.7 | 1.0 | 1.5 | 12.7 | 33.9 | 17.9 | 320.5 |
| 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 | 0.5 |
| 19 | - | 1.7 | 0.5 | 1.2 | 0.6 | 1.9 | 2.2 | 0.7 | 0.6 | 39.1 | 1.6 | 3.0 | 7.3 | 7.1 | 391.9 | 459.4 |
| Total | 36.1 | 69.6 | 331.6 | 165.6 | 21.8 | 175.8 | 16.1 | 57.6 | 195.2 | 317.2 | 20.7 | 6.7 | 42.2 | 68.6 | 423.7 | 1948.5 |

THROUGH ROAD BRIDGE IN TONS

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|------|------|-------|------|-----|------|-----|-----|-------|------|------|-----|------|------|------|-------|
| 2 | 0.7 | 0.7 | 3.6 | 0.4 | 0.2 | 0.2 | 0.1 | - | 0.2 | 0.3 | - | 0.1 | 0.8 | 1.8 | 0.3 | 9.4 |
| 3 | 1.3 | 7.5 | 261.2 | 17.1 | 0.4 | 10.7 | 0.3 | 0.6 | 58.2 | 7.8 | 0.1 | 0.1 | 1.7 | 4.7 | 0.4 | 312.1 |
| 5 | 0.4 | 1.0 | 11.0 | 41.9 | 0.2 | 7.5 | - | - | 0.2 | 0.2 | - | 0.1 | 0.6 | 1.3 | 0.2 | 64.6 |
| 7-0 | - | 10.8 | 0.4 | 4.5 | - | - | - | - | 0.2 | - | - | - | - | 1.1 | - | 17.0 |
| 7-1 | - | 0.2 | 0.1 | 0.1 | - | - | - | - | - | - | - | - | - | 0.4 | - | 0.8 |
| 7-2 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | 0.3 | - | 0.4 |
| 7-3 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | 0.3 | - | 0.4 |
| 10 | - | 0.3 | 0.1 | 1.3 | - | - | - | - | 0.2 | - | - | - | - | 1.1 | - | 3.0 |
| 12 | - | - | - | 0.4 | - | - | - | - | - | - | - | - | - | - | - | 0.4 |
| 13 | - | 0.8 | 0.2 | 0.6 | - | - | - | - | 0.3 | - | - | - | 0.2 | 3.2 | - | 5.3 |
| 17 | 7.6 | 14.0 | 15.1 | 3.5 | 0.7 | 11.4 | 0.9 | 0.5 | 44.9 | 44.2 | 0.5 | 0.8 | 7.5 | 18.4 | 10.6 | 178.6 |
| 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | 0.3 |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 10.0 | 35.5 | 231.7 | 69.8 | 1.5 | 29.8 | 1.3 | 1.1 | 104.2 | 52.5 | 0.6 | 1.1 | 10.8 | 30.6 | 11.8 | 592.3 |

THROUGH RAIL-CUM-ROAD BRIDGE, ROADS IN TONS

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|-----|------|-------|------|-----|------|-----|-----|------|------|------|-----|-----|------|-----|-------|
| 2 | 0.6 | 0.5 | 2.4 | 0.3 | 0.1 | 0.1 | 0.1 | - | 0.1 | 0.2 | - | 0.1 | 0.7 | 1.5 | 0.2 | 6.9 |
| 3 | 1.2 | 4.1 | 148.4 | 12.8 | 0.3 | 8.5 | 0.3 | 0.3 | 45.1 | 8.1 | 0.1 | 0.1 | 1.4 | 3.7 | 0.4 | 232.8 |
| 5 | 0.4 | 0.7 | 9.1 | 29.0 | 0.1 | 8.1 | - | - | 0.2 | 0.2 | - | 0.1 | 0.5 | 1.1 | 0.2 | 47.7 |
| 7-0 | - | 8.3 | 0.2 | 2.6 | - | - | - | - | 0.2 | - | - | - | - | 1.0 | - | 12.3 |
| 7-1 | - | 0.1 | 0.1 | 0.1 | - | - | - | - | - | - | - | - | - | 0.4 | - | 0.7 |
| 7-2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | - | 0.3 |
| 7-3 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.3 | - | 0.3 |
| 10 | - | 0.2 | 0.1 | 1.0 | - | - | - | - | 0.2 | - | - | - | - | 1.0 | - | 2.5 |
| 12 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | 0.2 |
| 13 | - | 0.7 | 0.2 | 0.4 | - | - | - | - | 0.3 | - | - | - | 0.2 | 3.0 | - | 4.8 |
| 17 | 7.1 | 9.4 | 9.9 | 2.1 | 0.6 | 8.2 | 0.9 | 0.3 | 32.6 | 34.0 | 0.4 | 0.8 | 8.5 | 14.8 | 7.8 | 135.2 |
| 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 | 0.1 |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 9.3 | 24.0 | 170.4 | 48.5 | 1.1 | 22.9 | 1.3 | 0.6 | 78.7 | 40.5 | 0.5 | 1.1 | 9.3 | 28.9 | 8.7 | 443.8 |

THROUGH RAIL-CUM-ROAD BRIDGE, RAILWAYS IN TONS

| | 19 | 1 | 4 | 6-0 | 6-1 | 8-0 | 8-1 | 8-2 | 9 | 11-0 | 11-1 | 14 | 15 | 16 | 20 | Total |
|-------|-----|------|------|------|-----|-----|-----|-----|------|------|------|-----|-----|-----|-----|-------|
| 2 | 0.1 | 0.3 | 1.9 | 0.1 | 0.1 | 0.1 | - | - | 0.1 | 0.1 | - | - | 0.1 | 0.4 | 0.1 | 3.4 |
| 3 | 0.1 | 4.7 | 52.8 | 4.3 | 0.1 | 2.2 | - | 0.3 | 13.1 | 1.7 | - | - | 0.3 | 1.0 | - | 80.6 |
| 5 | - | 0.3 | 1.9 | 12.9 | 0.1 | 1.4 | - | - | - | - | - | - | 0.1 | 0.2 | - | 16.9 |
| 7-0 | - | 2.8 | 0.2 | 1.9 | - | - | - | - | - | - | - | - | - | 0.1 | - | 5.0 |
| 7-1 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 |
| 7-2 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 |
| 7-3 | - | 0.1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.1 |
| 10 | - | 0.1 | - | 0.3 | - | - | - | - | - | - | - | - | - | 0.1 | - | 0.5 |
| 12 | - | - | - | 0.2 | - | - | - | - | - | - | - | - | - | - | - | 0.2 |
| 13 | - | 0.1 | - | 0.2 | - | - | - | - | - | - | - | - | - | 0.2 | - | 0.5 |
| 17 | 0.7 | 8.4 | 9.0 | 2.1 | 0.2 | 4.9 | 0.1 | 0.3 | 19.6 | 14.3 | 0.2 | 0.1 | 1.5 | 2.8 | 3.9 | 68.1 |
| 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.2 | 0.2 |
| 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 0.9 | 17.0 | 65.8 | 22.0 | 0.5 | 8.6 | 0.1 | 0.6 | 32.8 | 16.1 | 0.2 | 0.1 | 2.0 | 4.8 | 4.2 | 175.7 |

APPENDIX

CHAPTER 6 SURVEY AND INVESTIGATION

Appendix Table 6.2.1 LIST OF SURVEY RESULTS

| | <u>Scale</u> |
|--|------------------|
| 1) <u>Traversing Network</u> | (1/5,000) |
| 2) Center Line Check by Spot Hts | (1/5,000) |
| 3) Topo Map for Abutment on West Bank | (1/500) |
| 4) Topo Map for Abutment on East Bank | (1/500) |
| 5) Topography Along the Railways & Road Alignment on East Bank | (1/1,000) |
| 6) Topography Along the Road Alignment on West Bank | (1/1,000) |
| 7) Topography Along the Railways Alingment on West Bank | (1/1,000) |
| 8) Topography Along the Center Line between T-1 and T-6 | (1/1,000) |
| 9) Alignment of Road and Railways (Plan) | (1/5,000) |
| 10) Longitudinal Profile of Railways Approaches | (1:2,000, 1:500) |
| 11) Longitudinal Profile of Road on West Bank | (1:2,000, 1:500) |
| 12) Cross Section of 15 Sheets | (1/500) |
| 13) Cross Section of 7 Shee | |
| 14) Cross Section of 6 Sheets | (1/500) |
| 15) Location of Sounding Points | (1/5,000) |
| 16) Cross Section of Proposed Route I | (1/2,000) |
| 17) Location of Sounding Points at Proposed Route I | (1/2,000) |
| 18) Position for Current Velocity: at Proposed Route I & II | (1/500) |
| 19) Cross Section at Proposed Route II | (1/2,000) |
| 20) Topography of Sounding at Proposed Route I & II | (1/2,000) |
| 21) Location of Sounding Points, South North | (1/2,000) |
| 22) Location of Sounding Points + Boreholes | (1/5,000) |
| 23) Location of Float Direction | (1/2,000) |
| 24) Direction of River Current | (1/2,000) |

6.3.2 Laboratory Tests on Soil

In principle, the following tests are performed on each sample;

| <u>Sample</u> | <u>Tests</u> |
|---------------------------------------|--|
| o Disturbed Soil (obtained by SPT) | Physical property |
| o Undisturbed cohesive soil | Physical property, mechanical property |
| o Rock core | Physical property, & unconfined compression |
| o Embankment materials | Physical property, compaction/CBR |

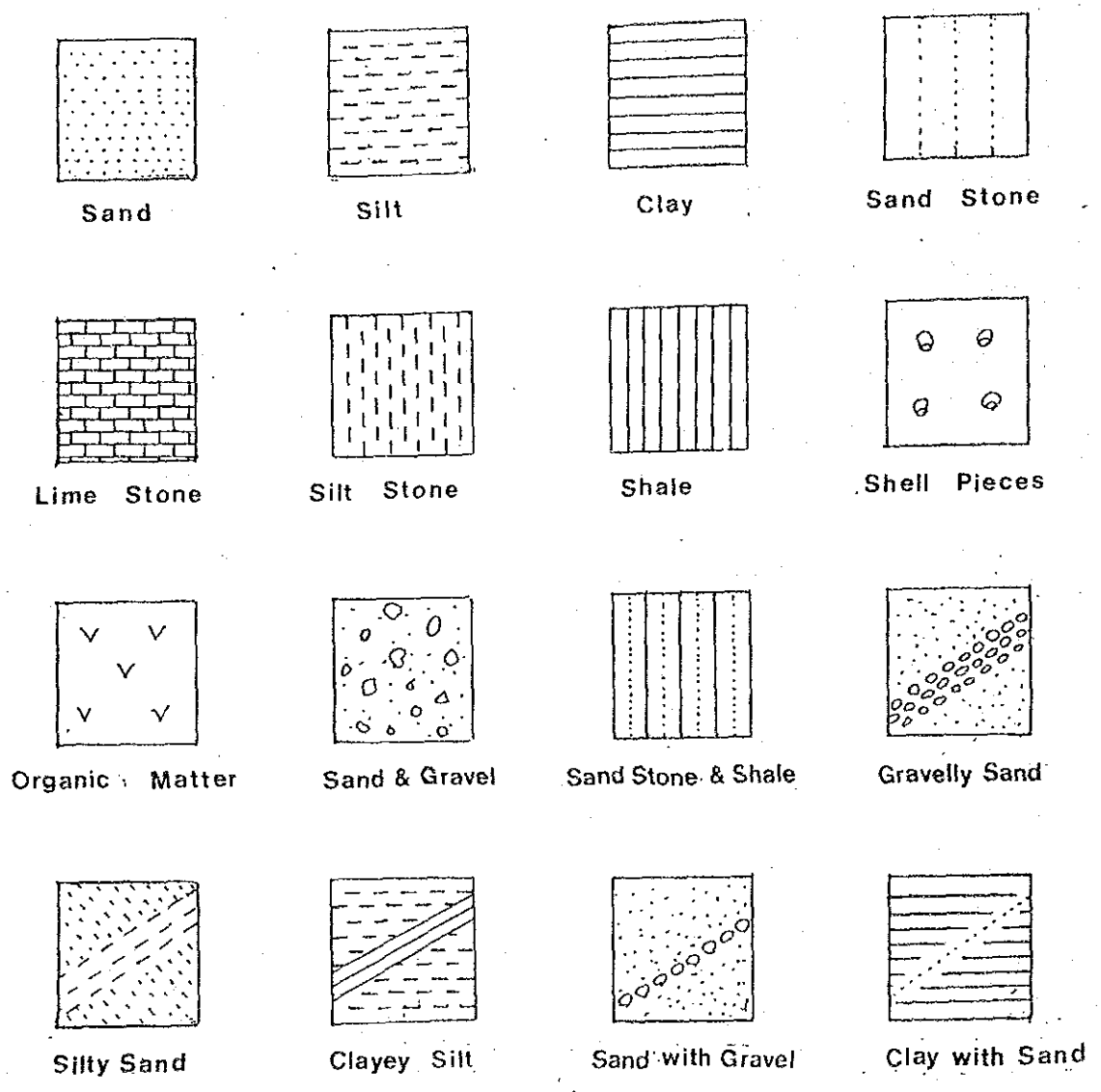
As a result of checking the laboratory facilities, the following test items and numbers of tests are planned for Phase 1.

| <u>Test Item</u> | <u>Specification</u> |
|--------------------------|----------------------|
| Physical Property Test | |
| Natural Moisture Content | ASTM D2216 |
| Unit Weight | ASTM |
| Specific Gravity | ASTM D854-58 |
| Crain-size Distribution | ASTM D422-63 |
| Atterberg Limits | ASTM D422-66 |
| Mechanical Property Test | |
| Unconfined Compression | D2166-66 |
| Consolidation | D2435-70 |
| Direct Shear | D3080-72 |
| Compaction/CBR | D1883-73 |

Appendix Table 6.3.1 N-VALUE DIFFERENCE BETWEEN TWO METHODS

| Depth (m) | BH5 (rope-cone-pulley) | | BH5A (automatic drop hammer) | |
|--------------|------------------------|---------|------------------------------|---------|
| | Type of Soil | N-value | Type of Soil | N-value |
| 0.15 | SILT & CLAY | 4 | Clayey SILT | 7 |
| 1.67 | SILT & CLAY | 22 | Silty CLAY | - |
| 3.20 | Silty CLAY | 35 | CLAY | 23 |
| 4.72 | Silty CLAY | 21 | CLAY | 17 |
| 6.25 | Silty CLAY | 26 | CLAY | 16 |
| 7.77 | SILT & CLAY | 50 | Silty SAND | 55 |
| 9.14 | SILT & CLAY | 50/18 | Silty SAND | 55 |
| 10.67 | SILT & CLAY | 50/15 | Silty SAND | 50/25 |

Appendix Fig. 6.3.1
 SYMBOLS USED IN DRILLING LOG



| <u>DESCRIPTIVE TERM</u> | <u>RANGE OF PROPORTION</u> |
|--------------------------------|----------------------------|
| TRACE | 1 - 9 % |
| WITH | 10 - 19 % |
| ADJECTIVE (eg Sandy , Silty) | 20 - 34 % |
| AND (Major Soil) | ≥ 35 % |

Appendix Fig. 6.3.2 DRILLING LOG

Remarks
Co-ordinates of Bore hole
N = 920,600 + 410
E = 2230,198 + 690

Project IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT Type of Drilling ROTARY
 HSE Number 1 Elevation R L + 27.90 m. Date 17.12.85 ~ 21.12.85
 Water Table NIL m. Casing Depth () m. Driller Aung Soe (Kyaw NG)

| E in Scale | Elevation in m. | Depth in m. | Thickness in m. | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration Test or Core Recovery and ROD | | | | | | | | | |
|------------------|-----------------|-------------|-----------------|--------|--------------|---------------|------------------------------------|----------------------|----------------|---------------|--|-------------------------|---------------|-------------------------|----|----------------------|----|-----|--|--|
| | | | | | | | | | Depth in m. | Sample No. | N-Value Blows per 30cm | Blows Per Each 15 cm | | Core Recovery & ROD (%) | | N-Value (blows/30cm) | | | | |
| | | | | | | | | | | | | Blows 15cm | Blows 15cm | 20 | 40 | 60 | 80 | 100 | | |
| | 27.90 | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | Clayey | Brownish GREY | Very Stiff | Top 50 cm Cultivated | 0.00 | 1-1 | 16 | 5 | 8 | 8 | | | | | | |
| | | | | | | | | Trace of | 0.45 | 1-2 | 64 | | 30 | 34 | | | | | | |
| 2 | 25.92 | 1.98 | 1.98 | | SILT STONE | GREY | Very Hard | Very fine Sand | 1.21 | 1-3 | 60/15 | | | | | | | | | |
| 3 | | | | | | | | | 1.98 | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | 2 ~ 15 cm | | | | | | | | | | | | |
| 8 | | | | | | | | Core (pieces) | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | |
| 14 | 13.73 | 14.17 | 12.19 | | SHALE | Dark GREY | Very Hard | | | | | | | | | | | | | |
| 15 | | | | | | | | End of Boring | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.3 DRILLING LOG

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT

Hole Number: 2

Elevation: R.L. + 4.52 m

Date: 5.3.86

Type of Drilling: ROTARY

Driller: AUNG SOE (Kyou, NG)

Remarks:
Co-ordinating of Boreholes
N = 920,704.792
E = 2,230,342.837
River bed Boring

| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration Test or Core Recovery and ROD | |
|------------|----------------|------------|----------------|----------------|----------------------------|--------------|---------------------------------|--|-----------|----------------------------|--|----------------------------|
| | | | | | | | | | Sample No | Blows Per Value Each 30 cm | Sample No | Blows Per Value Each 30 cm |
| 1 | 4.52 | | | | | | | | 2-1 | 3 | 1 | 2 |
| 2 | | | | | | | | trace of silt | 2-2 | 4 | 2 | 2 |
| 3 | | | | | | | | | 2-3 | 4 | 2 | 2 |
| 4 | 0.05 | 4.57 | 4.57 | SAND | BROWN | Loose | | fine SAND | 2-4 | 11 | 3 | 5 |
| 5 | | | | | | | | 6.1m ~ 7.6m mixed with mica | 2-5 | 13 | 3 | 5 |
| 6 | | | | | | | | trace of Gravels | 2-6 | 11 | 3 | 5 |
| 7 | | | | | | | | Ø 2-4 m/m max Ø 6 m/m | 2-7 | 9 | 3 | 4 |
| 8 | | | | | | | | trace of silt | 2-8 | 10 | 7 | 5 |
| 9 | | | | | | | | | 2-9 | 16 | 5 | 8 |
| 10 | | | | | | | | | 2-10 | 21 | 7 | 9 |
| 11 | | | | | | | | fine SAND | 2-11 | 16 | 7 | 8 |
| 12 | -7.62 | 12.19 | 7.62 | SAND | Greyish BROWN | Dense | | some Gravels Ø 2 ~ 10 m/m | 2-12 | 21 | 7 | 9 |
| 13 | | | | | | | | med. to fine SAND | 2-13 | 25 | 7 | 9 |
| 14 | | | | | | | | | 2-14 | 23 | 9 | 11 |
| 15 | -10.72 | 15.24 | 3.05 | SAND & GRAVELS | Greyish to Yellowish BROWN | Medium Dense | | med to fine SAND and some Gravels Ø 2-8 m/m | 2-15 | 24 | 12 | 12 |
| 16 | | | | | | | | | 2-16 | 35 | 14 | 16 |
| 17 | -12.24 | 16.76 | 1.52 | SAND | Dark GREY | Dense | | trace of Gravels and mica | 2-17 | 27 | 15 | 15 |
| 18 | | | | | | | | trace of silt | 2-18 | 35 | 15 | 19 |
| 19 | | | | | | | | | 2-19 | 22 | 9 | 11 |
| 20 | -15.29 | 19.81 | 3.05 | SAND & GRAVELS | Light GREY | Medium Dense | | med to fine SAND and some Gravels Ø 2-8 m/m max Ø 10 m/m | 2-20 | 22 | 11 | 11 |
| 21 | | | | | | | | | 2-21 | 15 | 6 | 7 |
| 22 | -16.82 | 21.34 | 1.53 | SAND | Dark GREY | Dense | | med to fine SAND and some Gravels Ø 2-9 m/m | 2-22 | 30 | 20 | 34 |
| 23 | | | | | | | | | 2-23 | 50 | 28 | 28 |
| 24 | | | | | | | | | 2-24 | 28 | 15 | 15 |
| 25 | | | | | | | | | 2-25 | 27 | 15 | 15 |
| 26 | | | | | | | | | 2-26 | 35 | 15 | 19 |
| 27 | -22.9 | 27.43 | 6.09 | SAND | Dark GREY | Dense | | med to fine SAND and some Gravels Ø 2-4 m/m | 2-27 | 22 | 11 | 11 |
| 28 | | | | | | | | | 2-28 | 22 | 11 | 11 |
| 29 | -24.44 | 28.96 | 1.53 | SAND & GRAVELS | Dark GREY | Medium Dense | | some Gravels (Ø 2-4 m/m) trace of silt with mica | 2-29 | 15 | 6 | 7 |
| 30 | | | | | | | | | 2-30 | 20 | 11 | 11 |
| 31 | -25.98 | 30.48 | 1.52 | SAND | Dark GREY | Dense | | med to fine SAND and some Gravels Ø 2-9 m/m | 2-31 | 30 | 20 | 34 |
| 32 | | | | | | | | | 2-32 | 50 | 28 | 28 |
| 33 | -27.48 | 32.00 | 1.52 | SAND & GRAVELS | Dark GREY | Medium Dense | | top 9 cm Crushed Sand stone core pieces (3 cm) and Hard clay (18 cm thick) | 2-33 | 28 | 15 | 15 |
| 34 | | | | | | | | | 2-34 | 27 | 15 | 15 |
| 35 | | | | | | | | | 2-35 | 27 | 15 | 15 |
| 36 | | | | | | | | | 2-36 | 27 | 15 | 15 |
| 37 | -32.72 | 37.24 | 5.24 | SHALE | Bluish GREY | Very Hard | | 2 ~ 5 cm core pieces | 2-37 | 27 | 15 | 15 |
| 38 | | | | | | | | End of Boring | 2-38 | 27 | 15 | 15 |
| 39 | | | | | | | | | 2-39 | 27 | 15 | 15 |
| 40 | | | | | | | | | 2-40 | 27 | 15 | 15 |

Appendix Fig. 6.3.4 DRILLING LOG

Remains of Borehole
Coordinates of Borehole
N = 920795.760
E = 2230639.976
River Bed Boring

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT
Type of Boring: Rotary
Date: 14.2.86
Scale: 1:3.96
Water Table: G.L. + 5.44
Elevation: R.L. + 13.52
Casing Depth: 36.6 m
Drain Auger: 3
Sot: Kyaw Ng

| Scale m | Elevation m | Depth m | Thickness m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | Standard Penetration Test or Core Recovery and RQD |
|------------|----------------|------------|----------------|-------------------------------|------------------------|-----------------|---|--------------------------------------|-------------|--|
| 1 | 13.52 | | | | | | | top 15cm Silty SAND Med with mica | 3-1 | 3 1 1 2 |
| 2 | 4.23 | 2.29 | 2.29 | SAND and GRAVEL | Brownish GREY | Very Loose | Mixed to coarse SAND Round GRAVEL mixed with mica | 3-2 | 4 1 2 2 | |
| 3 | | | | | | | | | 3-3 | 2 1 1 1 |
| 4 | | | | | | | | | 3-4 | 7 3 3 4 |
| 5 | | | | | | | | | 3-5 | 13 5 6 7 |
| 6 | 7.42 | 6.10 | 3.81 | SILTY SAND | Brownish GREY | Loose | fine SAND | 3-6 | 9 5 4 5 | |
| 7 | | | | | | | | | 3-7 | 10 9 7 3 |
| 8 | | | | | | | | | 3-8 | 13 6 6 7 |
| 9 | 4.16 | 3.36 | 3.26 | SAND | Brownish GREY | Loose | Med to fine SAND trace of silt below 9.0 m GRAVEL & SAND Med to fine SAND Med to fine SAND | 3-9 | 13 6 6 7 | |
| 10 | 3.55 | 9.97 | 0.61 | CLAYEY SILT | Dark GREY | Stiff | Trace of fine SAND | 3-10 | 16 4 7 9 | |
| 11 | | | | | | | | | 3-11 | 13 5 5 8 |
| 12 | | | | | | | | | 3-12 | 21 7 10 11 |
| 13 | 0.20 | 13.72 | 3.75 | SILTY SAND | Dark GREY | Medium Dense | Med to fine SAND at 14.3 m Sand seam trace of fine | 3-13 | 22 5 9 13 | |
| 14 | | | | | | | | | 3-14 | 30 9 13 17 |
| 15 | | | | | | | | | 3-15 | 46 13 20 26 |
| 16 | | | | | | | | | 3-16 | 21 8 10 11 |
| 17 | -3.40 | 16.92 | 3.20 | CLAYEY SILT | Dark GREY | Stiff | | 3-17 | 23 4 13 10 | |
| 18 | | | | | | | | | 3-18 | 24 10 11 13 |
| 19 | | | | | | | | | 3-19 | 26 9 11 15 |
| 20 | -6.29 | 19.81 | 2.89 | SAND | Dark GREY | Medium Dense | fine SAND Gravel 2.67m (round) | 3-20 | 26 8 12 14 | |
| 21 | -7.82 | 21.34 | 1.53 | SAND with GRAVEL | Dark GREY | Dense | below 22.9 m trace of silt | 3-21 | 25 7 10 15 | |
| 22 | | | | | | | | | 3-22 | 32 9 14 18 |
| 23 | | | | | | | | | 3-23 | 24 11 10 14 |
| 24 | -10.36 | 24.38 | 3.04 | SAND | Dark GREY | Dense | fine SAND CLAY layer 2.25 m from ground | 3-24 | 15 25 36 | |
| 25 | | | | | | | | | 3-25 | 31 10 15 16 |
| 26 | -12.39 | 25.91 | 1.53 | CLAYEY SAND | Dark GREY | Medium Dense | trace of silt fine SAND Med to fine SAND | 3-26 | 46 16 23 28 | |
| 27 | | | | | | | | | 3-27 | 27 10 15 16 |
| 28 | | | | | | | | | 3-28 | 49 16 23 28 |
| 29 | | | | | | | | | 3-29 | 43 16 20 23 |
| 30 | | | | | | | | | 3-30 | 65 21 24 |
| 31 | | | | | | | | | 3-31 | |
| 32 | | | | | | | | | 3-32 | |
| 33 | | | | | | | | | 3-33 | |
| 34 | | | | | | | | | 3-34 | |
| 35 | | | | | | | | | 3-35 | |
| 36 | | | | | | | | | 3-36 | |
| 37 | | | | | | | | | 3-37 | |
| 38 | -24.58 | 28.10 | 12.19 | SAND | Dark GREY | Dense | Med to fine SAND thin layer of CLAY at 38.1m from ground with round Gravel fine SAND | 3-38 | 46 16 23 28 | |
| 39 | | | | | | | | | 3-39 | |
| 40 | -35.10 | 39.62 | 1.52 | SAND with Silt & Gravel | Dark GREY | Dense | trace of silt & round Gravel 0.2 ~ 5 m/m | 3-40 | 71 21 31 40 | |
| 41 | | | | | | | | | 3-41 | |
| 42 | | | | | | | | | 3-42 | |
| 43 | -29.45 | 42.97 | 3.35 | SAND | Dark GREY | Dense | Med to fine SAND | 3-43 | 43 16 20 23 | |
| 44 | | | | | | | | | 3-44 | |
| 45 | -30.83 | 44.35 | 1.38 | SAND & GRAVEL | Dark GREY | Dense | Med to fine SAND GRAVEL (round) 0.2 ~ 10 m/m | 3-45 | 44 20 | |
| 46 | -31.83 | 45.35 | 1.00 | CLAY | Dark GREY | Very Hard | | 3-46 | 44 20 | |
| 47 | | | | | | | | | 3-47 | |
| 48 | | | | | | | | | 3-48 | |
| 49 | | | | | | | | | 3-49 | |
| 50 | -35.98 | 50.50 | 5.15 | SHALE | Bluish Dark GREY | Very Hard | 1 ~ 15 cm core pieces trace of shell pieces | 3-50 | | |
| 51 | | | | | | | | | 3-51 | |
| 52 | | | | | | | | | 3-52 | |
| 53 | | | | | | | | | 3-53 | |
| 54 | | | | | | | | | 3-54 | |
| 55 | | | | | | | | | 3-55 | |

Appendix Fig. 6.3.5 DRILLING LOG

Remarks
Estimated Co-ordinates of BH 4
N = 290881.210
E = 2230895.875
River Bed Boring

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT
Type of Drilling: Wash / Rotary
How Number: 4
Elevation: R.L. + 17.90 m
Date: 20.1.86 ~ 8.2.86
Water Table: C.L. + 1.37 m (s.l. 2.8m)
Driller: AUNG SOE (KYAW NG)

| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling Depth in m | Sample No | N-Value Blows Per Each 30 cm Penetration | Standard Penetration Test or Core Recovery and ROD |
|---------------|-------------------|---------------|-------------------|--------|--------------|--------|------------------------------------|-----------------|---------------------------|--------------|---|--|
| 17.90 | | | | | | | | | | | | |
| | | | | | | | | | 0.49 | 4-1 | 5 | Core Recovery % |
| | | | | | | | | | 1.07 | 4-2 | 10 | ROD (%) |
| | | | | | | | | | 1.97 | 4-3 | 15 | 100 |
| | | | | | | | | | 2.20 | 4-4 | 20 | |
| | | | | | | | | | 3.00 | 4-5 | 25 | |
| | | | | | | | | | 4.72 | 4-6 | 30 | |
| | | | | | | | | | 5.02 | 4-7 | 35 | |
| | | | | | | | | | 6.25 | 4-8 | 40 | |
| | | | | | | | | | 6.85 | 4-9 | 45 | |
| | | | | | | | | | 7.77 | 4-10 | 50 | |
| | | | | | | | | | 8.97 | 4-11 | 55 | |
| | | | | | | | | | 9.29 | 4-12 | 60 | |
| | | | | | | | | | 9.89 | 4-13 | 65 | |
| | | | | | | | | | 10.82 | 4-14 | 70 | |
| | | | | | | | | | 11.12 | 4-15 | 75 | |
| | | | | | | | | | 12.84 | 4-16 | 80 | |
| | | | | | | | | | 12.64 | 4-17 | 85 | |
| | | | | | | | | | 13.07 | 4-18 | 90 | |
| | | | | | | | | | 14.17 | 4-19 | 95 | |
| | | | | | | | | | 15.36 | 4-20 | 100 | |
| | | | | | | | | | 15.87 | 4-21 | 105 | |
| | | | | | | | | | 16.91 | 4-22 | 110 | |
| | | | | | | | | | 17.21 | 4-23 | 115 | |
| | | | | | | | | | 18.44 | 4-24 | 120 | |
| | | | | | | | | | 18.74 | 4-25 | 125 | |
| | | | | | | | | | 19.99 | 4-26 | 130 | |
| | | | | | | | | | 20.26 | 4-27 | 135 | |
| | | | | | | | | | 21.49 | 4-28 | 140 | |
| | | | | | | | | | 21.79 | 4-29 | 145 | |
| | | | | | | | | | 23.01 | 4-30 | 150 | |
| | | | | | | | | | 23.31 | 4-31 | 155 | |
| | | | | | | | | | 24.38 | 4-32 | 160 | |
| | | | | | | | | | 24.66 | 4-33 | 165 | |
| | | | | | | | | | 25.91 | 4-34 | 170 | |
| | | | | | | | | | 26.11 | 4-35 | 175 | |
| | | | | | | | | | 26.82 | 4-36 | 180 | |
| | | | | | | | | | 27.02 | 4-37 | 185 | |
| | | | | | | | | | 29.97 | 4-38 | 190 | |
| | | | | | | | | | 29.75 | 4-39 | 195 | |
| | | | | | | | | | 30.88 | 4-40 | 200 | |
| | | | | | | | | | 30.88 | 4-41 | 205 | |
| | | | | | | | | | 32.15 | 4-42 | 210 | |
| | | | | | | | | | 32.45 | 4-43 | 215 | |
| | | | | | | | | | 33.53 | 4-44 | 220 | |
| | | | | | | | | | 33.75 | 4-45 | 225 | |
| | | | | | | | | | 34.80 | 4-46 | 230 | |
| | | | | | | | | | 36.20 | 4-47 | 235 | |
| | | | | | | | | | | 4-48 | 240 | |
| | | | | | | | | | | 4-49 | 245 | |
| | | | | | | | | | | 4-50 | 250 | |
| | | | | | | | | | | 4-51 | 255 | |
| | | | | | | | | | | 4-52 | 260 | |
| | | | | | | | | | | 4-53 | 265 | |
| | | | | | | | | | | 4-54 | 270 | |
| | | | | | | | | | | 4-55 | 275 | |
| | | | | | | | | | | 4-56 | 280 | |
| | | | | | | | | | | 4-57 | 285 | |
| | | | | | | | | | | 4-58 | 290 | |
| | | | | | | | | | | 4-59 | 295 | |
| | | | | | | | | | | 4-60 | 300 | |
| | | | | | | | | | | 4-61 | 305 | |
| | | | | | | | | | | 4-62 | 310 | |
| | | | | | | | | | | 4-63 | 315 | |
| | | | | | | | | | | 4-64 | 320 | |
| | | | | | | | | | | 4-65 | 325 | |
| | | | | | | | | | | 4-66 | 330 | |
| | | | | | | | | | | 4-67 | 335 | |
| | | | | | | | | | | 4-68 | 340 | |
| | | | | | | | | | | 4-69 | 345 | |
| | | | | | | | | | | 4-70 | 350 | |
| | | | | | | | | | | 4-71 | 355 | |
| | | | | | | | | | | 4-72 | 360 | |
| | | | | | | | | | | 4-73 | 365 | |
| | | | | | | | | | | 4-74 | 370 | |
| | | | | | | | | | | 4-75 | 375 | |
| | | | | | | | | | | 4-76 | 380 | |
| | | | | | | | | | | 4-77 | 385 | |
| | | | | | | | | | | 4-78 | 390 | |
| | | | | | | | | | | 4-79 | 395 | |
| | | | | | | | | | | 4-80 | 400 | |
| | | | | | | | | | | 4-81 | 405 | |
| | | | | | | | | | | 4-82 | 410 | |
| | | | | | | | | | | 4-83 | 415 | |
| | | | | | | | | | | 4-84 | 420 | |
| | | | | | | | | | | 4-85 | 425 | |
| | | | | | | | | | | 4-86 | 430 | |
| | | | | | | | | | | 4-87 | 435 | |
| | | | | | | | | | | 4-88 | 440 | |
| | | | | | | | | | | 4-89 | 445 | |
| | | | | | | | | | | 4-90 | 450 | |
| | | | | | | | | | | 4-91 | 455 | |
| | | | | | | | | | | 4-92 | 460 | |
| | | | | | | | | | | 4-93 | 465 | |
| | | | | | | | | | | 4-94 | 470 | |
| | | | | | | | | | | 4-95 | 475 | |
| | | | | | | | | | | 4-96 | 480 | |
| | | | | | | | | | | 4-97 | 485 | |
| | | | | | | | | | | 4-98 | 490 | |
| | | | | | | | | | | 4-99 | 495 | |
| | | | | | | | | | | 4-100 | 500 | |

Appedix Fig. 6.3.7 DRILLING LOG

Remarks
 Coordinates of Borehole
 N = 920,966.223
 E = 2,231,150.339
 (1.5 m away from BH.5)

Project **IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT** Type of Drilling **ROTARY**
 Hole Number **5A** Elevation **R.L. + 31.90** m. Date **2.6.86 ~ 3.6.86**
 Water Table **NIL** m. Casing Depth (@ 4") **GL. - 6.1** m. Driller **AUNG SOE** (Kyaw NG)

| Scale in m. | Elevation in m. | Depth in m. | Thickness in m. | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration test of Core Recovery and ROD | | | | | | | | | | |
|-------------|-----------------|-------------|-----------------|--------|--------------|-----------|---------------------------------|---------------------------------------|-------------|------------|--|----------------------|------|-------|-------------------------|----|----|----|-----|--|--|
| | | | | | | | | | Depth in m. | Sample No. | N-Value Blows per 30cm | Blows Per Each 15 cm | | | Core Recovery & ROD (%) | | | | | | |
| | | | | | | | | | | | | 15cm | 15cm | 15cm | 20 | 40 | 60 | 80 | 100 | | |
| | 31.90 | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | 0.45 | 5A-1 | 7 | 4 | 4 | 3 | | | | | | | |
| | 30.38 | 1.52 | 1.52 | | Clayey SILT | BROWN | Medium Silty | Trace of fine Sand | 1.82 | 5A-S1 | | | | | | | | | | | |
| 2 | | | | | | | | | 1.77 | | | | | | | | | | | | |
| 3 | 28.85 | 3.05 | 1.53 | | Silty CLAY | BROWN | Stiff | Trace of very fine Sand | 3.20 | 5A-2 | 23 | 5 | 10 | 13 | | | | | | | |
| 4 | | | | | | | | | 3.50 | | | | | | | | | | | | |
| 5 | | | | | | | | Trace of Silt | 4.72 | 5A-3 | 17 | 3 | 7 | 10 | | | | | | | |
| 6 | | | | | | | | | 5.02 | | | | | | | | | | | | |
| 7 | | | | | | Yellowish | | Trace of Sand | 6.25 | 5A-4 | 16 | 4 | 7 | 9 | | | | | | | |
| 8 | 24.28 | 7.62 | 4.57 | | CLAY | BROWN | Very Stiff | | 6.68 | | | | | | | | | | | | |
| 9 | | | | | | | | | 7.77 | 5A-5 | 55 | 11 | 21 | 34 | | | | | | | |
| 10 | | | | | | | | | 8.07 | | | | | | | | | | | | |
| 11 | 20.98 | 10.92 | 3.30 | | Silty SAND | BROWN | Very Dense | At the bottom thin layer of hard clay | 9.14 | 5A-6 | 55 | -- | 19 | 36 | | | | | | | |
| 12 | | | | | | | | End of Boring | 9.44 | | | | | | | | | | | | |
| 13 | | | | | | | | | 10.67 | 5A-7 | 50/25 | -- | 20 | 30/20 | | | | | | | |
| 14 | | | | | | | | | 10.92 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.8 DRILLING LOG

Remarks
Co-ordinate of Borehole
N = 918918.728
E = 223513.562

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT
Hole Number: 7
Elevation: R.L. + 10.17 m. Date: 2.5.86 ~ 8.5.85
Type of Drilling: Rotary
Driller: A Unger (Aung Naing)

| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | Standard Penetration Test of Core Recovery and ROD |
|------------|----------------|------------|----------------|------------------|--------------|--------------|---------------------------------|--|------------|--|
| | | | | | | | | | Sample No. | N Value (blows/30cm) |
| 1 | 10.17 | | | | | | Very Loose | of 0~1.5m trace of decomposed wood | 7-1 | 3 |
| 2 | | | | | | | | | 7-2 | 4 |
| 3 | | | | | | | | | 7-3 | 5 |
| 4 | 5.60 | 4.57 | 4.57 | Silty SAND | BROWN | Loose | | fine SAND | 7-4 | 6 |
| 5 | | | | | | | | | 7-5 | 8 |
| 6 | | | | | | | | | 7-6 | 9 |
| 7 | 2.55 | 7.62 | 3.05 | SAND with Silt | GREY | Loose | | fine SAND | 7-7 | 3 |
| 8 | | | | | | | | | 7-8 | 10 |
| 9 | | | | | | | | | 7-9 | 19 |
| 10 | | | | | | | | below 9.1m Trace of Clay | 7-10 | 3 |
| 11 | | | | | | | | | 7-11 | 20 |
| 12 | -2.02 | 12.15 | 4.57 | Silty SAND | GREY | Loose | | fine to med SAND | 7-12 | 31 |
| 13 | | | | | | | | | 7-13 | 51 |
| 14 | | | | | | | | | 7-14 | 47 |
| 15 | -5.07 | 15.24 | 3.05 | Growthy SAND | BROWN | Dense | | Sub-rounded Gravels # 2~5 m/m max. # 10 m/m medium to coarse SAND | 7-15 | 34 |
| 16 | | | | | | | | | 7-16 | 47 |
| 17 | -6.59 | 16.76 | 1.52 | SAND with Silt | Dark GREY | Medium Dense | | fine to med SAND | 7-17 | 20 |
| 18 | | | | | | | | Top 1.5m some hard clay | 7-18 | 59 |
| 19 | | | | | | | | Trace of Silt | 7-19 | 15 |
| 20 | | | | | | | | Gravels # 2~8 m/m Max # 25 m/m med to coarse SAND | 7-20 | 14 |
| 21 | | | | | | | | | 7-21 | 15 |
| 22 | -11.17 | 21.34 | 4.56 | SAND with Gravel | GREY | Dense | | top 1.5m trace of clay and Gravels (# 2~5 m/m) | 7-22 | 25 |
| 23 | | | | | | | | | 7-23 | 14 |
| 24 | -14.21 | 24.38 | 3.04 | SAND | Dark GREY | Dense | | at 23.0 ~ 23.3 decayed wood med to fine SAND | 7-24 | 43 |
| 25 | | | | | | | | | 7-25 | 14 |
| 26 | -15.74 | 25.91 | 1.53 | Silty SAND | Dark GREY | Dense | | med to fine SAND | 7-26 | 50 |
| 27 | | | | | | | | trace of Silt and mica | 7-27 | 50 |
| 28 | | | | | | | | | 7-28 | 50 |
| 29 | | | | | | | | 2~7 cm Core pieces (ROD 0%) | 7-29 | 50 |
| 30 | | | | | | | | at 32.9 trace of Gravels | 7-30 | 50 |
| 31 | | | | | | | | | 7-31 | 50 |
| 32 | | | | | | | | below 32.9m mixed with Silt Stone | 7-32 | 50 |
| 33 | | | | | | | | | 7-33 | 50 |
| 34 | | | | | | | | | 7-34 | 50 |
| 35 | | | | | | | | below 34.0m trace of Shell | 7-35 | 50 |
| 36 | -25.59 | 33.75 | 9.84 | SHALE | GREY | Very Hard | | | 7-36 | 50 |
| 37 | | | | | | | | End of Boring | 7-37 | 50 |
| 38 | | | | | | | | | 7-38 | 50 |
| 39 | | | | | | | | | 7-39 | 50 |
| 40 | | | | | | | | | 7-40 | 50 |

Appendix Fig. 6.3.10 DRILLING LOG

Name: _____
 Coordinates of Borehole
 N = 919,801.839
 E = 2,229,303.961

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT
 Type of Drilling: ROTARY
 Hole Number: 9
 Elevation: R.L. + 32.74 m
 Date: 5.6.86 ~ 7.6.86
 Water Table: NIL m
 Casing Depth (0.4") GL. - 6.4 m
 Driller: Saw Maurice Zon (Aung Naing)

| Scale m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration Test or Core Recovery and RCL | | | | | Sample No. | | | |
|------------|----------------|------------|----------------|--------|--------------------|---------------|---------------------------------|--|------------|------------|--|----------------------|------|-------------------------|----|------------|----|------|-----|
| | | | | | | | | | Depth in m | Sample No. | N-Value Blows per 30cm | Blows Per Each 15 cm | | Core Recovery & RCL (%) | | | | | |
| | | | | | | | | | | | | 15cm | 15cm | 20 | 40 | | 60 | 80 | 100 |
| | 32.74 | | | | | | | | | | | | | | | | | | |
| 1 | 32.14 | 0.60 | 0.60 | X | CLAY | BROWN | Stiff | Cultivated | 0.78 | 9-1 | 10 | 4 | 4 | 6 | | | | | |
| 2 | | | | | | | | | 1.52 | 9-S1 | | | | | | | | | |
| 3 | 29.69 | 3.05 | 2.45 | | CLAY with Silt | BROWN | Stiff | | 5.20 | 9-2 | 16 | 5 | 8 | 8 | | | | | |
| 4 | | | | | | | | | 3.50 | | | | | | | | | | |
| 5 | | | | | | | | | 4.72 | 9-3 | 18 | 6 | 8 | 10 | | | | 9-S2 | |
| 6 | | | | | | | | | 5.02 | | | | | | | | | | |
| 7 | | | | | | | | | 6.25 | 9-4 | 20 | 6 | 8 | 12 | | | | | |
| 8 | | | | | | | Very Stiff | | 6.55 | | | | | | | | | | |
| 9 | | | | | | | | at 9.3 m some gravels (Ø 2-5 mm) | 7.77 | 9-5 | 34 | 10 | 16 | 18 | | | | | |
| 10 | | | | | | | | | 8.07 | | | | | | | | | | |
| 11 | | | | | | | | | 9.28 | 9-6 | 21 | 7 | 10 | 11 | | | | 9-S3 | |
| 12 | | | | | | | | | 9.59 | | | | | | | | | | |
| 13 | | | | | | | | | 10.82 | 9-7 | 23 | 7 | 11 | 12 | | | | | |
| 14 | | | | | | | | at 13.9 ~ 14.2 m decayed wood | 11.12 | | | | | | | | | | |
| 15 | 17.74 | 15.00 | 11.95 | | CLAY with Silt | Brownish GREY | Stiff | | 12.34 | 9-8 | 25 | 8 | 11 | 14 | | | | | |
| 16 | 17.20 | 15.54 | 0.54 | | CLAY and LIMESTONE | GREY | Very Hard | 2 ~ 3 cm core pieces of Lime Stone | 12.84 | 9-9 | 25 | 7 | 11 | 14 | | | | | |
| 17 | | | | | | | | | 13.87 | | | | | | | | | | |
| 18 | | | | | | | | | 14.17 | 9-10 | 55 | - | 25 | 30 | | | | | |
| 19 | | | | | | | | | 15.24 | | | | | | | | | | |
| 20 | | | | | | | | | 15.54 | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.11 DRILLING LOG

Remark
 Co ordinates of Borehole
 N 921,002 - 158
 E 223,271 - 435

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT
 Type of Logging: ROTARY
 Hole Number: 10
 Elevation: RL + 59.88 m
 Date: 3.5.86 8.5.86
 Water Table: NIL m
 Casing Depth (Ø 3") GL. - 9.1 m
 Driller: Saw (Aung Naing)

| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration Test or Core Recovery and ROD | | | | | | |
|------------|----------------|------------|----------------|--------|----------------------|-----------------|---------------------------------|---------------------------|------------|------------|--|----------------------|-----------------|----|----|---------|-----|
| | | | | | | | | | Depth in m | Sample No. | N-Value (blows/30cm) | Blows Per Each 15 cm | Core Recovery % | | | ROD (%) | |
| | 59.88 | | | | | | | | | | | | 20 | 40 | 60 | 80 | 100 |
| 1 | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | mixed with mica and shell | | | | | | | | | |
| 3 | | | | | | | | mostly soil-like core | | | | | | | | | |
| 4 | | | | | | | | max. core length 15 cm | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | |
| 10 | 49.21 | 10.67 | 10.67 | | SAND STONE | Yellowish BROWN | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | predominant SAND STONE | | | | | | | | | |
| 15 | | | | | | | | 1 ~ 8 cm laminated core | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | |
| 18 | 41.59 | 18.29 | 7.62 | | SAND STONE and SHALE | Yellowish BROWN | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | mixed with mica | | | | | | | | | |
| 21 | | | | | | | | laminated | | | | | | | | | |
| 22 | | | | | | | | Sandy SHALE | | | | | | | | | |
| 23 | | | | | | | | 9 ~ 23 cm core | | | | | | | | | |
| 24 | 35.50 | 24.38 | 6.09 | | SHALE | GREY | | | | | | | | | | | |
| 25 | | | | | | | | End of Boring | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.12 DRILLING LOG

Co-ordinates of Boreholes
 N 921,026.819
 E 2231,536.406

Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT Type of Drilling: ROTARY
 Elevation: R L + 74.64 Date: 18.6.86 ~ 24.6.86
 Water Table: NIL m Casing Depth (0) m Diameter: Saw Maurice Zan (Aung Noing)

| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | | Standard Penetration Test or Core Recovery and H.A. | | | | | | | |
|------------|----------------|------------|----------------|--------|----------------------|-----------------|---------------------------------|---|------------|-----------|--------------------------|---|-----------|-----------|----------------------|----|----|----|-----|
| | | | | | | | | | Depth in m | Sample No | N Value (Blows per 30cm) | Blows Per Each 15 cm | | | Core Recovery & H.A. | | | | |
| | | | | | | | | | | | | Blow 15cm | Blow 15cm | Blow 15cm | 20 | 40 | 60 | 80 | 100 |
| | 74.64 | | | | | | | | 0-05 | 11-1 | 14 | 3 | 7 | 7 | | | | | |
| 1 | | | | | | Reddish BROWN | Medium Dense | Some sub rounded Gravels Ø 2 ~ 10 cm max Ø 15 cm | 0-45 | 11-2 | 39 | 15 | 24 | | | | | | |
| 2 | | | | | | | | | 1-82 | | | | | | | | | | |
| 3 | 71.59 | 3.05 | 3.05 | | Silty SAND | Yellowish BROWN | Very Dense | fine to med: SAND | 3.05 | 11-3 | 50/5 | 50/5 | | | | | | | |
| 4 | | | | | | | | laminated soft Sand stone mixed with mica | 3-10 | | | | | | | | | | |
| 5 | | | | | | | | around at 4.0 ^m , 7.7 ^m and 10.5 ^m | 5-89 | 11-4 | 50/11 | 50/11 | | | | | | | |
| 6 | | | | | | | | Hard Sand stone | 6-00 | | | | | | | | | | |
| 7 | | | | | | | | soil-like ~ 15 cm core | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 11 | 63.97 | 10.67 | 7.62 | | SAND STONE | Yellowish BROWN | | | | | | | | | | | | | |
| 12 | | | | | | | | mixed with mica | | | | | | | | | | | |
| 13 | | | | | | | | Brown hard SAND STONE (40%) and SHALE (60%) | | | | | | | | | | | |
| 14 | | | | | SAND STONE and SHALE | | | of 11.6 ^m shells | | | | | | | | | | | |
| 15 | 59.40 | 15.24 | 4.57 | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | top 1.5 ^m trace of shell | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | mixed with mica soft SAND STONE | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | at 19 ^m clay pot | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | |
| 23 | 51.78 | 22.86 | 7.62 | | SAND STONE | Yellowish BROWN | | | | | | | | | | | | | |
| 24 | | | | | | | | End of Boring | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.13 DRILLING LOG

Name: _____
 Co-ordinates of Bore hole
 N 921,117.341
 E 2231,705.529

Project: **IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT** Type of Drilling: _____
 No. of Borehole: **12** Elevation: **RL + 42.12** m Date: **8-6-86** ~ **9-6-86**
 Water Table: **NIL** m Casing Depth ($\phi 4''$) **GL - 6.1** m. Driller: **AUnger** Aung Kyaw Naing

| Sample No. | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration Test or Core Recovery and ROD. | | | | | | | | | |
|------------|----------------|------------|----------------|--------|--------------|-----------------|---------------------------------|-------------------------|------------|------------|---|----------------------|-------|-------|-------------------------|----|----|----|-----|--|
| | | | | | | | | | Depth in m | Sample No. | Blows per 30cm | Blows Per Each 15 cm | | | Core Recovery & ROD (%) | | | | | |
| | | | | | | | | | | | | 15-30 | 30-45 | 45-60 | 20 | 40 | 60 | 80 | 100 | |
| | 42.12 | | | | | | | | | | | | | | | | | | | |
| 1 | 41.62 | 0.50 | 0.50 | | Clayey Silt | Dark BROWN | Stiff | Cultivated | 6.15 | 12-1 | 10 | 4 | 5 | 5 | | | | | | |
| 2 | 40.60 | 1.52 | 1.02 | | Clayey SILT | Dark BROWN | Stiff | | 0.45 | | | | | | | | | | | |
| 3 | | | | | | Dark BROWN | Medium | | 1.67 | 12-2 | 7 | 2 | 3 | 4 | | | | | | |
| 4 | | | | | | | | | 3.05 | | | | | | | | | | | |
| 5 | | | | | | | | | 3.91 | 12-S1 | | | | | | | | | | |
| 6 | 36.02 | 6.10 | 4.58 | | Silty CLAY | BROWN | Very Stiff | trace of very fine Sand | 4.72 | 12-3 | 18 | 3 | 7 | 11 | | | | | | |
| 7 | | | | | | | | | 5.02 | | | | | | | | | | | |
| 8 | 34.60 | 7.62 | 1.52 | | Sandy SILT | Yellowish BROWN | Very Stiff | | 6.10 | | | | | | | | | | | |
| 9 | 34.05 | 8.07 | 0.45 | | Clayey SAND | Yellowish BROWN | Dense | fine to med. SAND | 6.55 | 12-S2 | | | | | | | | | | |
| 10 | | | | | | | | | 7.77 | 12-4 | 36 | 8 | 11 | 25 | | | | | | |
| 11 | | | | | | | | | 8.07 | | | | | | | | | | | |
| 12 | | | | | | | | End of Boring | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.14 DRILLING LOG

Remarks:
 Estimated co-ordinates
 N = 918,813
 E = 2230,780
 SPT: Rope - Cone Pulley
 Method

Proj. IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT Type of Drilling ROTARY (Acker # 2)
 Hole Number B 1-1 Elevation R.L. + 50.79 m Date 1.4.74 ~ 4.4.74
 Water Table NIL m Casing Depth (Ø) m Driller Aung Soe (Ye Myint)

| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sampling | | Standard Penetration Test or Core Recovery and HQD | | | | | | | | | | | |
|------------|----------------|------------|----------------|--------|-------------------------------------|-----------------|---------------------------------|--|------------|------------|--|----------------------|-------------------------|----|----|----------------------|----|----|----|-----|--|--|
| | | | | | | | | | Depth in m | Sample No. | N-Value Blows per 30cm | Blows Per Each 15 cm | Core Recovery & ROU (%) | | | N-Value (blows/30cm) | | | | | | |
| | | | | | | | | | | | 10 | 20 | 30 | 40 | 50 | 20 | 40 | 60 | 80 | 100 | | |
| | 50.79 | | | | | | | top 60 cm weathered | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | 6 | 3 | 3 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | Applied 750 psi & dropped steadily | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | 3.0 ~ 4.5 m loss water | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 44.39 | 6.40 | 6.40 | | SAND STONE with thin layer of shale | Yellowish BROWN | | 2 ~ 5 cm core pieces | | | | | | | | | | | | | | |
| 7 | | | | | | | | 2 ~ 5 cm core pieces | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 41.55 | 9.24 | 2.84 | | SILT STONE and SAND STONE | Bluish GREY | | 850 psi dropped steadily | | | | | | | | | | | | | | |
| 10 | | | | | | | | Upper parts of this formation is fractured along the joint | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | 10.7 ~ 12.2 m | | | | | | | | | | | | | | |
| 13 | | | | | | | | 13.7 ~ 15.2 m | | | | | | | | | | | | | | |
| 14 | | | | | | | | loss water above 15.2 m | | | | | | | | | | | | | | |
| 15 | | | | | | | | 5 ~ 30 cm core | | | | | | | | | | | | | | |
| 16 | | | | | | | | below 15.2 m | | | | | | | | | | | | | | |
| 17 | | | | | | | | 5 ~ 10 cm core pieces | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | |
| 21 | 29.35 | 21.44 | 12.20 | | SAND STONE | Bluish GREY | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | End of Boring | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | | | |

Appendix Fig. 6.3.15 DRILLING LOG

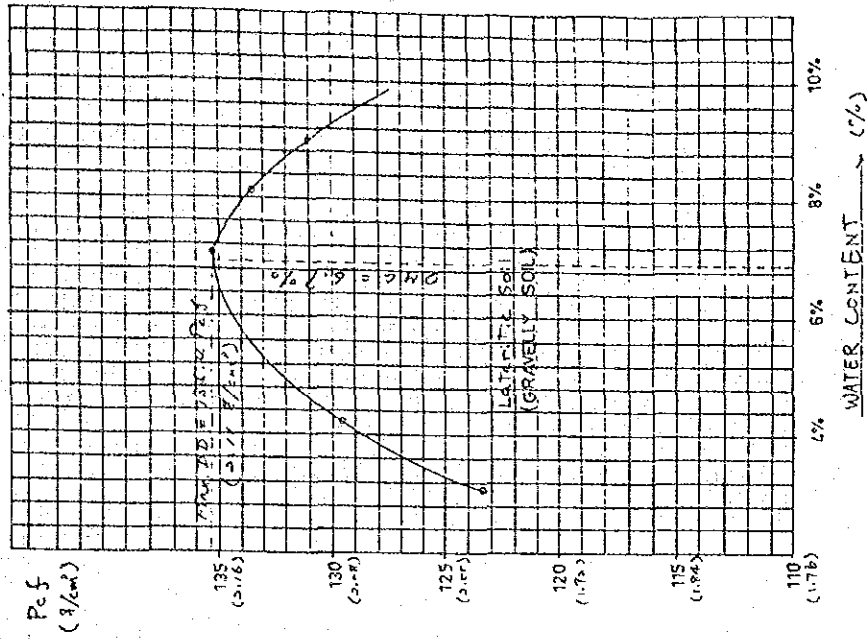
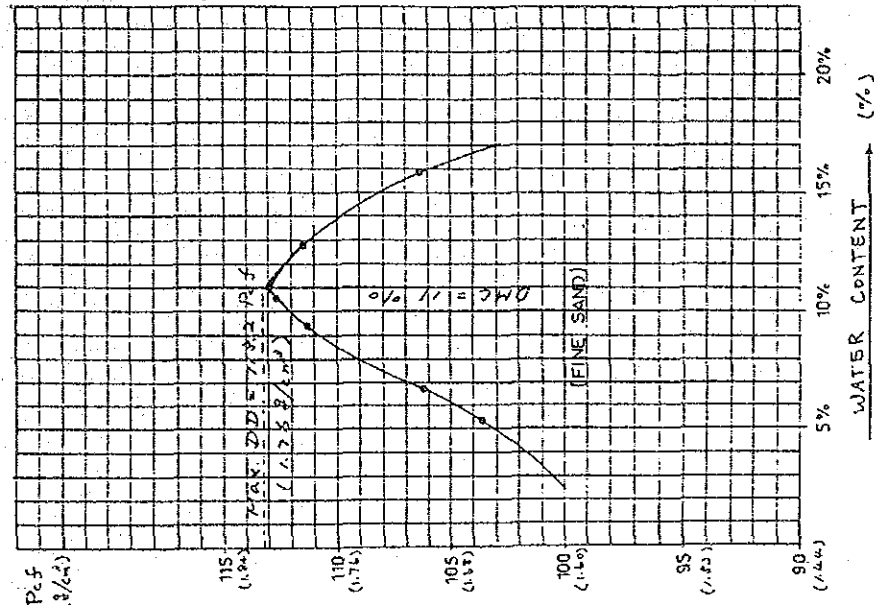
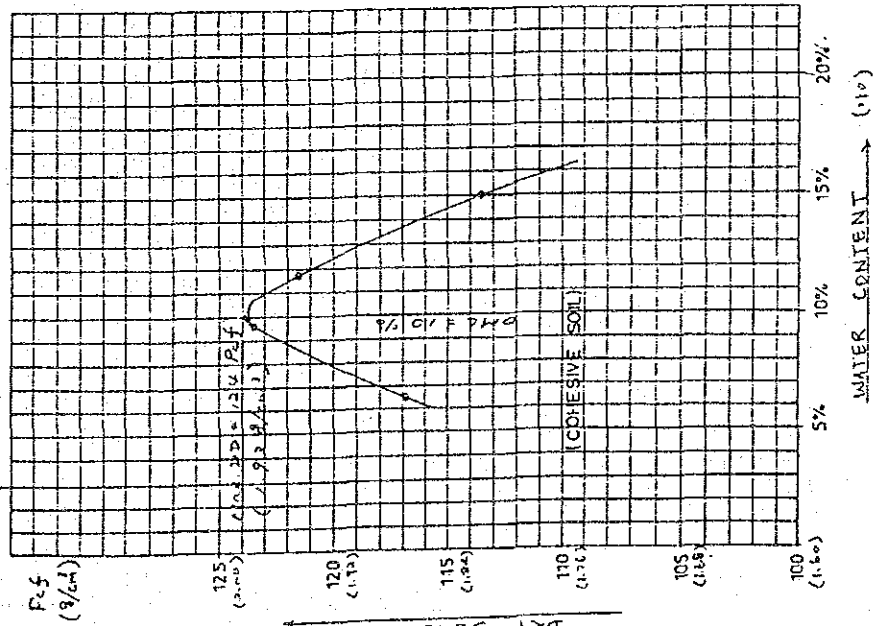
Project: IRRAWADDY RIVER BRIDGE CONSTRUCTION PROJECT
 Type of Drilling: ROTARY (Acter 2)
 Hole Number: B1-2
 Elevation: RL + 9.20 m Date: 20.3.74
 Core Depth: 0 m Diver: Sov. Maurice Zou

Remarks:
 Estimated Co-ordinates
 N = 816,888
 E = 223,385
 S.P.T.: Rope - Core Pulley Method

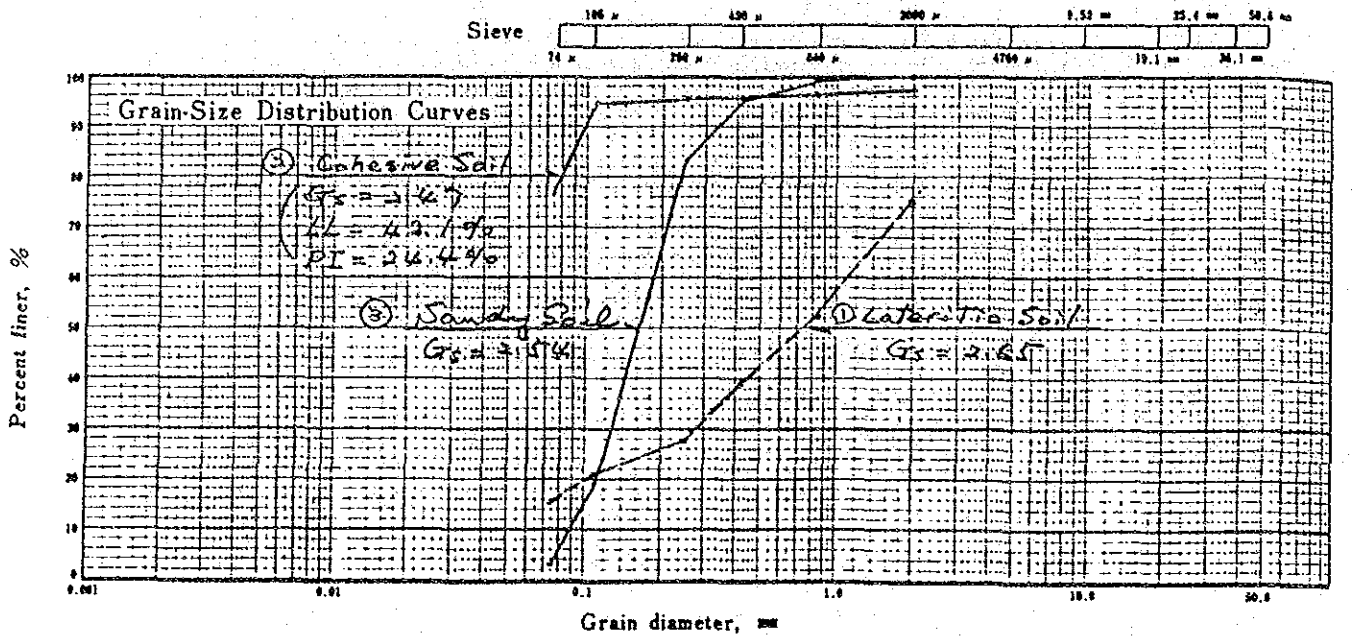
| Scale in m | Elevation in m | Depth in m | Thickness in m | Legend | Type of Soil | Colour | Relative Density or Consistency | General Remarks | Sample No | Blows Per Blow Each 15 cm | Standard Penetration Test of Core Recovery and ROD |
|------------|----------------|------------|----------------|---------------|---------------|-----------|--|---------------------|-----------|---------------------------|--|
| 1 | 7.96 | 1.22 | 1.22 | SILT | DARK BROWN | Soft | Some Sand trace of Clay | | 4 | 2 | 2 |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | trace of Silt | | 6 | 3 | 3 |
| 4 | | | | | | | | | 7 | 3 | 4 |
| 5 | 4.32 | 4.88 | 3.66 | SAND | BROWN | Loose | Med to fine SAND | | 11 | 4 | 7 |
| 6 | | | | | | | Med Dense 2-6 m/m | | | | |
| 7 | | | | | | | Loose trace of Silt | | 9 | 4 | 5 |
| 8 | 1.28 | 7.92 | 3.04 | SAND | BROWN | Med Dense | Coarse to fine SAND | | 14 | 7 | 7 |
| 9 | | | | | | | Med Dense | | | | |
| 10 | | | | | | | Dense | trace of Silt | 22 | 11 | 11 |
| 11 | | | | | | | | | 30 | 11 | 19 |
| 12 | | | | | | | Coarse to fine SAND | | 23 | 6 | 15 |
| 13 | 3.60 | 12.80 | 4.88 | SAND | GREY | Med Dense | | | | | |
| 14 | | | | | | | GREY | | 25 | 9 | 16 |
| 15 | | | | | | | Whitish GREY | | 20 | 13 | 15 |
| 16 | | | | | | | | | 27 | 13 | 14 |
| 17 | 7.87 | 17.07 | 4.27 | SAND | BROWN | Dense | Med to fine SAND | | | | |
| 18 | | | | | | | | | 23 | 10 | 13 |
| 19 | | | | | | | Med. Dense | Coarse to fine SAND | 27 | 11 | 13 |
| 20 | 10.91 | 20.11 | 3.04 | SAND | GREY | Dense | | | 20 | 9 | 11 |
| 21 | | | | | | | Med. Dense | Coarse to fine SAND | | | |
| 22 | 12.76 | 21.95 | 1.84 | SAND | GREY | Dense | | | 22 | 9 | 13 |
| 23 | | | | | | | Med Dense | | 21 | 10 | 11 |
| 24 | | | | | | | | | 24 | 10 | 14 |
| 25 | | | | | | | Med Dense | | 26 | 11 | 15 |
| 26 | | | | | | | | | 44 | 24 | 20 |
| 27 | | | | | | | | | 48 | 23 | 25 |
| 28 | 11.84 | 28.04 | 6.08 | SAND | Bluish GREY | Dense | Coarse to fine SAND | | 46 | 20 | 26 |
| 29 | | | | | | | | | 54 | 23 | 31 |
| 30 | | | | | | | some Gravels (0.2-1.0 m/m) | | 48 | 24 | 24 |
| 31 | 21.89 | 31.09 | 3.03 | SAND | GREY | Dense | | | 53 | 23 | 30 |
| 32 | | | | | | | Med to fine SAND | | 58 | 27 | 31 |
| 33 | | | | | | | | | 60 | 29 | 31 |
| 34 | | | | | | | GREY | | 58 | 27 | 31 |
| 35 | | | | | | | | | 70 | 49 | 26 |
| 36 | | | | | | | | | 70 | 46 | 26 |
| 37 | 27.99 | 37.19 | 6.10 | SAND | Brownish GREY | Dense | Coarse to fine SAND | | 44 | 24 | 24 |
| 38 | | | | | | | some Gravels (0.2-2.4 m/m) | | 48 | 23 | 25 |
| 39 | 29.81 | 39.01 | 1.82 | SAND | GREY | Dense | | | 46 | 20 | 26 |
| 40 | 31.03 | 40.23 | 1.22 | SAND | GREY | Dense | | | 54 | 23 | 31 |
| 41 | | | | | | | Coarse to fine SAND | | 48 | 24 | 24 |
| 42 | 32.56 | 41.76 | 1.53 | Gravelly SAND | GREY | Dense | | | 53 | 23 | 30 |
| 43 | 34.08 | 43.28 | 1.52 | SAND | GREY | Dense | | | 58 | 27 | 31 |
| 44 | 35.30 | 44.50 | 1.22 | GRAVELLY SAND | GREY | Dense | Gravels (0.2-10 m/m) coarse to fine SAND | | 60 | 29 | 31 |
| 45 | | | | | | | | | 70 | 49 | 26 |
| 46 | 35.82 | 45.02 | 1.52 | SAND | GREY | Dense | Coarse to med SAND | | 70 | 49 | 26 |
| 47 | 38.90 | 47.70 | 1.68 | Gravelly SAND | GREY | Dense | Gravels (0.2-22 m/m) coarse to fine SAND | | 70 | 49 | 26 |
| 48 | | | | | | | | | 70 | 49 | 26 |
| 49 | | | | | | | Very Dense | | 69 | 32 | 37 |
| 50 | | | | | | | Very Dense | | 49 | 22 | |
| 51 | 41.70 | 50.90 | 3.20 | SAND | GREY | Dense | | | 29 | 13 | 16 |
| 52 | | | | | | | End of Boring | | | | |

Appendix Fig. 6.3.16

Compaction Test on Subgrade Materials AASHTO MOD: COMPACTION: METHOD ()



Appendix Fig. 6.3.17 GRADATION, SPECIFIC GRAVITY, ATTERBERG LIMITS OF SUBGRADE MATERIALS

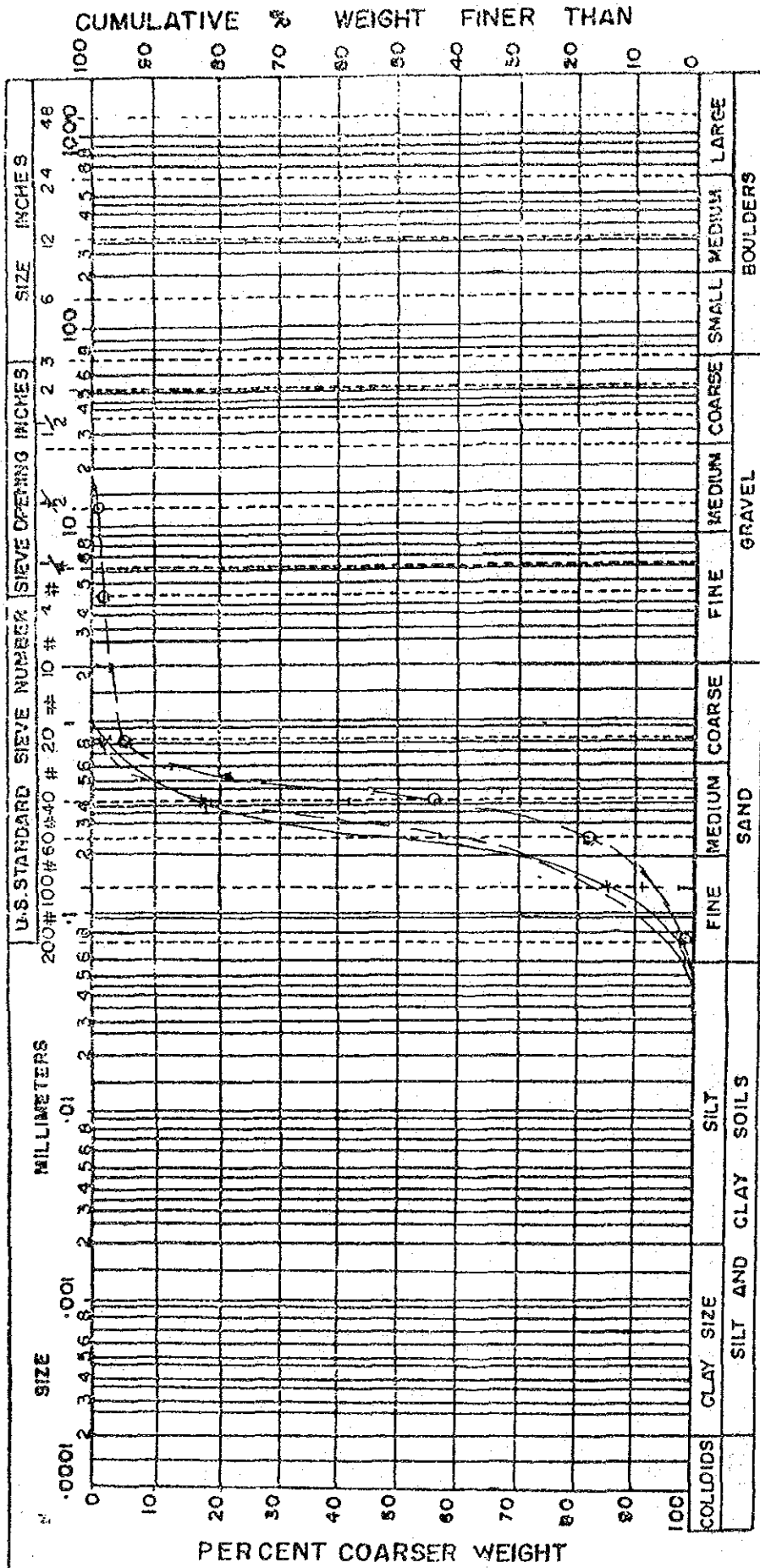


| | | | | |
|---------|-------|-------|------|--------|
| Colloid | Clay | Silt | Sand | Gravel |
| 0.001 | 0.005 | 0.075 | 2.0 | |

CONSTRUCTION CORPORATION
RESEARCH & TESTING LABORATORY

JOB NO. *MYAWADDY BRIDGE PROJECT*
 PROJECT

BH. 2

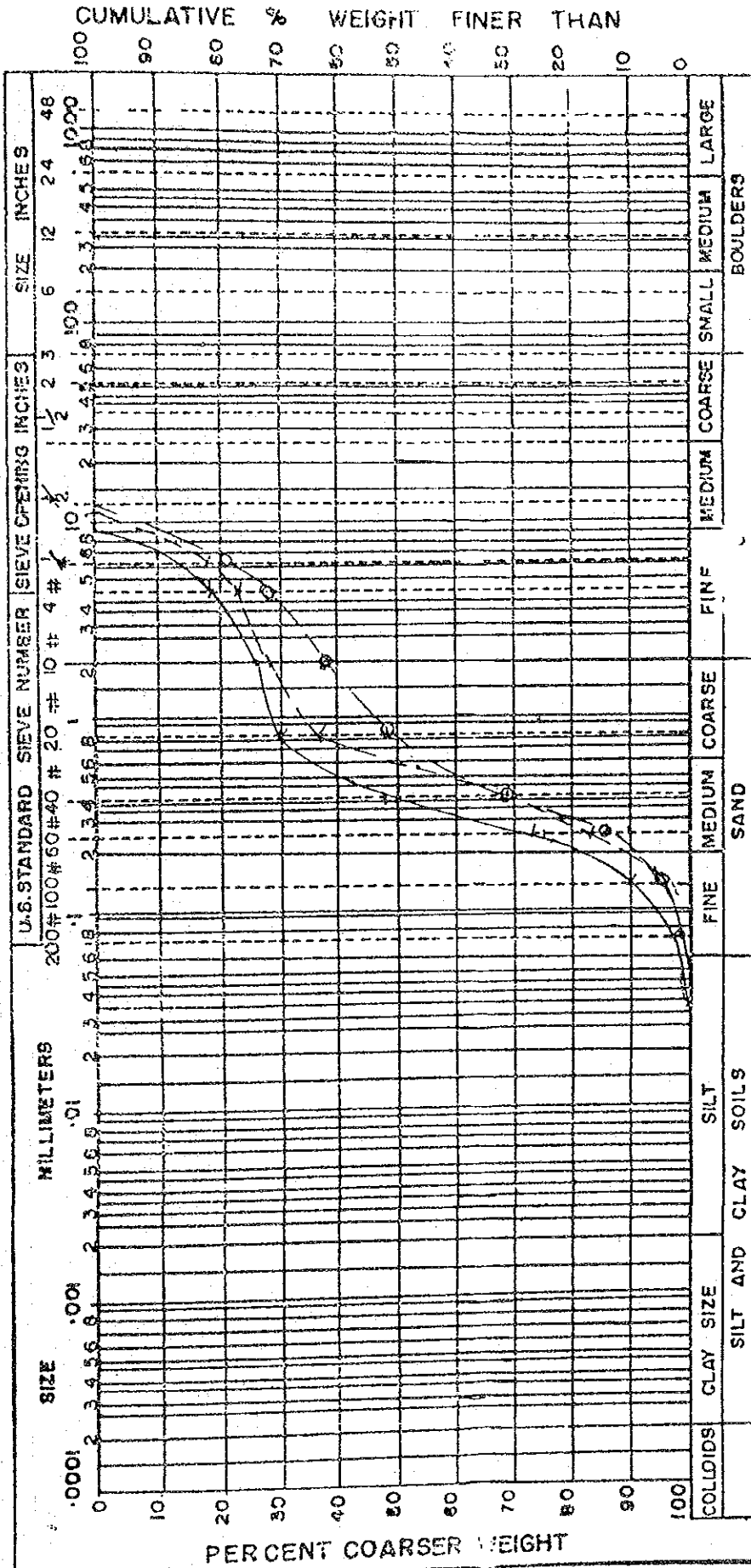


SPL. 17' DEPTH. 0'-5'
 " 2 " 5'-10'
 " 5 " 20'-25'
 " 0 - 0

CONSTRUCTION CORPORATION
RESEARCH & TESTING LABORATORY

JOB NO: MYAWADDY BRIDGE PROJECT
 PROJECT

SH. 2



SPLIT & DEPTH. 25'-30'
 " 7 " 30'-35'
 " " 50'-55'

Appendix Fig. 6.3.20 GRAIN SIZE DISTRIBUTION

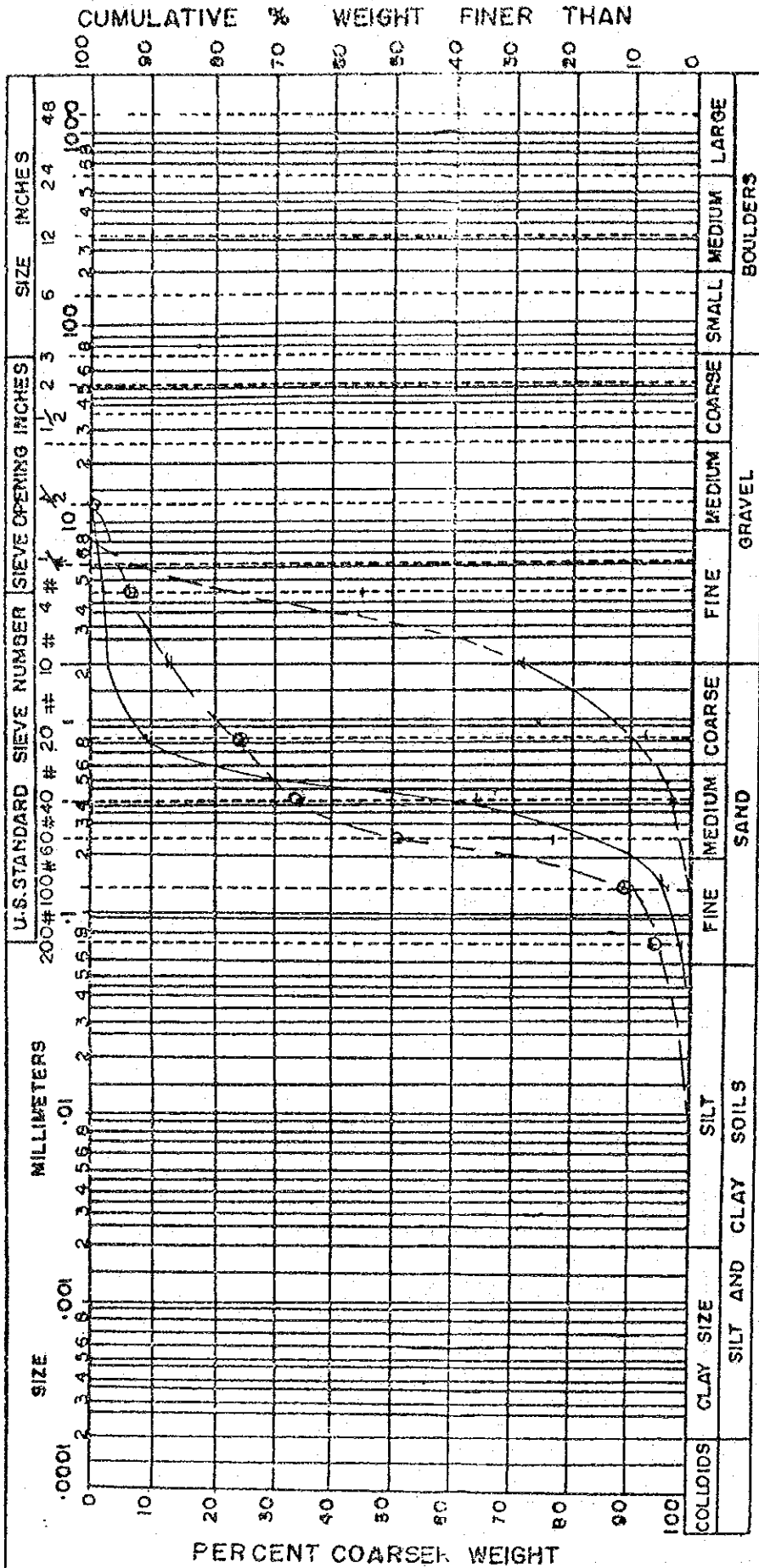
CONSTRUCTION CORPORATION

RESEARCH & TESTING LABORATORY

JOB NO. MYAWADDY BRIDGE, PROJECT

PROJECT

BH. 2



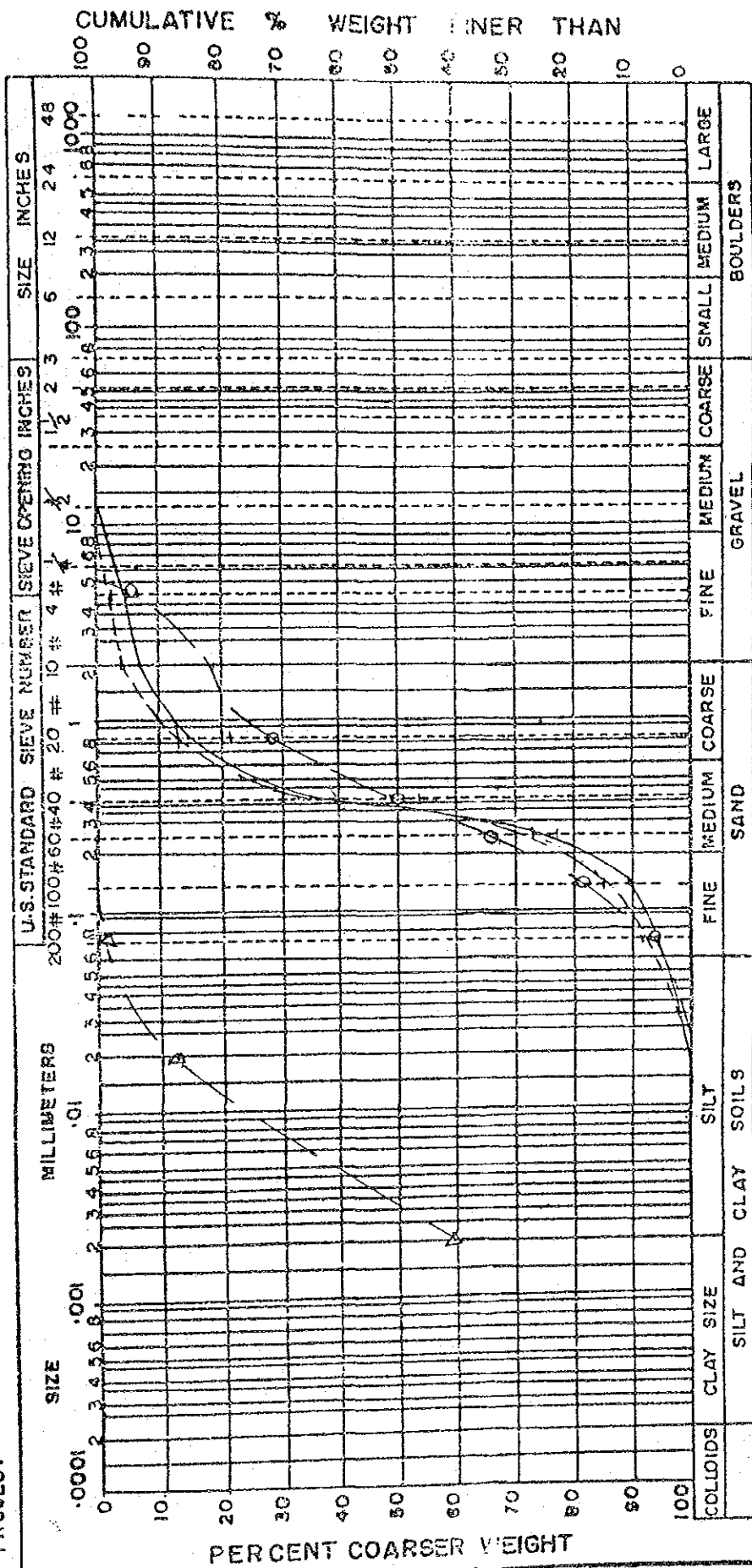
SPLIT 12 DEPTH 55-60"
 " 14 " 65-70"
 " 16 " 75-80"

Approved by: 6-2-21 GRAIN SIZE DISTRIBUTION

CONSTRUCTION CORPORATION
RESEARCH & TESTING LABORATORY

JOB NO. MYAWADDY BRIDGE PROJECT
PROJECT

SH. 2



SPLIT 17 DEPTH. 80'-85'
" 18 " 85'-90'
" 20 " 95'-100'
" 23 " 106 1/2'-107'

Appendix Fig. 6.3.22 GRAIN SIZE DISTRIBUTION

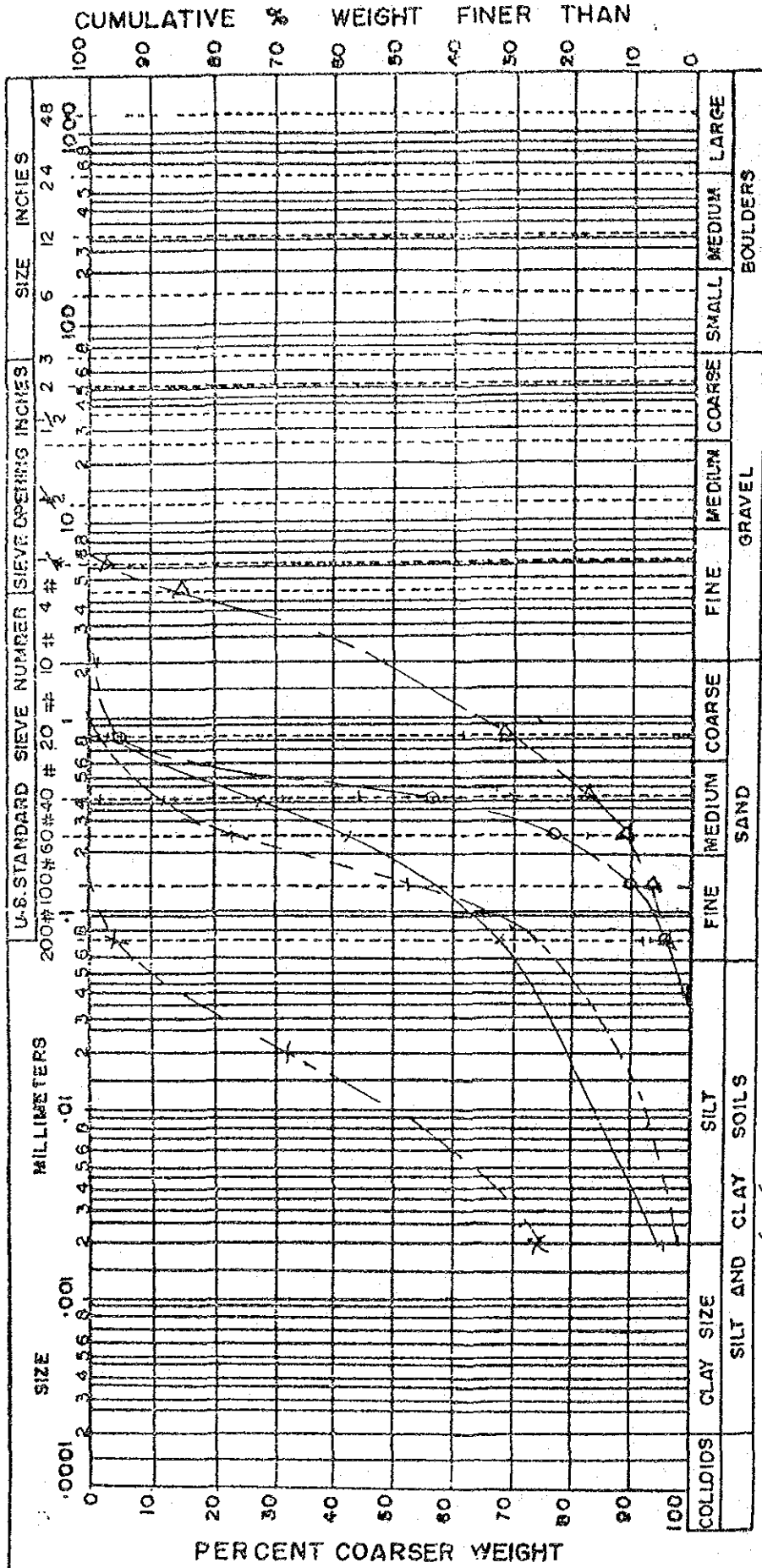
CONSTRUCTION CORPORATION

RESEARCH & TESTING LABORATORY

JOB NO. MYAWADDY BRIDGE PROJECT

PROJECT

84.3



SPLIT 90 DEPTH OF 1'

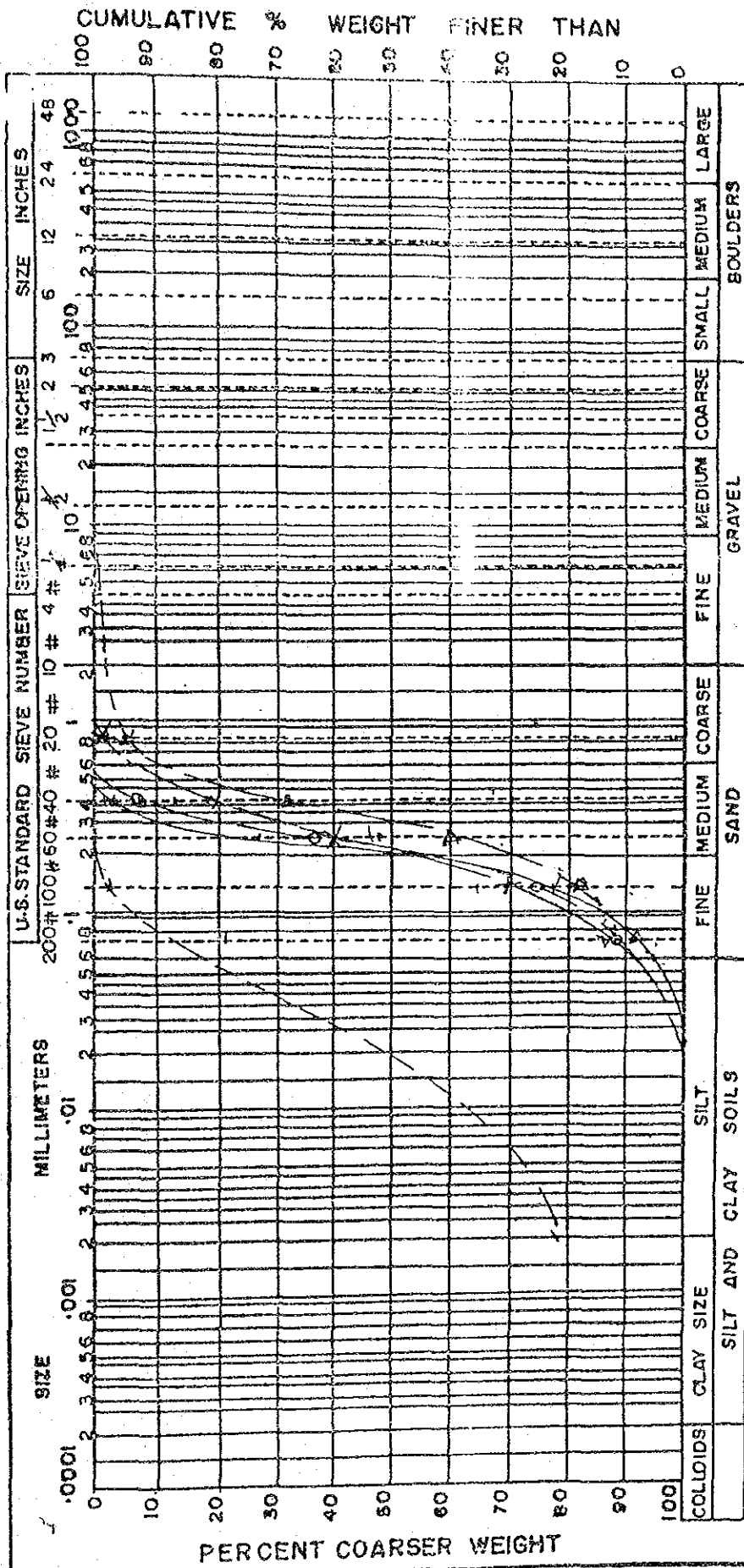
| | | |
|------|---------|---|
| " 3 | 10'-15' | |
| " 5 | 20'-25' | 0 |
| " 7A | 30'-35' | 4 |
| " 7B | 30'-35' | x |

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SPLIT NO. 9 DEPTH 40' - 45'
 " " " 50' - 55'
 " " " 55' - 60'
 " " " 65' - 70'
 " " " 75' - 80'

Appendix Fig. 6.3.24 GRAIN SIZE DISTRIBUTION

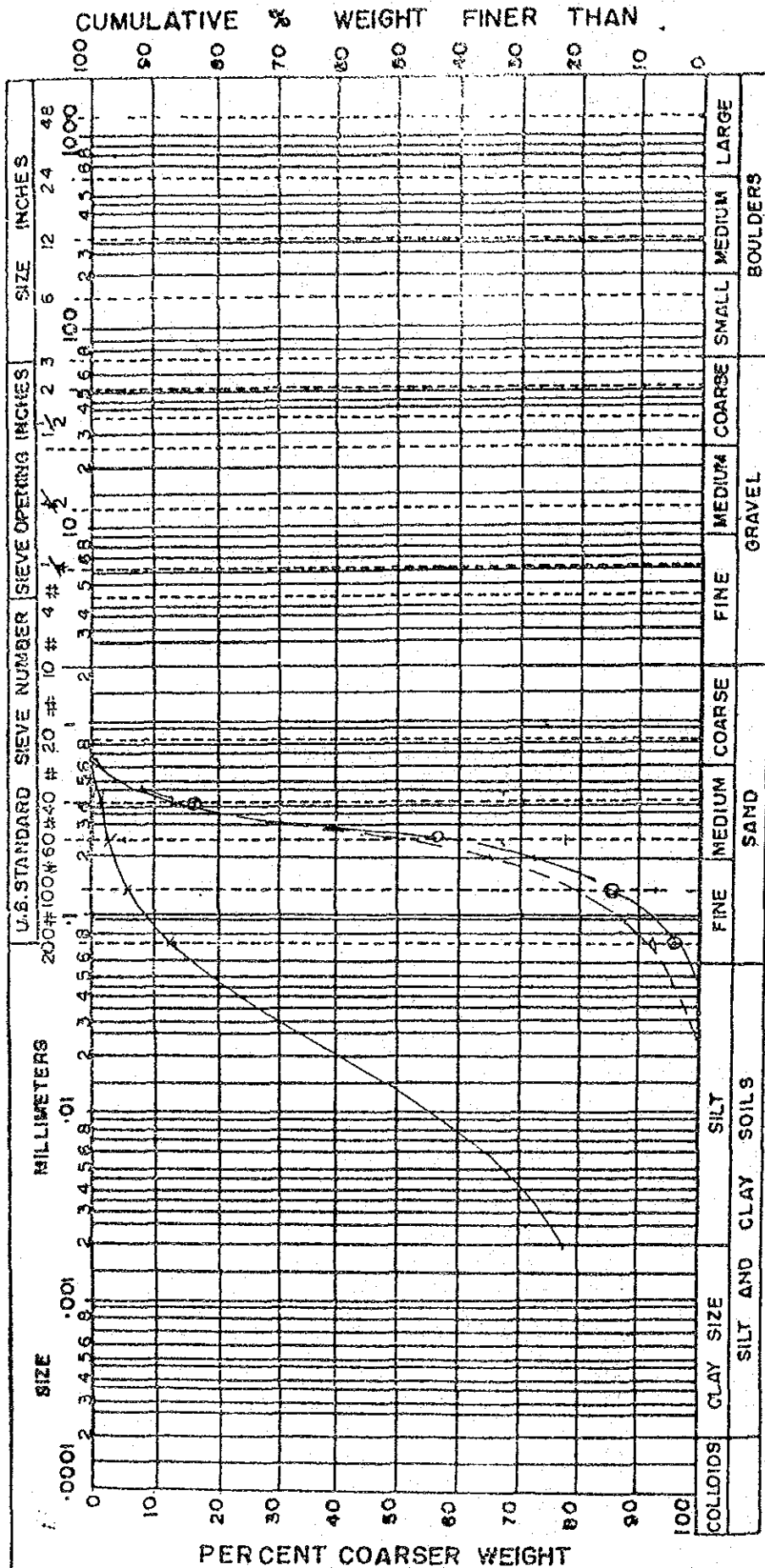
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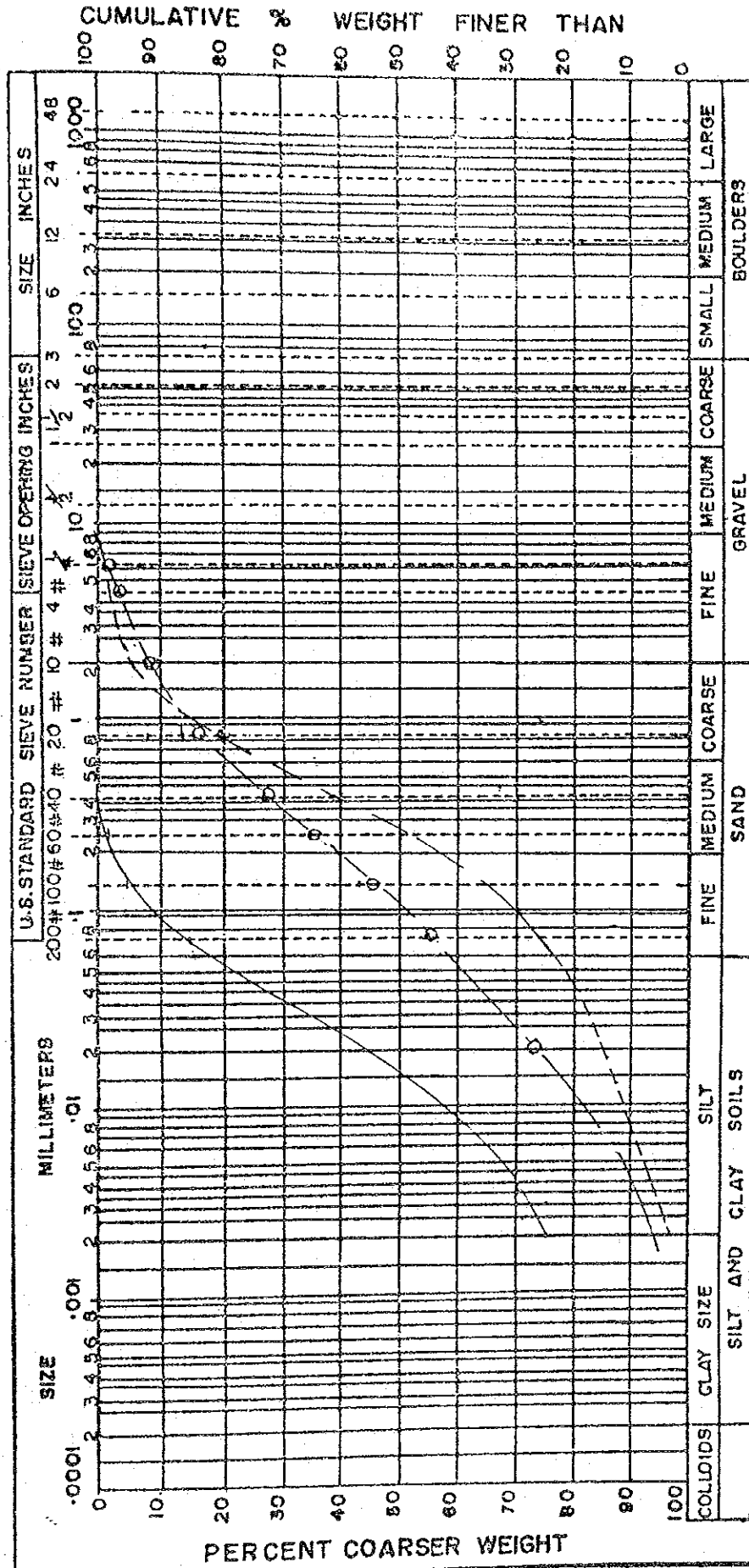


SPLIT, 17 A DEPTH - 80' - 85'
 " 18 " 85' - 90'
 " 25 " 120' - 125'

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PROJECT

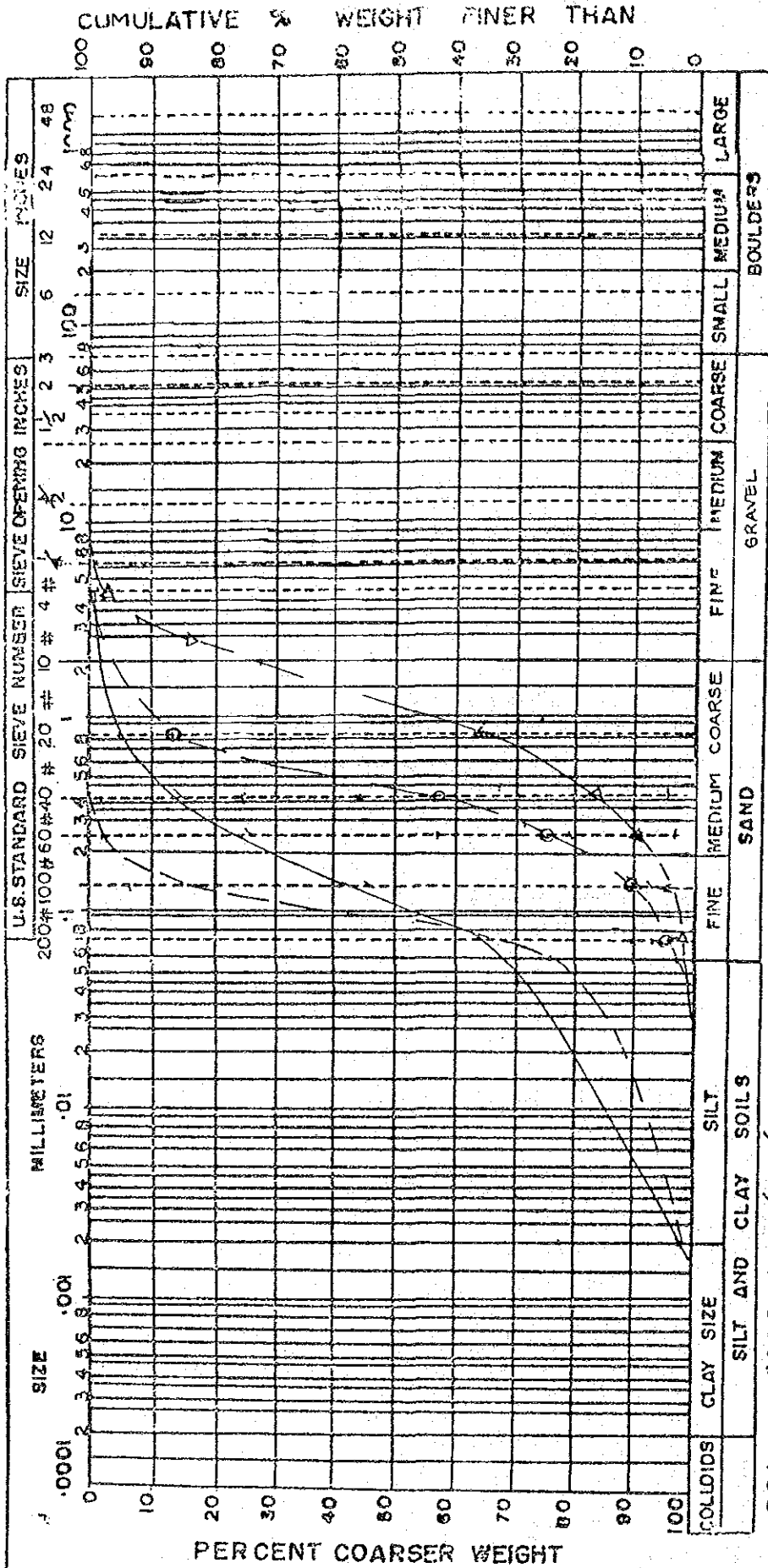
BH. 3



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BH. 4



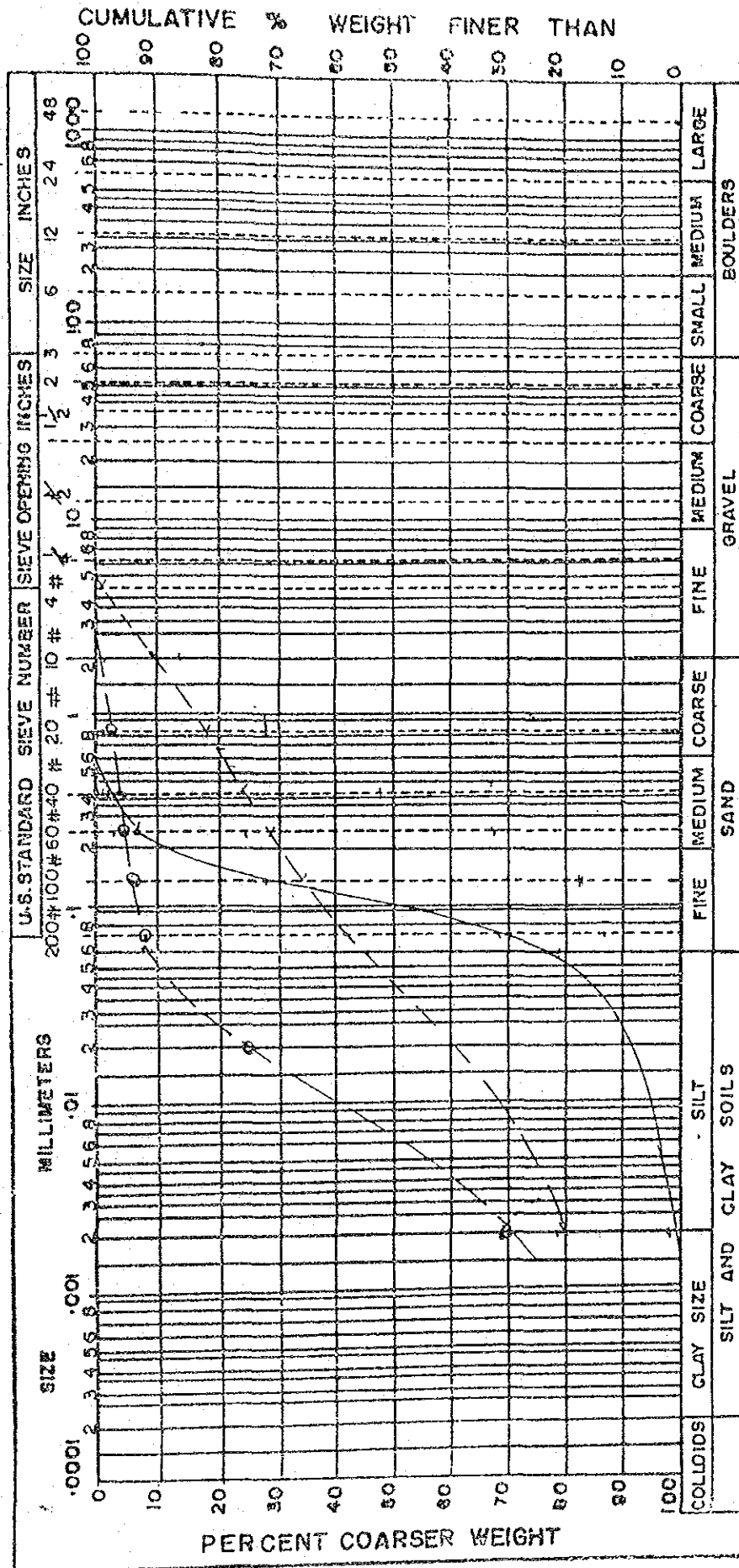
SILT AND CLAY SOILS
 SILT DEPTH 0' - 5'
 " 4 " 15' - 20'
 " 5 " 20' - 25'
 " 8 " 35' - 40'

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84.4



Appendix Fig. 6.3.28 GRAIN SIZE DISTRIBUTION