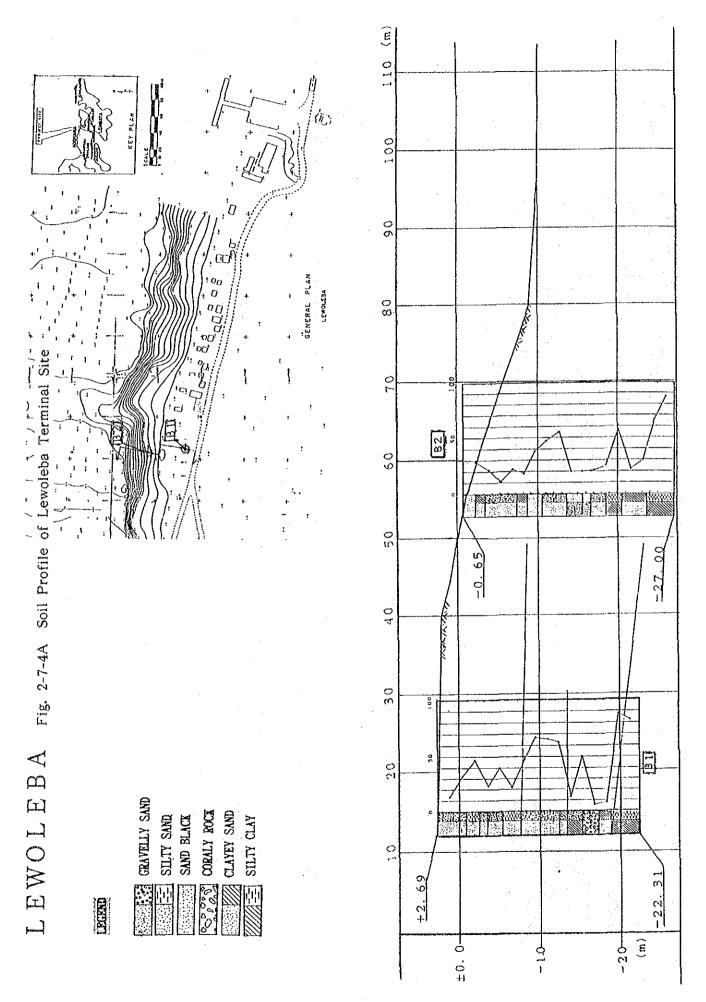


-20-



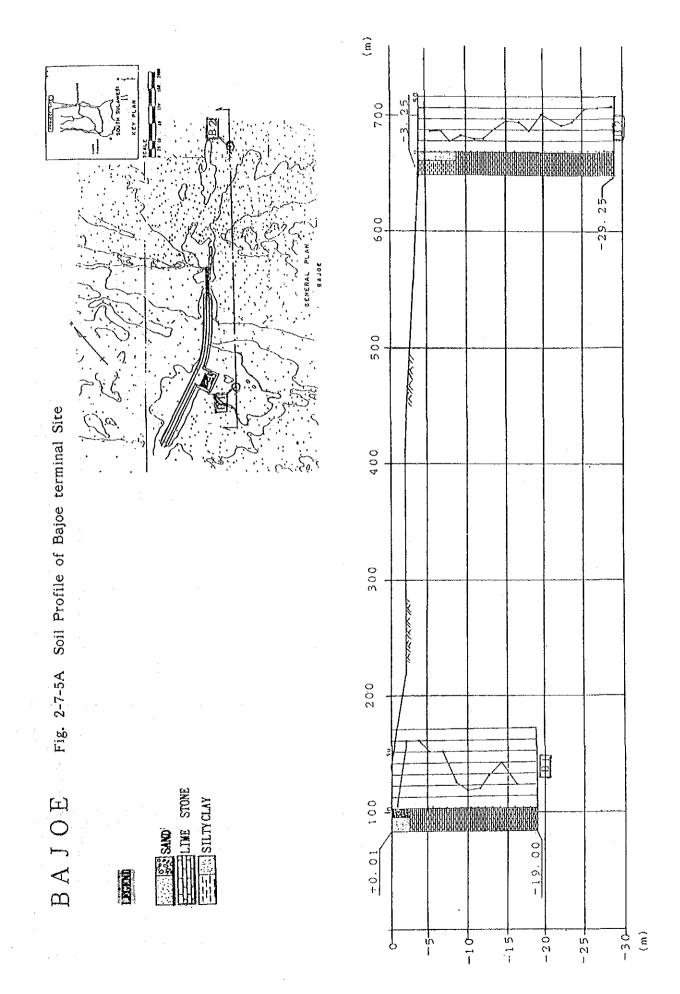
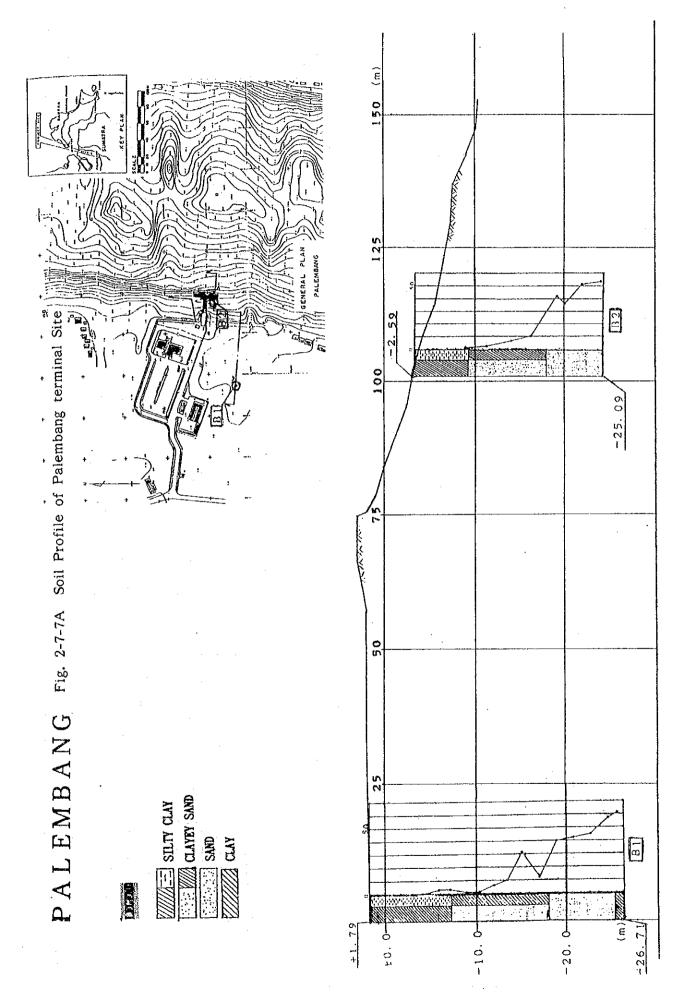


Fig. 2-7-6A Soil Profile of Lolaka Terminal Site KOLAKA FINE SAND B.1 SILTY SAND LECEND (E)



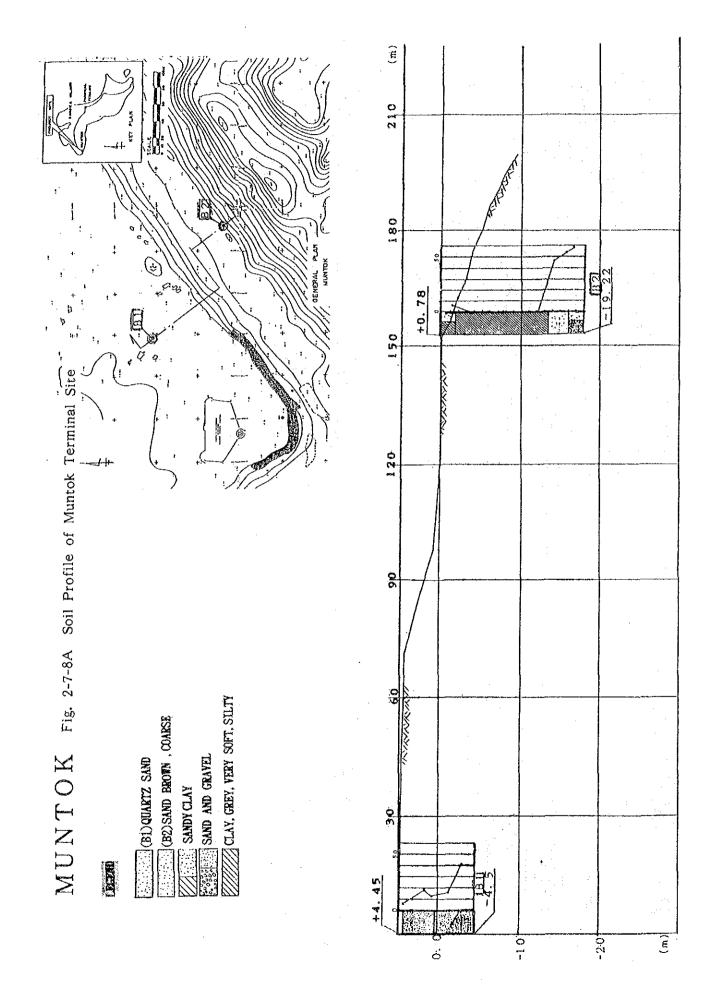


Table 4-2-1A Meterological Data at Biak

The mean value in 1980 through 1989

(from Head of First Class Weather Station, Biak)

| | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|----|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 07.7 | 07.9 | 08.3 | 07.9 | 07.9 | 08.4 | 08.4 | 08.6 | 08.6 | 08.2 | 07.6 | 07.6 |
| 2 | 09.0 | 09.3 | 09.7 | 09.4 | 09.3 | 09.8 | 09.9 | 09.9 | 10.0 | 09.7 | 09.1 | 09.1 |
| 3 | 26.7 | 26.4 | 26.5 | 26.7 | 26.9 | 26.6 | 26.5 | 26.6 | 26.6 | 26.8 | 26.9 | 26.8 |
| 4 | 87 | 86 | 87 | 87 | 87 | 87 | 85 | 85 | 85 | 85 | 86 | 86 |
| 5 | 30.0 | 29.7 | 29.9 | 30.3 | 30.6 | 30.1 | 29.4 | 29.4 | 29.5 | 29.9 | 30.3 | 30.2 |
| 6 | 31.9 | 31.9 | 32.1 | 32.0 | 32.0 | 31.8 | 31.3 | 31.9 | 31.9 | 32.2 | 32.1 | 32.1 |
| 7 | 32.4 | 32.8 | 32.8 | 32.5 | 32.5 | 32.6 | 32.0 | 32.8 | 32.4 | 32.8 | 32.6 | 32.8 |
| 8 | 22.1 | 21.7 | 21.8 | 22.4 | 22.5 | 22.1 | 21.7 | 21.8 | 21.4 | 22.1 | 22.0 | 21.9 |
| 9 | 20.8 | 19.0 | 21.0 | 21.0 | 22.0 | 21.0 | 20.7 | 20.6 | 19.5 | 21.0 | 20.1 | 20.4 |
| 10 | 55 | 53 | 51 | 54 | 61 | 53 | 60 | 61 | 61 | 58 | 55 | 57 |
| 11 | 298 | 199 | 278 | 249 | 259 | 194 | 233 | 254 | 210 | 212 | 189 | 247 |
| 12 | 21 | 19 | 23 | 21 | 21 | 18 | 19 | 20 | 19 | 20 | 19 | 21 |
| 13 | 98 | 55 | 128 | 99 | 100 | 59 | 116 | 86 | 120 | 90 | 66 | 116 |
| 14 | 270 | 270 | 270 | 270 | 090 | 090 | 090 | 270 | 090 | 270 | 270 | 270 |
| 15 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 | 05 |
| 16 | 270 | 260 | 260 | 200 | 250 | 260 | 090 | 100 | 090 | 250 | 270 | 300 |
| 17 | 35 | 35 | 30 | 25 | 25 | 22 | 20 | 24 | 25 | 25 | 27 | 30 |

Remark

- 1. Air pressure on land station more than 1,000 in millibar
- 2. Air pressure on sea level more than 1,000 in millibar
- 3. Air temperature in C
- 4. Air humidity
- 5. Vapor pressure in millibar
- 6. High temperature in C
- 7. Highest high temperature in C
- 8. Low temperature in C
- 9. Lowest low temperature in C
- 10. Percentage of the sunshine
- 11. The duration of sunshine in hour
- 12. The days of sunshine
- 13. Precipitation
- 14. Direction of wind
- 15. Velocity of wind in knot
- 16. Direction of the strongest wind
- 17. Velocity of the strongest wind in knot

Table 4-2-2A Meterological Data at Kolaka (from Harbor-master Office, Kolaka)

1. Wave

The highest wave

: 0.70m

----do---- month

: Feb. to Mar.

The average height

: 0.20m

2. Current

: not available

3. Wind

The max. speed

: 15m/s

Direction

: W

----do---- month

: Jan. to Mar.

4. Temperature

Average temperature: 25C

5. Air pressure

: not available

6. Tide

HHW

: 2.00m

HW

: 1.75m

MTL

: 0.80m

LLW

: 0.00m

Table 4-3-1A List of Navigational Aids

(Biak)

(from Harbor-master Office, Biak)

| No. | Name (Place) | Type of Mark | Light Color/Rhythm | Posi | | Remark |
|------|-----------------|---|--|------------|-------------|--------------|
| Ligl | nt Beacon | | | | | |
| 1. | Biak A | Leading L't | F1.3s. | 01-11-06 | 136-04-27 | - |
| 2. | Biak B | do | F1.3s. | 01-11-02 | 136-04-14 | - |
| 3. | Biak Approach A | do | F. | 01-11-26 | 136-05-31 | ~ |
| 4. | Biak Approach B | do | F. | 01-11-20 | 136-05-36 | |
| Ligl | nt Buoy | | | | | |
| 1. | Biak Entrance | Safe Water | F1.3s. | 01-11-48 | 136-05-47 | - |
| | | (Larantuka | - Terong - Lei | voleba) | | |
| | | (fr | om Harbor-mast | er Office | , Larantuk | a) |
| Lig | ht Beacon | | | | | |
| _ | Larantuka | L't B'n | F1.4s. | 08-20-30 | 122-59-20 | Solar |
| 2. | Waiwerang | L't B'n | F1.3s. | 08-23-24 | 123-09-36 | Solar |
| 3. | Tg.Serbete | L't B'n | F1.5s | 08-19-12 | 123-00-48 | Solar |
| 4. | Pu.Lewotobi | L't B'n | Qk.Fl.1s. | 08-36-09 | 122-50-50 | Solar |
| 5. | Pu.Mas | L't B'n | F1.5s. | 08-09-00 | 123-01-06 | Solar |
| | | | | | • | |
| | | • | a <i>joe – Kolaka)</i> from Harbor-ma | ster Offi | ce Baine | & Kolaka |
| Lig | ht Becon | • | TIOM HAIDOI MA | .5001 0211 | , 2-60- | |
| _ | Kr.Totopela N | Port | Fl.4s.R. | 04-30-47 | 120-28-18 | - |
| | Kolaka | L't B'n | F1.3s | 04-03-12 | 121-35-05 | Ra.Ref |
| | Kr.Kolaka | Port | F1(2)6s.R. | 04-03-18 | 121-34-24 | Ra.Ref |
| | Kr.Bingkoka | Star <u>d</u> | F1.5s.G. | 04-03-55 | 121-33-37 | Ra.Ref |
| | Kr.Padamarang | Port | F1.6s.R. | 04-03-20 | 121-23-48 | Missin |
| | Lambasina Besar | L't B'n | F1.5s | 04-04-10 | 121-21-59 | _ |
| | Lambasina Kecil | L't B'n | F1(2)8s. | 04-04-45 | 121-19-30 | _ |
| | • | : | | | | |
| Lig | ht Buoy | | | | | |
| _ | Off 750m Kr. | Port | | 750m ESI | off Jetty | Damage |
| | Off 1250m Kr. | Star <u>d</u> | | 1250m El | NE off Jet | y Damage |
| | Off 2000m Kr. | Stard | · _ | 2000m E | NE off Jett | ty Damage |
| | Kr. Torea E | $\operatorname{Star}\underline{\mathbf{d}}$ | | 6000m Nl | e off Jett | ty Damage |
| | | · · | | | (cor | ntinued) |

(Palembang - Muntok)
(from DGSC Sub District Navigation, Palembang)

| No. | Name (Place) | Type of Mark | Light Color/Rhythm | | tion Long.(E) | Remark |
|-----|-----------------|-----------------|-------------------------|----------|------------------|------------|
| | | | | <u></u> | | 1 |
| | nt House | T 17 | 701 . S. c. | 02-05-00 | 105-08-00 | Generator |
| | | L.H. | F1.5s | 02-05-00 | T00.00.00 | deliciator |
| _ | nt Beacon | a | Inc. Co. C | 02-58-30 | 104-51-00 | EB |
| | | Stard | Iso.6s.G. L.F1.5s.R. | | | AGA |
| | St.Borong | Port | L.F1.8s.R. | | | EB |
| | St.Banjar | Port | | | 104-53-00 | AGA |
| | Kumbang | Port | F.R. | | 104-53-54 | AGA |
| | Kumbang | Port | F.R. L.F1.8s.G. | | | AGA |
| | Pu.Burung | Stard | | | | EB |
| | St.Jaran Depan | | F1.3s. | | 104-54-30 | EB |
| | St.Jaran Depan | * * | F1.4s. | | 104-54-18 | AGA |
| | St.Jaran | Port | F.R. | | 104-55-54 | |
| | Upang | Star <u>d</u> | L.F1.8s.G. | • | | EB EB |
| | Upang | Port | F.R. | | 104-57-06 | |
| 2. | Tg.Pu.Upang | Port | F1.R. | * 1 | 104-57-12 | EB |
| 3. | Pu.Ayam | Star <u>d</u> | L.F1.5s.G. | | | AGA |
| 4. | Pegayahan | Star <u>d</u> | L.F1.7s.G. | | | AGA |
| 5. | Sedu Mara | Port | L.F1.6s.R. | | | AGA |
| 6. | Singris | Port | L.F1.10s.R | | | AGA |
| 7. | Kramat | Port | F.R. | | 104-56-00 | AGA |
| 8. | Parit 12A | Leading L't | F1.3s. | | 104-56-06 | EB |
| 9 | Parit 12B | Leading L't | Occ.3s | | 104-56-12 | |
| 20. | Sungsang A | Leading L't | Iso.2.5s. | 02-22-36 | 104-54-06 | EB |
| 21. | Sungsang B | Leading L't | F1.2.5s. | 02-22-54 | 104-54-00 | EB |
| 22. | Baak 4 | Leading L't | 0cc.4s. | 02-15-18 | 104-54-00 | EB |
| 23. | Baak 3 | Leading L't | F1.2s. | 02-14-30 | 104-54-50 | EB |
| 24. | Baak 2 | Leading L't | F1.2s. | 02-13-12 | 104-55-36 | EB |
| 25. | Baak 1 | Leading L't | F1.3s. | 02-12-36 | 104-55-36 | EB |
| 26. | Tg.Kampeh | L't B'n | F1.5s. | 02-11-34 | 104-54-06 | AGA |
| 27. | Ular | Isolated Dange | r F1(2).5s. | 01-58-00 | 104-57-10 | EB |

(continued)

| No. | Name | Type of | Light | Position | Remark |
|------|--------------|---------------|--------------|--------------------|---------|
| | (Place) | Mark | Color/Rhythm | Lat.(S) Long.(E) | |
| Ligh | t Buoy | | | | |
| 1. | Payang S | Port | L.F1.12s.R. | 02-24-30 104-55-30 | Si.Musi |
| 2. | Payang S | Port | L.F1.12s.R. | 02-25-36 104-55-48 | |
| 3. | Pro Sungsang | Port | L.F1.12s.R. | 02-22-14 104-54-17 | l |
| 4 | Tg.Gedeh | Port | L.F1.12s.R. | 02-20-48 104-54-59 | İ |
| 5. | Tg.Buyut | Star <u>d</u> | F.G. | 02-20-30 104-54-30 | |
| 6. | Lst | Port | L.F1.12s.R. | 02-18-20 104-55-05 | do |
| 7. | Tg.Carat | Star <u>d</u> | L.F1.12s.G. | 02-15-36 104-55-12 | |
| 8. | Tikungan | Port | F1.6s.R. | 02-13-40 104-55-36 | |
| 9. | Pilot | Safe Water | Iso.10s. | 02-11-22 104-57-03 | |
| 10. | Katung | Port | Fl.5s.R. | 02-10-50 104-58-10 | [|

Table 4-3-2A List of New Navigational Aids

| No. Name (Place) | Type of Mark | Light Color/Rhyt | Position Remark thm Lat.(S) Long.(E) |
|---------------------|-----------------|---------------------|--------------------------------------|
| | (The Mokm | er Saubeba | a route) |
| Light Beacon | | | |
| 1. Mokmer A | Leading L't | F1.3s. | 01-11-54 136-08-55 rough p' |
| 2. Mokmer B | Leading L't | F1.3s. | backward of the above |
| 3. Saubeba A | Leading L't | F1.3s. | 01-41-00 136-17-30 rough p' |
| 4. Saubeba B | Leading L't | F1.3s. | backward of the above |
| 5. Saubeba W.BW. | Star'd L't | F. (G) | end of the West B.W. |
| 6. Saubeba E.BW. | Port L't | F.(R) | end of the East B.W. |
| light Buoy | | | |
| l. Off Mokmer | Star'd | F1.(G) | W end of the 1.9m kr. Chart19 |
| 2. Off Mokmer | Port | F1.(R) | E end of the 0.9m krdo |
| (| The Larantuka - | Terong - | Lewoleba route) |
| Light Beacon | | | |
| l. Larantuka A | Leading L't | F1.3s. | 08-20-50 122-57-10 rough p' |
| 2. Larantuka B | Leading L't | F1.3s. | backward of the above |
| B. Terong A | Leading L't | F1.3s. | 08-22-30 123-24-36 rough p' |
| l. Terong B | Leading L't | F1.3s. | backward of the above |
| i. Lewoleba A | Leading L't | F1.3s. | 08-23-36 123-06-36 rough p' |
| . Lewoleba B | Leading L't | F1.3s. | backward of the above |
| | (The Bajo | e - Kolaka | ı route) |
| ight Beacon | | | |
| . Bajoe A | Leading L't | F1.3s. | 04-32-40 120-25-20 rough p' |
| . Bajoe B | Leading L't | F1.3s. | backward of the above |
| . Kr.Totopala W | Cardinal L't | VQ(9)10s | .West end of Kr.Totopala |
| . Kolaka A | Leading L't | F1.3s. | on the new jetty |
| . Kolaka B | Leading L't | F1.3s. | backward of the above |
| . Kr. Padamarang | Lateral L't | F1.(R)6s | .04-03-20 121-23-48 |
| . Kr.Rosa Marie | Isolated dange | er Iso.10s | 04-05-30 121-08-50 |
| ight Buoy | | i. | |
| . Off 750m Kr. | Lateral L't P | F1.(R)3s | . 750m SE off jetty end Bajo |
| . Off 1250m Kr. | Lateral L't S | F1.(G)2s | .1250m NE off jetty end -do- |
| . Off 2000m Kr. | Lateral L't S | F1.(G)4s | .2000m ENE off jetty end -do- |
| . Off 6000m Kr. | | | .West end of Kr.Torea -do- |
| | (The Palemb | ang - Munt | cok route) |
| ight Beacon | . • | | |
| . Muntok A | Leading L'T | F1.3s. | 02-04-54 105-08-07 rough p' |
| . Muntok B | Leading L't | F1.3s. | backward of the above |
| ight Buoy | | | |
| . Kr.Haji S | Lateral L't S | F1.(G)3s | 'S passage of Kr.Haji |
| . Kr.Haji P | Lateral L't P | F1.(R)3s | o passage of Ar. naji |

DISTANCE : 31 MILE
TIME REQUIRED : 3^h-10^m
VESSEL : 300 GRT, 11^{kt}
SERVICE FREQUENCY : ONE ROUND TRIP/DAY

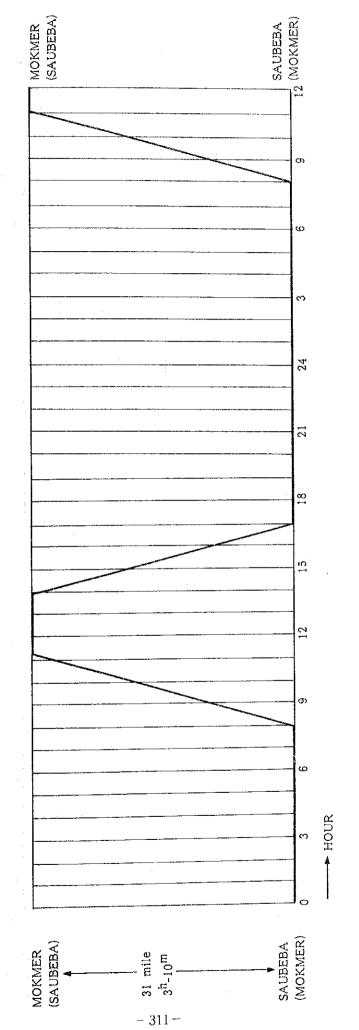
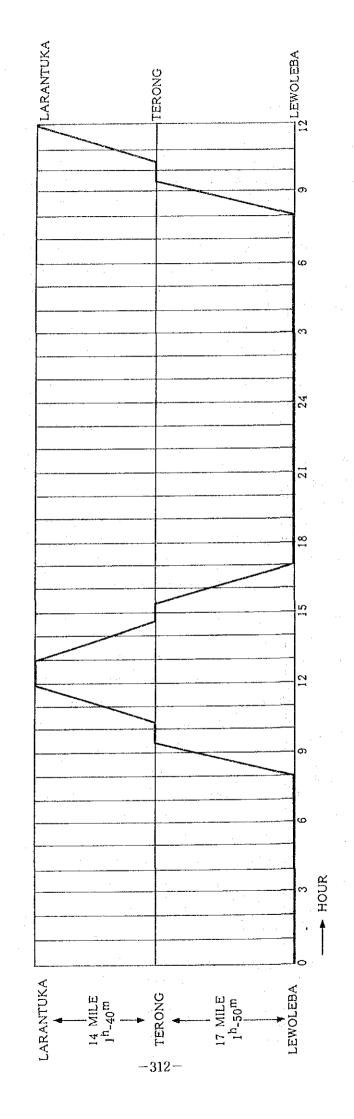


Fig. 4-2-1A TIME TABLE OF ROUTE 2

MOKMER *** SAUBEBA (BIAK)



LEWOLEBA (LOMBLEN)

TERONG (ADONARA)

LARANTUKA ↑ (FLORES)

Fig. 4-2-2A TIME TABLE OF ROUTE 3

: 17 MILE/1^h-50^m : 14 MILE/1^h-40^m : 300 GRT, 11^{kt} : ONE ROUND TRIP/DAY

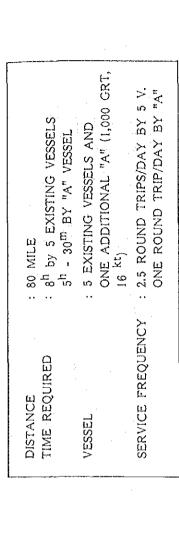
· DISTANCE/TIME REQUIRED

LEWOLEBA - TERONG

TERONG - LARANTUKA

· SERVICE FREQUENCY

·VESSEL



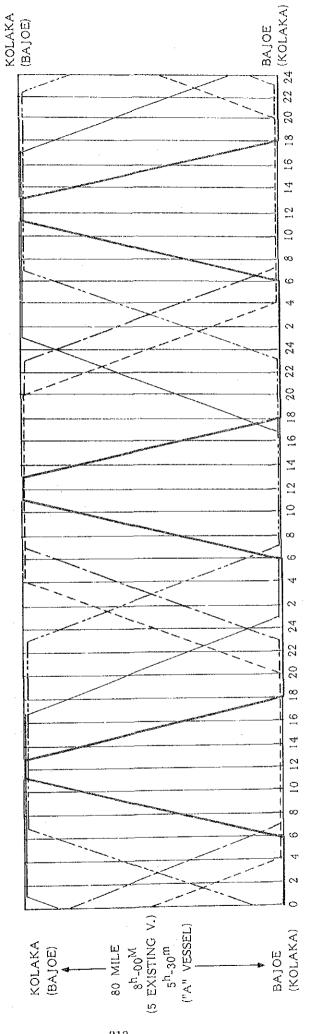
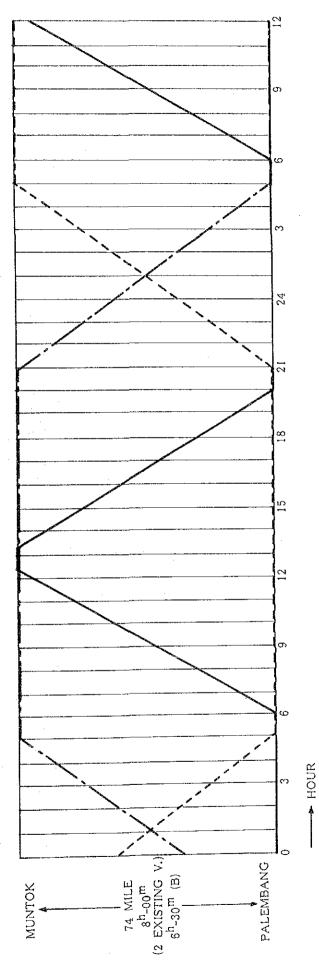


Fig. 4-2-3A TIME TABLE OF ROUTE 8

KOLAKA

BAJOE

| DISTANCE | : 74" |
|--------------------|--|
| TIME REQUIRED | $6^{h} - 00^{m}$ (2 EXISTING V.) $6^{h} - 30^{m}$ ("B") |
| VESSEL | : 2 EXISTING VESSELS AND ONE ADDITIONAL "B" (500 GRT, 14 ^{kt}) |
| SERVICE FREQUENCY. | : 2 ROUND TRIPS |



→ MUNTOK (BANGKA)

PALEMBANG ★

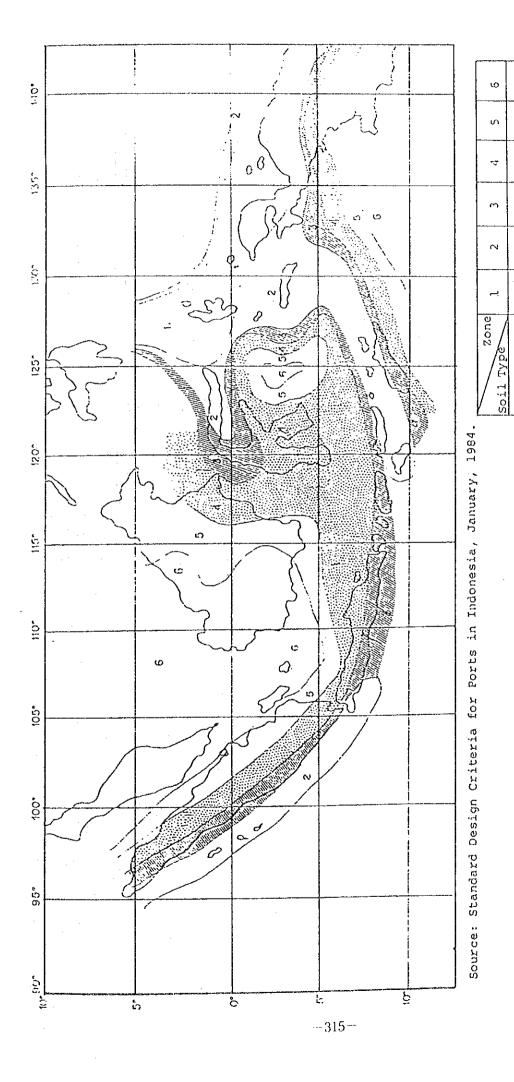


Fig. 5-4-1A Classification of Seismicity by Regional Areas in INDONASIA

0.05 0.03

60.0

0.13

Soil

Soft

0.01

0.03

0.05

0.07

0.09

Stiff Soil

Table 6-3-1A Number of Presonnel at Kolaka and Bajoe at present (Class II)

| | Kolaka | Bajoe . |
|-----------------------------|--------|---------|
| Head of Port | 1 | 1 |
| Administration Affairs Sec. | 11 | 10 |
| Port System Sec. | 5 | 11 |
| Service Sec. | 5 | 8 |
| Facilities Sec. | 5 | 6 |
| Security Sec. | 5 | 7 |
| TOTAL | 32 | 43 |
| Trips/Day | 5 | 5 |

Table 6-3-2A Number of Personnel at Palembang and Larantuka at Present (Class III)

| | Palembang | Larantuka |
|-----------------------------|-----------|-----------|
| Head of Port | 1 | 1 |
| Administration Affairs Sec. | 10 | • |
| Port System Sec. | 3 | *** |
| Service Sec. | 3 | - |
| Facilities & Security Sec. | 2 | |
| TOTAL | 19 | 8 |
| Trips/Day | 2 | 0.57 |

Table 6-3-3A Number of Presonnel at Kolalka and Baje in 1988

| | Kolaka | Bajoe |
|-----------------------------|--------|----------|
| Head of Port | 1 | <u> </u> |
| Administration Affairs Sec. | 11 | 10 |
| Port System Sec. | 6 | 11 |
| Service Sec. | 6 | 8 |
| Facilities Sec. | 6 | 7 |
| Security Sec. | 6 | 8 |
| TOTAL | 36 | 45 |
| Round-trips/Day | 3 | 3 |

Source: JICA Study Team

Table 6-3-4A Number of personnel at Palembang, Muntok, Terong, Mokmer, Lewoleba, Saubeba in 1988

| | Palembang, Muntok | Terong | Mokmer Lewoleba | Saubeba |
|-----------------------------|----------------------|--------|--------------------|---------|
| Head of Port | 1 | 1 | 1 | 1 |
| Administration Affairs Sec. | 10 | 8 | 8 | 8 |
| Port System Sec. | 4 | 4 | 3 | 2 |
| Service Sec. | 4 | 4 | 3 | 2 |
| Facilities & Security Sec. | 4 | 3 | 2 | 2 |
| TOTAL | 23 | 20 | 17 | 15 |
| Round-trips/Day | 2 | 1 | 1 | 1 |

Source: JICA Study Team

Table 7-1-1(1)A Construction Cost of Each Facility of Saubeba

| | | | T | T | <u> </u> | | |
|--------------|---------------------------|--|--------------|----------------------------|-------------|--------------|---------------------------|
| | Construc | tion Cost of I | Each Facilit | y . | (Unit; Rp.x | 1,000) | |
| | Location; | | | | | | |
| | Facility | B- Dolphir | 1 | | | | |
| | | - | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | Amount |
| | Piles | kg | 8,600 | 2,300 | | 1.25 | 24,725 |
| <u> </u> | Pile Driv | m | 36 | 90,000 | | 1.25 | 4,050 |
| | Concrete | cu.m | 28.5 | 960,000 | | 1.25 | 34,200 |
| i | Bitt/Fend | | 1 | 32,000,000 | | 1.25 | 40,000 |
| | Total | one unit | | | | • | 102,975 |
| | | | | | | | |
| | | | | | | | |
| | Facility | M- Dolphir |) | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustmen | | Amount |
| | Piles | kg | 5,800 | | | 1.25 | 16,675 |
| | Pile Driv | m | 24 | | | 1.25 | 2,700 |
| | Concrete | cu.m | 9 | 960,000 | | 1.25 | 10,800 |
| | Bitt/Fend | e set | | | | | |
| | Total | one unit | | | | | 30,175 |
| | | | | | | | |
| | | and the same of th | | | | | |
| | Facility | Wharf | İ | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | Piles | kg | 24,200 | 2,300 | | 1.25 | 69,575 |
| l | Pile Driv | m | 98 | 90,000 | | 1.25 | 11,025 |
| <u> </u> | Concrete | cu.m | 213.2 | 960,000 | | 1.25 | 255,840 |
| | Bitt/Fende | e set | | | | | |
| ļ | Total | one unit | | | · | | 336,440 |
| | | | | | | - | |
| | | | | | | | |
| | | | | | | | |
| | Facility | M/B Found | lation | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | Piles | kg | 5,800 | 2,300 | | 1.25 | 16,675 |
| - | Pile Driv | m | 24 | | | 1.25 | 2,700 |
| | Concrete | cu.m | 9 | 960,000 | | 1.25 | 10,800 |
| | Bitt/Fende | | | | | | |
| | Total | one unit | | | | | 30,175 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 1 | Facility | M/B Dolph | in | | | | |
| | it atame | | | | | | |
| | raciity | į | | <u> </u> | Adiustrass | · | Amount |
| | | Unit | Quantity | Unit Cost | Adjustment | (hactor | 1 SHIP WILL |
| | Materials | Unit ka | | Unit Cost 2,300 | , Aujustmen | 1.25 | |
| | Materials Piles | kg | 9,200 | 2,300 | Adjustmen | | 26,450 |
| | Materials Piles Pile Driv | kg m | | 2,300 90,000 | Adjustmen | 1.25 | 26,450 5,400 |
| | Materials Piles | kg m cu.m | 9,200 48 | 2,300 90,000 960,000 | Adjustmen | 1.25 1.25 | 26,450 5,400 10,800 |

| r | <u> </u> | | T | | | | · |
|----------|--------------|----------|----------|-----------|------------|--------|---------|
| | | | 1 | | | | |
| | | | | | | | |
| | | | | | | | |
| <u> </u> | Facility | Catwalk | | | | | |
| | | | | | | | |
| [| Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | Piles | kg | 3,000 | 2,300 | | 1 | 6,900 |
| | Pile Driv | m | 14 | 90,000 | | 1 | 1,260 |
| | Concrete | cu.m | 2 | 960,000 | | 1 | 1,920 |
| | Bitt/Fende | set | | | | | |
| | Steel | ton | 40,000 | 2,300 | | 1 | 92,000 |
| | Total | one unit | | | | | 102,080 |

Table 7-1-1(2)A Construction Cost of Each Facility of Mokmer

| L | | | | | l | | <u> </u> |
|---|------------|--------------|-------------|------------|---|----------|----------|
| | | on Cost of E | ach Facilit | y | (Unit; Rp.x | 1,000) | ļ |
| | | Mokmer | | | · | | - |
| | Facility | B- Dolphin | | | | | <u> </u> |
| ļ <u>.</u> | Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | Amount |
| | Piles | kg | 7,600 | 2,300 | | 1 | 17,480 |
| ļ | Pile Driv | m | 36 | 90,000 | | 1 | 3,240 |
| | Concrete | cù.m | 28.5 | 960,000 | | 1 | 27,360 |
| | Bitt/Fende | set | 1 | 32,000,000 | | 1 | 32,000 |
| | Total | one unit | | | | | 80,080 |
| | Fallia | M- Dolphin | | | | | |
| | Facility | M- Doibuit | | | | . ' | <u> </u> |
| · | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | Piles | kg | 5,100 | 2,300 | | 1 | 11,730 |
| | Pile Driv | m | 24 | 90,000 | | -1 | 2,160 |
| | Concrete | cu.m | 9 | | | 1 | 8,640 |
| | Bitt/Fende | | | | | | |
| | Total | one unit | | | | | 22,530 |
| | | | | | | | |
| | Facility | Wharf | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | : .L | kg | 24,200 | 2,300 | 1 | 1 | 55,660 |
| | | m | 98 | 90,000 | | 1 | 8,820 |
| | | cu.m | 213.2 | 960,000 | | 1 | 204,672 |
| | Bitt/Fende | | | | | | |
| | · | one unit | | | | | 269,152 |
| | | | | | | | |
| | | | | | | | - |
| | Facility | M/B Found | ation | | 111111111111111111111111111111111111111 | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | | kg | 5,100 | 2,300 | | 1 | 11,730 |
| | | m | 24 | 90,000 | | 1 | 2,160 |
| | | cu.m | . 32 | 960,000 | | 1 | 30,720 |
| | Bitt/Fende | set | | | | | |
| | 7 | one unit | | | | | 44,610 |
| | | | | | | | |
| | | | | | | | |
| | Facility | M/B Dolphi | <u>n</u> | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| *************************************** | | kg | 9,200 | 2,300 | <u> </u> | 1 | |
| | i | m l | 48 | | | 1 | |
| | | cu.m | 9 | 960,000 | | 1 | |
| | Bitt/Fende | | 1 | 20,000,000 | | 1 | |
| | Total | one unit | | | | | 54,120 |

| r | , | r , | ····· | 1 | ···· | ····· | | |
|---|--------------|----------------|----------|---------------|-----------|---------------|-------|---------|
| | | | | | | | | |
| | | | | | | | | |
| I | | | | | | ··· | i | |
| | | Facility | Approach | trestle/ catw | /alk | | | |
| | | | | | | | | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment Fa | actor | Amount |
| | | Piles | kg | 23,900 | 2,300 | | 1.25 | 68,713 |
| | | Pile Driv | m | 124.8 | 90,000 | | 1.25 | 14,040 |
| | | Concrete | cu.m | 320 | 960,000 | | 1.25 | 384,000 |
| | | Bitt/Fende | set | | | | | |
| | | Steel | ton | 0 | 2,225 | | 1.82 | 0 |
| | | Total | one unit | | | | | 466,753 |

Table 7-1-1(3)A Construction Cost of Each Facility of Lewoleba

| | | | .1 | T | | 1 | |
|---------------|------------|-------------|------------------|--------------|-------------|---------------------------------------|----------|
| | Construct | ion Cost of | i Fach Facili | N | (Unit; Rp.x | 1.000) | |
| · | Location: | Lewoleba | | y | 1 | | |
| | Facility | B- Dolphir | | | | <u> </u> | 1 |
| | I acinty | D- DOIDHI | 1 | | | | |
| - | Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | Amount |
| | Piles | kg | 17,712 | 2,250 | | | 1 39,85 |
| | Pile Driv | lm | 72 | | | | 1 8,28 |
| | Concrete | cu.m | 60.75 | | | | 72,90 |
| l | Bitt/Fende | | | | | h | 1 33,75 |
| | Total | one unit | | | | | 154,78 |
| | | | | | | | |
| | | | | | | | |
| | Facility | M- Dolphir | 1 | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | t Factor | Amou |
| | Piles | kg | 10,580 | | | | 1 23,80 |
| | Pile Driv | m | 50 | | | | 5,75 |
| | Concrete | cu.m | 24 | 1,200,000 | | | 1 28.80 |
| | Bitt/Fende | set | | | | | |
| - | Total | one unit | | 1 | | | 58,35 |
| | | | | | : | | |
| | | | | | | | |
| | Facility | Wharf | | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amou |
| 1 | Piles | kg | 59,904 | | | | |
| <u> </u> | Pile Driv | m | 416 | <u> </u> | | | 47,84 |
| | Concrete | cu.m | 376 | 1,200,000 | | | 451,20 |
| | Bitt/Fende | | | | | | |
| | Total | one unit | | | | | 633,82 |
| | | | | | | | |
| | | | | 1 | | | |
| | | | | - | | | <u> </u> |
| | Facility | M/B Found | ation | | | · · · · · · · · · · · · · · · · · · · | |
| | - 1, | | | | | | <u> </u> |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | | Amour |
| | Piles | kg | 39,/44 | | | | 89.42 |
| 1 | Pile Driv | m | 75 | 115,000 | | | |
| | | cu.m | 120 | 1,200,000 | <u> </u> | | 144.00 |
| | Bitt/Fende | set | | | | | |
| · · · | Total | one unit | | | | | 242,04 |
| | | | | | | | <u> </u> |
| · | | | | | | | 1 |
| | Facility | MO Dainhi | | ·· | | | ļ |
| | 1 acmiy | M/B Dolphi | <u> </u> | | | | <u> </u> |
| | Materials | Unit | <u></u> | 11-40 | 6-4: | | |
| | | | Quantity | | Adjustment | | Amour |
| | | kg kg | 15,870 | 2,250 | | 1 | |
| | | m l | 75 | 115,000 | | 1 | |
| | | cu.m | 43 | 1,200,000 | | 1 | |
| | Bitt/Fende | set | | 33,750,000 | | 1 | |
| | Total | one unit | | | | | 129,68 |

| | | | | | | | |
|-------|------------|----------|---------------|-----------|-------------------|---|---------|
| | | | | | | T | |
| | | | ļ | | | | |
| | | | <u> </u> | | | | |
| ļ | Facility | Approach | trestle/ catw | alk | | | |
| · | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | | Amount |
| | Piles | kg | 18,576 | | · | 1 | 41,796 |
| | Pile Driv | m | 36 | 115,000 | | 1 | 4,140 |
| | Concrete | cu.m | 92.3 | 1,200,000 | | 1 | 110,760 |
| | Bitt/Fende | set | | | | 7 | |
| | Steel | ton | 0 | 2,250 | | 1 | 0 |
| | Total | one unit | | | | T | 156,696 |

Table 7-1-1(4) Construction Cost of Each Facility of Terong

| | | | <u></u> | <u> </u> | (1) (1) (D= | 1.000) | ļ |
|--|-------------|----------------|--------------|---------------------------------------|-------------|----------|--|
| | | | ach Facility | <u>/</u> | (Unit; Rp.x | 1,000) | |
| | Location; | Terong | <u> </u> | | | | ļ |
| | Facility | B- Dolphin | | | | | ļ |
| | Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | Amount |
| | Piles | kg | .0 | 2,250 | | 1 | 0 |
| | Pile Driv | m | 0 | 115,000 | | 1 | 0 |
| | Concrete | cu.m | 62.9 | 960,000 | | 2.5 | 150,960 |
| | Bitt/Fende | set | 1 | 33,750,000 | | 1 | 33,750 |
| | Infill sand | cu.m | 79.3 | 15,000 | | 2.5 | 2,974 |
| | Total | one unit | | | | | 187,684 |
| | Adjustmen | t factor for o | aison yard | preparation | cost | | <u> </u> |
| | Facility | M- Dolphir | | | | | |
| | | 1 | O | Unit Cost | Adjustmen | t Factor | Amount |
| | Materials | Unit | Quantity | | Aujusunen | 1 | 0 |
| | Piles | kg | 0 | | | 1 | - v |
| | Pile Driv | m | l | | | 2.5 | <u> </u> |
| | Concrete | cu.m | 50.49 | | | 2.5 | |
| | Infill sand | cu.m | 49.5 | 15,000 | | . 2.3 | |
| | Total | one unit | | | | | 123,032 |
| | Adjustmon | t factor for c | paicon yard | preparation | | | |
| l | | Wharf | (for Lewole | preparation | | | |
| | Facility | YYIIAII | (IOI FEMOR | | | | |
| ļ | Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | Amount |
| l | Piles | kg | 59,904 | | | 1 | 134,784 |
| | Pile Driv | m | 416 | | | 1 | 47,840 |
| | Concrete | cu.m | 376 | · · · · · · · · · · · · · · · · · · · | | 1 | 451,200 |
| | Bitt/Fende | | | | | | |
| | Total | one unit | | | | | 633,824 |
| | | - | | | | | |
| No. of Contract of | | | | | | | |
| 1 | | | | | | | |
| . | Facility | M/B Found | lation | | | | |
| | | | | | | . = . | |
| | Materials | Unit | Quantity | Unit Cost | Adjustmen | | Amount |
| | Piles | kg | 0 | | | 1 | |
| | Pile Driv | m | 0 | | | 1 | |
| | Concrete | cu.m | 103.7 | | | 2.5 | |
| | infill sand | cu.m | 1,840 | | | 2.5 | |
| | Backfill | cu.m | 2,840 | 17,500 | | 1 | 49,700 |
| | Total | one unit | | | | | 367,580 |
| | Adjustmen | t factor for c | aison yard | preparation | | | <u> </u> |
| 1 | | | <u></u> | | <u></u> | <u> </u> | <u> </u> |
| | Facility | M/B Dolph | in | | <u> </u> | ļ | - |
| | | 11-2 | Oue state | Unit Cost | Adjustmen | t Factor | Amoun |
| | Materials | Unit | Quantity | | <u> </u> | 1 | |
| | Piles | kg | 0 | | | 1 | |
| | Píle Driv | m | 0 | | | | |
| | Concrete | cu.m | 150 | | | 1 | |
| | Bitt/Fende | | 1 | 33,750,000 | | 1 | |
| | Total | one unit | L | | | L | 213,750 |

| | | | | | | | 1 | |
|---------------------------------------|---|-------------|--------------|---------------|-------------|------------|----------|---------|
| | | | | | | | | |
| | | | | | | | | |
| | | Facility | Catwalk | | | | | |
| | | | | | | | | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | Amount |
| | | Piles | kg | 18,576 | 2,250 | | 1 | 41,796 |
| | | Pile Driv | m | 36 | 115,000 | | 1 | 4,140 |
| | | Concrete | cu.m | 92.3 | 1,200,000 | | 1 | 110,760 |
| · · · · · · · · · · · · · · · · · · · | | Bitt/Fende | set | | | | | |
| | | Steel | ton | . 0 | 2,250 | | 1 | 0 |
| | | Total | one unit | | | | | 156,696 |
| | İ | | | | | | | |
| | | Facility | M/B cylind | er foundation | on | | | |
| | | 1 11 | | | | | | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | Amount |
| | | Piles | kg | 0 | 2,250 | | 1 | -0 |
| | | Pile Driv | m | 0 | 115,000 | | 1 | 0 |
| | | Concrete | cu.m | 50.49 | 960,000 | | 2.5 | 121,176 |
| | | infill sand | cum | 49.5 | 15,000 | 1 1 | 2.5 | 1,856 |
| | | | | | | | | |
| | | Total | one unit | | | | | 123,032 |
| | | Adjustmen | t factor for | caison yard | preparation | | | |

Table 7-1-1(5)A Construction Cost of Each Facility of Kolaka

| | | | <u> </u> | <u> </u> | | | |
|-------------|-------------|---------------|--------------|------------|------------------|-----------------|---------|
| | Constructi | | ach Facilit | <u>/</u> | (Unit; Rp.x 1,00 | 0) | |
| | Location; | Kolaka | | | | | |
| | Facility | B- Dolphin | | | | | |
|] | | Unit | Quantity | Unit Cost | Adjustment Fac | tor | Amount |
| | Materials | | 46,100 | 2,250 | Adjustment | 1 | 103,725 |
| | Piles | kg | 153 | 100,000 | | - | 15,300 |
| | Pile Driv | m | 63 | 900,000 | | - | 56,700 |
| | Concrete | cu.m | 1 | 40,500,000 | | - | 40,500 |
| | Bitt/Fende | one unit | <u> </u> | 40,000,000 | | | 216,225 |
| | Total | one unit | | | | | |
| | | ļ | | | | | |
| | Facility | M- Dolphir | <u>'</u> | | | | |
| | 1 acmity | IVI- DOIPIIII | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Fac | tor | Amount |
| | Piles | kg | 26,400 | | | 1 | 59,400 |
| | Pile Driv | m | 118 | 100,000 | | 1 | 11,800 |
| | Concrete | cu.m | 37.5 | 900,000 | | -1 | 33,750 |
| - | Bitt/Fende | | | | | | |
| : | Total | one unit | | | | | 104,950 |
| | | | | | | | |
| | | | | | | | |
| l | Facility | Wharf | | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Fac | ctor | Amount |
| | Piles | kg | 85,500 | 2,250 | | 1 | 192,375 |
| | Pile Driv | m | 486 | 100,000 | | 1 | 48,600 |
| | Concrete | cu.m | 278.8 | 900,000 | | 1 | 250,920 |
| | Bitt/Fende | set | | | | | |
| | Total | one unit | | | | | 491,895 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| İ | Facility | Approach | Trestle | | | | |
| | | | | | <u>l</u> | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Fac | ctor | Amount |
| | Piles | kg | 60,350 | 2,250 | | 1 | 135,788 |
| | Pile Driv | m | .315 | | | 1 | |
| | Concrete | cu.m | 808 | 900,000 | | 1 | 727,200 |
| | Bitt/Fende | | | | | | |
| | Total | one unit | | | | | 894,488 |
| | | | | | | · · · · · · · · | |
| | | | | | | | |
| | | | | | | | |
| | Facility | M/B Dolph | in | | - I | | |
| | | <u> </u> | | <u> </u> | <u></u> | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Fa | | Amount |
| | Piles | kg | 19,900 | 2,250 | | 1 | 44,775 |
| | Pile Driv | m | 90 | 100,000 | | | 9,000 |
| | Concrete | cu.m | 50.7 | 900,000 | <u></u> | 1 | |
| | Bitt/Fende | | 1 | 54,000,000 | | | 54,000 |
| | Total | one unit | | | <u> </u> | | 153,405 |

| | | | | | | | | |
|------------------|-------------|------------|----------|------------|------------|--------|---------|---------|
| | | | | | | | | |
| | | | | | | | | |
| | Facility | Catwalk | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | -+ | Amount |
| | Piles | kg | 3,000 | 2,250 | | | 1 | 6,750 |
| | Pile Driv | m | 14 | 90,000 | | | 1 | 1,260 |
| | Concrete | cu.m | 2 | 900,000 | | | 1 | 1,800 |
| | Bitt/Fende | set | | | | | \top | |
| | Steel | ton | 40,000 | 2,250 | | | 1 | 90,000 |
| | Total | one unit | | | | | \perp | 99,810 |
| <u> </u> | | | | | | | | |
| | Facility | Truck Scal | Lle | <u> </u> | | | | |
| | | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | 寸 | Amount |
| | Scale | Set | 1 | 25,000,000 | | | 1 | 25,000 |
| ļ | Building | m2 | 110 | 500,000 | | | 1 | 55,000 |
| T . | Reclamation | cu.m | 1500 | 30,000 | | | 1 | 45,000 |
| | | set | | | | | | |
| | | ton | | | | | | 0 |
| [| Total | one unit | | | | | | 125,000 |

Table 7-1-1(6)A Construction Cost of Each Facility of Bajoe

| <u></u> | | | | 1 | | | |
|----------|--------------|--------------|---------------------|--------------|------------------------|-----|-----------|
| | Construction | on Cost of E | ach Facility | / | (Unit; Rp.x 1,000) | | |
| | Location; | Вајое | | | | | |
| | Facility | B- Dolphin | | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | | Amount |
| l | Piles | kg | 15,700 | 2,250 | | 1 | 35,325 |
| | Pile Driv | m | 51 | 100,000 | | 1 | 5,100 |
| | Concrete | cu.m | 63 | 900,000 | | 1 | 56,700 |
| | Bitt/Fende | set | 1 | 40,500,000 | | _1 | 40,500 |
| | Total | one unit | | | | | 137,625 |
| | | | | | | | |
| | Facility | M- Dolphir |) , | | | | |
| | | | | | A di sates and Contact | _ | Amouni |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | | Amouni |
| | Piles | kg | 8,100 | 2,250 | | 긔 | 18,225 |
| | Pile Driv | m | 30 | | | 1 | 3,000 |
| | Concrete | cu.m | 37.5 | 900,000 | | _1 | 33,750 |
| | Bitt/Fende | set | | | | _ { | |
| | Total | one unit | | | | _ | 54,975 |
| | | | | | | | |
| | Facility | Wharf | and of Malines Area | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | | Amount |
| | Piles | kg | 36,300 | 2,250 | | 1 | 81,675 |
| | Pile Driv | m | 135 | 100,000 | | 1 | 13,500 |
| | Concrete | cu.m | 278.8 | 900,000 | : | 1 | 250,920 |
| | Bitt/Fende | set | | | | | |
| | Total | one unit | | | | | 346,095 |
| | | | | | | | |
| | | | | | | | |
| | Facility | Approach | Trestle | | | | |
| | | | | | | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | , | Amount |
| | Piles | kg | 169,945 | 2,250 | | 1 | 382,376 |
| | Pile Driv | m | 24.39 | 100,000 | | 1 | 2,439 |
| | Concrete | cu.m | 2,377 | 900,000 | | 1 | 2.139.300 |
| | Bitt/Fende | set | | | | | |
| | Total | one unit | | | | | 2,524,115 |
| | | | | | | | |
| | | | | | | | |
| <u> </u> | Facility | M/B Dolph | in | | | | |
| | | | | | | | |
| | | Unit | Quantity | Unit Cost | Adjustment Factor | ᆛ | Amount |
| | | kg | 19,900 | 2,250 | | 1 | 44,775 |
| | Pile Driv | m " | 90 | 100,000 | | _1 | 9,000 |
| | | cu.m | 50.7 | 900,000 | | 1 | 45,630 |
| | Bitt/Fende | | 1 | 54,000,000 | | _ | 54,000 |
| | Total | one unit | | | | | 153,405 |

| | | | | | | | | 1 | |
|---|----------|-------------|-----------|----------|-------------|---|--------------------------------------|---|---------|
| : | | | | | | | | 1 | · |
| | | Facility | Catwalk | 1 | | | e Policia kalan i dia Sian Missaliri | | |
| | | | | | | | | | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | | Amount |
| | | Piles | kg | 3,000 | 2,250 | | | 1 | 6,750 |
| | | Pile Driv | m | 14 | 100,000 | | | 1 | 1,400 |
| | | Concrete | cu.m | 2 | 900,000 | | | 1 | 1,800 |
| | | Bitt/Fende | set | | | | | | |
| | | Steel | ton | 40,000 | 2,250 | | | 1 | 90,000 |
| | | Total | one unit | | | | | | 99,950 |
| | | | | | | | | | |
| | | Facility | Truck Sca | le | | | | | |
| | <u> </u> | | | | | | ··· | | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment | t Factor | _ | Amount |
| | | Scale | Set | 1 | 25,000,000 | <u> </u> | | 1 | 25,000 |
| | | Building | m2 | 110 | | | | 1 | 55,000 |
| | | Reclamation | cu.m | 1500 | 30,000 | | | 1 | 45,000 |
| | | | set | | | <u> </u> | | | |
| | | | ton | | | | | | 0 |
| | | Total | one unit | 1 | | | | I | 125,000 |

Table 7-1-1(7)A Construction Cost of Each Facility of Palembang

| | | | | |] | | _ | |
|----------|-----------------|------------|--------------|------------|--------------|---------------------------------------|----|-------------|
| | Constructi | | Each Facilit | у | (Unit; Rp.x | 1,000) | | |
| | Location; | Palembar | g · | <u> </u> | | | | |
| | Facility | B- Dolphir | 1 | | | | _ | |
| | | | | | | | - | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | t Factor | | Amount |
| | Piles | kg | 20,700 | | | | 4 | 46,575 |
| | Pile Driv | m | 90 | | | | 1 | 9,450 |
| | Concrete | cu.m | 67.5 | | | | 4 | 57,375 |
| | Bitt/Fende | | 1 1 | 33,750,000 | L | | - | 33,750 |
| | Total | one unit | <u> </u> | | <u> </u> | | - | 147,150 |
| | | <u> </u> | <u> </u> | <u> </u> | | | | |
| | | | <u> </u> | ļ | <u> </u> | | | |
| | Facility | M- Dolphi | <u>n</u> | | | | -1 | |
| | | | | - | (| L Castar | | Amount |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | i Tacioi | ╗ | 24,750 |
| | Piles | kg | 11,000 | | | | ╣ | 5,670 |
| | Pile Driv | m | 54 | | | | ╣ | 20,400 |
| | Concrete | cu.m | 24 | 850,000 | | | -' | 2.0,400 |
| | Bitt/Fende | | ļ | <u> </u> | <u> </u> | | - | 50,820 |
| | Total | one unit | ļ | | | | { | 30,020 |
| | , , | ļ | | <u> </u> | ļ | | | |
| | | 130 1 | | 1 | | | | |
| Table 1 | Facility | Wharf | 1 | <u> </u> | | | | |
| <u>-</u> | Materials | Unit | Quantity | Unit Cost | Adjustment | t Factor | - | Amount |
| | Piles | kg | 48,400 | | | | 7 | 108,900 |
| | Pile Driv | m | 210 | <u> </u> | - | | ᅦ | 22,050 |
| | Concrete | cu.m | 376 | | t | | 1 | 319,600 |
| | Bitt/Fende | | | | | | | |
| | Total | one unit | <u> </u> | · | | | ┪ | 450,550 |
| · | 7 4 1 2 1 | | <u> </u> | : | | | | |
| | | | | | | | | |
| | | | | 1 | | | İ | |
| | Facility | M/B Found | dation | | | | | |
| | | | | | | | Ī | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | t Factor | | Amoun |
| | Piles | kg | 40000 | 2,250 | | | 1 | 90,000 |
| | Pile Driv | m | 75 | | | | 1 | 7,875 |
| | Concrete | cu.m | 120 | 850,000 | | | 1 | 102,000 |
| | Bitt/Fende | set | | | | | | |
| | Total | one unit | | | | | | 199,875 |
| | | | | | | | | - |
| | | | | 4 | | | | |
| | Facility | M/B Dolph | in | | | | | |
| | | | | | | · · · · · · · · · · · · · · · · · · · | | |
| | Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | _ | Amoun |
| | Piles | kg | 13,800 | | | | 1 | 31,050 |
| | Pile Driv | m | 87 | | | | 1 | 9,135 |
| | Concrete | cu.m | 43 | | | | 1 | 36,550 |
| | Bitt/Fende | set | 1 | 45,000,000 | | | | 45,000 |
| 1 | Total | one unit | | | | | 1 | 121,735 |

| Γ | } | T | <u> </u> | 1 | · | | | ·· |
|---|----------|-------------|------------|----------------|--------------|-------------------|-----|--------------|
| | <u> </u> | | | | <u> </u> | | | |
| ·^ | | <u> </u> | | <u> </u> | | | _ | |
| | | | | | <u> </u> | | | |
| | | Facility | Catwalk | | | | | |
| | l | | | | | | þ. | |
| | Ì . | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | | Amount |
| | | Piles | kg | 0 | 2,250 | | 7 | Allogii 0 |
| | | Pile Driv | m | 0 | 105,000 | · | 计 | 0 |
| | | Concrete | cu.m | 0 | 850,000 | | ╗ | 0 |
| | | Bitt/Fende | set | | | | ╌┼ | <u> </u> |
| | | Steel | ton | 33,500 | 2,250 | | 7 | 75,375 |
| | | Total | one unit | | | | -`† | 75,375 |
| | | | | | | | | 70,010 |
| | | 1 | | | | | - | |
| | | Facility | Approach | trestle (for F | Palembang) | | | |
| , | | 1 | |] | | | -+ | |
| *** | | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | _ | Amount |
| | | Piles | kg | 27,600 | | | 寸 | 62,100 |
| | | Pile Driv | m | 192 | 105,000 | | 1 | 20,160 |
| | | Concrete | cu.m | 172.2 | 850,000 | | 1 | 146,370 |
| | | Bitt/Fende | set | | | | _ | |
| | | Steel | ton | . 0 | 2,250 | | 1 | 0 |
| | | Total | one unit | | | | _ | 228,630 |
| | | | | | | | | |
| | | | | | | | | |
| | | Facility | Truck Scal | le | | | 1 | |
| | | | 5 - Far | | | | | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | 寸 | Amount |
| | | Scale | Set | 1 | | | 7 | 25.000 |
| | | Building | m2 | 110 | 564,000 | | 1 | 62,040 |
| | | Reclamation | cu.m | | | | 1 | 0 |
| | | | set | | | | 十 | |
| | | | ton | | | | 1 | 0 |
| | | Total | one unit | | | | _ | 87,040 |

Table 7-1-1(8)A Construction Cost of Each Facility of Muntok

| | Mant ast | och Essilit | L | (Unit; Rp.x | 1 000) | | L |
|----------------------------|--------------|-------------|---------------|-------------|---------------------------------------|----|---------------|
| | on Cost of E | ach racilly | | Cont. 140x | 1,000) | | |
| Location; | | ļ | | | | | - |
| Facility | B- Dolphin | | | | | | |
| Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | | Amount |
| Piles | kg | 21,400 | 2,250 | | | 1 | 48,150 |
| Pile Driv | m | 48 | 105,000 | | | 1 | 5,040 |
| Concrete | cu.m | 67.5 | 850,000 | | | 1 | 57,375 |
| Bitt/Fende | | 1 | 33,750,000 | | | | 33,750 |
| Total | one unit | | | | | | 144,315 |
| | | | | | | | |
| E-silib. | M- Dolphir | | | | | | |
| Facility | M- Dolbiii | | | | | | |
| Materials | Unit | Quantity | | Adjustment | Factor | | Amount |
| Piles | kg | 11,800 | 2,250 | | | 1 | 26,550 |
| Pile Driv | m | 56 | 105,000 | | | 1 | 5,880 |
| Concrete | cu.m | 24 | 850,000 | | | 1 | 20,400 |
| Bitt/Fende | | · | | | | | |
| Total | one unit | | | | | | 52,830 |
| | | | | | · · · · · · · · · · · · · · · · · · · | | |
| | | | | | | | |
| Facility | Wharf | | | | | | |
| Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | | Amount |
| | kg | 57,100 | 2,250 | | | 1 | 128,475 |
| Pile Driv | m | 232 | 105,000 | | | 1 | 24,360 |
| Concrete | cu.m | 376 | 850,000 | | | 1 | 319,600 |
| Bitt/Fende | | | | | | | |
| Total | one unit | | | | | | 472,435 |
| | | | : : | | | | 1 |
| 4 | | | | | | | |
| Facility | M/BCylind | er Foundat | ion | | | | |
| Materials | Unit | Quantity | Unit Cost | Adjustment | Factor | | Amoun |
| Piles | kg | 40,000 | 2,250 | | | .1 | 90,000 |
| Pile Driv | m | 75 | | | | 1 | 7,875 |
| Concrete | cu.m | 120 | 850,000 | | | 1 | 102,000 |
| Bitt/Fende | | | | | | | |
| Total | one unit | | | | | | 199,875 |
| | | | | | | | |
| Facility | M/B Dolph | in | | | | | |
| Materials | Unit | Quantity | Unit Cost | Adjustmen | t Factor | | Amoun |
| Piles | kg | 13,800 | <u> </u> | | | 1 | |
| | | 72 | | | | 1 | |
| Pile Driv | m | 43 | | | | 1 | |
| Concrete Bitt/Fende | cu.m | 43 | 45,000,000 | | | | 45,00 |
| 10000000 | 1361 | ; I | £ -10,000,000 | 1 | | | 120,160 |

| F | | | T | 1 | | | | |
|---------------------------------------|-------------|-------------|---|--|--|-------------------|---------|---------|
| <u></u> | | | <u> </u> | | <u> </u> | | | |
| | | | <u> </u> | | ļ | | | |
| | | | | | | | | |
| | | Facility | Catwalk | | | | | |
| | | 1 denity | Calwaik | | <u> </u> | | | |
| | - | Materials | Unit | 10 | ļ., | | | |
| | | Piles | kg | Quantity | Unit Cost | Adjustment Factor | \neg | Amoun |
| | | Pile Driv | *************************************** | 0 | | | 1 | . (|
| | | Concrete | m cu.m | 0 | | | 1 | |
| | | Bitt/Fende | | 0 | 850,000 | | 1 | |
| · · · · · · · · · · · · · · · · · · · | | Steel | ton | | | | | |
| | | Total | | 33,500 | 2,250 | | 1 | 75,375 |
| *** | | I Ulai | one unit | ļ | | | | 75,375 |
| · | | | | ļ | | | | |
| | | F-a -: 1:4. | D | L | | | | |
| · | | Facility | Breakwate | <u>er </u> | | | [| |
| | | | | | | | | ······ |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | _ | Amoun |
| <u> </u> | | H-Piles | kg | 162,000 | | | 1 | 364,500 |
| | | Pile Driv | m | 248 | 105,000 | | 1 | 26,040 |
| ····· | | Concrete | cu.m | 255 | 850,000 | | 1 | 216,750 |
| | | | kg | 367,900 | | | | |
| | | Drive | m | 1.944 | 52,500 | | 1 | 102,060 |
| | | Total | one unit | | | | | 709,350 |
| | | | | | | | _ļ_ | · |
| | | | · | | | | \bot | · |
| ·÷ | | Facility | Approach | trestle (for F | Palembang) | | _ _ | |
| | | | | | | | _ | |
| | | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | \perp | Amoun |
| | | Piles | kg | 27,600 | 2.250 | | 1 | 62,100 |
| | | Pile Driv | m | 192 | 105,000 | | 1 | 20,160 |
| - | | Concrete | cu.m | 172.2 | 850,000 | | 1 | 146,370 |
| | | Bitt/Fende | set | | | | \perp | |
| | | Steel | ton | 0 | 2,250 | | 1 | (|
| | | Total | one unit | | | | | 228,630 |
| 7 7 | | | | | | | [. | |
| | | | | | | | _ | |
| | | Facility | Truck Sca | e | | | \perp | <u></u> |
| | | | |] | | | | |
| · | | Materials | Unit | Quantity | Unit Cost | Adjustment Factor | | Amoun |
| | | Scale | Set | 1 | | | 1 | 25,000 |
| · | | Building | m2 | 110 | | | 1 | 62,040 |
| | | Reclamation | | t | | | 1 | (|
| | | 1 icolanian | set | | | | \Box | |
| | | | ton | | | | T | (|
| | | | 177311 | L | 1 . | ş . | | 87,040 |

Table 7-1-2(1)A Detailed Construction Cost of Mokumer Ferry Terminal

| | | | | | | | | |
|------------|-----------------------|----------------|--------------|--|--|-------------|----------|-------------|
| | | | | | | | | |
| | Name of the propose | d Ferry Ter | minal and F | loute No. | 2, Saueba | ···· | | |
| | Detailed Construction | n Cost of Wo | rks for Fer | y Terminals | \$ | | | |
| | | | | | <u> </u> | Unit, Rp M | | |
| Facilities | | | | Unit Co | | Total A | | |
| | Items of Works | Unit | Quantity | Local | Foreign | | Foreign | Total |
| | Mobilization | LS | 1 | | | 150.00 | | 250 |
| Water | Breasting Dolphine | Unit | 3 | 25.19 | | 75.57 | 113.37 | 188. |
| Front | (Fender system) | Unit | 3 | 16.00 | 24.00 | 48.00 | | 120 |
| Facilities | Mooring Dolphine | Unit | 3 | 12.07 | 18.11 | 36.21 | 54.33 | 90 |
| | M/B dolphine | Unit | -1 | 27.06 | | 27.06 | | |
| | M/B foundation | Unit | 2 | 12.07 | 18.11 | 24.14 | 36.22 | |
| | Movable Bridge | m2 | - 56 | 0.70 | | 39,20 | 155.68 | |
| | (hydroulic system) | set | 1 | 1.86 | | 1.86 | | 9 |
| : | Approach Trestle | m2 | 52 | 3.59 | | 186.68 | | <u></u> |
| | Catwalk | m | 50 | 1.41 | 0.60 | 70.50 | 30.20 | 1 |
| | Causeway | m | 45 | 0.10 | 0.04 | | 1.85 | |
| | (Armourstone) | m3 | 1,035 | 0.15 | 0.06 | 151.11 | 64.17 | 215 |
| <u>·</u> | Dredging works | m3 | | | 1000 | | | |
| | Breakwater | m | 300 | 0.15 | | | <u> </u> | |
| | Navigation Aids | Set | 4 | 14.85 | 34.65 | 59.40 | A | |
| | Wharf and stage | m2 | 240 | 0.56 | 0.84 | 134.40 | 201.60 | 336 |
| | | 1 | | | 3.5 | 771 17.30 | | |
| Land | Reclamation works | m3 | 2,700 | 0.053 | 0.023 | 143.10 | | |
| Facilities | Cut/Fill | m3 | 1,400 | 0.053 | 0.023 | 74.20 | 32.20 | |
| 1 acinica | Revetment works | m | 150 | 0.219 | 0.094 | 32.85 | | |
| | Road works | m2 | 1,400 | 0.037 | 0.016 | 51.80 | 22.40 | |
| | (Overlay pavement) | m2 | 1,400 | 0.016 | 0.007 | 22.40 | 9.80 | |
| · | Pavement works | m2 | 1,600 | 0.038 | 0.025 | 60.80 | 40.00 | 100 |
| | Green Area | m2 | 1.700 | 0.025 | 0.013 | 42.50 | 22.10 | |
| | Building works | m2 | 800 | 0.300 | | 240.00 | 60.00 | 300 |
| | Water supply | set | 1 | 210,000 | · | 210.00 | 315.00 | 525 |
| | Electric power suppl | | | 72.000 | | | 48.00 | 120 |
| | (Generators) | set | | 108.000 | | | 72.00 | 180 |
| | (Generators) | + | | | | | | |
| | Cathodic Protection | L.S | 1 | 57,60 | 86.40 | 57.60 | 86.40 | 144 |
| | Camouic i Totection | ┼ ┈ | · | <u> </u> | | 1 | | |
| Total | f Construction Cost | | | | | 2,168.75 | 2,098.44 | 4,267 |
| I Olai O | ii Constituction Cost | · | | | | 4-1-1 | | |

Table 7-1-2(2)A Detailed Construction Cost of Saubeba Ferry Terminal

| Facilities | Detailed Construction | LOSINIMA | | | | | | |
|------------|-----------------------|---------------------------------------|---------------|--------------|----------|------------|----------|-------|
| Facilities | | 003(0) 110 | orks for Ferr | y Terminal: | s | <u> </u> | | |
| racilities | | | | | | Unit; Rp M | illion | |
| | | | | Unit Co | | Total A | | |
| | Items of Works | Unit | Quantity | Local | Foreign | | Foreign | Total |
| | Mobilization | L.S | | | | 120.00 | 80.00 | 200 |
| Water | Breasting Dolphine | Unit | | 19.23 | 28.85 | 57.69 | 86.55 | 144 |
| Front | (Fender system) | Unit | 3 | 12.80 | 19.20 | 38.40 | 57.60 | 96 |
| Facilities | Mooring Dolphine | Unit | | 9.01 | 13.52 | 27.03 | 40.56 | 67. |
| | M/B dolphine | Unit | 1 | 21.65 | 32.47 | 21.65 | 32.47 | 54. |
| | M/B foundation | Unit | | 17.84 | 26.77 | 35.68 | 53.54 | 89. |
| | Movable Bridge | m2 | 56 | 0.42 | 1.66 | 23,52 | 92.96 | 116. |
| <u> </u> | (hydroulic system) | set | . 1 | | <u> </u> | 1.88 | 7.44 | 9. |
| | Approach Trestle | m2 | | | _ | | - | |
| | Catwalk | . m | 50 | 0.82 | 1.22 | 41.00 | 61.00 | 102 |
| | Causeway | · m | 11 | 0.07 | 0.04 | 0.74 | 0.48 | 1. |
| 0 | (Armourstone) | m3 | 253 | 0.10 | 0.07 | 25,55 | 16.70 | 42. |
| | Dredging works | m3 | 21,600 | 0.006 | 0.026 | 129,60 | 561.60 | 691. |
| | Breakwater | m | 190 | 0.10 | 0.07 | 19.19 | 12.54 | 31. |
| | Navigaation Aids | set | 2 | 19.80 | 46.20 | 39.60 | 92.40 | 132. |
| | Wharf and stage | m2 | 240 | 0.45 | 0.67 | 107.66 | 161.49 | 269. |
| | | | | | | | | |
| Land | Reclamation works | m3 | 9,400 | 0.036 | 0.024 | 338.40 | 225.60 | 564. |
| Facilities | Cut/Fill | m3 | - | | | | | |
| | Revetment works | m | 120 | 0.150 | 0.100 | 18.00 | 12.00 | 30. |
| | Road works | m2 | 1,400 | 0.025 | 0.017 | 35.00 | 23.80 | 58. |
| | (Overlay pavement) | m2 | 1,400 | 0.011 | 0.007 | 15.40 | 9,80 | 25. |
| | Pavement works | m2 | 1,600 | 0.030 | 0.020 | 48.00 | 32.00 | 80. |
| | Green Area | m2 | 1,750 | 0.020 | 0.010 | 35.00 | 17.50 | 52. |
| | Building works | m2 | 800 | 0.180 | 0.120 | 144.00 | 96.00 | 240. |
| | Water supply | set | 1 | 160.000 | 240.000 | 160.00 | 240.00 | 400. |
| | Electric power supply | set | 1 | 72.000 | 108.000 | 72.00 | 108.00 | 180. |
| | (Generators) | set | 1 | 48.000 | 72.000 | 48.00 | 72.00 | 120 |
| | | | | | | | | |
| | Cathodic Protection | L.S | 1 | | | 22.00 | 66.00 | 88 |
| | Construction Cost | · · · · · · · · · · · · · · · · · · · | | | ļ | 1,624.99 | 2,260.03 | 3,885 |

Table 7-1-2(3)A Detailed Construction Cost of Lewoleba Ferry Terminal

| | Name of the | e propose | Ferry Tern | ninal and R | oute No | 3, Lewolet | a | <u></u> | ļ |
|-------------|--------------|-------------|------------|---------------|-------------|------------|------------|--------------|---------|
| | Detailed Co | nstruction | Cost of Wo | orks for Ferr | y Terminals | 5 | | <u> </u> | |
| | | | | | | <u> </u> | Unit; Rp M | | |
| Facilities | | | | | Unit Co | | Total A | | |
| | Items of Wo | rks | Unit | Quantity | Local | Foreign | Local | Foreign | Total |
| | Mobilization | 1 | L.S | I | | | 120.00 | | 200.0 |
| Water | Breasting D | olphine | Unit | | 48.41 | 72.62 | 145.23 | 217.86 | 363.0 |
| Front | (Fendersy | | Unit | | 13.50 | 20.25 | 40.50 | 60.75 | 101.2 |
| Facilities | Mooring Do | lphine | Unit | 3 | 23.34 | 35.01 | 70.02 | 105.03 | 175.0 |
| .20. | M/B dolphin | ie | Unit | 1 | 51.87 | 77.81 | 51.87 | 77.81 | 129.6 |
| | M/B foundat | tion | Unit | 1 | 96,82 | 145.23 | 96.82 | 145.23 | 242.0 |
| | Movable Br | idge | m2 | 88 | 0.70 | 2.78 | 61.60 | <u> </u> | 306.2 |
| | (hydroulic s | system) | set | | 1,86 | 7.45 | 1.86 | | 9.3 |
| | M/B cylinde | r foundatio | Unit | 2 | 78.31 | 117.50 | 156.62 | 235.00 | 391.6 |
| | Catwalk | | m | 60 | 1.57 | 1.04 | 94.20 | | 156.6 |
| | Causeway | | m | 10 | 1.06 | 0.46 | 10.60 | 4.60 | 15.2 |
| | Rock mound | d | m3 | _ | | | | | |
| | Dredging w | orks | m3 | - | | | | | |
| | Breakwater | | m | | · | | | 1.14 10 1.15 | ļ |
| | Navigation / | Aids | Set | . 3 | 14.85 | 34.65 | 44.55 | | 148.0 |
| | Approach T | | m2 | 75 | 1.27 | 1.90 | 95.25 | | 237.7 |
| | Wharf | | Unit | 1 | 253.53 | 380.29 | 253.53 | 380.29 | 633.8 |
| Land | Reclamation | n works | m3 | 5,200 | 0.014 | 0.006 | 72.80 | 31.20 | 104.0 |
| Facilities | Cut/Fill | | m3 | | | | | | 10 21 |
| | Revetment v | works | m | 150 | 0.206 | 0.088 | 30.90 | 13.20 | 44.1 |
| | Road works | | m2 | 900 | 0.029 | 0.013 | 26.10 | 11.70 | 37.8 |
| | (Overlay par | vement) | m2 | 900 | 0.013 | 0.005 | 11.34 | | 15.8 |
| | Pavement v | vorks | m2 | 1,600 | 0.035 | 0.015 | 56.00 | | 80.0 |
| | Green Area | | m2 | 1,700 | 0.020 | 0.010 | 34.00 | | 51.0 |
| | Building wo | rks | m2 | 800 | 0.360 | 0.090 | 288.00 | | 360.0 |
| | Water suppl | у | set | . 1 | 160.000 | 240.000 | 160.00 | 240.00 | 400.0 |
| | Electric pow | | set | 1 | 72.000 | 108.000 | 72.00 | | 180.0 |
| | (Generators | | set | 1 | 48.000 | 72,000 | 48.00 | 72.00 | 120,0 |
| | T | | : | | | | | | |
| | Cathodic Pro | otection | L.S | 1 | 25.000 | 75.000 | 25.00 | 75.00 | 100.0 |
| Total of | Construction | n Cost | | | | | 2,066.79 | 2,536.11 | 4,602.4 |

Table 7-1-2(4)A Detailed Construction Cost of Terong Ferry Terminal

| | Name of th | e proposed | Ferry Terr | minal and R | oute No | 3, Terong | | | I |
|------------|--------------|------------|------------|-------------|---------|---------------------------------------|------------|------------|-------------|
| | Detailed C | | | | | | | | <u> </u> |
| | | | | [| | | Unit; Rp M | illion | ļ |
| Facilities | | | | Ì | Unit Co | st | Total A | | |
| | Items of We | orks | Unit | Quantity | Local | Foreign | Local | Foreign | Total |
| | Mobilizatio | n | L.S | 1 | | 7 5(0.g.) | 120.00 | 80.00 | t |
| Water | Breasting [| Oolphine | Unit | 3 | 92.36 | 61.57 | 277.08 | 184.71 | 461.7 |
| Front | (Fenders | **** | Unit | | 13.50 | 20.25 | 40.50 | 60.75 | |
| Facilities | Mooring Do | | Unit | 3 | 73.82 | 49.21 | 221.46 | | |
| | M/B dolphi | | Unit | 1 | 128.25 | 85.50 | 128.25 | 85.50 | 213.7 |
| | M/B founda | | Unit | i | 220.55 | 147.03 | 220,55 | 147.03 | |
| | Movable B | | m2 | 128 | 0.68 | 2.71 | 87.04 | 346.88 | |
| | (hydroulic | | set | 1 | 1.86 | 7.45 | 1.86 | 7.45 | |
| | M/B cylinde | | Unit | 2 | 73.82 | 49.21 | 147.64 | 98.42 | |
| | Catwalk | | m | 55 | 1.71 | 1.14 | 94.05 | 62.70 | · |
| | Causeway | | m | 40 | | 0.46 | 42.40 | 18.40 | |
| | Rock mour | ıd | m3 | 5,000 | 0.265 | 0.177 | 1,325.00 | 885.00 | 2,210.0 |
| | Dredging v | vorks | m3 | - | : | | | | |
| | Breakwate | r. , | m | _ | | | | <i>i</i>) | <u> </u> |
| | Navigation | Aids | Set | 3 | 14.85 | 34.65 | 44.55 | 103.95 | 148.5 |
| | Wharf and | stage | m2 | _ | | · · · · · · · · · · · · · · · · · · · | | | |
| 1 22 | | | | | | | | | |
| Land | Reclamatic | n works | . m3 | 4,500 | 0.014 | 0.006 | 63.00 | 27.00 | 90,0 |
| Facilities | Cut/Fill | | m3 | | | | | | |
| | Revetment | works | m | 160 | 0.206 | 0.088 | 32.96 | 14.08 | 47.0 |
| | Road work | s | m2 | 900 | 0.029 | 0.010 | 26.10 | 9.00 | 35.1 |
| | (Overlay pa | vement) | m2 | 900 | 0.013 | 0.005 | 11.70 | 4.50 | 16.2 |
| | Pavement | works | m2 | 1,600 | 0.035 | 0.015 | 56.00 | 24.00 | 80.0 |
| 1 1 1 | Green Area | 1 | m2 | 1,700 | 0.020 | 0.010 | 34.00 | 17.00 | 51.0 |
| | Building wo | orks | - m2 | 800 | 0.360 | 0.090 | 288.00 | 72.00 | 360.0 |
| | Water supp | oly | set | 1 | 160.000 | 240.000 | 160,00 | 240.00 | 400.0 |
| | Electric po | wer supply | set | 1 | 72.000 | 108.000 | 72.00 | 108.00 | 180.0 |
| | (Generator | s) | set | 1 | 48.000 | 72.000 | 48.00 | 72.00 | 120.0 |
| | | | | | | | | | [|
| | Cathodic P | rotection | L.S | | | | | | |
| Total of | Construction | on Cost | | | | | 3,542.14 | 2,816.00 | 6,358. |

Table 7-1-2(5)A Detailed Construction Cost of Kolaka Ferry Terminal

| | Name of the proposed | | รเกลเลกศ เ⊀ | nuie Na | 8. Kolaka | E . | 1 | 1 |
|-------------------|-------------------------|------------|----------------|---|-----------|------------|-------------|---------|
| | Detailed Construction | Cost of Wa | rks for Fer | v Terminal | | | 1.5 | |
| | Detailed Constitution | | 1.13 101 1 011 | , | | Unit; Rp M | illion | |
| Facilities | | | <u> </u> | Unit Co | st | Total A | | |
| 1 acmues | Items of Works | Unit | Quantity | Local | Foreign | Local | Foreign | Total |
| | Mobilization | L.S | 1 | | | 120.00 | | 200.0 |
| Water | Breasting Dolphine | Unit | 3 | 70.29 | 105.44 | 210.87 | 316.31 | 527.1 |
| Front | (Fender system) | Unit | 3 | | 24.30 | 48,60 | 72.90 | 121.5 |
| Facilities | Mooring Dolphine | Unit | 3 | 41.98 | 62.97 | 125.94 | 188.91 | 314.8 |
| acinics | M/B dolphine | Unit | | 61.36 | 92.04 | 61.36 | 92.04 | 153.4 |
| | M/B foundation | Unit | 0 | 47.31 | 70.97 | 0.00 | 0,00 | 0.0 |
| | Movable Bridge | m2 | 153,00 | 1.22 | 4.89 | 186,66 | 748.17 | 934.8 |
| | (hydroulic system) | set | 1 | 1.86 | 7.45 | 1.86 | | 9.3 |
| | M/B cylinder foundation | Unit | 2 | 78.31 | 117.50 | 156.62 | 235.00 | 391.6 |
| | Catwalk | m | 80 | 0.75 | 0.50 | 60.00 | 40.00 | 100.0 |
| | Causeway | m | 0 | 1.06 | 0.46 | 0.00 | 0.00 | 0.0 |
| | Rock mound | m3 | - | | | | | |
| | Dredging works | m3 | 0 | 0.005 | 0.018 | 0.00 | 0.00 | 0.0 |
| | Breakwater | m | - | | | | | |
| | Navigation Aids | Set | 4 | 14.85 | 34.65 | 59.40 | | 198.0 |
| | Approach Trestle | . m2 | 105 | 3.41 | 5.11 | 358.05 | 1 | 894.6 |
| | Wharf | Unit | 1 | 196.76 | 295.14 | 196.76 | 295.14 | 491.9 |
| Land | Reclamation works | m3 | 16,000 | 0.015 | 0.010 | 240.00 | 160.00 | 400.0 |
| Facilities | CuVFill | m3 | | | | | | |
| | Revetment works | m | 270 | 0.510 | 0.340 | 137.70 | | 229.5 |
| | Road works | m2 | 4,000 | 0.033 | 0.022 | 132.00 | | 220.0 |
| | (Overlay pavement) | m2 | 4,000 | 0.010 | 0.007 | 40.00 | | 68.0 |
| | Pavement works | m2 | 5,600 | | 0.018 | 151.20 | | 252.0 |
| | Green Area | m2 | 3.000 | 0.020 | 0.010 | 60.00 | | 90.0 |
| | Building works | m2 | 2,500 | 0.350 | 0.150 | 875.00 | | |
| | Water supply | set | 1 | 240.000 | 360,000 | | | 600.0 |
| | Electric power supply | set | 1 | 72.000 | 108.000 | 72.00 | | 180.0 |
| · · · · · · · · · | (Generators) | set | 1 | 48.000 | 72.000 | | <u> </u> | 120.0 |
| | Truckscale | set | 1 | 100.000 | | 100.00 | | |
| - | Cathodic Protection | L.S | 1 | 175.600 | 263.400 | 175.60 | 263.40 | 439.0 |
| | | | | 1 | | | | |
| Total of | Construction Cost | · . | | | | 3,857.62 | 4,453.07 | 8,310.6 |

Table 7-1-2(6)A Detailed Construction Cost of Bajoe Ferry Terminal

| , | Name of the propose | | | | | | | 1 |
|-------------|-------------------------|------------|--------------|-------------|----------|-------------|----------|---|
| | | grerry rem | ninal and Re | oute No | 8, Bajoe | | | |
| | Detailed Construction | Cost of Wo | rks for Ferr | y Terminals | } | | | |
| | | | | | | Unit; Rp M | illion | · |
| Facilities | | | | : Unit Co | st | Total A | mount | , |
| | Items of Works | Unit | Quantity | Local | Foreign | Local | Foreign | Total |
| | Mobilization | L.S | 1 | | | 120,00 | 80.00 | 200.0 |
| | Breasting Dolphine | Unit | 3 | 38.85 | 58.28 | 116.55 | 174.84 | 291.3 |
| Front | (Fender system) | Unit | . 3 | 16.20 | 24.30 | 48.60 | 72.90 | 121.5 |
| | Mooring Dolphine | Unit | 3 | 21.99 | 32.99 | 65.97 | 98.97 | 164.9 |
| | M/B dolphine | Unit | 1 | 61.36 | 92,04 | 61.36 | 92.04 | 153.4 |
| | M/B foundation | Unit | 0 | 47.31 | 70.97 | 0.00 | 0.00 | 0.0 |
| | Movable Bridge | m2 | 112.50 | 1.22 | 4.89 | 137.25 | 550.13 | 687.3 |
| : | (hydroulic system) | set | . 1 | 1.86 | 7.45 | 1.86 | 7.45 | 9.3 |
| | M/B cylinder foundation | Unit | . 2 | 78.31 | 117.50 | 156.62 | 235.00 | 391,6 |
| | Catwalk | m | 80 | 0.75 | 0.50 | 60.00 | 40.00 | 100.0 |
| | Causeway | . m | 0 | 1.06 | 0.46 | 0.00 | 0.00 | 0.0 |
| | Rock mound | m3 | - | | | | | |
| | Dredging works | m3 | 65,908 | 0.006 | 0.024 | 395.45 | 1,581.79 | 1,977.2 |
| | Breakwater | m | - | | | | | |
| | Navigation Aids | Set | 3 | 21.45 | 50.05 | 64.35 | 150.15 | 214.5 |
| | Approach Trestle | m2 | . 185 | 5.46 | 8.19 | 1,010.10 | 1,515.15 | 2,525.2 |
| | Wharf | Unit | 1 | 138.44 | 207.66 | 138.44 | 207.66 | 346.1 |
| Land | Reclamation works | m3 | 43,200 | 0.015 | 0.010 | 648.00 | 432.00 | 1,080.0 |
| Facilities | Cut/Fill | m3 | - | | | | | |
| | Revetment works | m | 370 | 0.510 | 0.340 | 188.70 | 125.80 | 314.5 |
| | Road works | m2 | 2,350 | 0.033 | 0.022 | 77.55 | 51.70 | 129.2 |
| | (Overlay pavement) | m2 | 2,350 | 0.010 | 0.007 | 23.50 | 16,45 | 39.9 |
| | Pavement works | m2 | 5,600 | 0.027 | 0.018 | 151.20 | 100.80 | 252.0 |
| | Green Area | m2 | 2.500 | 0.020 | 0.010 | 50,00 | 25.00 | 75.0 |
| | Building works | m2 | 2,500 | 0.350 | 0.150 | 875.00 | 375.00 | 1,250.0 |
| | Water supply | set | 1 | 240.000 | 360.000 | 240.00 | 360.00 | 600.0 |
| | Electric power supply | set | 1 | 108.000 | 162.000 | 108.00 | 162.00 | 270.0 |
| | (Generators) | set | 1 | 72.000 | 108.000 | 72.00 | 108.00 | 180.0 |
| | Truckscale | set | 1 | 100,000 | 25,000 | 100.00 | 25.00 | 125.0 |
| | Cathodic Protection | L.S | . 1 | 58.250 | 174.750 | 58.25 | 174.75 | 233.0 |
| Total of | Construction Cost | - | | | | 4,968.75 | 6,762.58 | 11,731.3 |

Table 7-1-2(7)A Detailed Construction Cost of Palembang Ferry
Terminal

| Name of the | ne proposed Ferry Terr | ninal and Re | | 9, Palemba | | | | |
|--|-------------------------|--------------|--------------|--------------|----------|-----------------|----------|---------------|
| | Detailed Construction | Cost of Wo | rks for Ferr | y Terminais | } | Unit; Rp M | | |
| | | | ļ. | | L | Total A | | |
| Facilities | | | | Unit Co | | Local | Foreign | Total |
| | Items of Works | Unit | Quantity | Local | Foreign | 120.00 | 80.00 | 200.00 |
| | Mobilization | L.S | | 45.00 | 60.04 | | 204.12 | 340.20 |
| Water | Breasting Dolphine | Unit | | 45.36 | 68.04 | 136.08 40.50 | | 101.2 |
| Front | (Fender system) | Unit | | 13.50 | 20.25 | 60.99 | 91.47 | 152.4 |
| Facilities | Mooring Dolphine | Unit | | 20.33 | 30.49 | | 73.04 | 121.7 |
| | M/B dolphine | Unit | | 48.69 | 73.04 | 48.69 | 239.86 | 399,7 |
| | M/B foundation | Unit | | 79,95 | 119.93 | 159.90 | | 928.7 |
| | Movable Bridge | m2 | | 1.22 | 4.89 | 185.44 | 743.28 | 928.7 |
| | (hydroulic system) | set | 1 | 1.86 | 7.45 | 1.86 | 7.45 | 391.6 |
| | M/B cylinder foundation | Unit | | 78.31 | 117.50 | 156.62 | 235,00 | 75.7 |
| 1.4.5 | Catwalk | m | 67 | 0.68 | 0.45 | 45.56 | 30.15 | <u> </u> |
| | Causeway | m | 0 | 1.06 | 0.46 | 0.00 | 0.00 | 0.0 |
| | Rock mound | m3 | | | | | | |
| | Dredging works | m3 | 0 | 0.005 | 0.018 | 0.00 | 0.00 | 0,0 |
| | Breakwater | m | | | | | | |
| | Caison | m | - | | | | | |
| 1 : 5 | Approach Trestle | m2 | 224 | | 0.61 | 91.84 | 136.64 | 228.4 |
| | Wharf | Unit | 1 | 180.22 | 270.33 | 180.22 | | 450.5 |
| Land | Reclamation works | m3 | 4,700 | 0.029 | 0.019 | 135.36 | 89.30 | 224.6 |
| Facilities | Cut/Fill | m3 | | | | <u> </u> | 1 1 1 | 16 38 3 |
| 1 demines | Revetment works | m | | 0.348 | 0.232 | 31.32 | <u> </u> | |
| | Road works | m2 | 2,500 | 0.098 | 0.065 | 245.00 | 1 | 1 |
| | (Overlay pavement) | m2 | | 0.010 | 0.007 | 25.00 | | |
| | Pavement works | m2 | 1,500 | 0.022 | 0.014 | 33.00 | 21.00 | |
| | Green Area | m2 | | 0.020 | 0.010 | 60.00 | | |
| | Building works | m2 | | | 0.180 | 588.00 | 252,00 | . |
| | Water supply | set | | 192.000 | 288.000 | 192.00 | | |
| | Electric power supply | | | 86.400 | 129.600 | 86.40 | 129.60 | |
| ······································ | (Generators) | set | | | | 48.00 | 72.00 | · |
| <u> </u> | Truckscale | set | | | | 49.46 | 37.60 | |
| | Cathodic Protection | LS | 1 | 92.000 | <u> </u> | 92.00 | 138.35 | 230.3 |
| | Cathodic Protection | <u>-</u> | | | | 1 | 1 | |
| | f Construction Cost | ļ | | | | 2,813.24 | 3,430.82 | 6,244.0 |
| I otal o | or Construction Cost | - | | | | 1 | 1 | |

Table 7-1-2(8)A Detailed Construction Cost of Muntok Ferry Terminal

37

| | Detailed Construction | Cost of Wo | orks for Ferr | y Terminals | } | | | |
|-------------|-----------------------|------------|---------------|-------------|---------|------------|----------|----------|
| | | | | ĺ | | Unit; Rp M | illion | |
| Facilities | | | | Unit Co | st | Total A | | |
| | Items of Works | Unit | Quantity | Local | Foreign | Local | Foreign | Total |
| | Mobilization | L.S | 1 | | | 120.00 | | 200.0 |
| Water | Breasting Dolphine | Unit | 3 | | 66.34 | 132.69 | 199.02 | 331.7 |
| Front | (Fender system) | Unit | 3 | 13.50 | 20,25 | 40.50 | 60.75 | 101.2 |
| Facilities | Mooring Dolphine | Unit | | .21.13 | 31.70 | 63.39 | 95.10 | 158.4 |
| | M/B dolphine | Unit | 1 | 48.06 | 72.10 | 48.06 | 72.10 | 120.1 |
| | M/B foundation | Unit | | | 119.93 | 159.90 | 239,86 | 399.7 |
| | Movable Bridge | m2 | 176.00 | 1.22 | 4.89 | 214.72 | 860,64 | 1,075.3 |
| | (hydroulic system) | set | . 1 | 1.86 | 7.45 | 1.86 | 7.45 | 9.3 |
| | M/B cylinder foundat | id Unit | 2 | 78.31 | 117.50 | 156.62 | 235,00 | 391.6 |
| | Catwalk | m | 67 | 0.86 | 0,57 | 57.49 | 38,19 | 95.6 |
| | Causeway | m | 20 | 0.05 | 0.03 | 0.96 | 0.64 | 1.6 |
| | Rock mound | m3 | - | | | | | <u> </u> |
| | Dredging works | m3 | 0 | 0.005 | 0.018 | 0.00 | 0.00 | 0.0 |
| | Breakwater | m | 97 | 2.19 | 5.12 | 212.43 | 496,64 | 709.0 |
| | Navigation Aids | Set | 2 | 19.80 | 46.20 | 39.60 | 92.40 | 132.0 |
| | Approach Trestle | m2 | 330 | 0.74 | 1,11 | 244.20 | 366.30 | 610.5 |
| | Wharf | Unit | 1 | 188.97 | 283.46 | 188.97 | 283.46 | 472.4 |
| Land | Reclamation works | m3 | 4,720 | 0.029 | 0.019 | 135.94 | 89.68 | 225.0 |
| Facilities | Cut/Fill | m3 | - | | | | | |
| | Revetment works | m | 150 | 0.348 | 0.232 | 52.20 | 34.80 | 87.0 |
| | Road works | m2 | 2,800 | 0.098 | 0,065 | 274.40 | 182.00 | 456.4 |
| | (Overlay pavement) | m2 | 2,800 | 0.010 | 0.007 | 28.00 | 19.60 | 47.6 |
| | Pavement works | m2 | 2,450 | 0.022 | 0.014 | 53.90 | 34.30 | 88.2 |
| | Green Area | m2 | 2,200 | 0.020 | 0.010 | 44.00 | 22.00 | 66.0 |
| | Building works | m2 | 1,400 | 0.420 | 0.180 | 588.00 | 252.00 | 840.0 |
| | Water supply | set | 1 | 192.000 | 288,000 | 192.00 | 288,00 | 480.0 |
| | Electric power suppl | y set | 1 | 86.400 | 129.600 | 86.40 | 129.60 | 216.0 |
| | (Generators) | set | 1 | 48.000 | 72.000 | 48.00 | 72.00 | 120.0 |
| : | Truckscale | set | 1 | 49.440 | 37.600 | 49.44 | 37.60 | 87.0 |
| | Cathodic Protection | L.S | 1 | 468.150 | 702.210 | 468.15 | 702.21 | 1,170. |
| | f Construction Cost | | | | | 3,701.81 | 4,991,34 | 8,693. |

Table 7-1-3(1)A Terminal Construction Cost of Route Mokmer-Saueba

| Í | Annum management management at management is an analysis of the first description of the way | Termina | Terminal Construction | | of Route Mo | Sost of Route Mokmer-Saueba | 38 | | (Unit; Million Rp) | ın Rp) | The second of th | | |
|----------|--|--|---|--|-------------|---|-------|-------|--------------------|--------|--|-----------|--|
| 1 | | | | | | | | | | | | | |
| l | Year | | 1 st Year | | | 2 nd Year | | | 3rd Year | | Total | | |
| Ĺ | Ourrency | Local | Foreign | Total | Local | Foreign | Totai | Local | Foreign | Total | Local | Foreign | Total |
| <u>i</u> | Name of terminal | | | | | | | | | | | | The state of the s |
| i | Route | | | | | | | | | | | | |
| ١. | 2 Mokmer | | | | 650 | 904 | 1,554 | 975 | 1,356 | 2,331 | 1.625 | 2.260 | 3,885 |
| į | | | | | | | | | | | | | |
| | Saubeba | and the second s | ned mande til edunder skulliging og best springhede klande. | and the females and the second | 651 | 629 | 1,280 | 1518 | 1,469 | 2,987 | 2,169 | 2,098 | 4,267 |
| i | Direct Construction | | | | 1,301 | 1,533 | 2,834 | 2,493 | 2,825 | 5.318 | 3,794 | 4,358 | 8,152 |
| l | Cost | The state of the s | | | | desertion marken instruction and the second | | | | | | | |
| | Consulting Cost | 233 | 132 | 385 | 5 217 | 7 151 | 368 | 244 | 151 | 395 | 593 | 434 | 1,127 |
| L | Physical Contingency | | | | 130 | 77 | 207 | 249 | 141 | 391 | 379 | 218 | 265 |
| 1 | Sub Total of Works | 233 | 132 | 365 | 1,648 | 1,761 | 3,409 | 2,987 | 3,117 | 6,103 | 3 4,866 | 5.010 | 9,876 |
| | | | | | | | | | | | | | |
| <u> </u> | Tax (VAT 10 %) | 37 | | - 37 | 7 341 | | 341 | 610 | F | 610 | 988 | <u> -</u> | 988 |
| 1 | Total Construction | | | | | | | | | | | | |
| <u>L</u> | Cost of the Route | 270 | 132 | 2 402 | 1,989 | 9 1,761 | 3,750 | 3,597 | 3,117 | 6.714 | 1 5,854 | 5,010 | 10,864 |

Table 7-1-3(2)A Terminal Construction Cost of Route Lewoleba-Terong

| | | | | Total | The second secon | | 4,503 | 6,358 | 10,961 | | 1,517 | 829 | 13,307 | | 1,331 | | 14,637 |
|-----|---|--|-----------|-----------|--|-------|--|--|---------------------|--|-----------------|----------------------|--------------------|--|----------------|--------------------|-------------------|
| | | The state of the s | | Foreign | | | 2,536 | 2,816 | 5,352 | | 584 | 268 | 6,204 | | • | | 6.204 |
| | Paristan edition florente trability of sur | | Total | Local | SANDA AND SIGNATURE AND SIGNATURE SANDANGE SANDA | | 2,067 | 3,542 | 5,609 | | 933 | 561 | 7,103 | | 1,331 | | 8.434 |
| | | | | Total | | | 1,841 | 2,543 | 4,384 | and the state of t | 531 | 331 | 5,247 | | 525 | | 5.771 |
| | <u>9</u> | | 3rd Year | Foreign | | | 1,014 | 1,126 | 2,141 | and of the sale of | 203 | 107 | 2,451 | | - | | 2 451 |
| | (Unit; Million Rp) | | | Local | - | | 827 | 1,417 | 2,244 | | 328 | 224 | 2,796 | | 525 | | 3,321 |
| | ng | | | Total | A delitier mit verbeiter - den find pretende finde dem menne | | 2,762 | 3,815 | 6,577 | deritabilities aim annual an aman margin aig | 495 | 497 | 7,569 | | 757 | | 8.326 |
| | Cost of Route Lewoleba-Terong | | 2 nd Year | Foreign | A CANADA | | 1,522 | 1,690 | 3,211 | Commercial and the particular photograph or program or broaders (1) | 203 | 161 | 3,575 | the state of the s | | | 3,575 |
| | Route Lew | | | le:30 | A Company of the Comp | | 1,240 | 2,125 | 3,365 | PRODUCT TO BE AND ADDRESS OF THE PROPERTY. | 292 | 337 | 3,994 | | 757 | | 4,751 |
| | 1 1 | | | Total | | | to a fine a second district of the second dis | And the Control of th | | Addition to the facility of their production of the form | 490 | | 490 | | 48 | | 539 |
| : | Terminal Construction | | st Year | Foreign - | THE WITH SAID AND THE SAID OF | | to the state of th | die bereit werd were der der der der der der der der der | | The state of the s | 177 | | 177 | | • | | 1771 |
| | Termina | | | Local | | | and confidence of confidence of the name of the same | The second secon | | | 313 | | 313 | | 49 | | 362 |
| . : | | | | | minal | | 3 Lewoleba | Terong | truction | | Sost | ntingency | Works | |) %) | truction | Route |
| | distance of the second | | Year | Currency | Name of terminal | Route | 3 [| | Direct Construction | Cost | Consulting Cost | Physical Contingency | Sub Total of Works | | Tax (VAT 10 %) | Total Construction | Cost of the Route |

Table 7-1-3(3)A Terminal Construction Cost of Each Route Bajoe-Kolaka

| | Termina | l erminal Construction | 1 | Eacil Acu | Cost of Each Route (Bajoe-Kolaka) | olaka) | Onite, Million RD | (סא הס | And the second s | designation of the state of the | | |
|--|--|--|--|-----------|---|---|-------------------|---------------------------|--|--|---------|--------|
| | | | | | | | | | | | | |
| Year | | 1 st Year | | | 2 nd Year | | | 3rd Year | | Total | | |
| Currency | Local | Foreign | Total | Loca | Foreign | Total | Local | Foreign | Total | Local | Foreign | Total |
| Name of terminal | | | | | | | | | | | | |
| Route | | | | | | | | | | | | |
| 8 Bajoe | poly alemanta myster (1987). Paris process and differences | | | 2,981 | 4,058 | 7,039 | 1.988 | 2,705 | 4,693 | 4,969 | 6,763 | 11,732 |
| | | | | | | | | | | | | |
| Kolaka | And the second section of the section of the s | territori de la contrata del contrata de la contrata de la contrata del contrata de la contrata del la contrata del la contrata del la contrata de la contrata de la contrata de la contrata de la contrata del la contrata del la contrata del la contrata del la co | And the state of t | 1,543 | 1,781 | 3,324 | 2,315 | 2,672 | 4,987 | 3,858 | 4,453 | 8,311 |
| Direct Construction | | | | 4,525 | 5.839 | 10,364 | 4,302 | 5,377 | 6/9'6 | 8,827 | 11,216 | 20,043 |
| | | | | | | | | | | | | |
| Consulting Cost | 573 | 324 | 1 897 | 533 | 372 | 905 | 669 | 372 | 971 | 1,705 | 1,068 | 2.773 |
| Physical Contingency | , | | | 452 | 292 | 744 | 430 | 269 | 669 | 883 | 561 | 1,444 |
| Sub Total of Works | 573 | 324 | 1 897 | 5,510 | 6,503 | 12,013 | 5,332 | 6,018 | 11,349 | 11,415 | 12,845 | 24,260 |
| The second secon | | | | | | | | | | | | |
| Tax (VAT 10 %) | 96 | | 06 | 1.201 | • | 1 201 | 1 135 | 3 | 1,135 | 2,426 | - | 2,426 |
| Total Construction | | | | | teden den namb before il metel for temment ort il mortel (of | Mary Mary Mary Mary Mary Mary Mary Mary | | And an orthogen to be for | | 1 | | |
| Cost of the Route | 663 | 324 | 4 987 | 6,711 | 6,503 | 13,214 | 6,467 | 6,018 | 12,484 | 13,841 | 12,845 | 26,585 |

Table 7-1-3(4)A Terminal Construction Cost of Route Palembang-Muntok

| | | Termina | Terminal Construction | 1 | Cost of Route Palembang-Muntok | mbang-Mur | tok | - Breeder - Budern i dament ann an ann an ann an | (Unit; Million Rp) | n Rp) | menter bereitet de etter des anteres des | *************************************** | and the second s |
|---------------------|----------------------|---|-----------------------|--|--|--|---|--|--|--|--|---|--|
| | | | | | | | | | | | And the second s | | The Common Physics 6 - Branch Common Physics |
| Year | | | 1 st Year | | | 2 nd Year | | | 3rd Year | | Total | | |
| Currency | | Local | Foreign | Total | Local | Foreign | Total | Local | Foreign | Total | Local | Foreign | Total |
| Name of terminal | erminal | | | | And the state of t | | and a distance of the same of | | A THE RESIDENCE OF THE PARTY OF | | | | |
| Route | | | | | | | | | | | | | |
| 3) | 9 Palembang | | | AND AND A STATE OF THE PARTY OF | 703 | 858 | 1.561 | 2,110 | 2,573 | 4,683 | 2,813 | 3,431 | 6,244 |
| | | | | | | | | | : | | | | |
| | Muntok | females - confusion community between decreases on from | | ren a abrillatori di communicati recommenda del dell'antique | 2,962 | 3,993 | 6,954 | 740 | 866 | 1,739 | 3,702 | 4,991 | 8,693 |
| Direct Construction | nstruction | | | | 3,665 | 4,851 | 8,515 | 2,850 | 3,571 | 6,422 | 6,515 | 8,422 | 14,937 |
| Cost | | | | A CONTRACTOR OF THE PROPERTY O | | address to the same of the sam | | or all the latest to the latest or comment of the latest o | den mittellt, unselberinger ; | The second secon | | | |
| Consulting Cost | g Cost | 432 | 244 | 929 | 402 | 280 | 289 | 451 | 280 | 731 | 1,285 | 804 | 2,089 |
| Physical (| Physical Contingency | | | | 398 | 243 | 609 | 285 | 179 | 464 | 652 | 421 | 1.073 |
| Sub Total | Sub Total of Works | 432 | 244 | 676 | 4,433 | 5,373 | 908'6 | 3.586 | 4,030 | 7,616 | 8.452 | 9,647 | 18,099 |
| | | | | | | | | | - | | | | |
| Tex (VAT 10 %) | 10%) | 68 | • | 68 | 981 | - | 186 | 762 | • | 762 | 1,810 | • | 1,810 |
| Total Construction | nstruction | | | | | | | | | | | | |
| Cost of the Route | e Route | 500 | 244 | 744 | 5,414 | 5,373 | 10,787 | 4,348 | 4,030 | 8,378 | 10,261 | 9,647 | 19,908 |

Table 7-2-1(1)A Engineering and Construciton Schedule of Route 2

| | Location Route 2 | 1 | 1st year | | | 2nd year | ar | | 3rd | 3rd year | | 14 | 4th year | ь, | ļ | 5th | 5th year | |
|-------------------------------|-------------------|---|----------|----|----|-------------------|------|-------|-----|----------|----|------|----------|----------|------|-----|----------|--------------|
| Work Item | Mokmer Saubeba | т | 6 9 | 12 | 15 | 18 2 | 21 2 | 24 27 | 30 | 33 | 36 | 39 4 | 42 45 | 5 48 | 3 51 | 54 | 57 | 09 |
| 1. Engineering Services | | | | | | | | | | | | | _ | | , | | | |
| 1 | | | | | _ | +- | +- | - | | | | | | - | _ | | | |
| | | | | | | | | | | | T | | | - | | | | |
| 2. Construction Works | | | | | | | | | | | | | | | | | | |
| | 2 Terminals | | | | | | l | | | | | | | | | | | |
| | Mokmer | | - | | !! | | | | | | | | | - | | | : | |
| 2-7 Dredging | | | | | | | | | | : | | | · ' | | | | | |
| 2-3 Jetty Construction | Mokmer | | | | | | | | | | | | - | | | | : | |
| Piling/Concrete Work | Saubeba | | | | | | | - 1 | | п | | | - | | | | | |
| 2-4 Movable Bridge | Mokmer | | | | | 4 | | | | | | | | - | | | | |
| Civil Works for Foundation | Saubeba | | | | | | | | | | | | | | | | | · · |
| Fabrication of Steel | Mokmer | | | | | | | | | | | | | | | | | |
| and Installation/Test | Saubeba | : | | | | | : | | | | - | - | | | | | | - |
| 2-5 Reclamation/ | Mokmer | | 12.3 | | | Ш | | | | п | | | | | | | | |
| Revement Causeway Breakwater | Saubeba | | ÷ | | | | | | | | | | | | | | | : |
| 2-6 Road-Parking/ | Mokmer | | | : | | | | | | | | | | | | | | |
| Utility Supply | Saubeba | : | | | | - 7 - 1 - 1 | | | | | | | \dashv | \dashv | | _ | _ | _ |

Table 7-2-1(2)A Engineering and Construciton Schedule of Route 3

| 1st year 2nd year 3rd year | ear | 57 60 | | | : | | | | | | | | | | | | - | | | |
|---|------------------|---------------|----------------------|---------------|--------------|--------------------------|--------------------|-----------|--------------------------|--------|--------------------|--|----------------|----------------------------|----------------------|-----------------------|--|-------------------------------|---------------|-----------------|
| Location Route 3 1st year 2nd year 3rd year 4th year Lewoleba | 5th y | 72 | | · · | - | | | | - | | - | - | | - | _ | - | - | - | - | |
| Location Route 3 1st year 2nd year 3rd year Lewoleba | | 5.1 | | | | | | | - | ļ | | \vdash | - | - | \vdash | - | | lacksquare | - | |
| Location Route 3 1st year 2nd year 3rd year Lewoleba | | \$ | | | | 1- | - | - | - | - | | - | | <u> </u> | - | - | | | - | - |
| Location Route 3 1st year 2nd year 3rd year Lewoleba | ear. | 24 | | | | | | + | ļ | | | - | | | | - | | | - | |
| Location Route 3 1st year 2nd year Lewoleba | 4th) | 42 | | | | | | | <u> </u> | | | <u> </u> | | | | - | | ļ | † | |
| Location Route 3 1st year 2nd year Lewoleba | | 39 | | | | | 1 | | 1 | | | | <u> </u> | | | | | | | |
| Location Route 3 1st year 2nd year Lewoleba | | 36 | | · | | П | | | | - | | <u> </u> | | | - | | - | | | |
| Location Route 3 1st year 2nd year Lewoleba | year | 33 | | | | | | - | | | | | - | | | | - | - | 2222222 | |
| Location Route 3 1st year 2nd year Lewoleba | 3rd | 30 | | | | | | | | | | | | | 1 | | | | + | + |
| Location Route 3 1st year 2nd year Lewoleba | | 27 | | | - | | | | | - | | | | | | | | | 1 | 1 |
| Location Route 3 1st year Lewoleba | | 24 | | | | | | | | | | Ш | | | | | | $\dagger \mathbb{T}$ | | l |
| Location Route 3 1st year Lewoleba | year | 21 | | | | | | | | | | | V | | | <u> </u> | 1-0- | ╫ | | \dagger |
| Location Route 3 1st year Lewoleba | 2nd | 18 | | | | | | | | | - | | | - | <u> </u> | | | | | l |
| Location Route 3 1st year Lewoleba | | 15. | - | | | | | \prod | | | | | | | | | | | | Ì |
| Location Route 3 Lewoleba | | 12 | | | | | | | | | | | | | | | | | | Ì |
| Location Route 3 Lewoleba | year | 0 | | | | | | | | | | | | | | | | | | Ì |
| Location Route 3 Lewoleba | 1st | 9 | | | | | | | | · | | | | | | | | | | Ì |
| Location | | co. | | | | | | | | | | | | | | | | | | |
| rk Item | Location Route 3 | Lewoleba | | | | | | | | Terong | Lewoleba | Terong | Lewoleba | Terong | Lewoleba | Terong | Lewoleba | Terong | Lewoleba | |
| Wo | tt-m | | Engineering Services | Survey Design | P/Q + Tender | Construction Supervision | Construction Works | Mob/Demob | Oarccon vard Prenaration | | Jetty Construction | Piling/Concrete Work | Movable Bridge | Civil works for Foundation | Fabrication of Steel | and Installation/Test | Reclamation/ | Revenuent Causeway Breakwater | Road-Parking/ | L (SAIOM SIMUMO |

Table 7-2-1(3)A Engineering and Construciton Schedule of Route 8

| | | Location Route 8 | _ | 1st vear | | | 2nd | 2nd vear | | (" | 3rd vear | <u> </u> | | 4th | 4th vear | | | Sth | 5th vear | |
|---------|-----------------------------------|-------------------|---|----------|-------------|----------|-----|----------|--|----------------|----------|--------------|----------|-----|----------|----|----|-----|----------|----|
| | | | 1 | 200 | | | 1 | | | , | | | | | | | | | | |
| | Work Item | Bajoe Kolaka | 3 | 6 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 3 | 33 36 | 39 | 42 | 45 | 48 | 51 | 7, | 57 | 99 |
| 1. E | Engineering Services | | | | | | | | ······································ | <u> </u> | | | | | | | | | | |
| پښو | 1-1 Survey Design | | | 1 | | | _ | | | | | | | | _ | | | | | |
| | 1-2 P/Q + Tender | | | | | 1- | | | | | | | | | | | | | | |
| | 1-3 Construction Supervision | | | | | | | | | | | | | | | | | | | |
| 2. C | Construction Works | | | | | | | | | · | | | | | | | | | | |
| | 2-1 Mob/Demob | For Two Terminals | | | | | | | | | | | | | | | | | | |
| | | Bajoc | | ., | . <u></u> - | | | | | | | | | - | : | | | | | |
| ~~ | 2-2 Dredging | | | | | | | | | | | | | | | | | | | |
| | 2-3 Jetty Trestle Construction | Bajoe | | | | | | | | | | | | | | | | | | |
| | | Kolaka | | | | <u>.</u> | | | | | | | | | | | | | | : |
| 2 | 24 Movable Bridge | Bajoe | | | _ | | | 2 | | | | | | | | | - | | | |
| | Civil Works for Foundation | Kolaka | | | | | | | | | | - | | | | | | | | |
| | Fabrication of Steel | Bajoe | | | | | | | | | | | | | | | | | | |
| | and Installation/Test | Kolaka | | | | | | | | | | | \dashv | | | | | _ | | |
| | 2-5 Reclamation/ | Bajoe | | | | | | | | | | | | | - | | | | | |
| | Revetment Causeway Breakwater | Kolaka | | · · | | | | | | | | | | | | | | | | |
| | 2-6 Road-Parking/ | Bajoe | | | | | | | | ğ | | | | | | | | | | |
| : | Building works/ Utility Supply | Kolaka | | | | | | | | \blacksquare | | \mathbb{H} | | _ | | _ | - | _ | _ | |

Table 7-2-1(4)A Engineering and Construction Schedule of Route 9

| · | , | Location Route 9 | 1st year | | . 42 | 2nd year | | | 3rd year | ig. | | 4th | 4th year | | | 5th year | ear | |
|------------|-----------------------------------|---------------------|----------|------|-------|----------|----|--------|----------|--------|-------|----------|----------|----|---|----------|-----|----------|
| * | work tern | Palembang Muntok | 3 6 9 | 12 1 | 15 18 | 3 21 | 24 | 27 | 30 | 33 | 36 39 | 42 | 45 | 48 | 51 | 72 | 57 | 8 |
| 1. Enginee | 1. Engineering Services | | | | | | | | | | | <u> </u> | | | | | | |
| 1-1 S | Survey Design | | | | | | _ | | | | | | | | | | | |
| 1-2 F | P/Q + Tender | | | | | | | | | | | | | | | | ~ | |
| 1-3 | Construction Supervision | | | | | | | | | | | | | | | | | |
| 2. Constru | Construction Works | | | | | | | | · | | | | | | | | V= | |
| 2-1 | Mob/Demob | 2 Terminals | | | 1 | | | | | | | | | | | | | |
| c | | | | | | | | | | | | | | | • | | | |
| | breakwaier Construction | Muntok | | | | | | | | | | | | | | | | <u> </u> |
| 2-3 | Jetty Construction | Palembang | , | | | | | | 1 | | | | | | | | | |
| | Piling/Concrete Work | Muntok | : | - | | | | | | | | | | | | | | |
| 2-4 | Movable Bridge | Palembang | | | | | | | | 1 | | | | | | | | |
| | Civil Works for Foundation | Muntok | | | | | | | | | | | Ì | | | | | |
| | Fabrication of Steel | Palembang | | | | | | \top | | · T | 1 | | | | 2 | | | |
| | and Installation/Test | Muntok | | | | | | | | | | | | _ | | | | |
| 2-5 | Reclamation/ | Palembang | | | | | | | | | | | | | | | | |
| | Reakwater | Muntok | | | | | | | | | | | | | | | | |
| 2-6 | Road-Parking/ | Palembang | | | | | | 1 | | | | | | | | | | |
| | Building Works/ Utility Supply | Muntok | | | | | | | | | 8 | | | | | | | |

Appendix 9-1-1 Estimation of Economic Prices of Costs and Benefits

- (1) Application of Conversion Factors
 - (a) Conversion Factors

All the costs and benefits are classified into the items of 1) trade goods, 2) non-trade goods, 3) skilled labor, 4) unskilled labor and 5) transfer items.

In this economic analysis non-trade goods are assumed to be equivalent to the local currency portion after deduction of labor and transfer items. The economic prices of the non-trade goods are estimated by multiplying the standard conversion factor.

The economic price of skilled labor cost is estimated by multiplying the skilled labor conversion factor by the skilled labor cost. The economic price of unskilled labor cost is estimated by multiplying the unskilled labor conversion factor by the unskilled labor cost.

(b) Standard Conversion Factor (SCF)

The standard conversion factor is an index which converts the domestic prices to the border prices by adjustment of the distortion of domestic prices.

The standard conversion factor is estimated based on the following equation:

$$SCF = \frac{1 + E}{(I + Di) + (E - De)}$$

where,

1 : Total value of import

E: Total value of export

Di : Total value of import duty

De : Total value of export duty

The standard conversion factor is estimated to be 0.95.

(c) Consumption Conversion Factor(CCF)

The consumption conversion factor is an index which converts domestic prices of consumption goods to border prices, and is applied for converting of the domestic prices of labor to the border prices.

The consumption conversion factor is estimated based on the similar equation to that of the standard conversion factor by limiting the objective items of goods of import/export to the major consumption goods.

The consumption conversion factor is estimated to be 0.94.

(d) Skilled Labor Conversion Factor

For skilled labor, the opportunity cost is judged to be the same as the wages, since the market mechanism functions well. The wages can be evaluated by the purchasing power of consumption goods.

The skilled labor conversion factor is estimated below:

 $= 1.0 \times 0.94 = 0.94$

(e) Unskilled Labor Conversion Factor

For unskilled labor, the potential number of laborers is high, and the market mechanism is generally does not function well. Since most of the unskilled laborers are considered to flow in from the agricultural sector of which the income level is relatively low, the opportunity cost of unskilled labor is considered to be equivalent to the income level of laborers in the agricultural sector.

The unskilled labor conversion factor is estimated as below:

As a result, the unskilled labor conversion factor is estimated for each route as shown below:

1) Mokmer - Saubeba Route : $2,296 / 4,500 \times 0.94 = 0.48$

2) Larantuka - Terong - Lewoleba Route: $1,218 / 3,000 \times 0.94 = 0.38$

3) Bajoe - Kolaka Route : $2,968 / 3,500 \times 0.94 = 0.80$

4) Palembang - Muntok Route : $2,425 / 3,500 \times 0.94 = 0.65$

- (2) Economic Price of Costs and Benefits
- (a) Terminal Construction Cost

The portion of foreign currency is directly adapted. For the portion of non-trade goods, the standard conversion factor is applied. The labor cost is divided into the portions of skilled labor and unskilled labor, and the skilled labor conversion factor and the unskilled labor conversion factor are applied to the above portions respectively.

The financial costs, the conversion factors and the economic costs for each route are shown in Appendix Table.

(b) Procurement Cost of Ferry Boats

Since the cost component of the procurement of ferry boats are unclear, the unit procurement cost of ferry boats is estimated by deducting the transfer item portion from the financial price and by applying the standard conversion factor.

(c) Operation Cost of Terminal

The operation cost of the terminal is estimated by deducting the transfer item portion from the financial cost and by applying the skilled labor conversion

factor.

(d) Maintenance Cost of Terminal

Since the maintenance cost of the terminal is estimated to be 1.0% of the construction cost, the results of adjustment are the same as those of the construction cost of the terminal.

(e) Operation Cost of Ferry Boats

Since the cost component of the operation of ferry boats are unclear, the unit operation cost of ferry boats is estimated by deducting the transfer item portion from the financial price and by applying the standard conversion factor.

(f) Maintenance Cost of Ferry Boats

Since the maintenance cost of ferry boats is estimated to be 3.0% of the procurement cost, the results of adjustment are the same as those of the procurement cost of ferry boats.

(g) Benefits

The economic prices of benefits are estimated by deducting the transfer items portion from the financial prices and by applying the consumption conversion factor.

Appendix Table
Esitimation of Economic Terminal Construction Cost (Initial Investment)

| | Saubeba Route | | | | | | | |
|--------------------------------------|---|---------------------------------|---------------|---------------|--|---|---------------------------------------|--------------------------------|
| · | Foreign | Local | | | | , <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u> | | Total |
| | Currency | Currency | Non- | | Skilled | Unskilled | Trasfer | |
| | Total | | trade | | Labor | Labor | Item | |
| Financial | 5,010 | 5,854 | | 3,810 | 760 | 296 | 988 | 10,86 |
| Price | | | | | | | | (Aggregated C.F.) |
| Conversion Factor | 1.00 | • | | 0.95 | 0.94 | 0.48 | 0.00 | 0.87 |
| Economic Price | 5,010 | 4,476 | | 3,620 | 714 | 142 | 0 | 9,48 |
| (O) 1 | - Terong - Lewo | loha Doute | | | | <u> </u> | · · · · · · · · · · · · · · · · · · · | |
| 2) Larantuka | Foreign | Local | | | | | | Total |
| | Currency Total | Currency | Non- trade | | Skilled Labor | Unskilled Labor | Trasfer Item | |
| Financial Price | 6,204 | 8,434 | | 5,586 | 1,051 | 466 | 1,331 | eege to the second |
| Conversion Factor | 1.00 | - | | 0.95 | 0.94 | 0.38 | 0.00 | (Aggregated C.F.) 0.86 |
| Economic Price | 6,204 | 6,472 | | 5,307 | 988 | 177 | 0 | 12,67 |
| | | | | | | | | |
| (3) Bajoe - Ko | | Local | | | | | | Total |
| | Foreign | 1 | Non- | | Skilled | Unskilled | Trasfer | 1 ' |
| | Currency Total | Currency Total | trade | | Labor | Labor | ltem | |
| Financial | 12,845 | | | 8,771 | 1,892 | 752 | 2,426 | 26,6 |
| Price | ł | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ł | , | l . |
| Conversion | 1.00 | - | | 0.95 | | 0.80 | 0.00 | (Aggregated C.F.) 0.8 |
| Conversion Factor | 1.00 | - | | 0.95 | | 0.80 | 0.00 | 0.8 |
| | 1.00 | | | 0.95 8,332 | 0.94 | | | 0.8 |
| Factor Economic Price | 12,845 | 10,712 | | | 0.94 | | | 0.8 |
| Factor Economic Price | 12,845 ig - Muntok Rout | 10,712 | | | 0.94 | | | 0.8 |
| Factor Economic Price | 12,845 ng - Muntok Rout Foreign | 10,712 e Local | | | 0.94 | | | 23,5 |
| Factor Economic Price | 12,845 ig - Muntok Rout | 10,712 | Non-trade | | 0.94 1,778 | 602 | C | 23,5 |
| actor Economic Price (4) Palembar | 12,845 g - Muntok Rout Foreign Currency | e Local Currency Total | Non- trade | | 0.94 1,778 Skilled Labor | 602 Unskilled Labor | Trasfer | 0.8 23,5 |
| Factor Economic Price | 12,845 ig - Muntok Rout Foreign Currency Total | 10,712 e Local Currency Total | Non- trade | 8,332 | 0.94 1,778 Skilled Labor 1,412 | Unskilled Labor | Trasfer Item | Total 19,9 (Aggregated C.F.) |

Table 9-3-1A Estimation of Unit Passengers Time Cost

| (A) Per Capita GRDP at Current Price excluding Oil & Gas (Rp. 1,000) | 3as (Rp. 1,00 | (g | | | | \$ 40 | 0 | |
|--|---------------|------|------|------|------|----------|-------------------|---------------------------------------|
| Province | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 '84 | Ratio : 184 - 189 | 1992 |
| | | | | ÷ | | : | | |
| (1) Route 2-1 Blak - Yapen Route | : | | | | | | | |
| Irian Jaya | 407 | 445 | 533 | 594 | 632 | 998 | 16.30% | 1,362 |
| (2) Route 3-1 Flores - Adonara - Lomblen | | | | | | | | |
| East Nusa Tenggara | 200 | 217 | 237 | 268 | 589 | 314 | 9.44% | 4 212 |
| (3) Route 8 Bajoe - Kolaka | | | | : | | | | Vitas Caldada ju s _e gi |
| South Sulawesi | 298 | 342 | 382 | 418 | 478 | 538 | | · · · · · · · · · · · · · · · · · · · |
| South East Sulawesi | 338 | 337 | 366 | 408 | 515 | 572 | | |
| (Average) | 318 | 340 | 374 | 413 | 497 | . 555 | 11.78% | 775 |
| (4) Route 9-1 Palembang - Bangka | | | | | | | | |
| South Sumatra | 544 | 585 | 634 | 738 | 836 | 927 | 11.25% | 1,276 |
| | | | | | | | | |

Source : Statistik Indonesia 1991

Table 9-3-1A Estimation of Unit Passengers Time Cost (Continued)

| Assumption of Annual Working Hour | | |
|-----------------------------------|-------|---------|
| Monthly Working Hour | 170 | (hours) |
| Annual Working Flow | 2,040 | (hours) |

| (C) Per Capita GRDP / Working Hour | DP / Working Hour | Estimated 1992 | Estimated 1992 |
|------------------------------------|----------------------------------|-----------------|------------------|
| | | Per Capita GRDP | Per Capita GRDP |
| | | (Rp. 1,000) | per Working Hour |
| | | | (Bp.) |
| (1) Route 2-1 | Biak - Yapen Route | 1,362 | 899 |
| (2) Route 3-1 | Flores - Adonara - Lomblen Route | 412 | |
| (3) Route 8 : | Bajoe - Kolaka Route | 277 | 380 |
| (4) Route 9-1 | Palembang - Bangka Route | 1,276 | 625 |

| (D) Trip Purpose Composition | | | |
|------------------------------|--------|--------|--------------|
| Trip Purpose | (%) | Factor | Value Factor |
| Government Official | %8'9 | 1.0 | 6.8% |
| State Owned Corporation | 2.5% | 1.0 | 2.5% |
| Private / Company / Business | 11.5% | 1.0 | 11.5% |
| Visiting Family/Friend | 49.1% | 0.5 | 24.6% |
| Tour / Recreation | 8.0% | 0.5 | 4.0% |
| School / College | 4.7% | 9.0 | 2.4% |
| Shopping | 2.5% | 0.5 | 1.3% |
| Trading | 5.4% | 0.1 | 5.4% |
| Others | 9.5% | 0.5 | 4.8% |
| Total | 100.0% | | 63.1% |

| (E) Estimation of | (E) Estimation of Unit Passengers Time Cost | (x0:94) | (Rp./hour) |
|-------------------|---|---------|------------|
| (1) Route 2-1 | Biak - Yapen Route | | 396 |
| (2) Route 3-1 | Flores - Adonara - Lombien Route | | 120 |
| (3) Route 8: | Bajoe - Kolaka Route | | 225 |
| (4) Route 9-1 | Palembang - Bangka Route | | 371 |

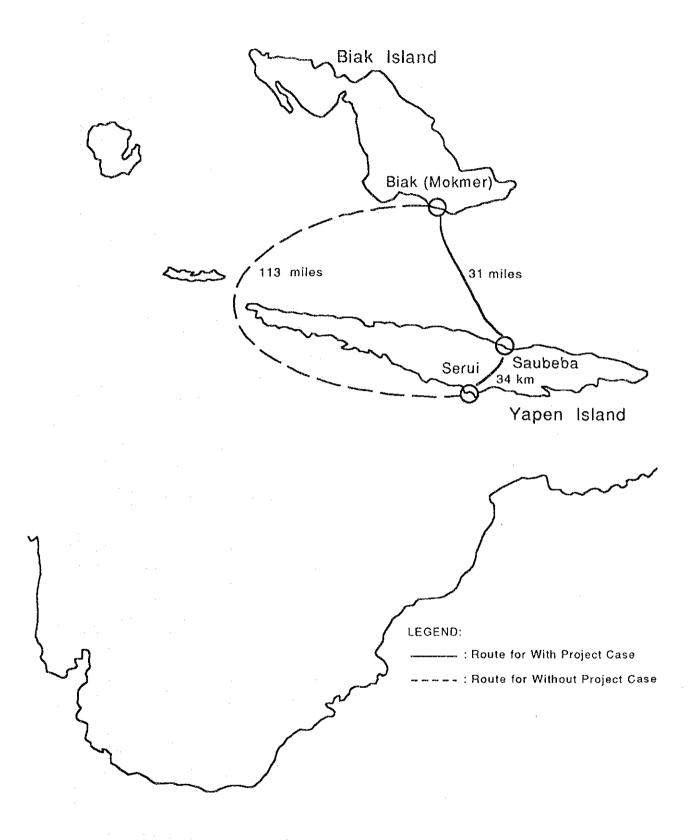


Fig. 9-4-1A Conceptual Route Map of Route 2-1 (Moker-Saubeba) for Economic Analysis

Table 9-4-1(1)A Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 2-1)

| A) Fuzzerger Pascenger Tuck Secue Se | | | | | 1) | Jack Space unit | (CE | | Accionation. | Traffic Canacit | Con Com Box | (Type C) |
|--|--------------|------|-----------------------|---------|--------|-----------------------|--------------|---|--------------|--------------------------|-------------------|--------------------|
| (A) Future Trailife Demand 31Trock: 14.3 (e) Amnual Traffic Capacity Vehicles Passemgers Truck Sectan Sectan Vehicles (a) (b) August State (c | | | | | . co | edan 19.5 | ĵ | | | Dangeropro | 118 200 | () ad () 1 |
| (a) Truck (3 ton) (b) Annual restric departs (7 ton) (1 ton) (2 ton) (a) (b) Annual restric departs (13 ton) (a) (b) (c) (d) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e | | | (| | | | | | | 91981999 | 0,40 | : |
| Passengers Truck Sedan Vehicles Truck Sedan Vehicles | | | (A) Future I raffic D | emand | 'n | 1 ruck : 14,3 | | Annual Traffic Capacity | (B-1) New Bo | venicles ats (Type C) | 8,000 8,000 | (3 ton truck unit) |
| Vear (3 lor) Interns of (3 nor) track Vear Number of (Armal Capacity) Number of (Armal Capacity) <t< th=""><th></th><th></th><th>Passengers</th><th>Truck</th><th>Sedan</th><th>Sedan</th><th>Vehicles</th><th></th><th></th><th>•</th><th>Total Capacity or</th><th>New Boats (Type C)</th></t<> | | | Passengers | Truck | Sedan | Sedan | Vehicles | | | • | Total Capacity or | New Boats (Type C) |
| Year Touck (3 ton) Unit) Year New Boats Passengers Vehids 1998 76.57 (4) (4) (4) (5) (4) (5) (4) (5) (6) (7) (8) < | ŕ | | | (3 ton) | | in terms of | (3 ton truck | | Year | Number of | (Annual Capacity | ~ |
| 1998 1,896 1,895 1,895 1,896 1,996 | | Year | | | | Truck (3 ton) 0.67 | (tjun | Year | | New Boats | Passengers | Vehicles |
| 1986 66.976 1.389 1.286 2.637 1.986 1.99 | | | | (a) | 9 | 0 | (g | | | | | (3 ton truck |
| 1989 CES 376 1,389 1,289 2,637 1989 1982 1989 1989 1982 1989 | | | | | | (b)×0.67 | (a)+(c) | | | | | unit) |
| 1999 72 254 1,482 2,073 1,589 2,871 1589 1689 1,182 20 2001 83,689 1,573 2,771 1,522 3,127 2000 1,182,00 1,182,00 2002 86,809 1,771 2,476 1,689 3,997 2001 1,118,200 1,182,00 2002 86,809 1,771 2,476 1,679 2,947 1,970 3,983 2002 2002 1,118,200 1,118,200 2002 111,686 2,742 3,444 2,341 4,683 2002 2002 1,118,200 1,118,200 2002 1,118,200 1,118,200 2002 1,118,200 1,118,200 2002 1,118,200 1,118,200 1,118,200 1,118,200 2002 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118,200 1,118 | - | 1998 | 66,976 | 1,369 | 1,893 | 1,268 | 2,637 | 1998 | 1998 | | 1 118,200 | 8,000 |
| 2000 77,949 1,605 2,271 1,522 3,127 2000 2001 1,18,200 2001 86,969 1,731 2,476 1,685 3,675 2001 1,18,200 1,18,200 2002 86,400 2,013 2,941 1,970 3,983 2002 2002 1,18,200 1,18,200 2004 103,474 2,171 3,094 2,344 4,682 2002 2002 1,18,200 1,18,200 2004 103,474 2,171 3,094 2,344 4,682 2005 2002 1,18,200 | 8 | 1989 | 72,254 | 1,482 | 2,073 | 1,389 | 2,871 | 1999 | 1999 | | 1 118,200 | |
| 2002 88,689 1731 2,476 1,858 3.390 2001 2002 1 118,200 2002 89,093 1,867 2,844 1,870 3,983 2003 2002 1 118,200 2003 86,009 2,914 1,870 3,983 2003 2003 1 118,200 2004 115,41 3,206 2,148 4,319 2004 2004 1 118,200 2005 115,41 3,787 2,534 5,625 2006 0 1 118,200 2006 115,541 2,342 2,534 5,625 2006 2006 1 118,200 2007 145,61 2,941 1,448 2,534 5,662 3,006 2,006 0 0 2008 145,61 2,701 4,104 2,725 5,461 2,009 2,009 1,118,200 0 0 2009 144,133 3,125 4,468 2,506 2,449 2,700 2,009 2,009 1,118,200 | ო | 2000 | 77,949 | 1,605 | 2,271 | 1,522 | 3,127 | 2000 | 2000 | | 1 118,200 | |
| 2002 88,869 1,867 2,586 1,970 3,675 2002 2003 1 18,200 2003 4,040 2,013 2,941 1,970 3,687 2002 1 18,200 1 18,200 2004 113,684 2,044 2,944 2,941 4,683 2005 2003 1 118,200 2005 111,068 2,042 2,148 4,944 2,341 4,683 2005 2005 1 118,200 2006 118,541 2,701 4,104 2,737 5,681 2006 2005 0 0 2007 148,188 2,944 2,347 4,044 2,749 2,692 2,006 2,006 0 0 0 2007 148,188 2,944 2,545 2,007 6,445 2,006 2,006 0 0 0 2007 144,113 3,144 2,244 4,145 2,645 2,006 2,006 2,007 0 0 0 2008 | 4 | 2001 | 83,669 | 1,731 | 2,476 | 1,659 | 3,390 | 2001 | 2001 | | 1 118,200 | |
| 2003 96,400 2,013 2,941 1,970 3,983 2003 2003 118,200 2004 103,474 2,171 3,266 2,148 4,519 2004 2004 118,200 2006 113,641 2,515 3,787 2,537 5,652 2006 2005 1 118,200 2006 118,541 2,515 3,787 2,537 5,652 2006 2006 2006 1 <t< td=""><td>10</td><td>2002</td><td>89,809</td><td>1,867</td><td>2,698</td><td>1,808</td><td>3,675</td><td>2002</td><td>2002</td><td></td><td>118,200</td><td></td></t<> | 10 | 2002 | 89,809 | 1,867 | 2,698 | 1,808 | 3,675 | 2002 | 2002 | | 118,200 | |
| 2004 103,474 2,171 3,206 2,148 4,319 2004 2004 1 118,200 2005 11,1068 2,342 3,494 2,341 4,683 2005 1 118,200 1 118,200 2007 1145,41 2,515 3,787 2,527 5,652 2006 0 0 0 0 2008 136,22 2,501 4,448 2,950 5,461 2007 2007 0 0 0 2009 144113 3,115 4,488 2,950 5,840 2,009 2007 0 0 0 0 2010 155,810 3,485 6,136 4,411 7,386 2011 2011 0 | Ø | 2003 | 96,400 | 2,013 | 2,941 | 1,970 | 3,983 | 2003 | 2003 | | 1 118,200 | |
| 2005 111,068 2,342 3,444 2,341 4,683 2005 2005 1 118,200 2006 118,411 2,515 3,787 2,537 5,652 2006 0 0 0 2008 135,029 2,901 4,104 2,590 5,681 2008 2007 0 | 7 | 2002 | 103,474 | 2,171 | 3,206 | 2,148 | 4,319 | 2004 | 2004 | | 1 118,200 | |
| 2006 118 541 2,515 3,787 2,557 5,052 2006 2007 0 0 2007 126,516 2,701 4,104 2,780 5,641 2007 2007 0 0 2009 13,626 2,701 4,448 2,980 6,845 2010 2007 0 0 2010 15,831 3,345 5,524 3,500 6,845 2010 2010 0 0 2011 164,188 3,586 6,136 4,111 7,386 2011 2012 0 0 2012 175,203 3,866 6,136 4,111 7,386 2011 2012 0 0 2013 175,203 4,456 4,456 2012 2012 0 0 0 2014 1,466 6,50 4,456 2012 2013 0 0 0 2015 21,274 4,456 2,50 2014 0 0 0 | 80 | 2005 | 111,068 | 2,342 | 3,494 | 2,341 | 4,683 | 2005 | 2005 | | 1 118,200 | |
| 2007 126,516 2,701 4,104 2,750 5,451 2007 2007 0 0 2008 138,029 2,901 4,448 2,950 6,444 2,950 6,841 2008 0 0 0 2010 135,029 2,901 4,488 2,990 6,844 2009 2009 0 | Ø. | 2006 | 118,541 | 2,515 | 3,787 | 2,537 | 5,052 | 2006 | 2006 | | 0 | O |
| 2008 135,029 2,901 4,448 2,580 5,881 2008 2008 0 0 2009 144,113 3,115 4,680 3,290 6,844 2010 2009 0 0 0 2010 144,113 3,115 4,820 3,562 3,794 7,386 2011 2010 | 5 | 2002 | 126,516 | 2,701 | 4,104 | 2,750 | 5,451 | 2007 | 2007 | | 0 | 0 |
| 2009 144,113 3,115 4,820 3,220 6,344 2009 2009 0 0 2010 153,810 3,345 5,224 3,500 6,845 2010 2010 0 0 0 2012 175,203 3,866 6,136 4,111 7,369 2013 2011 0 | - | 2008 | 135,029 | 2,901 | 4,448 | 2,980 | 5,881 | 2008 | 2008 | | 0 | 0 |
| 2010 153,810 3,345 5,224 3,500 6,845 2010 2010 0 0 2011 164,158 3,522 5,662 3,794 7,386 2011 2011 0 0 0 2012 164,158 3,592 5,662 4,456 8,013 2012 0 | <u>t</u> | 5003 | 144 113 | 3,115 | 4,820 | 3,229 | 6,344 | 5008 | 2009 | | 0 | a |
| 2011 164,168 3,592 5,662 3,794 7,386 2011 2011 0 0 2012 175,203 3,688 6,136 4,111 7,969 2012 2012 0 0 2014 196,991 4,143 6,650 4,456 8,599 2013 0 0 0 2014 196,991 4,778 7,207 4,869 9,079 2014 2014 0 0 0 2015 21,299 4,778 7,811 5,233 10,011 2016 2016 0 0 0 2015 227,330 5,132 8,465 5,672 10,804 2016 2016 0 0 0 2017 242,625 5,511 9,174 6,611 11,579 2016 2016 0 0 0 2018 258,949 5,511 9,142 6,611 15,579 2019 2019 11,18,200 2020 294,966 | £. | 8010 | 153,810 | 3,345 | 5,224 | 3,500 | 6,845 | 2010 | 2010 | | 0 | 0 |
| 2012 175,033 3,856 6,136 4,111 7,969 2012 2012 0 0 2013 186,991 4,143 6,650 4,466 8,599 2013 2014 0 0 0 2014 199,572 4,450 7,207 4,829 2014 2014 0 | 14 | 2011 | 164,158 | 3,592 | 5,662 | 3,794 | 7,386 | 2011 | 2011 | | 0 | 0 |
| 2013 186,991 4,143 6,650 4,456 8,599 2013 2013 0 0 2014 199,572 4,450 7,207 4,829 9,279 2014 0 0 0 2015 212,993 4,778 7,211 9,772 10,011 2015 2016 0 0 0 0 2016 221,390 5,132 8,465 5,672 10,804 2016 2017 1 118,200 | 15 | 2012 | 175,203 | 3,858 | 6,136 | 4,111 | 7.969 | 2012 | 2012 | - | 0 | o |
| 2014 199,572 4,450 7,207 4,829 9,279 2014 2014 0 0 2015 212,993 4,778 7,811 5,233 10,011 2015 0 0 0 2016 227,330 5,132 8,465 5,672 10,804 2016 2016 0 0 0 2017 227,330 5,132 8,465 5,672 10,804 2016 2016 0 <td< td=""><td>16</td><td>2013</td><td>186,991</td><td>4,143</td><td>6,650</td><td>4,456</td><td>8,599</td><td>2013</td><td>2013</td><td></td><td>0</td><td>0</td></td<> | 16 | 2013 | 186,991 | 4,143 | 6,650 | 4,456 | 8,599 | 2013 | 2013 | | 0 | 0 |
| 2015 212,999 4,778 7,811 5,233 10,011 2015 2015 0 0 2016 227,330 5,132 8,465 5,672 10,804 2016 2016 0 0 2017 242,625 5,511 9,174 6,147 11,658 2017 2016 1 118,200 2018 228,949 5,916 9,942 6,661 12,579 2018 2018 118,200 2019 276,372 6,356 10,775 7,219 13,575 2019 2019 118,200 2020 234,966 6,826 11,678 7,824 14,650 2020 2020 118,200 2022 235,993 7,874 14,650 2022 2022 2022 11,18,200 2023 356,993 7,874 14,850 2022 2022 2023 2023 2024 9,675 16,110 10,794 19,873 2024 0 0 2025< | 17 | 2014 | 199,572 | 4,450 | 7,207 | 4,829 | 9,279 | 2014 | 2014 | | 0 | 0 |
| 2016 227,330 5,132 8,465 5,672 10,804 2016 2016 0 0 2017 242,625 5,511 9,174 6,147 11,658 2017 2017 1 118,200 2018 258,949 5,918 9,942 6,661 12,579 2018 1 118,200 2019 276,372 6,356 10,775 7,219 13,575 2019 2019 1 118,200 2020 224,966 6,826 11,678 7,824 14,650 2020 2020 1 118,200 2022 234,812 7,330 12,656 8,480 15,810 2021 2022 1 118,200 2022 334,812 7,872 14,865 9,190 15,414 2023 2022 1 118,200 2023 356,599 8,454 16,110 10,734 19,873 2022 2022 2022 2022 1 118,200 2024 9,7 | 18 | 2015 | 212,999 | 4,778 | 7,811 | 5,233 | 10,011 | 2015 | 2015 | | 0 | 0 |
| 2017 242,625 5,511 9,174 6,147 11,658 2017 2017 1 118,200 2018 258,949 5,916 9,942 6,661 12,579 2018 2018 1 118,200 2019 276,372 6,356 10,775 7,219 13,575 2019 2019 1 118,200 2020 224,966 6,826 11,678 7,824 14,650 2020 2020 1 118,200 2021 334,812 7,330 12,656 8,480 15,810 2021 1 118,200 2022 334,812 7,824 14,650 2022 2022 1 118,200 2023 335,939 7,874 14,650 2022 2022 1 118,200 2024 36,546 14,486 9,960 14,414 2023 2024 0 0 2024 9,750 17,459 11,638 21,448 2026 2025 0 0 2026 408,476 9,750 17,459 | 19 | 2016 | 227,330 | 5,132 | 8,465 | 5,672 | 10,804 | 2016 | 2016 | | 0 | |
| 2018 258,949 5,918 9,942 6,661 12,579 2018 2018 1 118,200 2019 276,372 6,356 10,775 7,219 13,575 2019 2019 1 118,200 2020 294,966 6,826 11,678 7,824 14,650 2020 2020 1 118,200 2021 314,812 7,330 12,656 8,480 15,810 2021 1 118,200 2022 326,933 7,872 13,716 9,190 17,062 2022 2022 1 118,200 2023 385,999 8,454 14,865 9,960 18,414 2023 2023 0 0 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 2025 408,476 9,750 17,459 11,698 21,448 2026 2025 0 0 2026 435,959 10,471 18,922 12,678 2024 0 0 </td <td>ଷ</td> <td>2017</td> <td>242,625</td> <td>5,511</td> <td>9,174</td> <td>6,147</td> <td>11,658</td> <td>2017</td> <td>2017</td> <td>-</td> <td>1 118,200</td> <td></td> | ଷ | 2017 | 242,625 | 5,511 | 9,174 | 6,147 | 11,658 | 2017 | 2017 | - | 1 118,200 | |
| 2019 276,372 6,356 10,775 7,219 13,575 2019 2019 1 118,200 2020 294,966 6,826 11,678 7,824 14,650 2020 2020 1 118,200 2021 314,812 7,330 12,656 8,480 15,810 2021 1 118,200 2022 325,933 7,872 13,716 9,190 17,062 2022 2022 1 118,200 2023 385,599 8,454 14,865 9,960 18,414 2023 2023 0 0 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 0 2025 408,476 9,750 17,459 11,698 21,448 2026 2025 0 0 0 0 2026 435,959 10,471 18,922 12,678 2024 2026 0 0 0 0 0 0 0 0 0 0< | 22 | 8102 | 258,949 | 5,918 | 9,942 | 6,661 | 12,579 | 2018 | 2018 | | 1 118,200 | |
| 2020 294,966 6,826 11,678 7,824 14,650 2020 2020 1 118,200 2021 314,812 7,330 12,656 8,480 15,810 2021 1 118,200 2022 325,933 7,872 13,716 9,190 17,062 2022 1 118,200 2023 385,599 8,454 14,865 9,960 18,414 2023 0 0 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 2025 408,476 9,750 17,459 11,698 21,448 2025 0 0 2026 435,959 10,471 18,922 12,678 23,149 2026 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 0 0 | 22 | 2019 | 276,372 | 6,356 | 10,775 | 7,219 | 13,575 | 2019 | 2019 | | 1 118,200 | |
| 2021 314,812 7,330 12,656 8,480 15,810 2021 2021 1 118,200 2022 385,993 7,872 13,716 9,190 17,062 2022 2022 1 118,200 2023 368,599 8,454 14,865 9,960 18,414 2023 0 0 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 2025 408,476 9,750 17,459 11,698 21,448 2025 0 0 0 2026 435,969 10,471 18,922 12,678 23,149 2026 0 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 0 0 0 | R | 2020 | 294,966 | 6,826 | 11,678 | 7,824 | 14,650 | 2020 | 2020 | | 118,200 | |
| 2022 335,993 7,872 13,716 9,190 17,062 2022 2022 1 118,200 2023 368,599 8,454 14,865 9,960 18,414 2023 0 0 0 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 0 2025 408,476 9,750 17,459 11,698 21,448 2025 0 0 0 2026 435,969 10,471 18,922 12,678 23,149 2026 2026 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 2027 0 0 | 24 | 2021 | 314,812 | 7,330 | 12,656 | 8,480 | 15,810 | 2021 | 2021 | | 1 118,200 | |
| 2023 358,599 8,454 14,865 9,960 18,414 2023 2023 0 0 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 0 2025 408,476 9,750 17,459 11,698 21,448 2025 2025 0 0 0 2026 435,959 10,471 18,922 12,678 23,149 2026 2027 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 2027 0 0 | 55 | 2022 | 335,993 | 7,872 | 13,716 | 9,190 | 17,062 | 2022 | 2022 | | 118,200 | |
| 2024 382,726 9,079 16,110 10,794 19,873 2024 2024 0 0 2025 408,476 9,750 17,459 11,698 21,448 2025 0 0 0 2026 435,959 10,471 18,922 12,678 23,149 2026 0 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 2027 0 0 | 56 | 2023 | 358,599 | 8,454 | 14,865 | 096'6 | 18,414 | 2023 | 2023 | | 0 | |
| 2025 408,476 9,750 17,459 11,698 21,448 2025 2025 0 0 2026 435,959 10,471 18,922 12,678 23,149 2026 2026 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 2027 0 0 | 27 | 2024 | 382,726 | 9,079 | 16,110 | 10,794 | 19,873 | 2024 | 2024 | | 0 | |
| 2026 435,959 10,471 18,922 12,678 23,149 2026 2026 0 0 2027 465,291 11,245 20,507 13,740 24,985 2027 2027 0 0 | 28 | 2025 | 408,476 | 9,750 | 17,459 | 11,698 | 21,448 | 2025 | 2025 | | 0 | |
| 2027 465,291 11,245 20,507 13,740 24,985 2027 | 87 | 2026 | 435,959 | 10,471 | 18,922 | 12,678 | 23,149 | 2026 | 2026 | | 0 | |
| | 8 | 2027 | 465,291 | 11,245 | 20,507 | 13,740 | 24,985 | 2027 | 2027 | | 0 | 0 |

Table 9-4-1(2)A Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 2-1)

| Assumption: | Traffic Capacity of New Ferry Boat (Type C') | of New Ferry | Boat (Type C) | | | | | | | | |
|---------------------------|--|-------------------|---------------------------------------|---------|--------------------|--|-------------------|---------------|-----------------|--------------------------------------|--------------|
| | Passengers | 236,400 | 200 | | , | | | | | | |
| | Vehicles | 16,0 | 16,000 (3 ton truck unit) | . ₽ | | | | | | | |
| (B-2) New Boats (Type C') | ts (Type C') | | | - : | (8-3) Total Annu | 3) Total Annual Traffic Capacity (C Type + C'Type) | Type + C' Type) | | (C) Deviation E | (C) Deviation Between Traffic Demand | and |
| | | Total Capaci | Total Capacity of New Boats (Type C.) | ype C.) | | | | | and Total | and Total Annual Traffic Capacity | acity |
| Year | Number of | (Annual Capacity) | acity) | | Total | Total | (Annual Capacity) | | | | |
| | New Boats | Passengers | s Vehicles | | Number of Boats | Number of Round | Passengers | Vehicles | Year | Passengers | Vehicles |
| | | | (3 ton truck | | | Trips | ٠ | (3 ton traick | | | (3 ton truck |
| | | | (tiun | | | | | (tiun | | | (jun) |
| 1998 | | 0 | 0 | 0 | - | | 118.200 | 8,000 | 1998 | 51, 224 | 5 363 |
| 1999 | | 0 | 0 | 0 | ** | | 118,200 | 8,000 | 1999 | 45,946 | 5,129 |
| 2000 | Ü | C | 0 | 0 | - | - | 118,200 | 8,000 | 5000 | 40,251 | 4,873 |
| 2001 | Ü | 0 | 0 | 0 | • | - | 118,200 | 8,000 | 2001 | 34,531 | 4.610 |
| 2002 | Ü | O | 0 | 0 | - | - | 118,200 | 8,000 | 2002 | 28,391 | 4.325 |
| 2003 | | 0 | 0 | 0 | | | 118,200 | 8,000 | 2003 | 21,800 | 4,017 |
| 2004 | • | Ċ | 0 | a | - | - | 118,200 | 8.000 | 2004 | 14,726 | 3,681 |
| 2005 | • | • | | 0 | • | | 118,200 | 8,000 | 2002 | 7,132 | 3,317 |
| 2006 | • | 1 236,400 | | Q | - | 2 | 235,400 | 16,000 | 2006 | 117,859 | 10,948 |
| 2002 | | 236,400 | | 9 | - | 2 | 236,400 | 16,000 | 2007 | 109,884 | 10,549 |
| 2008 | | 1 236,400 | | 0 | - | 2 | 236,400 | 16,000 | 2008 | 101,371 | 10,119 |
| 2009 | | 236,400 | | 0 | - | cv. | 236,400 | 16,000 | 2009 | 92,287 | 9.656 |
| 2010 | | 1 236,400 | | g | * | 2 | 236,400 | 16,000 | 2010 | 82,590 | 9,155 |
| 2011 | | 1 236,400 | | ğ | - | 2 | 236,400 | 16,000 | 2011 | 72,242 | 8,614 |
| 2012 | | 1 236,400 | | Q | • | 2 | 236,400 | 16,000 | 2012 | 61,197 | 8,031 |
| 2013 | | 1 236,400 | | Q | - | Ø | 236,400 | 16,000 | 2013 | 49,409 | 7,401 |
| 2014 | • | 1 236,400 | | Q | - | 2 | 236,400 | 16,000 | 2014 | 36,828 | 6,721 |
| 2015 | • | 236,400 | | Q | - | αI | 236,400 | 16,000 | 2015 | 23,401 | 5,989 |
| 2016 | • | 1 236,400 | • | ğ | _ | ۲3 | 236,400 | 16,000 | 2016 | 9,070 | 5,196 |
| 2017 | | 1 236,400 | | Q | CV) | ო | 354,600 | 24,000 | 2017 | 111,975 | 12,342 |
| 2018 | | 1 236,400 | | 9 | 63 | က | 354,600 | 24,000 | 2018 | 95,651 | 11,421 |
| 2019 | | 1 236,400 | | Đ | Q | භ | 354,600 | 24,000 | 2019 | 78,228 | 10,425 |
| 2020 | | 1 236,400 | | 9 | ∾ | e | 354,600 | 24,000 | 2020 | 59,634 | 9,350 |
| 2021 | | 1 236,400 | 16,000 | Q | N | က | 354,600 | 24,000 | 2021 | 39,788 | 8,190 |
| 2022 | | 1 236,400 | | Q | CV | ო | 354,600 | 24,000 | 2022 | 16,607 | 6,938 |
| 2023 | | | | Q | 7 | 4 | 472,800 | 32,000 | 2023 | 114,201 | 13,586 |
| 2024 | | 2 472,800 | 32,000 | ō | C4 | 4 | 472,800 | 32,000 | 2024 | 90,074 | 12,127 |
| 2025 | | | | Q | Q. | 4 | 472,800 | 32,000 | 2025 | 64,324 | 10,552 |
| 2026 | | 2 472,800 | | Ö | 8 | ++ | 472,800 | 32,000 | 2026 | 36,841 | 8,851 |
| 2027 | | 2 472,800 | 32,000 | 0 | 73 | 4 | 472,800 | 32,000 | 2027 | 7,509 | 7,015 |
| | | | | | | | | | | | |

Table 9-4-1(3)A Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 2-1)

| (D) Share Re by C Type | (D) Share Ratio of Capacity for Pasengers by C Type Boat and C'Type Boat | | (E) Passengers Sh by C Type Boat |) Passengers Shared by C Type Boat and C' Type Boat | ŧa. | (F) Bre | (F) Breakdown of Vehicles | hicles | | | | |
|---------------------------|---|---------------------|-------------------------------------|--|----------------|---------|---------------------------|--------|------------|--------------------------|--------------------------|--------------------|
| Year | C (1) | رن بر (۵) مرخ | Total Pasengers | (1) C Type | (2) C. Type | - | Truck | Sedan | Passengers | Passengers Related to | Passengers Related to | Total Number of |
| | Boat | Boat | | Boat | Boat | 03 (3 | (3 ton Truck | | | Sedan | Bus | Bus Trips |
| | | | | | | | unit) | | | (Load Factor == | | (Load Factor = |
| | | | | | į | | . | | | 3.0) | | 40.0) |
| 1998 | 100% | %0 | 66,976 | 66,976 | 0 | | 1,369 | 1,893 | 926,99 | 5,679 | 61,297 | 1,532 |
| 1999 | 100% | %0 | 72,254 | 72,254 | 0 | | 1,482 | 2,073 | 72,254 | 6.219 | 66,035 | 1,651 |
| 2000 | 100% | %D | 77,949 | 77,949 | O | | 1,605 | 2,271 | 77,949 | 6,813 | 71,136 | 1,778 |
| 2001 | 100% | %0 | 83,669 | 83,669 | 0 | | 1,731 | 2,476 | 83,669 | 7,428 | 76.241 | 1,906 |
| 2002 | 100% | %0 | 89,809 | 608,68 | 0 | | 1,867 | 2,698 | 89,809 | 8,094 | 81,715 | 2,043 |
| 2003 | 100% | %0 | 96,400 | 96,400 | 0 | | 2,013 | 2,941 | 96,400 | 8,823 | 87,577 | 2,189 |
| 2004 | 100% | %0 | 103,474 | 103,474 | 0 | | 2,171 | 3,206 | 103,474 | 9,618 | 93,856 | 2,346 |
| 2005 | 100% | %0 | 111,068 | 111,068 | | | 2,342 | 3 494 | 111,068 | 10,482 | 100,586 | 2,515 |
| 2006 | %0 | 100% | 118,541 | 0 | 118,541 | | 2,515 | 3,787 | 118,541 | 11,361 | 107,180 | 2,680 |
| 2007 | %0 | 100% | 126,516 | 0 | 126,516 | | 2,701 | 4,104 | 126,516 | 12,312 | 114,204 | 2,855 |
| 2008 | %0 | 100% | 135,029 | 0 | 135,029 | | 2,901 | 4,448 | 135,029 | | 121,685 | 3,042 |
| 2009 | %0 | 100% | 144,113 | 0 | 144,113 | | 3,115 | 4,820 | 144,113 | | 129,653 | 3,241 |
| 2010 | %0 | 100% | 153,810 | 0 | 153,810 | | 3,345 | 5,224 | 153,810 | 15,672 | | 3,453 |
| 2011 | %0 | 100% | 164,158 | | 164,158 | | 3,592 | 5,662 | | 16,986 | • | 3,679 |
| 2012 | %0 | 100% | 175,203 | 0 | 175,203 | | 3,858 | 6,136 | : | 18,408 | 156,795 | 3,920 |
| 2013 | %D | 100% | 186,991 | 0 | 186,991 | | 4,143 | 059'9 | 186,991 | 19,950 | 167,041 | 4 176 |
| 2014 | %0 | 100% | 199,572 | 0 | 199,572 | | 4,450 | 7,207 | 199,572 | ż | 177,951 | 4,449 |
| 2015 | %0 | 100% | 212,999 | 0 | 212,999 | | 4,778 | 7,811 | | | | 4,739 |
| 2016 | %0 | 100% | 227,330 | 0 | 227,330 | | 5,132 | 8,465 | | | | 5,048 |
| 2017 | 33% | %19 | 242,625 | 80,066 | 162,559 | | 5,511 | 9,174 | | | | 5,378 |
| 2018 | 33% | %19 | 258,949 | 85,453 | 173,496 | | 5,918 | 9,942 | | | | 5,728 |
| 2019 | 33% | %29 | 276,372 | 91,203 | 185,169 | | 6,356 | 10,775 | | | | 6,101 |
| 2020 | 33% | %29 | 294,966 | 97,339 | 197,627 | | 6,826 | 11,678 | | | | 6,498 |
| 2021 | 33% | %19 | 314,812 | 103,888 | 210,924 | | 7,330 | 12,656 | | | | 6,921 |
| 2000 | 33% | , | 335,993 | 110,878 | 225,115 | | 7,872 | 13,716 | | | | 7.371 |
| 2023 | %0 | | 358,599 | 0 | 358,599 | | 8,454 | 14,865 | | | • | 7,850 |
| 2024 | %0 | | 382,726 | 0 | 382,726 | | 6,079 | 16,110 | | | | 8,360 |
| 2025 | %0 | | 408,476 | 0 | 408,476 | | 9,750 | 17,459 | ; | | : | |
| 2026 | %0 | | 435,959 | 0 | 435,959 | | 10,471 | 18,922 | | | • | |
| 2027 | %0 | 100% | 465,291 | 0 | 465,291 | | 11,245 | 20,507 | 465,291 | 61,521 | 403,770 | 10,094 |
| | | | | | | | | | | | | |

Table 9-4-2(1)A Future Traffic Demand, Traffic Capacity and Introducing of Boats for Without Case (Route 2-1)

| | | | | | (Deck Space) | | | | Assumption: | Pacconder | Fraffic Capacity of LCM Type Boat | M Iybe Boat 50 100 |
|----------|------|---------------------------|---------|-----------|-----------------|----------|------------|----------------------------|-------------|----------------|-----------------------------------|--|
| | . • | (A) Future Traffic Demand | Semand | | 3t Truck : 14.3 | : | (B) Annual | B) Annual Traffic Capacity | | Vehicles | າ ກິ່ນ | 4,000 (3 ton truck unit) |
| | | Passengers | Truck | Sedan | Sedan | Vehicles | | (B-1) Boat of LCM Type | ILCM Type | T Citato | stood only M. The shoots of lead | 1.00 CE 0.00 C |
| - | Year | | (a ton) | ٠ | Truck (3 ton) | Unit) | | | Number of | (Annual | (Annual Capacity) | sibot patrici |
| | | | | | 0.67 | | | | New Boats | Pass | | Vehicles |
| | | | (a) | <u>(a</u> | <u>(</u>) | <u> </u> | | | | | | (3 ton truck |
| | • | | | | (b)x0.67 | (a)+(c) | Year | | | | : | (nuit) |
| - | 1998 | 66,976 | 1,369 | 1,893 | 1,268 | 2,637 | 1998 | | | 2 | 118,200 | 8,000 |
| 2 | 1999 | 72,254 | 1,482 | 2,073 | 1,389 | 2,871 | 1999 | | | 2 | 118,200 | 8,000 |
| (7) | 2000 | 77,949 | 1,605 | 2,271 | 1,522 | 3,127 | 2000 | | | 2 | 118,200 | 8,000 |
| 4 | 2001 | 83,669 | 1,731 | 2,476 | 1,659 | 3,390 | 2001 | | | 63 | 118,200 | 8,000 |
| ເດ | 2002 | 608'68 | 1,867 | 2,698 | 1,808 | 3,675 | - | | | 2 | 118,200 | 8,000 |
| ω | 2003 | 96,400 | 2,013 | 2,941 | 1,970 | 3,983 | 2003 | | | 2 | 118,200 | 8,000 |
| ۲. | 2002 | 103,474 | 2,171 | 3,206 | 2,148 | 4,319 | 2004 | | | 2 | 118,200 | 8,000 |
| ω | 2005 | 111,068 | 2,342 | 3,494 | 2,341 | 4,683 | 2005 | | | 2 | 118,200 | 8,000 |
| o. | 2006 | 118,541 | 2,515 | 3,787 | 2,537 | 5,052 | | | | ς ₀ | 177,300 | 12,000 |
| 0 | 2007 | 126,516 | 2,701 | 4,104 | 2,750 | 5,451 | 2007 | | | ო | 177,300 | 12,000 |
| = | 8008 | 135,029 | 2,901 | 4,448 | 2,980 | 5,881 | | | | 60 | 177,300 | 12,000 |
| 2 | 5002 | 144,113 | 3,115 | 4,820 | 3,229 | 6,344 | | | | c, | 177,300 | 12,000 |
| <u>ი</u> | 512 | 153,810 | 3,345 | 5.224 | 3,500 | 6,845 | | | | 63 | 177,300 | 12,000 |
| 4 | 12 | 164,158 | 3,592 | 5,662 | 3,794 | 7,386 | | | | က | 177,300 | 12,000 |
| 13 | 2012 | 175,203 | 3,858 | 6,136 | 4,111 | 2,969 | | | | ເນ | 177,300 | 12,000 |
| | 813 | 186,991 | 4,143 | 6,650 | 4,456 | 8,599 | | | | 4 | 236,400 | 16,000 |
| 17 | 814 | 199,572 | 4,450 | 7,207 | 4,829 | 9,279 | | | | 4 | 236,400 | 16,000 |
| | 2015 | 212,999 | 4,778 | 7,811 | 5,233 | 10,011 | | | | 4 | 236,400 | 16,000 |
| 5 | 2016 | 227,330 | 5,132 | 8,465 | 5,672 | 10,804 | | | | 4 | 236,400 | 16,000 |
| | 2017 | 242,625 | 5,511 | 9,174 | 6,147 | 11,658 | 2017 | | | ស | 295,500 | 20,000 |
| | 2018 | 258,949 | 5,918 | 9,942 | 6,661 | 12,579 | | | | ເດ | 295,500 | 20,000 |
| | 2019 | 276,372 | 6,356 | 10,775 | 7,219 | 13,575 | 2019 | | | ψ, | 295,500 | 20,000 |
| | 2020 | 294,966 | 6,826 | 11,678 | 7,824 | 14,650 | | | | 5 | 295,500 | 20,000 |
| 24 | 2021 | 314,812 | 7,330 | 12,656 | | 15,810 | | | | 9 | 354,600 | 24,000 |
| 25 | 2022 | 335,993 | 7,872 | 13,716 | 9,190 | 17,062 | 2022 | | | 9 | 354,600 | 24,000 |
| 92 | 2023 | 358,599 | 8,454 | 14,865 | 096'6 | 18,414 | 2023 | | | 7 | 413,700 | 28,000 |
| 27 | 2024 | 382,726 | 9,079 | 16,110 | 10,794 | 19,873 | 2024 | | | 7 | 413,700 | 28,000 |
| 28 | 2025 | 408,476 | 9,750 | 17,459 | 11,698 | 21,448 | | | | 7 | 413,700 | 28,000 |
| 8 | 2026 | 435,959 | 10,471 | 18,922 | 12,678 | 23,149 | 2026 | | | 80 | 472,800 | 32,000 |
| | | | | | | | | | | | | |

Table 9-4-2(2)A Future Traffic Demand, Traffic Capacity and Introducing of Boats for Without Case (Route 2-1)

(C) Deviation Between Traffic Demand and Total Annual Traffic Capacity

Vehicles (3 ton truck unit) Passengers

Year

| 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 5003 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|-------|--------|--------|--------|-------|--------|--------|--------|--------|-------|--------|-------|
| 5,363 | 5,129 | 4,873 | 4,610 | 4,325 | 4,017 | 3,681 | 3,317 | 6,948 | 6,549 | 6,119 | 5,656 | 5,155 | 4,614 | 4,031 | 7,401 | 6,721 | 5,989 | 5,196 | 8,342 | 7,421 | 6,425 | 5,350 | 8,190 | 6,938 | 9,586 | 8,127 | 6,552 | 8,851 | 7,015 |
| 51,224 | 45,946 | 40,251 | 34,531 | 28.391 | 21,800 | 14,726 | 7,132 | 58,759 | 50,784 | 42.271 | 33,187 | 23,490 | 13,142 | 2,097 | 49,409 | 36,828 | 23,401 | 9,070 | 52,875 | 36,551 | 19,128 | 534 | 39,788 | 18,607 | 55,101 | 30,974 | 5,224 | 36,841 | 7,509 |
| | , | | | | | | ε | | | | | | | | | | | | 4. | | | - | | | | | | ٠ | |
| 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 8018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |

Table 9-4-3(1)A Ferry Boats Procurement Costs, Operation Cost and Maintenance Cost (With) (Route 2-1)

| • | | con la cocció | | | | | • | | | | | | | | |
|--------------|-------|--|---------------|-------------------------|------------------|--------------------------|--|---|--------------------------------------|-----------------------------------|---|-------|------------------|---------------------|------|
| | New | New Boats | 8 | 300 Ton per Boat | | | | | (A) Procurement (| (A) Procurement Cost of New Boats | | | | | Year |
| * | (a) C | (a) C Type Boat | | | (b) C' Type Boat | Soat | | | (a) C Type Boat | (b) Addi | (b) Additional Cost for C: Type Bost | | ပ် (၁) (၁) | ပ် (၁) (၁) | |
| | | Procurement Total Number Accumiated of Boats Tonnage | Number Its | . Accumiated Tonnage | Procurement | t Total Numb of Boats | Procurement Total Number Accumisted of Boats Tonnage | | Procurement Accumulated Cost Cost | | Procurement Accumulated Cost Cost | | Ĕ | Accumulated Cost | |
| 15 | 1998 | - | - | 300 | | | 0 | | 1,815 | 1,815 | 0 | 0 | 1,815 | 1,815 | 1988 |
| 2 4 | 1999 | | • | 8 | | | 0 | | 0 | 1,815 | 0 | 0 | 0 | 1,815 | 1999 |
| ال 10 | 2000 | | _ | 300 | | | 0 | | 0 | 1,815 | 0 | 0 | 0 | 1,815 | 2002 |
| 4 | 2001 | | - | 300 | | | ٥ | | 0 | 1,815 | 0 | 0 | 0 | 1,815 | 8 |
| র্ | 2002 | | - | 300 | | | 6 | 6 | | 1,815 | 0 | 0 | ٥ | 1,815 | 8003 |
| ۲۵ س | 5003 | | - | 30 | | | 0 | | 0 | 1,815 | o | 0 | 0 | 1,815 | 8883 |
| <u>۲</u> | 2002 | | Ψ- | 8 | | | 0 | | 0 | 1,815 | O | 0 | Ö | 1,815 | 8 |
| ત્ર જ | 3005 | | - | 900 | | | | _ | 0 | 1,815 | 0 | 0 | Ó | 7,815 | 2005 |
| _เ | 900 | 7 | 0 | | | _ | 300 | | 0 | 1,815 | 908 | 806 | 808 | 2,723 | ğ |
| 5 9 | 2007 | | 0 | | | | 1 300 | _ | 0 | 1,815 | 0 | 8 | 0 | 2,723 | 8 |
| <u>ت</u> | 2008 | | O | 0 | | | 300 | | 0 | 1,815 | 0 | 88 | 0 | 2,723 | 88 |
| | 5003 | | 0 | | | | 1 300 | • | 0 | 1,815 | 0 | 88 | o | 2,723 | 88 |
| τ Ω | 3010 | | 0 | - | | | 300 | | 0 | 1,815 | 0 | 8 | 0 | 2,723 | 8 |
| | 2011 | | 0 | - | | | 1 30 | | 0 | 1,815 | 0 | 8 | O | 2,723 | 8 |
| | 2012 | | 0 | - | | | 1 300 | _ | 0 | 1,815 | 0 | 8 | 0 | 2,723 | 2012 |
| | 2013 | | O | | | | S | _ | 0 | 1,815 | 0 | 8 | 0 | 2,723 | 8 |
| | 2014 | | 0 | 0 | | | 1 300 | ^ | 0 | 1,815 | 0 | 806 | 0 | 2,723 | 2014 |
| | 2015 | | 0 | | | | - 30 | | 0 | 1,815 | Ö | 8 | 0 | 2,723 | 2015 |
| | 2016 | | 0 | | | | , S | _ | 0 | 1,815 | o | 806 | 0 | 2,723 | 3016 |
| | 2017 | - | - | 8 | | | 300 | _ | 1,815 | 3,630 | 0 | 806 | 1,815 | 4,538 | 8 |
| | 3018 | | - | 900 | | | 300 | ~ | 0 | 3,630 | 0 | 906 | 0 | 4,538 | 8,02 |
| | 3019 | | | 300 | | | 300 | _ | 0 | 3,630 | 0 | 806 | 0 | 4,538 | 2019 |
| | 3020 | | - | 300 | | | 300 | ~ | 0 | 3,630 | 0 | 906 | 0 | 4,538 | 800 |
| | 2021 | | - | 300 | | | 300 | ~ | Ó | 3,630 | 6 | 908 | 0 | 4,538 | 2021 |
| | 2022 | | - | 900 | | | 1 . 300 | ċ | O | 3,630 | 0 | 806 | 0 | 4,538 | 2022 |
| | 2023 | 7 | ٥ | 0 | | | 2 600 | ~ | 0 | 3,630 | 808 | 1,815 | 806 | 5,445 | 2023 |
| | 2024 | | 0 | 0 | | | 2 600 | r | 0 | 3,630 | o | 1,815 | 0 | 5,445 | 2024 |
| | 2025 | | 0 | 0 | | | 2 600 | _ | 0 | 3,630 | 0 | 1,815 | o | 5,445 | 2025 |
| х 8 | 2026 | | 0 | 0 | | | 2 600 | | 0 | 3,630 | o | 1,815 | 0 | 5,445 | 2028 |
| | 2027 | | 이 | ٥ | | | 5 600 | | 0 | 3,630 | 0 | 1,815 | ٥ | 5,445 | 2827 |
| | | | | | | | | | | | | | | | |

Table 9-4-3(2)A Ferry Boats Procurement Costs, Operation Cost and Maintenance Cost (With) (Route 2-1)

| | | | | | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|----------------------|---------------------|--|------------|--|---|-------|-------|-------|-------|-------|-------|-----------------|-------|-------|-----------------|----------------|----------------|--------------|-------|-------|-------|------------------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | Total | #/O | Cost | (Ro. Milion) | | 132 | 521 | 8 | 55. | 132 | 132 | 132 | ž | 8 | 8 | 238 | 238 | 238 | 238 | 238 | 238 | 238 | 538 | 857 | 370 | 0/5 | 370 | 370 | 370 | 3/0 | 476 | 476 | 476 | 476 |
| | %8 | Total | Aeintenance | Cont | Amount Ro. Million) | | 25 | 35 | 25 | 3 | ¥ | ፠ | \$ | 3 | 8 | 82 | ß | 8 | 28 | 88 | 85 | 8 | 85 | 28 | 22 | 38 | 35 | 136 | 136 | 136 | 86 | 163 | 183 | 8 | 193 |
| | | Total | Accumulated | Proc. Cost | (Bo. William) | | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 2,723 | 2,723 | 2,723 | 2,723 | 2.723 | 2,723 | 2,723 | 2,723 | 2,723 | 2,723 | 2,723 | 4,538 | 4,538 | 4,538 | 4,538 | | | | | | 5,445 |
| | e Cost | C' Type Boat | Accumulated Accumulated Meintenence | Proc. Cost | Amount (Ro. Million) (Ro. Million) (Ro. Million) | | 0 | 0 | 0 | 0 | 0 | 0 | O | 0 | 806 | 806 | 908 | 806 | 8 | | | | 806 | 806 | 8 | 806 | | | | | | - | | • | 1,815 |
| | (C) Maintenance Cost | ਲੋਂ | | Proc. Cost | (Bo. Million) | | 1,815 | 1,815 | 1,815 | 1,315 | 1,815 | 1,815 | 1,815 | 518,1 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 1,815 | 3,630 | 3,630 | 3,630 | 3,630 | 3,630 | 3,630 | 3,630 | 3,630 | 3,630 | 3,630 |
| | | | Total | O. Cost | Amount (Ro. Million) | | 78 | 87 | 78 | 78 | 28 | 78 | 78 | 92 | 156 | 1 56 | 2 5 | 2 5 | 2 | 156 | 8 | ž. | & | 951 | <u>8</u> | 23.3 | 234 | | | | | | | | 313 |
| | | (2 round trip (x4)) | Sold Sold Sold Sold Sold Sold Sold Sold | Amount | (Ro. Million) (Ro. Million) | | 0 | 0 | 0 | • | 0 | 0 | 0 | 0 | | • | 156 | 156 | - | • | • | • | | • | • | - | | - | • | | | | | | 313 |
| Distance: 31 (miles) | | (3) | C Type | Boats | Tonnane | | | 0 | co | U | | J | J | | 98 | 8 | 900 | 990 | | | 900 | 300 | 8 | | | | | 88 | | | | | | | 009 |
| FE | Jost | (1 round trip (x2) | Cost | Amount | (Bo. Million) | | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | O | 0 | 0 | 0 | 0 | ٥ | O | Ö | 0 | 0 | 0 | | | | 78 | | 78 | - | | 0 | 0 |
| Distance: | (B) Operation Cost | ~ | C Type | Boats | Tonnage | B | 88 | 30 | 8 | 8 | 300 | 38 | 300 | 900 | | | ٥ | | 0 | 0 | 0 | 0 | | ¢ | | 300 | 8 | 300 | 300 | 300 | 300 | O | | 0 | |
| | | | | | Year | | 1998 | 1999 | 2000 | 2003 | 2002 | 2003 | 2 00 | 5002 | 900 | 2002 | 2008 | 800 | 8 5 5 | 8 | 2012 | 2013 | 8 | 2015 | 23 16 | 2017 | 8503 | 2019 | 2020 | 2021 | 88 | 2023 | 2024 | 2025 | 2026 |

Table 9-4-4A Ferry Boats Procurement Costs, Operation Cost and Maintenance Cost (Without) (Route 2-1)

| Number Column C | | | Ferry Boats | | Assumption: Unit | Unit Procurement Cost of Boats per ton = | 6.05 Rp. Million /ton | Unit Operation Cost per mile/ton (Rp.) | /lon (Rp.) : | 12.8 (Rp. mile/ton) | | |
|--|----|------|---------------|------------|------------------|--|-----------------------|--|---------------|---------------------|-------|--------------|
| Very Number Decription Count Decription Count Decription Count Decription Count Decription Count Decription Count Decription Count Decription Count Decription Decripti | | | | | | | | Distriction of the control of the co | | (B) (TRIBO) | | |
| Veal Tonoge (Noticina) Accountated (a) Copy (bird) Cost (b | | | Substituted E | s s s | . 1. | (A) Substitution Cost of Boats (LCM Type) | | Operation Cost Factor for LC | W Type | 20 | | |
| Vieta (LCM Tipe) Total Tipe) Cost Cost <th></th> <th>-</th> <th>Метре</th> <th>Tonnace</th> <th></th> <th>(145)</th> <th>(B) Couration Cost</th> <th>(C) Maintenas</th> <th>Cost</th> <th>%</th> <th></th> <th></th> | | - | Метре | Tonnace | | (145) | (B) Couration Cost | (C) Maintenas | Cost | % | | |
| Continue | | Year | | (LCM Type) | | | | | | | - | Year |
| 1985 | | | | (Chrit:) | _ | Substitution Accumulated | ٠ | | Total | 2 | _ | |
| Total Amount Amou | | | | 88 | | 1800 | • | | Maintenance | | . • | |
| 1988 2 600 600 3500 3600 600 670 670 4700 670 4700 670 4700 670 | | | ٠ | | .* | | ٠ | • | Cost | Amou | ĕ | |
| 1986 2 600 5500 5500 5500 570 570 1080 2000 0 0 3,870 | | | | | | | | | | (Rp. Mil | (lou) | |
| 1999 2 600 950 950 970 3,850 109 2000 6 6 1890 6 70 3,850 109 2000 6 6 6 1800 6 3,850 109 2000 6 6 6 9 3,850 6 9 2000 6 6 6 9 3,850 6 9 2000 6 6 6 9 9 9 3,850 109 2000 6 6 6 9 9 3,850 109 2000 6 6 9 9 3,850 9 109 2000 6 9 9 9 3,850 109 109 2000 9 9 9 9 9 3,850 109 2000 9 9 9 9 9 9 10 10 | | | | | | | | | (Rp. Million) | | | |
| 1999 0 3500 600 970 3500 109 2001 0 600 0 3500 109 109 2001 0 600 9,500 109 109 109 2002 0 600 0 3,500 109 109 2003 0 600 0 3,500 109 109 2004 0 600 0 3,500 109 109 2004 0 600 0 3,500 109 109 2004 0 600 0 0 109 109 2004 0 0 0 0 0 109 109 2004 0 0 0 0 0 0 109 109 2004 0 0 0 0 0 0 0 0 109 109 2004 0 0 0 0 | - | 1986 | eA. | 3 | | | 009 | | | | 629 | 1988 |
| 2000 600 5,820 600 570 3,820 109 2001 600 600 600 570 3,820 109 2002 700 600 700 5,820 600 109 2002 700 600 970 5,820 109 109 2004 10 600 0 3,820 600 109 109 2004 1 600 0 3,820 600 570 3,820 109 2004 1 600 9,820 970 3,820 109 2004 1 600 970 3,820 109 109 2004 970 980 1,820 100 100 100 2005 1 900 855 5,445 100 100 100 2006 970 970 854 100 100 100 100 100 2010 970 970< | N | 1999 | | - | 009 | 0 3,630 | 909 | | | | 679 | 986 |
| 2001 0 600 0 3,850 109 2002 0 600 0 3,850 109 2003 0 600 0 3,850 109 2004 0 0 3,800 600 570 3,850 109 2004 0 600 0 3,800 600 570 3,850 109 2005 0 600 0 3,800 600 570 3,850 109 2006 0 600 9 3,800 600 85 5,445 189 2009 0 9 9 6 6 5,445 180 190 2009 0 9 9 6 5,445 900 85 5,445 183 2001 0 9 9 9 8 5,445 183 183 143 183 2001 0 9 0 0 4,45 | es | 800 | | - | 009 | 0 3,630 | 909 | | | | 629 | 800 |
| 2002 0 600 3,850 600 3,850 103 2004 0 600 0 3,850 103 103 2004 0 600 0 3,850 109 109 2004 1 600 0 3,840 600 109 109 2004 1 0 3,840 600 85 5,445 109 109 2004 1 0 3,840 600 85 5,445 109 109 2004 0 0 0 5,445 900 855 5,445 109 2004 0 0 0 5,445 900 855 5,445 103 2014 0 | 4 | 300± | | | 009 | 0 3,630 | 009 | | _ | | 649 | 283 |
| 2002 6 60 6 60 6 60 6 60 6 60 6 60 6 60 6 60 6 60 6 60 6 60 6 60 6 70 8 500 1 69 <t< td=""><td>S</td><td>2002</td><td></td><td>. =</td><td>009</td><td>0 3,630</td><td>009</td><td></td><td></td><td></td><td>629</td><td>2002</td></t<> | S | 2002 | | . = | 009 | 0 3,630 | 009 | | | | 629 | 2002 |
| 2004 0 600 0 5,830 900 3,830 109 2005 1 800 0 0 900 970 3,830 109 2006 1 800 900 1,815 900 855 5,445 163 1,19 2006 0 900 900 1,815 900 855 5,445 163 1,19 2009 0 900 900 900 855 5,445 163 1,19 2010 0 900 0 854 900 855 5,445 163 1,14 2011 0 900 0 900 854 163 1,14 | ,φ | 2003 | | =" | 009 | 0 3,630 | 909 | | | | 679 | 2003 |
| 2006 1 600 3,630 600 570 3,650 109 2006 1 900 1,815 5,445 163 163 163 2006 0 900 0 5,445 900 855 5,445 163 17 2009 0 900 0 5,445 900 855 5,445 163 17 2009 0 900 0 5,445 900 855 5,445 163 17 2001 0 900 0 5,445 900 855 5,445 163 17 2012 0 900 0 5,445 900 855 5,445 163 17 2012 0 900 0 5,445 900 855 5,445 163 17 2014 1 0 900 0 5,445 900 855 5,445 163 17 2014 <td< td=""><td></td><td>2002</td><td></td><td>-</td><td>009</td><td>083,8</td><td>33</td><td></td><td>•</td><td></td><td>6/9</td><td>82</td></td<> | | 2002 | | - | 009 | 083,8 | 33 | | • | | 6/9 | 82 |
| 2006 1 300 900 1,815 5,445 900 855 5,445 163 2006 0 900 0 5,445 900 855 5,445 163 2009 0 900 0 5,445 900 855 5,445 163 2004 0 900 0 5,445 900 855 5,445 163 2004 0 900 0 5,445 900 855 5,445 163 2014 0 900 0 5,445 900 855 5,445 163 2014 0 900 0 0 5,445 900 855 5,445 163 2014 1 0 900 0 0 5,445 900 855 5,445 163 2014 1 0 1,200 1,140 7,260 218 1445 163 2014 1 1,200 | 8 | 2002 | | | 009 | 0 3,630 | 009 | | | | 629 | 2005 |
| 2007 0 900 5,445 900 855 5,445 163 2008 0 9,445 900 855 5,445 163 2009 0 9,445 900 855 5,445 163 2010 0 900 0 5,445 900 855 5,445 163 2011 0 900 0 5,445 900 855 5,445 163 2012 1 900 0 5,445 900 855 5,445 163 2014 1 900 0 5,445 900 855 5,445 163 2014 1 900 1,400 7,260 218 163 218 163 218 163 218 163 218 163 218 220 218 163 218 220 218 163 218 163 218 163 218 218 163 218 220 </td <td>o</td> <td>2006</td> <td></td> <td>90</td> <td>006</td> <td></td> <td>006</td> <td></td> <td></td> <td>•</td> <td>910,1</td> <td>2008</td> | o | 2006 | | 90 | 006 | | 006 | | | • | 910,1 | 2008 |
| 2008 0 900 5,445 900 865 5,445 163 2009 0 9,445 900 85 5,445 183 2010 9 9 0 5,445 900 85 5,445 183 2011 0 900 0 5,445 900 85 5,445 183 2012 1 900 0 6 5,445 900 85 5,445 183 2013 1 300 1,200 0 7,280 1,440 7,280 218 2014 1 300 1,200 0 7,280 1,440 7,280 218 2015 1 2 7,280 1,200 1,440 7,280 218 2016 1 2 7,280 1,200 1,440 7,280 218 2016 1 3 7,280 1,200 1,440 7,280 218 2018 | 5 | 2002 | | | 006 | 0 5,445 | 006 | | | | 916 | 2007 |
| 2009 0 900 65,445 900 655 5,445 163 2010 0 900 0 5,445 900 655 5,445 163 2011 0 900 0 5,445 900 655 5,445 163 2012 0 900 0 5,445 900 655 5,445 163 2012 0 900 0 5,445 900 655 5,445 163 2013 1 0 900 0 65 5,445 163 5,545 163 2014 1 0 900 0 65 5,445 163 153 153 154 158 | - | 800 | | | 006 | 5,445 | 800 | - | | t. | 9,018 | 2008 2008 |
| 2010 0 900 0 5,445 900 655 5,445 163 2011 0 900 0 5,445 900 655 5,445 163 2012 0 900 0 5,445 900 655 5,445 163 2013 1 0 1,200 1,915 7,260 1,140 7,260 218 2014 0 1,200 0 7,260 1,140 7,260 218 2015 0 1,200 0 7,260 1,140 7,260 218 2016 0 1,200 0 7,260 1,140 7,260 218 2016 1,200 0 7,260 1,140 7,260 218 2017 1,100 1,200 1,140 7,260 218 2018 1,200 1,140 7,260 218 2018 1,100 1,140 7,260 218 2018 | 5 | 808 | | | 006 | 0 5,445 | 006 | | | • | 910,1 | 5003 |
| 2011 0 900 0 5,445 900 855 5,445 163 2012 1 0 900 0 5,445 900 855 5,445 163 2013 1 0 1,200 1,916 7,260 1,140 7,260 218 2015 0 1,200 0 7,260 1,140 7,260 218 2017 1 0 1,200 0 7,260 1,140 7,260 218 2017 1 0 1,200 0 7,260 1,140 7,260 218 2017 1 0 1,200 0 7,260 1,140 7,260 218 2017 1 0 1,200 1,140 7,260 218 2017 1 0 1,200 1,140 7,260 218 2018 2 1,200 1,140 7,260 218 218 218 2018 | 5. | 85 | | | 006 | 0 5,445 | 006 | | | • | 1,018 | 2010 |
| 2012 0 900 6 5445 900 855 5445 163 2013 1 300 1,200 1,410 7,260 1,140 7,260 218 2015 0 1,200 0 7,260 1,140 7,260 218 2015 0 1,200 0 7,260 1,140 7,260 218 2017 1,200 0 7,260 1,140 7,260 218 2017 1,200 1,200 1,140 7,260 218 2017 1,200 1,140 7,260 218 2017 1,200 1,140 7,260 218 2018 0 7,260 1,140 7,260 218 2018 0 1,200 1,140 7,260 218 2018 0 1,200 1,140 7,260 218 2019 1,500 1,425 2,20 218 2020 1,500 1 | 7, | 8 | | | 006 | 0 5,445 | 006 | | | - | 910, | 291 |
| 2013 1 300 1,200 1,915 7,260 1,140 7,260 218 2014 0 1,200 0 7,260 1,140 7,260 218 2015 0 1,200 0 7,260 1,140 7,260 218 2017 0 1,200 0 7,260 1,140 7,260 218 2017 0 1,200 0 7,260 1,140 7,260 218 2017 1,200 1,500 1,414 7,260 218 272 2018 0 1,500 1,414 7,260 218 272 2018 0 1,500 0 0,75 1,425 9,075 272 2018 0 1,500 0 9,075 1,500 1,425 9,075 272 2020 0 1,500 0 9,075 1,500 1,425 9,075 272 2021 0 1,800 0 | 15 | | | | 006 | 0 5,445 | 006 | | | | 810, | 2012 |
| 2014 0 1,200 0 7,260 1,200 1,140 7,260 218 2015 0 1,200 0 7,260 1,140 7,260 218 2016 0 1,200 0 7,260 1,140 7,260 218 2017 1 300 1,200 0 7,260 1,140 7,260 218 2018 0 1,500 0 0 1,260 1,425 9,075 272 2019 0 1,500 0 9,075 1,500 1,425 9,075 272 2020 0 1,500 0 9,075 1,500 1,425 272 2021 0 1,500 0 9,075 1,500 1,425 272 2022 0 1,600 0 1,600 1,711 10,800 327 2023 1 300 2,100 1,900 1,711 10,800 327 2024 | 16 | 2013 | J- | 30 | | | | | | F | 358 | 2013 |
| 2015 0 1,200 0 7,260 1,140 7,260 218 2017 1,200 1,200 0 7,260 1,140 7,260 278 2017 1,500 1,500 0 1,500 1,425 9,075 272 2018 0 1,500 0 9,075 1,500 1,425 9,075 272 2019 0 1,500 0 9,075 1,500 1,425 9,075 272 2021 1 1,500 1,425 9,075 272 272 272 2021 1 500 1,425 9,075 272 | 17 | 201 | | | 1,200 | 0 7,260 | | | | r | 358 | 2014 |
| 2016 1,200 0 7,260 1,200 7,550 278 278 2017 1 30 1,550 1,550 1,425 9,075 272 2018 0 1,500 0 9,075 1,500 1,425 9,075 272 2019 0 1,500 0 9,075 1,500 1,425 272 2021 1 50 1,500 0 9,075 272 272 2022 0 1,500 0 9,075 1,500 1,425 9,075 272 2022 0 1,800 1,815 1,816 1,800 1,711 10,890 327 2023 1 300 2,100 1,980 1,711 10,890 327 2024 0 2,100 1,980 1,711 10,890 327 2024 0 2,100 1,980 1,711 10,890 327 2024 0 2,100 | 18 | | | | 0,200 | 0 7,260 | | | | • | | 2015 |
| 2017 1 300 1,500 1,815 9,075 1,500 1,425 9,075 272 2018 0 1,500 0 9,075 1,500 1,425 272 2019 0 1,500 0 9,075 1,500 1,425 272 2020 0 1,500 0 9,075 1,500 1,425 272 2021 1 300 1,800 0 1,815 1,800 1,711 10,890 327 2022 0 1,800 0 1,980 1,800 1,711 10,890 327 2023 1 300 2,100 1,980 1,711 10,890 327 2024 0 1,800 1,711 10,890 327 2024 0 1,800 1,815 2,100 1,996 12,705 381 2024 0 2,100 0 12,705 2,100 1,996 12,705 381 | 5 | | | | 0 1,200 | | | | | • | | 2016 |
| 2018 0 1,500 0 9,075 1,550 1,425 9,075 272 2019 0 1,500 0 9,075 1,500 1,425 9,075 272 2020 0 1,500 0 9,075 1,500 1,425 9,075 272 2021 0 1,800 0 9,075 1,500 1,425 9,075 272 2022 0 1,800 0 1,980 1,711 10,880 327 2022 0 1,800 0 1,980 1,711 10,880 327 2023 1 300 2,100 1,980 1,711 10,880 327 2024 0 1,800 1,815 12,705 2,100 1,986 12,705 381 2024 0 2,100 1,986 1,205 381 12,705 381 2025 1 300 2,400 1,815 2,400 2,891 14,520 | 8 | | •• | 30 | | | | | | • | | 2017 |
| 2019 0 1,500 0 9,075 1,500 1,425 9,075 272 2020 1,500 0 9,075 1,500 1,425 9,075 272 2021 1 300 1,800 1,815 1,890 1,711 10,890 327 2022 0 1,800 0 1,960 1,711 10,890 327 2023 1 300 2,100 1,815 12,705 2,100 1,996 12,705 381 2024 0 2,100 1,996 1,2705 381 12,705 381 2025 0 2,100 1,996 1,2705 381 2025 0 2,100 0 1,996 1,2705 381 2025 0 2,100 0 1,996 1,2705 381 2025 0 2,400 1,916 1,966 1,966 1,976 3,91 2027 0 2,400 1,916 | ř. | | | | 0 1,500 | | | | | • | | 2018 |
| 2020 0 1,500 0 9,075 1,500 1,425 9,075 272 2021 1 1,600 1,815 10,880 1,711 10,880 327 2022 0 1,800 0 1,945 1,945 1,711 10,880 327 2023 1 300 2,100 1,980 1,711 10,880 327 2024 0 2,100 1,980 1,711 10,880 327 2025 0 2,100 1,986 12,705 381 2025 1 300 2,400 1,815 1,2705 381 2025 1 300 2,400 1,815 1,450 2,400 2,881 2027 0 2,400 1,450 2,240 2,281 14,520 436 | 22 | | | ٠ | 0 1,500 | | | | | • | | 2019 |
| 2021 1 300 1,840 1,815 10,890 1,711 10,890 327 2022 0 1,800 0 10,890 1,711 10,890 327 2023 1 300 2,100 1,815 12,705 2,100 1,896 12,705 381 2024 0 2,100 0 12,705 2,100 1,996 12,705 381 2025 0 2,100 0 12,705 2,100 1,996 12,705 381 2025 1 300 2,400 0 1,815 14,520 2,400 2,281 14,520 436 2027 0 2,400 2,281 14,520 2,400 2,281 14,520 436 | 23 | | | | 1,500 | | | | | - | .697 | 2020 |
| 2022 0 1,800 0 10,890 1,711 10,890 327 2023 1 300 2,100 1,815 12,705 2,100 1,896 12,705 381 2024 0 2,100 0 12,705 2,100 1,896 12,705 381 2025 0 2,100 0 12,705 2,100 1,896 12,705 381 2025 1 300 2,400 0 2,400 4,500 | 24 | | - | 30 | | | | | 327 | N | 5,038 | 2021 |
| 2023 1 300 2,100 1,615 12,705 2,100 1,996 12,705 381 2024 0 2,100 0 12,705 381 381 2025 0 2,100 0 1,2705 381 381 2025 1 0 2,400 1,996 1,2705 381 2027 2 2 1,905 2,400 2,881 14,200 436 2027 0 2,400 0 14,500 2,400 4,500 4,500 436 | 25 | | | | | 0 10,690 | | | 327 | 8 | 822, | 2022 |
| 2024 0 2,100 0 12,705 381 2025 0 2,100 0 12,705 381 2026 1 300 2,400 1,815 14,520 2,810 1,826 331 2027 0 2,400 1,830 2,400 2,281 14,520 436 2027 0 2,400 14,550 2,400 2,281 14,520 436 | 56 | | •" | 90 | | | | | 381 | OI. | 1377 | 2023 |
| 2025 0 2,100 0 12,705 331 2026 1 300 2,400 1,815 14,520 2,400 2,281 14,520 436 2027 0 2,400 0 2,400 4,520 436 436 | 27 | | | | 2,100 | 0 12,705 | | | | N | 377 | 2024 |
| 2026 1 300 2,400 1,815 14,520 2,400 2,240 4,520 436 2027 0 2,400 0 2,400 4,520 436 | 28 | | | | 0 2,100 | 0 12,705 | • | | | N | 377 | 2025 |
| 2027 0 2,400 0 14,520 2,400 2,281 14,520 436 | 23 | | | 30 | | | | | 436 | N | 717 | 5056 |
| | 3 | | | | | | | | 436 | 2 | | 2027 |

Table 9-4-5(1)A Estimation of Time Cost Saving Benefits (Route 2-1)

| | (1) Time Cost for Without Case | or Without Ca | eş: | | | | | |
|------|--------------------------------------|---------------|-------------|---|---|---|---|-------------|
| | (a) Passenfers Biak (Mokmer) - Serui | Biak (Mokme | r) - Serui | | | | | (c) Without |
| ÷ | Passengers | Travel | Estimated | ŕ | | | | Time |
| |) | Hours | Time | | | | | 10 E |
| | | Required | Cost | | | | | |
| | | (hours) | (Rp. 1,000) | | | | | (Rp. 1,000) |
| ٠ | | 15.0 | | | ÷ | | | |
| 1998 | 66,976 | | 397,837 | | | | | 397,837 |
| 1999 | | | 429,189 | | | | | 429,189 |
| 2000 | | | 463,017 | | | | | 463,017 |
| 2007 | 639'88 | | 496,994 | | | | | 496,994 |
| 2002 | 89,809 | | 533,465 | | | | | 533,465 |
| 888 | 3 96,400 | | 572,616 | | | | | 572,616 |
| 88 | - | | 614,636 | | | | | 614,636 |
| 2005 | | | 659,744 | | | | | 659,744 |
| 2006 | | | 704,134 | - | | | | 704,134 |
| 2007 | 126,516 | | 751,505 | | | | | 751,505 |
| 2008 | 3 135,029 | | 802,072 | | 1 | | | 802,072 |
| 5003 | 3 144,113 | | 856,031 | | | | | 856,031 |
| 2010 | 153,810 | | 913,631 | | | | ٠ | 913,631 |
| 2011 | 164,158 | | 975,099 | | | | | 975,099 |
| 2012 | 2 175,203 | | 1,040,706 | | | | | 1,040,706 |
| 2013 | 186,991 | | 1,110,727 | | | | | 1,110,727 |
| 2014 | 4 199,572 | | 1, 185,458 | | | | | 1,185,458 |
| 2015 | 5 212,999 | | 1,265,214 | | | | | 1,265,214 |
| 2016 | 5 227,330 | | 1,350,340 | | | ÷ | 2 | 1,350,340 |
| 2017 | 7 242,625 | | 1,441,193 | | ; | | ٠ | 1,441,193 |
| 2018 | 8 258,949 | | 1,538,157 | | | | | 1,538,157 |
| 2019 | 9 276,372 | | 1,641,650 | | ٠ | | | 1,641,650 |
| 2020 | 294,966 | | 1,752,098 | - | | | | 1,752,098 |
| 202 | 1 314,812 | | 1,869,983 | | | | | 1,869,983 |
| 2022 | 2 335,993 | | 1,995,798 | | | | | 1,995,798 |
| 2023 | 3 358,599 | : | 2,130,078 | - | | | - | 2,130,078 |
| 2024 | 4 382,726 | | 2,273,392 | | | | | 2,273,392 |
| 2025 | 5 408,476 | | 2,426,347 | | | | | 2,426,347 |
| 2028 | 6. 435,959 | | 2,589,596 | | ٠ | | | 2,589,596 |
| COOC | 200 301 | | 00000000 | | | | | 0000000 |

Table 9-4-5(2)A Estimation of Time Cost Saving Benefits (Route 2-1)

| | | | | | : . | 6 | | 1 1 | ##### ATY | Saving | Saving Renefits | | |
|------------------|--------------|--|------------------|-------------|----------------|---------------------|-------------|-------------|-------------|-------------|--------------------|------|---|
| | | | | | - | 7 | | | 443.44.74. | Saving | Saving | | |
| | | | | | | Constitution of the | | | ALC 16 Cal. | Occasion | Penefits | | |
| (a) Related to F | Passengers U | (a) Related to Passengers Using C Type Br(b) Related to Passengers Using C' Type B(c) Passengers Saubeba - Serui | (b) Related to P | assenders U | sing C'Type B(| c) Fassengers | Saubeba - S | erui | (a) | 200 | | | |
| ı | | | | | <i>i</i> | | | | Time | | · | | |
| Passengers | Travel | Estimated | Passengers | Trave | Estimated | Passengers | Trave | Estimated | Cost | , . | | | |
| Using | Hours | Time | Using | Hours | Time | | Hours | Time | Total | | | | |
| C Type | Required | Cost | C' Type | Required | Cost | | Required | Cost | | | | | |
| Boats | (hours) | (Rp. 1,000) | Boats | (hours) | (Rp. 1,000) | | (hours) | (Rp. 1,000) | (Rp. 1,000) | (Rp. 1,000) | (Rp. Million) | | |
| | 32 | z. | | 2.5 | | | 1,0 | | | | | | |
| 66,976 | | 84,872 | 0 | | 0 | 926.99 | | 26.522 | 111.394 | 286.443 | 286 | 1908 | |
| 72,254 | | 91,560 | 0 | | 0 | 72,254 | | 28,613 | 120.173 | 309.016 | 608 | 1909 | |
| 77,949 | : | 777,86 | 0 | | 0 | 77,949 | | 30,868 | 129,645 | 333,372 | 333 | 2000 | |
| 83,669 | | 106,025 | 0 | | ø | 83,569 | | 33 133 | 139,158 | 357,836 | 358 | 2007 | |
| 89,809 | | 113,806 | 0 | | 0 | 608'68 | | 35,564 | 149,370 | 384,095 | 384 | 2002 | |
| 96,400 | | 122,158 | 0 | | 0 | 96,400 | | 38,174 | 160,332 | 412,284 | 412 | 2003 | |
| 103,474 | | 131,122 | 0 | | 0 | 103,474 | | 40,976 | 172,098 | 442,538 | 443 | 2004 | |
| 111,068 | | 140,745 | 0 | | 0 | 111,068 | | 43,983 | 184,728 | 475,016 | 475 | 2005 | |
| 0 | | 0 | 118,541 | | 117,356 | 118,541 | | 46,942 | 164,298 | 539,836 | 540 | 2006 | • |
| 0 | | ٥ | 126,516 | | 125,251 | 126,516 | | 50,100 | 175,351 | 576,154 | 576 | 2007 | |
| 0 | | 0 | 135,029 | | 133,679 | 135,029 | | 53,471 | 187,150 | 614,922 | 615 | 2008 | |
| 0 | | 0 | 144,113 | | 142,672 | 144,113 | | 690'29 | 199,741 | 656,290 | 656 | 2003 | |
| 0 | | 0 | 153,810 | | 152,272 | 153,810 | | 606'09 | 213,181 | 700,450 | 700 | 2010 | |
| 0 | | 0 | 164,158 | | 162,516 | 164,158 | | 65,007 | 227,523 | 747,576 | 748 | 8 | |
| 0 | | 0 | 175,203 | | 173,451 | 175,203 | | 69,380 | 242,831 | 797,875 | 798 | 2012 | |
| 0 | | 0 | 186,991 | | 185,121 | 186,991 | | 74,048 | 259,169 | 851,558 | 852 | 2013 | |
| ٥ | | 0 | 199,572 | | 197,576 | 199,572 | | 79,031 | 276,607 | 908,851 | 606 | 2014 | |
| 0 | | 0 | 212,999 | | 210,869 | 212,999 | | 84,348 | 295,217 | 266,696 | 976 | 2015 | |
| ٥ | | 0 | 227,330 | | 225,057 | 227,330 | | 90,023 | 315,080 | 1,035,260 | 1,035 | 2016 | |
| 990'08 | | 101,460 | 162,559 | | 160,933 | 242,625 | | 96,080 | 358,473 | 1,082,720 | 1,083 | 2017 | |
| 85,453 | | 108,286 | 173,496 | | 171,761 | 258,949 | | 102,544 | 382,591 | 1,155,566 | 1,156 | 2018 | |
| 91,203 | | 115,572 | 185,169 | | 183,317 | 276,372 | | 109,443 | 408,332 | 1,233,318 | 1,233 | 2019 | |
| 97,339 | | 123,348 | 197,627 | | 195,651 | 294,966 | | 116,807 | 435,806 | 1,316,292 | 1,316 | 2020 | |
| 103,888 | | 131,647 | 210,924 | | 208,815 | 314,812 | | 124,666 | 465,128 | 1,404,855 | 1,405 | 2021 | |
| 110,878 | | 140,505 | 225,115 | | 222,864 | 335,993 | | 133,053 | 496,422 | 1,499,376 | 1,499 | 2022 | |
| 0 | | 0 | 358,599 | | 355,013 | 358,599 | | 142,005 | 497,018 | 1,633,060 | 1,633 | 2023 | |
| 0 | | 0 | 382,726 | | 378,899 | 382,726 | | 151,559 | 530,458 | 1,742,934 | 1,743 | 2024 | |
| 0 | | 0 | 408,476 | | 404 391 | 408,476 | | 161,756 | 566,147 | 1,860,200 | 1,860 | 2025 | |
| 0 | | 0 | 435.959 | | 431,599 | 435,959 | | 172,640 | 604,239 | 1,985,357 | 1,985 | 2026 | |
| 0 | | 0 | 465,291 | | 450,638 | 465,291 | | 184,255 | 644,893 | 2,118,936 | 2,119 | 2027 | 1 |

Table 9-4-6A Estimation of Vehicle Operating Cost (VOC) Saving Benefits (Route 2-1)

| 25 378 291 40 291 40 383 Vehicle Operating Cost Saving Benefits (Pp. 1,000) Truck Sedan Bus Total (3 ton Truck) 341 340 433 -15,872 -21,883 -22,554 -60,309 -17,182 -23,964 -24,306 -75,722 -20,069 -28,623 -26,176 -71,037 -20,069 -28,623 -22,060 -75,722 -23,339 -33,998 -32,226 -99,567 -25,139 -40,391 -37,026 -104,570 -27,153 -40,391 -37,026 -104,570 -27,153 -40,391 -37,026 -104,570 -27,153 -40,391 -37,026 -104,570 -28,135 -47,442 -42,031 -120,788 -38,634 -51,419 -44,744 -139,548 -38,782 -60,389 -50,835 -150,006 -41,646 -55,453 -54,162 -161,251 -44,730 -70,932 -57,710 -173,372 -48,034 -76,874 -61,479 -186,387 -51,593 -83,313 -65,488 -200,404 -55,396 -90,295 -69,768 -20,404 -55,396 -106,051 -79,175 -231,672 -48,034 -146,303 -111,568 -386,423 -111,401 -111,401 -218,704 -130,375 -130,285 -113,055 -415,004 -130,375 -237,061 -148,604 -516,040 | č | Assumblion. (1) L | | | (1) Difference of notationalize of Section Saucea - Section (35Km/h) | (35Km/h) | (50km/h) | <u>.</u> | | | | • | |
|--|-----------|-------------------|--------------|-----------|--|----------|-------------------|------------|------------|------------|---------------|--------------|----|
| Value Valu | | ě | 00,7 | ć | | 27. | 903 (0) | | S. Crood - | 54 AC | | | |
| Year Truck Sedan 340 291 Year Truck Sedan Bus Total Generaling Cost Saving Benefits (Rp. 1,000) Year Truck Sedan Bus Truck Sedan Bus Total 1988 1,389 1,883 1,872 1,578 -15,872 22,854 -60,309 1988 1,389 1,883 1,873 1,578 -23,844 24,306 65,452 2000 1,505 2,271 1,778 -16,605 -23,844 -24,306 65,452 2001 1,506 2,271 1,778 -16,606 -23,846 -24,306 65,452 2002 2,171 2,406 2,346 2,516 -71,037 -70,007 2003 2,171 3,206 2,346 2,516 -71,037 -71,037 2004 2,171 2,186 2,246 2,346 -24,396 -65,452 -104,706 2004 2,171 2,186 2,244 | | 7 (2) | A CC. | , a | on Truck | 425 | 378 | | - pages fo | 2 | | | |
| Year Truck Sedan Bus Total Year Truck Sedan Bus Total Year Truck Sedan Bus Total 1988 1,369 1,532 -1,587 -21,883 -22,554 -60,309 1989 1,485 2,073 1,532 -1,587 -21,883 -22,554 -60,309 2001 1,731 2,475 1,906 -20,069 -26,623 -26,776 -71,037 2002 1,731 2,476 1,906 -20,698 -26,823 -26,776 -71,037 2003 2,171 3,206 2,244 2,515 -21,669 -28,682 -28,670 -71,037 2004 2,171 3,206 2,346 -2,476 -23,686 -31,189 -28,570 -71,037 2005 2,171 3,206 2,246 -2,516 -23,686 -34,784 -21,506 -71,737 2006 2,271 3,700 -2,516 -2,771 <t< td=""><td></td><td></td><td></td><td>6 6</td><td></td><td>3,45</td><td>201</td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | | | | 6 6 | | 3,45 | 201 | | | | | | |
| Veal (3 tor) Truck Sedan Bus 433 383 Year Truck Sedan Bus Truck Sedan Rhs. 1,000) 1986 1,326 1,637 1,532 1,532 1,532 1,533 1,534 1,001 1988 1,326 1,657 1,532 1,532 1,532 1,532 1,533 1,534 1,001 2000 1,666 2,271 1,778 2,966 -6,523 -23,964 -6,0309 2000 1,667 2,771 1,778 -1,866 -2,436 -6,5482 -2,4306 -6,5482 2000 1,667 2,771 1,778 -2,166 -3,189 -3,077 -3,199 -6,030 2001 1,667 2,246 -2,166 -3,168 -3,0077 -3,199 -3,0077 -3,199 -3,1077 -3,199 -3,1077 -3,199 -3,1077 -3,1077 -3,1077 -3,1077 -3,1077 -3,1077 -3,1077 -3,1077 -3,1077 -3,1077 | | | | 5 | | 7 | 107 | | | | | | |
| Year Truck Sedan Bus Truck A33 Truck A33 Truck A34 A33 Truck A34 A34< | | | | a | s | 433 | 383 | | | | | | |
| Truck Sedan Bus Truck Sedan Bus Truck Sedan Bus Truck Sedan Bus (3 ton Truck) 341 340 433 453 40,309 1,582 1,582 1,582 1,582 1,582 1,582 1,582 1,582 2,073 1,551 1,778 1,182 2,23,964 24,306 6,54,452 2,000 1,482 2,271 1,778 1,186 2,23,399 32,226 28,060 1,677 2,286 2,043 2,241 2,189 2,243 2,189 3,242 2,043 2,243 2,346 2,346 | | NuN | ber of Vehic | les Trips | | | /ehicle Operating | Cost Savin | | lp. 1,000) | | , | |
| (3 ton Truck) (3 | | | Truck | Sedan | Bus | | Truck | Sedan | Bus | Total | ٠. | | |
| 1988 1,356 1,893 1,552 -1,5,872 -2,15,872 -2,554 1989 1,356 1,893 1,552 -2,1833 -22,554 2000 1,605 2,271 1,778 -16,609 -26,239 -24,3964 -24,396 2001 1,731 2,476 1,906 -20,069 -26,823 -24,306 2002 1,867 2,698 2,043 -21,846 -20,069 -28,623 -28,060 2003 2,171 3,206 2,346 -25,171 -37,068 -28,623 -28,106 2004 2,171 3,206 2,346 -25,171 -37,068 -30,077 2005 2,342 2,346 2,517 37,066 -28,652 -26,176 2006 2,342 2,448 2,515 -27,174 -37,066 -37,066 2007 2,449 2,615 2,246 -24,177 -37,066 -37,174 -37,066 2007 2,449 2,615 2,244 2,449 | | ` | on Truck) | | | | (3 ton Truck) | | | | (Rp. Million) | | |
| 1988 1,369 1,893 1,532 -15,872 -21,883 -22,554 1989 1,482 2,073 1,651 -17,182 -23,964 -24,306 2000 1,505 2,271 1,778 -20,069 -28,623 -28,536 2001 1,731 2,476 1,906 -20,069 -28,623 -28,600 2002 1,731 2,476 1,906 -20,069 -28,623 -28,900 2003 2,013 2,941 2,189 -20,339 -33,998 -32,226 2004 2,171 3,206 2,346 -29,173 -37,026 -28,538 2005 2,171 3,206 2,346 -29,178 -37,026 -37,89 -32,226 2006 2,171 3,206 2,346 -25,171 -37,026 -37,88 -32,226 2007 2,701 4,448 3,042 -29,158 -37,176 -37,286 2007 2,701 4,448 3,042 -29,158 -37,472 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>341</td> <td>340</td> <td>433</td> <td></td> <td></td> <td></td> <td>1</td> | | | | | | | 341 | 340 | 433 | | | | 1 |
| 1989 1,482 2,073 1,651 -17,182 -23.964 -24,306 2000 1,605 2,271 1,778 -1,660 -28,306 -28,306 2001 1,731 2,476 1,906 -20,043 -2,486 -3,189 -30,077 2002 2,013 2,941 2,189 -25,137 -3,189 -30,077 2002 2,171 3,206 2,346 -25,139 -30,988 -32,226 2004 2,171 3,206 2,346 -25,139 -34,388 -32,226 2005 2,515 3,787 2,680 -29,158 -3,478 -39,438 2007 2,701 4,448 3,042 2,515 -47,442 -28,138 2008 2,901 4,448 3,042 2,21,138 -47,744 -28,138 2009 3,115 4,820 3,241 -28,138 -3,149 -4,178 -4,178 2010 4,480 7,207 4,449 -7,144 -7,144 | , | 1988 | 1,369 | 1,893 | 1,532 | | -15,872 | -21,883 | -22,554 | -60,309 | હ | 1988 | |
| 2000 1,605 2.271 1,778 -18,608 -26,253 -26,176 2001 1,731 2,476 1,906 -20,069 -28,623 -28,176 2002 1,731 2,476 1,906 -21,646 -31,189 -30,077 2003 2,013 2,941 2,189 -23,339 -33,998 -32,087 2004 2,113 3,266 2,516 -3,458 -37,026 -26,171 -37,061 -34,528 2005 2,515 3,787 2,680 -29,159 -43,442 -36,179 -40,391 -37,026 2007 2,701 4,104 2,885 -29,159 -43,742 -42,031 2008 2,115 4,448 3,042 -38,432 -54,149 -43,744 2009 3,145 4,448 3,042 -38,132 -40,331 -47,744 2009 3,145 4,448 3,042 -38,132 -60,381 -51,419 -42,031 2011 3,582 6,13 | 8 | 1989 | 1,482 | 2,073 | 1,651 | | -17,182 | -23,964 | -24,306 | -65,452 | છે | 1989 | |
| 2001 1,731 2,476 1,906 -20,069 -28,623 -28,060 2002 1,867 2,638 2,043 -21,646 -31,189 -30,077 2003 2,013 2,941 2,189 -21,333 -33,998 -32,226 2004 2,171 3,206 2,346 -25,171 -37,061 -34,226 2005 2,515 3,787 2,680 -20,158 -20,159 -37,061 -34,226 2006 2,515 3,787 2,680 -20,158 -31,159 -47,74 -37,065 2007 2,701 4,104 2,885 -31,159 -47,74 -47,44 -30,41 -34,154 -47,44 -30,14 -36,156 -47,74 -47,76 -47,74 -47,74 -47,74 -4 | e | 2000 | 1,605 | 2,271 | 1,778 | | -18,608 | -26,253 | -26,176 | -71,037 | -71 | 2000 | |
| 2002 1,867 2,698 2,043 -21,646 -31,189 -30,077 2003 2,013 2,941 2,189 -23,339 -33,998 -32,226 2004 2,171 3,206 2,346 -25,17 -37,061 -34,538 2005 2,342 3,694 2,515 -27,153 -40,391 -37,026 2006 2,515 3,787 2,680 -29,159 -37,026 -37,026 2007 2,701 4,448 3,042 -29,159 -43,778 -34,388 2009 3,115 4,820 3,241 -36,115 -45,149 -47,744 2009 3,145 4,820 3,241 -36,115 -47,742 -42,031 2010 3,345 5,224 3,453 -36,135 -55,719 -47,744 2010 3,345 5,224 3,453 -36,135 -55,719 -47,744 2010 3,448 3,042 -4,49 -76,44 -77,632 -57,710 | 4 | 2001 | 1 731 | 2,476 | 1,906 | | -20,069 | -28,623 | -28,060 | .76,752 | -17 | 2001 | |
| 2003 2,013 2,941 2,189 -23,339 -33,998 -32,226 2004 2,171 3,206 2,346 -25,171 -37,061 -34,538 2005 2,342 3,494 2,515 -27,153 -40,331 -37,061 -34,538 2006 2,515 3,787 2,680 -29,159 -43,778 -39,455 2007 2,701 4,448 3,042 -2,915 -43,742 -42,031 2008 2,901 4,448 3,042 -36,115 -54,182 -43,784 2009 3,145 4,820 3,241 -36,115 -57,14 -47,442 2010 3,345 5,224 3,453 -41,646 -65,483 -5,146 2011 3,592 6,502 4,176 -44,730 -70,932 -5,171 2012 3,592 6,503 -4,176 -44,9 -5,141 -4,176 -6,148 2013 4,143 6,550 4,176 -44,9 -5,136 | · w | 2002 | 1.867 | 2,698 | 2,043 | | -21,646 | -31,189 | -30,077 | -82,912 | జ్ | 2002 | ٠. |
| 2004 2,171 3,206 2,346 -25,171 -37,061 -34,538 2005 2,342 3,494 2,515 -27,153 -40,391 -37,026 2006 2,515 3,787 2,860 -25,159 -40,341 -30,455 2007 2,701 4,104 2,855 -31,315 -47,442 -42,031 2008 3,145 4,820 3,441 -3,442 -3,442 -3,435 -47,442 -42,031 2009 3,145 4,820 3,241 -38,732 -60,389 -50,835 2010 3,345 5,224 3,423 -41,646 -65,453 -47,784 2011 3,858 6,136 3,920 -41,646 -65,453 -5,416 2012 3,858 6,136 3,920 -4,730 -70,932 -5,7710 2013 4,143 6,650 4,176 -4,499 -5,130 -4,149 -5,396 -90,932 -5,7710 2014 4,450 7,207 | ဖ | 2003 | 2,013 | 2,941 | 2,189 | | 23,339 | -33,998 | -32,226 | -89,563 | 8 | 2003 | |
| 2005 2,342 3,494 2,515 -27,153 -40,391 -37,026 2006 2,515 3,787 2,680 -29,159 -43,778 -39,455 2007 2,701 4,104 2,885 -31,315 -47,442 -42,031 2008 2,901 4,448 3,042 -3,834 -51,419 -47,744 2009 3,145 4,820 3,241 -36,115 -55,719 -47,714 2009 3,145 4,820 3,241 -36,115 -55,719 -47,714 2001 3,345 5,524 3,453 -38,782 -60,389 -50,885 2011 3,582 6,136 3,920 -44,730 -70,332 -57,710 2012 2,858 6,136 4,176 -48,034 -51,43 -65,453 -64,489 2014 4,450 7,207 4,449 -51,589 -97,832 -97,79 2015 4,778 7,811 4,739 -74,39 -51,589 -97,80 | 7 | 2004 | 2,171 | 3,206 | 2,346 | | -25,171 | -37,061 | -34,538 | -96,770 | -97 | 2004 | |
| 2006 2,515 3,787 2,680 -29,159 43,778 -39,455 2007 2,701 4,104 2,885 -31,315 -47,442 -42,031 2008 2,901 4,448 3,042 -33,634 -51,419 -44,784 2009 3,115 4,820 3,241 -36,115 -55,719 -47,714 2009 3,145 5,524 3,453 -36,732 -60,389 -50,885 2010 3,345 5,524 3,420 -44,730 -70,392 -57,710 2011 3,585 6,136 3,920 -44,730 -70,932 -57,710 2012 4,143 6,550 4,176 -449 -51,596 -90,292 -57,710 2013 4,143 4,739 -76,473 -76,874 -61,499 -51,996 -90,292 -57,710 2014 4,450 7,207 4,449 -51,596 -90,292 -57,710 2016 5,132 8,465 5,048 -55,396 </td <td>œ</td> <td>2005</td> <td>2,342</td> <td>3,494</td> <td>2,515</td> <td></td> <td>-27,153</td> <td>-40,391</td> <td>-37,026</td> <td>-104,570</td> <td>199</td> <td>2005</td> <td></td> | œ | 2005 | 2,342 | 3,494 | 2,515 | | -27,153 | -40,391 | -37,026 | -104,570 | 199 | 2005 | |
| 2007 2,701 4,104 2,855 -31,315 -47,442 -42,031 2008 2,901 4,448 3,042 -35,634 -51,419 -47,784 -47,784 2009 3,145 4,820 3,241 -36,115 -55,719 -47,714 -47,714 2010 3,345 5,224 3,453 -36,115 -55,719 -47,714 -47,714 2011 3,592 5,662 3,679 -41,646 -65,483 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,835 -50,932 -50,835 -50,932 -50,771 -70,932 -57,710 -70,932 -57,710 -70,932 -57,710 -70,932 -57,710 -70,932 -57,710 -70,932 -57,710 -70,932 -57,710 -70,932 -57,710 -70,932 -70,932 -70,932 -70,932 -70,932 | O | 2006 | 2,515 | 3,787 | 2,680 | | -29,159 | -43,778 | -39,455 | 112,392 | -112 | 2006 | |
| 2008 2,901 4,448 3,042 -38,634 -51,419 -44,784 -4,774 -5009 3,115 4,820 3,241 -38,115 -55,719 -47,714 -4,774 -5010 3,345 5,224 3,453 -38,792 -60,389 -50,835 -50,935 -50,436 -50,435 -50,436 -50,435 -50,435 -70,431 -70,431 -70,431 -70,431 -70,431 -70,431 -70,431 -70,431 -70,431 | 5 | 2007 | 2,701 | 4,104 | 2,855 | | -31,315 | -47,442 | -42,031 | -120,788 | -121 | 2002 | |
| 2009 3,115 4,820 3,241 -36,115 -55,719 -47,714 2010 3,345 5,224 3,453 -38,782 -60,389 -50,835 2011 3,592 5,662 3,679 -41,646 -65,453 -54,162 2012 3,858 6,136 3,920 -44,730 -70,932 -57,710 2013 4,143 6,650 4,176 -48,034 -76,874 -61,479 2014 4,450 7,207 4,449 -51,593 -80,295 -63,780 2015 4,778 7,811 4,739 -55,396 -90,295 -63,768 2016 5,132 8,465 5,048 -55,396 -90,295 -63,768 2017 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,948 5,728 6,498 -79,414 -144,390 -95,819 2020 6,826 11,678 6,498 -79,41 -144,390 -154,398 < | Ξ | 2008 | 2,901 | 4,448 | 3,042 | | -33,634 | -51,419 | -44,784 | -129,837 | -130 | 2008 | |
| 2010 3,345 5,224 3,453 -38,782 -60,389 -50,835 2011 3,592 5,662 3,679 -41,646 -65,453 -54,162 2012 3,858 6,136 3,920 -44,730 -70,932 -57,710 2013 4,143 6,650 4,176 -48,034 -76,374 -61,479 2014 4,450 7,207 4,449 -51,593 -83,313 -65,498 2015 4,778 7,811 4,739 -55,396 -90,295 -69,768 2016 5,132 8,465 5,048 -59,80 -90,295 -69,768 2017 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,895 -106,051 -79,175 2019 6,356 10,775 6,101 -73,691 -124,599 -98,819 2020 6,826 1,679 -8,984 -146,303 -101,991 2021 <td>12</td> <td>5003</td> <td>3,115</td> <td>4,820</td> <td>3,241</td> <td></td> <td>-36,115</td> <td>-55,719</td> <td>-47,714</td> <td>-139,548</td> <td>-140</td> <td>5000 5000</td> <td></td> | 12 | 5003 | 3,115 | 4,820 | 3,241 | | -36,115 | -55,719 | -47,714 | -139,548 | -140 | 5000 5000 | |
| 2011 3,592 5,662 3,679 -41,646 -65,453 -54,162 2012 3,858 6,136 3,920 -44,730 -70,932 -57,710 2013 4,143 6,650 4,176 -48,034 -76,374 -61,479 2014 4,450 7,207 4,449 -51,593 -83,313 -65,498 2015 4,778 7,811 4,739 -55,396 -90,295 -69,768 2016 5,132 8,465 5,048 -59,500 -97,855 -74,317 2018 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,518 9,942 5,728 -68,103 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2021 7,370 1,2656 6,921 -73,141 -134,998 -95,664 2022 7,872 13,716 7,371 -146,303 -10,189 2024< | <u>6</u> | 2010 | 3,345 | 5,224 | 3,453 | | -38,782 | -60,389 | -50,835 | -150,006 | . 50 | 2010 | |
| 2012 3,858 6,136 3,920 -44,730 -70,932 -57,710 2013 4,143 6,650 4,176 -48,034 -76,874 -61,479 2014 4,450 7,207 4,449 -51,593 -83,313 -65,498 2015 4,778 7,811 4,739 -55,396 -90,295 -69,768 2017 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,370 12,656 6,921 -79,141 -134,998 -95,664 2022 7,872 13,716 7,371 -91,268 -10,189 -10,189 2023 8,454 14,865 7,850 -136,69 -90,79 -10,189 | 4 | 2011 | 3,592 | 5,662 | 3,679 | | -41,646 | -65,453 | -54,162 | -161,261 | -161 | 2011 | |
| 2013 4,143 6,650 4,176 -48,034 -76,874 -61,479 2014 4,450 7,207 4,449 -51,593 -83,313 -65,498 2015 4,778 7,811 4,739 -55,396 -90,295 -69,768 2016 5,132 8,465 5,048 -59,500 -97,855 -74,317 2017 5,511 9,174 5,378 -68,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -84,984 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -15,668 -10,891 2024 9,679 16,110 8,360 -105,662 -186,527 -108,516 < | 5 | 2012 | 3,858 | 6,136 | 3,920 | | -44,730 | -70,932 | -57,710 | -173,372 | 173 | 2012 | |
| 2014 4,450 7,207 4,449 -51,593 -83,313 -65,498 2015 4,778 7,811 4,739 -55,396 -90,295 -69,768 2016 5,132 8,465 5,048 -59,500 -97,855 -74,317 2017 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -84,984 -146,530 -101,891 2022 7,872 13,716 7,371 -91,268 -15,68 -10,1891 2023 8,454 14,865 7,850 -106,303 -115,568 2024 9,079 16,110 8,360 -105,662 -186,527 -123,076 | <u> 9</u> | 2013 | 4,143 | 6,650 | 4,176 | | 48,034 | -76,874 | | -186,387 | -186 | 2013 | |
| 2015 4,778 7,811 4,739 -55,396 -90,295 -69,768 2016 5,132 8,465 5,048 -59,500 -97,855 -74,317 2017 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 7,330 12,656 6,921 -84,984 -146,303 -101,891 2021 7,872 13,716 7,371 -91,268 -15,68 -10,1891 2022 7,872 13,716 7,371 -91,268 -146,303 -101,891 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,622 -186,232 -123,076 2025 9,550 17,459 8,902 -113,040 -218,236 -131,055 <td>7.</td> <td>2014</td> <td>4,450</td> <td>7,207</td> <td>4,449</td> <td></td> <td>-51,593</td> <td>-83,313</td> <td></td> <td>-200,404</td> <td>-500 -500</td> <td>2014</td> <td></td> | 7. | 2014 | 4,450 | 7,207 | 4,449 | | -51,593 | -83,313 | | -200,404 | -500 -500 | 2014 | |
| 2016 5,132 8,465 5,048 -59,500 -97,855 -74,317 2017 5,511 9,174 5,378 -68,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -84,984 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -156,56 -105,96 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,62 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,222 9,480 -121,401 -218,204 -134,664 | 40 | 2015 | 4,778 | 7,811 | 4,739 | | -55,396 | -90,295 | | -215,459 | -215 | 2015 | |
| 2017 5,511 9,174 5,378 -63,895 -106,051 -79,175 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -84,984 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -156,557 -108,516 2023 8,454 14,865 7,850 -98,016 -177,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,922 9,480 -121,401 -218,266 -134,569 2027 10,471 18,032 -121,401 -218,566 -134,569 | 9 | 2016 | 5,132 | 8,465 | 5,048 | | .59,500 | -97,855 | | -231,672 | -235 | 2016 | |
| 2018 5,918 9,942 5,728 -68,613 -114,930 -84,328 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -84,984 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -156,557 -108,516 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,922 9,480 -121,401 -218,736 -134,564 2027 10,471 10,694 -130,375 -237,061 -148,604 | 8 | 2017 | 5,511 | 9174 | 5,378 | | -63 895 | -106,051 | -79,175 | -249,121 | -249 | 2017 | |
| 2019 6,356 10,775 6,101 -73,691 -124,559 -89,819 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -91,268 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -158,557 -108,516 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2026 10,471 18,922 9,480 -130,375 -237,061 -148,604 | i . ಸ | 2018 | 5.918 | 9,942 | 5,728 | | -68,613 | -114 930 | -84,328 | -267,871 | -268 | 2018 | |
| 2020 6,826 11,678 6,498 -79,141 -134,998 -95,664 2021 7,330 12,656 6,921 -84,984 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -158,557 -108,516 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,922 9,480 -121,401 -218,738 -139,565 2027 10,471 18,094 -130,375 -237,061 -148,604 | 3 | 2019 | 6.356 | 10,775 | 6,101 | | .73,691 | -124,559 | -89.819 | -289,069 | -288 | 2019 | |
| 2021 7,330 12,656 6,921 -84,984 -146,303 -101,891 2022 7,872 13,716 7,371 -91,268 -158,557 -108,516 2022 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,922 9,480 -130,375 -237,061 -148,604 | 8 | 0000 | 6.826 | 11.678 | 6,498 | | 79,141 | -134 998 | -95,664 | -309,803 | -310 | 2020 | |
| 2022 7,872 13,716 7,371 -91,268 -158,557 -108,516 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,477 18,922 9,480 -121,401 -218,738 -139,565 2027 14,346 -130,375 -237,061 -148,604 | 3 2 | 2021 | 7,330 | 12,656 | 6,921 | | 84,984 | -146,303 | -101,891 | -333,178 | -333 | 2021 | |
| 2023 8,454 14,865 7,850 -98,016 -171,839 -115,568 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,477 18,922 9,480 -121,401 -218,738 -139,565 2027 11,304 -237,061 -148,604 | : K | 2022 | 7,872 | 13,716 | 7,371 | | -91,268 | -158,557 | • | -358,341 | -358 | 2022 | |
| 2024 9,079 16,110 8,360 -105,262 -186,232 -123,076 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,922 9,480 -121,401 -218,738 -139,565 2026 10,471 20,577 10,094 -130,375 -237,061 -148,604 | * | 2023 | 8,454 | 14,865 | 7,850 | | -98,016 | -171,839 | • | -385,423 | 385 | \$23 | |
| 2025 9,750 17,459 8,902 -113,042 -201,826 -131,055 2026 10,471 18,922 9,480 -121,401 -218,738 -139,565 2020 11,471 20,507 10,094 -130,375 -237,061 -148,604 | 3 6 | 2024 | 6/0/6 | 16,110 | 8,360 | | -105,262 | -186,232 | -123,076 | -414,570 | 4.75 | 2024 | |
| 2026 10,471 18,922 9,480 -121,401 -218,738 -139,565 | ; | 2025 | 9.750 | 17,459 | 8,902 | | -113,042 | -201,826 | • | -445,923 | -446 | 2025 | |
| 20 27 10 094 -130 375 -237 061 -148 604 | 3 8 | 2025 | 10.471 | 18,922 | 9,480 | | -121,401 | -218,738 | | -479,704 | 98 | 2026 | |
| | 3 8 | 2020 | 11.045 | 20.507 | 10.094 | | -130,375 | -237,061 | | -516,040 | -516 | 2027 | |

Table 9-4-7A Economic Analysis for Route 2-1, Biak(Mokmer)-Saubeba Route

12.3% 2.194 (Million Rp.) 1.17 (Discount Rate Used = 10%)

EIRR NPV BVC *

(Unit: Rp. Million)

| | | | | | | | | | } | | | | | | ٠ | | 5 |
|------------|-------------------|---------------------|--|--------------------------------------|----------------------|---------------|-------|----------|--------------|-----------|----------|-----------------------|-----------|-----------|---------------|--------------|------|
| | | (Users Benefit) | | (Invest. & O/M Costs Saving Benefit) | M Coets Sa | ving Benefit) | | Total | (With Costs) | | ٠ | | | | With | ž | |
| | | Passengers Vehicles | | ō | ĵį. | | | Benefits | | ÷ | | | | | Costs | Cash Cash | |
| | | Time | န္ | | Substituted | | | | Termina | | | Ferry Boats | | | T OPB | HOW. | |
| | | Saving | Saving | CM Costs | Boats Procurement | O/M Costs | Total | | Facilities | O/M Costs | Total | Procurement O/M Costs | O/M Costs | Total | | | |
| - | 1995 | | | | | | O | | 351 | | 35. | | | 0 | 351 | .351 | 1995 |
| N | 966 | | | | | | 0 | | 3,274 | | 3,274 | | | 0 | 3,274 | -3,274 | 1996 |
| ო | 1997 | | | | | | 0 | | 5,862 | | 5,862 | | | 0 | 5,862 | -5,862 | 1997 |
| 4 | 1998 | 286 | ģ | 0 | 3,630 | 679 | 4,309 | 4,535 | | 52 | Ħ | 1,815 | 132 | 746,1 | 2,070 | 2,465 | 986 |
| v) | 666 | 308 | 8 | 0 | 0 | 629 | 679 | 839 | | 52 | 8 | 0 | 132 | 55 | \$ | 899 | 1999 |
| 9 | 2000 | 333 | 7. | 0 | 0 | 679 | 679 | 28 | | ž | 2 | 0 | 132 | 132 | 588 | 989 | 800 |
| ~ | 28 28 | 328 | -77 | 0 | 0 | 629 | 679 | 86 | | 123 | <u>≅</u> | 0 | 132 | 53 | 255 | 705 | 800 |
| 80 | 300 | 384 | ģ | 0 | 0 | 629 | 679 | 86 | | ž | 52 | 0 | 132 | . 25 | 88 | 227 | 2002 |
| 6 | 88 | 412 | 8 | 0 | 0 | 629 | 679 | 1,00,1 | | 123 | 5 | 0 | 132 | 55 | 382 | 746 | 83 |
| 0 | 88 | 443 | -97 | | 0 | 679 | 679 | 1,025 | | 123 | 123 | | 132 | 55 | 255 | 077 | 8 |
| <u>-</u> - | 2005 | 475 | 106 | 0 | 0 | 679 | 679 | 1,049 | | 123 | 123 | 0 | 132 | 132 | 88 | \$ | 2005 |
| 2 | 500 500 500 | 540 | -112 | 0 | 1,815 | 1,018 | 2,833 | 3,261 | | 141 | 141 | 906 | 238 | 1,146 | 1,287 | 1,975 | 8008 |
| е | 2007 | 576 | -121 | O | ٥ | 1,018 | 1,018 | 1,473 | 1,075 | 141 | 1,216 | 0 | 238 | 238 | 1,454 | <u>0</u> | 82 |
| 4 | 908 5008 | 615 | -130 | 0 | 0 | 1,018 | 1,018 | 1,503 | | 141 | 141 | 0 | 882 | g | 379 | 1,124 | 2008 |
| 9 | 800 | 929 | -140 | 0 | 0 | 1,018 | 1,018 | 1,534 | | 141 | 14 | 0 | 88 | 88 | 379 | 1,155 | 800 |
| 9 | 2010 | 700 | .150 | 0 | 0 | 1,018 | 1,018 | 1,568 | | 141 | 14 | 0 | 238 | 8 | 379 | 1,189 | 8 |
| 7 | 201 | 748 | -161 | 0 | ٥ | 1,018 | 1,018 | 1,605 | | 141 | 14 | 0 | 238 | 88 | 379 | 1,226 | 8 |
| <u>ω</u> | 2012 | 798 | -173 | O | 0 | 1,018 | 1,018 | 1,643 | | 141 | 141 | 0 | 238 | 83 | 379 | 1,264 | 2012 |
| တ္ | 2013 | 852 | 186 | 0 | 3,815 | 1,358 | 3,173 | 3,839 | | 141 | 141 | ۵ | 238 | 238 | 379 | 3,460 | 2013 |
| S. | 2014 | 606 | , 500 500 500 500 500 500 500 500 500 50 | o | 0 | 1,358 | 1,358 | 2,067 | | 141 | 14 | 0 | 233 | 88 | 373 | 1,688 | 2014 |
| <u>r.</u> | 2015 | 970 | -215 | a | 0 | 1,358 | 1,358 | 2,113 | | 141 | 141 | 0 | 238 | 88 | 379 | 1,734 | 2015 |
| 12 | 8016 | 1,035 | -235 | 0 | 0 | 1,358 | 1,358 | 2,161 | | 141 | 141 | 0 | 238 | 88 238 | 379 | 1,782 | 2016 |
| g | 2017 | 1,083 | -249 | | 1,815 | 1,697 | 3,512 | 4,346 | 1,075 | ž | 82, | 1,815 | 370 | 2,185 | 3,414 | 935 | 2017 |
| * | 83 | 1,156 | .588 | 0 | 0 | 1,697 | 1,697 | 2,585 | | \$ \$ | 끃 | 0 | 370 | 370 | 524 | 2,061 | 828 |
| ж | 2019 | 1,233 | -288 | 0 | 0 | 1,697 | 1,697 | 2,642 | | <u>7</u> | <u>₹</u> | 0 | 370 | 370 | 524 | 2,118 | 2019 |
| φ | 888 | 1,316 | -310 | 0 | 0 | 1,697 | 1,697 | 2,703 | | <u>7</u> | 72 | 0 | 370 | 370 | 524 | 2,179 | 88 |
| 2. | 202 | 1,405 | -333 | 0 | 1,815 | 2,038 | 3,853 | 4,925 | | <u>7</u> | 쟢 | 0 | 370 | 370 | 25 | 4,401 | 202 |
| go. | 2052 2052 | 1,499 | -358 | 0 | 0 | 2,038 | 2,038 | 3,179 | 395 | <u>7</u> | 1,149 | 0 | 370 | 370 | 1,519 | 1,660 | 2022 |
| Ø. | 2023 | 1,633 | -385 | 0 | 1,815 | 2,377 | 4,192 | 5,440 | | 169 | 69 | 808 | 476 | 1,384 | 1,553 | 3,888 | 2023 |
| စ္က | 2024 | 1,743 | 415 | 0 | 0 | 2,377 | 2,377 | 3,705 | | 169 | 169 | 0 | 476 | 476 | 645 | 3,060 | 2024 |
| 9 | 2025 | 1,860 | 446 | 0 | 0 | 2,377 | 2,377 | 3,791 | | 169 | 169 | 0 | 476 | 476 | 845 | 3,146 | 2025 |
| Ŋ | 885 885 885 | 1,985 | 48 | 0 | 1,815 | 2,717 | 4,532 | 6,037 | | 169 | 169 | 0 | 476 | 476 | 845 | 5,392 | 2026 |
| 2 | 5 | 2110 | 9 | • | c | 1 | 1,7 | | | | | • | i | | | | 1 |

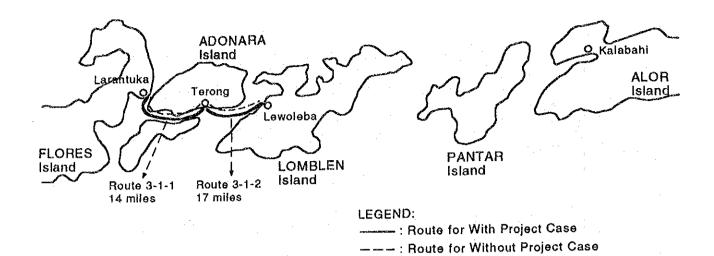


Fig. 9-4-2A Conceptual Route Map of Route 3-1 (Larantula-Terong-Lewoleba) for Economic Analysis

Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 3-1-1) Table 9-4-8(1)A

| | | | | . v | Sodan - 9 E | (Z) | | Conduction of the conduction o | | Dangeroom 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | : |
|----------|------------------|-----------------------|----------|--------|-----------------------|--------------|--|--|--|---|---------------------------------------|
| | | (A) First for Traffic | bacano |) (| 0. T | Ų | The second of th | | rasserige s | 002,01 | |
| | | | er laric | • | 2 FULCY . 14.3 | D) | s) Annual Trainc Capacity | (B-1) C. | Venicles (B-1) C Type Boat - One Round Trip | | פנטטט (א זסח ותסכ טחונ) |
| | | Passengers | Trock | Sedan | Sedan | Vehicles | - | | | Total Capacity of | Total Capacity of C Type Boat -1 R.T. |
| | | | (3 ton) | | in terms of | (3 ton truck | | Year | ar Number of | (Annual Capacity) | (A |
| | Year | | | | Truck (3 tan) 0.67 | unit) | Year | | New Boats | Passengers | Vehicles |
| | | | (a) | ĝ | 0 | ල | | | | | (3 ton truck |
| | | | | | (b)x0.67 | (a)+(c) | | | | | (tjun |
| + | 1998 | 61,699 | 1,695 | 1,866 | 1,250 | 2.945 | 1998 | 1998 | 89 | 118,200 | 8,000 |
| 8 | 1999 | 66,116 | 1,838 | 2,048 | 1,372 | 3,210 | 1999 | 1999 | Ø, | 1 118,200 | |
| က | 888 | 70,849 | 1,993 | 2,247 | 1,505 | 3,498 | 2000 | 2000 | 9 | 1 118,200 | 8,000 |
| 4 | 2001 | 75,631 | 2.154 | 2,457 | 1,646 | 3,800 | 2001 | 2001 | • | 1 118,200 | |
| s | 2002 | 80,735 | 2,328 | 2,686 | 1,800 | 4,128 | 2002 | 2002 | 2 | 1 118,200 | 8,000 |
| 9 | 2003 | 86,184 | 2,516 | 2,936 | 1,967 | 4,483 | 2003 | 2003 | o, | 1 118,200 | 8,000 |
| 7 | 2002 | 92,001 | 2,719 | 3,210 | 2,151 | 4,870 | 2004 | 2004 | Ā | 1 118,200 | 8,000 |
| æ | 2002 | 98,211 | 2.939 | 3,509 | 2,351 | 5,290 | 2002 | 2002 | LQ | 1 18,200 | |
| თ | S206 | 104,580 | 3,170 | 3,827 | 2,564 | 5,734 | 2006 | 2006 | . 9 | 1 118,200 | |
| 5 | 2007 | 111,362 | 3,420 | 4,173 | 2,796 | 6,216 | 2007 | 2007 | | 1 118,200 | 8,000 |
| F | 2008 | 118,584 | 3,689 | 4,551 | 3,049 | 6,738 | 2008 | 2008 | w | 0 | 0 |
| 5 | 5003 | 126,275 | 3,979 | 4,963 | 3,325 | 7,304 | 5003 | 5003 | on. | 0 | 0 |
| t | 813 | 134,465 | 4,293 | 5,412 | 3,626 | 7,919 | 2010 | 2010 | 0 | 0 | 0 |
| 4 | 212 | 143,186 | 4,630 | 5.902 | 3,954 | 8,584 | 2011 | 2011 | - | 0 | 0 |
| ξ | 812 | 152,472 | 4,995 | 6,436 | 4,312 | 9,307 | 2012 | 2012 | 2 | 0 | O |
| 16 | 85 13 | 162,362 | 5,388 | 7,018 | 4,702 | 10,090 | 2013 | 2013 | eo | 0 | 0 |
| 17 | 814 | 172,892 | 5,812 | 7,654 | 5,128 | 10,940 | 2014 | 2014 | 4 | 0 | 0 |
| ₩. | 815 | 184,107 | 6,269 | 8,347 | 5,592 | 11,861 | 2015 | 2015 | 2 | 0 | a |
| <u>0</u> | 2016 | 196,048 | 6,762 | 9,102 | 6,098 | 12,860 | 2016 | 2016 | 9 | 0 | 0 |
| ଛ | 817 | 208,765 | 7,259 | 9,926 | 6,650 | 13,909 | 2017 | 2017 | 7 | 0 | 0 |
| <u>ب</u> | 2018 | 222,307 | 7,869 | 10,824 | 7,252 | 15,121 | 2018 | 2018 | æ | 0 | 0 |
| ន | 8 6 1 6 | 236,400 | 8,283 | 11,518 | 7,717 | 15,000 | 2019 | 2019 | co. | 0 | 0 |
| ន | 2020 | 236,400 | 8,283 | 11,518 | 717,7 | 16,000 | 2020 | 2020 | 0 | 0 | 0 |
| 54 | 2021 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2021 | 2021 | | 0 | 0 |
| 83 | 2022 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2022 | 2022 | | 0 | 0 |
| 8 | 2023 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2023 | 2023 | m | 0 | 0 |
| 27 | 2024 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2024 | 2024 | 4 | 0 | O |
| 88 | 2025 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2025 | 2025 | <u>-</u> | 0 | 0 |
| 8 | 9202 5038 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2026 | 2026 | 60 | 0 | 0 |
| 6 | | | | | | | | | | | |

Table 9-4-8(2)A Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 3-1-1)

| Assumption: | Traffic Capacity | Traffic Capacity of C Type Boat - 2 R.T. | R.T. | | - | | | | | | |
|--------------|------------------------------------|--|---------------------------------------|--------------------|--------------------|----------------|--|--------------|------------------|--------------------------------------|--------------|
| | Passengers | 236,400 | | | | | | | | | |
| | Vehicles | 16,000 (3 | 16,000 (3 ton truck unit) | | | | | | | | |
| (8-2) C Type | (8-2) C Type Boat - Two Round Trip | Trip | | (B-3) Total Ann | ual Traffic Capac | ity (C type (1 | (B-3) Total Annual Traffic Capacity (C type (1 R.T.) + C Type (2 R.T.) | £ | (C) Deviation Be | (C) Deviation Between Traffic Demand | and |
| | | Total Capacity of C | Total Capacity of C Type Boat - 2R.T. | | | | - | | and Total | and Total Annual Traffic Capacity | icity |
| Year | Number of | (Annual Capacity) | | Total | Total | | (Annual Capacity) | | | | |
| | New Boats | Passengers | Vehicles | Number of Boats | Number of Round | | Passengers | Vehicles | Year | Passengers | Vehicles |
| | | | (3 ton truck | | Trips | | | (3 fon truck | | | (3 ton track |
| | | | unit) | | · . | | | unit) | | | unit) |
| 1998 | | 0 | 0 | 1 | | | 118,200 | 8,000 | 1998 | 56,501 | 5,055 |
| 1999 | J | 0 | 0 | *** | | | 118,200 | 8,000 | 1999 | 52,084 | 4,790 |
| 2000 | J | 0 | 0 | *- | | | 118,200 | 8,000 | 2000 | 47,351 | 4,502 |
| 2001 | | 0 | 0 | • | - | | 118,200 | 8,000 | 2001 | 42,569 | 4,200 |
| 2002 | | ٥ | | | • | | 118,200 | 8,000 | 2002 | 37,465 | 3,872 |
| 2003 | | 0 | oʻ | - | • | | 118,200 | 8,000 | 2003 | 32,016 | 3,517 |
| 2004 | | 0 | ٥ | | | | 118,200 | 8,000 | 2004 | 26,199 | 3,130 |
| 2005 | J | 0 | O | • | - | | 118,200 | 8,000 | 2005 | 19,989 | 2,710 |
| 2006 | J | 0 | 0. | | - | | 116,200 | 8,000 | 2006 | 13,620 | 2,266 |
| 2002 | _ | 0 | 0 | | | | 118,200 | 8,000 | 2007 | 6,838 | 1,784 |
| 2008 | | 1 236,400 | 16,000 | • | | ٥. | 236,400 | 16,000 | 2008 | 117,816 | 9,262 |
| 5008 | • | 1 236,400 | 16,000 | | eV. | ٥. | 236,400 | 16,000 | 2009 | 110,125 | 8,696 |
| 2010 | | 1 236,400 | 16,000 | - | rv) | | 236,400 | 16,000 | 2010 | 101,935 | 8,081 |
| 2011 | | 1 236,400 | 16,000 | • | έΛ | ٥. | 236,400 | 16,000 | 2011 | 93,214 | 7,416 |
| 2012 | | 1 236,400 | 16,000 | - | | ٥. | 236,400 | 16,000 | 2012 | 83,928 | 6,693 |
| 2013 | | 236,400 | 16,000 | | | ٠. | 236,400 | 16,000 | 2013 | 74,038 | 5,910 |
| 2014 | | 1 236,400 | 16,000 | | ίV. | 0 | 236,400 | 16,000 | 2014 | 63,508 | 5,060 |
| 2015 | | 1 236,400 | 16,000 | - | | C. | 236,400 | 16,000 | 2015 | 52,293 | 4,139 |
| 2016 | ٠ | 1 236,400 | 16,000 | | | ۵' | 236,400 | 16,000 | 2016 | 40,352 | 3,140 |
| 2017 | | 1 236,400 | 16,000 | • | | Çı. | 236,400 | 16,000 | 2017 | 27,635 | 2,091 |
| 2018 | | 1 236,400 | 16,000 | • | .4 | C! | 236,400 | 16,000 | 2018 | 14,093 | 879 |
| 2019 | | 1 236,400 | 16,000 | | | 61 | 236,400 | 16,000 | 2019 | D | 0 |
| 2020 | | 1 236,400 | 16,000 | | | C, | 236,400 | 16,000 | 2020 | 0 | 0 |
| 2021 | | 1 236,400 | 16,000 | | | יי | 236,400 | 16,000 | 2021 | 0 | O |
| 2022 | | 236,400 | 16,000 | • | - * | C) | 236,400 | 16,000 | 2022 | 0 | 0 |
| 2023 | | 1 236,400 | 16,000 | • | | C) | 236,400 | 16,000 | 2023 | | O |
| 2024 | | 1 236,400 | 16,000 | • | | C) | 236,400 | 16,000 | 5024 | 0 | O |
| 2025 | | 236,400 | 16,000 | | | : (d | 236,400 | 16,000 | 2025 | | o , |
| 2026 | | 1 236,400 | 16,000 | • | | رم در | 236,400 | 16,000 | 2026 | | 0 |
| 7002 | | 236.400 | 16,000 | •- | - 1 | 2 | 236,400 | 16,000 | 2027 | 0 | 0 |
| | | | | | | | | | | | |

Table 9-4-9(1)A Future Traffic Demand, Traffic Capacity and Introducing of Boats for Without Case (Route 3-1-1)

| | | | • | (m) (m) (m) (m) (m) (m) (m) (m) (m) (m) | 1 | | Took Book | | יומויי כלי ביים היא היא היא היאורי | |
|---------|---------------------------|---------|--------|---|--------------|-----------------------------|-----------|---------------------------------|------------------------------------|------------------------------------|
| | 1 | | ,, | Sedan : 4.5 | | | | Passengers | 118,200 | |
| | (A) Future Traffic Demand | Demand | (,) | 3t Truck: 14.3 | ~ | (B) Annual Traffic Capacity | | Vehicles | | 8,000 (3 ton truck unit) |
| | | : | | | | | (B-1) LCM | (B-1) LCM Boat - One Round Trip | ğ. | |
| | Passengers | Tack | Sedan | Sedan | Venicles | | | - | Total Capacity o | Fotal Capacity of LCM Boat -1 R.T. |
| | | (3 ton) | | in terms of | (3 ton truck | | Year | Number of | (Annual Capacity) | ~ |
| Year | | | | Truck (3 ton) 0.67 | nuit) | Year | | New Boats | Passengers | Vehicles |
| | | (g) | Đ | (9) | (g) | | | | | (3 ton truck |
| | | | | (b)x0.67 | (a)+(c) | | | | | nuit) |
| 1938 | 61,699 | 1,695 | 1,866 | 1,250 | 2,945 | 1998 | 1998 | | 118,200 | 8,000 |
| 1999 | 66,116 | 1,838 | 2,048 | 1,372 | 3,210 | 1999 | 1999 | | 118,200 | 8,000 |
| 2000 | 70,849 | 1,993 | 2,247 | 1,505 | 3,498 | 2000 | 2000 | • | 118,200 | 8,000 |
| 2007 | 75,631 | 2.154 | 2,457 | 1,646 | 3,800 | 2001 | 2001 | • | 118,200 | 8,000 |
| 2002 | 80,735 | 2,328 | 2,686 | 1,800 | 4,128 | 2002 | 2002 | | 118,200 | |
| 2003 | 86,184 | 2,516 | 2,936 | 1,967 | 4,483 | 2003 | 2003 | | 118,200 | |
| 2004 | 92,001 | 2,719 | 3,210 | 2,151 | 4,870 | 2004 | 2004 | • | 118,200 | |
| 2002 | 98,211 | 2,939 | 3,509 | 2,351 | 5,290 | 2005 | 2005 | | 118,200 | |
| 2006 | 104,580 | 3,170 | 3,827 | 2,564 | 5,734 | 5006 | 2006 | | 118,200 | |
| 2007 | 111,362 | 3,420 | 4,173 | 2,796 | 6,216 | 2007 | 2007 | | 118,200 | 8,000 |
| 8008 | 118,584 | 3,689 | 4,551 | 3,049 | 6,738 | 2008 | 2008 | | | |
| 5008 | 126,275 | 3,979 | 4,963 | 3,325 | 7,304 | 2009 | 2009 | | 0 | 0 |
| 2010 | 134,465 | 4,293 | 5,412 | 3,626 | 7,919 | 2010 | 2010 | O | 0 | 0 |
| | 143,186 | 4,630 | 5,902 | 3,954 | 8,584 | 2011 | 2011 | | ٥ | ٥ |
| 15 2012 | 152,472 | 4,995 | 6,436 | 4,312 | 6,307 | 2012 | 2012 | | 0 | 0 |
| 2013 | 162,362 | 5,388 | 7,018 | 4,702 | 10,090 | 2013 | 2013 |) | 0 | a |
| 2814 | 172,892 | 5,812 | 7,654 | 5,128 | 10,940 | 2014 | 2014 | 0 | 0 | ٥ |
| 2015 | 184,107 | 6,269 | 8,347 | 5,592 | 11,861 | 2015 | 2015 | 0 | 0 | 0 |
| | 196,048 | 6,762 | 9,102 | 6,038 | 12,860 | 2016 | 2016 | 0 | 0 | Ø |
| 817 | 208,765 | 7,259 | 9,926 | 6,650 | 13,909 | 2017 | 2017 | 0 | 0 | 0 |
| | 222,307 | 7,869 | 10,824 | 7,252 | 15,121 | 2018 | 2018 | 0 | 0 | 0 |
| | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2019 | 2019 | ٥ | 0 | C |
| 3020 | 236,400 | 8,283 | 11,518 | 7,717 | 15,000 | 2020 | 2020 | • | 0 | 0 |
| | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2021 | 2021 | 0 | 0 | 0 |
| \$ 2022 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2022 | 2022 | 0 | 0 | 0 |
| | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2023 | 2023 | 0 | 0 | 0 |
| | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2024 | 2024 | 0 | 0 | 0 |
| | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2025 | 2025 | 0 | 0 | 0 |
| 29 2026 | 236,400 | 8,283 | 11,518 | 7,717 | 16,000 | 2026 | 2026 | 0 | 0 | 0 |
| | | | | | | | | | | • |

Future Traffic Demand, Traffic Capacity and Introducing of Boats for Without Case (Route 3-1-1) Table 9-4-9(2)A

| (B-2) LCM Boat - Two Round Trip Tyear Number of (A 1938 0 2000 0 2001 0 2002 0 2003 0 2004 0 2005 0 2006 0 2006 0 2007 2008 2008 2010 2011 2011 2013 11 2014 2015 | Vehicles - Two Round Tr Number of New Boats 0 0 0 0 0 0 0 0 0 | rip Total Capacity of Annual Capacity) Passengers | 13,000 (3 ton truck unit) P Total Capacity of LCM Boat - 2R.T. (Annual Capacity) Passengers Vehicles (3 ton truck unit) 0 | (8-3) Total Annua Total Number of Boats | al Traffic Capacity(LC Total Number of | (B-3) Total Annual Traffic Capacity (LCM (1 R.T.) + LCM (2 R.T.)) | | (C) Deviation Br and Total | (C) Deviation Between Traffic Demand | pu |
|--|--|---|---|---|--|--|--------------|-------------------------------|--------------------------------------|--------------|
| (6-2) LCM Boat - Two Year Nu Year Nu Year Nu Year Nu 1998 2000 2001 2003 2004 2005 2006 2007 2009 2010 2011 2013 2013 2013 2015 2015 2015 2015 2015 2015 2015 2015 | Mber of w Boats | ip Total Capacity of (Annual Capacity Passengers Passengers 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | UCM Boat - 2R.T. Vehicles (3 ton truck unit) 0 0 0 0 0 0 0 | (Boats Boats 1 | Il Traffic Capacity (LC Total Number of | OM (1 R.T.) + LCM (2 R.T.)) | | (C) Deviation Be and Total | etween Traffic Demai | pg. |
| | w Boats of o o o o o o o o o o o o o o o o o o | Annual Capacity of Annual Capacity of Annual Capacity Passengers Passengers 0 0 0 0 0 | (3 ton truck unit) | Total Number of Boats 1 | Total Number of | | | and Total | | |
| | w Boats of the state of the sta | Annual Capacity Passengers 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Vehicles (3 ton truck unit) | Total Number of Boats 1 | Number of | | | | and Total Annual Traffic Capacity | city |
| | W Boats | Passengers | 1 T T T T T T T T T T T T T T T T T T T | Number of Boats Boats 1 | Number of Dough | (Annual Capacity) | _ | | 1 | |
| 1998 1999 2000 2000 2000 2000 2000 2000 2010 201 | *************************************** | 00000 | I | | 200 | Passengers | Vehicles | Year | Passengers | Vehicles |
| 1998 1999 2000 2001 2002 2003 2004 2005 2005 2006 2010 2010 2011 2013 2013 | | 00000 | I = - | | Trips | | (3 ton truck | | _ | (3 ton truck |
| 1998 1999 2000 2001 2002 2003 2004 2005 2005 2006 2010 2010 2011 2013 2014 2015 | | 00000 | 000000 | | | | unit) | | | nuit) |
| 2000 2001 2002 2003 2004 2005 2005 2010 2010 2012 2013 | ***** | 00000 | | | | 118,200 | 8,000 | 1998 | 56,501 | 5,055 |
| 2000 2001 2002 2003 2005 2005 2000 2010 2010 2013 2015 2015 | * | | | | - | 118,200 | 8,000 | 1999 | 52,084 | 4,790 |
| 2002 2003 2004 2005 2005 2005 2007 2011 2012 2013 | | 0 | | | - | 118,200 | 8,000 | 2000 | 47,351 | 4,502 |
| 2002 2003 2004 2005 2005 2007 2008 2011 2011 2012 2013 | 00000 | - 0 | | | | 118,200 | 8,000 | 2001 | 42,569 | 4,200 |
| 2003 2004 2005 2005 2007 2008 2011 2011 2013 2015 2015 | | ٥ | 000: | | - | 118,200 | 8,000 | 2002 | 37,465 | 3,872 |
| 2005 2006 2006 2007 2008 2010 2011 2012 2013 | | | 00 | | - | 118,200 | 8,000 | 2003 | 32,016 | 3,517 |
| 2005 2006 2007 2008 2010 2011 2012 2013 2014 | 0. | 0 | 0 | | • | 118,200 | 8,000 | 2004 | 26,199 | 3,130 |
| 2006 2008 2008 2009 2010 2012 2013 2014 | | 0 | | •- | - | 118,200 | 8,000 | 2005 | 19,989 | 2,710 |
| 2003 2008 2010 2011 2013 2013 2015 | • | 0 | 0 | | • | 118,200 | 8,000 | 2006 | 13,620 | 2,266 |
| 2008 2009 2010 2011 2013 2014 2015 | J | 0 | 0 | | - | 118,200 | 8,000 | 2002 | 853,9 | 1,784 |
| 2008 2010 2011 2012 2013 2015 2015 | | 236,400 | 16,000 | F | ~ | 236,400 | 16,000 | 2008 | 117,816 | 9,262 |
| 2010 2011 2012 2013 2015 2015 | • | 1 235,400 | 16,000 | • | 64 | 236,400 | 16,000 | 2009 | 110,125 | 8,896 |
| 2011 2012 2013 2014 2015 | • | 236,400 | 16,000 | Fr. | 62 | 236,400 | 16,000 | 2010 | 101,935 | 8,081 |
| 2012 2013 2014 2015 2015 | , . | 1 236,400 | 16,000 | • | ~ | 236,400 | 16,000 | 2011 | 93,214 | 7,418 |
| 2013 2015 2015 | | 236,400 | | | ~ | 236,400 | 16,000 | 2012 | 83,928 | 6,693 |
| 2014 :: 2015 :: | • | 1 236,400 | | | ~ i | 236,400 | 16,000 | 2013 | 74,038 | 5,910 |
| 2015 | • | 236,400 | | | ۲۵ | 236,400 | 16,000 | 2014 | - 63,508 | 5,060 |
| 8100 | - | 1 236,400 | 16,000 | | ~ | 236,400 | | 2015 | 52,293 | 4,139 |
| 2 | - | 1 236,400 | | | 7 | 236,400 | | 2016 | 40,352 | 3,140 |
| 2017 | - | 1 236,400 | 16,000 | - | 61 | 236,400 | - | 2017 | 27,635 | 2,091 |
| 2018 | | 1 236,400 | | - | 2 | 236,400 | | 2018 | 14,093 | 879 |
| \$ 55 | | 1 236,400 | | | 2 | 236,400 | | 2019 | 0 | 0 |
| 0000 | • | 236,400 | | ** | cv | 236,400 | | 2020 | 0 | 0 |
| 2021 | | 236,400 | | | 63 | 236,400 | 16,000 | 2021 | 0 | Ö |
| 2022 | | 1 236,400 | | - | 8 | 236,400 | | 2022 | 0 | O : |
| 2023 | | 1 236,400 | 000'91 | | C1 | 236,400 | | 2023 | 0 | 01 |
| 2024 | | 1 236,400 | 16,000 | | 8 | 236,400 | | 2024 | 0 1 | י ס |
| 2025 | | 1 236,400 | 000'91 | | 2 | 226,400 | | 2025 | O | 0 1 |
| 2026 | ٠ | 1 236,400 | 16,000 | ਜ਼" | 63 | 236,400 | • | 2026 | 0 | 0 1 |
| 2027 | ٠ | 236,400 | 16,000 | • | 2 | 236,400 | 16,000 | 2027 | D | 0 |

Table 9-4-10(1)A Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 3-1-2)

| (Deck Space: unit: Sedan : 9.5 Passengers Truck Sedan Sedan : 9.5 (a) future Traffic Demand 31 Truck : 14.3 Passengers Truck Sedan Sedan : 9.5 (a) (a) future Traffic Demand 31 Truck (3 ton) 0.67 (b) for the following of th | | | | | | | | | | | | |
|--|----------|------|----------------------|---------|----------|-----------------------|--------------|-----------------------------|--------------|---|---|--|
| Sedan : 9.5 A) Future Traffic Demand Year Year Year (3 ton) Year (3 ton) Year (3 ton) Year (3 ton) Year (3 ton) Year (3 ton) Year (3 ton) Truck (3 ton) Truck (3 ton) 0.67 2000 76,554 1,748 2,057 2,057 2,053 2,007 | | | | | 7) | Deck Space: unit. | : m2) | | Assumption: | Traffic Capacity | Traffic Capacity of New Ferry Boat (Type C) -1 R.T. | (Type C) -1 R.T. |
| (A) Future Traffic Dermand 31 Truck : 14.3 Year (3 ton) Truck (3 ton) | - | | | | v | edan: 9.5 | | | | Passengers | 118,200 | |
| Year Passengers Truck Sedan Sedan In terms of Truck (3 ton) Truck (3 ton) O.G.T 1998 66,148 1,622 1,879 1,259 2000 71,328 1,883 2,263 1,381 2000 71,328 1,883 2,263 1,381 2000 71,328 1,883 2,263 1,381 2000 71,328 1,883 2,263 1,381 2000 76,141 2,022 2,473 1,657 2004 98,870 2,683 2,256 1,381 2005 112,107 3,096 4,581 2,367 2006 112,107 3,096 4,581 3,069 2007 112,107 3,096 4,581 3,069 2008 119,376 3,320 4,581 3,069 2010 135,485 4,390 6,479 4,734 2013 163,485 4,390 6,479 4,734 2014 174,037 5,049 7,704 5,162 2015 226,400 7,581 12,565 8,419 202 236,400 7,581 12,565 8,419 203 236,400 7,581 12,565 8,419 203 236,400 7,581 12,565 8,419 203 236,400 7,581 12,565 8,419 203 236,400 7,581 12,565 8,419 203 236,400 7,581 12,565 8,419 203 236,400 7,581 12,565 8,419 203 236,400 7 | • | | (A) Future Traffic D | emand | ଜ | : Truck : 14.3 | | (B) Annual Traffic Capacity | | Vehicles | 8,000 | 8,000 (3 ton truck unit) |
| Year (3 ton) Truck (3 ton) Sedan (3 ton) 1998 66,564 1,622 1,879 1,259 2000 71,328 1,883 2,262 1,382 2000 71,328 1,883 2,263 1,516 2001 76,141 2,022 2,473 1,657 2002 81,279 2,172 2,704 1,812 2003 86,764 2,334 2,956 1,981 2004 92,619 2,507 2,704 1,812 2005 105,880 2,887 2,956 1,981 2006 105,880 2,887 2,956 1,981 2007 112,107 3,086 4,201 2,817 2008 105,880 2,887 3,852 2,867 2009 112,107 3,086 4,201 2,817 2009 112,107 3,086 4,201 2,817 2011 114,037 3,320 4,581 3,682 2014 | | | | | | | | | (B-1) New Bo | (B-1) New Boats (Type C) - One Round Trip | e Round Trip | |
| Year (3 ton) in terms of Truck (3 ton) 1998 62,118 1,622 1,879 1,259 1999 66,564 1,748 2,062 1,382 2000 71,328 1,883 2,263 1,516 2001 76,141 2,022 2,473 1,657 2002 86,764 2,334 2,963 1,581 2003 86,764 2,334 2,965 1,981 2004 92,619 2,507 2,331 2,165 2005 105,280 2,887 2,956 1,981 2006 105,280 2,887 3,852 2,561 2007 112,107 3,296 2,501 2,162 2008 2008 2,887 3,852 2,561 2009 112,107 3,320 4,581 3,650 2009 112,107 3,287 4,341 3,650 2011 144,138 4,093 5,448 3,650 2012 144,138 | | | Passengers | Truck | Sedan | Sedan | Vehicles | .* | | | Total Capacity of | Total Capacity of New Boats (Type C) -1 R.T. |
| Year Truck (3 tan) 1998 62,118 1,622 1,879 1,259 1999 66,564 1,748 2,062 1,382 2000 71,328 1,883 2,662 1,382 2001 76,141 2,022 2,473 1,657 2002 81,279 2,172 2,473 1,657 2003 86,764 2,334 2,956 1,381 2004 92,619 2,607 3,231 1,657 2005 119,376 2,697 3,231 2,165 2006 119,376 3,320 4,581 3,689 2008 119,376 3,320 4,581 3,689 2009 127,117 3,560 4,986 3,447 2010 136,485 4,390 6,479 4,341 2011 144,138 4,096 5,941 3,960 2012 144,138 4,708 7,704 4,341 2013 144,138 4,708 <t< th=""><th></th><th></th><th></th><th>(3 ton)</th><th></th><th>in terms of</th><th>(3 ton truck</th><th>-</th><th>Year</th><th>Number of</th><th>(Annual Capacity)</th><th></th></t<> | | | | (3 ton) | | in terms of | (3 ton truck | - | Year | Number of | (Annual Capacity) | |
| (a) (b) (c) (b) (d) (d) (e) (e) (e) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e | | Year | | | | Truck (3 ton) 0.67 | nuit) | Year | | New Boats | Passengers | Vehicles |
| 1998 62,118 1,622 1,879 1,259 1998 66,564 1,748 2,062 1,382 2000 71,328 1,883 2,062 1,387 2001 76,141 2,022 2,473 1,657 2002 81,779 2,172 2,704 1,812 2003 86,764 2,324 2,956 1,981 2004 92,619 2,507 2,533 2,367 2005 105,280 2,887 3,231 2,165 2006 105,280 2,887 3,231 2,165 2007 112,107 3,320 4,561 3,069 2008 119,376 3,320 4,561 3,047 2009 125,485 4,396 4,748 3,650 2011 144,138 4,396 5,448 3,650 2012 153,485 4,396 5,448 3,650 2013 144,138 4,708 7,665 4,734 2014< | | | | (a) | (ĝ | (o) | <u>(</u> | | | | | (3 ton truck |
| 1998 62,118 1,622 1,879 1999 66,564 1,746 2,062 2001 76,141 2,022 2,473 2002 81,279 2,172 2,473 2003 86,764 2,334 2,956 2004 92,619 2,507 3,231 2005 92,619 2,507 3,231 2005 105,280 2,887 2,956 2006 105,280 2,887 3,612 2006 112,107 3,096 4,201 2008 115,376 3,320 4,581 2009 127,117 3,666 4,996 2010 133,485 4,093 5,941 2011 144,138 4,093 5,941 2012 153,485 4,093 5,049 7,065 2013 163,438 4,093 5,049 7,065 2014 144,037 5,049 7,065 2015 10,41 6,231 10,396 | | | | | | (b)x0.67 | (a)+(c) | | | | | unit |
| 1999 66,564 1,748 2,062 2000 71,328 1,883 2,263 2001 76,141 2,022 2,473 2002 2,172 2,704 2003 86,764 2,334 2,956 2004 92,619 2,507 3,231 2005 105,280 2,887 3,231 2006 105,280 2,887 3,832 2007 112,107 3,996 4,201 2008 127,117 3,560 4,996 2010 135,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,485 4,093 5,941 2013 165,438 4,093 5,941 2014 174,037 5,049 7,065 2015 153,485 4,093 5,049 7,065 2016 174,037 5,049 7,065 201 2017 223,485 5,416 7,065 201 | 1 | 1998 | 62,118 | 1,622 | 1,879 | 1,259 | 2,881 | 1998 | 1398 | | 118,200 | 8,000 |
| 2000 71,328 1,883 2,263 2001 76,141 2,022 2,473 2002 81,279 2,172 2,704 2003 86,764 2,334 2,956 2004 92,619 2,507 3,231 2005 105,280 2,693 3,233 2006 105,280 2,887 3,852 2007 112,107 3,086 4,201 2008 127,117 3,560 4,996 2010 135,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,485 4,093 5,941 2013 165,438 4,093 5,941 2014 144,138 4,093 5,941 2015 153,485 4,093 5,049 7,065 2014 144,138 4,093 5,049 7,065 2015 144,037 5,049 7,065 201 2015 225,040 7,581 | 61 | 1999 | 66,564 | 1,748 | 2,062 | 1,382 | 3,130 | 1999 | 1999 | • | 118,200 | 8,000 |
| 2001 76,141 2,022 2,473 2002 81,279 2,172 2,704 2003 86,764 2,334 2,956 2004 92,619 2,507 3,231 2005 98,870 2,693 3,533 2006 105,280 2,887 3,652 2007 112,107 3,096 4,201 2008 119,376 3,807 4,996 2010 135,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,485 4,093 5,941 2013 165,438 4,093 5,941 2014 144,037 5,049 7,065 2013 165,438 4,708 7,065 2014 144,037 5,049 7,065 2015 195,43 5,049 7,065 2015 195,43 5,049 7,065 2016 10,41 6,231 9,991 2017 | ღ | 2002 | 71,328 | 1,883 | 2,263 | 1,516 | 3,399 | 2000 | 2000 | • | 118,200 | 8,000 |
| 2002 81,279 2,172 2,704 2003 86,764 2,334 2,956 2004 92,619 2,507 3,231 2005 105,280 2,683 3,632 2006 112,107 3,096 4,201 2008 115,376 3,320 4,581 2009 127,117 3,560 4,996 2010 135,485 4,093 5,941 2011 144,138 4,093 5,941 2012 153,485 4,093 5,941 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 197,343 5,049 7,065 2016 197,343 5,049 7,065 2017 223,770 6,683 10,396 2018 226,400 7,581 12,565 2020 236,400 7,581 12,565 2024 206,400 7,581 12,565 2026 </td <td>4</td> <td>2007</td> <td>76,141</td> <td>2,022</td> <td>2,473</td> <td>1,657</td> <td>3,679</td> <td>2001</td> <td>2001</td> <td>•</td> <td>1 118,200</td> <td>8,000</td> | 4 | 2007 | 76,141 | 2,022 | 2,473 | 1,657 | 3,679 | 2001 | 2001 | • | 1 118,200 | 8,000 |
| 2003 86,764 2,334 2,956 2004 92,619 2,507 3,231 2005 105,280 2,687 3,533 2006 112,107 3,096 4,201 2008 127,117 3,867 4,201 2009 127,117 3,56 4,996 2010 144,138 4,093 5,941 2011 144,138 4,093 5,941 2012 153,438 4,708 7,065 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 197,343 5,049 7,704 2016 197,343 5,049 7,065 2017 221,141 6,231 9,991 2018 226,400 7,581 12,565 2020 226,400 7,581 12,565 2021 226,400 7,581 12,565 2022 226,400 7,581 12,565 2024 </td <td>ß</td> <td>2002</td> <td>81,279</td> <td>2,172</td> <td>2,704</td> <td>1,812</td> <td>3,984</td> <td>2002</td> <td>2002</td> <td></td> <td>118,200</td> <td>8,000</td> | ß | 2002 | 81,279 | 2,172 | 2,704 | 1,812 | 3,984 | 2002 | 2002 | | 118,200 | 8,000 |
| 2004 92,619 2,507 3,231 2005 98,870 2,693 3,533 2006 116,280 2,887 3,852 2007 112,107 3,096 4,581 2008 115,376 3,320 4,581 2009 125,360 3,817 5,448 2010 135,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,438 4,708 7,065 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 197,343 5,049 7,704 2015 197,343 5,416 8,402 2015 195,324 5,416 8,402 2015 197,343 5,809 9,162 2016 226,400 7,581 12,565 202 226,400 7,581 12,565 202 226,400 7,581 12,565 202 | 9 | 2003 | 86,764 | 2,334 | 2,956 | 1,981 | 4,315 | 2003 | 2003 | • | 118,200 | 8,000 |
| 2005 98,870 2,693 3,533 2006 105,280 2,887 3,852 2007 112,107 3,096 4,201 2008 127,117 3,260 4,996 2010 135,360 3,817 5,448 2011 144,138 4,096 5,941 2012 153,485 4,739 6,479 2013 163,438 4,708 7,704 2014 174,037 5,049 7,704 2015 197,343 5,049 7,704 2015 197,343 5,049 7,704 2015 197,343 5,049 7,704 2015 197,343 5,049 7,704 2015 197,343 5,049 7,704 2016 197,343 5,809 9,162 2017 220,400 7,581 12,565 202 226,400 7,581 12,565 202 226,400 7,581 12,565 202 <td>7</td> <td>2004</td> <td>92,619</td> <td>2,507</td> <td>3,231</td> <td>2,165</td> <td>4,672</td> <td>2004</td> <td>2004</td> <td></td> <td>118,200</td> <td>8,000</td> | 7 | 2004 | 92,619 | 2,507 | 3,231 | 2,165 | 4,672 | 2004 | 2004 | | 118,200 | 8,000 |
| 2006 105,280 2,887 3,852 2007 112,107 3,096 4,201 2008 119,376 3,320 4,581 2009 127,117 3,560 4,996 2010 135,360 3,817 5,448 2011 144,138 4,090 6,479 2012 153,485 4,708 7,065 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 197,343 5,416 8,402 2016 197,343 5,809 9,162 2017 220,141 6,231 10,896 2018 226,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 </td <td>ထ</td> <td>2002</td> <td>98,870</td> <td>2,693</td> <td>3,533</td> <td>2,367</td> <td>5,060</td> <td>2005</td> <td>2005</td> <td>•</td> <td>118,200</td> <td>8,000</td> | ထ | 2002 | 98,870 | 2,693 | 3,533 | 2,367 | 5,060 | 2005 | 2005 | • | 118,200 | 8,000 |
| 2007 112,107 3,096 4,201 2008 119,376 3,320 4,581 2009 127,117 3,560 4,996 2010 144,138 4,093 5,941 2012 153,485 4,390 6,479 2013 163,438 4,708 7,704 2014 174,037 5,049 7,704 2015 165,324 5,446 8,402 2016 197,343 5,049 7,704 2015 165,324 5,446 8,402 2016 197,343 5,846 9,162 2017 270,141 6,231 9,391 2018 226,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2 | თ | 2006 | 105,280 | 2,887 | 3,852 | 2,581 | 5,468 | 2006 | 2006 | • | 118,200 | 8,000 |
| 2008 119,376 3,320 4,581 2009 127,117 3,560 4,996 2010 136,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,485 4,390 7,065 2013 163,438 4,708 7,704 2014 174,037 5,049 7,704 2015 165,324 5,446 8,402 2016 197,343 5,809 9,162 2017 223,770 6,683 10,896 2018 228,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 226,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 <t< td=""><td>Ō.</td><td>2002</td><td>112,107</td><td>3,096</td><td>4,201</td><td>2,815</td><td>5,911</td><td>2007</td><td>2002</td><td></td><td>118,200</td><td>8,000</td></t<> | Ō. | 2002 | 112,107 | 3,096 | 4,201 | 2,815 | 5,911 | 2007 | 2002 | | 118,200 | 8,000 |
| 2009 127,117 3,560 4,996 2010 136,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,485 4,093 5,941 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 195,324 5,416 8,402 2016 197,343 5,809 9,162 2017 223,770 6,683 10,896 2018 228,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 < | ţ. | 2008 | 119,376 | 3,320 | 4,581 | 3,069 | 6,389 | 2008 | 2008 | | 0 | ٥ |
| 2010 135,360 3,817 5,448 2011 144,138 4,093 5,941 2012 153,485 4,093 5,941 2013 163,438 4,708 7,704 2014 174,037 5,049 7,704 2015 197,343 5,809 9,162 2016 197,343 5,809 9,162 2017 220,141 6,231 9,391 2018 228,770 6,683 10,896 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 236,400 7,581 12,565 202 <td>12</td> <td>2009</td> <td>711,721</td> <td>3,560</td> <td>4,996</td> <td>3,347</td> <td>6,907</td> <td>2009</td> <td>2009</td> <td>0</td> <td>0</td> <td>0</td> | 12 | 2009 | 711,721 | 3,560 | 4,996 | 3,347 | 6,907 | 2009 | 2009 | 0 | 0 | 0 |
| 2011 144,138 4,093 5,941 2012 153,485 4,390 6,479 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 185,324 5,416 8,402 2015 197,343 5,809 9,162 2017 210,141 6,231 9,991 2018 226,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2022 236,400 7,581 12,565 2026 226,400 7,581 12,565 2026 226,400 7,581 12,565 2026 226,400 7,581 12,565 | 13 | 2010 | 135,360 | 3,817 | 5,448 | 3,650 | 7,467 | 2010 | 2010 | U | 0 | ο. |
| 2012 153,485 4,390 6,479 2013 163,438 4,708 7,065 2014 114,037 5,049 7,704 2015 195,334 5,416 8,402 2016 197,343 5,809 9,162 2017 223,770 6,683 10,896 2019 226,400 7,581 12,565 2020 236,400 7,581 12,565 2022 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 14 | 2011 | 144,138 | 4,093 | 5,941 | 3,980 | 8,073 | 2011 | 2011 | | 0 | 0 |
| 2013 163,438 4,708 7,065 2014 174,037 5,049 7,704 2015 197,343 5,049 7,704 2016 197,343 5,809 9,162 2017 223,770 6,683 10,896 2019 226,400 7,581 12,565 2020 236,400 7,581 12,565 2022 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 15 | 2012 | 153,485 | 4,390 | 6,479 | 4,341 | 8,731 | 2012 | 2012 | | ٥ | a |
| 2014 174,037 5,049 7,704 2015 195,324 5,416 8,402 2016 197,343 5,809 9,162 2017 223,770 6,683 10,896 2019 236,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 226,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 16 | 2013 | 163,438 | 4,708 | 7,065 | 4,734 | 9,442 | 2013 | 2013 | 0 | 0 | 0 |
| 2015 185,324 5,416 8,402 2016 197,343 5,809 9,162 2017 2:0,141 6,231 9,162 2018 222,770 6,683 10,886 2020 236,400 7,581 12,565 2021 236,400 7,581 12,665 2022 236,400 7,581 12,665 2023 236,400 7,581 12,665 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 17 | 2014 | 174,037 | 5,049 | 7,704 | 5,162 | 10,211 | 2014 | 2014 | | 0 | 0 |
| 2016 197,343 5,809 9,162 2017 210,141 6,231 9,991 2018 223,770 6,683 10,896 2019 236,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 228,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 228,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 18 | 2015 | 185,324 | 5,416 | 8,402 | 5,629 | 11,045 | 2015 | 2015 | | 0 | O |
| 2017 210,141 6,231 9,991 2018 223,770 6,683 10,896 2019 236,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | <u>0</u> | 2016 | 197,343 | 5,809 | 9,162 | 6,139 | 11,948 | 2016 | 2016 | • | 0 | 0 |
| 2018 223,770 6,683 10,896 2019 236,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 8 | 2017 | 210,141 | 6,231 | 9,991 | 6,694 | 12,925 | 2017 | 2017 | | 0 | ٥ |
| 2019 236,400 7,581 12,565 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 5 | 878 | 223,770 | 6,683 | 10,896 | 7,300 | 13,983 | 2018 | 2018 | U | 0 | o |
| 2020 236,400 7,581 12,565 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 83 | 2019 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2019 | 2019 | 0 | 0 | ۵ |
| 2021 236,400 7,581 12,565 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 | ន | 2020 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2020 | 2020 | 0 | 0 | O |
| 2022 236,400 7,581 12,565 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 24 | 202 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2021 | 2021 | 0 | 0 | 0 |
| 2023 236,400 7,581 12,565 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 55 | 2022 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2022 | 2022 | 6 | 0 | 0 |
| 2024 236,400 7,581 12,565 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 56 26 | 808 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2023 | 2023 | 0 | 0 | 0 |
| 2025 236,400 7,581 12,565 2026 236,400 7,581 12,565 | 27 | 2024 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2024 | 2024 | 0 | | o |
| 2026 236,400 7,581 12,565 | 28 | 2025 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2025 | 2025 | 0 | 0 | O |
| 1010 | 83 | 2026 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2026 | 2026 | 0 | 0 | |
| 202/ 256,400 (.361 12,505 | 8 | 2027 | 236,400 | 7,561 | 12,565 | 8,419 | 16,000 | 2027 | 2027 | | 0 | 0 |

Future Traffic Demand, Traffic Capacity and Introducing of New Boats for With Case (Route 3-1-2) Table 9-4-10(2)A

| | 2 | 236,400 | | | | | | | | | |
|-------------|---|-------------------|---|--------------------|---------------------|--------------|---|--------------|-----------------|--------------------------------------|--------------|
| | Vehicles | 16,000 | 16,000 (3 ton truck unit) | | | | | | | | |
| 3-2) New Bi | (B-2) New Boats (Type C) - Two Round Trip | Round Trip | | (B-3) Total Annu | al Traffic Capacity | (C Type (1) | (B-3) Total Annual Traffic Capacity (C Type (1 R.T.) + C Type (2 R.T.)) | T.)) | (C) Deviation B | (C) Deviation Between Traffic Demand | and |
| | | Total Capacity o | Total Capacity of New Boats (Type C) - 2 R.T. | i | | | | | and Total | and Total Annual Traffic Capacity | acity |
| Year | Number of | (Annual Capacity) | _ | Total | Totai | | (Annual Capacity) | | | | |
| | New Boats | Passengers | Vehicles | Number of Boats | Number of Round | | Passengers | Vehicles | Year | · Passengers | Vehicles |
| | | | (3 ton truck | | Trips | | | (3 ton truck | | | (3 ton truck |
| | : | | unit) | | | | | (nuit) | | | unit) |
| 1998 | 0 | 0 | 0 | - | - | | 118,200 | 8,000 | 1998 | 56,082 | 5,119 |
| 1999 | U | 0 | ٥ | • | *** | | 118,200 | 8,000 | 1999 | 51,636 | 4,870 |
| 2000 | J | 0. | 0 | • | - | | 118,200 | 8,000 | 2000 | 46,872 | 4.601 |
| 2001 | | | 0 | | - | | 118,200 | 8,000 | 2001 | 42,059 | 4,321 |
| 2002 | , | 0 | o | • | - | • | 118,200 | 8,000 | 2002 | 36,921 | 4,016 |
| 2003 | • | 0 | 0, | - | - | | 118,200 | 8,000 | 2003 | 31,436 | 3,685 |
| 2004 | ~ | 0 | 0 | = | - | | 118,200 | 8,000 | 2004 | 25,581 | 3,33 |
| 2005 | : | 0 | 0 | ∓ = | - | | 118,200 | 8,000 | 2002 | 19,330 | 2,940 |
| 2006 | • | 0 | 0 | ₩. | | | 118,200 | 8,000 | 5006 | 12,920 | 2,532 |
| 2007 | - | 0 | 0 | + | | | 118,200 | 8,000 | 2002 | 6,093 | 2.089 |
| 2008 | • | 236,400 | 16,000 | | 03 | | 236,400 | 16,000 | 2008 | 117,024 | 9,611 |
| 2009 | | 236,400 | • | | ¢1 | | 236,400 | 15,000 | 2009 | 109,283 | £60'6 |
| 2010 | | 236,400 | 16,000 | - | 2 | | 236,400 | 16,000 | 2010 | 101,040 | 8,533 |
| 201 | | 236,400 | 16,000 | • | 2 | | 236,400 | 16,000 | 2011 | 92,262 | 7,927 |
| 2012 | | 236,400 | 16,000 | • | .64 | | 236,400 | 16,000 | 2012 | 82,915 | 7,7 |
| 2013 | | 236,400 | 16,000 | *** | લ્ય | | 236,400 | 16,000 | 2013 | 72,962 | 6,558 |
| 2014 | | 236,400 | 16,000 | | ₹2 | | 236,400 | 15,000 | 2014 | 62,363 | 5,789 |
| 2015 | | 236,400 | 16,000 | • | C4 | | 236,400 | 16,000 | 2015 | 51,076 | 4,955 |
| 2016 | | 236,400 | 16,500 | | 2 | | 236,400 | 16,000 | 2016 | 39,057 | 4,052 |
| 2017 | | 236,400 | 16,000 | • | 23 | | 236,400 | 15,000 | 2017 | 26,259 | 3,075 |
| 2018 | | 236,400 | 16,000 | • | 8 | | 236,400 | 16,000 | 2018 | 12,630 | 2,017 |
| 2019 | | 236,400 | 16,000 | | 83 | | 236,400 | 16,000 | 2019 | | |
| 2020 | | 236,400 | 16,000 | • | 2 | | 236,400 | 16,000 | 2020 | 0 | |
| 2021 | | 236,400 | | • | 8 | | 236,400 | 16,000 | 2021 | 0 | |
| 2022 | | 1 236,400 | 16,000 | • | ~ | | 236,400 | 16,000 | 2022 | 0 | |
| 2023 | | 236,400 | 16,000 | | C1 | | 236,400 | 16,000 | 2023 | 0 | |
| 2024 | | 1 236,400 | 16,000 | • | 61 | | 236,400 | 16,000 | 2024 | 0 | |
| 2025 | | 7 236,400 | 16,000 | • | ~1 | | 236,400 | 16,000 | 2025 | O | |
| 2026 | | 1 236,400 | 16,000 | • | 8 | | 236,400 | 16,000 | 2026 | 0 | |
| | | | | | | | | | | | |

Table 9-4-11(1)A Future Traffic Demand, Traffic Capacity and Introducing of Boats for Without Case (Route 3-1-2)

| | | | . • | , 000 october 1 |) | | | Praise Capacity of LOW Type Boat - P. L. | or and a sperior | |
|--------|---------------------------|------------------|----------|--------------------|--------------|-----------------------------|---------------------------------|--|-------------------|------------------------------------|
| | (A) Future Traffic Demand | Эетапс | , | 3t Truck : 14.3 | - | (B) Annual Traffic Capacity | _ > | rassengers Vehicles | 7,000 % | 8,Z00 8,000 (3 ton truck unit) |
| | | | | | | (manufacture) | (B-1) LCM Boat - One Round Trip | One Round Trip | | מווא אספר הומי |
| | Passengers | Truck | Sedan | Sedan | Vehicles | | | • | Total Capacity of | Total Capacity of LCM Boat -1 R.T. |
| | | (3 ton) | | in terms of | (3 ton truck | | Year | Number of (| (Annual Capacity) | _ |
| Year | | * [*] 4 | | Truck (3 ton) 0.67 | cmit) | Year | | New Boats | Passengers | Vehicles |
| | | (a) | <u>@</u> | 9 | (g | | | | | (3 ton truck |
| | : | | | (b)x0.67 | (a)+(c) | | | | | (linu |
| 1998 | 62,118 | 1,622 | 1,879 | 1,259 | 2,881 | 1998 | 1998 | - | 118,200 | 8,000 |
| 1999 | 66,564 | 1,748 | 2,062 | 1,382 | 3,130 | 1999 | 1989 | • | 118,200 | 8,000 |
| 8000 | 71,328 | 1,883 | 2,263 | 1,516 | 3,399 | 2000 | 2000 | - | 118,200 | 8,000 |
| 2007 | 76,141 | 2,022 | 2,473 | 1,657 | 3,679 | 2001 | 2001 | + | 118,200 | 8,000 |
| 2002 | 81,279 | 2,172 | 2,704 | 1,812 | 3.984 | 2002 | 2002 | - | 118,200 | 8,000 |
| 2003 | 86,764 | 2,334 | 2,956 | 1,981 | 4,315 | 2003 | 2003 | v - | 118,200 | 8,000 |
| 2004 | 92,619 | 2,507 | 3,231 | 2,165 | 4,672 | 2004 | 2004 | • | 118,200 | 8,000 |
| 2002 | 98,870 | 2,693 | 3,533 | 2,367 | 2,060 | 2005 | 2005 | - | 118,200 | 8,000 |
| 2006 | 105,280 | 2,887 | 3,852 | 2,581 | 5,468 | 2006 | 2006 | • | 118,200 | 8,000 |
| 2002 | 112,107 | 3,096 | 4,201 | 2,815 | 5,911. | 2007 | 2007 | - | 118,200 | 8,000 |
| 2008 | 119,376 | 3,320 | 4,581 | 3,069 | 6,389 | 2008 | 2008 | 0 | | 0 |
| 8008 | 127,117 | 3,560 | 4,996 | 3,347 | 6,907 | 5008 | 2009 | 0 | 0 | 0 |
| 8 5 | 135,360 | 3,817 | 5,448 | 3,650 | 7,467 | 2010 | 2010 | 0 | 0 | 0 |
| 8 | 144,138 | 4,093 | 5,941 | 3,980 | 8,073 | 2011 | 2011 | 0 | 0 | 0 |
| 8 | 153,485 | 4,390 | 6,479 | 4,341 | 8,731 | 2012 | 2012 | O | O | O |
| 8 | 163,438 | 4,708 | 2,065 | 4,734 | 9,442 | 2013 | 2013 | 0 | 0 | 0 |
| 8 | 174,037 | 5,049 | 7,704 | 5,162 | 10,211 | 2014 | 2014 | 0 | 0 | Q |
| 8 | 185,324 | 5,416 | 8,402 | 5,629 | 11,045 | 2015 | 2015 | 0 | O | a |
| 8016 | 197,343 | 5,809 | 9,162 | 6,139 | 11,948 | 2016 | 2016 | 0 | 0 | 0 |
| 81,7 | 210,141 | 6,231 | 9,991 | 6,694 | 12,925 | 2017 | 2017 | 0 | 0 | 0 |
| 8 | 223,770 | 6,683 | 10,896 | 7,300 | 13,983 | 2018 | 2018 | 0 | O. | 0 |
| 87.9 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2019 | 2019 | 0 | 0 | 0 |
| 2020 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2020 | 2020 | 0 | 0 | C |
| 2021 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2021 | 2021 | 0 | 0 | 0 |
| 2022 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2022 | 2022 | 0 | 0 | 0 |
| 2023 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2023 | 2023 | 0 | 0 | 0 |
| 3054 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2024 | 2024 | 0 | 0 | Ö |
| 2025 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2025 | 2025 | Ø | 0 | 0 |
| 2028 | 236,400 | 7,581 | 12,565 | 8,419 | 16,000 | 2026 | 2026 | 0 | 0 | D |
| 1000 | | | | | | | | | | |

Table 9-4-11(2)A Future Traffic Demand, Traffic Capacity and Introducing of Boats for Without Case (Route 3-1-2)

| Vericians | Assumption: Trail | Traffic Capacity of LCM Type Boat - 2 R.T. Passengers | 236.400 | a(- 2 n. l. | | | | | | | |
|--|-------------------|--|------------------|--------------------|--------------------|--------------------------|----------------------------|-------------|-----------------|--------------------------------------|--------------|
| Color Colo | \e\ | licles | 16,000 | (3 ton truck unit) | | | | | | | |
| State Compact of LCM Boat 2 R.T. Total Total Total Total Total Total Passengers Vehicles Posts Pound Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Passengers Vehicles Vehicles Passengers Vehicles Vehi | (B-2) LCM Boats - | Two Round | | • | (B-3) Total Anni | ual Traffic Capacity (LC | M (1 R.T.) + LCM (2 R.T.)) | | (C) Deviation B | (C) Deviation Between Traffic Demand | and |
| Number of (Annual Capacidy) Number of Manual Capacidy) Number of Manual Capacidy) Number of Manual Capacidy Number of Manual Capacidy Number of Manual Capacidy 1 | • | | Total Capacity o | ILCM Boat - 2 R.T. | | | | | and Total | and Total Annual Traffic Capacity | toity |
| New Boats Passengers Vehicles Number of boats Passengers Vehicles 0 0 0 0 1 1 118,200 8,000 0 0 0 1 1 118,200 8,000 0 0 0 1 1 118,200 8,000 0 0 0 1 1 118,200 8,000 0 0 0 1 1 118,200 8,000 0 0 0 0 1 1 118,200 8,000 0 0 0 0 1 1 118,200 8,000 0 0 0 0 1 1 118,200 8,000 0 0 0 0 1 1 118,200 8,000 0 0 0 0 0 1 1 118,200 8,000 0 0 0 0 0 | | Number of | (Annual Capacit | (A | Total | Total | (Annual Capacity) | | | | |
| (3 ten houck mit) (2 ten houck mit) (3 ten houck mit) (4 ten houck mit) (5 ten houck mit) (6 ten houck mit) (7 ten houck mit) (8 ten houck mit) (9 ten houck mit) (1 ten houck mit) (1 ten houck mit) (1 ten houck mit) (1 ten houck mit) (1 ten houck mit) (1 ten houck | •••• • | New Boats | Passengers | Vehicles | Number of Boats | Number of Round | Passengers | Vehicles | Year | Passengers | Vehicles |
| Deciding | | | | (3 ton truck | N. | Trips | > | 3 ton truck | | | (3 ton truck |
| 118,200 3,000 1,18,200 3,000 | | | | unit) | | | | מיויי | | | unit) |
| 118,200 8,000 10 | 1998 | 3 | 0 | 0 | - | ٠ | 118,200 | 8,000 | 1998 | 56,082 | 5,119 |
| 118,200 0,000 1,18,200 0,000 1,18,200 0,000 1,18,200 0,000 1,18,200 0,000 | 1939 | . U | 0 | 0 | - | | 118,200 | 8,000 | 1999 | 51,636 | 4,870 |
| 118,200 8,000 118,200 118,200 8,000 118,20 | 2000 | | 0 | 0 | - | - | 118,200 | 8,000 | 2000 | 46,872 | 4,601 |
| 1,18,200 3,000 1,18,200 | 2001 | J | 0 | 0 | _ | | 118,200 | 8,000 | 2001 | 42,059 | 4,321 |
| 0 0 0 118,200 8,000 0 0 0 0 118,200 8,000 0 0 0 0 118,200 8,000 0 0 0 0 118,200 8,000 0 0 0 0 118,200 8,000 1 226,400 16,000 2 226,400 16,000 1 228,400 16,000 16,000 16,000 16,000 2 226,400 16,000 16,000 16,000 16,000 1 228,400 16,000 16,000 16,000 16,000 1 226,400 16,000 16,000 16,000 16,000 1 228,400 16,000 16,000 16,000 16,000 1 226,400 16,000 16,000 16,000 16,000 1 228,400 16,000 16,000 16,000 16,000 1 226,400 16,000 | 2002 | J | 0 | 0 | - | | 118,200 | 8,000 | 2002 | 36,921 | 4,016 |
| 18,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 8,000 1,8,200 1,8 | 2003 | | 0 | 0 | _ | ** | 118,200 | 8,000 | 2003 | 31,436 | 3,685 |
| 0 0 0 0 118,200 8,000 0 0 0 0 118,200 8,000 1 236,400 16,000 1 1 118,200 8,000 1 236,400 16,000 1 2 236,400 16,000 16,000 1 236,400 16,000 1 2 236,400 16,000 | 2004 | J | 0 | 0 | • | - | 118,200 | 8,000 | 2004 | 25,581 | 3,328 |
| 0 0 0 0 118,200 8,000 1 226,400 16,000 1 1 118,200 8,000 1 226,400 16,000 1 2 226,400 16,000 1 226,400 16,000 1 2 236,400 16,000 1 226,400 16,000 1 2 236,400 16,000 1 226,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 <td>2005</td> <td>J</td> <td>0</td> <td>0</td> <td>*</td> <td>-</td> <td>118,200</td> <td>8,000</td> <td>2005</td> <td>19,330</td> <td>2.940</td> | 2005 | J | 0 | 0 | * | - | 118,200 | 8,000 | 2005 | 19,330 | 2.940 |
| 0 0 0 118,200 8,000 1 238,400 16,000 1 2 226,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 | 5006 | J | 0 | 0 | • | - | 118,200 | 8,000 | 2006 | 12,920 | 2,532 |
| 1 236,400 16,000 1 236,400 16,000 1 6,000 16,000 1 16,000 16,000 1 16,000< | 2007 | ~ | 0 | 0 | - | - | 118,200 | 8,000 | 2002 | 6,093 | 2,089 |
| 1 236,400 16,000 | 2008 | • | 1 236,400 | | • | €N | 236,400 | 16,000 | 2008 | 117,024 | 9,611 |
| 236,400 16,000 1 2 236,400 16,000 | 5003 | • | 1 236,400 | | | | 236,400 | 16,000 | 5008 | 109,283 | 9,093 |
| 236,400 16,000 1 236,400 16,000 1 236,400 16,000 1 236,400 16,000 1 236,400 16,000 1 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 236,400 16,000 | 2010 | • | 1 236,400 | - | | κ. | 236,400 | 16,000 | 2010 | 101,040 | 8,533 |
| 1 236,400 16,000 1 236,400 16,000 | 2011 | , | 1 236,400 | • | | 20 | 236,400 | 16,000 | 2011 | 92,262 | 7,927 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 16,000 16,000 16,000 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 16,000 16,000 236,400 16,000 1 2 236,400 16,000 236,400 16,000 1 2 226,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16 | 2012 | | 1 236,400 | | • | 82 | 236,400 | 16,000 | 2012 | 82,915 | 7,269 |
| 1 236,400 16,000 1 2 236,400 16,000 | 2013 | | 236,400 | | | α. | 236,400 | 16,000 | 2013 | 72,962 | 6,558 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 16,000 16,000 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 | 2014 | | 1 236,400 | | • | CV | 236,400 | 16,000 | 2014 | 62,363 | 5,789 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 16,000 16,000 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 16,000 16,000 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 | 2015 | | 1 236,400 | | • | 2 | 236,400 | 16,000 | 2015 | 51,076 | 4,955 |
| 1 236,400 16,000 16,000 16,000 1 236,400 16,000 16,000 16,000 1 236,400 16,000 16,000 16,000 1 236,400 16,000 16,000 16,000 1 236,400 16,000 16,000 16,000 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 16,000 16,000 16,000 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 1 236,400 16,000 16,000 <td>2016</td> <td></td> <td>236,400</td> <td></td> <td>•</td> <td>~</td> <td>236,400</td> <td>16,000</td> <td>2016</td> <td>39,057</td> <td>4,052</td> | 2016 | | 236,400 | | • | ~ | 236,400 | 16,000 | 2016 | 39,057 | 4,052 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 236,400 < | 2017 | | 1 236,400 | | • | · (V) | 236,400 | 16,000 | 2017 | 26,259 | 3,075 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 | 2018 | | 1 236,400 | • | | 8 | 236,400 | 16,000 | 2018 | 12,630 | 2,017 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 | 2019 | | 1 236,400 | | | (V) | 236,400 | 16,000 | 2019 | 0 | 0 |
| 1 236,400 16,000 1 2 236,400 16,000 1 236,400 1 236,400 16,000 1 236,400 1 256,40 | 2020 | | 236,400 | | | α | 236,400 | 16,000 | 2020 | 0 | 0 |
| 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 2 236,400 16,000 | 2021 | | 1 236,40 | | | 62 | 236,400 | 16,000 | 2021 | Đ | |
| 1 236,400 16,000 1 2 236,400 16,000 15,000 15,000 16,000 1 236,400 16,000 1 236,400 16,000 1 | 2022 | | 236,40 | | | 64 | 236,400 | 16,000 | 2022 | 0 | 0 |
| 1 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 | 2023 | | 1 236,40 | | | 23 | 236,400 | 16,000 | 2023 | 0 | 0 1 |
| 1 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 1 2 236,400 16,000 | 2024 | | 1 236,40 | | | €1 | 236,400 | 16,000 | 2024 | D | 9 (|
| 1 236,400 16,000 1 2 236,400 16,000 1 238,400 16,000 1 16,000 | 2025 | , | 1 236,40 | | | ~ | 236,400 | 16,000 | 2025 | 5 (| 5 (|
| 2 236,400 16,000 1 238,400 16,000 | 2026 | | 1 236,40 | | | 2 | 236,400 | 16,000 | 2026 | 0 | יים |
| | 2027 | | 1 236.40 | 16,000 | | 2 | 236,400 | 16,000 | 2027 | D | |

Table 9-4-12(1)A Ferry Boats Procurement Costs, Operation Cost and Maintenance Cost (With) (Route 3-1-1)