APP 3- 1. On-boing Projects at TEPA

Projects which are on-going at TEPA were described in the CSTS Interim Report, and are repeated again in this "working paper." However, the projects are illustrated here on maps which show the various project locations in the Lahore metropolitan area. Project numbers are as they appear in the Interim Report. Sections of this paper begin with the map showing the project locations. Project descriptions follow.

Since some of the projects appear on more than one map, they are listed more than once for the sake of clarity. Some projects may be shown on a map, but are not listed in the following description. This may be either because the entire project is not shown on the map for the particular section of this working paper or because the level of detail is better on another map. In any case, all projects which could be located are shown and described.

At the end of the paper, a number of projects are listed which are not shown on any of the maps. This is because either the project could not be found, or because it is a compound of numerous small projects which are scattered throughout the LMA. The project descriptions should be adequate in these cases.

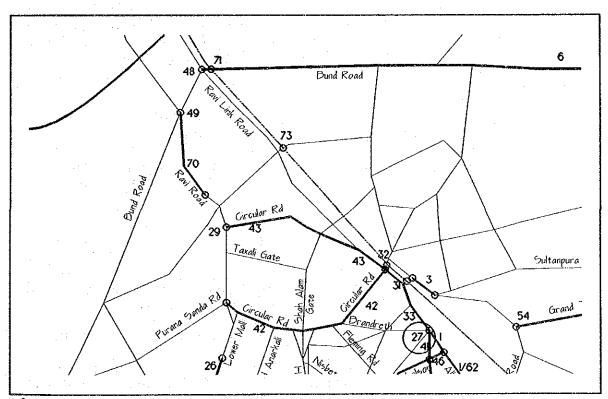


Figure 1

Grand Trunk Road from Do Moria to Co-operative Store SDP (PC-I June 1988)

This portion of G.T. Road is must serve a large amount of traffic in the vicinity of the Walled City. Repairs are needed for the road pavement, sidewalks, and street lights.

6. Bund Road (North) -- SDP (PC-I June 1988)

This scheme is to pave the long section of Bund Road from the Ravi Bridge to G.T. Road. Specifics are not known at this time.

27. Railway Station Area Improvements -- PUDP

comprehensive traffic management scheme involving minor modifications to existing one-way circulation; provision of extensive pedestrian areas, channelization of through traffic flows; formalization of terminal facilities for local buses and minibuses; parking areas for cars, taxis, and tongas; protected contra-flow cycle lanes; re-phasing and repositioning of five sets of existing signals; retention of GT Bus Stand. Project underway as of Wednesday, 24 April 1991.

29. Azadi Chowk -- PUDP

Provision of channelization, curbing, and pedestrian crossing facilities; relocation of existing signals. Project underway as of Wednesday, 24 April 1991.

31. Eik Moria -- PUDP

Provision of channelization, curbing, and introduction of local traffic management measures; relocating, supplementing, and re-timing of existing traffic signals; provision of waiting area for tongas to north of railway. Scheduled for early implementation.

32. Do Moria -- PUDP

Restrictions on right-turning traffic to and from double arch bridge; closure of one carriageway to all traffic except cycles and pedestrians; provision of median and protected turning lane for right-turning traffic. Scheduled for early implementation.

33. Road linking Do Moria and Railway Station -- PUDP

Installation of narrow median and strict control of encroachment, parking, and on-street loading. Scheduled for early implementation.

42. Inner Circular Road and Bhatti Gate -- PUDP

Complex traffic management scheme where 2-lane dual carriageway will be changed to a 2-lane dual carriageway plus animal carriageway. Project includes addition of sidewalks and improved drainage system; improvement and lighting; increase of street improvement and extension of medians; channelization of intersections with improvements and additions to existing signals; addition of bus bays rationalization of parking scheme. (2.6 km) Contract documents completed and out to tender as of Wednesday, 24 April 1991.

43. Outer Circular Road -- PUDP

2-4-lane dual carriageway to be changed to 2-lane dual carriageway plus animal Includes carriageway. sidewalks οf drainage; improvements and street improvement and extension of medians and intersection channelization; bus bays and parallel parking to be A complex scheme designed to separate the added. animal drawn traffic from motorized traffic, which is a major cause of traffic congestion at present. (1.6 Contract documents complete.

48. Bund Road - Ravi Link Road -- PUDP

Dangerous and ill-defined intersection with heavy pedestrian and animal drawn traffic. Work will include edge definition, channelization of traffic flows, provision of an area as a bus terminal, a mini-bus terminal, pedestrian refuges, and a pedestrian concourse; installation of street lighting, drainage, and signalization. Contract documents complete.

49. Bund Road - Ravi Road -- PUDP

Although this intersection performs adequately at present, there is a need for separation of traffic by mode to protect pedestrians and cyclists. Project to include pedestrian refuges, sidewalks, channelization of traffic, improvement of existing signal system, addition of bus bays; removal of encroachment, and rationalization of parking scheme. Project deleted from PUDP.

54. G.T. Road - Shalimar Road -- PUDP

Provision of a central island and channelization. Project proposed but not scheduled for design or implementation.

70. Ravi Road

Provision of central median, edge definition, parking,

and service areas to adjacent markets, segregated lanes from Chota Ravi Bridge to Bund road (1.8 km) Project completed.

71. Level crossing on Northern Bund Road

Improvements to gate width, road surface within crossing and gate mechanism. Project recommended, awaiting design and funding.

73. Level crossing at Data Nagar (Badami Bagh)

Improvements to gate width, road surface within crossing, approach gradient and width, and gate mechanism. Project recommended, awaiting design and funding.

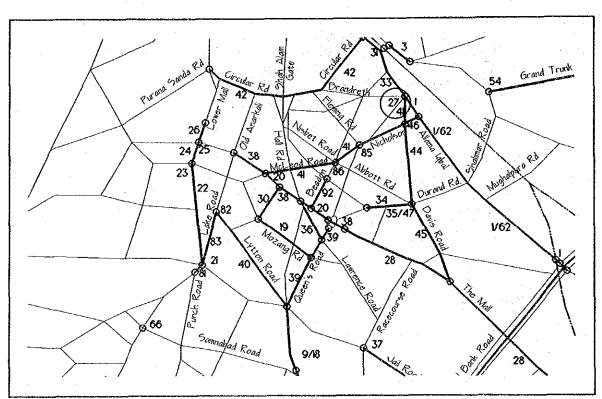


Figure 2

1. Allama Iqbal Road from the Railway Station to the Canal -- SDP (PC-I June 1988)

This important arterial road has a dual carriageway which has seriously deteriorated due to both heavy traffic and heavy vehicles. Improvements are to made are resurfacing, rehabilitation of damaged medians, repair of sidewalks, and traffic signal repair.

3. Grand Trunk Road from Do Moria to Co-operative Store -- SDP (PC-I June 1988)

This portion of G.T. Road is must serve a large amount of traffic in the vicinity of the Walled City. Repairs are needed for the road pavement, sidewalks, and street lights.

9. Ferozepur Road from Qartaba Chowk to Mian Mir Drain -- PUDP

Provision of central median, edge definition and channelization of minor junctions. This project is almost complete as of Wednesday, 24 April 1991. (1.0 km)

18. Ferozepur Road Drainage -- PUDP

This project nearing completion as of Wednesday, 24 April 1991.

19. Možang Road -- PUDP

Provision of edge definition, sidewalks, and parking areas on the sides. Structural work on drainage system. This project nearing completion as of Wednesday, 24 April 1991.

20. Mall Service Roads -- PUDP

Establishment of controlled parking areas on the Mall service roads between Assembly Chambers and McLeod Road. Definition of areas and letting of concessions.

21. Lower Mall at Lake Road Junction -- PUDP

Removal of traffic signals and provision of central island and channelization within curtilage of existing roadway. Scheme being revised as of Wednesday, 24 April 1991.

22. Lower Mall from Lake Road to MAO College -- PUDP

Provision of central median, edge definition and segregated lanes from Lake Road junction to MAO. Project underway as of Wednesday, 24 April 1991.

23. Lower Mall at MAO College Junction -- PUDP

Removal of traffic signals, provision of central island and channelization within curtilage of existing carriageway. Including junction with Sanda Road. Project underway as of Wednesday, 24 April 1991.

24. Lower Mall from MAO College to Civil Secretariat -- PUDP

Provision of central median and edge definition, (0.5 km) including junction with Lodge Road. Project underway as of Wednesday, 24 April 1991.

25. Lower Mall at junction at Civil Secretariat, Church Road, and the Mall -- PUDP

Provision of channelization, central islands, sidewalks and bus bays. Retain existing median, relocation and re-phasing of signals at the junction. Project underway as of Wednesday, 24 April 1991.

26. Lower mall between junction at District Courts and Central Model School -- PUDP

Provision of medians and channelization islands. Relocation and re-timing of existing signals, provision of bus stopping facilities, include section of Lower Mall. Project underway as of Wednesday, 24 April 1991.

27. Railway Station Area Improvements -- PUDP

Comprehensive traffic management scheme involving minor modifications to existing one-way circulation; provision of extensive pedestrian areas, channelization of through traffic flows; formalization of terminal facilities for local buses and minibuses; parking areas for cars, taxis, and tongas; protected contra-flow cycle lanes; re- phasing and repositioning of five sets of existing signals; retention of GT Bus Stand. Project underway as of Wednesday, 24 April 1991.

28. The Mall (Railway to Zoo) -- PUDP

Regrading of pavement to improve drainage; realignment and re-signalling of junction with Canal Bank Road; resurfacing of pavement. Amendment to junction with Davis Road, realignment of cycle track, provision of lane markings. Project underway as of Wednesday, 24 April 1991.

30. Fane Road -- PUDP

Removal of encroachment into road space; relocation of existing electric lines; provision of sidewalks; improvement of drainage. Project underway as of Wednesday, 24 April 1991.

31. Eik Moria -- PUDP

Provision of channelization, curbing, and introduction of local traffic management measures; relocating, supplementing, and re-timing of existing traffic signals; provision of waiting area for tongas to north of railway. Scheduled for early implementation.

33. Road linking Do Moria and Railway Station -- PUDP

Installation of narrow median and strict control of encroachment, parking, and on-street loading. Scheduled for early implementation.

34. Egerton Road -- PUDP

Widening and edge definition; provision of sidewalks; improved drainage; accidental removal of ancient trees. Project scheduled for early implementation.

35. Shimla Hill Intersection (Egerton, Davis, Empress, and Durand Road junction) -- PUDP

Provision of channelization and curbing to existing and one-way system; relocation and re-timing of existing signals. Project scheduled for early implementation

36. Lawrence Road (Queen's Road to the Mall) -- PUDP

Introduction o amended traffic circulation pattern, including necessary signing, road marking, and physical curbing; provision of sidewalks, and contra-flow protected cycle lanes as required. Junction modification at Queen's Road. Scheme in abeyance.

37. Racecourse Road - Jail Road Intersection -- PUDP

Provision of central island, channelization, and bus stops. Scheme in abeyance.

38. The Mall (Zoo to Museum) -- PUDP

Improvement and extension of sidewalks, improvement of drainage, with pavement water discharged to nearest drain. Additional construction and improvement of existing street lighting. Addition of median to separate traffic and to provide for pedestrian refuge in shopping area. Channelization at intersections; improvement of existing bus bays; improvement of parking in service road areas. Contract documents completed.

39. Queen's Road (Shariah Fatima Jinnah) -- PUDP

4-lane single carriageway to be changed to 2-lane dual carriageway with improved edge definition; provision of curbing, improvement of drainage; provision of median with pedestrian refuges, addition of sidewalks. Channelization at intersections; addition of bus bays and parking where space permits. (1.5 km) Contract documents completed.

40. Lytton Road / Qartaba Chowk -- PUDP

Partial 2-lane dual carriageway and 4-lane single carriageway to be changed to 2+3-lane dual carriageway. Provision of sidewalks, improved drainage, extended and improved central median, channelization improvements at intersections; installation of bus bays and parking. Control of encroachment from Jain Mander to Qartaba Chowk. (1.5 km) Contract documents completed.

41. McLeod Road -- PUDP

4-lane single carriageway in parts with 2-lane dual carriageway to be changed to 3-lane dual carriageway with service roads where room is available. Includes of sidewalks and improved drainage; addition of street and increase lighting; improvement improvement and extension of medians; improvements to intersection channelization; addition of bus bays and parking and letting controlled creation of strict control of encroachments into concessions; right of way. (2.3 km) Contract documents completed.

42. Inner Circular Road and Bhatti Gate -- PUDP

Complex traffic management scheme where 2-lane dual carriageway will be changed to a 2-lane dual carriageway plus animal carriageway. Project includes addition of sidewalks and improved drainage system; improvement and increase of street lighting; improvement and extension of medians; channelization of intersections with improvements and additions to existing signals; addition of bus bays and rationalization of parking scheme. (2.6 km) Contract documents completed and out to tender as of Wednesday, 24 April 1991.

44. Empress Road -- PUDP

2-lane single carriageway to be changed to a 3-lane dual carriageway. Includes addition of sidewalks and pavement drainage; improvement of street lighting, addition of medians and intersection channelization; addition of bus bays and rationalization of street parking areas. (1.0 km) Project being revised as of Wednesday, 24 April 1991.

45. Davis Road -- PUDP

4-lane single carriageway to be changed to a 2-lane dual carriageway, including the addition of sidewalks, drainage, and street lighting. Addition of medians and intersection channelization; parking bays to be added. (1.3 km) Design complete, contract documents being written as of Wednesday, 24 April 1991.

46. Nicholson Road -- PUDP

4-lane single carriageway to be changed to 2-lane dual carriageway. Includes addition of median and sidewalks; improved street drainage; addition of street lighting; channelization of intersections; addition of parking facilities and bus bays. Design complete, documents being written as of Wednesday, 24 April 1991.

47. Shimla Hill Intersection -- PUDP/NESPAK (with Egerton Rd. design)

Gyratory intersection with park in center of Empress, Abbot, Egerton, Davis, and Durand Roads. Improvements to include greatly improved signalization at Abbot/Empress junction, and Durand/Davis junction; channelization at all junctions; addition of sidewalks on both sides with the addition of refuges to assist pedestrians in crossing, as there is a mosque in the central island. Includes removal of encroachment on Durand Road and redefinition of private entrances. Project under preparation.

54. G.T. Road - Shalimar Road -- PUDP

Provision of a central island and channelization. Project proposed but not scheduled for design or implementation.

62. Allama Iqbal road

Provision of median, edge definition and cycle lanes / parking areas from Nicholson Road junction to railway over-bridge (2.6 km). Including minor junctions and accesses. Project most likely completed, but in deteriorating state.

66. Junction of Multan Road and Samnabad Road

Provision of channelization, bus bays and repositioning and re-timing of existing signals. Project completed.

81. Chouburji Chowk

Remodelling of existing channelization and central island, removal of traffic signals and abandonment of earlier proposals to widen carriageway. Project awaiting funding.

82. Jain Mander Crossing

Provision of channelization and central island within curtilage of existing carriageway at Cust Road / Lake Road junction, and re-phasing and relocation of existing signals at Lytton Road / Edward Road

junction. Second stage of scheme involves removal of signals and construction of roundabout. Project awaiting funding.

83. Lake road

Provision of central median, edge definition, and parking areas from Chouburji to Jain Mander (0.6 km). Project awaiting funding.

85. Junctions of McLeod Road and Nicholson / Montgomery Road: -- PUDP

Provision of channelization islands, pedestrian refuges, sidewalks, parking areas for tongas, and replacement of existing signals. Project awaiting funding.

86. Junction of McLeod Road and Abbot Road / Nisbet Road: -- PUDP

Provision of channelization islands, pedestrian refuges, sidewalks, parking areas for tongas, and replacement of existing signals. Project awaiting funding.

92. Beadon Road (Cooper Road to the Mall)

Control of vehicular access at defined hours of day to specified vehicle types and reversal of current one-way circulation. Project awaiting funding,

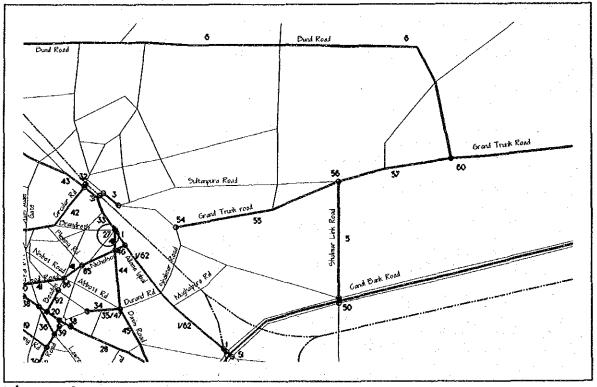


Figure 3

1. Allama Iqbal Road from the Railway Station to the Canal -- SDP (PC-I June 1988)

This important arterial road has a dual carriageway which has seriously deteriorated due to both heavy traffic and heavy vehicles. Improvements are to made are resurfacing, rehabilitation of damaged medians, repair of sidewalks, and traffic signal repair.

3. Grand Trunk Road from Do Moria to Co-operative Store -- SDP (PC-I June 1988)

This portion of G.T. Road is must serve a large amount of traffic in the vicinity of the Walled City. Repairs are needed for the road pavement, sidewalks, and street lights.

5. Shalimar Link Road -- SDP (PC-I June 1988)

This road is a heavily used arterial which connects G.T. Road and Canal Bank Road. It is wide, but in poor condition. It is a primary route for city transit buses, and has a high demand for parking along its length. The median is in bad condition as are the intersections with the major roads on both ends. Plans call for median repair, geometric improvements to limit access, and rationalization of on street parking.

6. Bund Road (North) -- SDP (PC-I June 1988)

This scheme is to pave the long section of Bund Road from the Ravi Bridge to G.T. Road. Specifics are not known at this time.

50. Shalimar Link Road - Canal Bank Road -- PUDP

A complex intersection where Shalimar Link and Tufail Road, (a major north-south corridor which has heavy truck traffic) meet with Canal Bank Road (an important east-west distributor) and the Pakistan Rail link going east to the Indian border. Canal Bank Road at this point functions as two parallel 2- lane single carriageway rather than as a 2-lane dual carriageway. The proposed design for this intersection is a grade-separated interchange where the north-south road will fly over the Canal Bank and the railroad. Contract documents complete.

51. Allama Igbal - Canal Bank Road -- PUDP

This is a very complex and dangerous intersection involving the Canal Bank Road, Allama Iqbal, and Ghazi (or Sunder Das Road). Compounding the complexity is the diagonal crossing of the main branch of the Karachi-Lahore railroad at this junction. Due to the complexity of the intersection and other problems,

vehicles are often seen headed the wrong way against traffic. Details of the design for this interchange are unknown at this time. Contract documents complete.

54. G.T. Road - Shalimar Road -- PUDP

Provision of a central island and channelization. Project proposed but not scheduled for design or implementation.

55. G.T. Road -- PUDP

Provision of a median, edge definition, and segregated lanes from Shalimar Road junction for 3.5 km east. Including minor junctions and accesses. Project proposed but not scheduled for design or implementation.

56. G.T. Road - Shalimar Link Road -- PUDP

Provision of a central island and channelization. Project proposed but not scheduled for design or implementation.

57. G.T. Road -- PUDP

Provision of median, edge definition and parking areas as required from Shalimar Link Road junction for 2.2 km to east. Including minor junctions and accesses. Project proposed but not scheduled for design or implementation.

- 60. Junction of G.T. Road and Northern Bund Link Road

 Provision of channelization islands. Project awaiting funding.
- 62. Allama Iqbal road

Provision of median, edge definition and cycle lanes / parking areas from Nicholson Road junction to railway over-bridge (2.6 km). Including minor junctions and accesses. Project most likely completed, but in deteriorating state.

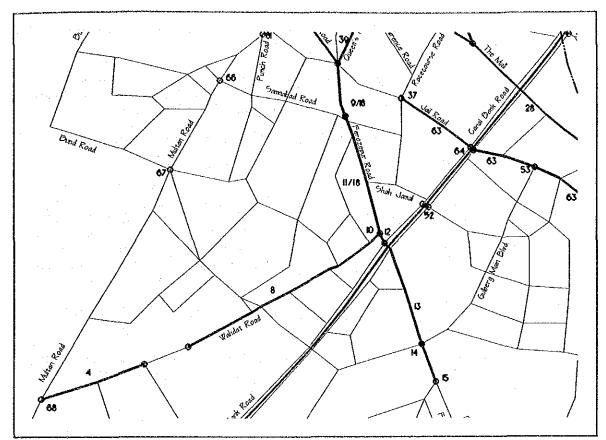


Figure 4

4. Wahdat Road -- SDP (PC-I June 1988)

Although part of Wahdat Road is part of the PUDP, the pavement of the section closest to Multan Road is in bad condition and needs resurfacing. Although traffic on this section is light, it creates continuity and safety problems since vehicles must travel this section at less than 5 km/hr.

8. Wahdat Road -- PUDP

Provision of central median, edge definition, and minor junction treatment from Ferozepur Road to University Campus (2.5 km). Including redesign of junction with Ring Road from Campus to Allama Iqbal Town. Project underway.

 Ferozepur Road from Qartaba Chowk to Mian Mir Drain --PUDP

Provision of central median, edge definition and channelization of minor junctions. This project is almost complete as of Wednesday, 24 April 1991. (1.0 km)

10. Ferozepur Road from Junction with road adjacent to Mian Mir Drain -- PUDP

Provision of channelization and relocation and retiming of existing signals. This project is almost complete as of Wednesday, 24 April 1991.

11. Ferozepur Road from Mian Mir Drain to Canal Crossing - PUDP

Widening of existing median to accommodate protected lanes for turning traffic, provision of edge definition, and segregated lanes where possible for cyclists. Definition of pedestrian areas and location of bus stops at points of maximum demand. This project is almost complete as of Wednesday, 24 April 1991.

12. Ferozepur Road between Wahdat and Canal Bank Roads -- PUDP

Provision of channelization and relocation and retiming of existing signals. This project is almost complete as of Wednesday, 24 April 1991.

13. Ferozepur Road from Canal Crossing to Model Town -- PUDP

Provision of median, edge definition, cycle lanes (where possible), and stopping facilities for buses. (approx 3.5 km). Including junction improvements and channelization at Stadium Road, Garden Town bus depot, and minor roads and accesses. This project has been completed.

16. Ferozepur Road at junction with Kot Lakhpat Road and adjacent level crossing -- PUDP

Local widening and channelization of turning traffic. Provision of bus stops, widening of level crossing approach.

18. Ferozepur Road Drainage -- PUDP

This project nearing completion as of Wednesday, 24 April 1991.

28. The Mall (Railway to Zoo) -- PUDP

Regrading of pavement to improve drainage; realignment and re-signalling of junction with Canal Bank Road; resurfacing of pavement. Amendment to junction with Davis Road, realignment of cycle track, provision of lane markings. Project underway as of Wednesday, 24 April 1991.

37. Racecourse Road - Jail Road Intersection -- PUDP

Provision of central island, channelization, and bus stops. Scheme in abeyance.

52. Canal Bank Road - Shah Jamal Road -- PUDP

Additional bridge to be constructed for service road. Contract documents complete.

53. Main Gulberg Road - Jail Road -- PUDP

This "T" junction is heavily used as it is the end of Main Gulberg Road, the most important arterial leading into the relatively high income Gulberg area of Lahore. Although signalized, the operation of the signals is poor at best. At worst the signals do not function, and either the police attempt to control it, or there is no control. Due to poor control by the signals, long queues develop on the western leg of Jail Road, leading to poor driver behavior. Needed are improved signals, channelization, and pedestrian facilities. Details of the design are on-going and not available at this time. Contract documents complete.

63. Jail Road

Provision of central median, edge- definition, and pedestrian crossing facilities from Racecourse road junction to Sher Pao Bridge (3.4 km). Including minor junctions (including Zafar Ali road and College Road), accesses and short term parking in association with Lahore Race Club. Project completed.

64. Junction of Jail Road and Canal Bank Road

Provision of channelization and modifications to layout to incorporate service roads; replacing, relocating, and simplifying signals. Project awaiting funding.

65. Junction of western end of Sher Pao Bridge

Removal of signals and extensions to existing central island. Project awaiting funding.

66. Junction of Multan Road and Samnabad Road

Provision of channelization, bus bays and repositioning and re-timing of existing signals. Project completed.

67. Junction of Multan Road and Bund Road

Provision of channelization, bus bays, and repositioning and re-timing of existing signals. Project awaiting funding.

68. Junction of Multan and Wahdat Roads

Provision of channelization facilities for buses and trucks at Octroi post. Project awaiting funding.

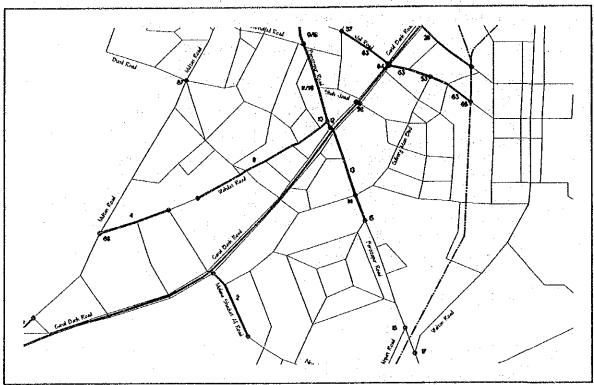


Figure 5

2. Molana Shaukat Ali Road -- SDP (PC-I June 1988)

This road is a two lane distributor road between Peco Road and Canal Bank Road. The existing pavement is in such bad condition, that traffic routinely diverts to smaller roads in the area. Pavement improvements are planned. In another section, there are plans to rehabilitate the pavement, provide bus bays for bus stops, construct a pedestrian platform around the bus bays, provide for standard signing and street marking.

4. Wahdat Road -- SDP (PC-I June 1988)

Although part of Wahdat Road is part of the PUDP, the pavement of the section closest to Multan Road is in bad condition and needs resurfacing. Although traffic on this section is light, it creates continuity and safety problems since vehicles must travel this section at less than 5 km/hr.

Wahdat Road -- PUDP

Provision of central median, edge definition, and minor junction treatment from Ferozepur Road to

University Campus (2.5 km). Including redesign of junction with Ring Road from Campus to Allama Iqbal Town. Project underway.

10. Ferozepur Road from Junction with road adjacent to Mian Mir Drain -- PUDP

Provision of channelization and relocation and retiming of existing signals. This project is almost complete as of Wednesday, 24 April 1991.

11. Ferozepur Road from Mian Mir Drain to Canal Crossing - PUDP

Widening of existing median to accommodate protected lanes for turning traffic, provision of edge definition, and segregated lanes where possible for cyclists. Definition of pedestrian areas and location of bus stops at points of maximum demand. This project is almost complete as of Wednesday, 24 April 1991.

12. Ferozepur Road between Wahdat and Canal Bank Roads -- PUDP

Provision of channelization and relocation and retiming of existing signals. This project is almost complete as of Wednesday, 24 April 1991.

13. Ferozepur Road from Canal Crossing to Model Town -- PUDP

Provision of median, edge definition, cycle lanes (where possible), and stopping facilities for buses. (approx 3.5 km). Including junction improvements and channelization at Stadium Road, Garden Town bus depot, and minor roads and accesses. This project has been completed.

14. Ferozepur Road at junction with Main Boulevard (Gulberg) -- PUDP

Provision of channelization and bus stops, resurfacing of existing carriageway around central island.

15. Ferozepur Road with junction with Model Town Access -- PUDP

Channelization and repositioning / replacing / redesign of existing signals. Provision of bus stopping facilities. Project in tendering as of Wednesday, 24 April 1991.

16. Ferozepur Road at junction with Kot Lakhpat Road and adjacent level crossing -- PUDP

Local widening and channelization of turning traffic.

Provision of bus stops, widening of level crossing approach.

17. Ferozepur Road at junction with Walton Road (Amar Sadhu) -- PUDP

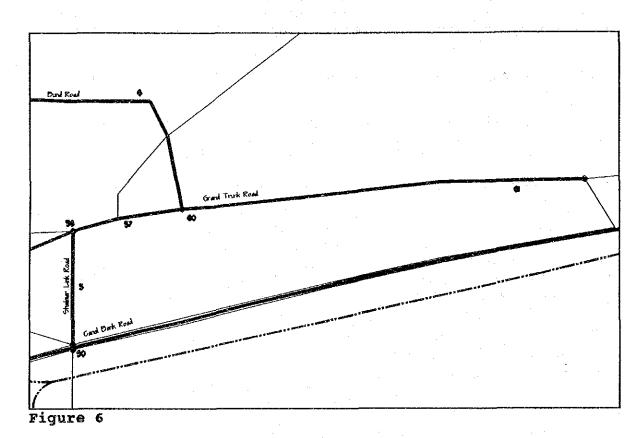
Provision of channelization and facilities for buses. Project submitted to tendering as of 5 May 1991.

68. Junction of Multan and Wahdat Roads

Provision of channelization facilities for buses and trucks at Octroi post. Project awaiting funding.

69. Junctions on Multan Road at Niaz Beg

Provision of channelization and bays for buses, etc. Project awaiting funding.



5. Shalimar Link Road -- SDP (PC-I June 1988)

This road is a heavily used arterial which connects G.T. Road and Canal Bank Road. It is wide, but in poor condition. It is a primary route for city transit buses, and has a high demand for parking along its length. The median is in bad condition as are the intersections with the major roads on both ends. Plans call for median repair, geometric improvements to limit access, and rationalization of on street parking.

6. Bund Road (North) -- SDP (PC-I June 1988)

This scheme is to pave the long section of Bund Road from the Ravi Bridge to G.T. Road. Specifics are not known at this time.

50. Shalimar Link Road - Canal Bank Road -- PUDP

A complex intersection where Shalimar Link and Tufail Road, (a major north-south corridor which has heavy truck traffic) meet with Canal Bank Road (an important east-west distributor) and the Pakistan Rail link going east to the Indian border. Canal Bank Road at this point functions as two parallel 2- lane single carriageway rather than as a 2-lane dual carriageway. The proposed design for this intersection is a grade-separated interchange where the north-south road will fly over the Canal Bank and the railroad. Contract documents complete.

56. G.T. Road - Shalimar Link Road -- PUDP

Provision of a central island and channelization. Project proposed but not scheduled for design or implementation.

57. G.T. Road -- PUDP

Provision of median, edge definition and parking areas as required from Shalimar Link Road junction for 2.2 km to east. Including minor junctions and accesses. Project proposed but not scheduled for design or implementation.

60. Junction of G.T. Road and Northern Bund Link Road

Provision of channelization islands. Project awaiting funding.

61. G.T. Road

Provision of lane markings and edge definition (rural), east of junction with northern Bund to Batapur. Project awaiting funding.

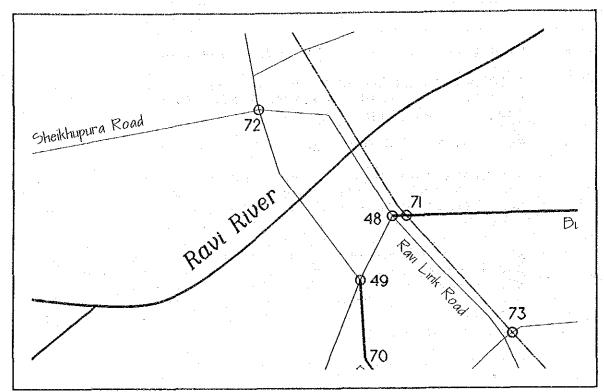


Figure 7

48. Bund Road - Ravi Link Road -- PUDP

Dangerous and ill-defined intersection with heavy pedestrian and animal drawn traffic. Work will include edge definition, channelization of traffic flows, provision of an area as a bus terminal, a mini-bus terminal, pedestrian refuges, and a pedestrian concourse; installation of street lighting, drainage, and signalization. Contract documents complete.

49. Bund Road - Ravi Road -- PUDP

Although this intersection performs adequately at present, there is a need for separation of traffic by mode to protect pedestrians and cyclists. Project to include pedestrian refuges, sidewalks, channelization of traffic, improvement of existing signal system, addition of bus bays; removal of encroachment, and rationalization of parking scheme. Project deleted from PUDP.

70. Ravi Road

Provision of central median, edge definition, parking, and service areas to adjacent markets, segregated lanes from Chota Ravi Bridge to Bund road (1.8 km) Project completed.

71. Level crossing on Northern Bund Road

Improvements to gate width, road surface within crossing and gate mechanism. Project recommended, awaiting design and funding.

72. Junction of G.T. Road and Sheikhupura Road (Shahdara)

Improvements to existing channelization and central island, and provision of facilities for buses. Project awaiting funding.

73. Level crossing at Data Nagar (Badami Bagh)

Improvements to gate width, road surface within crossing, approach gradient and width, and gate mechanism. Project recommended, awaiting design and funding.

Projects which are not shown on any of the preceding maps are listed below.

- 7. New traffic signals needed immediately and are to be placed at the following intersections: -- SDP (PC-I June 1988)
 - Daroghawala G.T. Road
 - New Muslim Town Canal Bridge
 - Garden Town Mughalpura Canal Bridge Crossing (PUDP project)
 - Davis Road Shahrah-e-Quaid-e-Azam (PUDP project)
 - Dharam Pura Cavalry Ground Road
 - Dubai Chowk Allama Igbal Town
 - Hall Road McLeod Road
 - Nakhuda Chowk
 - Canal Bank Road Shahrah-e-Quaid-e-Azam (PUDP project)
- 58. New and Improvement of signals along PUDP project roads -- PUDP

A substantial number of roads are scheduled to receive a series of signals. These roads are:

- Ferozepur Road
- Jail Road
- Canal Bank Road
- Lower Mall Road
- Ravi Road
- 59. Other selected intersections where signals will be installed are: -- PUDP

- Grand Trunk Mughapura
- Grand Trunk Shalimar Link
- Allama Iqbal Town Main Boulevard Wahdat Road
- Chauburji Chowk
- New Garden Town Road "Model Town East-West Collector"

74. Faiz Bagh / Sultanpura area

A number of minor small scale improvements to selected routes to enable small minibuses to operate. Exact details to be determined on-site, but encompassing local widening of pinch-points, removal of encroachment, repair of surfacing, levelling of man hole covers, etc. Project awaiting funding.

75. Road signs

Provision of basic road signs - No Entry, Stop, Keep Left - to a consistent and comprehensive program throughout the strategic and subsequently secondary road network.

76. Street lighting

Provision of street lighting to specified standards throughout the strategic road network (to be installed and maintained by LDA).

Concentrate initially on schemes included within the high priority projects and traffic improvement program.

77. Improvements to traffic signals

Re-phasing, relocating, and supplementing existing traffic signal installations to be retained. Surplus equipment from other locations to be reused. Anomalies in existing phasing and light sequences to be removed.

- 78. Provision of pedestrian refuges / islands at locations throughout the urban area where pedestrian concentrations and traffic volumes indicate.
- 79. Provision of road markings to consistent standards initially throughout the strategic road network, and subsequently to the secondary road network.
- 80. Definition of bus stopping places throughout the urban area

Provision of necessary bus bays, road marking, stops, shelters, and waiting areas.

84. Crown Adda Junction

Provision of channelization, revised central island, segregation of animal-drawn traffic, and bus bays.

87. The Mall: -- PUDP

Provision of pedestrian crossing facilities and refuges at various points including the Lahore Zoo, Assembly Chambers, Regal Crossing, Hall Road (High Court, Bank Square, Anarkali, Lahore Museum.) Projects awaiting funding.

88. Establishment of controlled parking areas at Bank Square Nila Gumbad, Dhani Ram Road, and Katcheri Road

Definitions of areas and letting of concessions; introduction of one-way traffic. Project awaiting funding.

89. New Anarkali

Control of vehicular access at defined hours of day to specified vehicle types (Katcheri Road - Circular Road). Project awaiting funding.

90. Nabha Road / Edward Road junction (AG office)

Provision of channelization and redesign of existing traffic signal layout; widening of sidewalks and provision of bus bays and pedestrian crossing facilities. Project awaiting funding.

91. Provision of facilities for cyclists on Bank Road / Katcheri Road / Changar Road from Lower Mall (MAO College) to Circular Road (Mori Gate); and on the Mall from Assembly Chambers to Bank Square / Nila Gumbad (total 3.8 km). Project awaiting funding.

Appendix Table 4.2.1 Bus Trips and Capacity... Private bus

| A Route | B LENGTH km | C Regist'd (perm'd) | D CUR'T STREN' | E Normal Capa/Veh | | K ONEWAY TRIPS | L ONEWAY SEATS |
|-------------|-------------------|---------------------------|----------------------|-------------------------|----------------|----------------------|----------------------|
| 3 a | 12.8 | 48 | 38 | 50 | 38 | 300 | 15000 |
| 9 a | 8.0 | 11 | 9 | 50 | 24 | 110 | 5500 |
| 9 b | 11.2 | 32 | 26 | 50 | 34 | 229 | 11450 |
| 12 | 24.0 | 3 | 2 | 50 | 72 | 10 | 500 |
| 14 | 38.4 | 8 | - 6 | 50 | 115 | 17 | 850 |
| 17 | 16.0 | 29 | 23 | 50 | 48 | 145 | 7250 |
| 17 a | 19.2 | 7 | 6 | 50 | 58 | 29 | 1450 |
| 19 a | 12.8 | 7 | . 6 | 50 | 38 | | 2200 |
| 33 | 52.8 | 4 | 3 | 50 | 158 | 6 | 300 |
| 9 c | 9.6 | - 20 | 16 | 50 | 29 | 167 | 8350 |
| 32 | 20.8 | 28 | 22 | 50 | 62 | 108 | 5400 |
| 32 a | 20.0 | 24 | 19 | 50 | 60 | 96 | 4800 |
| 35 Potal | 30.0 | 20 | 16 | 50 | 90 | 107 | 5350 |
| 12 | 275.60 | 241 | 192.80 0.80 | | 826.80 V=20 | 1368 | 68400 |

Appendix Table 4.2.2 Bus Trips and Capacity... PRTC Bus

| A | B LENGTH km | C Regist'd (perm'd) | D CUR'T STREN' | E Normal Capa/Veh | F Trav | K ONEWAY TRIPS | L ONEWAY SEATS |
|-----------|-------------------|---------------------------|----------------------|-------------------------|--------------|----------------------|----------------------|
| | | | | | | · | |
| 1 ` | 18.0 | 6 | 5 | 70 | 54 | 27 | 1890 |
| 5 | 20.4 | 4 | 3 | 70 | 61 | 16 | 1120 |
| 6 | 28.0 | 10 | 8 | 70 | 84 | 29 | 2030 |
| 7 | 11.0 | 10 | 8 6 | 70 | 33 | 73 | 5110 |
| 8 | 40.0 | 8 | 6 | 70 | 120 | 16 | 1120 |
| 19 | 19.0 | 8 | 6 | 70 | 57 | 34 | 2380 |
| 23 | 27.0 | 4 | 3 | 70 | 81 | 12 | 840 |
| 24 | 22.0 | 4 | 3 | 70 | 66 | 15 | 1050 |
| 53 | 16.6 | 4 | 3 | 70 | 50 | 19 | 1330 |
| 56 | 21.2 | 12 | 10 | 70 | 64 | 45 | 3150 |
| 57 | 22.6 | 8 | 6 | 70 | 68 | 28 | 1960 |
| 112 | 20.0 | 9 | 7 | 70 | 60 | 36 | 2520 |
| 114. | 18.1 | 9 8 | 7 | 70 | 54 | 40 | 280 |
| 115 | 22.0 | . 8 | 3 | 70 | 66 | 14 | 986 |
| 151 | 28.0 | 2 | 1 | 70 | 84 | 4 | 28 |
| 152 | 20.0 | 8 | . 3 | 70 | 60 | 15 | 105 |
| 155 | 19.2 | 8 | - 6 | 70 | 58 | . 33 | |
| 212. | 27.0 | 5 | 4 | 70 | 81 | 15 | 1050 |
| 213. | 27.0 | 5 8 | 6 | 70 | 81 | 24 | 1689 |
| 216 | 27.0 | . 5 | 4 | 70 | 81 | 15 | 105 |
| 218 | 23.0 | · . 4 | 3 | 70 | 69 | 14 | 986 |
| 50 | 18.0 | 10 | 8 | 70 | 54 | 44 | 308 |
| 253 | 22.0 | . 8 | 6 | 70 | 66 | 29 | 203 |
| 254 | 26.0 | 2 | 6 2 | 70 | 78 | 6 | 42 |
| 255. | 28.0 | 4. | | 70 | 84 | 11 | 776 |
| 263 | 23.0 | 4 | 3 3 6 | 70 | 69 | 14 | 980 |
| 311 | 10.0 | 7 | 6 | 70 70 | 30 | 56 | 392 |
| 312 | 45.0 | 8 | 6 | 70 70 | 135 | 14 | 98 |
| 313 | 61.0 | 12 | 10 | 70 | 183 | 16 | 1120 |
| 314 | 42.0 | 15 | 10 | 70 70 | 126 | 28 | 1960 |
| 316 | 23.0 | | 6 | 70 70 | 69 | 28 28 | 1960 |
| | 23.0 | 3 | | , , | 0,7 | 20 | J. J () (|
| Total 33. | 775.1 | 222 | 170 | | 7270 | 770 | 5390 |
| 33. | //5.1 | 264 | 0.80 | | 2325 V=20 | //0 | 22301 |
| | | | V.0U | | v~&U | | |

Appendix Table 4.2.3 Bus Trips and Capacity... Mini Bus

| A Route | B Length km | C Regist'd (perm'd) | D Existing Veh'les | E Normal Capa/Veh | F Owy Trav time Min | K ONEWAY TRIPS | L ONEWAY SEATS |
|------------|-------------------|---------------------------|--|------------------------------------|---------------------------|----------------------|----------------------|
| 1 | 22.0 | 112 | 90 | 20 | 66 | 300 | 6000 |
| 2 | 17.5 | 48 | . 38 | 20 | 53 | 219 | 4380 |
| 3 | 9.2 | 56 | 45 | 20 | 28 | 300 | 6000 |
| 3 a 3 b | 12.2 | 42 | 34 | 20 | . 37 | 275 | 5500 |
| | 4.0 | 6 | 4 | 20 | 12 | 120 | 2400 |
| 4 | 20.0 | 94 | 75 | 20 | 60 | 300 | 6000 |
| 5 | 28.0 | | 75 | 20 | 84 | 269 | 5380 |
| 7 | 9.5 | | 45 | 20 | 29 | 300 | 6000 |
| . 8 | 9.9 | 68 | 54 | 20 | 30 | 300 | 6000 6000 |
| 9 | 20.0 | | 127 | 20 | 60 | 300 | 6000 |
| 9 a | 8.0 | | 29 | 20 | 24 | 300 19 | 380 |
| | 25.0 | 6 | 4 | 20 | 75 | 114 | 2280 |
| 9 0 | 19.0 | | 22 | 20 | 57 | 296 | 5920 |
| 10 | 17.0 | | 50 | 20 | 51 | 135 | 2700 |
| 11 12 | 16.0 | | 22 | 20 | 48 72 | 180 | 3600 |
| 10 a | 24.0 6.0 | | 43 4.80 | | 18 | . 80 | 1600 |
| 10 a | 7.0 | | 4.80 | 20 | 21 | | 1380 |
| 13 | 16.0 | | 63 | 20 | 48 | 300 | 6000 |
| 14 | 26.0 | | . 93 | 20 | 78 | 300 | 6000 |
| 15 | 17.0 | 35 | 28 | 20 | 51 | 165 | 3300 |
| 16 b | 10.0 | | 11 | 20 | 30 | 112 | 2240 |
| 18 | 19.4 | 24 | 19 | 20 | 58 | 99 | 1980 |
| 19 | 18.0 | | 18 | 20 | 54 | 98 | 1960 |
| 19 a | 24.0 | 4 | , 3 | 20 | 72 | 13 | 260 |
| 20 | 16.0 | | 72 | | 48 | 300 | 6000 |
| 21 | 12.0 | | 8 | | - 36 | 67 | 1340 |
| 23 | 10.0 | | . 3 | | 30 | 32 | 640 5280 |
| 24 | 17.0 | 56 | 45 | 20 | 51 | 264 300 | 6000 |
| 25 | 9.0 | 72 | 58 | | 27 | 131 | 2620 |
| 27 | 22.0 | 36 | 29 | | 66 | 131 | 2620 |
| 28 | 11.0 | 18 3 | 14 | | 33 30 | 24 | 480 |
| 30 31 | 10.1 19.0 | | 2 11 | | 57 | | 1180 |
| 32 | 22.0 | | 87 | | 66 | 300 | 6000 |
| 32 a | 14.0 | 21 | 17 | | 42 | 120 | 2400 |
| 32 b | 16.0 | | 9 | | 48 | 55 | 1100 |
| 33 | 26.0 | | 46 | 20 | . 78 | 178 | |
| 34 | 26.0 | | 103 | | 78 | 300 | |
| 35 | 11.0 | | 18 | | 33 | | |
| 38 | 19.2 | | 27 | 20 | 58 | 142 | |
| 39 | 16.0 | | 5 | | 48 | | |
| 40 | 16.0 | 5 | 4 | | 48 | | |
| 41 | 9.1 | | 5 | | 27 | | 1060 |
| 42 | 10.8 | 12 | 10 | 20 | 32 | | |
| 43 | 17.0 | 116 | 93 | 20 | 51 | 300 | 6000 |
| 44 | 20.0 | 32 | . 26 | 20 | 60 | | |
| 46 | 16.0 | | . 5 | | 48 | | 600 |
| 47 | 27.0 | | 63 | | 81 | 234 | |
| 48 | 50.0 | | 17 | | 150 | 34 | |
| 34b | 26.0 | 110 | 99 | 20 | 78 | 5000 | 250 |
| Total | 010 | 2225 | 44444444444444444444444444444444444444 | AT) ON THE CO. SEC SEC SEC SEC SEC | | | 160100 |
| 50.00 | 846.9 | 2225 | 1780 | | 2541 V=20 | 8456 | 169120 |
| | | | | | V-20 | - | |

Appendix Table 4.2.4 Bus Trips and Capacity... Suzuki Wagon

| A Route | B Length km | C Regist'd (perm'd) | | | F Owy Trav time Min. | K ONEWAY TRIPS | L ONEWAY SEATS |
|----------------------|-----------------------------|---------------------------|---------------------|--|----------------------------|-------------------------|-----------------------------|
| 60 64 66 67 | 13.7 9.5 10.8 10.0 | 122 36 55 7 | 73 22 33 4 | 10 10 10 10 | 55 29 32 30 | 300 227 300 42 | 3000 2270 3000 420 |
| Total | 44.00 | 220 | 132 0.60 | yay gife tife dink hat thei deep man map d | 146 V=20 | 869 | 8690 |

Source: RTA Lahore and PRTC, 1990

Notest

D. Buses in operation are determined to be 80 % or 60 % of the permitted(registered).

E. Capacity per vehicle includes some standing persons.

K. Daily operation hour is 15 hours including queeing, waiting, and resting.

The net operation hour is assumed at 10 hours for all types of buses.

Peak hour trips have a 3 minute interval and others have a five minute interval in the busy routes (the maximum trips are 300 per direction).

Appendix Table 4.5.1 Passenger Traffic, Lahore Airport, 1981-1987 (Persons)

| | 1980/81 | 1981/82 | 1982/83 | 1983/84 | 1984/85 | 1985/86 | 1986/87 |
|---------------|---------|---------|--|---------|----------------|----------------|---------------------------------------|
| International | | | | | r salah da sal | | ili. Signal |
| Embarked | 31805 | 32013 | 32359 | 42240 | 61072 | 58936 | 60692 |
| Disembarked | 17980 | 19720 | 24326 | 40348 | 54162 | 49340 | 47554 |
| Total | 49785 | 57733 | 56685 | 82588 | 115234 | 108276 | 108246 |
| Domestic | | | | | | and the second | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Embarked | 406219 | 394493 | 412571 | 454883 | 504437 | 557980 | 610118 |
| Disembarked | 407671 | 384742 | 420222 | 470038 | 516370 | 580474 | 639815 |
| Total | 813890 | 779235 | 832793 | 924921 | 1020807 | 1138454 | 1249933 |
| Total | | | the state of the s | | + ++ 4 | | in the selection of |
| Embarked | 438024 | 426506 | 444930 | 497123 | 565509 | 616916 | 670810 |
| Disembarked | 425651 | 404462 | 444548 | 510386 | 570532 | 629814 | 687369 |
| Total | 863675 | 830968 | 889478 | 1007509 | 1136041 | 1246730 | 1358179 |

Excluding transit passengers

Source: Civil Aviation Statistics of Pakistan (Civil Aviation Authority, 1987, 1988)

Appendix Table 4.5.2 Cargo Handled at Lahore Airport, 1981-1987 (in tons)

| | · · · · · · · · · · · · · · · · · · · | | 1000.00 | 100010: | 1004/05 | 1005 /00 | 1000/07 |
|---------------|---------------------------------------|---------|---------|---------|---------|----------|---------|
| | 1980/81 | 1981/82 | 1982/83 | 1983/84 | 1984/85 | 1985/86 | 1986/87 |
| International | | | | | | 4.2 | |
| Loaded | 971 | 1021 | 334 | 468 | 812 | 486 | 344 |
| | (3) | (11) | (3) | (6) | (7) | (5) | (8) |
| Unloaded | 451 | 649 | 902 | 1097 | 1065 | 965 | 813 |
| | (12) | (8) | (65) | (14) | (16) | (14) | (12) |
| Total | 1422 | 1670 | 1236 | 1565 | 1875 | 1451 | 1157 |
| | (15) | (19) | (67) | (20) | (23) | (19) | (20) |
| Domestic | | | | | | | |
| Loaded | 4242 | 5114 | 5696 | 5944 | 7579 | 9351 | 10533 |
| | (290) | (295) | (294) | (321) | (329) | (288) | (289) |
| Unloaded | 5148 | 5793 | 6010 | 6142 | 7732 | 7231 | 6550 |
| | (359) | (417) | (432) | (436) | (440) | (390) | (406) |
| Total | 9390 | 10907 | 11706 | 12086 | 15311 | 16582 | 17083 |
| | (649) | (712) | (726) | (758) | (769) | (678) | (685) |
| Total | | | | | | | • |
| Loaded | 5213 | 6135 | 6030 | 6412 | 8391 | 9837 | 10877 |
| | (293) | (306) | (297) | (327) | (336) | (293) | (297) |
| Unloaded | 5599 | 6442 | 6912 | 7239 | 8797 | 8196 | 7363 |
| | (371) | (425) | (497) | (450) | (456) | (404) | (418) |
| Total | 11382 | 12007 | 12942 | 13651 | 17188 | 18033 | 18240 |
| | (664) | (731) | (794) | (778) | (792) | (697) | (705) |

Source: Civil Aviation Statistics of Pakistan (Civil Aviation Authority, 1987, 1988)

Remarks: Upper figures for cargo and lower figures in () for mail.

APPENDIX Table 4.5.3 (1) PR Passenger Tickets Sold at Stations

| Station | | 85/86 | 86/87 | 87/88 | 88/89 | 89/90 | 85-89 |
|---------------|---------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------------|
| Main Line | | | | | · | | |
| Lahore | P M | 4,284,199 1,047,400 | 4,316,366 1,021,200 | | 4,912,009 1,021,200 | 5,643,712 1,348,300 | $\frac{1.32}{1.29}$ |
| Cantt | P | 229,619 | 208,578 | 205,319 | 227,044 | 211,560 | 0.92 |
| | III | 126,050 | 113,850 | 113,900 | 114,250 | 131,800 | 1.05 |
| Walton | p | 130,929 | 116,261 | 107,378 | 122,672 | 125,796 | 0.96 |
| | m | 7,050 | 7,800 | 7,850 | 10,300 | 10,700 | 1.52 |
| Kot Lakhpat | p | 495,103 | 472,206 | 485,533 | 510,645 | 531,694 | 1.07 |
| | m | 415,850 | 278,700 | 281,800 | 341,250 | 336,400 | 0.81 |
| Kana Kacha | p | 107,978 | 67,489 | 61,797 | 66,767 | 69,657 | 0.65 |
| | m | 37,300 | 39,400 | 41,000 | 32,800 | 39,400 | 1.06 |
| Haloki | p | 163,014 | 148,799 | 129,741 | 119,309 | 108,674 | 0.67 |
| | m | 133,150 | 131,600 | 132,100 | 176,150 | 180,600 | 1.36 |
| Jia Bogga | P | 146,911 | 95,073 | 87,569 | 74,643 | 65,430 | 0.45 |
| | M | 124,250 | 120,250 | 123,300 | 39,450 | 142,600 | 1.15 |
| Karial | P | 28,662 | 86,006 | 91,561 | 92,009 | 92,647 | 3.23 |
| | m. | 70,800 | 82,331 | 92,547 | 96,427 | 106,150 | 1.50 |
| Raiwind | p | 605,743 | 515,189 | 548,898 | 570,593 | 683,843 | 1.13 |
| | m | 100,450 | 86,100 | 87,250 | 208,700 | 223,400 | 2.22 |
| Total | p m | 6,192,158 2,062,300 | 6,025,967 1,881,231 | 6,233,073 2,010,997 | 6,695,691 2,040,527 | 7,533,013 2,519,350 | 1.22 |
| Main line | | | | | | | |
| Badami Bagh | P | 262,412 | 250,597 | 214,915 | 183,459 | 215,649 | 0.82 |
| | m | 14,400 | 19,500 | 18,450 | 6,100 | 5,700 | 0.40 |
| Shadhara Bagh | p | 364,771 | 315,841 | 298,694 | 295,300 | 338,699 | 0.93 |
| | M | 114,700 | 85,650 | 85,700 | 72,000 | 88,800 | 0.77 |
| Kala S kaku | p II | 3,657 | 1,892 | 1,744 | 2,686 | 3,103 1,200 | 0.85 |
| Koh-1-Noor | p | 426 | 463 | 555 | 1,061 | 837 | 1.96 |
| | m | 24,600 | 3,000 | 3,000 | 4,200 | 3,400 | 0.14 |
| Muriduke | P | 8,958 19,300 | 7,853 8,700 | 7,037 8,550 | 9,651 8,700 | 9,515 14,400 | 1.06 0.75 |
| l'otal | p | 640,224 | 576,646 | 522,945 | 492,157 | 567,803 | 0.89 |
| | m | 173,000 | 116,850 | 115,700 | 91,000 | 113,500 | 0.66 |
| Station | | 85/86 | 86/87 | 87/88 | 88/89 | 89/90 | 85-89 |
| Narowal Line | | | | | | | |
| Kot Mulchand | p | 34,691 | 40,971 | 36,867 | 26,572 | 24,042 | 0.69 |
| | m | 6,350 | 6,250 | 6,300 | 6,000 | 12,100 | 1.91 |
| Bubak wal | p m | 18,462 12,450 | 19,558 8,450 | 15,835 8,500 | 21,912 | 10,938 7,200 | 0.59 0.58 |
| Sri Ram Pura | p | 55,480 | 38,464 | 58,685 | 51,633 | 52,051 | 0.94 |
| | n | 34,150 | 40,150 | 40,200 | 65,150 | 63,600 | 1.86 |
| Total | p | 108,633 | 98,993 | 111,387 | 100,117 | 87,031 | 0.80 |
| | m | 52,950 | 54,850 | 55,000 | 71,150 | 82,900 | 1.57 |
| | | | | | | | |

| Station | | 85/86 | 86/87 | 87/88 | 88/89 | 89/90 | 85-89 |
|----------------------|---------|------------------------|------------------------|------------------------|------------------------|------------------------|---|
| Wagah line | | | | | | | |
| Maghalpura | P | 61,773 4,400 | 41,364 2,150 | 29,389 2,200 | 21,470 150 | 12,168 2,550 | 0.20 0.58 |
| Muslimabad | P | 55,573 10,950 | 39,917 7,800 | 33,332 7,500 | 27,268 8,450 | 19,890 5,100 | 0.36 0.47 |
| Harbans Pura | р. Ш | 41,850 6,700 | 29,788 4,100 | 20,645 4,150 | 14,940 1,100 | 8,101 600 | $0.19 \\ 0.09$ |
| Gullar pir | p m | 51,294 14,400 | 35,193 5,350 | 13,586 5,000 | 14,215 1,500 | 9,645 600 | $\begin{array}{c} 0.19 \\ 0.04 \end{array}$ |
| Jallo Park | P m | It is not Jallo sta | a looking | The | tickets ar | e sold fro | m |
| Tagkipur | p | 48,140 15,550 | 48,445 5,800 | 50,883 5,500 | 44.883 5,450 | 28,493 5,100 | 0.59 0.33 |
| Jallo . | р П | 78,152 43,150 | 41,660 12,500 | 26,009 11,800 | 21,947 7,300 | 11,953 5,500 | 0.15 0.13 |
| Wagah | p m | 18,641 3,350 | 16,962 1,150 | 15,058 1,150 | 11,503 2,250 | 7,709 3,300 | 0.41 0.99 |
| [India connec | tio | n] | | | | | |
| Outward via wagah | | 183,559 | 177,045 | 233,685 | 261,144 | 210,076 | 1.14 |
| Inward via wa | gah | 129,630 | 34,599 | 24,809 | 40,417 | 73,806 | 0.57 |
| Total | P M | 538,982 228,130 | 430,374 73,449 | 422,587 62,109 | 417,370 66,617 | 308,035 96,556 | $\begin{array}{c} 0.57 \\ 0.42 \end{array}$ |
| Station | | 85/86 | 86/87 | 87/88 | 88/89 | 89/90 | 85-8 |
| West Line | | | | | | | |
| Missan Kalar | p M | 111,118 55,200 | 77,590 33,150 | 75,460 34,200 | 63,609 42,800 | 52,140 43,900 | |
| Shakirabad | P m | 9,861 | 21,380 7,000 | 2,840 | 24,457 9,600 | 6,762 6,200 | |
| Qila S. Shah | p m | 41,674 10,100 | 28,119 | 20,689 | 17,262 17.200 | 16,075 13,750 | |
| Chichoki Mallian | p m | 73,720 10,200 | 54,174 9,650 | 55,461 9,700 | 73,099 16,200 | 50,259 15,600 | |
| Sheikhpura | p m | 440,104 170,000 | 697,340 155,700 | 707,778 161,750 | 402,103 265,400 | 426,876 324,300 | |
| fotal | P m | 676,477 245,500 | 878,603 205,500 | 862,228 205,650 | 580,530 351,200 | 552,112 403,750 | |
| G. TOTAL | p M | 8,156,474 2,761,880 | 8,010,583 2,331,880 | 7,289,992 2,449,456 | 8,285,865 2,620,494 | 8,495,882 3,216,056 | |

Remarks: International passengers are excluded. At Lahore station 20% of the normal ticket passengers move in LMA. An average daily passengers subject for this LMA study is 18,940 including the monthly ticket users. The number of free riders is unknown.

Note: p: Passengers buying an oneway ticket.

m: monthly ticket users converted to those per day.

Appendix Table 4.5.3 (2) PR Cargo Handled at Major Stations

| | | Car | Cargo Loaded and unloaded | | | | |
|-------------|-----------|-------------------|---------------------------|---------------------|-----------------|-------------------|-------------------------|
| Station | | 85/86 | 86/87 | 87/88 | 88/89 | 89/90 | 85-89 |
| | | | | | | | |
| Lahore | Out In | 47,189 641,137 | 50,330 782,621 | 28,804 869,450 | • | 22,965 538,140 | |
| Cantonment | Out In | 5,701 27,918 | 6,990 94,458 | 5,298 93,561 | 8,279 32,762 | 6,826 25,433 | $\substack{1.20\\0.91}$ |
| Badami Bagh | Out In | 1,220 274,787 | 944 303,424 | 1,361 348,323 | 454 288,652 | 322 285,002 | |
| Total | Out In | 54,110 943,842 | 58,264 1,180,503 | 35,463 1,311,334 | • | 30,113 848,575 | 0.56 0.90 |

Source: Marketing Dept. Pakistan Railways

Appendix Table 4.6.1 Bus Fares since July 1990

A. Buses plying on urban routes:-

| i) Upto 5 K.M. | Rs.1.00 Per passenger | |
|-------------------|-----------------------|--|
| ii) 5 to 8 K.M. | Rs.2.00 " " | |
| iii) 8 to 12 K.M. | Rs.3.00 " " | |
| iv) Above 12 K.M. | Rs.5.00 " " | |
| v) Students. | Rs.0.25 " " | |

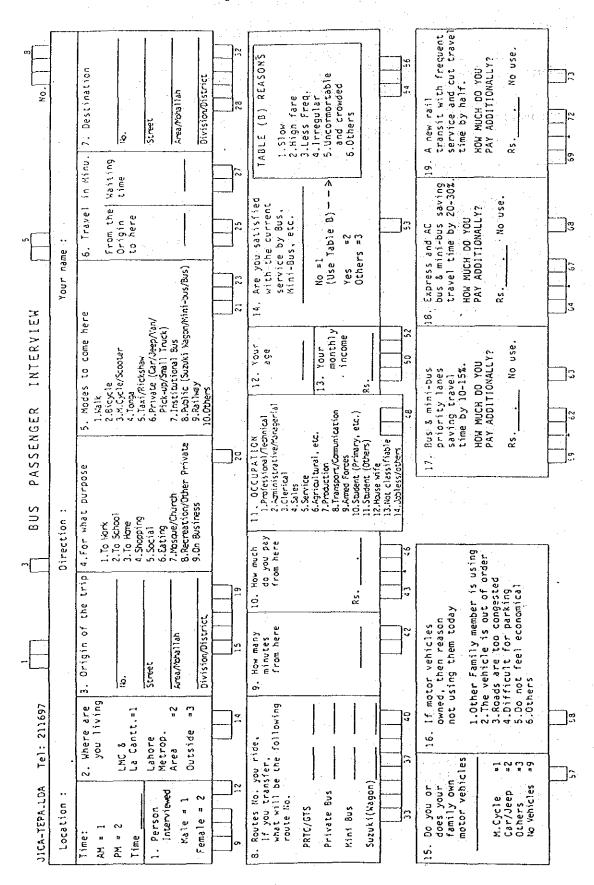
B. Mini-buses plying on urban routes:-

| i) Upto 3 K.M. | Rs.1.00 Per passenger. |
|-------------------|------------------------|
| ii) 3 to 5 K.M. | Rs.1.50 " " |
| iii) 5 to 8 K.M. | Rs.2.00 " " |
| iv) 8 to 11 K.M. | Rs.2.50 " " |
| v) 11 to 14 K.M. | Rs.3.00 " " |
| vi) Above 14 K.M. | Rs.3.50 " " |

C. Suzuki vans plying on urban routes:-

| i) Upto 5 K.M. | Rs.1.50 | Per | passenger. |
|--------------------|---------|------|------------|
| ii) 5 to 10 K.M. | Rs.2.00 | 11 | 11 |
| iii) 10 to 15 K.M. | Rs.2.50 | F1 | ** |
| iv) Above 15 K.M. | Rs.3.00 | . 11 | #1 |

Source: Punjab Transport Authority, November 1990



Appendix 5-1 Estimated Population by Zone, 2010

| | | POPULA IN DAYTIME | AT NIGHT | AY/NIGHT RATE | WORKER | HE ITEMS OF STUDENT I | OUSEWIFE | TNEANT | OTHERS |
|----------------------|------------------|----------------------|-------------------|---|----------------|--------------------------|-----------------------|----------------|----------------|
| LM | | 10402242 | 10402242 | 1,00 | 2468880 | 2909928 | 2027006 | 1525386 | 785002 |
| INNER . | | 6646997 190100 | 6402242 173200 | 1.04 | 1538383 | 1959620 | 1245812 | 938824 | 525981 |
| ZONE 2 | | 51359 | 23880 | 2.15 | 76316 34759 | 37653 6235 | 26297 3149 | 25398 3502 | 11901 327 |
| ZONE 3 | | 71207 | 36680 | 1.94 | 22885 | 33833 | 3393 | 5379 | 1021 |
| ZONE 4 | | 42724 | 24450 | 1.75 | 16329 | 15701 | 3397 | 3585 | 894 |
| ZONE 5 | | 95674 | 16080 | 5.95 | 54474 | 28379 | 2237 | 2358 | 1916 |
| ZONE 6 | | 48679 | 24880 | 1.96 | 18929 | 18206 | 3572 | 3648 | 1114 |
| ZONE 7 | | 17211 | 30520 | 0.56 | 3891 | 1998 | 4111 - | | 1601 |
| ZONE 8(| | 43274 | 22360 | 1.94 | 30345 | 4039 | 2355 | 3279 | 402 |
| ZONE 9(ZONE10(| | 119457 91354 | 15740 51440 | 7.59 | 85161 | 21154 | 2361 | 2308 | 595 |
| SONE11 (| | 111637 | 15870 | 1.78 7.03 | 55084 | 14598 | 6318 | 7543 | 1786 |
| ZONE12 | | 77399 | 29940 | 2.59 | 42346 33145 | 57560 30670 | 1116 3061 | 2327 4390 | 925 1028 |
| ZONE13 | | 197932 | 44880 | 4.41 | 83608 | × 84216 | 9532 | 6581 | 941 |
| ZONE14 | | 73125 | 34800 | 2.10 | 37257 | 19392 | 3200 | 5103 | 3350 |
| ZONE15 (| 10208) | 35421 | 37481 | 0.95 | 7073 | 9631 | 7887 | 5496 | 2998 |
| ZONE16 (| | 40366 | 38640 | 1.04 | 9513 | 11747 | 8277 | 5666 | 2501 |
| ZONE17(| | 150817 | 139830 | 1.08 | 31013 | 46792 | 33729 | 20505 | 8831 |
| ZONE18(| | 75051 | 93456 | 0.80 | 8437 | 22869 | 20596 | 13704 | 4495 |
| ZONE19 (| | 83656 186972 | 83160 126324 | 1.01 | 13948 | 30529 | 15841 | 12195 | 5626 |
| ZONE20(ZONE21(| | 44617 | 36600 | 1.48 1.22 | 43248 | 69102 | 38042 | 18524 | 5725 |
| BONE22 | | 42352 | 47400 | 0.89 | 7137 9835 | 19763 12732 | 7616 7250 | 5367 6951 | 1791 2791 |
| ZONE23 | | 125162 | 130100 | 0.96 | 15712 | 47098 | 25893 | 19078 | 9126 |
| ZONE 24 (| | 78305 | 61110 | 1.28 | 26272 | 21549 | 12355 | 8961 | 4004 |
| ZONE 25 | | 83902 | 104360 | 0.80 | 15506 | 18182 | 19951 | 15303 | 9427 |
| ZONE26 (| 10502) | 126424 | 151160 | 0.84 | 28360 | 25420 | 28444 | 22166 | 13696 |
| ZONE 27 (| | 97065 | 122400 | 0.79 | 15379 | 19256 | 25790 | 17949 | 12289 |
| ZONE 28 (| | 211399 | 276360 | 0.76 | 25269 | 43089 | 64150 | 40525 | 24424 |
| SONE29 (| | 165984 | 191640 | 0.87 | 27844 | 49337 | 35234 | 28102 | 14520 |
| ZONE30 (| | 191171 | 217812 | 0.88 | 33013 | 52666 | 41156 | 31940 | 19788 |
| EONE31 (EONE32 (| | 126618 | 144612 | 0.88 | 16669 | 29985 | 32490 | 21206 | 17917 |
| SONE33(| | 190108 162233 | 143028 202385 | 0.80 | 31846 25136 | 86113 32245 | 25453 46411 | 20974 29678 | 13184 18064 |
| ZONE34 | | 387267 | 405160 | 0.96 | 54810 | 114169 | 81615 | 59413 | 51719 |
| ONE35 | | 195363 | 241055 | 0.81 | 25582 | 61007 | 39609 | 35348 | 20933 |
| ZONE36 | | 238071 | 301125 | 0.79 | 41026 | 57670 | 53420 | 44157 | 26097 |
| ONE37 | 10802) | 346727 | 427548 | 0.81 | 64014 | 87714 | 84878 | 62696 | 24558 |
| SONE38 (| 10901) | 26016 | 34830 | 0.75 | 4663 | 4393 | 6798 | 5107 | 3339 |
| ZONE39 (| | 71221 | 48402 | 1.47 | 21713 | 24038 | 9804 | 7098 | 3871 |
| CONE40 (| | 116521 | 61280 | 1.90 | 33019 | 47817 | 13232 | 8986 | 5782 |
| ZONE41 (| | 55455 | 74904 | 0.74 | 9385 | 10875 | 14336 | 10984 | 6218 |
| ZONE42(| | 91756 | 108195 | 0.85 | 21860 | 20641 | 20211 | 15866 | 7127 |
| ZONE43(ZONE44(| | 76356 130989 | 28512 126930 | 2.68 1.03 | 11192 40370 | 49273 21905 | 4971 29545 | 4181 | 1703 |
| ONE45 | | 108807 | 135800 | 0.80 | 4702 | 29234 | 33479 | 18613 19914 | 11917 14302 |
| ONE46 | | 175121 | 204450 | 0.86 | 29980 | 54358 | 30813 | 29981 | 18440 |
| ONE47 | | 50456 | 58112 | 0.87 | 7242 | 14449 | 12472 | 8522 | 4443 |
| zone48 (| | 45247 | 28275 | 1.60 | 12723 | 18449 | 5396 | 4146 | 1549 |
| ZONE49 (| | 42131 | 24320 | 1.73 | 7336 | 25215 | 2795 | 3566 | 440 |
| ONESO (| | 420463 | 487800 | 0.86 | 46698 | 125585 | 95898 | 71531 | 53021 |
| ZONE51 (| | 82693 | 33410 | 2.48 | 27551 | 35818 | 4942 | 4899 | 4029 |
| ZONE52(| | 19748 | 38760 | 0.51 | 2506 | 2585 | 6518 | 5684 | 1153 |
| ZONE53 (ZONE54 (| | 25440 196025 | 23370 240576 | $\substack{\textbf{1.09}\\\textbf{0.81}}$ | 3291 34261 | 12068 49928 | 3697 422 76 | 3427 35278 | 1279 21354 |
| ONE55 | 112041 | 113508 | 153600 | 0.74 | 17193 | 26941 | 31335 | 22524 | 8029 |
| ONE56 | | 78755 | 96320 | 0.82 | 15661 | 16396 | 20998 | 14124 | 6382 |
| ONES7 | | 104106 | 126930 | 0.82 | 15866 | 27353 | 26110 | 18613 | 9298 |
| OUTER | | 3755245 | 4000000 | 0.94 | 930497 | 950308 | 781194 | 586562 | 259021 |
| ONE58 (| 11301) | 50766 | 55606 | 0.91 | 14551 | 9675 | 12828 | 8154 | 2210 |
| ONE59 (| | 22401 | 24396 | 0.92 | 5220 | 4798 | 5724 | 3577 | 1605 |
| | 11303) | | 75714 | 0.93 | 20249 | 13718 | 14599 | 11103 | 6064 |
| | 11304) | | 51648 | 0.91 | 14942 | 5476 | 13191 | 7574 | 2684 |
| ONE 62 | | 41663 | 23808 | 1.75 | 12122 | 15471 | 5907 | 3491 | 1924 |
| ONE63 (| | | 47550 20076 | 0.84 0.99 | 11288 5939 | 6718 | 10189 | 6973 | 2189 |
| | 11307) 11401) | | 19890 | 0.93 | 5510 | 3869 5049 | 4968 3084 | 2944 2917 | 791 751 |
| ONE66(| | | 36525 | 0.70 | 3416 | 3085 | 8641 | 5356 | 3505 |
| ONB67 | | | 59819 | 0.89 | 12587 | 15484 | 10947 | 8772 | 2076 |
| | 11404) | | 92366 | 0.88 | 18671 | 23611 | 16342 | 13545 | 3856 |
| CONB69 (| | | 91648 | 0.80 | 9829 | 18045 | 21176 | 13439 | 6029 |
| Kone70 (| 11406) | 319650 | 438283 | 0.73 | 61003 | 72274 | 74514 | 64270 | 26508 |
| ONE71 (| | 301554 | 286418 | 1.05 | 79406 | 82885 | 67635 | 42000 | 9740 |
| ONE72(| | | 414310 | 0.78 | 33328 | 103281 | 84878 | 60754 | 20398 |
| SONE73(| | | 82476 | 0.77 | 13475 | 14233 | 15348 | 12094 | 4281 |
| ZONE74 (| | | 660704 | 1.00 | 215672 | 128963 | 123941 | 96886 | 53541 |
| ONE75 | | | 369434 | 0.95 | 64082 | 112570 | 65037 | 54174 | 32908 |
| 30NB76 (| | | 86659 109589 | 0.99 1.15 | 21097 45431 | 22469 27302 | 17575 | 12708 | 6324 |
| ione77 (ione78 (| | | 146901 | 1.18 | 55478 | 27302 46541 | 19663 25284 | 16070 21542 | 8895 13144 |
| ONE79 | | | 120895 | 0.91 | 25034 | 30149 | 24732 | 17728 | 5602 |
| ZONESO (| | | 171773 | 0.94 | 29865 | 46418 | 35420 | 25189 | 13675 |
| ZONESI (| | | 227553 | 0.98 | 62908 | 54299 | 42398 | 33368 | 14365 |
| ZONE82 | | | 75523 | 1.09 | 24311 | 22258 | 15125 | 11075 | 3852 |
| | 11704) | | 182614 | 1.11 | 57419 | 57210 | 37186 | 26779 | 10055 |
| 10NR83 (| | | | | | | | | |

APP. 6.1 Zone Code System, 88 / 22 zone

| | 88(57+27+4) | 22(12+6+4) | HIS Code | 88(57+27+4) | 22(12+6+4) | HIS Code |
|-----------|-------------|------------------|----------------|-------------|------------|---------------------------------------|
| INNER | LMÃ | | | OUTER LMA | | ~ ` |
| | 1 | . 1 | 10101 | 58 | 13 | 11301 |
| | 2 | 1 | 10102 | 59 | 13 | 11302 |
| | 3 | 1 | 10103 | 60 | 13 | 11303 |
| | 4 | 1 | 10104 | 61 | 13 | 11304 |
| | 5 | 1 | 10105 | 62 | 13 | 11305 |
| | - 6 | . 1 | 10106 | 63 | 13 | 11306 |
| | 7 | 1 | 10107 | 64 | 13 | 11307 |
| | 8 | 2 | 10201 | 65 | 14 | 11401 |
| | 9 | 2 | 10202 | 66 | 14 | 11402 |
| | 10 | 2 | 10203 | 67 | 14 | 11403 |
| | 11 | 2 | 10204 | 68 | 14 | 11404 |
| | 12 | 2 | 10205 | 69 | 18 | 11405 |
| | 13 | 2 | 10206 | 69 | 18 | 11405 |
| | 14 | 2 | 10207 | 70 | 18 | 11406 |
| | 15 | 2 | 10208 | . 70 | 18 | 11406 |
| | 16 | 3 | 10301 | 70 | 18 | 11406 |
| | 17 | 3 | 10302 | 70 | 18 | 11406 |
| | 18 | • 3 | 10303 | 71 | 18 | 11501 |
| | 19 | . 3 | 10304 | 71 | 18 | 11501 |
| | 20 | 3 | 10305 | 72 | 18 | 11502 |
| | 21 | 4 | 10401 | 72 | 18 | 11502 |
| | 22 | 4 | 10402 | 72 | 18 | 11502 |
| | 23 | 4 | 10403 | 73 | 18 | 11503 |
| | 24 | 4 | 10404 | 74 | 18 | 11504 |
| | . 25 26 | 5 5 | 10501 10502 | 74 | 18 | 11504 |
| | 26 27 | 5 | 10503 | 74 | 18 | 11504 |
| | 28 | 5 | 10504 | 74 | 18 | 11504 |
| | 29 29 | 6 | 10601 | 75 75 | 18 | 11505 |
| | 30 | 6 | 10602 | 75 75 | 18 18 | 11505 |
| | 31 | 7 | 10701 | 75 75 | 18 | 11505 |
| | 32 | 7 | 10702 | 76 | 15 | 11505 11506 |
| | 33 | 7 | 10703 | 77 | 15 | 11507 |
| | 34 | 7 | 10704 | 78 | 16 | 11601 |
| | 35 | $\dot{	au}$ | 10705 | 79 | 16 | 11601 |
| | 36 | 8 | 10801 | 80 | 17 | 11701 |
| | 37 | 8 | 10802 | 81 | 17 | 11702 |
| | 38 | . š | 10901 | 82 | 17 | 11702 |
| | 39 | 9 | 10902 | 83 | 17 | 11704 |
| | 40 | 9 | 10903 | 84 | 17 | 11705 |
| | 41 | 9 | 10904 | •• | | 1,7700 |
| | 42 | 9 | 10905 | | | |
| | 43 | 9 | 10906 | OUTSIDE LMA | | |
| | 44 | 9 | 10907 | 85 | 19 | 30100,30400 |
| | 45 | 10 | 11001 | (North) | | 50000,70000 |
| | 46 | 10 | 11002 | . 86 | 20 | 20202,30200 |
| | 47 | 11 | 11101 | (West) | | 30500 |
| | 48 | 11 | 11102 | 87 | 21 | 20302,2040 |
| | 49 | 11 | 11103 | (S. West) | | 30300,3060 |
| | 50 | 11 | 11104 | | | 30700,4000 |
| | 50 51 | 11 | 11105 | | | 60000 |
| | 52 | 12 | 11201 | 88 | 22 | 20100,2020 |
| | 53 | 12 | 11202 | (South) | | 20301 |
| | 54 | $\hat{1}\hat{2}$ | 11203 | | | · · · · · · · · · · · · · · · · · · · |
| | 55 | 12 | 11204 | | | |
| | 56 · | 12 | 11205 | | | |
| | 57 | 12 | 11206 | | | |

APP. 6.2 Future OD Table by Mode, 2010

B-ZONE OD TABLE LAHORE 2010 BY MODE

FOR MODE 1 : Walk

| TOTAL | 254042 | 149985 | 185680 | 192691 | 475110 | 318847 | 963956 | 500180 | 185308 | 211471 | 551057 | 416385 | 314827 | 205894 | 2637425 | 355286 | 830822 | 221860 | 1450 | 433 | 1036 | e3 | 8989748 | ••• |
|------------|--------|----------|--------|--------|--------|--------|----------|----------|----------|----------------|--------|--------|--------|----------|---------|----------|--------|--------|------|-----|------|----|----------------------|-----|
| 23 | ۵ | 0 | 0 | 0 | 0 | 0 | • | O | 0 | . | • | 0 | c | 0 | Ö | 0 | 0 | 0 | 0 | | Ö | 0 | 0 | |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Φ | ٥ | 0 | 0 | 0 | 1895 | 0 | 0 | O | 0 | 0 | 0 | 1895 | |
| 20 | 0 | 0 | 0 | 0 | . 0 | 0 | 0 | 0 | 0 | 0 | 6 | Ö | 0 | 0 | 0 | o | 13 | 0 | 0 | 415 | 0 | 0 | 428 | |
| 19 | 0 | 0 | 0. | 0 | 0 | 0 | 0 | 0 | 0 | O | 0 | 0 | 0 | ٥ | 0 | | 2530 | 0 | 0 | 0 | O | 0 | 2530 | ٠ |
| 18 | 0 | ٥ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ဇ | 0 | 0 | 0 | 0 | 0 | 221860 | 0 | 6 | 0 | 0 | 221860 | |
| 1.1 | 0 | 0 | 0 | 9 | 0 | O | တ | 1308 | 0 | o [°] | | 0 | 0 | 0 | O | | | | 1450 | 18 | 0 | ¢, | 829557 | |
| \$1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | . | 0 | 0 | 0 | 0 | 0 | | | 363331 | | | | | 1036 | 0 | 364427 | |
| 1.5 | 0 | 0 | 0 | 0 | 0 | 1713 | 0 | 0 | 156 | . 888 | 0 | -28 | 0 | 146 | | | | | 0 | 0 | 0 | 0 | | |
| 14 | 6 | . | O | 0 | 0 | 0 | 0 | . 0 | 90 | 0 | 0 | 30.5 | 0 | 14642 | 117 26 | 0 | | 0 | 0 | 0 | 0 | دى | 205124 2638824 | |
| 33 | 0 | 0 | o. | 0 | 0 | 0 | 0 | | | : : : | | | | 11 20 | 0 | 0 | | 0 | 0 | 0 | 6 | 6 | 314845 2 | |
| 2. | 0 | 0 | O | 0 | 0 | 0 | 0 | 0 | | 229 | | | | 1032 | ۳. | 0, | 0 | 0. | 0 | 0 | 0 | O | 115925 3 | |
| 11 | 110 | 1400 | 613 | 916 | 0 | 0 | 1988 | 0 | | o | | | | 0 | 6 | 0 | 0 | o | 0 | 0 | O | 0 | 556385 4 | |
| 10 | 0 | 0 | 1894 | 0 | 0 | 569 | 0 | 0 | 6170 | | ů. | 310 | 0 | 0 | 99 | 0 | 0 | 0 | 0 | 0 | ö | 0 | 209049 5 | |
| တ | 7.3 | 2550 | 5489 | 0 | 0 | 43 | 15 | 0 | 65564 | 7913 1 | 1258 | 3731 | 0 | 65 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 186709 2 | |
| æ | 1244 | 525 | 0 | 0 | 1061 | 0 | 256 | 96942 | • | | 0 | 0 | Đ | 0 | 0 | 0 | 1498 | 0 | 0 | 0 | 0 | 0 | 501525 1 | |
| 5 | 4301 | 2024 | 675 | | | | | -47 | | 0 | 2347 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ٥ | o | 963921 5 | |
| 9 | | | | | | | | | | 305 | | | 0 | 0 | 1027 | Ö | 0 | 0 | 0 | 0 | 0 | 0 | 318254 | |
| vo | - | | | | | | | 823 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| * | 3.452 | 4788 | 2237 | 67713 | 7.9 | 0 | 10954 | 0 | 0 | | 1051 | 0 | 0 | 0 | 0 | 0 | Ġ | 0 | 0 | 0 | 0 | 0 | 190278 474989 | |
| က | | | | | 3427 | | | | 5825 | 2725 | 491 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | | |
| 2 7 | | | | | | | | | 2955 | 0 | 1571 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155254 | |
| - | 223759 | 10236 | 1505 | 4273 | 8978 | 0 | 5278 | 871 | en E- | O | 56 | 0 | 0 | 0 | 0 | 0 | ٥ | 0 | ò | 0 | 0 | 0 | 255085 155254 182923 | |
| DISTRICT | | 2 | 6.0 | 7 | co. | ம | c | ∞ | 6 | 10 | I | 13 | 2 | 14 | 15 | 16 | 17 | . 81 | 19 | 20 | 21 | 22 | TOTAL | |
| <u> </u> | | | | Ž | ΑP | P | 6- | - 2 | • | | | | | | | | | | | | | | | |

B-ZONE OD TABLE LAHORE 2010 BY MODE

FOR MODE 2 : Private Two Wheel

| TOTAL | 219237 | 251220 | 239531 | 187521 | 246420 | 125242 | 534276 | 340937 | 171268 | 121843 | 314433 | 150513 | 112111 | 52653 | 507961 | 48490 | 126553 | 41576 | 872 | 268 | 355 | 2684 | 3796564 |
|--------------|---------|--------|--------|-----------|--------|----------|--------|---------|---------|--------|--------|--------|--------|-------|--------|-------|--------|-------|-----|-----|------|------|---------|
| 22 | 57 | 23 | 161 | 60 | 0 | 68 | 0 | 0 | 24 | 0 | 135 | 265 | 0 | 103 | 192 | 151 | 0 | 480 | 0 | 0 | 21 | Ċ | 1780 |
| 21 | <u></u> | 23 | * | 0 | ∞ | 0 | 0 | 0 | 16 | 0 | 0 | 32 | 0 | 0 | 듾 | 234 | 42 | 0 | O | 0 | 125 | 16 | 594 |
| 50 | 175 | 50 | 340 | 0 | 337 | . | 0 | 384 | 95 | 0 | 21 | 0 | 13 | 0 | 0 | 0 | 413 | 0 | o, | 0 | . 01 | 29 | 1366 |
| 5 | 623 | 172 | 4.1 | 0 | 73 | 0 | 221 | 134 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 7.7 | 884 | 0 | 187 | 0 | 200 | 130 | 2822 |
| 18 | 0 | 876 | ٥ | 7.2 | 0 | 482 | 181 | 0 | 0 | 294 | 0 | 184 | 0 | O, | 2711 | 658 | 0 | 34910 | 0 | 0 | 0 | 894 | 41262 |
| 1.3 | 1615 | 1066 | 2.2 | \$ | 31 | 74 | 1138 | 24673 | 0 | 672 | 0 | 0 | 1023 | 0 | 0 | 0 | 91149 | 0 | 197 | 8.5 | 47 | 9 % | 121845 |
| 16 | 280 | 544 | 106 | 0 | 0 | 0 | 0 | 0 | ٥ | 0 | 0 | 0 | 0 | 0 | 0 | 45815 | 0 | 535 | 0 | ت | 156 | 588 | 47825 |
| 51 | 3955 | 10044 | 8478 | 0 | | 12749 | 4260 | 0 | 9750 | 24438 | 8905 | 16109 | 376 | 9486 | 473692 | 0 | 0 | 4570 | 0 | 0 | 0 | 147 | 585959 |
| 14 | | | | | | | | | | | | | | | 1675 4 | | | | | | | | 39839 5 |
| 13 | | | | | | | | | | | | | | | 128 | | | | | | | | 008801 |
| 13 | | | | | | | | | | | | | | | 2113 | | | | | | | | 137814 |
| 11 | | | | | | | | | | | | | | | 268 | | | | | | | | 270722 |
| 10 | | | | | | | | | | | | | | | 9285 | | | | | | | | 103499 |
| g: | 4766 | 7411 | 19054 | 2517 | 2890 | 37.70 | 5979 | 400 | . 17277 | 16942 | 10151 | 16243 | 101 | 3846 | 2689 | 0 | 2,6 | 0 | 0 | 0 | 23 | 236 | 174351 |
| œ | 18016 | 19605 | 5232 | 4784 | 4771 | 737 | 14885 | 81134 | 1230 | 0 | 1330 | 546 | 422 | 240 | 0 | 0 | 31199 | 0 | 181 | 89 | 102 | 0 | 384291 |
| ~ | | | | | | | | | | | | | | | 2781 | | | | | | | | 519532 |
| 49 | 5181 | 10109 | 24343 | 784 | 1980 | 57419 | 1730 | 380 | 3555 | 1725 | 855 | 989 | 0 | 0 | 5,203 | 235 | 0 | 213 | 10 | 0 | 10 | 6.0 | 114487 |
| ν | 30 632 | 44753 | 15444 | 1802 | 44768 | 2673 | 4383 | 2 9 2 8 | 3166 | 236 | 3176 | 752 | 1195 | 105 | တ | 0 | -3 | 0 | 11 | 13 | 0 | 0 | 256112 |
| 7 | 11366 | 15132 | 4594 | 70864 | 1130 | 501 | 45006 | 2603 | 2197 | 759 | 13533 | 968 | 717 | 42 | 178 | 0 | 0 | 37 | 27 | 82 | 16 | 16 | 171214 |
| က | 12169 | 16007 | 08154 | 5471 | 13146 | 24912 | 5755 | 2298 | 18867 | 8346 | 8032 | 4341 | 0 | 3.8 | 1749 | 0 | 28 | 0 | 0 | 0 | s co | 113 | 239482 |
| 73 | | | • | | | | | | | | | | | | 3137 | | | | | | | | 255823 |
| | 67001 | 20439 | 14380 | 15911 | 31345 | 5612 | 31768 | 9557 | 5706 | 2228 | 13481 | 3603 | 639 | 108 | 2128 | 473 | 1202 | 7.4 | 100 | 0 | 5.5 | 5.5 | 225865 |
| DISTRICT | | 2 | က | 7 | ss | ω | | ~ | on | 01 | 11 | 12 | 13 | 14 | 15 | 16 | 11 | 18 | 67 | 20 | 21 | 22 | TOTAL |

2010 OD Table (3)

B-ZONE OD TABLE LAHORE 2010 BY MODE

FOR MODE 3 : Private Car

| TOTAL | 185449 | 433002 | 71548 | 130917 | 108635 | 207514 | 75375 | 542449 | 154369 | 200448 | 337844 | 43556 | 30488 | 284561 | 35565 | 109396 | 15403 | 24288 | 13733 | 9968 | 8476 | 3472330 |
|--------------|------------|--------|-------|--------|--------|--------|----------|--------|--------|--------|--------|-------|-------|--------|-------|--------|-------|----------|----------|------|-------|---------|
| 23 | 593 | 3 80 | 199 | 113 | 251 | 148 | 328 | 441 | 31 | 379 | 880 | 244 | 80 | 582 | 909 | 579 | 1016 | 166 | 124 | 241 | 124 | 7498 |
| 23 | 1465 | 1308 | 148 | 219 | 0 | 1156 | 181 | 551 | 13 | 122 | 63 | 0 | 65 | 442 | 5848 | × 4 | 220 | 1052 | 143 | 441 | 63 | 14515 |
| 20 | 3550 | 0047 | 223 | 930 | 10 | 583 | 1041 | 1719 | 161 | 217 | 69 | 26 | 111 | 721 | 185 | 6351 | 50 | 203 | 28 | 192 | 208 | 20322 |
| 8.1 | 4554 | 4172 | 477 | 1288 | 13 | 196 | 3480 | 891 | 0 | 180 | 449 | 15 | 15 | 186 | 48 | 5933 | 5.4 | 96 | 88 | 1330 | 363 | 26712 |
| 18 | 710 | 584 | 0 | 0 | 47 | 0 | 0 | 470 | 1457 | 0 | 250 | 6. | 0 | 2769 | 216 | 89 | 11133 | 171 | 7. | 911 | 812 | 20178 |
| - | 10442 | 1637 | 503 | 1016 | 123 | 1150 | 5727 | 2107 | 128 | 633 | 534 | 353 | 102 | 0 | ~، | 13299 | 102 | 3486 | 2145 | 391 | 206 | 106123 |
| 16 | 1232 | 74 | 0 | 0 | 134 | 238 | 0 | 23.1 | 229 | 380 | 439 | 85 | 0 | | 26943 | 22 | 11 | 256 | 20 | 2904 | 1092 | 34573 |
| 15 | 10933 | 19645 | 0 | 7897 | 12767 | 1472 | G | 28696 | 8930 | 0 | 10112 | 674 | 2700 | 242665 | 0 | 1024 | 1048 | 55 | 280 | 179 | 888 | 362452 |
| 14 | 243 | 924 | 409 | 134 | 284 | 82 | 42 | 986 | 296 | 747 | 2153 | 31 | 17453 | 446 | ø | တ | 0 | 80 60 | 65 60 | 18 | - 123 | 62692 |
| 13 | 749 | 443 | 804 | 1.5 | 330 | 6028 | 16 | 1542 | 103 | 238 | 7.9 | 27331 | 147 | 32 | 0 | 382 | Π | 216 | ** | 13 | 44 | 18862 |
| 13 | 8853 | 15069 | 2648 | 807 | 539 | 1883 | 172 | 42867 | 2110 | 40427 | 178421 | 327 | 1864 | 2542 | 0 | 919 | 206 | 315 | ~ | 133 | 948 | 338314 |
| Ξ | 3564 | 7000 | 2777 | 1568 | 533 | 8026 | 613 | 15410 | 1117 | 79771 | 35633 | 346 | 963 | .02 | 0 | 426 | 61 | 703 | 106 | 9.6 | 386 | 173756 |
| 10 | 4795 | 14361 | 637 | 201 | 2585 | 353 | 262 | 34773 | 49420 | 2265 | 2108 | 1116 | 1200 | 2332 | 0 | 121 | 413 | 267 | r.s | 53 | 161 | 141694 |
| ø | 13783 | 70233 | 5391 | 6603 | 8992 | 5885 | 1934 | 213895 | 37004 | 19801 | 41046 | 1336 | 1371 | 7200 | 1.42 | 946 | 680 | 2091 | 5,19 | 224 | 310 | 515829 |
| ∞ | 10259 | 5902 | 2217 | 2038 | 1103 | 2848 | 40949 | 3640 | 515 | 1806 | 755 | 37 | 261 | 88 | 0 | 8586 | 0 | 1978 | 1393 | 210 | 201 | 98393 |
| 7 | 13382 | 4829 | 15494 | 1142 | 769 | 106041 | 1454 | 5157 | 254 | 10318 | 1655 | 7050 | 187 | 635 | 131 | 1659 | ro. | 1625 | 445 | 107 | 251 | 193461 |
| ဖ | 4261 | 24725 | 357 | 846 | 36067 | 557 | 336 | 9453 | 2722 | 808 | 288 | 229 | 404 | 5153 | 193 | 8 B | 116 | 75 | 284 | 81 | 274 | 100464 |
| ıo. | 17179 | 10842 | 1385 | 47497 | 1200 | 1707 | 1125 | 6899 | 147 | 2299 | 1254 | 77 | 70 | 839 | ero | 713 | 0 | 1693 | 1253 | 196 | 98 | 132899 |
| ~ | 5299 | 2593 | 17830 | 833 | 283 | 14338 | 1125 | 4409 | 248 | 2727 | 2330 | 1013 | 202 | 60 | 0 | 16 | 679 | 486 | 378 | 167 | 123 | 63875 |
| က | 18219 | 144812 | 3274 | 9393 | 26387 | 6416 | 2805 | 65844 | 15846 | 3097 | 14510 | 301 | 909 | 3298 | 828 | 1545 | 230 | 2506 | 182 | 582 | 353 | 405089 |
| ~ | 19929 | 80360 | 10973 | 33983 | 12143 | 26168 | 1057 | 85131 | 29723 | 22304 | 37515 | 1166 | 2342 | 9539 | 424 | 1007 | 709 | 3125 | 1998 | 235 | 787 | 471726 |
| - | 32454 | 20700 | 6046 | 17443 | 4015 | 15641 | 6188 | 17544 | 3555 | 5291 | 7301 | 1243 | 345 | 5185 | 581 | 5920 | 308 | 3640 | 3458 | 617 | 929 | 177649 |
| DISTRICT | → 6 | u 60 | 4 | ΑF | P S | 6- | ∞ - 4 | er. | 10 | 11 | 1.2 | 13 | 14 | 1.5 | 16 | 17 | 87 | 13 | 20 | 21 | 22 | TOTAL |

B-ZONE OD TABLE LAHORE 2010 BY MODE

FOR MODE 4 : Private Total

| TOTAL | 405586 | 697461 | 672533 | 259069 | 377337 | 233877 | 741790 | 416312 | 713717 | 275212 | 514881 | 438357 | 155757 | 83141 | 192522 | 85055 | 235949 | 57984 | 25160 | 14001 | 10923 | 11150 | 7268894 |
|----------|--------|--------|--------|--------|--------|--------|--------|---------|---------|----------|--------|---------|--------|-------|--------|-------|--------|-------|-------|-------|-------|-------|---------|
| 22 | 644 | 331 | 547 | 133 | 113 | 317 | 148 | 328 | 528 | 31 | 514 | 11.45 | 244 | 188 | 481 | 757 | 579 | 1506 | 166 | 124 | 262 | 124 | 9276 |
| . 21 | 1479 | 950 | 1312 | 148 | 227 | 0 | 1156 | 181 | 627 | £. | 122 | 33 | 0 | 65 | 463 | 2809 | 129 | 220 | 1052 | 143 | 999 | 19 | 15109 |
| 20 | 3725 | 2458 | 1513 | 223 | 1317 | 70 | 583 | 1425 | 1815 | 161 | 298 | 63 | 45 | 111 | 721 | 195 | 6764 | 16 | 212 | 28 | 271 | 268 | 22288 |
| 6 T | 5177 | 1251 | 4813 | 477 | 1361 | | 1017 | 3614 | 891 | 0 | 780 | 449 | 15 | 15 | 902 | 125 | 6817 | 54 | 283 | 83 | 1530 | 553 | 29534 |
| 18 | | | | | | | | | | | | | | | | | | | | | | | 61440 |
| En- | 12057 | 3335 | 1659 | 203 | 1047 | 197 | 2288 | 30400 | 2107 | 800 | 633 | 534 | 1376 | 102 | 0 | ţ~- | 164448 | 102 | 3583 | 2237 | 438 | 252 | 227958 |
| 16 | 1512 | 702 | 180 | 0 | 0 | 134 | 238 | 0 | 231 | 229 | 360 | 439 | 92 | 0 | 0 | 72858 | 22 | 612 | 256 | 85 | 3060 | 1381 | 82338 |
| 15 | | 19770 | | | | | | | | - | - | | | | | | | | | | | | 949411 |
| 71 | | 3213 | | | | | | | | | | | | | | | | | | | | | 66753 |
| | | 2516 | | | | | | | | | | | | | | | | | | | | | 148381 |
| 1.2 | | 45199 | | | | | | | | | | | | | | | | | | | | | 476128 |
| | | 34484 | | | | | | | | | | | | | | | | | | | | | 444478 |
| 10 | | 28463 | | | | | | | | | | | | | | | | | | | | | 245193 |
| o, | | 83857 | | | | | | | | | | | | | | | | | | | | | 690180 |
| ස | 28275 | 33142 | 11134 | 6951 | 6888 | 1840 | 17513 | 322083 | 4870 | \$15 | 3136 | 1301 | 459 | 501 | 86 | 0 | 39785 | 0 | 2159 | 1441 | 411 | 201 | 482584 |
| | 41170 | 50939 | 10142 | 68067 | 4250 | 1587 | 459677 | 7722 | 9840 | 277 | 37789 | 3731 | 10478 | 395 | 3416 | 731 | 2034 | -3 | 1659 | 508 | 128 | 380 | 712993 |
| w | 9442 | 22760 | 49068 | 1141 | 2826 | 93486 | 2287 | 1216 | 13008 | 4447 | 1661 | 974 | 229 | 404 | 10356 | 428 | 86 | 329 | 85 | 787 | 8 | 343 | 214951 |
| ъ | 47811 | 81385 | 26286 | 3187 | 192261 | 3873 | 0609 | 4053 | 9855 | 383 | 5475 | 2006 | 1272 | 175 | 830 | 65 | 791 | 0 | 1704 | 1272 | 198 | 93 | 389011 |
| ₹* | 17165 | 24888 | 7187 | 88744 | 1969 | 784 | 59344 | 3728 | 6506 | 1007 | 16260 | 3298 | 1730 | 244 | 238 | 0 | 16 | 40 | 513 | 408 | 783 | 139 | 235089 |
| က | 30388 | 93622 | 252966 | 8745 | 22539 | 51299 | 12171 | 5103 | 84711 | 24192 | 17129 | 18851 | 106 | 645 | 5047 | 628 | 1603 | 230 | 2506 | 182 | 587 | 506 | 634551 |
| 6-2 | 39387 | 122907 | 98238 | 31220 | 73709 | 23962 | 63798 | 15534 | 93764 | 34331 | 55593 | 44659 | 2467 | 3259 | 12676 | 1171 | 1374 | 1111 | 3230 | 2017 | 300 | 844 | 727549 |
| - | 99455 | 39987 | 35080 | 21957 | 48788 | 9627 | 47409 | 15745 | 23250 | 5783 | 18772 | 10904 | 1882 | 453 | 7313 | 1054 | 7122 | 385 | 3740 | 3458 | 672 | 681 | 403514 |
| DISTRICT | | 2 | ന | 4 | z, | τO | ţ | ∞ Δ1 | o DI | <u>።</u> | 11 | 21 5 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | TOTAL |

B-ZONE OD TABLE LAHORE 2010 BY MODE

FOR MODE 5 : Public

| TOTAL | 302435 | 394374 | 252338 | 119791 | 148532 | 185763 | 3593.13 | 168452 | 177157 | 115516 | 247447 | 184184 | 74896 | 71287 | 376355 | 108257 | 243813 | 124165 | 114524 | 97345 | 45023 | 46105 | 3975073 | |
|-------------|--------|--------|--------|--------|---------|--------|---------|----------|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|----------------|-------|-------|-------|---------------|--|
| 22 | 3127 | 3396 | 3545 | 503 | 853 | 665 | 1543 | 1737 | 1826 | 226 | 513 | 6682 | 230 | 192 | 1939 | 870 | 425 | 5450 | 929 | 986 | 937 | 1741 | 38950 | |
| 21. | 5479 | 3248 | 5803 | 528 | 2698 | 892 | 3678 | 1552 | 1788 | 1586 | 1940 | 311 | 48 | 380 | 2177 | 15838 | 407 | 3145 | 7171 | 1166 | 1535 | 561 | 62041 | |
| 20 | 20864 | 15912 | 13336 | 4371 | 7045 | 2201 | 6705 | 17089 | 5703 | 2689 | 5013 | 1675 | 1721 | 358 | 1326 | 17 | 13981 | 863 | 3094 | 1419 | 1035 | 2287 | 128791 | |
| 6 | 15463 | 11186 | 8795 | 3017 | 8578 | 1263 | 7959 | 8337 | 4724 | 261 | 4449 | 3715 | 277 | 1038 | 1799 | 3.5 | 24143 | 9 | 1426 | 3210 | 2446 | 557 | 113874 | |
| 18 | 3069 | 8940 | 6731 | 2129 | 173 | 7016 | 919 | 60 60 | 1677 | 1051 | 0 | 327 | 6 | 1199 | 19391 | 4086 | 1362 | 41145 | 1154 | 132 | 2146 | 5237 | 109572 | |
| 11 | 27433 | 15367 | 2401 | 3763 | 354⊥ | 655 | 4376 | 82571 | 1838 | 202 | 2762 | 2875 | 322 | 2485 | 9637 | 0 | 120031 | 1308 | 18506 | 6135 | 720 | 6.5 | 256994 | |
| 16 | 3794 | 4687 | 1914 | 0 | 509 | 1119 | 1386 | 83 | 2094 | 344 | 1948 | 521 | 0 | 0 | 3340 | 51780 | 76 | 3118 | 55 55 50 | 85 | 8847 | 5956 | 92154 | |
| 121 | 34895 | 67262 | 41393 | 0 | 651 | 29597 | 354 | 335 | 49159 | 16367 | 11341 | 18307 | 2254 | 12243 | 241362 | 14993 | 4215 | 45971 | 5059 | 4677 | 13662 | 286 | 614393 | |
| 14 | 3024 | 5857 | 3567 | 5.9 | 619 | 428 | 466 | 420 | 5093 | 351 | 1720 | 15612 | 103 | 15741 | 3556 | 0 | 730 | 1680 | 582 | 663 | 82 | 633 | 61650 | |
| 13 | 1282 | 5295 | 1.079 | 1129 | 4.1 | 111 | 15029 | 74.2 | 7.7 | 575 | 3838 | 454 | 32327 | 515 | 6 | 7.2 | 408 | 0 | 1640 | 1088 | 23, | 32 | 66403 | |
| 12 | 5051 | 17462 | 9028 | 2263. | 2164 | 585 | 2375 | 1048 | 15815 | 2521 | 20416 | 63505 | 810 | 13987 | 6478 | 321 | 1937 | 214 | 1936 | 919 | 153 | 5790 | 175730 | |
| 11 | 12486 | 17674 | 1272 | 4762 | 1417 | 760 | 14858 | 673 | 3463 | 1139 | 106595 | 14684 | 5574 | 3137 | 1222 | 858 | 70 % | 430 | 3893 | 2024 | 1090 | 1876 | 207589 | |
| 01 | 5797 | 14214 | 13853 | 1518 | 378 | 4318 | 769 | 124 | 16932 | 25157 | 928 | 2710 | 55.8 | 495 | 2882 | 190 | 101 | 1154 | 1659 | 260 | 432 | 861 | 96300 | |
| က | 4885 | 11947 | 14328 | 3901 | 4476 | 3596 | 5030 | 843 | 17000 | 16404 | 4583 | 14800 | 365 | 5412 | 15771 | 4866 | 1333 | 11:12 | 2746 | 3007 | 768 | 1840 | 138813 | |
| 60 | 31203 | 25698 | 13749 | 4769 | 6122 | 3074 | 8232 | 55797 | 1189 | 434 | 2438 | 1123 | 1973 | 4.83 | 8 68 | 158 | 45596 | 345 | 16873 | 19673 | 1855 | 504 | 242294 | |
| t | 23323 | 32456 | 8347 | 25236 | 2153 | 11211 | 183814 | 4135 | 3986 | 775 | 17450 | 1853 | 11975 | 582 | 307 | 476 | 2131 | 465 | 4617 | 7332 | 1090 | 1531 | 338402 | |
| ω | 11142 | 21690 | 27174 | 3284 | 3407 | 54017 | 1228 | 1262 | 3751 | 4536 | 1140 | 1087 | 170 | 133 | 13885 | 955 | 285 | 4006 | 204 | 616 | 360 | 817 | 168356 | |
| S | 19132 | 44251 | 9760 | 803 | 29104 | 3603 | 3599 | 3057 | 3969 | 445 | 2216 | 2039 | 230 | 450 | 197 | 1277 | 2511 | 168 | 4880 | 4928 | 709 | 1451 | 138793 | |
| -c# | 8409 | 14005 | 5633 | 24826 | 677 | 2159 | 24315 | 1472 | 2991 | 1169 | 6050 | 1666 | 3831 | 576 | | 0 | 1507 | 542 | 2024 | 2049 | 491 | 685 | 205301 105177 | |
| ෆ | 10056 | 20483 | 32592 | 6095 | 8 6 2 8 | 26720 | 8166 | 6850 | 13978 | 15542 | 7485 | 8504 | 1129 | 2709 | 7153 | 3056 | 1846 | 3999 | 8622 | 5027 | 2663 | 3888 | | |
| 7 | 16038 | 15708 | 20609 | 16076 | 43974 | 20710 | 37465 | 12028 | 14059 | 17474 | 24773 | 16528 | 4649 | 5233 | 22156 | 4877 | 9331 | 6030 | 9886 | 11126 | 938 | 4735 | 335403 | |
| - -≺ | 35483 | 16618 | 11299 | 9886 | 21167 | 11628 | 27037 | 18148 | 6018 | 6268 | 19449 | 5038 | 1750 | 3929 | 20570 | 3088 | 16367 | 2798 | 17088 | 19863 | 2757 | 3572 | 280093 | |
| DISTRICT | - | ~ | ~ | 7 | r. | ø | ţ-· | ø | o | 0. | Π | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | TOTAL | |
| | | | | A | ΡI | P6 | · | 6 | | | | | | | | | | | | | | | | |

Appendicies for Chapter 7

Traffic Assignments

The OD tables to be assigned to a network were prepared for three transport mode types, i.e., 2-wheel vehicle, 4-wheel vihicle and public transportation passenger. The public mode demand can consequently be split into bus and rail transit system after assignment work using the model of modal choice, as shown in Appendix 7.1.

The assignment of the OD traffic volume of each mode of the transportation networks is done by the multi-step shortest path method. This method distributes the OD traffic volume part-by-part in several times considering the relationship among the capacity, traffic volume, and speed in each link (section) of traffic networks. In this study, assignment was made five times, and the OD traffic volume split ratio was made as follows: 30%, 20%, 20% and 10%. For 2-wheel vehicle and public transport, however, 50% each was distributed in the first and the second assignment.

As the neccessary input for making the assignment, each road link is identified by nodes at both ends (intersections), length and Q-V curve, etc., Link data are shown in Appendix 7.4 and Appendix 7.5. The Q-V curve shows the relationship between the traffic volume (Q) and the speed (V) of vehicle under such a traffic volume. Appendix 7.2 represents a general Q-V vurve, while Appendix 7.3 shows types of Q-V curves.

The result of traffic assignment is shown in Appendix 7.6.

Appendix 7.1 Applied Model of Modal Choice

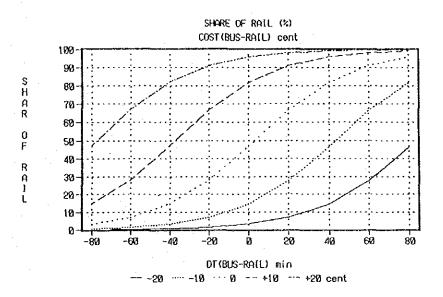
$$p = \frac{1}{1 + e^{\alpha + \beta \Delta t + \gamma \Delta c}}$$

$$p : Share of Rail in %$$

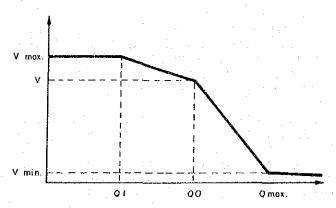
$$\alpha = 0. 1 2 7$$

$$\beta = -0. 0 4 1$$

$$\gamma = -1 6. 5 0 0$$



Appendix 7.2 Q-V Curve (Traffic Volume and Velocity)



Appendix 7.3 Speed-Flow Curve of Road

| Model | Location | No. of | Fr | ee-Flow | Ca | pacity | Cut-0 | ff Point |
|-------|----------|-----------|---------|-----------|---------|-----------|---------|-----------|
| No. | | Lanes | V max | Q1 | ν. | Q0 | V min | Q max |
| | | | (km/hr) | (veh/day) | (km/hr) | (veh/day) | (km/hr) | (veh/day) |
| 1 | | 2(narrow) | 40 | 3,600 | 30 | 9,600 | 5 | 12,000 |
| 2 | | 2(wide) | 50 | 4,800 | 35 | 12,800 | 5 | 16,000 |
| 3 | Urban | 4 | 50 | 14,400 | 35 | 38,400 | 5 | 48,000 |
| 10 | Area | 6 | 50 | 21,600 | 35 | 57,600 | 10 | 72,000 |
| 4 | | One-way 2 | 45 | 7, 200 | 30 | 19, 200 | 5 | 24,000 |
| 5 | | One-way 4 | 50 | 14,400 | 35 | 38,400 | 5 | 48,000 |
| 6 | Rural | 2 | 45 | 5,100 | 30 | 13,600 | 10 | 17,000 |
| 7 | Area | 4 | 60 | 20,400 | 40 | 54, 400 | 10 | 68,000 |
| 8 | | 6 | 60 | 30,600 | 40 | 81,600 | 10 | 102,000 |

Appendix 7.4 Link Data (1)

| LINK NOCE LENGTH GV | 1 teacour co-oversize on to | X.E | |
|--|---|---|---|
| 1 771 564 4 7 00 2 564 594 5.1 7 00 3 565 594 4 7 00 4 502 565 44 3 00 5 502 568 1.8 3 00 7 202 203 3 3 00 8 203 208 1.8 3 00 9 208 209 1.5 3 00 10 210 505 .9 3 00 11 259 505 .5 3 00 12 257 259 3 3 00 13 257 506 6 3 00 14 256 506 3 10 00 15 255 256 3 10 00 16 254 255 3 10 00 17 255 256 3 10 00 18 252 253 3 3 00 19 249 252 1.1 3 00 20 239 249 4 3 00 20 239 249 3 3 3 00 18 252 253 .3 3 00 20 239 249 3 3 3 00 21 238 239 7 3 00 22 237 238 6 3 00 22 237 238 6 3 00 24 231 239 1 4 10 00 25 219 231 1 9 3 00 26 219 513 1 3 3 00 27 220 513 6 3 00 27 220 513 6 3 00 27 220 513 1 3 0 00 28 220 222 2 2 2 3 00 29 222 223 2 6 3 00 27 220 513 1 3 0 00 28 220 225 2 5 5 3 00 31 571 572 6 5 6 00 30 223 571 3 5 7 00 31 571 572 6 5 6 00 31 571 572 6 5 6 00 32 251 270 3 3 00 35 250 253 1 3 00 36 1312 1313 1 10 00 27 28 131 2 10 00 28 220 251 270 3 3 00 37 213 313 5 10 00 38 1313 313 5 10 00 38 1313 313 5 10 00 39 315 359 1 1 10 00 2036 1312 1313 1 10 00 2036 1312 1313 1 10 00 2036 1312 1313 2 1 10 00 2036 1312 1313 2 1 10 00 2036 1312 311 2 10 00 37 313 314 3 10 00 38 314 315 3 10 00 39 315 359 1 1 10 00 40 359 1359 9 10 00 40 359 1359 9 10 00 40 41 365 365 2 10 00 41 363 364 2 10 00 41 363 364 2 10 00 42 364 365 1 16 00 43 464 465 2 10 00 44 367 459 461 6 10 00 49 462 463 4 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 463 464 1 4 3 00 50 50 586 575 1 8 3 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 581 740 2 7 0 00 60 60 581 740 2 7 0 00 60 60 581 740 2 7 0 00 60 60 581 740 2 7 0 00 60 60 60 60 60 60 60 60 60 60 60 | 0 3000 320 3000 720 3140 1220 0 3200 1620 3140 1220 0 3200 1620 3140 1220 0 3200 1620 3200 1620 3200 1620 3200 1620 3200 2070 3265 2255 0 3275 2305 3265 2255 0 3275 2305 3265 2255 0 3275 2305 3265 2255 0 3275 2305 3265 2255 0 3275 2305 3265 2255 0 3275 2305 3265 2255 0 3275 2305 3265 2255 0 3200 2355 3320 2355 0 3405 2435 3455 2490 0 3510 2550 3495 2530 3455 2490 0 3510 2550 3495 2530 3495 2530 3495 2530 3495 2530 3495 2530 3495 2530 3495 2530 3495 2530 3495 2530 3570 2665 3530 2655 0 3665 2715 3570 2665 3530 2655 0 3665 2715 3570 2665 3530 2655 0 3665 2715 3570 2665 3730 2755 3695 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 3685 2725 0 3840 2795 3860 2760 2760 4160 2705 4036 2751 3840 2795 0 4160 2705 4036 2751 3840 2795 0 4160 2705 4036 2751 3840 2795 0 4160 2705 4036 2751 3840 2795 0 4160 2600 5190 2600 0 4450 2655 4380 2660 0 4450 2655 4380 2660 0 4450 2655 4380 2660 0 4450 2655 330 4900 2600 0 5190 | 100 | 3315 3780 3590 3590 3500 3590 3590 3590 3590 3500 3590 3550 3550 3590 3515 3490 3645 3418 3405 3333 3705 3335 3780 3245 3823 3185 3860 3140 3930 3055 3810 3940 3040 3091 3040 3091 3040 3091 3040 4015 2975 4015 2975 4015 2975 4016 2935 4385 2880 4875 2810 4802 2760 2900 2760 4900 2760 4900 2760 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 2770 4900 |
| 83 207 210 1.4 3 00 84 203 207 .6 3 00 85 353 354 .9 3 00 86 352 353 1.1 3 00 87 335 352 1.5 3 00 88 334 335 .4 3 00 99 329 333 1.1 3 00 90 329 333 1.1 3 00 91 329 526 1.3 3 00 92 209 526 2.9 3 00 93 209 210 .6 3 00 94 210 211 2.5 0 00 | 0 3345 2340 3405 2435 0 3260 2335 3345 2240 0 3180 3250 3264 3283 0 3055 3210 3180 3250 0 3100 3080 3055 3210 0 3135 3025 3100 3080 0 3170 2970 3135 3025 0 3215 2875 3170 2970 0 3215 2875 3268 2759 0 3375 2495 3405 2435 0 3405 2435 3550 2430 | 193 545 574 4.5 6 00 0 194 574 575 3.3 6 00 0 195 573 575 3 6 00 0 195 573 576 3 6 00 0 197 775 576 2.5 6 00 0 199 389 391 1 3 00 0 199 389 399 8 3 00 0 0 00 00 00 0 | 4860 3365 5130 3700 5130 3700 5360 3920 5800 4100 5830 4310 6000 4480 5830 4310 6000 4480 5830 4310 3135 3650 3042 3679 3215 3620 3135 3650 3290 3590 3215 3620 3400 3530 3290 3390 3400 3530 3415 3520 3465 3495 3415 3420 |
| 95 211 212 9 3 00 96 212 214 4 3 00 97 510 702 1.7 3 00 1097 214 702 8 3 00 98 216 704 1.5 3 00 1098 510 704 1.5 3 00 99 216 217 9 3 00 | 0 3650 2430 3730 2430 0 3730 2430 3780 2430 0 4045 2435 3870 2435 0 3780 2430 3870 2435 0 4315 2440 4185 2440 0 4315 2440 4185 2440 0 4315 2440 4350 2310 | 205 366 374 .2 3 00 0 206 362 366 .8 3 00 0 207 362 363 .2 3 00 0 208 377 378 1.4 3 00 0 209 379 379 .4 3 00 0 210 379 380 .6 3 00 0 211 380 381 .3 3 00 0 | 3550 3450 3555 3455 3605 3410 3550 3450 3605 3410 3640 3408 3228 3358 3310 3440 3310 3440 333 3455 3335 3465 3380 3505 3380 3505 3400 3530 |

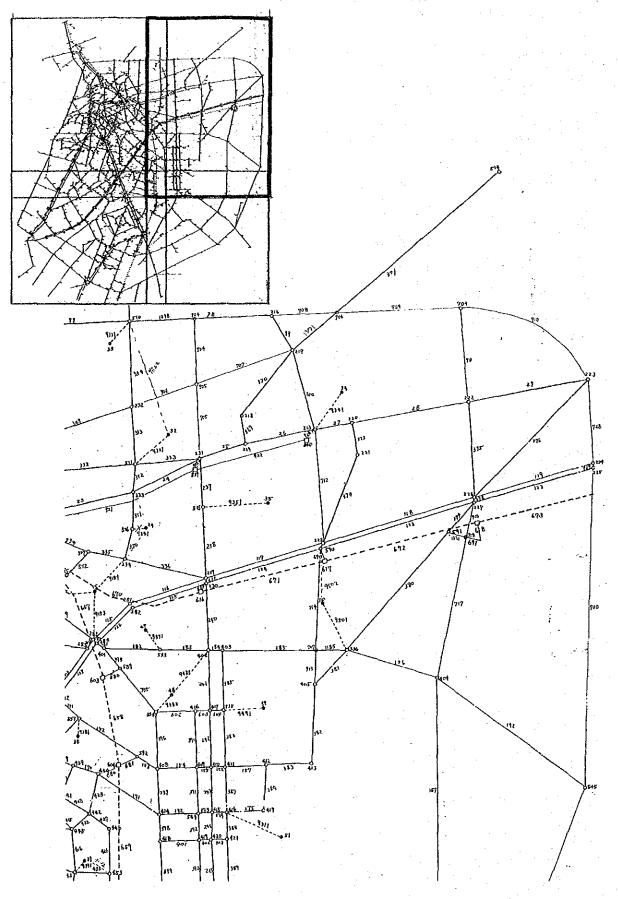
| | | | | | | | 100 | | | | | | 4 | | 1 | ф (H | 3.57 | 100 |
|----------------------|------------|----------------------|--------|---------------|--------------------|------------------|--------------|----|--------------------|------------|------------|------------|----------------|-----|--------------|----------------|------------------|--------------|
| 212 382 | 383 | .4 3 00 | ٥ | 3415 | 3520 | 3445 | 3550 | | 321 | 293 | 301 | 1.3 | 2 03 | 0 | | 3170 | | |
| 213 383 | 384 | .6 3 00 | ō | 3145 | 3550 | 3500 | 3590 | | 322 323 | 293 293 | 295 294 | . 8 4 | 2 03 | 0 | 3795 3795 | 3170 | 3735 | 3210 3185 |
| 214 384 215 385 | 385 468 | .1 3 00 .6 3 00 | 0 | 3500 3505 | 3590 3595 | 3505 3550 | 3595 3630 | | 324 | 290 | 293 | . 8 | 2 03 | 0 | 3845 | 3125 | 3795 | 3170 |
| 215 385 216 467 | 468 | .3 3 00 | õ | 3580 | 3620 | 3550 | 3630 | | 325 | 273 | 522 | 4 | 2 00 | 0 | 3545 3659 | 2840 2799 | :3585 :3585 : | 2830 2830 |
| 217 456 | 467 | 1.1 3 00 | 0 | 3702 | 3581 | 3580 3702 | 3620 3581 | | 325 327 | 521 251 | 522 521 | . 8 . 6 | 2 00 | o. | 3710 | 2770. | 3659 | 2799 |
| 218 150 | 456 450 | .5 10 00 .6 10 00 | ă | 3740 | - 3560 - 3515 - | 3740 | 3560 | | 328 | 270 | 521 | . 6 | 2 00 | 0 | 3720 | 2800 | 3659 | 2799 |
| 220 448 | 149 | .6 10 00 | ō | 3805 | 3460 | 3780 | 3515 | | 329 | 269 239 | 521 ··· | . 3 | 2 00: | 0 | 3604 3730 | 2791 2755 | 3659 3750 | 2799 2745 |
| 221 444 222 443 | 148 | .8 10 00 | 0. | 3835 3845 | 3400 | . 3805 . 3835 | 3460 3400 | ٠. | 330 331 | 210 | 512 | 1 | 1 00 | ŏ | 3750 | 2745 | 3840 | 2715 |
| 223 441 | 113 | .3 10 00 | ŏ | 3860 | 3340 | 3845 | 3370 | | 332 | 511 | 512 | 2 | 1 00 | 0 | 4040 | 2710 | 3840: 4040 | 2715 2710 |
| 224 439 | 141 | .8 10 00 .8 2 00 | 0 | -3890 4045 | 3280 | 3860 4120 | 3340 3555 | | 333 334 | 231 236 | 511 517 | 1.3 | 1 00 | ů | 3850 | 2830 | 3940 | 2810 |
| 225 122 226 123 | 123 124 | .8 2 00 | o. | 4120 | 3555 | 4145 | 3555 | | 335 | 234 | 517 | . 7 | 2 00 | . 0 | 4010 | 2890 | 3940 | 2870 |
| 227 424 | 125 | .3 2 00 | 0 | 4145 | 3555 | 4170 | 3555 3555 | | 336 337 | 229 250 | 234 509 | 1.5 | 2 00 | 0 | 4160 3672 | 2935 2699 | 3670 | 2890 2690 |
| 228 125 229 126 | 126 548 | 6 2 00 | 0 | 4240 | 3555 3555 | 4240 | 3590 | | 338 | 245 | 509 | . 7 | .1 00 | 0. | 3690 | 2625 | 3670 | 2690 |
| 230 428 | 548 | 1 2 00 | Q. | 4340 | 3650 | 4240 | 3590 | | 339 | 243 | 245 | . 4 , 6 | 2 00 | 0 | 3730 3765 | 2610 2560 | :3690 -3730 | 2625 |
| 231 428 232 430 | 430 546 | 2 1 00 2 1 00 | 0 | 4340 | 3650 3760 | 4470 | 3760 | | 340 341 | 212 | 243 | 1.6 | 2 00 | Ď | 3780 | 2430 | 3765 | 2560 |
| 232 430 233 546 | 547 | 2.5 6 00 | Ó | 4620 | 3900 | 4740 | 4070 | | 342 | 211 | 507 | 1 | 1 00 | 0 | 3650 | 2430 | 3640 | 2530 |
| 234 497 | 547 | 4 6 00 | 0 | 5000 5000 | 4360 4360 | 4740 5060 | 4070 1470 | | 343 344. | 248 247 | 507 248 | | 1 00 | 0 | 3640 | 2585 2600 | 3640 3640 | 2530 2585 |
| 235 497 236 776 | 577 577 | 1.5 6 00 | ŏ | 5170 | 4690 | 5060 | 4470 | | 345 | 246 | 247 | . 2 | 1 00 | 0 | 3650 | 2625 | 3645. | 2600 |
| 237 231 | 515 | 1 3 00 | 0 | 4160 | 2705 | 4160 | 2800 2600 | | 346 347 | 246 244 | 509 509 | .4 | 1 00 | 0 | 3630 3735 | 2625 2675 | 3670 | 2690 2690 |
| 238 229 239 229 | 515 230 | 1.4 3 00 | 0 | 4160 4160 | 2935 2935 | 4160 4160 | 2945 | | 348 | 2-1 | 244 | 6 | 1 00 | ō | 3810 | 2650 | 3735 | 2675 |
| 240 230 | 710 | .7. 3 00 | 0 | 4160 | 2945 | 4160 | 3015 | | 1349 | 232 | 703 703 | 2.1 | 1 00 | 0 | 1040 3810 | 2600 | 3649 | 2648 2648 |
| 1240 402 241 402 | 710 | .6 2 00 1.1 2 00 | 0 | 4160 4160 | 3075 3075 | 4160 4155 | 3015 | | 350 | 234 | 516 | . 6 | 1 00 | 0 | 4010 | 2890 | 4030 | 2835 |
| 242 107 | 410 | 1.1 2 03 | 0 | 4155 | 3190 | 4150 | 3300 | | 351 | 233 | 516 | | 1 00 | 0 | 4036 4036 | 2751 | 4030 | 2835 2710 |
| 243 410 | 415 | .9 2 03 | 0 | 4150 4145 | 3300. 3390 | 4145 | 3390 3440 | 1 | 352 353 | 233 | 511 511 | .6 1.2: | 1 03 | ŏ. | 4049 | 2500 | 4040 | 2710 |
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| 249 .434 | 464 | 2.9 3 00 | 0 | 4020 | 3790 | 3865 | 4035 2365 | | 358 1358 | 247 | 701 701 | . 5 | 1 03 | 0 | 3645 3570 | 2600 2665 | 3610 | 2635 |
| 250 203 251 201 | 503 503 | 1.6 3 00 .8 3 00 | 0 | 3280 3040 | 2335 2380 | 3120 | 2365 | | 359 | 248 | 508 | 1 - 2 | 1 03 | 0 | 3640 3765 | 2585 | 3740 | 2535 |
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| 1252 760 2252 568 | 761 760 | 3 3 00 3.1 7 00 | 0 | 2600 | 2150 2020 | 2850 2600 | 2270 2150 | | 362 | 243 | 244 | .7 | 1 00 | 0 | 3730 | 2510. | 3735 | 2675 |
| 253 782 | 568 | 4.1 7 00 | õ | 1910 | 1840 | 2280 | 2020 | | 363 | 240 | 244 242 | 1.2 | 1 00 | 0 | 3750 | 2745 2660 | 3735 | 2675 2560 |
| 254 201 | 759 | 5 3 00 | 0 | 3040 | 2380 | 2610 | 2570 | | 364 365 | 241 241 | 512 | . 7 | 1 00 | 0 | 3810 | 2660 | 3840 | 2715 |
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| 255 781 | 739 | 3.5 6 00 | 0 | 1360 | 4090 | 1560 | 3840 | | 367 368 | 212 215 | 213 510 | 1.3 | 2 03 1 | . 9 | 4050 | 2335 | 4045 | 2435 |
| 1255 569 256 399 | 739 400 | 10 3 00 2.5 1 00 | 0 | 2160 2830 | 3120 3940 | 1560 2870 | 3840 4160 | | 369 | 218 | 219 | . 6 | 1 03 | 0 | 4250 | 2630 | 4250 | 2680 |
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| 258 563 | 735 | 1.5 1 00 | 0 | 2720 2720 | 4280 4750 | 2710 2710 | 4400 | | 1371 | 514 | 706 | 3.7 | 1 00 | . 0 | 4760 | 2190 | 4435 | 2445 |
| 1258 582 259 584 | 735 753 | 3.2 1 00 3.3 6 00 | Ö | 2690 | 5460 | 2700 | 5130 | | 372 375 | 222 | 570 226 | 1.9 | 1 00 | 0 | 4760 4675 | 2190 - 2630 | 5270 4575 | 1930 2810 |
| 1259 749 | 753 | 2.7 1 00 | 0 | 2720 | 4860 | 2700 | 5130 | | 376 | 223 | 225 | 3.1 | 2 03 | . 0 | 4900 | 2600 | 4675 | 2810 |
| 2259 582 260 501 | 749 584 | 1.5 1 00 | 0 | 2720 2570 | 4750 6470 | 2720 2590 | 4860 5460 | | 377 | 496 226 | 571 227 | . 1 | 1 00 | 0 | 5250 4675 | 2700 2810 | 3190 4675 | 2600 2820 |
| 261 778 | 501 | 2.5 6 00 | 0 | 2620 | 6560 | 2570 | 6470 | | 378 379 | 227 | 591 | | 1 00 | 0 | 4675 | 2820 | 1625 | 2880 |
| 262 502 263 774 | 567 567 | 11.1 6 00 6 6 00 | O O | 3230 4600 | 2070 1090 | 4100 4100 | 1330 1330 | | 380 | 536 | 591 | 2.9 | 1 00 | 0 | 4420 | 3090 3150 | 4625 | 2880 3090 |
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| 270 256 | 262 524 | 1 10 00 3 10 00 | 0 | 3535 3441 | 2635 2656 | 3441 3441 | 2655 2690 | | 385 386 | 403 411 | 535 535 | 1.1 | 1 00 | o | 4180 | 3300 | 4180 | 3190 |
| 271 252 272 265 | 524 | .7 10 00 | Ö | 3439 | 2765 | 3441 | 2690 | | 387 | 411 | 416 | .9 | 1 00 | 0 | 4180 4175 | 3390 3390 | 4175 | 3390 3440 |
| 273 265 | 266 | .3 10 00 | 0 | 3439 | 2765 | 3455 | 2775 | | 388 389 | 416 421 | 421 425 | .6 1.1 | 1 00 | o. | 4175 | 3440 | | 3555 |
| 274 266 275 267 | 267 268 | .6 3 00 .4 3 00 | 0 | 3455 3505 | 2775 2795 | 3505 3545 | 2795 2799 | | 390 | 406 | 409 | 1.1 | 1 00 | 0 | 4125 | 3190 | 4125 | 3300 |
| 276 268 | 269 | .6 3 00 | 0 | 3545 | 2799 | 3604 | 2791 | | 391 3 92 | 409 419 | 544 544 | . 6 | 1 00 | 0 | 4125 | | 4120 | 3390 |
| 277 253 278 271 | 269 272 | 1 3 00 .3 4 00 | 0 | 3660 3740 | 2715 2830 | 3604 3720 | 2791 2810 | | 393 | 419 | 423 | 1.1 | 1 00 | ō | 4120 | 3440 | 4120 | 3555 |
| 279 272 | 520 | .7 1 00 | 0 | 3720 | 2840 | 3655 | 2870 | | 394 395 | 401 534 | 589 711 | .5 | 1 00 | 0 | 3960 4050 | 3055 - 3190 | 3990 4015 | 3100 3130 |
| 280 274 281 274 | 520 275 | .4 3 00 .3 3 00 | 0 | 3620 3620 | 2895 2895 | 3655 3585 | 2870 2900 | | 1395 | 589 | 711 | .5 | 1 00 | ò | 3990 | 3100 | 4015 | 3130 |
| 282 275 | 529 | .3 3 00 | ō | 3585 | 2900 | 3555 | 2905 | | 395 397 | 408 | 534 414 | 1.1 | 1 00 | 0 | 4050 4050 | 3300 3300 | 4050 | 3190 |
| 283 320 284 320 | 529 321 | .4 3.00 .3 3.00 | 0 | 3520 3520 | 2910 | 3555 3485 | 2905 | | 398 | 414 | 418 | . 6 | 1 00 | Ō | 4050 | 3390 | 4050 | 3440 |
| 285 321 | 323 | .3 3 00 | ō | 3485 | 2920 | 3465 | 2915 | | 399 | 418 | 422 | 1.1 | 1 00. 1 00 | 0 | 4050 4045 | 3440 | 4045 | 3555 3610 |
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| 289 278 290 305 | 530 530 | .6 3 00 .6 3 00 | 0 | 3730 3615 | 2955 2980 | 3665 3665 | 2960 2960 | 7 | 403 404 | 420 450 | 421 452 | 1.3 | 3 00 | ŏ | 3740 | 3560 | 3860 | 3595 |
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| 293 278 294 279 | 519 519 | .6 3 00 .4 3 00 | 0 | 3810 | 2925 | 3775 | 2940 | | 408 | 427 | . 551 | . 1 | 3 00 | 0 | 4140 | 3610 | 4045 3960 | 3510 3680 |
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| 296 236 297 236 | 518 237 | .6 3 00 .3 3 00 | 0 | 3850 3850 | 2830 2830 | 3840 | 2795 | | 411 | 433 | 434 | 1 | 1 00 | ō | 3930 | 3750 | 1020 | 3790 |
| 298 286 | 288 | .3 2 03 | 0 | 3770 | 3025 | 3745 | 3040 | | 412 | 435 | 549 549 | 1.7 | 10 00 10 00 | 0. | 4085 4230 | 3710 | 4180 | 3820 3820 |
| 299 285 300 273 | 286 274 | 1.6 2 03 | 0 | 3930 3545 | 3055 2840 | 3770 3620 | 3025 2895 | | 413 414 | 436 | 437 | .9 | 10 00 | 0 | 4230 | 3820 | 4320 | 3900 |
| 301 274 | 276 | .3 1 03 | Ö | 3620 | 2895 | 3640 | 2905 | | 415 | 443 | 445 | 5 | 2 00 3 00 | 0 | 3845 3880 | 3370 3400 | 3880 3880 | 3400 |
| 302 276 303 275 | 278 277 | .9 1 03 .6 1 03 | 0 | 3640 3585 | 2905 2900 | 3730 3630 | 2955 2935 | | 416 417 | 445 451 | 543 543 | .9 | 3 00 | o: | 3870 | 3550 | 3880 | 3485 |
| 304 277 | 530 | .3 1 03 | 0 | 3630 | 2935 | . 3665 | 2950 | | 418 | 451 | 452 | . 5 | 2 00 3 00 | 0 | 3870 | 3550 3340 | 3860 | 3595 3390 |
| 305 304 306 305 | 530 306 | .4 3 03 .3 3 00 | 0 | 3650 3615 | 3000 2980 | 3665 3600 | 2950 3005 | | 419 420 | 300 444 | 542 542 | .6 | .3 00 . | 0 | 3835 | 3400 | 3775 | 3390 |
| 307 306 | 308 | .3 3 00 | 0 | 3600 | 3005 | 3585 | 3030 | | 421 | 444 | 445 | . 4 | 3 03 | 0 | 3835 3915 | 3400 | 3860 3880 | 3400 3400 |
| 308 308 | 1310 | .7 3 00 .2 3 00 | 0 | 3585 3547 | 3030 3088 | 3547 3538 | 3088 3100 | | 422 423 | 442 | 445 442 | .3 | 3 03 | 0 | 3935 | 3300 | 3915 | 3375 |
| 1308 1310 309 310 | 309 | .5 2 00 | 1 | 3545 | 3000 | 3569 | 2949 | | 424 | 454 | 455 | .6 | .5 00 | 0 | 3945 | 3550 | 3940 | 3603 3550 |
| 310 310 | 1310 | 1 2 00 | 0 | 3545 | 3000 2920 | 3547 3510 | 3088 2975 | | 425 426 | 453 446 | 454 453 | 8 | 2 00 | 0 | 3950 3950 | 3490 3405 | 3945 3950 | 3490 |
| 311 321 312 310 | 531 531 | .6 3 00 .4 2 00 | 0 | 3485 3545 | 3000 | 3510 | 2975 | | 427 | 442 | 446 | . 8 | 2 00 | 0 | 3915 | 3375 | 3950 | 3405 |
| 313 308 | 310 | .5 2 00 | 0 | 3585 | 3030 | 3545 | 3000 | | 428 429 | 441 298 | 442 441 | .6 1.2 | 3 00 | 0 | 3860 3775 | 3340 | 3915 3860 | 3375 3340 |
| 314 307 315 306 | 398 309 | .5 2 03 .6 2 00 | 0 | 3630 3600 | 3040 | 3585 3569 | 3030 2949 | | 430 | 447 | 542 | 6 | 2 03 | 0 | 3780 | 3450 | 3775 | 3390 |
| 316 306 | 307 | .5 2 03 | ŏ | 3600 | 3005 | 3630 | 3040 | | 431 | 447 | 448 543 | .3 | 2 03 2 03 | 0 | 3780 3805 | 3450 -3460 | 3805 3880 | 3460 3485 |
| 317 307 | 532 | .9 2 03 | 0 | 3630 | 3040 | 3680 | 3120 3080 | | 432 433. | 448 453 | 543 | .7 | 2 03 | 0 | 3930 | 3490 | 3880 | 3485 |
| 318 289 319 301 | 301 532 | .6 3 00 .4 3 00 | 0 | 3730 3700 | 3035 3080 | 3700 3680 | 3120 | | 434 | 449 | 451 | . 8 | 3 03 3 03 | 0 | 3780 3870 | 3515 3550 | 3870 3945 | 3550 3550 |
| 320 302 | 532 | .6 3 00 | ő | 3660 | 3160 | 3680 | 3120 | | 435 | 451 | 454 | . 0 | | | | | | |

| 468 487 556 1.3 2 00 0 3400 4130 3470 4150 580 316 540 2 1 03 0 3555 3190 3480 468 457 458 3.3 2 00 0 3702 3650 3707 3650 3750 582 376 380 1 1 03 0 3465 3450 3480 417 456 557 6 2 0 0 3690 3820 3670 3750 3750 587 375 358 315 338 3480 3481 | 437 460 552 6 2 00 0 37 439 438 537 9 3 03 0 38 440 468 558 1,3 3 00 0 3 441 473 558 1,3 3 00 0 3 441 473 558 1,3 3 00 0 3 441 473 558 1,3 3 00 0 3 444 474 475 1,5 3 00 0 3 444 474 475 1,5 3 00 0 3 444 474 475 1,5 3 00 0 3 445 475 477 6 3 00 0 3 446 477 478 6 3 00 0 3 447 478 479 3 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 553 9 3 00 0 3 451 481 593 1 8 3 00 0 3 451 481 593 1 8 3 00 0 3 451 488 493 2 3 00 0 3 452 463 593 1 8 3 00 0 3 453 493 494 2 3 00 0 3 455 487 482 1 3 00 0 3 456 477 482 1 3 00 0 3 457 476 477 6 3 00 0 3 459 480 485 9 10 00 0 3 459 480 485 9 10 00 0 3 450 481 485 9 10 00 0 3 451 481 483 1 1 0 00 0 3 463 494 495 3 10 00 0 3 465 482 483 1 1 00 0 3 465 482 483 1 1 00 0 3 465 482 483 1 1 00 0 3 465 482 483 1 1 00 0 3 | 775 3710 3830 3770 774 3794 3830 37770 335 3260 3910 3190 355 3630 3485 3730 325 3780 3485 3730 325 3780 3815 3360 3815 330 3785 3360 3815 330 3785 3360 3815 330 3785 3420 3950 320 3980 3510 4010 110 4010 3540 4020 140 4020 3566 4031 402 03566 4031 404 4105 3560 4075 440 4105 3760 4065 324 3930 3760 4065 324 3930 3760 4065 324 3930 3760 4065 320 4300 310 4330 100 4130 3320 4300 115 4080 3400 4130 180 3925 3460 3980 12125 3780 3480 3925 366 4031 3525 4100 360 4117 3525 4100 360 4117 3470 4150 3610 4307 3354 4150 3610 4307 3354 4150 3610 4317 3470 4150 3610 4317 3470 4150 3610 4317 3470 4150 3610 4317 3470 4150 3610 4317 3470 4150 3610 4317 3470 4150 | 549 335 350 .7 1 03 550 264 526 1 1 03 551 263 264 1 1 03 552 260 263 4 1 03 552 260 263 4 1 03 553 328 528 5 1 00 555 324 327 .5 1 00 555 324 327 .5 1 00 555 324 327 .5 1 00 556 327 330 .6 1 00 557 330 337 .9 1 00 558 340 341 .7 1 03 559 341 541 .3 1 03 559 341 541 .3 1 03 559 341 541 .3 1 03 559 341 541 .3 1 03 550 349 541 .9 1 03 556 348 349 .4 1 03 556 348 349 .4 1 03 563 350 351 .7 1 03 563 350 351 .7 1 03 564 354 355 1.1 1 00 565 353 356 3 1 00 567 357 540 .8 1 00 568 353 356 .3 1 00 568 353 356 .3 1 00 568 353 356 .3 1 00 567 357 540 .8 1 00 568 358 357 .5 1 00 577 378 559 .9 2 00 577 378 559 .9 2 00 577 378 559 .9 2 00 577 378 357 378 1.5 2 00 577 378 357 378 1.5 2 00 576 345 355 1.4 1 03 576 345 355 1.4 1 03 576 345 355 1.4 1 05 576 345 357 344 9 1 03 578 344 539 4 1 00 579 364 539 1.4 1 00 579 364 539 1.4 1 00 | 0 3100 3080 3165 0 3360 2720 3268 0 3415 2650 3360 0 3415 2610 3415 0 3315 2840 3330 0 3420 2901 3360 0 3340 2895 3330 0 3420 2901 3360 0 3360 3370 3295 0 3225 3160 3290 0 3225 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3290 0 3250 3160 3160 0 3165 3090 3160 0 3360 3305 3390 0 3410 3410 3480 0 3530 3410 3480 0 3530 3410 3480 0 3530 3410 3480 0 3530 3410 3480 0 3530 3410 3480 0 3530 3410 3480 0 3530 3410 3480 0 3530 3410 3390 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 0 3400 3155 3400 |
|--|---|---|--|---|
| | 170 458 557 8 2 00 0 37 171 466 557 9 2 00 0 36 172 465 471 9 2 00 0 36 173 470 471 9 2 00 0 36 174 470 557 9 2 00 0 35 175 471 472 9 1 00 0 35 176 472 479 1 1 1 00 0 35 177 458 465 2 1 03 0 37 179 469 472 2 1 03 0 37 179 469 472 2 1 03 0 35 180 458 459 2 1 03 0 35 180 458 459 2 1 03 0 35 481 469 558 5 1 00 0 35 482 469 470 470 470 470 470 481 465 466 9 1 03 0 37 484 462 465 3 1 03 0 37 484 462 465 3 1 03 0 37 485 371 373 4 1 03 0 36 485 371 373 4 1 03 0 36 488 368 369 3 1 03 0 36 489 367 368 4 1 03 0 36 489 485 368 4 1 03 0 36 490 485 486 4 1 03 0 36 490 485 486 4 1 03 0 36 491 486 553 9 3 00 0 36 492 486 487 7 3 00 0 35 493 495 33 30 0 33 495 491 492 4 3 00 0 35 496 492 495 1 3 3 0 0 36 499 490 718 6 1 00 0 35 499 490 718 6 1 00 0 35 499 490 718 6 1 00 0 35 500 204 205 50 1 1 0 0 35 501 202 204 205 15 1 00 0 35 502 204 205 56 1 00 0 33 501 202 204 205 56 1 00 0 35 506 255 223 9 1 03 0 35 507 268 223 9 1 03 0 35 509 273 529 7 1 00 0 35 509 273 529 7 1 00 0 35 509 273 529 7 1 00 0 35 509 273 529 7 1 0 0 35 500 204 205 207 | 700 3680 3670 3750 990 3820 3620 3850 995 3775 3620 3850 995 3775 3620 3850 995 3775 3670 3750 520 3850 38920 585 3920 3840 4020 700 3680 3770 3855 700 3683 3820 200 3740 3385 3920 200 3630 3850 3740 320 3740 3595 3773 370 3853 3690 3865 370 3853 3783 3773 370 3853 3783 3855 370 3853 3620 3855 370 3853 3620 3855 380 3865 3773 3873 381 3620 3475 3470 382 3490 3620 | 587 315 358 5.5 1 03 584 358 360 362 6 1 03 585 360 362 6 1 03 585 360 361 6 1 03 588 387 387 1 1 03 588 387 388 6 1 03 589 387 388 6 1 03 590 386 389 7 3 03 591 370 374 6 1 03 592 372 375 8 1 03 593 390 560 1 1 03 594 394 560 1 1 03 595 395 562 1 1 03 595 586 67 1 0 0 1 1 03 1 </td <td>0 3575 3225 3545 0 3545 3293 3570 0 3570 3360 3530 0 3575 3360 3530 0 3265 3530 3240 0 3265 3530 3290 0 3190 3550 3215 0 3350 3550 3170 0 3215 3840 3278 0 3060 3890 3065 0 3640 2905 3630 0 3640 2905 3630 0 4125 3190 4185 0 3640 2905 3630 0 4125 3190 4185 0 3412 3190 4185 0 3412 3190 4185 0 3412 3731 3941 0 3412 3731 3942 0 3412 3731<!--</td--></td> | 0 3575 3225 3545 0 3545 3293 3570 0 3570 3360 3530 0 3575 3360 3530 0 3265 3530 3240 0 3265 3530 3290 0 3190 3550 3215 0 3350 3550 3170 0 3215 3840 3278 0 3060 3890 3065 0 3640 2905 3630 0 3640 2905 3630 0 4125 3190 4185 0 3640 2905 3630 0 4125 3190 4185 0 3412 3190 4185 0 3412 3190 4185 0 3412 3731 3941 0 3412 3731 3942 0 3412 3731 </td |

| | The second second | | | | | | | | 1.5 | | 3.1. | | 12212 | |
|---|--|--|--|--|--|---|--|--|---|--|--|--|---|---|
| . 740 717. 73 | | 3710 | 4380 | 3680 | 4670 | | 9191 19 | 559 | .5 11 00 | | | 3470 | | 3500 |
| 741 580 73 | | 3640 | 4940 | 3680 | 4670 | | 9201 20 | 389 | .5 11 00 .5 11 00 | 10 | 3210 3210 | 3714 | 3315 | 3620 3780 |
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| 760 724 72 | 5 1.5 3 00 0 | 3130 | 3960 | 3000 | 4060 | | 9252 25 | 505 | 5 11 00 | 10 | 3420 | 2540 | 3455 | 2490 |
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| 764 741 74 | | 2500 2450 | 4650: 4720 | 2450 2240 | 4720 5020 | : | 9291 29 9292 29 | 352 561 | .5 11 00 | 10 | 3020 | 3400 | 3122 | 3538 |
| 765 748 75 766 352 71 | | 3055 | 3210 | 2900 | 3410 | | 9301 30 | 562 | .5 11 00 | 10 | 2925 | 3690 | 2988 | 3791 |
| 767 719 72 | | 2900 | 3410 | 2750 | 3620 | | 9302 30 | 720 | .5 11 00 | 10 | 2925 | 3690 | 2750 | 3620 |
| 768 720 72 | | 2750 | 3620 | 2670 | 3720 | | 9311 31 | 259 | .5 11 00 | 10 | 3610 | 2490 | 3495 | 2530 |
| 769 581 72 | | 2580 | 4100 | 2670 | 3720 | | 9312 31 | 211 | .5 11 00 | 10 | 3610 | 2490 | 3650 | 2430 |
| 770 563 58 | 1 2.2 3 00 0 | 2720 | 1280 | 2580 | 4100 | | 9321 32 | 511 | .5 11 00 | 10 | 4110 | 2640 | 4040 | 2710 |
| 771 563 72 | | 2720 | 4280 | 2830 | 4330 | | 9322 32 | 510 | .5 11 00 | 10 | 4110 | 2640 | 4045 | 2435 |
| 772 128 72 | | 2830 | 4330 | 2970 | 4470 | | 9331 33 | 510 | .5 11 00 | 10 | 4010 | 2480 | 4045 | 2435 |
| 773 729 73 | | 2970 3170 | 4470 4560 | 3170 3380 | 4640 | | 9341 34 | 513 | .5 11 00 | 10 | 4440 | 2595 2800 | 4380 | 2660 2800 |
| 774 730 73 775 731 73 | | 3380 | 4640 | 3480 | 4860 | | 9351 35 | 515 208 | .5 11 00 | 10 | 3175 | 2480 | 3300 | 2395 |
| 775 732 73 | | 3480 | 4660 | 3680 | 4670 | | 9361 36 9362 36 | 503 | .5 11 00 | 10 | 3175 | 2480 | 3120 | 2365 |
| 777 733 73 | | 3680 | 4670 | 3940 | 4650 | | 9371 37 | 502 | .5 11 00 | 10 | 3315 | 2125 | 3230 | 2070 |
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| 779 721 72 | | 2670 | 3720 | 2871 | 3902 | | 9391 39 | 543 | .5 11 00 | 10 | 3900 | 3465 | 3880 | 3485 |
| 780 398 72 | | 2910 | 3940 | 2871 | 3902 | | 9392 39 | 453 | .5 11 00 | -10 | 3900 | 3465 | 3950 | 3490 |
| 781 398 72 | | 2910 | 3940 | 3000 | 4060 | | 9401 40 | 542 | 1 11 00 | 10 | 3740 | 3420 | 3775 | 3390 3445 |
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| 783 493 72 785 740 74 | | 2230 | 4470 | 2500 | 4650 | | 9411 41 9412 41 | 452 459 | .5 11 00 | 10 | 3860 | 3705 | 3745 | 3721 |
| 786 582 74 | | 2720 | 4750 | 2500 | 4650 | | 9413 41 | 461 | 5 11 00 | 10 | 3860 | 3705 | 3774 | 3794 |
| 787 582 74 | | 2720 | 4750 | 2800 | 4790 | | 9421 42 | 558 | .5 11 00 | 10 | 3490 | 3785 | 3485 | 3730 |
| 788 742 74 | | 2800 | 4790 | 3000 | 4900 | | 9122 42 | 472 | 5 11 00 | 10 | 3490 | 3785 | 3585 | 3920 |
| 789 743 74 | | 3000 | 4900 | 3240 | 4990 | | 9431 43 | 171 | .5 11 00 | 10 | 3640 | 3800 | 3520 | 3850 |
| 790 744 74 | 5 4 3 00 0 | 3240 | 4990 | 3620 | 5060 | | 9132 43 | 557 | .5 11 00 | .10 | 3640 | 3800 | 3670 | 3750 3929 |
| 791 745 746 | | 3620 | 5060 | 3850 4000 | 5050 5030 | | 9441 44 | 1463 | .5 11 00 .5 11 00 | 10 | 3697 3697 | 3989 | 3806 3660 | 1075 |
| 792 746 741 | | 3850 1950 | 5050 4850 | 2240 | 5020 | | 9442 44 9451 45 | 553 475 | 5 11 00 | 10 | 3300 | 4000 | 3420 | 3950 |
| 793 750 75 794 751 75 | | 2240 | 5020 | 2510 | 5120 | | 9461 46 | 187 | .5 11 00 | 10 | 3490 | 1200 | 3595 | 4210 |
| 795 752 753 | | 2510 | 5120 | 2700 | 5130 | | 9462 46 | 556 | .5 11 00 | 10 | 3490 | 4200 | 3470 | 4150 |
| 796 753 75 | | 2700 | 5130 | 2880 | 5170 | | 9471 47 | 533 | .5 11 00 | 10 | 4040 | 3030 | 4070 | 3065 |
| 797 754 75 | | 2880 | 5170 | 3100 | 5260 | | 9461 48 | 402 | .5 11 00 | 10 | 4085 | 3155 | 4160 | 3075 |
| 798 755 756 | | 3100 | 5260 | 3560 | 5380 | | 9482 48 | 534 | .5 11 00 | 10 | 4085 | 3155 | 4050 | 3190 |
| 799 756 75 | | 3560 | 5380 | 4040 | 5400 | | 9491 49 | 535 | 5 11 00 | 10 | 1260 | 3190 | 4180 | 3190 3090 |
| 805 561 719 | | 3122 3215 | 3538 3620 | 2900 3265 | 3410 3700 | | 9501 50 | 535 590 | .5 11 00 .5 11 00 | 10 | 4380 4380 | 3000 | 4420 4380 | 2895 |
| 805 389 723 807 392 723 | | 3315 | 3780 | 3265 | 3700 | | 9502 50 . 9511 51 | 416 | .5 11 00 | 10 | 4280 | 3445 | 4175 | 3390 |
| 808 392 393 | | 3315 | 3780 | 3330 | 3785 | | 9521 52 | 435 | .5 11 00 | 10 | 4040 | 3655 | 4085 | 3710 |
| 809 352 758 | | 3055 | 3210 | 2540 | 2650 | | 9531 53 | 424 | 5 11 60 | 10 | 4195 | 3610 | 4145 | 3555 |
| 812 759 763 | 1 4 3 00 0 | 2610 | 2570 | 2850 | 2270 | | 9532 53 | 426 | .5 11 00 | 10 | 4195 | 3610 | 4240 | 3555 |
| 813 502 761 | | 3230 | 2070 | 2850 | 2270 | | 9541 54 | 549 | .5 11 00 | 10 | 4120 | 3880 | 4180 | 3820 |
| 858 808 809 | | 3629 | 2980 | 3590 | 3050 | | 9542 54 | 464 | .5 11 00 | 10 | 1120 | 3980 | 3865 | 1035 3900 |
| 859 809 810 |) .9 15 02 0 10 .6 15 02 0 | 3590 | 3050 3100 | 3550 3566 | 3100 3147 | | 9551 55 9571 57 | 546 554 | .5 11 00 5 11 00 | 10 | 4675 3790 | 3685 4175 | 4620 3880 | 4085 |
| 860 810 183 861 1811 813 | | 3550 3591 | 3221 | 3610 | 3285 | | 9571 57 9581 58 | 514 | .5 11 00 | 10 | 4590 | 1980 | 4760 | 2190 |
| 861 1811 81 862 812 81 | | 3610 | 3285 | 3645 | 3395 | | 9591 59 | 570 | .5 11 00 | 10 | 5440 | 1900 | 5270 | 1930 |
| 871 1813 82 | | 3680 | 3495 | 3705 | 3565 | | 9601 60 | 571 | 5 11 00 | 10 | 5210 | 2400 | 5190 | 2600 |
| 872 822 823 | | 3705 | 3565 | 3735 | .3640 | | 9611 61 | 572 | 5 11 00 | 10 | 5850 | 2780 | 5790 | 2540 |
| 873 823 183 | 23 .9 15 02 0 | 3735 | 3640 | 3773 | 3740 | | 9621 62 | 545 | 5 11 00 | 10 | 5030 | 3160 | 4850 | 3385 |
| 874 824 82 | | 3797 | 3805 | 3834 | 3912 | | 9631 63 | 575 | .5 11 00 | 10 | 5650 | 3600 | 5360 | 3920 |
| 1860 1810 81 | 5 15 02 0 | 3566 | 3147 | 3580 | 3185 3221 | | 9641 64 | 576 547 | .5 11 00 .5 11 00 | 10 | 6070 4930 | 4050 3930 | 5830 4740 | 4310 |
| 1861 811 183 | | 3580 3645 | 3185 3395 | 3591 3680 | 3495 | | 9651 65 9652 65 | 574 | .5 11 00 | 10 | 4930 | 3930 | 5130 | 3700 |
| 1862 813 183 1873 1823 824 | | 3773 | 3740 | 3797 | 3805 | | 9661 66 | 573 | .5 11 00 | 10 | 5340 | 4350 | 5600 | 4100 |
| 884 305 808 | | 3615 | 2980 | 3629 | 2980 | | 9562 65 | 577 | 5 11 00 | 10 | 5340 | 4350 | 5060 | 4470 |
| 085 308 809 | | 3585 | 3030 | 3590 | 3050 | | 9571 67 | 555 | .5 11 00 | 10 | 4170 | 4290 | 3930 | 4265 |
| 886 311 810 | | 3538 | 3100 | 3550 | 3100 | | 9581 68 | 498 | .5 11 00 | 10 | 4410 | 488Ú | 3960 | 4810 |
| 887 314 81 | .3 9 021000 | 3565 | 3200 | 3580 | 3185 | | 9691 69 | 578 | .5 11 00 .5 11 00 | 10 10 | 3740 3680 | 4530 4890 | 3960 3960 | 4470 4810 |
| 888 359 813 | | 3600 | 3305 3408 | 3610 3645 | 3285 3395 | | 9701 70 971) 71 | 498 494 | 1 11 00 | 10 | 3100 | 4355 | 3310 | 4330 |
| 889 363 813 897 456 823 | | 3702 | 3581 | 3705 | 3565 | | 9721 72 | 563 | .5 11 00 | 10 | 2650 | 4260 | 2720 | 4280 |
| 898 457 82 | | 3720 | 3650 | 3735 | 3640 | | 9722 72 | 581 | .5 11 00 | 10 | 2650 | 4260 | 2580 | 4100 |
| 899 463 825 | | 3824 | 3930 | 3834 | 3912 | | 9731 73 | 581 | 5 11 00 | 10 | 2430 | 3980 | 2580 | 4100 |
| 1887 315 18 | | 3575 | 3225 | 3591 | 3221 | | 9741 74 | 741 | .5 11 00 | 10 | 2650 | 4600 | 2500 | 1650 |
| 1886 313 18 | | 3555 | 3170 | 3566 | 3147 | | 9742 74 | 743 | 5 11 00 | 10 | 2650 | 4600 4850 | 3000 | 4900 4700 |
| 1889 367 18 | | 3665 | 3490 | 3680 3773 | 3495 | | 9751 75 9761 76 | 583 584 | .5 11 00 | . 10 | 2100 2560 | 5450 | 2690 | 5460 |
| 1898 459 183 944 808 903 | | 3629 | 2980 | 3575 | 2940 | | 9762 76 | 754 | .5 11 00 | 10 | 2560 | 5450 | 2680 | 5170 |
| 945 903 90 | | 3575 | 2940 | 3470 | 2869 | | 9771 77 | 586 | .5 11 00 | 10 | 1680 | 5730 | 1210 | 5900 |
| 946 904 90 | 5 .6 15 02 0 | 3470 | 2869 | 3412 | 2855 | | 9781 78 | 587 | 5 11 00 | 10 | 580 | 6750 | 360 | 6690 |
| 947 905 908 | 5 1 15 02 0 | 3412 | 2855 | 3430 | 2750 | | 9791 79 | 585 | 1 11 00 | 10 | 1640 | 6749 | 1893 | 6234 |
| 970 824 46 | | 3797 | 3805 | 3774 | 3794 2949 | | 9792 79 | 501 | 1 11 00 | 10 | 1640 | 6740 1590 | 2570 3200 | 6470 1620 |
| 974 903 399 | | 3575 3470 | 2940 2869 | 3569 3474 | 2882 | | 9801 80 9811 81 | 565 569 | .5 11 00 .5 11 00 | . 10 10 | 3350 2030 | 3000 | 2160 | 3120 |
| 975 904 32 976 905 52 | | 3412 | 2855 | 3426 | 2869 | - | 9811 81 | 568 | .5 11 00 | 10 | 2410 | 1850 | 2280 | 2020 |
| 978 906 26 | | 3430 | 2750 | 3439 | 2765 | | 9831 83 | 564 | 5 11 00 | 10 | 3230 | 660 | 3060 | 720 |
| 9011 1 52 | 5 11 00 10 | 3520 | 2740 | 3550 | 2715 | | 9841 84 | 567 | .5 11 00 | 16 | 4030 | 1200 | 4100 | 1330 |
| 9021 2 25 | 4 .5 11 00 10 | 3560 | 2610 | 3570 | 2665 | | 9851 85 | 775 | .5 11 00 | 10 | 5550 | 4760 | 6000 | 4480 |
| 9022 2 250 | 5 5 11 00 10 | 3560 3660 | 2610 2780 | 3535 3710 | 2635 2770 | | 9852 85 | 776 | .5 11 00 | 10 | 5550 | 4760 | 5170 4600 | . 4690 . 1090 |
| 9031 3 25 9032 3 52. | | 3660 | 2780 | 3659 | 2799 | | 9861 86 | 774 782 | .5 11 00 .5 11 00 | .10 10 | 4490 1480 | 850 1620 | 1910 | 1840. |
| 9032 3 52 9041 4 52 | | 3605 | 2815 | 3655 | 2870 | | 9871 87 9872 87 | 781 | .5 11 00 | 10 | 1480 | 1620 | 1360 | 4090 |
| 9042 4 52 | | 3605 | 28 15 | 3585 | 2830 | | 9881 88 | 777 | .5 11 00 | 10 | 3500 | 6280 | 4050 | 5550 |
| 9051 5 27 | 3 5 11 00 10 | 3520 | 2870 | 3545 | 2840 | | 9882 88 | 778 | 5 11 00 | 10 | 3500 | 6280 | 2620 | 6560 |
| 9052 5 32 | 2 .5 11 00 10 | 3520 | 2870 | 3474 | 2882 | | 9883 88 | 609 | .5 11 00 | 10 | 3500 | 6280 | 2650 | 6460 |
| 9061 6 52 | | 3460 | 2820 | 3450 | 2790 2690 | | 9911 91 | 771 | .5 11 00 | 10 | 2700 | 50 | 3000 | 320 310 |
| 9071 7 52 | | 3405 3680 | 2725 2880 | 3441 3655 | 2870 | | 9912 91 9921 92 | 772 782 | .5 11 00 | 10 | 2700 1050 | 50 2300 | 1910 | 1840 |
| | | 3510 | 3000 | 3545 | 3000 | | 9921 92 | 781 | .5 11 00 | 10 | 1050 | 2300 | 1360 | 1090 |
| 9081 8 520 | 0 .5 11 00 10 | | 3000 | 3470 | 2990 | | 9923 92 | 783 | .5 11 00 | . 10 | 1050 | 2300 | 2070 | 1600 |
| 9101 10 310 | D 5 11 00 10 B 5 11 00 10 | 3510 | | 3426 | 2869 | | 9941 94. | 77] | .5 11 00 | 10 | 2860 | 50 | 3000 | 320 |
| 9101 10 310 9102 10 310 9111 11 52 | 0 .5 11 00 .10 8 .5 11 00 10 7 .5 11 00 10 | 3510 3405 | 2880 | | | | 9942 94 | 772 | .5 11 00 | 10 | | | | |
| 9101 10 310 9102 10 310 9111 11 52 9121 12 51 | 5 11 00 10 8 .5 11 00 10 7 .5 11 00 10 9 .5 11 00 10 | 3510 3405 3790 | 2970 | 3775 | 2940 | | | | | | 2860 | 50 | 3050 | 310 |
| 9101 10 310 9102 10 310 9111 11 52 9121 12 510 9131 13 28 | 5 11 00 10 8 5 11 00 10 7 5 11 00 10 9 5 11 00 10 9 5 11 00 10 | 3510 3405 3790 3645 | 2970 3100 | 3775 3730 | 3035 | | 9951 95 | 771 | .5 11 00 | 10 | 3020 | 50 | 3050 3000 | 310 320 |
| 9101 10 310 9102 10 310 9111 11 52 9121 12 510 9131 13 28 9132 13 30 | 5 11 00 10 8 5 11 00 10 7 5 11 00 10 9 5 11 00 10 9 5 11 00 10 2 5 11 00 10 | 3510 3405 3790 3645 3645 | 2970 3100 3100 | 3775 3730 3660 | 3035 3160 | | 9702 70 | 771 580 | .5 11 00 .5 11 00 | 10 10 | 3020 3680 | 50 4890 | 3050 3000 3640 | 310 |
| 9101 10 310 9102 10 310 9111 11 52 9121 12 51 9131 13 28 9132 13 30 9141 14 23 | 5 11 00 10 8 .5 11 00 10 7 .5 11 00 10 9 .5 11 00 10 9 .5 11 00 10 2 .5 11 00 10 7 .5 11 00 10 | 3510 3405 3790 3645 3645 3810 | 2970 3100 3100 2840 | 3775 3730 3660 3840 | 3035 3160 2795 | | 9702 70 9742 74 | 771 580 743 | .5 11 00 .5 11 00 .5 11 00 | 10 | 3020 | 50 | 3050 3000 | 310 320 4940 |
| 9101 10 311 9102 10 311 9111 11 52 9121 12 51 9131 13 28 9132 13 30 9141 14 23 9142 14 27 | 5 11 00 10 5 11 00 10 7 .5 11 00 10 9 .5 11 00 10 9 .5 11 00 10 2 .5 11 00 10 7 .5 11 00 10 9 .5 11 00 10 4 .5 11 00 10 | 3510 3405 3790 3645 3645 3810 3810 3950 | 2970 3100 3100 2840 2840 2950 | 3775 3730 3660 3840 3810 4010 | 3035 3160 2795 2925 2890 | • | 9702 70 9742 74 9182 18 9403 40 | 771 580 743 359 367 | .5 11 00 .5 11 00 .5 11 00 1 11 00 1 11 00 | 10 10 10 10 | 3020 3680 2650 3505 3740 | 50 4890 4600 3350 3420 | 3050 3000 3640 3000 3600 3665 | 310 320 4940 4900 3305 3490 |
| 9101 10 31/ 9102 10 31/ 9111 11 52/ 9121 12 51/ 9131 13 20/ 9132 13 30/ 9141 14 23/ 9142 14 27/ 9151 15 23/ 9152 15 28/ | 5 11 00 10 8 5 11 00 10 7 5 11 00 10 9 5 11 00 10 9 5 11 00 10 2 5 11 00 10 7 5 11 00 10 9 5 11 00 10 9 5 11 00 10 9 5 11 00 10 | 3510 3405 3790 3645 3645 3810 3810 3950 3950 | 2970 3100 3100 2840 2840 2950 2950 | 3775 3730 3660 3840 3810 4010 3835 | 3035 3160 2795 2925 2890 2950 | | 9702 70 9742 74 9182 18 9403 40 8001 100 | 771 580 743 359 367 780 | .5 11 00 .5 11 00 .5 11 00 1 11 00 1 11 00 .5 11 00 | 10 10 10 10 10 | 3020 3680 2650 3505 3740 900 | 50 4890 4600 3350 3420 6920 | 3050 3000 3640 3000 3600 3665 110 | 310 320 4940 4900 3305 3490 6970 |
| 9101 10 311 9102 10 311 9111 11 52 9121 12 511 9131 13 28 9132 13 30 9141 14 23 9142 14 27 9151 15 23 9152 15 281 9153 15 281 | 5 11 00 10 7 5 11 00 10 7 5 11 00 10 9 5 11 00 10 2 5 11 00 10 2 5 11 00 10 9 5 11 00 10 9 5 11 00 10 9 5 11 00 10 15 11 00 10 5 11 00 10 5 11 00 10 | 3510 3405 3790 3645 3645 3810 3810 3950 3950 | 2970 3100 3100 2840 2840 2950 2950 2950 | 3775 3730 3660 3840 3810 4010 3835 3940 | 3035 3160 2795 2925 2890 2950 3040 | | 9702 70 9742 74 9182 18 9403 40 8001 100 8002 100 | 771 580 743 359 367 780 778 | .5 11 00 .5 11 00 .5 11 00 1 11 00 1 11 00 .5 11 00 | 10 10 10 10 10 10 | 3020 3680 2650 3505 3740 900 900 | 50 4890 4600 3350 3420 6920 6920 | 3050 3000 3640 3000 3600 3665 110 2620 | 310 320 4940 4900 3305 3490 6970 6560 |
| 910i 10 31i 9102 10 31i 9111 11 52 9121 12 52 9132 13 30 9141 14 23 9142 14 27 9152 15 28 9153 15 28 9153 15 28 9151 16 30 | 5 11 00 10 7 5 11 00 10 7 5 11 00 10 9 5 11 00 10 9 5 11 00 10 2 5 11 00 10 9 5 11 00 10 9 5 11 00 10 9 5 11 00 10 5 11 00 10 5 11 00 10 5 11 00 10 5 11 00 10 | 3510 3405 3790 3645 3645 3810 3810 3950 3950 3950 3675 | 2970 3100 3100 2840 2840 2950 2950 2950 3275 | 3775 3730 3660 3840 3810 4010 3835 3940 3660 | 3035 3160 2795 2925 2890 2950 3040 3225 | | 9702 70 9742 74 9182 18 9403 40 8001 100 8002 100 8011 101 | 771 580 743 359 367 780 778 771 | .5 11 00 .5 11 00 .5 11 00 1 11 00 .5 11 00 .5 11 00 .5 11 00 | 10 10 10 10 10 10 10 | 3020 3680 2650 3505 3740 900 900 3320 | 50 4890 4600 3350 3420 6920 6920 50 | 3050 3000 3640 3000 3600 3665 110 2620 3000 | 310 320 4940 4900 3305 3490 6970 |
| 9101 10 311 9102 10 311 9111 11 52 9121 12 511 9131 13 28 9132 13 30 9141 14 23 9142 14 27 9151 15 23 9152 15 281 9153 15 281 | 5 11 00 10 7 5 11 00 10 9 5 11 00 10 9 5 11 00 10 9 5 11 00 10 2 5 11 00 10 2 5 11 00 10 7 5 11 00 10 3 11 00 10 4 5 11 00 10 5 5 11 00 10 5 5 11 00 10 5 5 11 00 10 | 3510 3405 3790 3645 3645 3810 3810 3950 3950 | 2970 3100 3100 2840 2840 2950 2950 2950 | 3775 3730 3660 3840 3810 4010 3835 3940 | 3035 3160 2795 2925 2890 2950 3040 | | 9702 70 9742 74 9182 18 9403 40 8001 100 8002 100 | 771 580 743 359 367 780 778 | .5 11 00 .5 11 00 .5 11 00 1 11 00 1 11 00 .5 11 00 | 10 10 10 10 10 10 | 3020 3680 2650 3505 3740 900 900 | 50 4890 4600 3350 3420 6920 6920 | 3050 3000 3640 3000 3600 3665 110 2620 | 310 320 4940 4900 3305 3490 6970 6560 320 |

Appendix 7.5 Transport Network for the Traffic Assignment
- Inner Area - (1) APP7-7

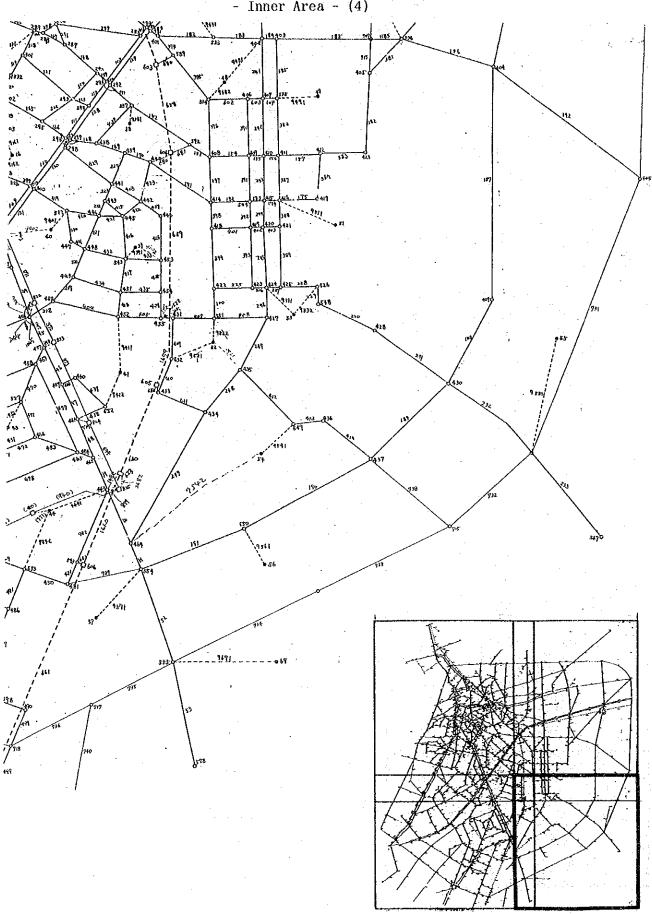
Appendix 7.5 Transport Network for the Traffic Assignment - Inner Area - (2)



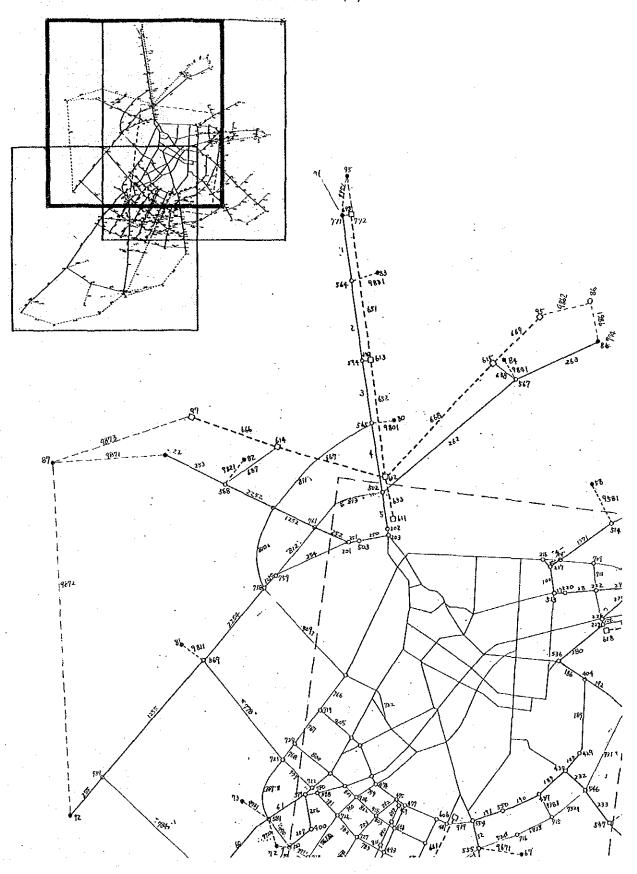
Appendix 7.5 Transport Network for the Traffic Assignment - Inner Area - (3)

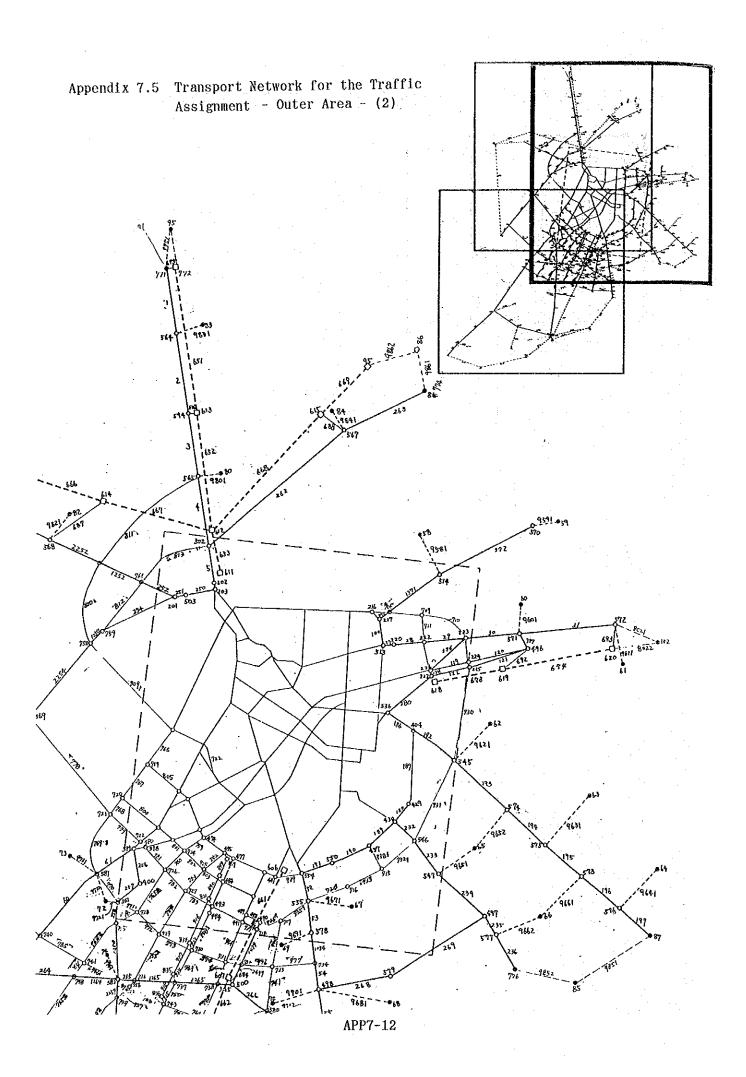
APP7-9

Appendix 7.5 Transport Network for the Traffic Assignment - Inner Area - (4)



Appendix 7.5 Transport Network for the Traffic Assignment - Outer Area - (1)





Appendix 7.5 Transport Network for the Traffic Assignment - Outer Area - (3)

Appendix 7.6 The Result of the Traffic Assignment (1)

| | | | | | | 1. | | | | 4 | | |
|----------|--------------|--------------|-------------|---------------------|----------------|--------------|---|--------------------|------------------|--------------------|------------------|------------------|
| | | | | DIST | ABLO | TIME | OMOROW | TOTAL | BICY | CAR | PUBL | RAIL |
| NO. | LINK | NODE1 | NODE2 | (km) | (km/h) | (h) C | ONGEST | TOTAL | BICI | Onk | 1 055 | 1111111 |
| | | | | | 1000 | | | | e kan garan da | 1.20.34 | · | |
| 1 | 1 | 771 | 564 | 4.00 | 48.52 | .08 | .77 | 42154. | 1174. | 22307. | 17858. 22420. | 815. 955. |
| 2 | 2 | 564 | 594 | 5.10 | 41.13 41.13 | .12 .10 | 1.01 1.01 | 55094. 55094. | 5576. | 26142. 26142. | 22420. | 955 |
| 3 | 3 4 | 565 502 | 594 565 | 4.00 | 5.00 | .88 | 2.06 | 79245. | 17121. | 34760. | 26290. | 1075 |
| 5 | 5 | 502 | 588 | 1.80 | 5.00 | .36 | 2.17 | 83171. | 25283. | 42584 | 14203. | 1102 |
| 6 | 6 | 202 | 588 | .80 | 5.00 | . 16 | 2.17 | 83171. | 25283. | 42584. | 14203. 14203. | 1102. 1102. |
| 7. | 7 . | 202 | 203 | .30 | 5.00 | .06 .08 | 1.78 1.70 | 68511. 65461. | 25283. 26884. | 27924. 24625. | 12373. | 1578 |
| 8 9 | 8 9 | 203 208 | 208 209 | .40 1.50 | 5.00 | .30 | 1.77 | 68028 | 14890. | 37080. | 14097. | 1960. |
| 10 | 10 | 210 | 505 | .90 | 16.18 | .06 | 1.18 | 45171. | 13739. | 5456. | 24559. | 1417. |
| 11 | 11 | 259 | 505 | .50 | 5.00 | .10 | 1.29 | 49501. | 14919. | 8798 | 24367. | 1417. 72. |
| 12 | 12 | 257 | 259 | .30 | 36.07 | .01 | .97 1.02 | 37102. 39315. | 10892. 10892. | 6845. 9058. | 19293. 19293. | 72 |
| 13 14 | 13 14 | 257 256 | 506 506 | .30 | 33.45 | .01 | 1.02 | 39315. | 10892. | 9058 | 19293 | 72 |
| 15 | 15 | 255 | 256 | . 30 | 40.92 | .01 | .81 | 46436. | 6912. | 24895. | 14558. | 72. |
| 16 | 16 | 254 | 255 | . 30 | 39.03 | .01 | .88 | 50630. | 15309. | 20692. | 14558 | 72. 338. |
| 17 | 17 | 253 | 254 | .90 | 37.88 | .02 | 94 1.07 | 53935. 40976. | 14194. 12030. | 23454. 16319. | 15950. 12222. | 405. |
| 18 19 | 18 19 | 252 249 | 253 252 | .10 | 29.80 15.04 | .01 | 1.23 | 47157. | 20169. | 17979. | 8490 | 519 |
| 20 | 20 | 239 | 249 | .40 | 5.00 | .08 | 1.56 | 59878. | 26012. | 18447. | 14808. | 610 |
| 21 | 21 | 238 | 239 | .70 | 30.25 | .02 | 1.11 | 42741. | 15815. | 16911. | 9979. | 36 |
| 22 | .22 | 237 | 238 | .60 | 30.25 | .02 | 1 11 | 42741. 80572. | 15815. 28850. | 16911. 41748. | 9979. 9775. | 36. 198 |
| 23 24 | 23 24 | 233 231 | 237 233 | $\frac{1.90}{1.40}$ | 10.00 27.16 | .19 | 1.40 1.23 | 70621. | 29615. | 30318 | 10527. | 161 |
| 25 | 25 | 219 | 231 | .90 | 5.00 | .18 | 1.56 | 59966. | 20204. | 28325. | 11263. | 175. |
| 26 | 26 | 219 | 513 | 1.30 | 7.97 | .16 | 1.31 | 50212. | 20204. | 18570. | 11263. | 175. |
| 27 | 27 | 220 | 513 | 60 | 50.00 | .01 | .34 | 13093. | 1693. | 9614. 9614. | 1781. 1781. | 5. 5. |
| 28 | 28 | 220 | 222 | 2.20 2.60 | 50.00 50.00 | .04 .05 | .34 .18 | 13093. 6997. | 1693. 1245. | 3966. | 1781. | 5. |
| 29 30 | 29 30 | 222 223 | 223 571 | 3.50 | 60.00 | .06 | .33. | 17791. | 5326. | | 3218. | 37. |
| 31 | 31 | 571 | 572 | 6.50 | 45.00 | .14 | 40 | 5378. | 493. | 2948. | 1904. | 33. |
| 32 | 32 | 251 | 270 | .30 | 15.74 | .02 | 1.21 | 46518. | 17269. | 18872. | 9920. | 456. |
| -33 | 33 | 251 | 252 | 50 | 5.00 | .10 | 1.53 | 58708. 38476. | 24155. 19344. | 19242. 11313. | 14387. 7561. | 924. 258. |
| 34 35 | 34 35 | 249 250 | 250 253 | .30 | 37.45 13.18 | .01 .01 | 1.00 1.26 | 48304. | 15295. | 23823. | 8851 | 335. |
| 36 | 36 | 1313 | 313 | .50 | 10.00 | .05 | 1.64 | 94531. | 15151. | 70379. | 9001 | 0. |
| 37 | 1036 | 1312 | 1313 | .10 | 10.00 | .01 | 1.64 | 94531. | 15151. | 70379. | 9001. | 0. |
| 38 | 2036 | 1312 | 311 | 20 | 10.00 | .02 | | 139001. | 23872. | 101828. | 13301. | 0. |
| 39 | 37 | 313 | 314 | .30 | 10.00 | .03 | | 130531. | 18896. 13538. | 101959. 107408. | 8925. 7998 | 751. 1093. |
| 40 41 | 38 39 | 314 315 | 315 359 | .30 1.10 | 10.00 | .03 | | 130037. | 9309. | 96383. | 7998. | 0. |
| 42 | 40 | 359 | 1359 | 90 | 10.00 | .09 | | 147698. | | 122253. | 11244. | 0. |
| 43 | 1040 | 1359 | 363 | . 20 | 10.00 | .02 | 2.56 | 147698. | 14202. | | 11244. | 0. |
| 44 | 41 | 363 | 364 | . 20 | 10.00 | .02 | | 133627. | 17996. | | 11701. | 385. 358. |
| 45 | 42 | 364 | 365 | .10 | 10.00 | .01 | | 136127. 101685. | 17335. 11800. | 106611. 78678. | 11823. 11200. | 7. |
| 46 47 | 43 1043 | 1367 1367 | 367 365 | .20 | 10.00 | .02 | | 132584. | 16272. | | 12550. | 364. |
| 48 | 44 | 367 | 1456 | .80 | 10.00 | .08 | 2.44 | 140643. | | 114899. | 11835. | 0. |
| 49 | 1044 | 1456 | 456 | . 20 | 10.00 | :02 | | 140643. | | 114899. 119567. | 11835. | 0. |
| 50 | 45 | 1457 | 457 | .50 | 10.00 | .05 | | 155148. 155148. | 22523. | 119567. | 13058 13058 | 0. |
| 51 52 | 1045 46 | 456 457 | 1457 459 | .20 .80 | 10.00 | .08 | | 102296. | 19674. | | 11555. | o. |
| 53 | 47 | 459 | 461 | .60 | 10.00 | .06 | 1.38 | | 15124. | 53264. | 11112. | 0. |
| 54 | 48 | 461 | 462 | 1.00 | 10.00 | .10 | | 100966. | 16797. | | 12688 | 2. |
| 55 | 49 | 462 | 463 | .40 | 10.00 | .04 | | 129545. | 22188. 5308. | | 12688. 2142. | 2. 4191. |
| 56 57 | 1049 2049 | 480 1463 | 1463 463 | $\frac{1.50}{1.20}$ | 44.74 19.36 | .03 .06 | .69 1.30 | 39775. 74593. | 14123. | | 3840. | 5459. |
| 58 | 50 | 463 | 464 | 1.40 | 5.00 | .28 | 1.43 | 54745. | 9829. | | 8871. | 3628. |
| 59 | 51 | 464 | 554 | .60 | 5:00 | .12 | 1.87 | 71773. | 21099. | | 15078. | 2861 |
| 60 | 52 | 554 | 555 | 1.80 | 5.36 | .34 | 1.27 | 48668. 46974. | 10883. | | 18051. | $2195. \\ 2079.$ |
| 61 62 | 53 54 | 555 498 | 578 734 | 2.00 1.50 | 8.96 18.12 | . 22 . 08 | 1.22 | 44257. | 9683. 6172. | | 16803. 18262. | 2535. |
| 63 | 1054 | 578 | 734 | 2.00 | 30.52 | .07 | | 40739. | 5209. | | 16291. | 2041. |
| 64 | 55 . | 498 | 747 | 2.30 | 45.54 | .03 | .56 | 21580. | 1405. | | 11051. | 686 |
| 65 | 1,055 | 499 | 747 | 1.20 | 45.69 | .03 | .56 | 21344. | 1405. | | 10815 | 686. |
| 66 | 56 | 777 | 757 | 1.50 2.50 | 43.24 45.69 | .03 .05 | 69 56 | 26666. 21344. | 1786. 1405. | | 11360. 10815. | . 686. 686. |
| 67 68 | 1056 57 | 499 780 | 757 587 | 4.00 | 60.00 | .07 | .23 | | 232. | | 4065 | 116. |
| 69 | 58 | 586 | 587 | 12.00 | 60.00 | . 20 | . 20 | 10767. | 860. | 5053. | 4853. | 0. |
| 70 | 59 | 583 | 750 | 2.00 | 47.91 | | .48 | 18324. | 2580. | | 10030. | 18. |
| 71 | 1059 | 586 | 750 740 | 14.00 | 60.00 | .23 | .35 .64 | 19188. 24668. | 2591. 3574. | | 10481 11637 | 1. 67. |
| 72 73 | 60 1060 | 581 583 | 740 740 | 5.30 2.70 | 44.09 39.86 | .12 | 82 | 31679 | | | 11788 | 67 |
| 74 | 61 | 399 | 581 | 3.00 | 43.36 | .07 | 71 | | 5893. | | 8731 | 645 |
| 75 | 62 | 399 | 722 | .60 | 48.21 | .01 | 51 | 19536. | 2571. | 8646. | 7674. | 645. |
| 76 | 1062 | 562 | 722 | 1.70 | 39.97 | .04 | | 33444. | 5031. | | 11591 | 705. |
| 77 | 63 64 | 391 391 | 562 561 | $\frac{1.30}{1.60}$ | 7.52 5.00 | .17 .32 | $\begin{array}{c}1.27\\1.31\end{array}$ | 48782. 50408. | 12015. 6415. | | 19996. 13473. | $849. \\ 24.$ |
| 78 79 | 65 | 377 | 561 | 2,20 | 18.16 | .12 | 1.28 | 49275. | 3892. | | 11271. | 0. |
| | | | | | | | | | | | | |

Appendix 7.6 The Result of the Traffic Assignment (2)

| ΝО. | LINK | NODE1 | NODE2 | DIST (km) | VELO (km/h) | TIME (h) | CONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
|---|---|------------|-------------|---------------------|----------------------|--------------|-------------------------|------------------|------------------|------------------|------------------|----------------|
| 80 | 66 | 354 | 377 | ,80 | 39.89 | .02 | 1.00 | 38470, | 2699. | 24501. | 11271. | 0. |
| 81 | 67 | 347 | 354 | 1.20 | 5.00 | 24 | 1.41 | 54233. | 9527 | 21664 | 22991. | 51. |
| 82 | 68 69 | 346 342 | 347 346 | .30 .30 | 5.00 5.00 | .06 | $\frac{1.63}{1.45}$ | 62441. 55816. | 10851. 10851. | 28547 | 22991. | 51. |
| 83 84 | 70 | 340 | 342 | .60 | 5.00 | .12 | 1.46 | 56122. | 7514. | 21923. 24244. | 22991. 23723. | 51. 641. |
| 85 | 71 | 339 | 340 | .60 | 18.79 | .03 | 1.14 | 43587. | 20325. | 8426. | 14198. | 638. |
| 86 87 | 72 73 | 338 326 | 339 338 | , 20 . 90 | 5.00 48.38 | .04 | 1.63 .53 | 62718, 20541, | 29150. 1320. | 18732. 19221. | 14198. 0. | 638. 0. |
| 88 | 74 | 324 | 326 | .60 | 35.74 | .02 | 1.04 | 39862. | 5781 | 28356 | 5590. | 135. |
| 89 | 75 | 324 | 527 | .30 | 5.00 | 06 | 1.99 | 76369. | 11388 | 42574 | 22089 | 318. |
| 90 91 | 76 77 | 525 525 | 527 265 | .80 | 5.00 | .16 06 | $\frac{1.46}{1.40}$ | 56184. 26857. | 12928. 7151. | 24390 12473 | 18092. 6997. | 775. 235. |
| 92 | 78 | 266 | 525 | .20 | 5.00 | .04 | 1.60 | 30709. | 8095. | 12403. | 10211. | 0. |
| 93 94 | 79 ° 80 | 261 260 | 262 261 | .30 .30 | 10.00 | .03 | $\substack{1.71\\1.55}$ | 98468. 89308. | 29809. 27415. | 45215. 46275. | 19283. 13184. | 4162. 2433. |
| 95 | 81 | 260 | 504 | .50 | 10.00 | .05 | 1.39 | 80214. | 25199 | 39398 | 13184 | 2433. |
| 96 | 82 | 209 | 504 | .80 | 13.16 | .06 | 1.26 | 72724. | 20380. | 36845. | 13539. | 1960. |
| 97 98 | 83 84 | 207 203 | 210 207 | 1.40 | 5.00 5.00 | .28 12 | $\substack{1.97\\1.59}$ | 75546. 60886. | 24265 24265 | 20085. 5425. | 29779 29779 | 1417. 1417. |
| 99 | 85 | 353 | 354 | .90 | 36.51 | .02 | .99 | 38024. | 7368. | 19549. | 11056. | 51. |
| 100 | 86 | 352 | 353 | 1.10 | 30.10 | .04 | 1,17 | 45069. | 11776. | 22186. | 11056 | |
| 101 102 | 87 88 | 335 334 | 352 335 | 1.50 .40 | 5.00 5.00 | .30 | $\frac{1.78}{1.70}$ | 68424. 65462. | 17240. 17240. | 44606. 41644. | 6578. 6578. | 0. 0. |
| 103 | 89 | 333 | 334 | .60 | 5.00 | .12 | 1.55 | 59430. | 16385. | 36468. | 6578. | 0. |
| 104 | 90 | 329 | | 1.10 | 11.58 | .10 | 1,26 | 48358. | 12062. | 31188 31196 | 5026 | 82. 82. |
| 105 106 | 91 92 | 329 209 | 526 526 | 1.30 2.90 | 30.08 40.76 | .04 | $\substack{1.12\\.80}$ | 43119. 30619. | 6816 3899. | 20729 | 5026. 5991 | 0. |
| 107 | 93 | 209 | 210 | 60 | 39.29 | .02 | .89 | 34272. | 11737. | 18441 | 4093. | 0. |
| 108 | 94 | 210 | 211 212 | 2.50 | 41.07 38.28 | .06 | .80 .92 | 30741. 35184. | 6509 10638 | 19702. 20277. | 4530. 4268. | 0. 0. |
| 109 110 | 95 96 | 211 212 | 214 | .40 | 38.28 | .02 | .92 | 35184. | 10638 | 20277 | 4268. | ŏ. |
| 111 | 97 | 510 | 702 | 1.70 | 5.00 | .34 | 1.40 | 53950. | 32663. | 14689. | 6485 | 112. |
| $\begin{array}{c} 112 \\ 113 \end{array}$ | 1097 98 | 214 216 | 702 704 | 80 1.50 | $\frac{19.72}{5.00}$ | .04 | $\frac{1.17}{1.28}$ | 45052. 49327. | 20222. 12690. | 20600. 31408. | 4230. 5229 | 0. 0. |
| 114 | 1098 | 510 | 704 | 1.30 | 24.75 | .05 | 1.11 | 42552. | 17517. | 18326. | 6708 | · O . |
| 115 | 99 | 216 | 217 | .90 | 40.14 | .02 | 79 | 30171. | 11071 20261 | 14939. 25573. | 4161. 5312. | 0. 0. |
| 116 117 | 100 101 | 217 398 | 513 399 | 1.60 .80 | 5.00 50.00 | .32 .02 | $\frac{1.33}{.21}$ | 51146. 7912. | 3322. | 3534 | 1057. | Ö. |
| 118 | 102 | 398 | 396 | 1.60 | 31.45 | .05 | . 91 | 17458. | 2001. | 15360. | 96. | 0. |
| 119 | 103 | 396 394 | 394 | $\frac{1.60}{1.20}$ | $5.00 \\ 24.52$ | .32 | $\frac{1.27}{1.08}$ | 24304. 20762. | 4435. 3747. | 19569. 16715. | 301. 301. | 0. 0. |
| 120 121 | 104 105 | 392 | 392 384 | 2.50 | 5.00 | ,50 | 1.86 | 35724. | 7086 | 26470 | 2167 | 0. |
| 122 | 106 | 384 | 372 | 60 | 5.00 | .12 | 1.70 | 32689. | 4295. 4295. | 26658. 26658. | 1736. 1736. | 0. |
| 123 124 | 107 108 | 372 370 | 370 364 | .80 1.00 | 5.00 | .16 .20 | $\frac{1.70}{1.79}$ | 32689. 34423. | 4500 | 28187. | 1736. | ö. |
| 125 | 109 | 364 | 299 | 1.00 | 5.00 | . 20 | 1.49 | 28685. | 5162. | 20962. | 2534. | 28. |
| 126 | 110 | 299 | 296 294 | 1.30 | 5.00 5.00 | . 26 . 16 | $\frac{1.80}{1.48}$ | 34466. 28465. | 6251. 3078. | 25608. 22099. | 2579. 3261. | 28. 28. |
| $\begin{array}{c} 127 \\ 128 \end{array}$ | $\begin{array}{c} 111 \\ 112 \end{array}$ | 296 294 | 291 | .50 | 5.00 | .10 | 1.32 | 25386. | 3732 | 18365. | 3261. | 28. |
| 129 | 113 | 291 | 285 | 1.10 | 5.00 | . 22 | 1.29 | 24759. | 6678 17873 | 13575. 18991. | 3789. 3789. | 718. 718. |
| 130 131 | 114 115 | 285 283 | 283 281 | 20 90 | 5.00 14.58 | .04 | 2.15 1.20 | 41371. 22980. | 12027 | 7313. | 3401. | 240. |
| 132 | 116 | 281 | 229 | 1.50 | 14.58 | .10 | 1.20 | 22980. | 12027 | 7313. | 3401. | 240. |
| 133 | 117 | 229 | 228 | $\frac{2.30}{2.80}$ | 5.00 40.00 | . 46 . 07 | 1.56 .23 | 29970. 4356. | 20205. 393. | 4022. 3579. | 5570. 384. | 174. 0. |
| $\frac{134}{135}$ | 118 119 | 228 226 | 226 224 | 2.50 | 40.00 | .06 | .03 | 621. | 0. | 621. | 0. | ο. |
| 136 | 120 | 224 | 496 | 3.80 | 40.00 | .09 | .00 | 0. | 0. | 0. 0. | 0. 0. | 0. 0. |
| 137 138 | 121 122 | 496 225 | 225 227 | 3.80 2.50 | 40.00 | .09 | .00 .05 | 920 | 0. 0. | 920. | 0. | o. |
| 139 | 123 | 227 | 590 | 2.90 | 40.00 | .07 | .32 | 6130. | 142, | 5495. | 493. | 0. |
| 140 | 124 | 590 | 230 | 2.20 | 5.00 | . 44 . 05 | $\frac{1.32}{.91}$ | 25379. 17458. | 16639. 8553. | 3061. 5647. | 5640. 3183. | 40. 75. |
| 141 142 | 125 126 | 230 282 | 282 284 | 1.50 .90 | 32.12 32.12 | .03 | .91 | 17458. | 8553. | 5647 | 3183. | 75. |
| 143 | 127 | 284 | 292 | 1.30 | 5.00 | . 26 | 1.37 | 26245. | | 12441. | 3659. | 326. |
| 144 | 128 | 292 | 297 | $\frac{1.30}{.20}$ | 5.00 5.00 | .26 | $\frac{1.56}{2.29}$ | 29872. 43936. | | 23227. 30503. | 3288. 4223. | 7. 7. |
| $\frac{145}{146}$ | 129 130 | 297 298 | 298 300 | 1.10 | 5,00 | . 22 | 1.46 | 27953. | 5390. | 19700. | 2857. | 7. |
| 147 | 131 | 300 | 365 | 1.00 | 5.00 | . 20 | 1.41 | 27021. | | 20579 | 2599. 1466. | 7. 0. |
| $\frac{148}{149}$ | 132 133 | 365 369 | 369 373 | .80. 1.10 | 5.00 5.00 | .16 .22 | $\frac{1.33}{1.33}$ | 25543. 25479 | 2774. 2774. | 21303. 21239. | 1466. | 0. |
| 150 | 134 | 373 | 385 | .40 | | .08 | 1.72 | 33114. | 3541. | 28106. | 1466. | 0. |
| 151 | 135 | 385 | 393 | 2.50 | 5.00 | .50 | | 28040. | | 22660. | 1754. 279. | 0. 0. |
| 152 153 | 136 137 | 393 395 | -395 397 | 1.20 | $36.27 \\ 36.27$ | .03 .04 | | 12399. 12399. | 1814. 1814. | 10305. 10305. | 279. | o. |
| 154 | 138 | 397 | 398 | 1.60 | 40.00 | .04 | . 35 | 6704. | 288. | 6374. | 41. | 0. |
| 155 | 139 | 322 | 527 | .60 | 5.00 | .12 | | 49902. 53858. | 24600. 22103. | 19397. 25832. | 5905. 5922. | 0. 1. |
| $\frac{156}{157}$ | 140 141 | 320 319 | 322 320 | . 50 . 30 | 5.00 14.16 | .02 | | 47356 | 19785. | 22336. | 4578. | 657. |
| 158 | 142 | 309 | 319 | .40 | 12.77 | .03 | | 48450. | 19879. | 23336. | 4578. | 657. |

Appendix 7.6 The Result of the Traffic Assignment (3)

| NO. | LINK | NODE1 | NODE2 | DIST (km) | VELO | TIME (h) C | ncest | TOTAL | BICY | CAR | PUBL | RAIL |
|---|---|-------------|--------------|--------------------------|----------------------|---------------|-------------------------|------------------|------------------|------------------|----------------|-----------------|
| | | | | | | | | | | 2.1.2 | | |
| 159 | 143 | 305 | 309 | .60 | 5,00 | .12 | 1.38 | 53041 | 23564 | 22906. 31117. | 6572. 4706. | 0. 871. |
| 160 | 144 | 304 | 305 304 | . 40 | 5.00 5.00 | .08 .18 | 1.51 | 57936. 55316. | 21242. 17952. | 31787 | 4706. | 871. |
| 161 162 | 145 146 | 289 288 | 289 | . 20 | 5.00 | .04 | 1.57 | 60246. | 16873. | 37495. | 5592. | 286. |
| 163 | 147 | 287 | 288 | .60 | 38.31 | .02 | .98 | 37726. | 7102. | 24746. | 5592. | 286 |
| 164 | 148 | 287 | 290 | .80 | 14.40 | .06 | 1,29 | 74087 | 12115. | 54161 | 7613. | 199. |
| 165 | 149 | 290 | 291 | .30 | 5.00 | .06 | 1.90 | 72797. | 13126 | 51859 63835 | 7613 6333 | 199. 680. |
| 166 | 150 | 291 | 292 | .10 | 5.00 5.00 | .02 .12 | $\frac{2.26}{1.70}$ | 86959. 65354. | 16111. 14115. | 45457 | 4783 | 999. |
| 167 168 | 151 152 | 292 537 | 537 712 | .50 | 30.14 | .02 | 1.10 | 42059 | 4897 | 31855 | 4318. | 990. |
| 169 | 1152 | 592 | 712 | 1.00 | 30.14 | .03 | 1.10 | 42059. | 4897. | 31855. | 4318 | 990. |
| 170 | 153 | 408 | 592 | . 30 | 31.35 | .01 | 1.09 | 41675. | | 31855 | 4318. | 605. |
| 171 | 154 | 408 | 409 | .80 | 42.56 | .02 | .74 | 28409. 19449. | 7163. 4343. | 19527. 14311. | 1480. 748. | 239. 48. |
| 172 | 155 156 | 409 410 | 410 411 | .30 | 48.16 49.56 | .01 .01 | .47 | 17986 | 7045. | 10145 | 748 | 48. |
| $\begin{array}{c} 173 \\ 174 \end{array}$ | 157 | 411 | 412 | .80 | 35.02 | .02 | 1.21 | 15517. | 10809. | 4708 | 0 | 0. |
| 175 | 158 | 267 | 322 | 1.00 | 5.00 | .20 | 1.42 | 54449. | 26869 | 27580. | 0 | 0. |
| 176 | 159 | 322 | 323 | .30 | 5.00 | .06 | 1.64 | 62991. | 26043 | 36948 | 0. | 0. 0. |
| 177 | 160 | 323 | 325 | .50 | 5.00 5.00 | .10 | 1.57 1.57 | 60197. 60240. | 31485. 20418. | 19584. 30107. | 9128. 9467. | 249. |
| $\frac{178}{179}$ | 161 162 | 318 1318 | 325 318 | .30 1.00 | 5.00 | .20 | 1.69 | 64922. | 7589. | 51929. | 5162 | 243. |
| 180 | 1162 | 1318 | 311 | .30 | 5.00 | 06 | 1.69 | 64922. | 7589. | 51929. | 5162. | 243. |
| 181 | 163 | 312 | 1312 | 1.00 | 38.64 | .03 | 1.16 | 44470. | 8721. | 31449 | 4300 | 0. |
| 182 | 164 | 302 | 312 | .60 | 5.00 | .12 | 1.68 | 64619. | 13286. | 44448 57755 | 4755 4477 | 2130. 12. |
| 183 | 165 | 295 | 302 | .90 | $\frac{10.00}{5.00}$ | .09 | $\substack{1.32\\1.84}$ | 75997. 70695. | 13753 12709 | 53497 | 4477 | 12. |
| 184 185 | 166 167 | 295 296 | 296 297 | .10 | 5.00 | .02 | 1.80 | 69017. | 11967. | 52230 | 4808 | 12. |
| 186 | 168 | 297 | 438 | .60 | 5.00 | .12 | 1.47 | 56408. | 6811. | 45845. | 3740 | 12. |
| 187 | 169 | 438 | 439 | .60 | 5.00 | .12 | 2.02 | 77612. | 14561. | 59299. | 3740. | 12. |
| 188 | 170 | 439 | 440 | .30 | 31.43 | .01 | 1.04 | 39756 | 7930. | 29246. 27306. | 2561. 2561. | 20. 12. |
| 189 | 171 172 | 440 414 | 414 544 | $\substack{1.60 \\ .80}$ | $38.16 \\ 39.58$ | .04 | .93 .87 | 35706. 33349. | 5827 5612 | 24698 | 2695 | 343 |
| 190 191 | 173 | 415 | 544 | .30 | 17.56 | 02 | 1.20 | 46253. | 7054 | 36744 | 2104. | 352. |
| 192 | 174 | 415 | 416 | .30 | 5.00 | .06 | 1.42 | 54631. | 8876. | 43299. | 2104. | 352. |
| 193 | 175 | 416 | 417 | .60 | 50.00 | .01 | .17 | 6397. | 3064. | 3333. | 0. | 0. |
| 194 | 176 | 270 | 271 | .30 | 5.00 | .06 | 1.80 | 34640. 44024. | 16199. 17172. | 9994. 18117. | 8273 8016. | 173. 718. |
| $\frac{195}{196}$ | 177 178 | 271 279 | 279 280 | 1.10 | 23.24 5.00 | .05 | $\substack{1.15\\1.62}$ | 62069. | 26580. | 22368 | 12381. | 740. |
| 197 | 179 | 280 | 283 | 1.50 | 5.00 | 30 | 1.29 | 49670. | 17656. | 19781. | 11533. | 699. |
| 198 | 180 | 283 | 284 | .10 | 5.00 | .02 | 1.42 | 54573. | 20387. | 22580 | 11245 | 361. |
| 199 | 181 | 284 | 401 | .20 | 20.14 | .01 | 1.15 | 44321. | 18312. | 16901 | 8994 | 114. 293. |
| 200 | 182 | 401 | 533 | 1.10 | 37.85 | .03 | .91 | 34918. 18666. | 15107 8469 | 13507 6758 | 6010. 3365. | 74. |
| 201 202 | 183 184 | 402 402 | 533 403 | .90 .30 | 5.00 | .18 | $\frac{1.46}{1.97}$ | 18871. | 7308. | 5259. | 6185. | 120. |
| 203 | 185 | 403 | 707 | 1.70 | 5.00 | 34 | 2.98 | 28630. | 9723. | 12776. | 6010. | 120. |
| 204 | 1185 | 536 | 707 | .60 | 5.00 | .12 | 2,21 | 21229. | 10130. | 4637 | 6342 | 120. |
| 205 | 186 | 404 | 536 | 1.80 | 10.91 | .17 | 1.21 | 11579. | 5828 | 2533 | 3218 | 0. |
| 206 | 187 | 404 | 429 | 4.50 1.90 | 29,45 29,45 | .15 .06 | $\substack{1.17\\1.17}$ | 14948. | 3735. 3735. | 10497 10497 | 715. 715. | 0. |
| 207 208 | 188 189 | 429 430 | 430 437 | 1.60 | 30.21 | -05 | 1.16 | 14794. | 3683. | 10399 | 712. | 0. |
| 209 | 190 | 437 | 550 | 2.70 | 12.16 | .22 | 1.19 | 15236. | 3511. | 5737. | 5680 | 308. |
| 210 | 191 | 550 | 554 | 2.40 | 12.16 | .20 | | 15236. | 3511. | 5737 | 5680. | 308. |
| 211 | 192 | 404 | 545 | 3.50 | 32.40 | -11 | .86 | 8300. | 3064. | 1856 | 3380. | 0. |
| 212 | 193 | 545 | 574 | 4.50 | 34.71 | .13 | .85 | 11579. | | 4934. 4582. | 3136. 2755. | $\frac{1}{1}$. |
| $\frac{213}{214}$ | 194 195 | 574 573 | . 575 575 | 3.30 | 36.10 45.00 | .09 | .79 | 10729. 4262. | 3391. 659. | | 1151. | ô. |
| 215 | 196 | 573 | 576 | 3.00 | 45.00 | .07 | .27 | 3707. | 624. | 1960 | | 0. |
| 216 | 197 | 775 | 576 | 2.50 | 45.00 | .06 | .00 | | . 0. | 0 | | 0. |
| 217 | 198 | 390 | 391 | 1.00 | 14.54 | .07 | 1.21 | 46536 | 5963. | | 6523 | 825 |
| 218 | 199 | 389 | 390 | .90 | 18.08 | .05 .16 | $\frac{1.20}{1.39}$ | 45911. 53299. | 6651. 18537. | 31912 29363 | 6523 3558 | 825. 1840. |
| 219 220 | 200 201 | 388 381 | 389 388 | .80 1.30 | 5.00 6.73 | .19 | 1.25 | 48121. | 10190. | | 3558. | 1840 |
| 221 | 202 | 381 | 382 | .20 | 24.86 | .01 | 1.15 | 44106. | 8069 | 30638. | 3558. | 1840. |
| 222 | 203 | 375 | 382 | .60 | 5.00 | .12 | 1.82 | 69913. | 7913. | 56243 | 3762. | 1996. |
| 223 | 204 | 374 | 375 | .80 | 5.00 | .16 | 1.82 | 69913. | 7913. | 56243 | 3762. | 1996. 1996. |
| 224 | 205 | 366 | 374 366 | .20 | 5.00 5.00 | .04 .16 | $\substack{1.81\\1.74}$ | 69473. 66777. | 7708. 8794. | 56008 50348 | 3762. 4329 | 3306 |
| 225 226 | 206 207 | 362 362 | 363 | .20 | 5.00 | .04 | | 55616. | 8309 | 39672 | | 3306. |
| 227 | 208 | 377 | 378 | 1.40 | 39.73 | .04 | . 90 | | 1193. | 33294. | 0. | 0 . |
| 228 | 209 | 378 | 379 | .40 | 5.00 | .08 | | 71223. | 13333. | 55395 | 2302 | 193. |
| 229 | 210 | 379 | 380 | .60 | 5.00 | .12 | | 64819. | 8104. | 54220. 5467. | 2302. | 193. 0. |
| 230 | $\begin{array}{c} 211 \\ 212 \end{array}$ | 380 382 | 381 383 | .30 .40 | 50.00 5.00 | .01 .08 | .20 1.51 | 7589. 58139. | 2122. 9211. | 45497. | 3394. | 38. |
| 231 232 | 213 | 383 | 384 | .60 | 5.00 | .12 | 1.51 | 58139. | 9211. | 45497 | 3394 | 38. |
| 233 | 214 | 384 | 385 | ,10 | 5.00 | .02 | 1.32 | 50525. | 6420. | 41651 | 2416 | 38. |
| 234 | 215 | 385 | 468 | ,60 | 40.15 | .01 | .84 | 32321. | | 29019 | 740. | 38. |
| 235 | 216 | 467 | 468 | . 30 | 5.00 | | $\frac{1.61}{1.29}$ | 61736. 49437. | 7170. 7170. | 48970. 36671. | 4013. 4013. | 1583. 1583. |
| 236 237 | $\frac{217}{218}$ | 456 450 | 467 456 | 1.10 .50 | 5.47 10.00 | .20 | | 113522. | 13863. | 92730. | | 1626. |
| 231 | φ±0 | 430 | 730 | . 50 | 10.00 | | | | 20000 | | | |

Appendix 7.6 The Result of the Traffic Assignment (4)

| NO. | LINK | NODE1 | NODE2 | DIST (km) | VELO (km/h) | TIME (h) Co | ONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
|-------------------|-------------------------|-------------------|------------|---------------------|------------------|----------------|---------------------|-------------------|------------------|------------------|------------------|-----------------|
| 238 | 219 | 449 | 450 | .60 | 10.00 | .06 | 1.71 | 98310. | 11923. | 83326. | 3060. | 0. |
| 239 | 220 | 448 | 449 | .60 | 10.00 | .06 | 1.42 | 81818 | 11154. | 67604. | 3060. | o. |
| 240 | 221 | 444 | 448 | .80 | 29,24 | .03 | 1.14 | 65944. | 8355. | 54529. | 3060. | 0. |
| 241 242 | 222 223 | 443 441 | 444 443 | .30 | $39.21 \\ 30.32$ | .01 .01 | .89 1.11 | 51208. 64007. | 7904. 9296. | 39667. 50995. | 3637. 3708. | 0. 8. |
| 243 | 224 | 439 | 441 | .80 | 38.37 | .02 | .92 | 53225. | 6659. | 44216. | 2343. | 8. |
| 244 | 225 | 422 | 423 | .80 | 5.00 | .16 .06 | 1.31 | 16769. | 74. | 16603. | 82. | 9. |
| 245 246 | 226 227 | 423 424 | 424 425 | .30 | 5.00 5.00 | .06 | $\frac{2.03}{1.82}$ | 26036. 23246. | 1453. 3022. | 22202. 15887. | 2380. 4075. | $^{1}_{262}$. |
| 247 | 228 | 425 | 426 | .60 | 35.94 | .02 | .96 | 12296. | 1356. | 9502. | 1220. | 218. |
| $\frac{248}{249}$ | 229 _: 230 | 426 428 | 548 548 | ,30 1.00 | 35.96 35.96 | .01 .03 | .97 .97 | 12361. 12361. | 1391. 1391. | 9318. 9318. | 1435. 1435. | 218 218 |
| 250 | 231 | 428 | 430 | 2.00 | 5.00 | .40 | 1.29 | 12361. | 1391. | 9318. | 1435. | 218. |
| 251 | 232 | 430 | 546 | 2.00 | 5.00 | . 40 | 1.29 | 12344. | 1443. | 9245. | 1438. | 218. |
| 252 253 | 233 234 | 546 497 | 547 547 | $\frac{2.50}{4.00}$ | 33.14 37.94 | .08 | .89 .69 | 12123. 9342. | 5402. 4529. | 4664. 3779. | 1842. 881. | 215. 153. |
| 254 | 235 | 497 | 577 | 1.50 | 37.85 | .04 | .69 | 9409. | 4529. | 3846. | 881. | 153. |
| 255 | 236 | 776 | 577 | 2.50 | 45.00 | .06 | .00 | 0. | . 0. | 0. | 0. | 0. |
| 256 257 | 237 238 | 231 229 | 515 515 | 1.00 1.40 | 5.00 20.77 | . 20 . 07 | $\frac{1.60}{1.17}$ | 61336. 44826. | 30089. 19986. | 20740. 19339. | 10390. 5265. | 118. 236 |
| 258 | 239 | 229 | 230 | .10 | 35,26 | .00 | 1.02 | 39297. | 17961. | 14360. | 6802. | 175. |
| 259 | 240 | 230 | 710 | . 70 | 47.67 | .01 | . 19 | 18790. | 6361. | 6786. | 5503. | 140 |
| 260 261 | 1240 241 | 402 402 | 710 407 | 1.10 | 5.00 5.00 | .12 | $\frac{1.47}{1.36}$ | 18790. 17396. | 6361. 5397. | 6786. 10014. | 5503. 1794. | 140. 192. |
| 262 | 242 | 407 | 410 | 1.10 | 19.25 | .06 | 1.32 | 16927. | 4926. | 12001. | 0. | ο. |
| 263 | 243 | 410 | 415 420 | .90 | 5.00 5.00 | .18 .14 | 2.10 | 26832. 32724. | 11560. 9026. | 15271. 23697. | 0. 0. | 0. 0. |
| 264 265 | 244 245 | 415 420 | 424 | 1.10 | 5.00 | .22 | 2.77 | 35411. | 9026. | 26385. | o. | 0 |
| 266 | 246 | 424 | 427 | .60 | 5.00 | .12 | 1.92 | 73561. | 11393. | 55436. | 6231. | 502. |
| 267 | 247 | 427 | 435 | 1.10 | 5.00 39.73 | . 22 | 2.71 | 104250. 38128. | 11105. 8912. | 78887. 26790. | 13153. 2032. | 1104. 393. |
| 268 269 | 248 249 | 434 434 | 435 464 | $\frac{1.10}{2.90}$ | 39.44 | .07 | 1.00 | 38588. | 6628. | 29784. | 2134. | 42. |
| 270 | 250 | 203 | 503 | 1.60 | 5.00 | . 32 | 1.26 | 48375. | 11820. | 6711. | 27950. | 1894 |
| 271 | 251 252 | 201 201 | 503 761 | .80 - 2.50 | 5.00 | .16 .50 | $\frac{1.75}{1.41}$ | 67043. 54152. | 25654. 24831. | 12356. 3368. | 27445. 24365. | 1588. 1588. |
| 272 273 | 1252 | 760 | 761 | 3.00 | 26.91 | .11 | 1.10 | 42397. | 6998. | 15143. | 19414. | 841. |
| 274 | 2252 | 568 | 760 | 3.10 | 47.89 | - 06 | .78 | 42397. | 6998. | 15143. | 19414 | 841. |
| 275 276 | 253 254 | 782 201 | 568 759 | 4.10 5.00 | 55.13 50.00 | .07 | .55 .34 | 29728. 12891. | 561. 823. | 11632. 8988. | 16835. 3080. | 700 0 |
| 277 | 1254 | 758 | 759 | 1.00 | 40.35 | .02 | .85 | 32454. | 2817. | 20839. | 8797. | 0. |
| 278 | 2254 | 569 | 758 | 6.50 | 46.43 | 14 | .64 | 24512. 6716. | 682. 182. | 17907. 3982. | 5922. 2505. | 0. 47. |
| 279 280 | 255 1255 | 781 569 | 739 739 | 3.50 -10.00 | 43.04 50.00 | .08 | .17 | 6716. | 182. | 3982. | 2505. | 47. |
| 281 | 256 | 399 | 400 | 2.50 | 40.00 | .06 | .00 | 7. | 0. | 7. | 0. | 0. |
| 282 | 257 | 400 | 563 735 | $\frac{1.80}{1.50}$ | 40.00 37.83 | .04 | .00 .51 | .7. 4921. | . 0. 393. | 7. 1617. | 0. 2625 | 0. 285. |
| 283 284 | 258 1258 | 563 582 | 735 | 3.20 | 34.18 | .09 | .74 | 7144. | 459. | 3191. | 3209. | 285. |
| 285 | 259 | 584 | 753 | 3.30 | 35.87 | 09 | .76 | 10386. | 887. | 3637. | 5447. | 414. |
| 286 287 | 1259 2259 | 749 582 | 753 749 | $\frac{2.70}{1.50}$ | 34.18 34.18 | .08 | .74 .74 | 7144. 7144. | 459. 459. | 3191. 3191. | 3209. 3209. | 285. 285. |
| 288 | 260 | 501 | 584 | 10.50 | 36.17 | . 29 | .75 | 10228. | 887. | 3778. | 5563. | 0 |
| 289 | 261 | 778 | 501 | 2.50 | 32,39 | .08 .25 | .91 .26 | 12373. 3511. | 500. 372. | 3653. 2047. | 4903. 978. | $3317. \\ 114.$ |
| 290 291 | 262 263 | $\frac{502}{774}$ | 567 567 | 11,10 6,00 | 45.00 45.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 292 | 3265 | 500 | 738 | 1.10 | 40.00 | .03 | .00 | .0. | .0. | 0. | 0. | 0. |
| 293 294 | 266 268 | 500 498 | 580 579 | 2.80 5.00 | 37.07 40.00 | .08 .13 | .78 .01 | 7502. 79. | 0. | 7479. 79. | 23. 0. | 0. 0. |
| 295 | 269 | 497 | 579 | 7.50 | 40.00 | .19 | .01 | 79. | 0. | 79. | 0. | 0. |
| 296 | 270 | | 262 | 1.00 | 45.49 | .02 | .63 | 36437. 81285. | 4254. 27912. | 30084. 29510. | 1887. 19489. | 212. 4373. |
| 297 298 | 271 272 | 262 265 | 524 524 | .30 | 10.00 | .03 | $1.41 \\ 1.41$ | 81298. | 32119. | 25454. | 19184. | 4541 |
| 299 | 273 | 265 | 266 | .30 | 27.73 | .01 | 1.11 | 64214. | 26553. | 21624. | 15361 | 677 |
| 300 | 274 | 266 | | .60 | 20.35 | . 03 . 08 | 1.17 | 44880. 64942. | 20247 22868 | 13051. 30491. | 10906. 10906. | 677. 677. |
| 301 302 | 275 276 | 267 268 | 268 269 | . 40 . 60 | 5.00 5.00 | .12 | 1.49 | 57054. | 17828. | 31526. | 7350. | 349. |
| 303 | 277 | 253 | 269 | 1.00 | 21.87 | .05 | 1.13 | 43220. | 10532. | 27409. | 5010. | 269. |
| 304 | 278 | 271 | 272 | .30 .70 | 13.20 5.00 | .02 .14 | 1.26 2.66 | 24176. 25552. | 5280. 3405. | 13094. 15439. | 5255. 6160. | 548. 548. |
| 305 306 | 279 280 | 272 274 | 520 520 | .40 | 29.38 | .01 | 1.15 | 44158. | 7627. | 27670. | 7626 | 1235. |
| 307 | 281 | 274 | 275 | .30 | 25.72 | .01 | 1.15 | 44219. | 7097. | 28365 | 7523 | 1235. |
| 308 | 282 | 275 | 529 520 | .30 | 5.00 5.00 | .06 .08 | 1.49 1.51 | 57169. 58049. | 8183. 8047. | 40228. 40152. | 7523 9192 | 1235. 658. |
| 309 310 | 283 284 | 320 320 | 529 321 | | 5.00 | 06 | 1.29 | 49591. | 5728. | 32083. | 11780. | 0. |
| 311 | 285 | 321 | 323 | .30 | 28.60 | .01 | 1.22 | 47035. | 5441. | 30919. 20899. | 10675. 1546. | 0. 0. |
| 312 | 286 | 323 272 | 324 270 | .60 .30 | 5.00 42,70 | .12 .01 | 1.75 .74 | 22445. 28534. | 0. 7052. | 15018. | 5838. | 626. |
| 313 314 | 287 288 | 272 | 278 | 1.10 | 5.00 | .22 | 1.47 | 18846. | 8927. | 2999. | 6294. | 626. |
| 315 | 289 | 278 | 530 | .60 | 5.00 | .12 | $\frac{1.40}{.91}$ | | 22474. 12071. | 24676. 16151. | 4469. 4469. | 2127. 2127. |
| 316 | 290 | 305 | 530 | .60 | 38,25 | .02 | . 51 | 0.4010, | 140111 | *0101. | 1-1001 | |

Appendix 7.6 The Result of the Traffic Assignment (5)

| | | | | DIST | VELO | TIME | | | | | | |
|-------------------|-------------|-------------|-------------|---------------------|----------------------|--------------|---|------------------|------------------|------------------|----------------|---------------|
| ΝΟ. | LINK | NODE1 | NODE2 | (km) | (km/h) | | ONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
| | | | | | 2.45 | | | | 0.000 | 05050 | 0000 | |
| 317 318 | 291 292 | 286 278 | 287 286 | ,50 ,90 | 5.00 5.00 | .10 .18 | 1.37 | 52503. 73663. | 8859, 17424. | 37253. 49847. | 6302. 6302. | 89. 89. |
| 319 | 293 | 278 | 519 | .60 | 5.00 | .12 | 1.77 | 68054. | 23269. | 38300. | 4896. | 1590. |
| 320 | 294 | 279 | 519 | .40 | 5.00 | .08 | 1 80 | 69190. | 30424. | 28923. | 8502. | 1341. 677. |
| 321 322 | 295 296 | 279 236 | 518 518 | 40 60 | 5.00 5.00 | .08 .12 | $\substack{1.31\\1.31}$ | 50411. 50411. | 24304. 24304. | 18291. 18291. | 7138. 7138. | 677. |
| 323 | 297 | 236 | 237 | .30 | 5.00 | .06 | 1.54 | 59092 | 26998. | 23846. | 7630. | 619. |
| 324 | 298 | 286 | 288 | . 30 | 5.00 | .06 | 1.99 | 25518. | 9771. | 15746 | 0. | 0. |
| 325 326 | 299 300 | 285 273 | 286 274 | $\frac{1.60}{1.00}$ | $11.18 \\ 5.00$ | .14 .20 | $\frac{1.32}{2.13}$ | 16891 20450 | 11195. 2680. | 5696. 16855. | 915. | 0. |
| 327 | 301 | 274 | 276 | .30 | 5.00 | .06 | 3.07 | 29470 | 2149. | 27321. | 0. | · 0. |
| 328 | 302 | 276 | 278 | . 90 | 5.00 | .18 | 3.14 | 30101 | 7253. | 22848. | 0. | 0. |
| 329 | 303 | 275 | 277 | 60 | 5.00 5.00 | .06 | $\frac{1.35}{1.62}$ | 12950. 15570. | 1087. 2344. | 11863. 13226. | 0. 0. | 0. 0. |
| $\frac{330}{331}$ | 304 305 | 277 304 | 530 530 | .30 .40 | 39.23 | .01 | .87 | 33255 | 10573. | 22682. | ŏ. | 0. |
| 332 | 306 | 305 | 306 | .30 | 5.00 | .06 | 1.58 | 60745. | 15702. | 39908. | 5135. | 0. |
| 333. | 307 | 306 | 308 1310 | .30 | 5.00 5.00 | .06 .14 | $\substack{1.61\\1.41}$ | 61875. 54302. | 16079. 13915. | 39998. 34895. | 5798. 5492. | 0. 0. |
| 334 335 | 308 1308 | 308 1310 | 311 | .20 | 5.00 | .04 | 1.95 | 74994. | 15873 | 52296. | 6825. | · 0 . |
| 336 | 309 | 310 | 309 | 50 | 5.00 | .10 | 1.43 | 18266 | 6910. | 9025. | 2265. | 66. |
| 337 | 310 | 310 | 1310 | 1.00 | 39.92 38.75 | .03 .02 | $\substack{1.62\\1.02}$ | 20692 38983 | 1958. 287. | 17401. 37591. | 1333. 1106. | 0. 0. |
| 338 339 | 311 312 | 321 310 | 531 531 | .60 .40 | 5.00 | .08 | 1.87 | 23909. | 3426 | 18671. | 1812. | . 0. |
| 340 | 313 | 308 | 310 | .50 | 13.31 | .04 | 1.45 | 18513. | 4402 | 12454. | 306. | 1350. |
| 341 | 314 | 307 | 308 | .50 | 42.17 | .01 | .75 | 9590. 17341. | 2238. 5075. | 7352. 11604. | 0. 663. | 0. |
| 342 343 | 315 316 | 306 306 | 309 307 | .60 | 5.00 5.00 | .12 .10 | $\substack{1.35\\1.27}$ | 16212. | 4698. | 11514. | 0.00. | ŏ. |
| 344 | 317 | 307 | 532 | , 90 | 5.00 | .18 | 2.02 | 25802. | 6936. | 18866. | 0. | 0. |
| 345 | 318 | 289 | 301 | 60 | 35.81 | .02 | 1.01 | 38791 | 4097. 4719. | 33827. 11329. | 866. 866. | 0. |
| 346 347 | 319 320 | 301 302 | 532 532 | 40 60 | 49.48 35.12 | .01 | $\frac{44}{1.02}$ | 16914. 39290. | 10413. | | 866 | o. |
| 348 | 321 | 293 | 301 | 1.30 | 5.00 | . 26 | 1.88 | 24078. | 621. | 23457. | 0. | 0. |
| 349 | 322 | 293 | 295 | .80 | 49.06 | .02 | .41 | 5302. | 1044. 654. | 4258. 30017. | 0. | 0. 0. |
| 350 351 | 323 324 | 293 290 | 294 293 | . 40 | 5.00 5.00 | .08 .16 | $\frac{2.40}{1.34}$ | 30670. 17212. | 654. 1011. | 16201. | ő. | . 0. |
| 352 | 325 | 273 | 522 | .40 | 5.00 | .08 | 1.33 | 17067 | 8321. | 5377. | 3303. | 66. |
| 353 | 326 | 521 | 522 | .80 | 5.00 | .16 | 1.36 | 17435. | 10401. | 3196. 940. | 3772. 1290. | 66. 20. |
| 354 355 | 327 328 | 251 270 | 521 521 | .60 .60 | 45.44 37.88 | .01 .02 | .58 .98 | 7394. 12487. | 5144. 5573. | 4439. | 2440. | 35. |
| 355 356 | 329 | 269 | 521 | .50 | 5.00 | .10 | 1.39 | 17812. | 7296. | 8094. | 2340. | 81. |
| 357 | 330 | 239 | 240 | .30 | 5.00 | .06 | 1.79 | 17137. | 10198. | 1536 | 4829. 4461. | 574. 531. |
| 358 359 | 331 332 | 240 511 | 512 512 | 1.00 2.00 | 5.00 5.00 | . 20 . 40 | $\frac{1.74}{1.49}$ | 16725. 14288. | 10198. 8694. | 1536. 1052. | 4275. | 267. |
| 360 | 333 | 231 | 511 | 1.30 | 5.00 | . 26 | 2.21 | 21253 | 10407. | 5656. | 5152. | 38. |
| 361 | 334 | 236 | 517 | 1.00 | 20.25 | .05 | 1.10 | 10536 | 2693. 9584. | 5555. | 2229. 2229. | 59. 59. |
| 362 363 | 335 336 | 234 229 | 517 234 | .70 1.50 | 5.00 5.00 | .14 | $\frac{1.28}{1.61}$ | 16341 20596 | 12791. | 4469. 4920. | 2878. | 6. |
| 364 | 337 | 250 | 509 | . 20 | 5.00 | .04 | 2.62 | 25195. | 8905. | 13162. | 2884. | 244. |
| 365 | 338 | 245 | 509 | .70 | 36.85 | .02 | .75 | 7215. | 1378. | 5022. | 769. 769. | 46. 46. |
| 366 367 | 339 340 | 243 242 | 245 243 | . 40 | $38.41 \\ 40.46$ | .01 | , 99 . 91 | 12702. 11609. | 3932. 3932. | 7955. 6450. | 1138. | |
| 368 | 341 | 214 | 242 | 1.60 | 23.99 | .07 | 1.11 | 14238 | 11682. | 1100. | 1455. | 0. |
| 369 | 342 | 211 | 507 | 1.00 | 5.00 | . 20 | 1.26 | 12066. | 1403. | 10088. 6695. | 576. 576. | 0. 0. |
| 370 | 343 344 | 248 247 | 507 248 | .60 .20 | 25.54 20.19 | .02 .01 | $\frac{1.04}{1.10}$ | 10028. 10542. | 2757. 2697. | | 576 | 0. |
| $\frac{371}{372}$ | 345 | 246 | 247 | .20 | 9.23 | .02 | 1.21 | 11594. | 5564. | 5454. | 576. | 0. |
| 373 | 346 | 246 | 509 | .40 | 35.82 | | .64 | 6107. | 3010. | | 576 | 0. |
| 374 | 347 | 244 241 | 509 244 | .70 .60 | 5.00 5.00 | .14 | 1.68 1.84 | 16125. 17630. | 7503. 7503. | 7290. 8795. | 1310. 1310. | 22. 22. |
| 375 376 | 348 349 | 232 | 703 | 2.10 | 7.05 | ,30 | 1.32 | 12680 | 1746. | 10472. | 463. | 0. |
| 377 | 1349 | 241 | 703 | . 40 | 5.00 | .08 | 1.38 | 13216. | 5700. | 6556 | 939. | 22. 0. |
| 378 | 350 | 234 | 516 516 | .60 .80 | 36.86 36.86 | .02 | .81 .81 | 7768. | 1259. 1259. | 6228. 6228. | 281. 281. | o. |
| 379 380 | 351 352 | 233 233 | 511 | 60 | 5.00 | .12 | 3.94 | 37817. | 7463. | | 0. | ο. |
| 381 | 353 | 232 | 511 | 1.20 | 5.00 | . 24 | 1.79 | 17178. | 213. | 16965. | 0. | 0. |
| 382 | 354 | 232 | 510 | 1.70 .50 | 40.00 48.33 | .04 | . 44 . 48 | 4268. 18545. | 213. 9445. | 4055. 9100. | | 0. |
| 383 384 | 355. 356 | 258 257 | 259 258 | .30 | 50.00 | .01 | 17 | 2213. | 0. | 2213. | 0. | 0. |
| 385 | 357 | 258 | 507 | 1.30 | 41.13 | .03 | .74 | 9531. | 1505. | | 0. | 0. |
| 386 | 358 | 247 | 701 | .50 | 5.51 | .09 | 1.24 | 11951. | 6633. 4814. | 5317. 1975. | 0. | 0. 0. |
| 387 388 | 1358 359 | 254 248 | 701 508 | .40 1.20 | $\frac{34.69}{6.23}$ | .01 .19 | $\begin{array}{c} 71 \\ 1.24 \end{array}$ | 6789. 11882. | 4899. | 6983. | 0. | 0. |
| 389 | 360 | 242 | 508 | 50 | 5.00 | .10 | 1.46 | 18689. | 12011. | 3465. | 3124. | 89. |
| 390 | 361 | 245 | 246 | .40 | 48.71 | .01 | . 43 | 5487 | 2554. | 2933. | 0. | ·0. |
| 391 | 362 | 243 | 244 244 | .70 .80 | 40.00 40.00 | .02 | . 20 | 1916. 412. | 0. 0. | 1505. | 369. 369. | 43. 43. |
| 392 393 | 363 364 | 240 241 | 244 | 1.20 | 35.91 | .03 | .80 | 7718 | 1505. | 5682. | 531. | 0. |
| 394 | 365 | 241 | 512 | .70 | 20.98 | .03 | 1.26 | 12131. | 3308. | 7921. | 902. | 0. |

Appendix 7.6 The Result of the Traffic Assignment (6)

| NO. | LINK | NODE1 | NODE2 | OIST (km) | VELO (km/h) | TIME (h) C | ONGEST | TOTAL. | BICY | CAR | PUBL | RAIL |
|------------|--------------|-------------|------------|-------------------|-----------------------|---------------|---------------------|------------------|------------------|------------------|----------------|--------------------|
| 395 | 366 | 237 | 512 | .90 | 17.01 | .05 | 1.21 | 46504, | 17007. | 24275. | 4766. | 456. |
| 396 | 367 | 212 | 21.3 | 1.30 | 50.00 | .03 | .00 | 0. | 0. | 0. | 0. | 0. |
| 397 398 | 368 369 | 215 218 | 510 219 | 1.00 | 40.00 37.14 | .03 | $\frac{.00}{1.02}$ | 0. 9755. | 0. 0. | 0, 9755, | 0. 0. | 0. 0. |
| 399 | 370 | 217 | 218 | 1.60 | 37.14 | .04 | 1.02 | 9755 | ŏ. | 9755. | ŏ. | ŏ. |
| 400 | 371 | 217 | 706 | 1.30 3.70 | 37.49 | .03 | $\frac{.99}{1.22}$ | 9547 | 1169. | 7022. | 1333. | 23. |
| 401 402 | 1371 372 | 514 514 | 706 570 | 7.00 | 12.93 39.37 | .29 .18 | .44 | 11743. 4231. | 4653. 1036. | 5048. 2536. | 2019. 646. | 23. 14. |
| 403 | 375 | 222 | 226 | 1.90 | 33.64 | .06 | 1.18 | 15042. | 695 | 14347. | 0. | .0. |
| 404 | 376 | 223 496 | 226 571 | 3.10 | 50.00 40.00 | .06 .03 | .08 | 1044. | 390, | 654. | 0. | 0. |
| 405 406 | 377 378 | 226 | 227 | 100 | 5.00 | .03 | .00 1.49 | 0. 14318. | 0, 1168, | 0. 12766. | 0. 384. | 0. 0. |
| 407 | 379 | 227 | 591 | .80 | 40.00 | .02 | .03 | 296. | 55. | 241. | 0. | o. |
| 408 409 | 380 381 | 536 :405 | 591 536 | 2.90 .90 | 40.00 | .07 .18 | $\frac{.03}{1.62}$ | 296. 15507. | 55. 13812. | 241. 1695. | 0. 0. | 0. |
| 410 | 382 | 405 | 413 | 1.50 | 5.00 | .30 | 1.94 | 18615. | 13873. | 4742. | 0. | ŏ. |
| 411 | 383 | 412 | 413 | .80 | 5.00 | .16 | 1.94 | 18615. | 13873. | 4742. | 0. | 0. |
| 412 413 | 384 385 | 412 403 | 417 535 | 1.00 | 38.91 5.00 | .03 .22 | .67 1.40 | 6397. 13426. | 3064. 2415. | 3333. 7622. | 0. 3389. | 0. |
| 414 | 386 | 411 | 535 | 1.10 | 5.00 | .22 | 1.34 | 12892. | 3337 | 7341. | 2174. | 41. |
| 415 | 387 | 411 | 416 | .90 | 5.00 | 18 | 1.59 | 15242. | 2208. | 10421. | 2607. | 6. |
| 416 417 | 388 389 | 416 421 | 421 425 | .60 1.10 | 5.00 5.00 | .12 .22 | $\frac{1.95}{1.68}$ | 18722. 16122. | 1795. 1795. | 12648. 10048. | 4235. 4235. | 45. 45. |
| 418 | 390 | 406 | 409 | 1.10 | 5.00 | .22 | 1.50 | 14422 | 0. | 13212. | 1019. | 191. |
| 419 | 391 | 409 | 544 | .90 | 5.00 | .18 | 2.19 | 20999. | 3465. | 15782. | 1752. | .0. |
| 420 421 | 392 393 | 419 419 | 544 423 | 60 1.10 | 5.00 5.00 | .12 .22 | $\frac{2.39}{2.39}$ | 22940. 22940. | 1527. 1527. | 19090. 19090. | 2313. 2313. | 10. 10. |
| 122 | 394 | 401 | 589 | .50 | 5.00 | .10 | 1.42 | 13608 | 4053. | 5870. | 3506. | 179. |
| 423 | 395 | 534 | 711 | 60 | 5.00 | 12 | 1.42 | 13608. | 4053 4053 | 5870 | 3506. | 179. |
| 424 425 | 1395 396 | 589 408 | 711 534 | $\frac{50}{1.10}$ | 5.00 5.00 | .10 .22 | $\frac{1.42}{1.39}$ | 13608. 13303. | 4053 | 5870. 5223. | 3506. 3764. | 179. 265. |
| 426 | 397 | 408 | 414 | .90 | 5.00 | .18 | 2.14 | 20530. | 282. | 13897. | 6250. | 101. |
| 427 | 398 | 414 | 418 | .60 | 5.00 | .12 | 1.87 | 17937. | 66 | 11761. 11673. | 5879. 5879. | 230. 230. |
| 428 429 | 399 400 | 418 422 | 422 551 | 1.10 | 5.00 5.00 | . 22 . 12 | 1.86 1.54 | 17849. 14753. | 66. 141. | 8562. | 5811. | 240. |
| 430 | 401 | 418 | 419 | .80 | 40.00 | . 02 | . 01 | 88 | 0. | 88. | . 0. | 0. |
| 431 | 102 | 419 | 420 | .30 | 40.00 | $.01 \\ .01$ | .01 .27 | 88 2599 | 0. 0. | 88. 2599. | 0. 0. | 0. |
| 432 433 | 403 404 | 420 450 | 421 452 | .30 1.30 | $\frac{40.00}{36.72}$ | .04 | 1.12 | 43084. | 1940. | 37275. | 2243. | 1626., |
| 434 | 405 | 452 | 455 | .80 | 37.33 | .02 | 1.06 | 40691. | 27.76 | 34468. | 2031. | 1416. |
| 435 | 406 | 431 431 | 455 551 | . 20 | 5.00 31.71 | .04 .03 | $\frac{1.74}{1.18}$ | 66836. 45466. | 9905. 2022. | 53125. 39308. | 2392. 2290. | 1414. 1846. |
| 436 437 | 407 408 | 427 | 551 | 1.00 | 36.33 | .03 | 1.10 | 42292. | 1882 | 30746. | 8058. | 1606. |
| 438 | 409 | 431 | 432 | .80 | 5.00 | .16 | 3.94 | 37792. | 7966. | 29724. | 102. | 0. |
| 439 440 | 410 411 | 432 433 | 433 434 | .70 1.00 | 5.00 5.00 | . 14 . 20 | $\frac{3.94}{3.98}$ | 37792. 38227. | 7966 7966 | 29724. 29724. | 102. 102. | 0. 435. |
| 441 | 412 | | 549 | 1.70 | 10.00 | 17 | 1.47 | 84394. | 10279. | 61952. | 10719. | 1445. |
| 442 | 413 | 436 | 549 | .60 | 38.14 | .02 | .90 | 51840. | 8280. | 36286. | 6715. | 559. 559. |
| 443 444 | 414 415 | 436 443 | 437 445 | ,90 ,50 | 38.14 21.56 | .02 .02 | $\frac{.90}{1.11}$ | 51840. 14233. | 8280. 1392. | 36286. 11328. | 6715. 1505. | 8. |
| 445 | 416 | 445. | 543 | .90 | 5.00 | .18 | 1.35 | 51741. | 8305. | 41923. | 1505. | 8. |
| 446 | 417 | 451 | 543 | .60 | 35.28 | .02 | 1.18 | 45433. | 3583. | 39989. 19680. | 1649. 1649. | 212. 212. |
| 447 448 | 418 419 | 451 300 | 452 542 | .50 .80 | 5.00 5.00 | .10 | $\frac{1.90}{1.34}$ | 24355. 51309. | 2814. 7459. | 42178. | 1673. | 0. |
| 449 | 420 | | 542 | .60 | 5.00 | .12 | 1.32 | 50682 | 4360. | 45104. | 1219. | 0. |
| 450 | 421 | | 445 | .40 | 37.46 44.47 | .01 .01 | . 95 . 66 | 36612. 25396. | 4811. 6353. | 31801. 19042. | 0. 0. | 0. 0. |
| 451 452 | 422 423 | 442 440 | 445 442 | 1.00 | 36.09 | .03 | 1.01 | | 10121 | 28680. | ő. | o. |
| 453 | 424 | | 455 | .60 | 5.00 | .12 | 2.07 | 26456. | 7129. | 18657. | 361. | 309. |
| 454 | 425 | 453 | 454 | .60 | 5.00 | .12 .16 | $\frac{2.07}{1.45}$ | 26456. 18607. | 7129. 4945. | 18657. 13662. | 361. 0. | 309. 0. |
| 455 456 | 426 427 | 446 442 | 453 446 | .80 | 5.00 5.00 | .16 | 1.45 | 18607. | 4945. | 13662. | ő. | o. |
| 457 | 428 | 441 | | 60 | 50.00 | .01 | .14 | 5201. | 1177. | 4024. | 0. | 0. |
| 458 | 429 | 298 | 441 | 1.20 | 5.00 | . 24 | 1.66 | 15982. 16215. | 3813, 2879, | 10803. 13336. | 1366. 0. | 0. 0. |
| 459 460 | 430 431 | 447 | 542 448 | . 60 | 9.46 9.46 | .06 .03 | $\frac{1.27}{1.27}$ | 16215. | 2879. | 13336. | o. | 0. |
| 461 | 432 | 448 | 543 | .80 | 5.00 | .16 | 1.51 | 19340. | 3301. | 16039. | 0. | .0. |
| 462 | 433 | 453. | 543 | .70 | 50.00 | .01 .02 | .12 .55 | 1598. 21078. | 1290. 769. | 308. 20309. | 0. 0. | 0. 0. |
| 463 464 | 434 : 435 | 449 451 | 451 454 | 1.00 | 49.66 50.00 | | .00 | 0. | 0. | 0. | 0. | 0. |
| 465 | 436 | 459 | 460 | .30 | 50.00 | 01 | .83 | 10594. | 0. | 10594. | 0. | 0. |
| 466 | 437 | 460 | 552 | .60 | 50.00 | .01 .01 | . 83 . 83 | 10594. 10594. | | 10594. 10594. | 0. 0. | . 0. |
| 467 468 | 438 439 | 461 438 | 552 537 | .50 .90 | 50.00 24.87 | | 1.18 | 45440. | 11967. | 33473. | 0. | 0. |
| 469 | 440 | 468 | 558 | 1.30 | 5.00 | .26 | 1.71 | 65815. | 8558. | 51389. | 4322. | 1545. |
| 470 | 441 | 473 | 558 | .60 | 5.00 | . 12 .18 | $\frac{1.75}{1.47}$ | 67078. 56501. | 14486. 10564. | 43998. 42843. | 7323. 2645. | $\frac{1271}{449}$ |
| 471 472 | 442 443 | | 474 474 | . 90 | 5.00 | .10 | 2.30 | 88163. | 20129. | 56002. | 11894. | 139. |
| 473 | 444 | 474 | 475 | 1.50 | 5.00 | 30 | 1.27 | 48620. | 16038. | 21669. | 10326. | 588. |

Appendix 7.6 The Result of the Traffic Assignment (7)

| NO. LINK NODE1 NODE2 (km) (km/h) TIME (h) CONGEST TOTAL BICY CAR 474 445 475 477 .60 5.00 .12 1.44 55138. 12869. 34188 475 446 477 478 .60 25.64 .02 1.15 44100. 9335. 29644 476 447 478 479 .30 40.65 .01 .83 32062. 6114. 22103 477 448 479 480 .30 23.65 .01 1.19 45779. 9312. 31122 | 3. 7371. 709. 4. 4405. 716. 5. 3123. 716. 4. 4623. 723. |
|--|--|
| 475 446 477 478 .60 25.64 .02 1.15 44100, 9335, 296446 447 478 479 .30 40.65 .01 .83 32062, 6114, 22100 | 1. 4405. 716. 0. 3123. 716. 2. 4623. 723. |
| 475 446 477 478 .60 25.64 .02 1.15 44100, 9335, 296446 447 478 479 .30 40.65 .01 .83 32062, 6114, 22100 | 1. 4405. 716. 0. 3123. 716. 2. 4623. 723. |
| 476 447 478 479 .30 40.65 .01 .83 32062. 6114, 2210 | 4623. 723. |
| | 2. 4623. 723. |
| | |
| 478 449 480 553 .90 36.37 .02 .99 38090. 10418. 20134 479 450 481 553 .90 32.80 .03 1.22 46794. 12522. 29401 | |
| 479 450 481 553 .90 32.80 .03 1.22 46794. 12522. 29401 480 451 481 593 .50 48.38 .01 .63 24247. 1422. 21665 | |
| 181 452 463 593 1.80 48.68 .04 .62 23774, 1422, 21665 | 616 71. |
| 482 453 493 494 .20 43.39 .00 .66 25493. 3998, 13412 | |
| 483 454 488 493 2.20 49.35 .04 .41 15914. 2625. 6800 484 455 482 488 .40 37.31 .01 .92 35183. 7456. 1926 | |
| 484 455 482 488 .40 37.31 .01 .92 35183. 7456, 1920 485 456 477 482 1.00 35.52 .03 .99 38045. 7456, 2213 | 7645. 815. |
| 486 457 476 477 .60 22.05 .03 1.12 43070. 3922. 33647 | 4678. 821. |
| 487 458 473 476 1.60 22.05 .07 1.12 43070. 3922. 33647 488 459 480 485 .90 38.81 .02 .93 53844. 10651. 31817 | |
| 70 70011 10051 01015 | |
| 489 460 484 485 .30 38.81 .01 .93 53844. 10051. 31817 490 461 484 556 .40 25.00 .02 1.19 68744. 13872. 42215 | 8995 3662. |
| 491 462 495 556 2.40 44.29 .05 .71 40756. 8463. 23624 | |
| 492 463 494 495 .30 44.88 .01 .63 36142. 11655. 15663 | |
| 400 401 | |
| 494 465 482 483 .50 40.00 .01 .30 2863. 0. 2865 495 466 483 484 .40 5.00 .08 1.55 14900. 3221. 10398 | |
| 496 467 488 556 .70 5.00 .14 1.51 19269. 4831. 12467 | |
| 497 468 487 556 1.30 50.00 .03 .18 2314. 0. 2314 | |
| 498 469 457 458 .30 5.00 .06 5.11 65408. 7804. 53381 499 470 458 557 .80 5.00 .16 2.85 36416. 4024. 28169 | |
| 499 470 458 557 .80 5.00 .16 2.85 36416. 4024. 28165 500 471 466 557 .90 35.23 .03 .99 12676. 1922. 10755 | |
| 501 472 466 471 ,90 41.91 .02 .89 11354. 3235. 8120 | 0. 0. |
| 502 473 470 471 .90 47.77 .02 .91 11666. 2391. 7460 | |
| 503 474 470 557 .90 45.24 .02 .98 12523. 0. 11267 504 475 471 472 .90 5.00 .18 2.05 19634. 4048. 14321 | |
| 504 475 471 472 .90 5.00 .18 2.05 19634. 4048. 1432 505 476 472 479 1.10 5.00 .22 2.21 21210. 5213. 1398 | |
| 506 477 458 465 2.00 5.00 .40 2.34 22488. 0. 22488 | 3. 0. 0. |
| 507 478 465 472 2.00 5.00 40 1.52 14569. 865. 1370 | |
| 508 479 469 472 2.00 5.00 .40 1.32 12686. 0. 12686 509 480 458 469 2.00 5.00 .40 1.60 15358. 3780. 1157 | |
| 509 480 458 469 2.00 5.00 .40 1.60 15358. 3780. 1157 510 481 469 558 .50 5.00 .10 1.72 16495. 6172. 725 | |
| 511 482 469 470 .90 5.00 .18 1.44 13824. 2391. 836 | |
| 512 483 465 466 .90 5.00 .18 2.50 24031. 5156. 1887 | |
| 513 484 462 465 .30 5.00 .06 6.36 61088. 6021. 55066 514 485 371 373 .40 34.05 .01 .80 7635. 767. 6868 | |
| 514 485 371 373 .40 34.05 .01 .80 7635. 767. 6868 515 486 371 467 .60 5.00 .12 1.28 12299. 0. 12299 | |
| 516 487 368 371 .90 5.00 .18 2.08 19934. 767. 19160 | |
| 517 488 368 369 .30 40.00 .01 .01 64. 0. 6 | |
| 518 489 367 368 .40 5.00 .08 2.08 19998. 767. 1923 519 490 485 486 1.00 40.00 .03 .00 0. 0. | l. 0. 0.). 0. 0. |
| 519 490 485 486 1.00 40.00 .03 .00 0. 0. 0. 520 491 486 553 .90 29.05 .03 1.26 48440. 12627. 32670 | |
| 521 492 486 487 .70 29.05 .02 1.26 48440. 12627. 32670 |). 3014. 129. |
| 522 493 487 489 1.50 37.95 .04 .99 38059. 15262. 1875 | |
| 523 494 489 491 .60 43,71 .01 .75 28843. 15262. 954 524 495 491 492 .40 49,16 .01 .43 16592. 6512. 7799 |). 3865. 176. 9. 2280. 0. |
| 524 495 491 492 .40 49.16 .01 .43 16592. 6512. 779 525 496 492 495 1.30 49.16 .03 .43 16592. 6512. 779 | 2280. 0. |
| 526 497 493 495 .30 48,28 .01 .55 21205, 3319, 1575 | 3 2127 0. |
| 527 498 489 490 1.00 30,64 .03 .96 9216. 0. 921 | |
| 528 499 490 718 .60 30.64 .02 .96 9216. 0. 9216 529 1499 718 732 2.50 32.99 .08 1.11 10658. 0. 1055 | 3. 0. 0. 4. 0. 104. |
| 529 1499 718 732 2.50 32.99 .08 1.11 10658. 0. 1055 530 2499 500 732 .90 35.78 .03 .86 8278. 0. 7479 | |
| 531 500 204 205 1.50 40.00 .04 .00 0. 0. | 0. 0. |
| 532 501 202 204 .50 5.00 .10 1.53 14660. 0. 14660 | |
| 533 502 204 206 .60 5.00 .12 1.53 14660. 0. 14660 534 503 206 207 .60 5.00 .12 1.53 14660. 0. 14660 | |
| 534 503 206 207 .60 5.00 .12 1.53 14660. 0. 14660 535 504 259 261 1.10 33.40 .03 1.01 12986. 2892. 226 | |
| 536 505 523 524 1.30 5.00 .26 1.48 14211. 12206. 2005 | 5. 0. 0. |
| 537 506 255 523 .90 5.00 .18 3.24 31108. 15578. 15530 | |
| 538 507 268 523 .80 5.00 .16 3.85 49233. 11662. 2189 539 508 268 273 .30 5.00 .06 4.61 44282. 10769. 2833 | |
| 539 508 268 273 .30 5.00 .06 4.61 44282. 10769. 2833. 540 509 273 529 .70 5.00 .14 1.66 15966. 3618. 8330 | |
| 541 510 309 529 .50 5.37 .09 1.42 13615. 3754. 694 | 1. 1793. 1127. |
| 542 511 235 280 .80 5.00 .16 1.41 13510. 6890. 661 | 9. 0. 0. |
| 543 512 235 517 .60 5.00 .12 1.41 13510, 6890, 6619 544 513 319 531 .60 40.00 .02 .59 5667, 94, 5573 | |
| 544 513 319 531 .60 40.00 .02 .59 5667. 94. 5373 545 514 318 531 .40 5.00 .08 2.68 25704. 3045. 2171 | |
| 545 514 518 531 .40 5.00 .08 2.08 20104. 5040. 5111- 546 515 303 314 .90 5.00 .18 1.29 49669. 5395. 42643 | 3. 936. 695 <i>.</i> |
| 547 516 314 316 .20 5.00 .04 4.92 47199. 5979. 41220 | 0. 0. |
| 548 517 316 344 .90 5.00 .18 4.14 39714. 4027. 3568 | 7 0 0. |
| 549 518 343 344 .60 5.00 .12 1.27 48674. 18520. 19948 550 519 342 343 .60 5.00 .12 1.48 14221. 4306. 3532 |). 9615. 590. 2. 5793. 590. |
| 550 519 342 343 .60 5.00 .12 1.48 14221. 4306. 3532 551 520 341 342 .30 5.00 .06 1.36 13068. 3403. 7772 | |
| 552 521 336 341 .80 5.00 .16 2.36 22660. 18302. 2464 | |

Appendix 7.6 The Result of the Traffic Assignment (8)

| NO. | LINK | NODE1 | NODE2 | DIST (km) | VELO (km/h) | TIME (h) CO | NGEST | TOTAL | BICY | CAR | PUBL | RAIL |
|--------------|-------------|------------|--------------|--------------|----------------------|----------------|--|------------------|------------------|------------------|----------------|------------------|
| 553 | 522 | 312 | 313 | .40 | 42,49 | .01 | 1.04 | 39777. | 4565. | 32627. | 455. | 2130. |
| 554 | 523 | 302 | 303 | .60 | 5.00 | .12 | 6.69 | 64209 | 5652. | 55705. | 2853. | Ö. |
| 555 | 524 | 303 | 538 | 90 | 20.53 | .04 | 1.30 | 49820 | 5528. | 41555. | 2737, | 0. |
| 556 557 | 525 526 | 359 299 | 538 538 | .50 .70 | 5.00 | .10 .14 | $\frac{4.25}{2.02}$ | 40801. 19428. | 4893. 1983. | 32466. 16910. | 3353. 535. | 90. 0. |
| 558 | 527 | 299 | 300 | .10 | 5.00 | .02 | 2.97 | 37964 | 4463. | 32518. | 984. | ο. |
| 559 | 528 | 328 | 329 | 1.30 | 14.60 | .09 | 1.22 | 11760. | 5247. | 6513. | 0. | 0, |
| 560 561 | 529 530 | 265 332 | 328 333 | 1.40 | 5.00 5.00 | . 28 . 14 | $\frac{1.47}{2.73}$ | 14093. 26213. | 8351. 7455. | 5741. 12531. | 0. 6145. | 0, 82, |
| 562 | 531 | 331 | 332 | .60 | 5.00 | ,12 | 3.21 | 30857. | 13859. | 12399. | 4479. | 120. |
| 563 | 532 | 330 | 331 | , 60 | 5.00 | .12 | 1.81 | 17341. | 5739. | 7003. | 4479. | 120. |
| 564 | 533 1533 | 330 326 | 713 713 | .60 .30 | $\frac{5.00}{26.08}$ | .12 | $1.78 \\ 1.62$ | 22814. 20703. | 5739. 5513. | 12709. 14258. | 4247. 818. | 120. 114. |
| 565 566 | 534 | 325 | 326 | .30 | 31.41 | .01 | 1.19 | 45590 | 9973. | 28960. | 6408. | 249 |
| 567 | 535 | 334 | 336 | 1.40 | 35.71 | .04 | 1 01 | 38731. | 14839. | 23892. | 0. | 0. |
| 568 | 536 537 | 336 337 | 337 714 | .50 | 5.00 | .10 .12 | $\frac{1.92}{1.53}$ | 73847. 58869. | 19394. 19394. | 44286. 31664. | 9197. 6926. | 969. 885. |
| 569 570 | 1537 | 338 | 714 | .30 | 5.00 | .06 | 1.28 | 48969 | 15341. | 27782. | 4983. | 863. |
| 571 | 538 | 331 | 528 | .90 | 5.00 | .18 | 1.41 | 13516. | 8120. | 5396. | 0. | 0. |
| 572 | 539 540 | 527 317 | 528 338 | .90 | 5.00 5.00 | .18 .18 | 1.73 1.46 | 16645. 56154. | 13662. 16409. | 2983. 31250. | 0. 6994. | 0. 1501. |
| 573 574 | 541 | 311 | 317 | .30 | 5.00 | .06 | 1.76 | 67528. | 18846. | 40187. | 6994. | 1501. |
| 575 | 542 | 325 | 338 | .80 | 5.00 | . 16 | 1.42 | 54451. | 29461. | 12804. | 12187. | 0. |
| 576 | 543 544 | 348 347 | 353 348 | 1.00 .60 | 5.00 37.42 | .20 | 2.50 .85 | 24045. 8207. | 6852. 1324. | 17193. 6883. | 0. | 0. |
| 577 578 | 545 | 345 | 539 | ,60 | 28.39 | .02 | 1.42 | 13618. | 0. | 13618. | 0. | 0. |
| 579 | 546 | 345 | 346 | .70 | 5.00 | .14 | 2.17 | 20848. | 2195. | 18653. | 0. | 0 |
| 580 | 547 | 346 350 | 541 541 | .50 1.50 | 5.00 24.65 | .10 .07 | $\frac{1.48}{1.08}$ | 14223. 10402. | 2195. 0. | 12029. 10402. | 0. | 0 0 |
| 581 582 | 548 549 | 335 | 350 | .70 | 5.00 | .14 | 1.38 | 13205. | o. | 13205. | o. | 0 |
| 583 | 550 | 264 | 526 | 1.00 | 18.37 | .05 | 1.28 | 12280. | 4350. | 7931. | Ö. | 0 |
| 584 | 551 | 263 | 264 | 1.00 | $18.37 \\ 18.37$ | .05 .02 | $\begin{matrix}1.28\\1.28\end{matrix}$ | 12280. 12280. | 4350. 4350. | 7931. 7931. | 0. 0. | 0. 0. |
| 585 586 | 552 553 | 260 328 | . 263 528 | .50 | 5.00 | .10 | 1.76 | 16857. | 7781. | 3526. | 5225. | 325. |
| 587 | 554 | 327 | 528 | .50 | 5.00 | .10 | 1.36 | 13099. | 1650. | 5898. | 5225. | 325. |
| 588 | 555 | 324 | 327 | .50 | $\frac{5.00}{24.27}$ | .10 | $\frac{2.15}{1.08}$ | 20671. 10338. | 1650. 0. | 12815. 8215. | 5796. 2038. | 410. 85. |
| 589 590 | 556 557 | 327 330 | 330 337 | .60 | 5.00 | .18 | 1.56 | 14977. | ö. | 12622. | 2271. | 85. |
| 591 | 558 | 340 | 341 | .70 | 5.00 | .14 | 1.94 | 18618. | 15789. | 2829. | 0. | 0. |
| 592 | 559 | 341 | 541 | .30 | 5.00 5.00 | .06 | $\frac{1.65}{1.36}$ | 15858. 13034. | 7722. 5527. | 8136. 7507. | 0. 0. | 0, 0, |
| 593 594 | 560 561 | 349 348 | 541 349 | .90 .40 | 5.00 | .08 | 1,65 | 15837 | 5527. | 10310. | o. | ٥. |
| 595 | 562 | 349 | 351 | .60 | 40.00 | .02 | . 29 | 2803. | 0. | 2803. | 0. | 0. |
| 596 | 563 | 350 | 351 | .70 | 40.00 5.00 | .02 .22 | .29 1.29 | 2803. 12376. | 0. 8080. | 2803. 254. | 0. 4042. | o. o. |
| 597 598 | 564 565 | 354 355 | 355 356 | 1.10 | 40.00 | .01 | .08 | 788 | 191. | 377. | 220. | ο. |
| 599 | 566 | 356 | 357 | .50 | 5.00 | .10 | 1.75 | 16798. | 4198. | 9990. | 2149. | 461. |
| 600 | 567 | 357 | 540 | .80 | 5.09 | .16 .12 | $\frac{1.39}{2.41}$ | 13322. 23119. | 4529. 6369. | 6294. 12032. | 2038. 3407. | 461. 1310. |
| 601 602 | 568 569 | 361 361 | 540 366 | . 60 . 40 | 5.00 5.00 | .08 | 2.01 | 19297. | 2626. | 11954. | 3407. | 1310. |
| 603 | 570 | 386 | 561 | .70 | 39.69 | .02 | 97 | 37335. | 9718. | 21656. | 5908. | 54. |
| 604 | 571 | 386 | 559 | .70 | 5.00 | .14 | 4.62 5.56 | 59118. 71146. | 15248. 16420. | 35391. 47215. | 8435. 7317. | 44. 193. |
| 605 606 | 572 573 | 378 357 | 559 378 | .90 1.50 | 5.00 5.00 | .18 .30 | 2.01 | 25667. | 8345. | 15531 | 1791. | 0. |
| 607 | 574 | 339 | 343 | 1.10 | 5.00 | . 22 | 2.12 | 20330. | 8825. | 11305. | 0. | 0. |
| 608 | 575 | 343 | 345 | . 20 | 5.00 | .04 | $\frac{2.06}{1.31}$ | 19820. 12590. | 10466. 8271. | 5158. 123. | 4196. 4196. | Ð. O . |
| 609 610 | 576 577 | 345 317 | 355 344 | 1.40 .90 | 5.00 5.00 | .28 .18 | 2.95 | 28367. | 5588. | 22779. | 0. | 0. |
| 611 | 578 | 344 | 539 | . 40 | 5.00 | 08 | 3.09 | 29628. | 4007 | 23232. | 1929. | 461. |
| 612 | 579 | 356 | 539 | 1.30 | 5.00 | . 26 | 1.67 | 16010. | 4007. 4310. | 9613. 9774. | 1929. 0. | 461. 0. |
| 613 614 | 580 581 | 316 376 | 540 540 | 2.00 | 5.00 5.00 | .40 .20 | $\frac{1.47}{1.33}$ | 14084. 12800. | 7718. | 5082. | 0. | 0. |
| 615 | 582 | 376 | 380 | 1.00 | 5.00 | . 20 | 1.33 | 12800. | 7718. | 5082. | 0. | ο. |
| 616 | 583 | 315 | 358 | .50 | 5.00 | .10 | 1.59 | 15254 | 4229. | 11026. 11026. | 0. 0. | 0. 0. |
| 617 618 | 584 585 | 358 360 | 360 362 | 1.00 | 5.00 5.00 | . 20 . 12 | $1.59 \\ 1.35$ | 15254. 12954. | 4229. 1850. | 111020. | o. | 0. |
| 619 | 586 | 360 | 361 | .60 | 39.76 | .02 | . 40 | 3821. | 3743. | 78. | G. | ο. |
| 620 | 587 | 379 | 387 | 1.00 | 5.00 | . 20 | 1.29 | 12367. | 10151. | 2216. | 0. | 0. |
| 621 622 | 588 589 | 387 387 | 559 388 | .40 | 5.00 5.00 | .08 .12 | 2.23 1.88 | 21435. 18035. | 9531. 8347. | 11904. 9688. | 0. 0. | 0. 0. |
| 623 | 590 | 386 | 389 | .70 | 6.03 | .12 | 1.44 | 55445. | 17340. | 29007. | 9001. | 98. |
| 624 | 591 | 370 | 374 | .60 | 37.20 | .02 | .64 | 6176. | 628. | 5547. | 0. | 0. |
| 625 | 592 | 372 | 375 560 | 1.00 | 40.00 37.77 | .02 .03 | .00 .57 | 0. 5450. | 0. 1051. | 0. 4399. | 0. | Ó. O. |
| 626 627 | 593 594 | 390 394 | 560 | 1.00 | 37.77 | .03 | .57 | 5450. | 1051. | 4399. | 0. | 0. |
| 628 | 595 | 396 | 562 | 1.30 | 5.00 | . 26 | 1.31 | 12542. | 3960. | 8139. | 443. | 0. |
| 629 | 596 597 | 396 585 | 397 586 | .10 7.00 | 36 51 40 00 | .00 | .59 .07 | 5695. 714. | 1526. 31. | 3931. 377. | 239 306 | 0. 0. |
| $630 \\ 631$ | 598 | 501 | 585 | 8.00 | 40.00 | . 20 | .05 | 472. | 31. | 163. | 278. | 0. |

Appendix 7.6 The Result of the Traffic Assignment (9)

| | | | | | | | | 100 | 11.5 | | | - |
|------------|-------------|------------|------------|---------------------|----------------|----------------|---------------------|------------------|------------------|------------------|-----------------|----------------|
| NO. | LINK | NODE1 | NODE2 | DIST (km) | VELO (km/h) | TIME (h) Co | ONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
| . * | | | · | | | \$ | | | | | | |
| 632 | 599 | 276 | 520 | . 40 | 5.00 | .08 | 1.50 | 19211. | 8238 | 10973. | 0. | 0. |
| 633 | 600 | 276 | 277 | .30 | 5.00 | .06 | 1.45 | 18579. | 3134 | 15445 | 0. | 0. 0. |
| 634 | 601 | 305 | 277 | .50 | 10.86 | .05 | 1.25 | 15959. | 1877 | 14082. | 0. 353. | o. |
| 635 | 602 | 406 | 534 | .80 | 12.97 | .06 | 1.28 1.09 | 12285. 10423. | 988. 988. | 10943. 7872. | 1372. | 191 |
| 636 | 603 | 406 | 407 535 | .30 | 30.38 5.00 | .06 | 1.58 | 15144. | 2590. | 11425 | 1129. | Õ, |
| 637 638 | 604 656 | 407 601 | 602 | 1.50 | 35.00 | .04 | .02 | 859 | | 0 | ,0, | 859 |
| 639 | 657 | 602 | 603 | 2.70 | 35.00 | .08 | .02 | 859. | 0. | 0 | 0 | 859. |
| 640 | 658 | 603 | 604 | 1.90 | 35.00 | .05 | .02 | 859. | 0. | 0. | 0. | 859. |
| 641 | 659 | 604 | 622 | 3.20 | 35,00 | .09 | .04 | 2220. | 0 | 0. | 0. | 2220. 2798. |
| 642 | 1659 | 605 | 622 | 1.60 | 35.00 | .05 | .06 | 2798. | 0. 0. | 0 0. | 0. 0. | 3149. |
| 643 | 660 | 605 | 623 | 1.60 | 35.00 35.00 | .05 .05 | .06 .11 | 3149. 5274. | ŏ. | ő. | ŏ. | 5274 |
| 644 | 1660 | 623 606 | 606 607 | 8.00 | 35.00 | .23 | .11 | 5630 | o. | õ. | 0. | 5630. |
| 645 646 | 661 662 | 607 | 608 | 3.50 | 35.00 | .10 | .11 | 5583. | 0. | 0. | 0. | 5583. |
| 647 | 663 | 608 | 621 | 5.00 | 35.00 | .14 | .10 | 4830. | 0. | 0 | 0. | 4830. |
| 648 | 664 | .609 | 621 | 10.00 | 35.00 | . 29 | .10 | 4981. | 0. | 0. | 0. | 4981. |
| 649 | 679 | 270 | 601 | 1.00 | 20.00 | .05 | .00 | 35. | 0 | 0 | o. | 35. |
| 650 | 680 | 440 | 604 | 1.00 | 20.00 | .05 | .00 | 8. | 0. | 0. 0. | 0. | 8. 1515. |
| 651 | 681 | 592 | 604 | 1.00 | 20.00 | .05 | .04 | 1515. 311. | 0. 0. | o. | 0. | 311. |
| 652 | 1681 | 455 | 622 | 1.00 | 20.00 20.00 | .05 .05 | .01 | 432. | 0. | ő. | ŏ. | 432. |
| 653 654 | 2681 | 431 433 | 622 605 | $\frac{1.00}{1.00}$ | 20.00 | .05 | .01 | 435. | 0. | o. | 0. | 435. |
| 655 | 682 1682 | 463 | 623 | 1.00 | 20.00 | .05 | .06 | 2259. | 0 | 0 | 0. | 2259. |
| 656 | 2682 | 623 | 825 | 1.40 | 20.00 | .07 | .05 | 2102. | 0. | 0 | 0. | 2102. |
| 657 | 683 | 593 | 606 | 1.00 | 20.00 | .05 | .01 | 473 | 0. | 0 | 0. | 473. |
| 658 | 684 | 500 | 607 | 1.00 | 20.00 | .05 | .02 | 776. | 0. | 0. | 0. | 776. |
| 659 | 685 | 584 | 621 | 1.00 | 20.00 | .05 | .04 | 1578. | 0. 0. | 0. 0. | 0. 0. | 1578. 4170. |
| 660 | 686 | 501 | 609 | 2.00 | 20.00 20.00 | .10 | .10 | 4170. 1254. | o. | ŏ. | 0. | 1254. |
| 661 | 694 | 580 | 608 601 | $\frac{1.00}{1.00}$ | 20.00 | .05 | .03 | 824. | ő. | ő. | o. | 824. |
| 662 663 | 695 700 | 251 258 | 701 | 1.20 | 47.84 | .03 | .50 | 19332. | 7939. | 11392. | 0. | О. |
| 664 | 701 | 250 | 701 | .90 | 45.19 | .02 | .61 | 23572. | 9181 | 14391 | 0. | 0. |
| 665 | 702 | 702 | 703 | 2.10 | 13.04 | .05 | .70 | 26816. | 13074. | 11369 | 2261. | 112. |
| 666 | 703 | 512 | 703 | .70 | 43.92 | .02 | .68 | 26280. | 9119. | 15285. | 1786. | 90. |
| 667. | 704 | 704 | 7.05 | 1.30 | 5.00 | . 26 | 1.53 | 19636. | 4827 | 13329. | 1480. 2046. | 0. 23. |
| 668 | 705 | 231 | 705 | 1.50 | 6.15 | . 24 | 1.24 | 15877. 20286. | 13361. 1746. | 446. 18078. | 463. | 23. 0. |
| 669 | 706 | 232 | 705 | $\frac{1.50}{2.00}$ | 5.00 5.00 | .30 | $\frac{1.58}{1.29}$ | 16528. | 10280 | 5195. | 1029. | 23. |
| 670 | 707 708 | 217 216 | 705 706 | 1.30 | 47.57 | .03 | .50 | 19156. | 1619 | 16469 | 1068. | .0, |
| 671 672 | 709 | 706 | 709 | 2.50 | 45.48 | .05 | .71 | 27087. | 3879. | 21693. | 1515. | 0: |
| 673 | 710 | 223 | 709 | 3.00 | 50.00 | .06 | . 45 | 17460. | 3633 | 12313 | 1515. | ٠0٠ |
| 674 | 711 | 222 | 709 | 2.00 | 45.11 | .04 | .75 | 9627. | 246 | 9380 | 0. | 0. |
| 675 | 712 | 228 | 513 | 2.30 | 5.00 | .46 | 1.39 | 17762. | 10284 | 4504 | 2889. 7358. | 86. 127. |
| 676 | 713 | 228 | 590 | .10 | 5.00 | .02 .05 | 3.48 1.09 | 44588. 13906. | 25957. 1054. | 11146. 12521. | 331. | 0. |
| 677 678 | 714 715 | 590 405 | 707 707 | 2.00 | 38.43 50.00 | .01 | . 29 | 3694. | 647. | 3047 | ō. | 0. |
| 679 | 716 | 227 | 708 | .70 | 40.03 | .02 | .90 | 11503. | 970. | 9655 | 877. | 0. |
| 680 | 717 | 404 | 708 | 2.70 | 40.03 | .07 | .90 | 11503. | 970. | 9655 | 877. | 0, |
| 681 | 718 | 328 | 526 | 1.00 | 5.00 | . 20 | 1.45 | 18560. | 10296 | 2714. | 5225. | 325. |
| 682 | 719 | 324 | 713 | .60 | 26.77 | .02 | 1.12 | 43118. | 7258. | 20980. | 14849 | 32. |
| 683 | 720 | 713 | 714 | .90 | 37.95 | .02 | 1.09 | 41833. | 7484 2978 | 22857. 19846. | 11468. 9525. | 25. 3, |
| 684 | 721 | 340 | 714 | .60 | 42.09 | .01 .06 | .84 | 32352. 41175. | 18254 | 16459. | 6462. | o. |
| 685 | 722 | 354 | 378 382 | 1.60 .40 | 26.33 5.00 | .08 | $\frac{1.07}{1.60}$ | 61526 | 7434. | 51596 | 2302. | 193. |
| 686 687 | 723 728 | 380 223 | 224 | 1.70 | 46.19 | .04 | .64 | 24438. | 7230. | 15113. | 2063. | 32. |
| 688 | 729 | 224 | 225 | .10 | 46.19 | .00 | .65 | 25059. | 7230. | 15734. | | 32. |
| 689 | 730 | 225 | 545 | 6.00 | 46.19 | .13 | .68 | 25979. | 7230 | 16654 | | 32. |
| 690 | 731 | 545 | 546 | 5.50 | 50.00 | . 11 | . 37 | 14022. | 695 | 12266 | 1018. | 43. 325. |
| 691 | 732 | 546 | 715 | 2.00 | 29.72 | .07 | 1.16 | 44422 | 7320. 8195. | 33283. 24821. | 3494. 930. | 74. |
| 692 | 733 | 715 | 716 | 2.80 | 40.26 | .07 .07 | .89 | 34020. 34020. | 8195. | 24821. | 930. | 74. |
| 693 | 734 | 555 555 | 716 717 | 3.00 1.80 | 40.26 36.83 | .05 | 1.04 | 39797. | 12724 | 24749. | 2101. | 222, |
| 694 695 | 735 736 | 717 | 718 | 1.80 | 24.97 | .07 | 1.15 | 43993. | 21774. | 16001. | | 72. |
| 696 | 737 | 491 | 718 | 1.00 | 29.38 | .03 | 1.18 | 45435. | 21774. | 17339. | 6145. | 176. |
| 697 | 738 | 437 | 715 | 2.00 | 7.03 | . 28 | 1.24 | 47638. | 10514. | 34309. | 2564. | 251. |
| 698 | 739 | 481 | 554 | 1.50 | 5.00 | .30 | 1.94 | 24821. | 11100 | 10010 | 3711 | 0. |
| 699 | 740 | 717 | 733 | 3.00 | 43.09 | 07 | .71 | 27400. | 11552 | 11654. | 4044. 2893. | 150. 232. |
| 700 | 741 | 580 | 733 | 2.70 | 43.74 | .06 | .67 | 25648. 16661. | 10641. 13040. | 11881. 3621. | 2893. | 232. |
| 701 | 742 | 580 | 745 | 1.30 | 49.42 50.00 | .03 .06 | .43 .09 | 3621 | 0. | 3621. | ö. | ŏ. |
| 702 | 743 | 745 494 | 756 730 | $\frac{3.20}{2.50}$ | 40.53 | .06 | .80 | 46317. | 11983. | 20444 | 11755. | 2135. |
| 703 704 | 748 749 | 730 | 737 | 2.20 | 44.22 | .05 | .65 | 37606. | 4000 | 17813. | 13919. | 1874. |
| 705 | 750 | 737 | 743 | 1.50 | 44.22 | .03 | .65 | 37606. | 4000 | 17813. | 13919. | 1874. |
| 706 | 751 | 743 | 754 | 3.00 | 50.00 | .06 | .30 | 17365 | 2705 | 5777 | 8772. | 110. |
| 707 | 759 | 474 | 724 | 2.50 | 50.00 | .05 | .30 | 11567 | 2864 | 6836 | 1866. | 0. |
| 708 | 760 | 724 | 726 | 1.50 | 50.00 | .03 | .30 | 11567. 14543. | 2864. 2658. | 6836. 9200. | 1866. 2684. | 0. |
| 709 | 761 | 726 | 728 | $\frac{3.00}{1.50}$ | 50.00 48.77 | .06 | .38 .44 | 16891. | 6479. | 7682 | 2730. | o. |
| 710 | 762 | 728 | 735 | 1.50 | 70.11 | | , 17 | 10001. | J | | | |

Appendix 7.6 The Result of the Traffic Assignment (10)

| NO. | LINK | NODE1 | NODE2 | DIST (km) | VELO (km/h) | TIME (h) C | ONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
|-------|------|-------|------------|--------------|----------------|------------|--------|----------------|--------|---------------|--------|--------|
| nar i | | | | | 4 3 | | | | | | | |
| 711 | 763 | 735 | 741 | 3.50 | 50.00 | .07 | .38 | 14667. | 6413. | 6109. | 2146. | 0. |
| 712 | 764 | 741 | 748 | 1.00 | 50.00 | .02 | .00 | 152. | ο. | 152. | ο. | ο. |
| 713 | 765 | 7.18 | 751 | 3.70 | 50.00 | .07 | .00 | 152. | ο. | 152. | 0 | ο. |
| 714 | 766 | 352 | | 2.50 | 17.05 | .15 | 1.15 | 44145. | 9970. | 23068. | 11107. | ο. |
| 715 | 767 | 719 | 720 | 2.50 | 5.00 | .50 | 1.28 | 48984. | 13559. | 25733. | 9693. | ο. |
| 716 | 768 | 720 | 721 | 1.50 | 21.46 | .07 | 1.14 | 43637. | 10036. | 19918. | 13682. | ο. |
| 717 | 769 | 581 | 721 | 3.00 | 18.70 | .16 | 1.14 | 43615. | 8834. | 19084. | 15586. | 112. |
| 718 | 770 | 563 | 581 | 2.20 | 50.00 | .04 | .19 | 7258. | 552. | 3989. | 2579. | 139. |
| 719 | 771 | 563 | 728 | 1.30 | 50.00 | .03 | .33 | 12554. | 4456. | 5123. | 2975. | 0. |
| 720 | 772 | 728 | 729 | 2.00 | 48.19 | 04 | . 48 | 18375. | 8277. | 7078. | 3020. | 0. |
| 721 | 773 | 729 | 730 | 2.20 | 48.19 | .05 | .48 | 18375. | 8277. | 7078. | 3020. | ο. |
| 722 | 774 | 730 | 731 | 2.20 | 50.00 | .04 | :.30 | 11508. | 51. | 10352. | 843. | 261. |
| 723 | 775 | 731 | 732 | 1.10 | 50.00 | .02 | .30 | 11508. | 51. | 10352. | 843. | 261. |
| 724 | 776 | 732 | 733 | 2.00 | 50.00 | .04 | .38 | 14710. | . 51. | 13427. | 821. | 411. |
| 725 | 777 | 733 | 734 | 2.70 | 50.00 | . 05 | .35 | 13341. | 962. | 9914. | 1971. | 494. |
| 726 | 778 | 569 | 721 | 8.00 | 50.00 | .16 | .38 | 14429. | 519. | 9744. | 4054. | 112. |
| 727 | 779 | 721 | 722 | 2.50 | 50.00 | .05 | .30 | 11612. | 1675. | 8130. | 1808. | 0. |
| 728 | 780 | 398 | 722 | .50 | 45.95 | .01 | .63 | 24341. | 4092. | 14937. | 5252. | 60. |
| 729 | 781 | 398 | 726 | 1.80 | 28.05 | .06 | 1.13 | 43502. | 5145. | 32126. | 6171. | 60. |
| 730 | 782 | 726 | 727 | 1.80 | 41.15 | .04 | . 86 | 32878. | 4692. | 24463. | 3662. | 60. |
| 731 | 783 | 493 | 727 | 2.00 | 41.15 | .05 | 86 | 32878. | 4692. | 24463. | 3662. | 60. |
| 732 | 785 | 740 | 741 | 3.20 | 50.00 | .06 | .18 | 7011. | 5840. | 1019. | 152. | ٥. |
| 733 | 786 | 582 | 741 | 2.50 | 50.00 | .05 | .00 | 76. | 0. | 0. | 76. | 0. |
| 734 | 787 | 582 | 742 | 1.00 | 50.00 | .02 | .00 | 76, | ŏ, | Ö. | 76. | o. |
| 735 | 788 | 742 | 743 | 2.40 | 50.00 | .05 | .00 | 76, | 0. | ŏ. | 76. | õ. |
| 736 | 789 | 743 | 744 | 2.50 | 50.00 | .05 | .35 | 13276 | 13040. | 1. | 236. | ŏ. |
| 737 | 790 | 744 | 745 | 4.00 | 50.00 | .08 | .35 | 13276. | 13040. | 1. | 236. | ŏ. |
| 738 | 791 | 745 | 746 | 2.50 | 50.00 | .05 | .01 | 236, | 0, | 1. | 236. | o. |
| 739 | 792 | 746 | 747 | 1.50 | 50.00 | .03 | .01 | 236 | ŏ. | 1. | 236. | 0. |
| 7.40 | 793 | 750 | 751 | 3.50 | 50.00 | .07 | .02 | 953. | 11. | 419. | 504. | 19. |
| 741 | 794 | 751 | 752 | 3.00 | 50.00 | | .02 | 801. | 11. | 267. | 504. | 19. |
| | 795 | | | 2.00 | 50.00 | .06 | .02 | 801. | 11, | 267. | 504. | 19. |
| 742 | | 752 | 753 754 | | | .04 | | | 440, | 714. | 2742. | 110. |
| 7.43 | 796 | 753 | 754 | 1.80 | 50.00 | .04 | .10 | 4005. | | | 545. | 0. |
| 744 | 797 | 754 | 755 | 2.50 | 50.00 | .05 | .04 | 1701. | 381. | 775. -775. | | 0. |
| 745 | 798 | 755 | 756 | 4.80 | 50.00 | .10 | . 04 | 1701. | 381. | | 545 | 0. |
| 746 | 799 | 756 | 757 | 4.70 | 50.00 | .09 | .14 | 5322. | 381. | 4396. | 545. | |
| 747 | 805 | 561 | 719 | 2.10 | 5.00 | .42 | 1.35 | 17321. | 3589. | 12187. | 1545. | 0. |
| 748 | 806 | 389 | 723 | 1.00 | 5.00 | . 20 | 1.31 | 16728. | 5119. | 7801 | 3743. | 65. |
| 749 | 807 | 392 | 723 | .90 | 5.00 | .18 | 1.31 | 16728. | 5119. | 7801. | 3743. | 65. |
| 750 | 808 | 392 | 393 | . 10 | 5.00 | .02 | 6.77 | 86625. | 17720. | 58825. | 9942. | 139 |
| 751 | 809 | 352 | 758 | 7.50 | 43.74 | .17 | .73 | 28044. | 2571. | 19948. | 5524. | 0. |
| 752 | 812 | 759 | 761 | 4.00 | 47.11 | .08 | .56 | 21508. | 1994. | 13796. | 5717. | 0. |
| 753 | 813 | 502 | 761 | 5.00 | 5.00 | 1.00 | 1.62 | 62387. | 31270. | 9057. | 21314. | 747. |
| 754 | 858 | 808 | 809 | .60 | 45.00 | .01 | . 25 | 12363. | 0, | 0. | ٥. | 12363. |
| 755 | 859 | 809 | 810 | .90 | 45.00 | .02 | . 27 | 13432. | 0. | 0. | 0. | 13432. |
| 756 | 860 | 810 | 1810 | 60 | 45.00 | .01 | 29 | 14428. | 0. | о. | 0. | 14428. |
| 757 | 861 | 1811 | 812 | 1.00 | 45.00 | .02 | .33 | 16523. | 0. | 0. | 0. | 16523. |
| 758 | 862 | 812 | 813 | 1.10 | 45.00 | .02 | .33 | 16613. | 0. | 0. | 0. | 16613 |
| 759 | 871 | 1813 | 822 | 1.00 | 45.00 | .02 | . 29 | 14733. | 0. | 0. | ο. | 14733. |
| 760 | 872 | 822 | 823 | .70 | 45.00 | .02 | . 23 | 11600. | 0. | ο. | о. | 11600. |
| 761 | 873 | 823 | 1823 | .90 | 45.00 | .02 | . 23 | 11260. | o. | ο. | 0. | 11260. |
| 762 | 874 | 824 | 825 | 1.50 | 45.00 | .03 | . 23 | 11280. | 0. | . 0. | 0. | 11280. |
| 763 | 1860 | 1810 | 811 | .50 | 45.00 | .01 | .32 | 15783, | 0. | 0. | 0. | 15783 |
| 764 | 1861 | 811 | 1811 | .80 | 45.00 | .02 | .31 | 15430. | 0. | ο. | 0. | 15430. |
| 765 | 1862 | 813 | 1813 | 1.00 | 45.00 | .02 | . 29 | 14674. | 0. | 0. | ο. | 14674 |
| 766 | 1873 | 1823 | 824 | .90 | 45.00 | .02 | .22 | 11006. | 0. | ο. | 0. | 11006 |
| 767 | 884 | 305 | 808 | .30 | 20.00 | .02 | .12 | 4953. | 0. | 0. | 0. | 4953. |
| 768 | 885 | 308 | 809 | .30 | 20.00 | .02 | .03 | 1350. | 0. | 0. | ο. | 1350 |
| 769 | 886 | 311 | 810 | .30 | 20.00 | .02 | .04 | 1743. | 0. | ο. | 0. | 1743. |
| 770 | 887 | | 811 | .30 | 20.00 | .02 | .01 | 353. | 0. | ο, | 0. | 353. |
| 771 | 888 | 359 | 812 | .30 | 20.00 | .02 | .00 | 90. | 0. | ο, | 0. | 90. |
| 772 | 889 | 363 | 813 | . 30 | 20.00 | .02 | .09 | 3691. | ٥. | 0, | 0. | 3691. |
| 773 | 897 | 456 | 822 | .30 | 20.00 | .02 | .08 | 3209. | 0. | ο, | 0. | 3209. |
| | | | 823 | .30 | 20.00 | .02 | .03 | 1395. | 0. | ο, | 0. | 1395 |
| 774 | 898 | 457 | 823 825 | .40 | 20.00 | .02 | .23 | 9178. | 0. | o, | ŏ. | 9178 |
| 775 | 899 | 463 | | .30 | 20.00 | .02 | .03 | 1093. | ů. | ő. | ő. | 1093. |
| 776 | 1887 | 315 | 1811 | | 20.00 | .02 | .03 | 1379. | 0. | o. | o. | 1379. |
| 777 | 1886 | 313 | 1810 | .30 | | | .03 | 817. | 0. | o. | 0. | 817. |
| 778 | 1889 | 367 | 1813 | .30 | 20.00 | .02 | | 254. | 0. | 0. | 0. | 254. |
| 779 | 1898 | 459 | 1823 | - :30 | 20.00 | ,02 | .01 | | 0. | 0. | 0. | 10346. |
| 780 | 944 | 808 | 903 | .60 | 45.00 | .01 | . 21 | 10346. | | o. | 0. | 8628 |
| 781 | 945 | 903 | 904 | 1.10 | 45.00 | .02 | .17 | 8628 | | 0. | 0. | 8024. |
| 782 | | 904 | 905 | .60 | 45.00 | .01 | .16 | 8024. | | | 0. | 5453. |
| 783 | 947 | 905 | 906 | 1.00 | 45.00 | .02 | 11 | 54 5 3. | 0. | 0. | 0. | 274. |
| 784 | 970 | 824 | 461 | .30 | 20.00 | .02 | .01 | 274. | 0. | 0. | | 1850. |
| 785 | 974 | 903 | 309 | .30 | 20.00 | .02 | .05 | 1850. | 0. | 0. | 0. | |
| 786 | 975 | 904 | 322 | .30 | 20.00 | .02 | .03 | 1092. | 0. | 0. | 0. | 1092. |
| 787 | 976 | 905 | 527 | .30 | 20.00 | .02 | .09 | 3642. | 0. | 0. | 0. | 3642. |
| 788 | 978 | 906 | 265 | .30 | 20.00 | .02 | .14 | 5453. | 0. | 0. | 0. | 5453. |

Appendix 7.6 The Result of the Traffic Assignment (11)

| NO. | LINK | NODE1 | NODE2 | DIST (km) | VELO | TIME (h) | CONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
|---|----------------|------------|--------------|---------------------|---------------------|------------|---------------------|-------------------|------------------|-------------------|-----------------|---------------|
| | | | - | • | | | 11.1 | | | | | |
| 789 | 9011 | 1 | 523 | ,50 | 4.00 | .13 | 9.11 | 91065 | 37499 | 37886, 5368. | 14759. | 921. 267. |
| 790 | 9021 | 2 2 | 254 256 | . 50 . 50 | 4.00 | .13 | 1.15 3.00 | 11466. 30032. | 4439. 9707. | 13492. | 6622. | 212. |
| 791 792 | 9022 9031 | 3 | 251 | 50 | 4.00 | .13 | 3.45 | 34548 | 12603. | 14623. | 6985. | 337. |
| 793 | 9032 | 3 | 521 | .50 | 4.00 | .13 | 1.61 | 16062 | 6213. | 7990. | | 92. |
| 794 | 9041 | 4 | 520 | .50 | 4.00 | .13 | 2.07 | 20658 | 4842. | 12776. | 2612. 1343. | 428. 0. |
| 795 706 | $9042 \\ 9051$ | 4 5 | 522 273 | .50 .50 | 4.00 4.00 | .13 .13 | $\frac{1.06}{2.95}$ | 10628. 29536. | 5039. 10769. | 4246. 15984. | 2783. | 0. |
| 796 797 | 9052 | 5 | 322 | .50 | 4.00 | .13 | 5.43 | 54331. | 17601. | 30571. | 5069. | 1091. |
| 798 | 9061 | 6 | 525 | .50 | 4.00 | .13 | 3.43 | 34345. | 9213. | 17956. | 6166. | 1010. |
| 799 | 9071 | .7 | 524 | .50 | 4.00 | .13 | 1.40 | 13980 | 6548 | 6136 | 1129. 4208. | 167. 259. |
| 800 | 9081 | 8 | 520 | .50 | 4.00 | .13 | $\frac{3.65}{4.45}$ | 36501. 44499. | 12679. 9528. | 19356. 30817. | 2737. | 1416. |
| 801 802 | 9101 9102 | 10 10 | 310 318 | .50 .50 | 4.00 | .13 | 4.02 | 40171 | 105 (6. | 24912, | 4707. | 6. |
| 803 | 9111 | 11 | 527 | .50 | 4.00 | .13 | 8.63 | 86330. | 26272. | 45193. | 12316. | 2549. |
| 804 | 9121 | 12 | 519 | .50 | 4.00 | .13 | 6.61 | 66131. | 18677. | 40322. | 6199. | 933. |
| 805 | 9131 | 13 | 289 | .50 | 4.00 | .13 | 7.68 | 76834 | 18887 | 52477. | 4886. 7595. | 586. 2118. |
| 806 | 9132 | . 13 14 | 302 237 | .50 .50 | $\frac{4.00}{4.00}$ | .13 .13 | 2.61 | 130734. 26143. | 7596. | 107631. 12971. | 5576. | 0. |
| 807 808 | $9141 \\ 9142$ | 14 | 279 | .50 | 4.00 | .13 | 2.60 | 26029. | 8581 | 11621. | 4634. | 1193. |
| 809 | 9151 | 15 | 234 | .50 | 1.00 | .13 | . 83 | 8302. | 1312. | 6389. | 600. | 0. |
| 810 | 9152 | 15 | 280 | .50 | 4.00 | .13 | .89 | 8931 | 2916 | 5126. | 848. | 41. 78. |
| 811 | 9153 | 15 | 283 | .50 | 4.00 | .13 | 98 | 9756. | 1711. | 7013. 21285. | 953. 1052. | 78. 695. |
| $\begin{array}{c} 812 \\ 813 \end{array}$ | $9161 \\ 9162$ | 16 16 | 303 538 | .50 .50 | $\frac{4.00}{4.00}$ | .13 .13 | $\frac{2.85}{1.04}$ | 28550. 10409. | 5518. 1347. | 7821. | 1151. | 90. |
| 814 | 9171 | 17 | 344 | .50 | 4.00 | .13 | | 128346. | 28810. | 86942. | 11544. | 1051. |
| 815 | 9181 | 18 | 540 | .50 | 4.00 | .13 | 5.81 | 58122. | 22922. | 30639. | 3712. | 849. |
| 816 | 9191 | 19 | 559 | .50 | 1.00 | .13 | 8.31 | 83119. | 19062 | 59521. | 1299 | 237. 983. |
| 817 | 9201 | 20 | 389 | .50 | 4.00 | .13 | 10.62 7.86 | 106226. 78636. | 25652. 12068. | 68698. 61595. | 10894. 4899. | 74. |
| 818 819 | 202e 112e | 20 21 | 392 508 | .50 .50 | 4.00 4.00 | .13 | 3.06 | 30571 | 16910. | 10448. | 3124. | 89. |
| 820 | 9221 | 22 | 509 | .50 | 4.00 | ,13 | 2.55 | 25542 | 15034. | 7023. | 3309. | 176. |
| 821 | 9231 | 23 | 512 | .50 | 4.00 | .13 | 5.61 | 56092. | 25284. | 22394. | 7784. | 630. |
| 822 | 9241 | 2-1 | 233 | .50 | 4.00 | .13 | 3.78 | 37796. | 21183. | 13205. | 3371. 1059. | 38. 65. |
| 823 | 9242 | 24 | 234 504 | .50 | 4.00 | .13 | 1.10 1.92 | 11014. 19170. | 6388. 6361. | 3503. 9695. | 2642. | 473. |
| 824 825 | 9251 9252 | 25 25 | 504 505 | . 50 . 50 | 4.00 | ,13 | .80 | 7970 | 3132. | 3559. | 1279. | Ö. |
| 826 | 9261 | 26 | 526 | 1.00 | 4.00 | . 25 | 3.69 | 36905. | 19463. | 12942. | 4256. | 243. |
| 827 | 9272 | 27 | 332 | .50 | 4.00 | .13 | 5.14 | 51360. | 21313. | 24930. | 4914. | 202. |
| 828 | 9282 | 28 | 336 | .50 | 4.00 | .13 | 9.53 | 95254 | 38911 | 44283. | 11090. 5945. | 969. 51 |
| 829 | 9291 9292 | 29 29 | 352 561 | .50 .50 | 4.00 | .13 .13 | $\frac{3.21}{2.98}$ | 32142. 29767. | 12402. 11341. | 13744. 14197. | 4151. | 79. |
| 830 831 | 9301 | 30 | 562 | .50 | 4.00 | .13 | 5.80 | 57978. | 15768. | 32356. | 9639. | 215. |
| 832 | 9302 | 30 | 720 | .50 | 4.00 | .13 | 2.55 | 25454 | | . 12127. | 5417. | 0. |
| 833 | 9311 | 31 | 259 | .50 | 4.00 | .13 | 2.98 | 29824 | 18599 | 7638. | | 383. |
| 834 | 9312 | 31 | 211 | .50 | $\frac{4.00}{4.00}$ | .13 | . 85 5 73 | 8514. 57346. | 5382. 24229. | 2818. 24325. | 314. 8486. | 0. 305. |
| 835 836 | $9321 \\ 9322$ | 32 32 | 511 510 | .50 .50 | 4.00 | .13 | 4.25 | 42461. | 19666. | 16174. | 6620. | 0. |
| 837 | 9331 | 33 | 510 | .50 | 4.00 | 13 | 5.49 | 54881. | 36567. | 13373. | 4828. | 112. |
| 838 | 9341 | 34 | 513 | ,50 | 4.00 | .13 | | 104041. | 42231. | 44889. | 16665. | 256. |
| 839 | 9351 | 35 | 515 | .50 | 4.00 | .13 | 8.52 | 85159 | 39209. 27290. | 33845. 23941. | 11944. 4814. | 160. 382. |
| 840 | 9361 | 36 | 208 | .50 | 4.00 4.00 | .13 .13 | 5.64 2.60 | 56427. 25970. | 13834 | 5645. | 6186. | 305. |
| $841 \\ 842$ | 9362 9371 | 36 37 | 503 502 | .50 | 4.00 | .13 | | 103753 | 54603 | 27359. | 21130. | 660. |
| 843 | 9381 | 38 | 537 | .50 | 4.00 | .13 | 2.60 | 25981. | 3509. | | 798. | 97. |
| 844 | 9391 | 39 | 543 | .50 | 4.00 | .13 | 8.11 | 81104 | 9072 | | 1742. | 220. |
| 845 | 9392 | 39 | 453 | .50 | 4.00 | .13 .25 | .63 5.33 | 6252. 53346. | 894. 9698. | 4687. 41994. | | 309. |
| 846 847 | 9401 9402 | 40 40 | 542 1367 | $\frac{1.00}{1.00}$ | $\frac{4.00}{4.00}$ | . 25 | 3.09 | 30899. | 4472. | 24719. | 1350. | 358. |
| 848 | 9411 | 41 | 452 | .50 | 4.00 | .13 | 3.25 | 32477 | 3640. | 28339. | 496. | 2. |
| 849 | 9412 | 41 | 459 | .50 | 4.00 | .13 | 1.25 | 12454 | 4550. | 7208. | 442 | 254. |
| 850 | 9413 | 41 | 461 | .50 | 4.00 | .13 | 1 11 | | 1673 | 7620. | | 277. |
| 851 | 9421 | 42 | 558 | .50 | 4.00 | .13 | 6.77 4.73 | 67736. 47269. | 10204. 3355. | 54232. 43071. | 2686. 837. | 614. 6. |
| 852 | $9422 \\ 9431$ | 42 43 | 472 471 | .50 .50 | 4.00 | .13 | 3.23 | 32289. | 9674. | 19536. | 3079. | ö. |
| 853 854 | 9432 | 43 | 557 | 50 | 4.00 | .13 | 4.87 | 48738. | 5946. | 39825. | | 1069. |
| 855 | 9441 | 44 | 1463 | .50 | 4.00 | .13 | 3.48 | 34818. | 8815. | 23037. | 1699. | 1268. |
| 856 | 9442 | 44 | 553 | .50 | 4.00 | .13 | 4.61 | 46082 | | 28788. 36077. | | 221. 1020. |
| 857 | 9451 | 45 | 475 | .50 | $\frac{4.00}{4.00}$ | .13 .13 | 5.45 4.43 | 54532. 44342. | 12643. 16147. | 24996. | | 161. |
| 858 859 | 9461 9462 | 46 46 | 487 556 | .50 .50 | 4.00 | .13 | 7.06 | 70601 | | 46035. | | 1957 |
| 860 | 9471 | 47 | 533 | 50 | 4.00 | .13 | 2.55 | 25484 | 11205. | 10027. | 4034. | 219. |
| 861 | 9481 | 48 | 402 | .50 | 4.00 | .13 | 1.72 | 17175. | 4957. | 8779. | | 6. |
| 862 | 9482 | 48 | 534 | | 4.00 | .13 | 2.00 | 20030 | 4213. 8342 | 14326. 20409. | 1406. 4848. | 86 42 |
| 863 | 9491 | 49 50 | 535 · 536 | .50 .50 | 4.00 | .13 .13 | 3.36 3.73 | 33640. 37298. | 8342. 24946. | | 5933. | 120. |
| 864 865 | 9501 9502 | 50 50 | 536 590 | .50 | 4.00 | .13 | 7.59 | 75904. | 39271. | 25136. | 11370 | 127 |
| 866 | 9511 | 51 | 416 | .50 | 4.00 | .13 | 8.17 | 81723. | 12640. | 62520. | 6159. | 403 |
| | | | | | | | - | 10.0 | | | | |

Appendix 7.6 The Result of the Traffic Assignment (12)

| | | | | DIST | VELO | TIME | | | | | | |
|------------|--------------|----------|------------|------------|--------|-------|--------------|-----------------|----------------|------------------|-----------------|---------------|
| NO. | LINK | NODE1 | NODE2 | (km) | (km/h) | | CONGEST | TOTAL | BICY | CAR | PUBL | RAIL |
| | | • | | | | | | | | | | |
| 000 | 0001 | | 407 | | | | | | | | | |
| 867 | 9521 | 52 | 435 | .50 | 4.00 | .13 | 3.10 | 30978. | 3535. | 26634. | 756. | 53. |
| 868 | 9531 9532 | 53 53 | 424 426 | .50 | 4.00 | .13 | 1.57 | 15726. | 3979 | 9242. | 2265. | 240. |
| 869 | 9541 | 54 | 549 | .50 .50 | 4.00 | .13 | .07 | 718. | 35. | 468 | 215. | 0. |
| 870 871 | 9542 | 54 | 464 | .50 | 4.00 | .13 | 7.05 | 70506 | 13222. | 51613. | 4785. | 886. |
| 872 | 9551 | 55 | 546 | .50 | 4.00 | .13 | 6.70 | 66969. | 11071. | 48255. | 6755. | 887. |
| 873 | 9571 | 57 | 554 | ,50 | 4.00 | .13 | 4.10 4.52 | 40978. | 3598 | 34287 | 2808. | 284. |
| 874 | 9581 | 58 | 514 | .50 | 4.00 | .13 | .75 | 45182. 7512. | 16319. | 22401. | 5746. | 715. |
| 875 | 9591 | 59 | 570 | .50 | 4.00 | 13 | .42 | 4231. | 3617. 1036. | 2512. 2536. | 1373. | 10. |
| 876 | 9601 | 60 | 571 | .50 | 4.00 | .13 | 1.26 | 12571. | 4832. | | 646. 1472. | 14. |
| 877 | 9611 | 61 | 572 | .50 | 4.00 | .13 | .54 | 5378 | 493. | 6263. 2948. | 1904. | 3. 33. |
| 878 | 9621 | 62 | 545 | ,50 | 4.00 | .13 | 2.04 | 20364. | 9310. | 7160 | 3883. | 10. |
| 879. | 9631 | 63 | 575 | 50 | 4.00 | .13 | 66 | 6624. | 2732 | 2287 | 1604. | 1. |
| 880 | 9641 | 64 | 576 | .50 | 4.00 | .13 | .37 | 3707. | 624. | 1960. | 1122. | ō. |
| 881 | 9651 | 65 | 547 | .50 | 4.00 | .13 | . 28 | 2817. | 873. | 905. | 977. | 62. |
| 882 | 9652 | 65 | 574 | .50 | 4.00 | .13 | .09 | 905. | 117. | 408. | 381. | ő. |
| 883 | 9661 | 66 | 573 | .50 | 4.00 | .13 | .06 | 556. | 35. | 492. | 29. | ŏ. |
| 884 | 9662 | 66 | 577 | .50 | 4.00 | .13 | .94 | 9409. | 4529. | 3846 | 881 | 153. |
| 885 | 9671 | 67 | 555 | .50 | 4.00 | .13 | .27 | 2716. | 603 | 1142. | 845. | 126. |
| 886 | 9681 | 68 | 498 | .50 | 4.00 | .13 | 1.97 | 19691. | 6187. | 6237 | 6282. | 984. |
| 887 | 9691 | 69 | 578 | . 50 | 4.00 | .13 | 1.74 | 17390. | 4938. | 11471. | 944. | 38. |
| 888 | 9701 | 70 | 498 | .50 | 4.00 | .13 | 1.79 | 17856. | 6264. | 6455. | 4273. | 864. |
| 889 | 9711 | 71 | 494 | 1.00 | 4.00 | .25 | 3.02 | 30193. | 15412. | 10346. | 3589. | 847. |
| 890 | 9721 | 72 | 563 | . 50 | 4.00 | .13 | 1.02 | 10210. | 4297. | 2744. | 3022. | 147. |
| 891 | 9722 | 72 | 581 | .50 | 4.00 | .13 | 3.61 | 36137. | 7617. | 14271 | 13710. | 538. |
| 892 | 9731 | 73 | 581 | .50 | 4.00 | .13 | .92 | 9225. | 3005. | 3853. | 2301. | 67. |
| 893 | 9741 | 74 | 741 | . 50 | 4.00 | .13 | .76 | 7580. | 573. | 4938. | 2070. | 0. |
| 894 | 9742 | 74 | 743 | .50 | 4.00 | .13 | 3.88 | 38842. | 16476. | 12511. | 7871. | 1984. |
| 895 | 9751 | 75 | 583 | .50 | 4.00 | .13 | 2.64 | 26397. | 10526. | 5521. | 10264. | 85. |
| 896 | 9761 | 76 | 584 | .50 | 4.00 | .13 | .14 | 1421. | 0. | 141. | 116. | 1164. |
| 897 | 9762 | 76 | 754 | .50 | 4.00 | . 1.3 | 1.60 | 16020. | 2647, | 5941. | 7432. | 0. |
| 898 | 9771 | 77 | 586 | .50 | 4.00 | .13 | 1.31 | 13054. | 2730. | 2071. | 8253. | 1. |
| 899 | 9781 | 78 | 587 | .50 | 4.00 | .13 | 1.67 | 16658. | 1092. | 7714 | 7737. | 116. |
| 900 | 9791 | 79 | 585 | 1.00 | 4.00 | . 25 | .02 | 242. | 0. | 214. | 28. | 0. |
| 901 | 9792 | 79 | 501 | 1.00 | 4.00 | . 25 | .53 | 5278. | 912. | 1197. | 2316. | 853. |
| 902 | 9801 | 80 | 565 | ,50 | 4.00 | .13 | 2.62 | 26189. | 11801. | 8671. | 5598. | 119. |
| 903 | 9811 | 81 | 569 | .50 | 4.00 | .13 | 2.81 | 28110. | 1305. | 17437. | 9303. | 65. |
| 904 | 9821 | 82 | 568 | .50 | 4.00 | .13 | 1.27 | 12748. | 6437. | 3511 | 2659. | 141. |
| 905 | 9831 | 83 | 564 | . 50 | 4.00 | .13 | 2.92 | 29166. | 4898. | 11947. | 12181. | 141. |
| 906 | 9841 | 84 | 567 | .50 | 4.00 | .13 | . 35 | 3511. | 372. | 2047. | 978. | 114. |
| 907 | 9851 | 85 | 775 | , 50 | 4,00 | .13 | .00 | 0. | 0. | 0, | 0. | ,0. |
| 908 | 9852 | 85 | 776 | .50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 909 | 9861 | 86 | 774 | .50 | 4.60 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 910 | 9871 | 87 | 782 | . 50 | 4.00 | 13 | 2.97 | 29728. | 561. | 11632. | 16835. | 700. |
| 911 | 9872 | 87 | 781 | .50 | 4,00 | .13 | , 67 | 6716. | 182. | 3982. | 2505. | 47. |
| 912 | 9881 | 88 | 777 | .50 | 4.00 | .13 | 2.67 | 26666. | 1786. | 12833. | 11360. | 686. |
| 913 | 9882 | 88 | 778 | 50 | 4.00 | .13 | 1.54 | 15351. | 751. | 7538. | 7063. | 0. |
| 914 | 9883 | 88 | 609 | . 50 | 4.00 | .13 | .09 | 920. | 0. | 0 | 0. | 920. |
| 915 | 9911 | 91 | 771 | .50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 916 | 9912 | 91 | 772 | .50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 917 | 9921 | 92 | 782 | . 50 | 4.00 | .13 | 00 | 0. | 0. | 0. | 0. | 0. |
| 918 | 9922 | 92 | 781 | , 50 | 4.00 | .13 | .00 | 0. | 0 | 0. | 0. | 0. |
| 919 | 9923 | 92 | 783 | .50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 920 | 9941 | 94 | 771 | . 50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 921 | 9942 | 94 | 772 | .50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 17050 | 0. |
| 922 | 9951 | 95 | 771 | . 50 | 4.00 | .13 | 4.22 | 42154. | 1174. | 22307. 15739. | 17858. 2916. | 815. 1022. |
| 923 | 9702 | 70 | 580 | .50 | 4.00 | .13 | 4.34 | 43358. | 23681. | | | 0. |
| 924 | 9742 | 74 | 743 | .50 | 4.00 | .13 | 00 | 0. | 0. | 0. 11088. | 0. 108. | 0. |
| 925 | 9182 | 18 | 359 | 1.00 | 4.00 | . 25 | 1.12 | 11196 | 0. | | 635. | 810. |
| 926 | 9403 | 40 | 367 | 1.00 | 4.00 | . 25 | 4.25 | 42458. | 2876 | 38136. | | |
| 927 | 8001 | 100 | 780 | .50 | 4.00 | .13 | 1.27 | 12741. | 232. | 8328. 9956. | 4065. 10612. | 116. 3317. |
| 928 | 8002 | 100 | 778 | .50 | 4.00 | .13 | 2.46 | 24580. | 695. | 9956. | 0. | 0. |
| 929 | 8011 | 101 | 771 | .50 | 4.00 | .13 | .00 | 0. | 0. | 0. | 0. | 0. |
| 930 | 8012 | 101 | 772 | .50 | 4.00 | .13 | .00 | 0. 0. | 0. 0. | 0. | ő. | ŏ. |
| 931 | 8021 | 102 | 572 | . 50 | 4.00 | .1,3 | .00 | U. | 0. | ٠. | ٥. | ٠. |