

## 9. Traffic and Transport Master Plan for Phitsanulok Province

As the results of the analysis and planning of traffic and transport system for Phitsanulok, including the determination of the principles of functional road hierarchy classification, and from the data collection from both of the primary sources gained from the field survey and the secondary sources gained from collected statistics as well as the public hearing, Phitsanulok Traffic and Transportation Master Plan is as follows;

- 1) To become the hubs of transportation supporting the freight and passenger, especially of the lower-north and Indo-China regions.
- 2) To become basic agricultural products and value-added agricultural products transportation center.
- 3) To become MICE service center both of the lower-north region and of the country and to provide tourism services.
- 4) To become healthy community that performs dominant strengths towards the economics, social, and safety aspects.
- 5) To become a successful leader in adapting intelligent transportation system.

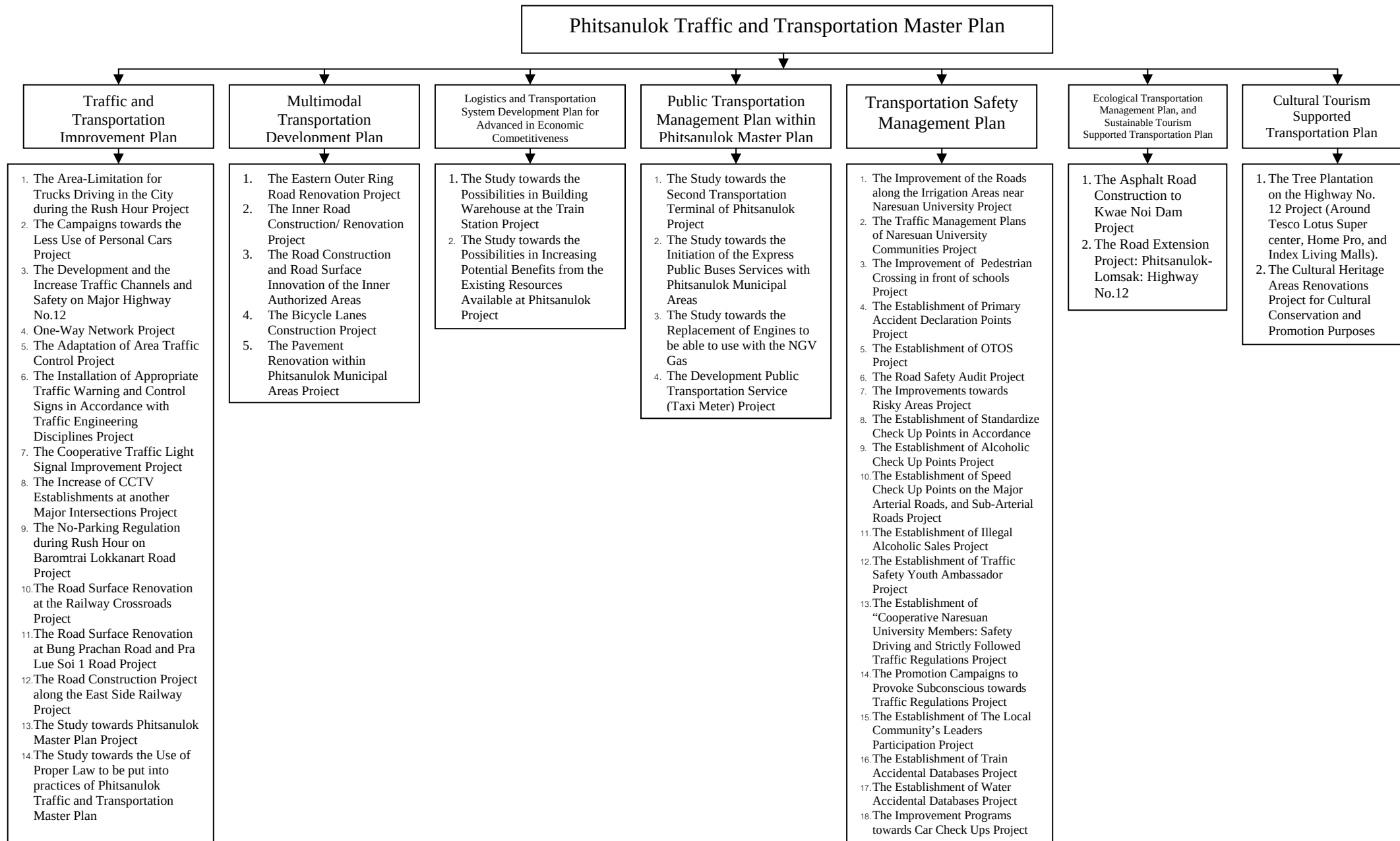
Phitsanulok Traffic and Transportation Master Plan can be divided into 7 aspects as follows;

- 1) Traffic and Transportation Improvement Plan
- 2) Multimodal Transportation Development Plan
- 3) Logistics and Transportation System Development Plan for Advanced in Economic Competitiveness
- 4) Public Transportation Management Plan within Phitsanulok Master Plan Areas.
- 5) Transportation Safety Management Plan
- 6) Ecological Transportation Management Plan, and Sustainable Tourism Supported Transportation Plan
- 7) Cultural Tourism Supported Transportation Plan

Phitsanulok Traffic and Transportation Master Plan can be different in details in accordance with the areas differences; however, it can be categorized into 3 stages as follows;

- 1) Short-term plan            1 – 2    years        (2008 – 2009)
- 2) Mid-term plan            3 – 5    years        (2010 – 2012)
- 3) Long-term plan           6 – 10   years        (2013 – 2017)

From the 47 projects, the total amount of budget needed is approximately 2,415.032 million baht as shown in the Table bellows;



**Table 9.1** Phitsanulok Traffic and Transport Master plan: Short-Term Plans, Mid-Term Plan, and Long-Term Plan

| Plans                                                                                               | Budget (Million Baht) |             |              |                 |
|-----------------------------------------------------------------------------------------------------|-----------------------|-------------|--------------|-----------------|
|                                                                                                     | Short-term            | Mid-term    | Long-term    | Total           |
| 1. Traffic and Transportation Improvement Plan                                                      | 231.6                 | 276.9       | 0.3          | 508.8           |
| 2. Multimodal Transportation Development Plan                                                       | 85.4                  | 841.8       | 620          | 1547.2          |
| 3. Logistics and Transportation System Development Plan for Advanced in Economic Competitiveness    | 35                    | 30          | 0            | 65              |
| 4. Public Transportation Management Plan within Phitsanulok Master Plan Areas                       | 21                    | 5           | 0            | 26              |
| 5. Transportation Safety Management Plan                                                            | 16.632                | 21.1        | 8.5          | 46.232          |
| 6. Ecological Transportation Management Plan, and Sustainable Tourism Supported Transportation Plan | 0                     | 145.2       | 96.8         | 242             |
| 7. Cultural Tourism Supported Transportation Plan                                                   | 42                    | 1           | 0            | 43              |
| <b>Total</b>                                                                                        | <b>499.632</b>        | <b>1350</b> | <b>725.6</b> | <b>2478.232</b> |

**Table 9.2** Information regarding to budget for each project

| Project Group | Project Item | Name of Project                                                                                                                   | Administration         | Budget (Million Baht) | Conducting Year |      |      |      |      |      |      |      |      |      |
|---------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------|------|------|------|------|------|------|------|------|------|
|               |              |                                                                                                                                   |                        |                       | 2008            | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 1.            | 1.           | The Area-Limitation for Trucks Driving in the City during the Rush Hour Project                                                   | PM/P/LTO               | 0.2                   | 0.2             |      |      |      |      |      |      |      |      |      |
| 1.            | 2.           | The Campaigns towards the Less Use of Personal Cars Project                                                                       | PM/LTO/EI              | 1.5                   |                 | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  |      |      |      |      |
| 1.            | 3.           | The Development and the Increase Traffic Channels and Safety on Major Highway No.12                                               | PM/DOH/DRR/DPT         | 160                   |                 | 80   | 80   |      |      |      |      |      |      |      |
| 1.            | 4.           | One-Way Network Project                                                                                                           | PM/P/DOH               | 2                     |                 | 1    | 1    |      |      |      |      |      |      |      |
| 1.            | 5.           | The Adaptation of Area Traffic Control Project                                                                                    | PM/P/DOH               | 1                     | 1               |      |      |      |      |      |      |      |      |      |
| 1.            | 6.           | The Installation of Appropriate Traffic Warning and Control Signs in Accordance with Traffic Engineering Disciplines Project      | DOH/DRR/PM/PAO         | 0.4                   |                 | 0.4  |      |      |      |      |      |      |      |      |
| 1.            | 7.           | The Cooperative Traffic Light Signal Improvement Project                                                                          | PM/DOH                 | 1                     |                 | 1    |      |      |      |      |      |      |      |      |
| 1.            | 8.           | The Increase of CCTV Establishments at another Major Intersections Project                                                        | PM/P/DOH               | 300                   | 60              | 60   | 60   | 60   | 60   |      |      |      |      |      |
| 1.            | 9.           | The No-Parking Regulation during Rush Hour on Baromtrai Lokkanart Road Project                                                    | PM/P/DOH               | 0.2                   | 0.2             |      |      |      |      |      |      |      |      |      |
| 1.            | 10.          | The Road Surface Renovation at the Railway Crossroads Project                                                                     | PM/DOH                 | 5                     |                 | 5    |      |      |      |      |      |      |      |      |
| 1.            | 11.          | The Road Surface Renovation at Bung Prachan Road and Pra Lue Soi 1 Road Project                                                   | PM/DOH                 | 5                     |                 | 5    |      |      |      |      |      |      |      |      |
| 1.            | 12.          | The Road Construction Project along the East Side Railway Project                                                                 | DPT                    | 10                    |                 | 10   |      |      |      |      |      |      |      |      |
| 1.            | 13.          | The Study towards Phitsanulok Master Plan Project                                                                                 | C/PM                   | 2.5                   |                 | 2.5  |      |      |      |      |      |      |      |      |
| 1.            | 14.          | The Study towards the Use of Proper Law to be put into practices of Phitsanulok Traffic and Transportation Master Plan            | P                      | 20                    |                 | 5    | 5    | 5    | 5    |      |      |      |      |      |
| 2.            | 1.           | The Eastern Outer Ring Road Renovation Project                                                                                    | PM/DOH/DRR/PAO         | 200                   |                 | 70   | 70   | 60   |      |      |      |      |      |      |
| 2.            | 2.           | The Inner Road Construction/ Renovation Project                                                                                   | PM/DOH/DRR/PAO         | 580                   |                 |      | 80   | 90   | 90   | 64   | 64   | 64   | 64   | 64   |
| 2.            | 3.           | The Road Construction and Road Surface Innovation of the Inner Authorized Areas                                                   | PM/DOH/DRR/PAO         | 740                   |                 |      | 140  | 140  | 160  | 60   | 60   | 60   | 60   | 60   |
| 2.            | 4.           | The Bicycle Lanes Construction Project                                                                                            | PM/TAT/DOH/PAO         | 9.2                   |                 | 5.4  | 3.8  |      |      |      |      |      |      |      |
| 2.            | 5.           | The Pavement Renovation within Phitsanulok Municipal Areas Project                                                                | PM/TAT/DOH/PAO         | 18                    |                 | 10   | 8    |      |      |      |      |      |      |      |
| 3.            | 1.           | The Study towards the Possibilities in Building Warehouse at the Train Station Project                                            | C/PM/PAO/SAO/SRT/TCC   | 25                    |                 | 15   | 10   |      |      |      |      |      |      |      |
| 3.            | 2.           | The Study towards the Possibilities in Increasing Potential Benefits from the Existing Resources Available at Phitsanulok Project | C/OTP/PAO/TAT/A/P/TCC  | 40                    |                 | 20   | 20   |      |      |      |      |      |      |      |
| 4.            | 1.           | The Study towards the Second Transportation Terminal of Phitsanulok Project                                                       | PM/DOH/DRR/LTO/TCC/PAO | 5                     |                 | 2    | 3    |      |      |      |      |      |      |      |
| 4.            | 2.           | The Study towards the Initiation of the Express Public Buses Services with Phitsanulok Municipal Areas                            | C/OTP/PM/LTO           | 10                    |                 | 10   |      |      |      |      |      |      |      |      |
| 4.            | 3.           | The Study towards the Replacement of Engines to be able to use with the NGV Gas                                                   | LTO/PM                 | 5                     |                 | 5    |      |      |      |      |      |      |      |      |
| 4.            | 4.           | The Development Public Transportation Service (Taxi Meter) Project                                                                | LTO/PM                 | 3                     |                 | 1    | 2    |      |      |      |      |      |      |      |
| 4.            | 5.           | The Development of the Increase in Speed and Safety in Using Public Transportation Services within City Areas Project             | DOH/DRR/SAO            | 3                     |                 | 3    |      |      |      |      |      |      |      |      |

**Table 9.2** Information regarding to budget for each project (Cont.)

| Project Group                             | Project Item | Name of Project                                                                                                                 | Administration             | Budget (Million Baht) | Conducting Year |      |      |      |      |      |      |      |      |      |
|-------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------|-----------------|------|------|------|------|------|------|------|------|------|
|                                           |              |                                                                                                                                 |                            |                       | 2008            | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 5.                                        | 1.           | The Improvement of the Roads along the Irrigation Areas near Naresuan University Project                                        | DOH/DRR/SAO                | 10                    |                 |      | 2    | 2    | 2    | 2    | 2    |      |      |      |
| 5.                                        | 2.           | The Traffic Management Plans of Naresuan University Communities Project                                                         | C/EI/SAO                   | 5                     | 1               | 1    | 1    | 1    | 1    |      |      |      |      |      |
| 5.                                        | 3.           | The Improvement of Pedestrian Crossing in front of schools Project                                                              | C/DOH/DRR/SAO              | 3                     | 3               |      |      |      |      |      |      |      |      |      |
| 5.                                        | 4.           | The Establishment of Primary Accident Declaration Points Project                                                                | C/P/DOH/TSC/PM             | 14                    | 2.8             | 2.8  | 2.8  | 2.8  | 2.8  |      |      |      |      |      |
| 5.                                        | 5.           | The Establishment of OTOS Project                                                                                               | TSC/PM/PAO/SAO             | 3                     | 1               | 1    | 1    |      |      |      |      |      |      |      |
| 5.                                        | 6.           | The Road Safety Audit Project                                                                                                   | C/DOH/PM/TSC               | 1                     | 1               |      |      |      |      |      |      |      |      |      |
| 5.                                        | 7.           | The Improvements towards Risky Areas Project                                                                                    | C/DOH/DRR/TSC/PM/H         | Fiscal budget         |                 |      |      |      |      |      |      |      |      |      |
| 5.                                        | 8.           | The Establishment of Standardize Check Up Points in Accordance                                                                  | P/TSC/PHO /PM/H /THPF      | Fiscal budget         |                 |      |      |      |      |      |      |      |      |      |
| 5.                                        | 9.           | The Establishment of Alcoholic Check Up Points Project                                                                          | P/TSC/PHO/PM/PAO/SAO/THPF  | Fiscal budget         |                 |      |      |      |      |      |      |      |      |      |
| 5.                                        | 10.          | The Establishment of Speed Check Up Points on the Major Arterial Roads, and Sub-Arterial Roads Project.                         | P/TSC/PHO /PM/PAO/SAO/THPF | 0.042                 | 0.042           |      |      |      |      |      |      |      |      |      |
| 5.                                        | 11.          | The Establishment of Illegal Alcoholic Sales Project                                                                            | Excise Department          | Fiscal budget         |                 |      |      |      |      |      |      |      |      |      |
| 5.                                        | 12.          | The Establishment of Traffic Safety Youth Ambassador Project                                                                    | C/P/LTO/PHO/PM/EI/THPF     | 0.4                   | 0.4             |      |      |      |      |      |      |      |      |      |
| 5.                                        | 13.          | The Establishment of “Cooperative Naresuan University Members: Safety Driving and Strictly Followed Traffic Regulations Project | C                          | Fiscal budget         |                 |      |      |      |      |      |      |      |      |      |
| 5.                                        | 14.          | The Promotion Campaigns to Provoke Subconscious towards Traffic Regulations Project                                             | C/DOH/DRR/LTO/TSC/PM       | 0.69                  | 0.69            |      |      |      |      |      |      |      |      |      |
| 5.                                        | 15.          | The Establishment of The Local Community’s Leaders Participation Project                                                        | C/PM/PAO/SAO               | 0.1                   | 0.1             |      |      |      |      |      |      |      |      |      |
| 5.                                        | 16.          | The Establishment of Train Accidental Databases Project                                                                         | SRT                        | 4                     | 0.4             | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  |
| 5.                                        | 17.          | The Establishment of Water Accidental Databases Project                                                                         | PM/PAO/SAO                 | 4                     | 0.4             | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  | 0.4  |
| 5.                                        | 18.          | The Improvement Programs towards Car Check Ups Project                                                                          | LTO/TSC/PM/P               | 1                     | 0.1             | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  | 0.1  |
| 6.                                        | 1.           | The Asphalt Road Construction to Kvae Noi Dam Project                                                                           | TAT/RID/DOH/DRR/PAO        | 130                   |                 |      | 26   | 26   | 26   | 26   | 26   |      |      |      |
| 6.                                        | 2.           | The Road Extension Project: Phitsanulok- Lomsak: Highway No.12                                                                  | DOH/DRR                    | 112                   |                 |      | 22.4 | 22.4 | 22.4 | 22.4 | 22.4 |      |      |      |
| 7.                                        | 1.           | The Tree Plantation on the Highway No. 12 Project (Around Tesco Lotus Super center, Home Pro, and Index Living Malls).          | PM/PAO                     | 1                     | 0.2             | 0.2  | 0.2  | 0.2  | 0.2  |      |      |      |      |      |
| 7.                                        | 2.           | The Cultural Heritage Areas Renovations Project for Cultural Conservation and Promotion Purposes                                | PM/PAO                     | 42                    | 14              | 15.5 | 9.5  |      | 3    |      |      |      |      |      |
| Total Budget According to the Master Plan |              |                                                                                                                                 |                            | 331.232               | 25.132          | 21.4 | 65.8 | 55.3 | 58.3 | 51.3 | 51.3 | 0.9  | 0.9  | 0.9  |

**Remark**

|             |                                      |            |                                                         |            |                                                     |            |                                                        |
|-------------|--------------------------------------|------------|---------------------------------------------------------|------------|-----------------------------------------------------|------------|--------------------------------------------------------|
| <b>A</b>    | Airport                              | <b>C</b>   | Committee                                               | <b>DOH</b> | Department of Highways                              | <b>DPT</b> | Department of Public Works and Town & Country Planning |
| <b>DRR</b>  | Department of Rural Roads            | <b>EI</b>  | Educational Institutes: Schools, Colleges, Universities |            |                                                     | <b>H</b>   | Hospital                                               |
| <b>LTO</b>  | Land Transportation Authority Office |            |                                                         | <b>OTP</b> | Office of Transport and Traffic Policy and Planning |            |                                                        |
| <b>P</b>    | Police                               | <b>PAO</b> | Provincial Administration Organization                  |            |                                                     | <b>PM</b>  | Phitsanulok Municipality                               |
| <b>PHO</b>  | Provincial Health Office             | <b>RID</b> | Royal Irrigation Department                             |            |                                                     | <b>SAO</b> | Sub-district Administration Organization               |
| <b>SRT</b>  | State Railway of Thailand            | <b>TAT</b> | Tourism Authority of Thailand                           |            |                                                     | <b>TCC</b> | The Thai Chamber of Commerce                           |
| <b>THPF</b> | Thai Health Promotion Foundation     | <b>TSC</b> | Transport Safety Center                                 |            |                                                     |            |                                                        |

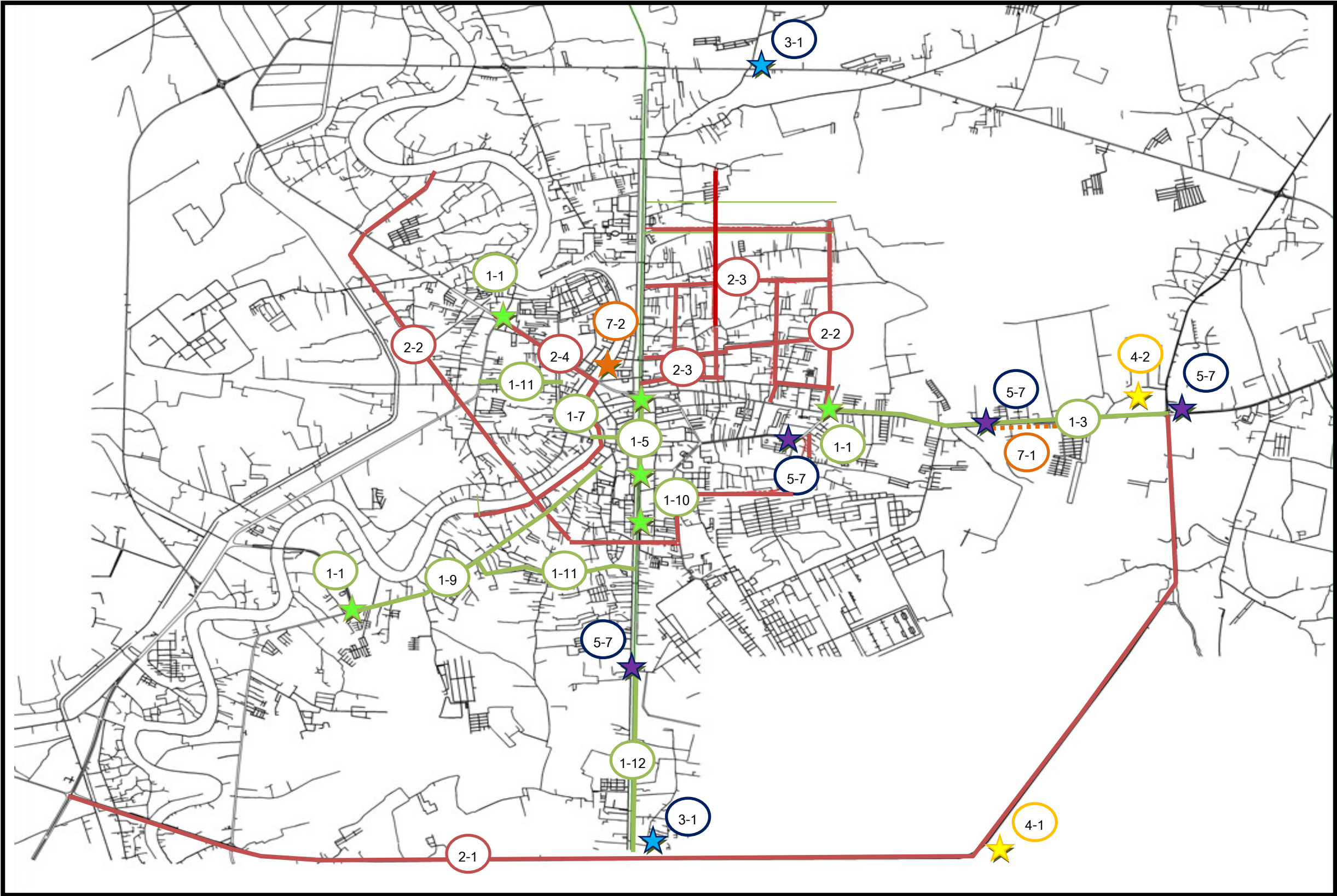


Figure 9.1 Phitsanulok’s traffic and transport management plan