



Ministry of Transport



Expressway Authority  
of Thailand

Key Document

Feasibility Study of Engineering, Economy, Finance and Environmental Impact

## **Srinakarin – Suvarnabhumi Airport Expressway Project**

Information Document for Opinion Hearing Session  
to support the preparation of the project study and analysis report  
in accordance with the Public-Private Partnership Act, B.E. 2562



Project Consultant



December 2024

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## 1. Introduction

The rapid economic and industrial growth in the eastern area of Bangkok has led to increased travel demand within the region and the eastern part of Thailand. Motorway No. 7 serves as the primary route, passing through Suvarnabhumi Airport. This has resulted in significant traffic congestion, particularly during peak hours, from the Srinakarin Interchange to the Suvarnabhumi Interchange. The continuously rising traffic volume highlights the urgent need to address these issues to improve travel efficiency and maximize overall benefits for the country and its people.



## 2. Objectives

- 2.1 To evaluate the level of interest from the private sector in Market Sounding and Interview Sessions.
- 2.2 To gather feedback from the private sector on various options for private investment participation in the project, specifically for Srinakarin–Suvarnabhumi Airport Expressway project, and incorporate these insights into the preparation of the project study and analysis report in accordance with the Public-Private Partnership Act, B.E. 2562.
- 2.3 To promote the project development plan and present information about the project.

### **3. Target Groups**

- 3.1 Government agencies and related organizations.
- 3.2 Private sector entities, including expressway operators, infrastructure developers, construction companies, system integrators, and transport service providers (Operators).
- 3.3 Financial Institutions and Potential Investors.
- 3.4 Associations and Chambers of Commerce.
- 3.5 Foreign Embassies in Thailand.
- 3.6 Media Representatives.

### **4. Market Sounding Methods**

A Market Sounding session will be organized to allow the private sector to provide feedback during the meeting. Additionally, announcements regarding the feedback process will be posted at the Expressway Authority of Thailand (EXAT) office and sent to relevant private sector entities and embassies in Thailand.

Session documents, including key project details and a private sector interest assessment questionnaire, are available for download at [www.exat.co.th](http://www.exat.co.th) and [www.srinakarin-suvarnabhumi-expressway.com](http://www.srinakarin-suvarnabhumi-expressway.com) from November 29, 2024, to December 18, 2024. Private sector feedback can be submitted via the questionnaire and sent to EXAT's email ([srinakarin-suvarnabhumi@exat.co.th](mailto:srinakarin-suvarnabhumi@exat.co.th)) between December 9-18, 2024.

### **5. Date and Location**

Date : Monday, December 16, 2024 (08:30 AM. - 04:00 PM.)

Time : 08:30 AM - 04:00 PM

Location : Carlton Grand Ballroom, 9th Floor, Carlton Hotel Bangkok Sukhumvit.

### **6. Expected Outcomes**

EXAT will compile and summarize the feedback received from the private sector to incorporate into the project study and analysis report in accordance with the Public-Private Partnership Act, B.E. 2562. The feedback will be considered appropriately, with a focus on ensuring the project's success.

## **7. Disclaimer**

- 7.1 The information in this document is preliminary and intended solely to facilitate the collection of private sector feedback on the project. It does not constitute any binding terms or conditions related to the bidding or selection process for private sector participation. The information provided herein is subject to future revisions or updates. EXAT does not certify or guarantee the accuracy, completeness, or reliability of the information in this document and assumes no liability for any inaccuracies. Interested parties are advised to conduct their own thorough research and verification of project-related information. The use of any information in this document for decision-making is at the sole discretion and responsibility of the private sector participants.
- 7.2 EXAT will not be responsible for any expenses incurred in providing feedback and is under no obligation to act on any suggestions received.

## **8. Relevant Laws**

Relevant laws associated with this document, available in Thai and English, can be downloaded at [www.ppp.sepo.go.th](http://www.ppp.sepo.go.th) and <https://www.exat.co.th/>

## **9. Key Project Details**

### **9.1 Project Objectives and Goals**

- 1) To study and analyze the feasibility of private sector participation in the project, as specified in Section 22 of the Public-Private Partnership Act, B.E. 2562.
- 2) To conduct a Market Sounding to gauge investor interest and hold interviews with interested private sector entities (Interview Session) for Srinakarin-Suvarnabhumi Airport Expressway project.

### **9.2 Project Benefits**

- 1) Alleviate traffic congestion at Srinakarin -Suvarnabhumi interchange, particularly during peak hours.
- 2) Ease traffic on Motorway No. 7 while enhancing transportation capacity in Bangkok and its metropolitan area, ensuring greater convenience and safety for commuters.
- 3) Provide additional travel options, reduce travel time, and improve accessibility for the public.

### 9.3 Project Location

Srinakarin-Suvarnabhumi Airport Expressway project begins at Srinakarin Interchange, located at the endpoint of Sri Rat Expressway (Section D). The route extends eastward, overlapping Motorway No. 7, crossing Bangkok Outer Ring Road (Eastern Ring), passing through Suvarnabhumi Airport, and terminating in Lad Krabang area. The study area covers one province, five districts, and nine subdistricts, with a total length of approximately 15.8 kilometers, as illustrated in **Figure 9-1**.

### 9.4 Project Structure

#### 9.4.1 Route Alignment and Elevated Road Design.

The project route follows an elevated expressway along the alignment of Motorway No. 7. The beginning point is at the current endpoint of the Sri Rat Expressway (Section D), with the elevated road designed in two lanes, one for each direction (east and west side), each consisting of two traffic lanes. The road will be located along the median strip between Motorway No. 7 and the service lanes on both sides (north and south). The elevated expressway will proceed eastward, crossing Srinakarin Interchange.

After the interchange, the northern elevated section will merge with the southern elevated section, forming a four-lane elevated road for approximately 8.95 kilometers, passing Thap Chang Interchange. The structure will then split into two sides, following the alignment of Motorway No. 7 at Romklao Interchange. Afterward, the route will diverge from the main road, turning right to connect to the access points for Suvarnabhumi Airport at the Suvarnabhumi Interchange. The route will continue past the interchange and descend onto Motorway No. 7 near King Mongkut's Institute of Technology Ladkrabang (KMITL), covering a total length of about 15.8 kilometers, as shown in **Figures 9-1 to 9-3**. Detailed geometric design of the route alignment is outlined below.

- Design Speed	120	kph
- Lane width	3.60	m.
- Left Shoulder width	2.00	m.
- Right Shoulder width	1.00	m.
- Maximum Superelevation Rate	4	%
- Maximum Grade	4	%



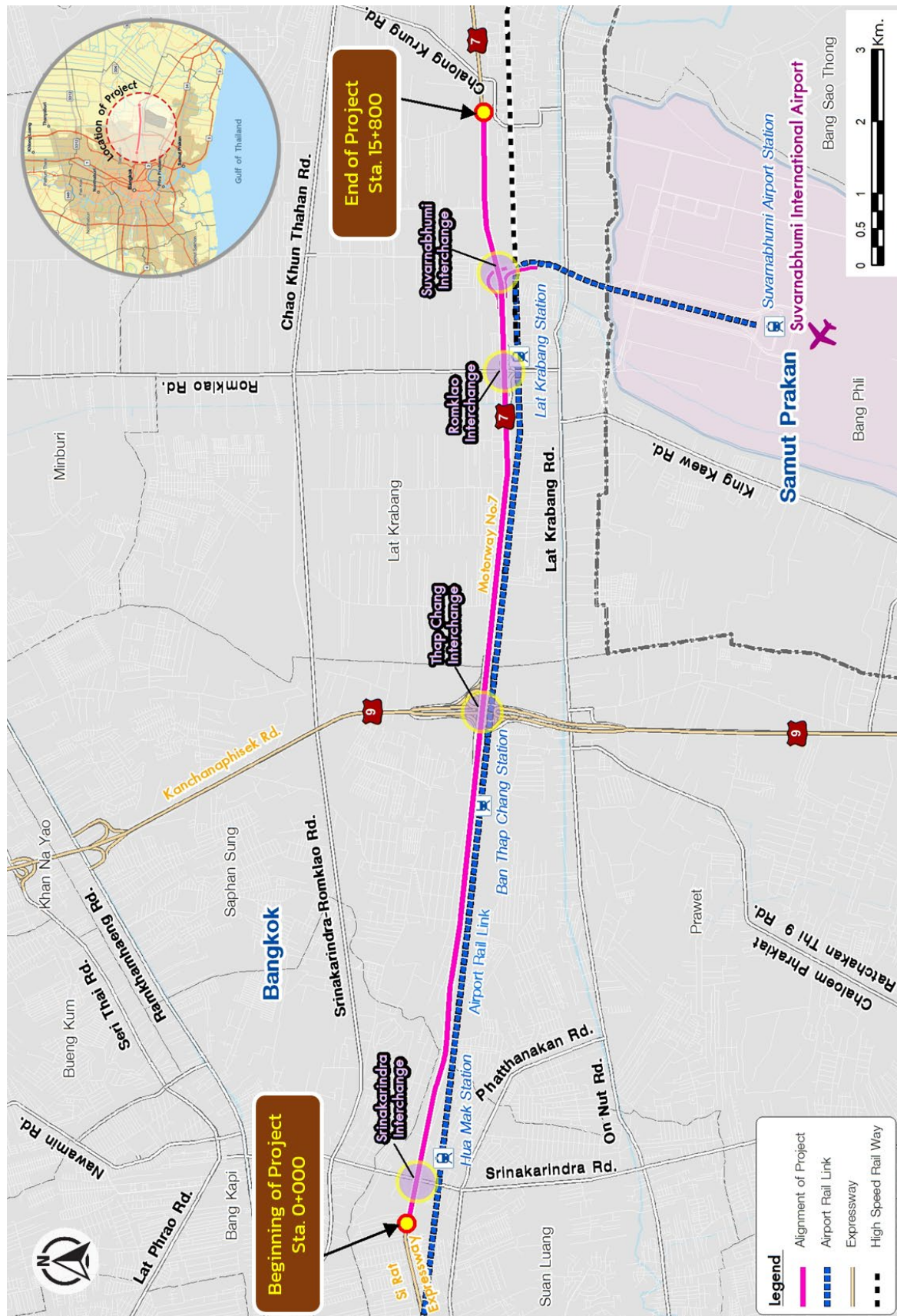


Figure 9-1 Project Alignment

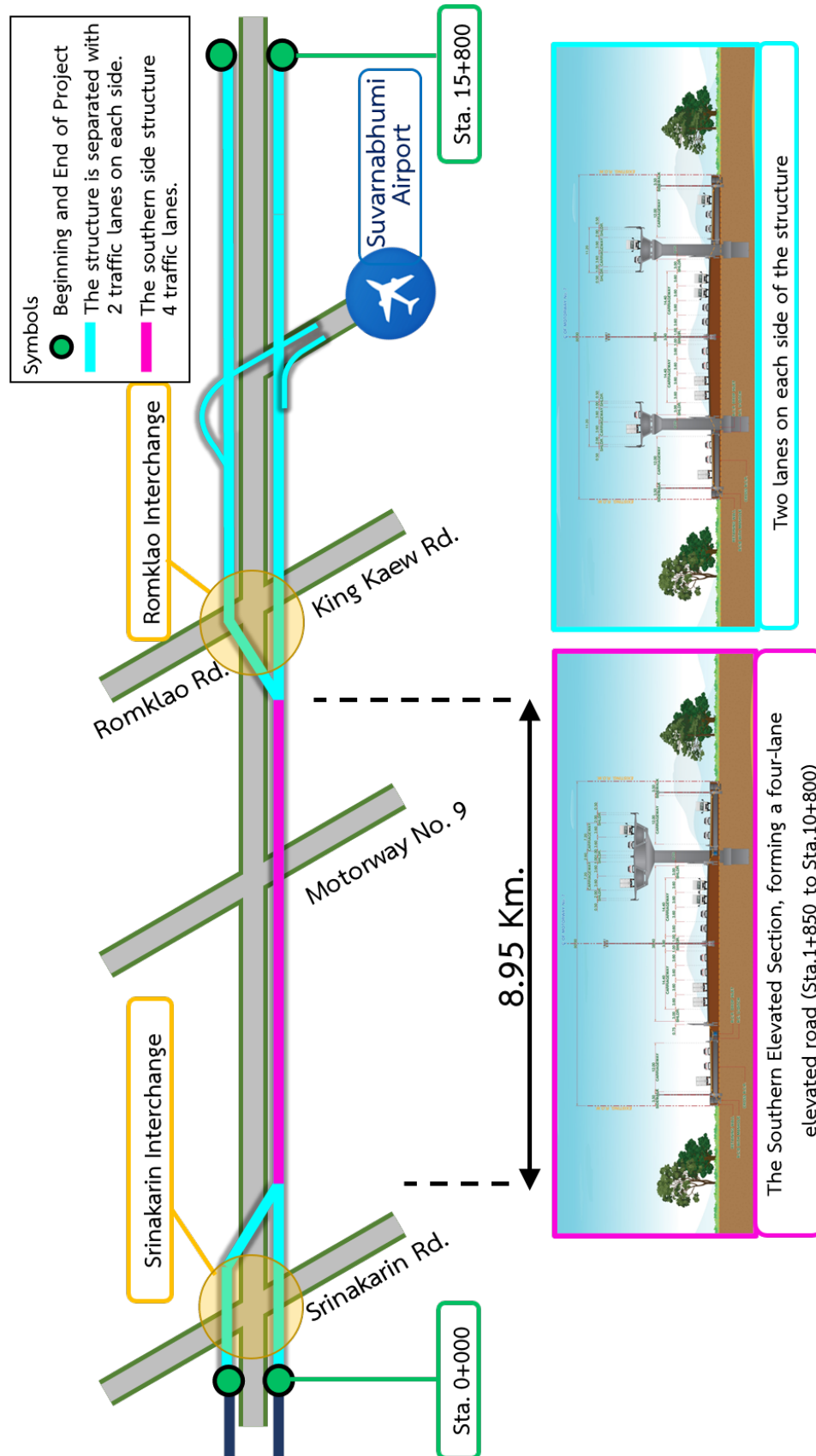


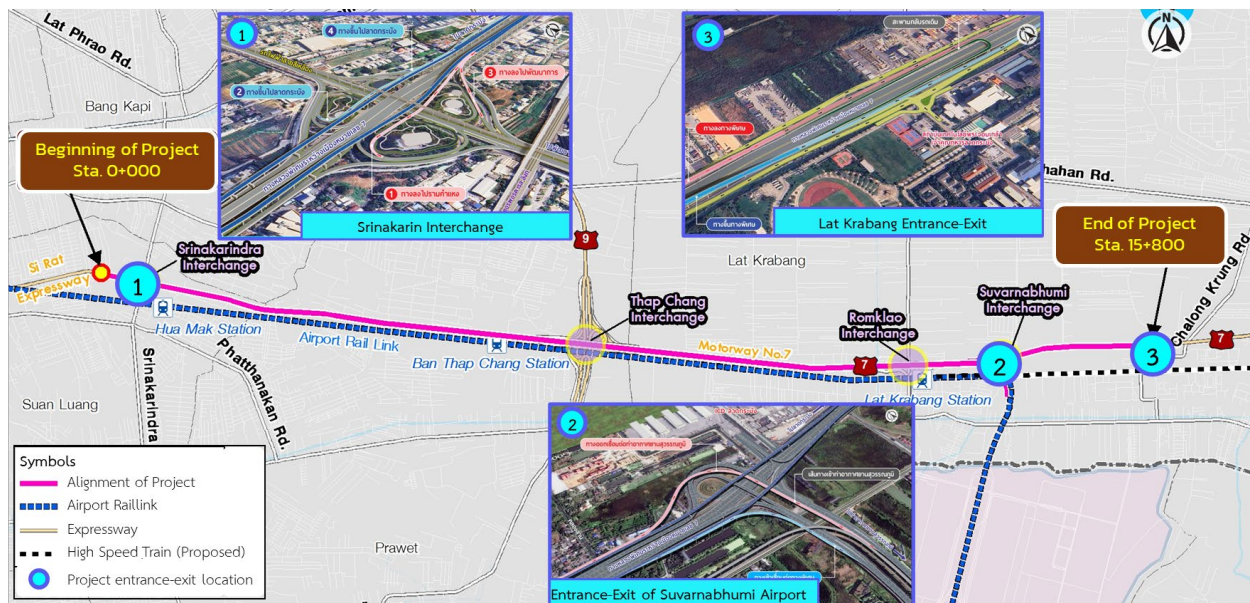
Figure 9-2 Project Elevated Location of Project

## 9.4.2 Entrances-Exits and Intersections in The Project

The project will have a total of 3 access points for entering and exiting the expressway. The details are summarized in Table 9-1 and Figure 9-3.

Table 9-1 Entrances-Exits and Intersections Location in The Project

Sta.	Entrances-Exits and Intersections	Objective
0+600	Srinakarin Interchange	Connecting Srinakarin Road and Si Rat Expressway (Section D)
13+350	Entrance-Exit of Suvarnabhumi Airport	Connecting Suvarnabhumi Airport
15+800	Lat Krabang Entrance-Exit	Connect to the parallel road of Motorway No. 7 for Entrance and Exit the project.



9-3 Location and Layout of Entrances-Exits and Intersection in the Project.

## 9.4.3 Expressway Structural Design

The expressway structure in the main route will be a prestressed concrete box girder, as illustrated in Figure 9-4.





Figure 9-4 Expressway Structural Design

#### 9.4.4 Drainage System Design

The drainage system design is categorized into two types: surface-level drainage system design and elevated structure drainage system design, as illustrated in **Figure 9-5**.

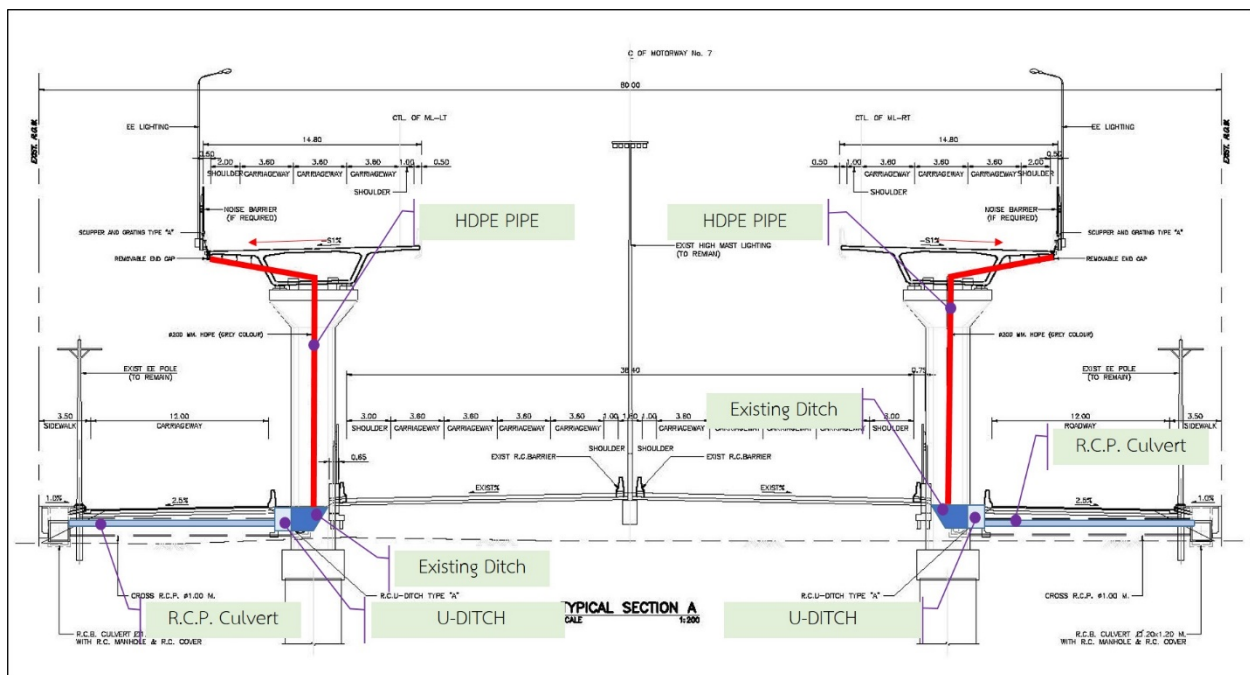


Figure 9-5 Drainage System Design

### 9.4.5 Locations and Designs of Toll Booths and Related Buildings

#### 1) Toll Plaza / Toll Surveillance Building (TSB)

The toll booths are positioned on the elevated structure near Rom Klao Interchange. The toll collection system is an open system comprising two methods: Manual Toll Collection System (MTC) and Electronic Toll Collection System (ETC), These are consisting of 8 lanes for inbound traffic (heading towards Rama IX) and 7 lanes for outbound traffic (heading towards Lad Krabang), as illustrated in **Figures 9-6** and **Figures 9-7**.

#### 2) Control Center Building (CCB)

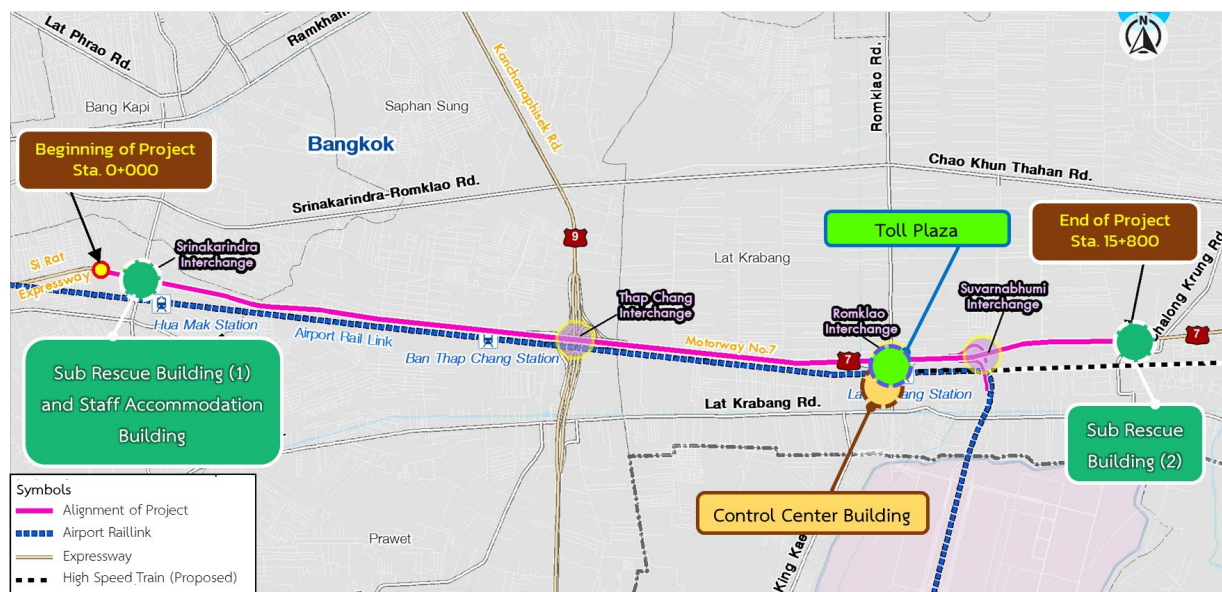
Located under of the southern Toll Plaza side, this building serves as the main office for traffic control and monitoring of the project's various toll collection systems, as illustrated in **Figures 9-6** and **Figures 9-7**.

#### 3) Sub Rescue Building

The building functions as an office and accommodation for emergency rescue personnel to respond to incidents on the expressway. The locations of the buildings are at Srinakarin Interchange and near King Mongkut's Institute of Technology Ladkrabang (KMITL), marking the start and end points of the project. These are illustrated in **Figures 9-6** and **Figures 9-7**.

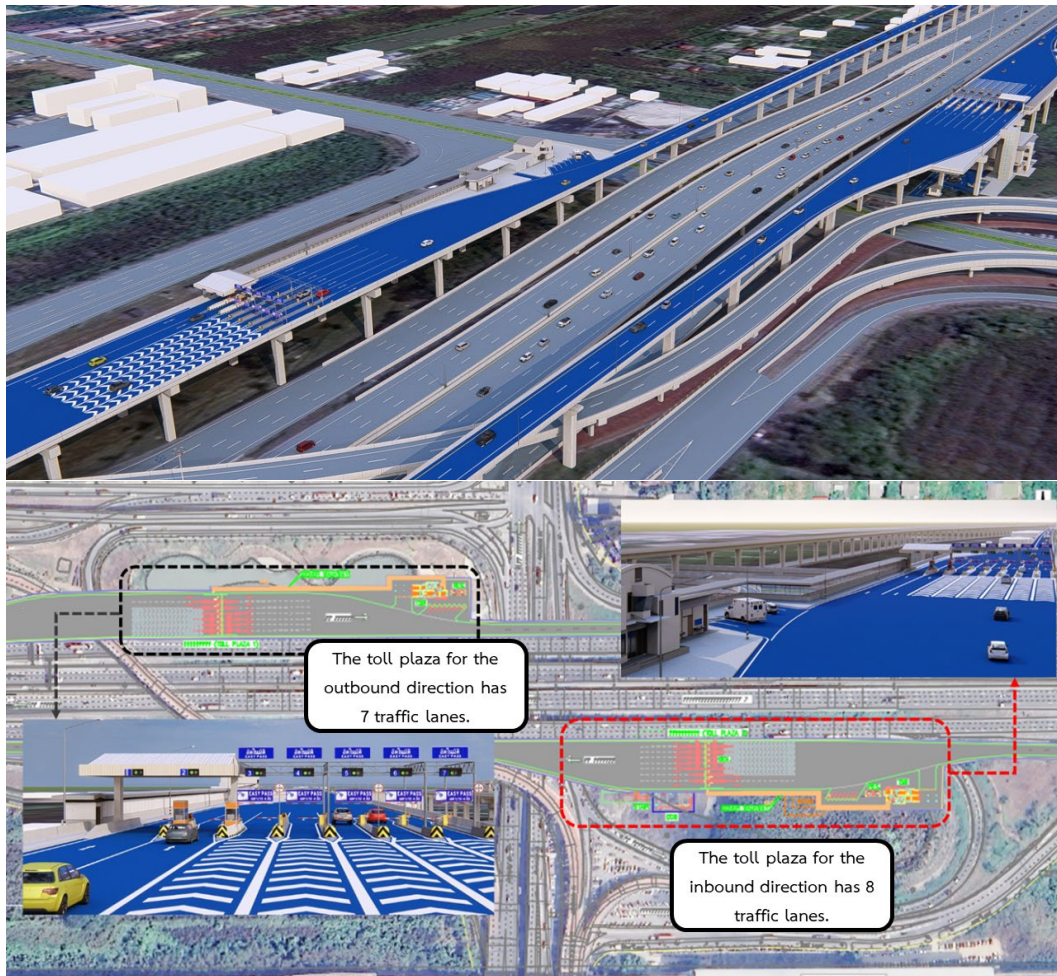
#### 4) Staff Accommodation Building

The building, approximately 9x3 meters in size, serves as accommodation for toll collection staff. It is located at Srinakarin interchange and includes rest area, restroom, and electrical system room, as illustrated in **Figures 9-6** and **Figures 9-7**.



Figures 9-6 Locations of Toll Booths and Related Buildings





Control Center Building (CCB)



Toll Surveillance Building (TSB)



Sub Rescue Building (1) and Staff Accommodation Building



Sub Rescue Building (2)




Figures 9-7 Designs of Toll Booths and Related Buildings

#### 9.4.6 Land Acquisition Work



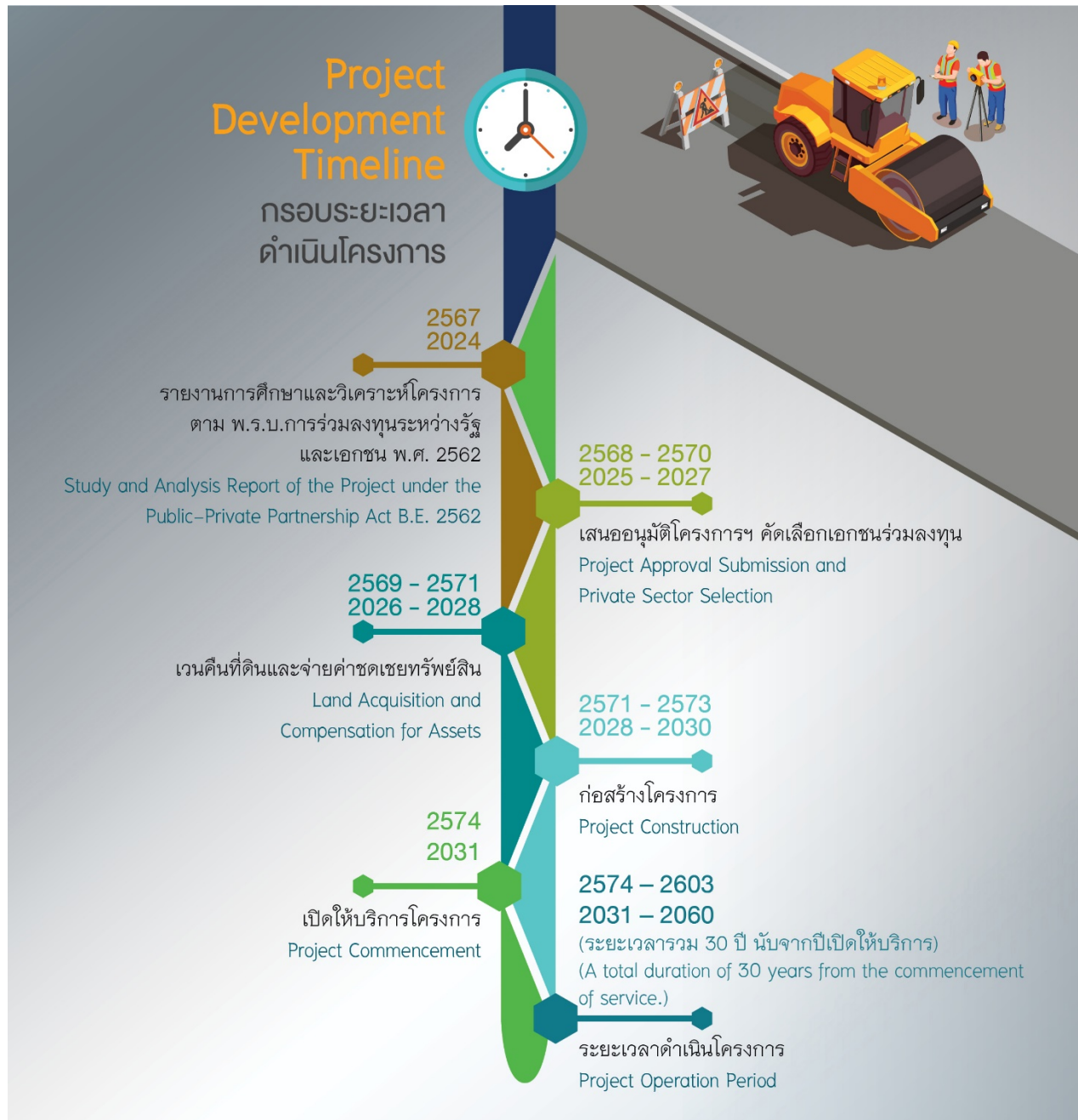
Note: The estimation of land compensation costs is based on the criteria outlined in the Land Acquisition and Property Acquisition Act, B.E. 2562

#### 9.4.7 Project Investment Cost

		Unit (Million Baht)
	Construction Cost	19,136
	Land Acquisition Cost	840
	Construction Supervision Cost	725
	Total	20,701



## 9.5 Project Development Timeline



## 9.6 Project Feasibility

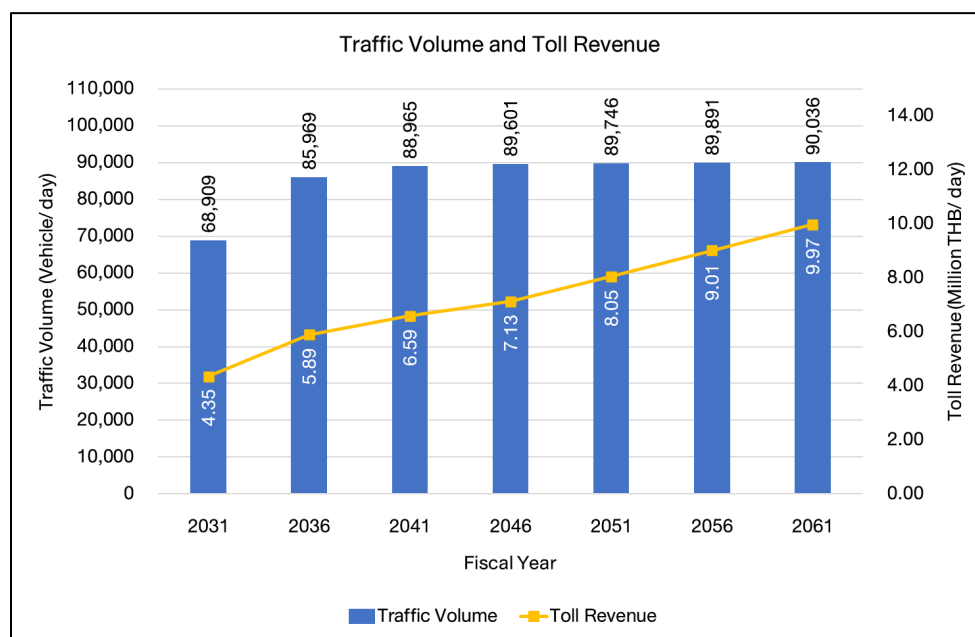
### 9.6.1 Commercial Feasibility

The commercial feasibility of Srinakarin–Suvarnabhumi Airport Expressway Project involves an analysis to forecast traffic volumes and toll revenues over a 30-year period, spanning from the initial operation in fiscal year 2031 to fiscal year 2060. Toll rates at the time of opening are projected at 60, 90, and 120 Baht for vehicles with 4 wheels, 6-10 wheels, and more than 10 wheels, respectively. The toll rates are estimated to increase every five years, based on the assumption of a Consumer Price Index (CPI) growth rate of 2.0% annually. Upon the project's operation, actual toll adjustments will align with the prevailing CPI during that period. The toll rate projections by fiscal year are summarized in **Table 9-2**, while the forecasted traffic volumes and project revenues are illustrated in **Figure 9-8**.

**Table 9-2 Project Toll Rates by Fiscal Year**

No.	Fiscal Year	Toll Rates (THB)		
		4 wheels	6–10 wheels	>10 wheels
1	2031	60	90	120
6	2036	65	100	130
11	2041	70	110	145
16	2046	75	120	160
21	2051	85	130	175
26	2056	95	145	195
31	2061	105	160	215

Note: Toll rates are adjusted every five years based on the assumed Consumer Price Index (CPI) growth rate of 2% annually. Upon the project's commencement, toll rates will align with the prevailing CPI during that period.



**Figure 9-8: Results of Traffic Volume and Project Revenue Forecast Analysis**

## 9.6.2 Technical Feasibility

**Network Suitability:** The Srinakarin–Suvarnabhumi Airport Expressway Project enhances the efficiency of the intercity network in Bangkok Metropolitan Region, particularly by connecting to Suvarnabhumi Airport, a key international transportation hub, and eastern region. It accommodates future travel demand and mitigates traffic congestion on Motorway No. 7, as shown in **Figure 9-9** and **Figure 9-10**. The project also improves overall travel convenience and safety while supporting economic activities and freight transportation with continuous potential growth.

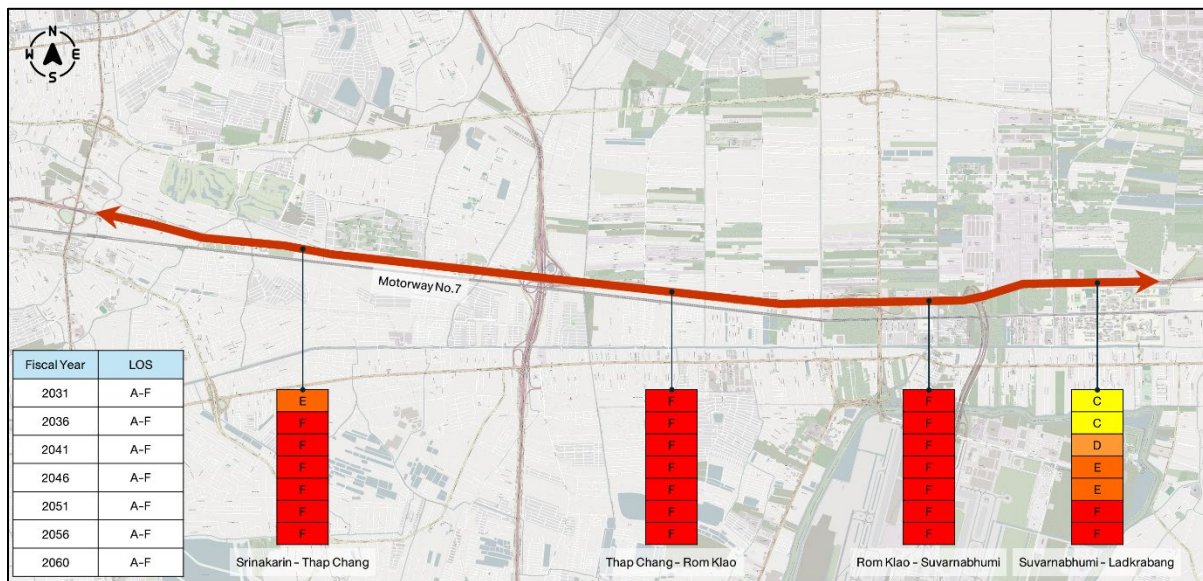


Figure 9-9: Level of Service (LOS) on Road Segments Without the Project

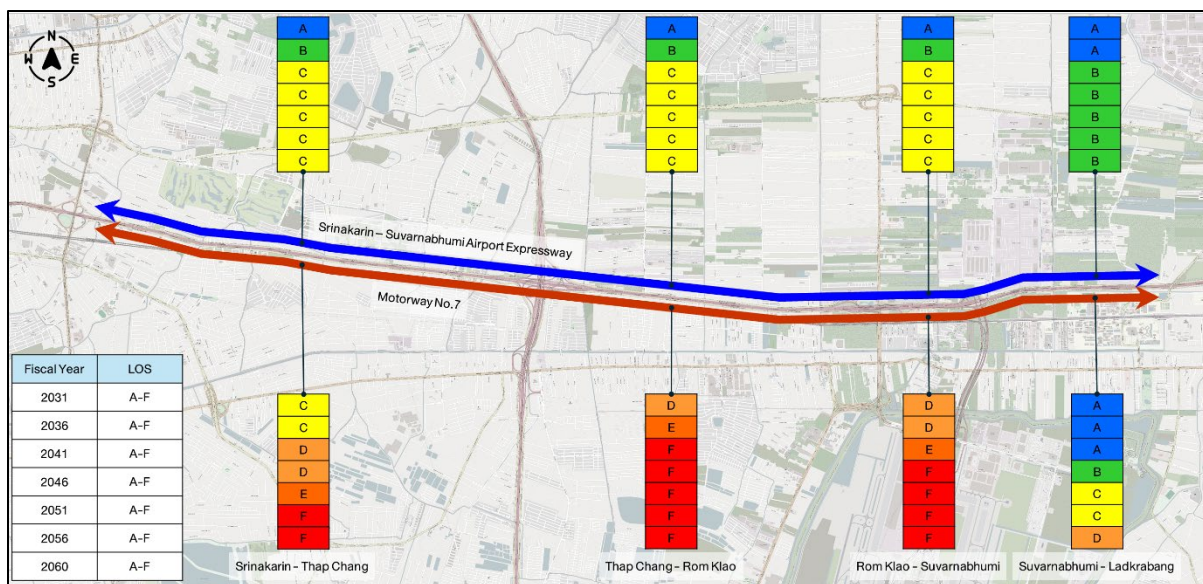


Figure 9-10: Level of Service (LOS) on Road Segments With the Project

**Engineering Suitability of the Roadwork :** The design adheres to international standards in terms of geometric layout, cross-sectional components according to the terrain, the placement of interchanges, and other factors. Therefore, it can be confidently expected that the expressway will provide convenience, speed, and safety for road users, including through traffic, traffic on intersecting road networks, and local traffic.

**Suitability of Construction Material Sources and Facilities to Support Operations :** The roads used for transporting construction materials from various sources along the project route pass through an adequate existing road network. Key roads along the project route include Motorway No. 7, Highway No. 3071, Highway No. 3072, Motorway No. 9, Highway No. 331, Highway No. 344, and Highway No. 315, among others. These major roads provide an efficient and fast means of transporting construction materials for the project.

### 9.6.3 Feasibility of Technology Projects

- **Appropriate Toll Collection System for the Project**  
The toll collection system for the project is an open system that includes both Manual Toll Collector System (MTC) and Electronic Toll Collection System (ETC). The system consists of 8 lanes for inbound traffic (heading towards Rama IX) and 7 lanes for outbound traffic (heading towards Lad Krabang), as outlined in section 9.4.5.
- **Toll Collection System**

Toll Collection System	Traffic Control System (CCB)
<ul style="list-style-type: none"> <li>- HQ Server Toll Collection System</li> <li>- Backup Server System</li> <li>- ALPR &amp; DVES Computer System</li> <li>- Report &amp; Maintenance Server System</li> <li>- Firewall Intrusion Prevention System</li> <li>- Highway Administration Application (HAA)</li> </ul>	<ul style="list-style-type: none"> <li>- HQ Server Traffic Control System</li> <li>- CCTV Recording Server System</li> <li>- Network Communication System</li> <li>- Report &amp; Maintenance Server System</li> <li>- Firewall Intrusion Prevention System</li> <li>- Center Control Server Room System</li> <li>- Traffic Operation Center (TOC)</li> <li>- Power Supply System for Control Center</li> <li>- Fire Protection System</li> <li>- Air Conditioning System for Server Room / TOC</li> </ul>



- Traffic Control System and Traffic Safety

Traffic Control System	Functions
Traffic CCTV System	For monitoring traffic conditions on expressways
Variable Message Sign : VMS	Used to display various information to advise and warn road users.
Lane Control Sign	To display warning signs or provide advice to expressway users which will be installed along the route.
ITS Display	Used to warn of dangerous situations or inform road users to drive safely.
Weather Station	For constant weather reports and alerts
Traffic Detection System	Installing in every traffic lane to analyze traffic conditions using the obtained data.
Emergency Telephone System, ETS	To support communication between expressway users and traffic control officers in the event that expressway users need assistance from officers.
IP Telephone System	Supports communication between Control Center Building (CCB) and various project buildings.
Distributed Time System	It is a standard time system used to compare the accurate and precise time of toll collection system and other related systems.
Graphic Display Panel	It is a system that displays the status of other traffic control equipment and allows for operation and control of those systems.
Central Computer System	Its main function is to manage consolidated data at Control Center Building (CCB).
Data Communication Network System	It is the main communication system (Backbone) that uses fiber optic cables and network equipment as a medium to transmit data between toll collection devices, traffic control devices, and computers, along with various peripherals installed within toll booth control building and Control Center building.

#### 9.6.4 Environmental Feasibility of the Project

##### 1) Land Use for Project Development

The route of Srinakarin Expressway – Suvarnabhumi Airport project starts at the end point of Sirat Expressway (Section D) near Srinakarin Interchange. The project will be developed as an elevated expressway along the drainage channel adjacent to Expressway No. 7, which lies within the existing right-of-way. However, some areas will require land acquisition for project construction at five key locations : 1) On/off ramps at Srinakarin Interchange. 2) U-turn bridge at Krungthep Kreetha Road. 3) U-turn bridge at Rom Klao. 4) Connection road to Suvarnabhumi Airport. 5) U-turn bridge near KMITL (King Mongkut's Institute of Technology Ladkrabang) A total of 111 land plots and 47 structures will be affected by land acquisition. EXAT has held three public consultations in the affected areas and has informed the local community about the project.

##### 2) Environmental Constraints

The majority of the project route is located within the existing right-of-way of Department of Highways (along Expressway No. 7), which does not pass through any legally protected conservation areas. The project area is situated within a Level 5 water quality zone. Additionally, within a 1-kilometer radius from the project's central line, there are two archaeological sites awaiting registration: Wat Sangkharacha and Khlong Prawet Burirom. However, the implementation of the project will not impact these heritage sites. Therefore, it's environmental feasible for developing the project.

#### 9.6.5 Legal Feasibility of the Project

##### 1) Laws and regulations related to the authority and duties of the Authority of the Agency Expressway Authority of Thailand Act, B.E. 2550 (2007)

"Expressway" refers to a road or highway constructed, acquired, or transferred, whether at ground level, above ground, underground, or underwater, for the purpose of providing special traffic facilitation. It also includes bridges, tunnels, ferries for vehicle transport, piers for vehicle boarding or disembarking, sidewalks, parking areas, right-of-way zones, road shoulders, embankments, drainage pipes or channels, retaining walls, boundary fences, milestones, traffic signals, traffic signs, buildings, or any other facilities within the right-of-way area designed to enhance convenience or safety in expressway operations.

Considering the objectives of the agency under this Act, specifically Sections 8, 10, and 19, it is evident that the Expressway Authority of Thailand (EXAT) is authorized to undertake the construction of projects, collect toll fees, and grant concessions for private sector participation in projects under the Public-Private Partnership (PPP) Law. For granting concessions for the construction or expansion of expressways, EXAT must first obtain Cabinet approval as stipulated in Section 57 of the Act.

2) Laws, Announcements, and Regulations Related to Public-Private Partnerships (PPP)

Public-Private Partnership Act, B.E. 2562 and Relevant Announcements by PPP Policy Committee Under Public-Private Partnership Act, B.E. 2562, and related announcements issued by PPP Policy Committee, granting concessions for activities aligned with the agency's objectives requires not only Cabinet approval but also compliance with Section 7 of the Act, which specifies eligible activities for private sector participation.

For the selection of a private entity to engage in a PPP project, EXAT must follow the procedures outlined in PPP Act and relevant announcements issued by the PPP Policy Committee. Additionally, the private entity selected must meet all legal qualifications and must not fall under any prohibited categories specified by law.

### 9.6.6 Financial and economic feasibility of the project

- 1) The results of financial feasibility of the project found that the project had a financial internal rate of return (FIRR) of 5.86 %, as detailed in **Table 9-3**.

**Table 9-3 Financial feasibility of the project**

Financial feasibility of the project		
FIRR (%)	NPV (Million Baht)	B/C Ratio
5.86 %	-2,520.00	0.87

Note: Discount Rate 7.24 % refer Weighted-Average Cost of Capital (WACC) by EXAT, average over the past 10 years from 2015-2024

- 2) The results of economic feasibility analysis of the project found that the project had an economic internal rate of return (EIRR) of 14.04 %, which is more than 12 %. Therefore, the project is considered to be economically feasible. as details in **Table 9-4**

Table 9-4 Economic feasibility of the project

Economic feasibility of the project		
EIRR (%)	NPV (Million Baht)	B/C Ratio
14.04 %	5,562.46	1.48

Note: Discount rate 12.00 % refer Office of the National Economic and Social Development Council

## 9.7 Project Risk

The consultant has prepared project risk according to risk analysis guidelines of Australian/New Zealand Standard on Risk Management (AS/NZS 4360:1999).

### 1) Risk identification and risk assessment

Risk identification in this study is divided into 3 stages. After risk identification, risk assessment is performed by assessing the likelihood of risk occurrence (Likelihood) and assessing the severity of the impact that will occur (Impact). This is used to create a risk assessment diagram ( Risk Analysis Matrix) which divides risks into 4 levels as shown in Table 9-5. The risk list is shown in Figure 9-7.

Table 9-5 Risk Analysis Matrix

Likelihood Opportunities that arise	Impact severity level				
	No effect (1)	A little (2)	Medium (3)	High (4)	Very high (5)
Regularly ( 5 )	M ( 5 )	H ( 10 )	H ( 15 )	E ( 20 )	E ( 25 )
Often ( 4 )	M ( 4 )	M ( 8 )	H ( 12 )	E ( 16 )	E ( 20 )
Maybe ( 3 )	L ( 3 )	M ( 6 )	M ( 9 )	H ( 12 )	H ( 15 )
Not very often ( 2 )	L ( 2 )	M ( 4 )	M ( 6 )	M ( 8 )	H ( 10 )
Very little ( 1 )	L ( 1 )	L ( 2 )	L ( 3 )	M ( 4 )	M ( 5 )

- E – Extreme Risk ( Score level 16-25) is a risk that requires immediate and urgent resolution.
- H – High Risk ( Score level 10-15) is a risk that requires a lot of attention and correction.
- M – Medium Risk ( Score level 4-9) is a risk that can be managed without being addressed immediately.
- L – Low Risk ( Score level 1-3) Most risks are acceptable.



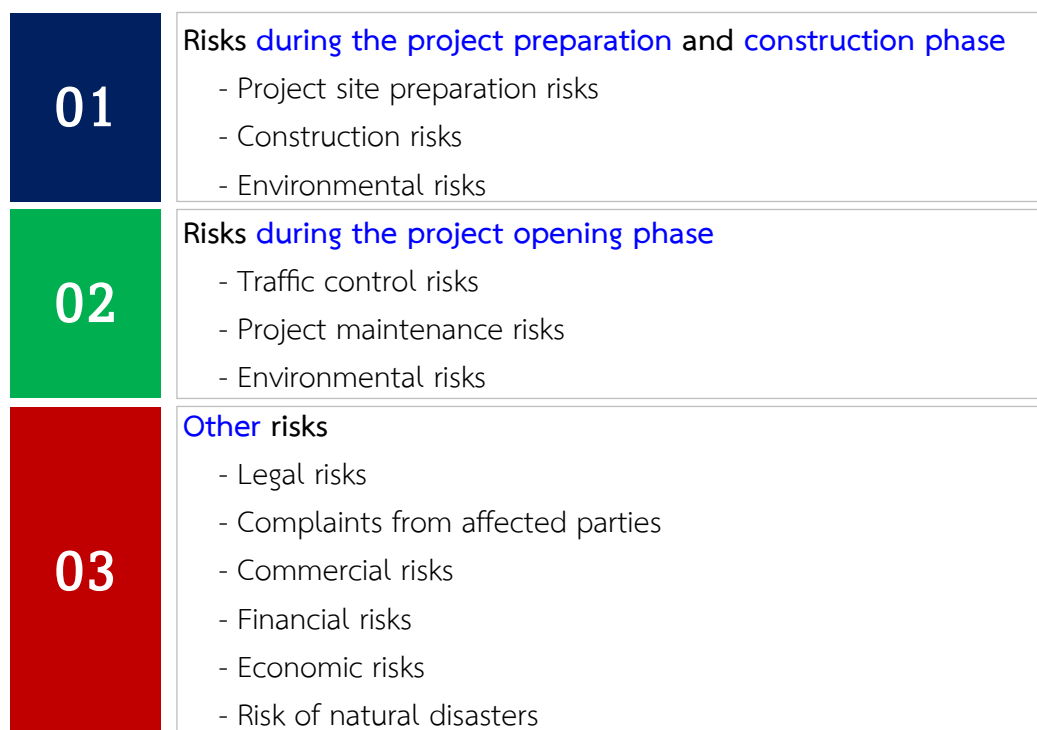


Figure 9-7: Risk identification

2) Guidelines for risk management

In managing each type of risk, there are strategies used to manage risk, including risk avoidance, risk control, risk transfer, and risk acceptance. From the risk assessment, it was found that there were 10 risks with high-risk scores, details as shown in Table 9-6.

Table 9-6 Risk Management

Risk issues	Risk Level	Risk Management Guidelines	Risk level after management
Risks occurring during pre-construction and construction phases of the project			
Environmental risks			
Air quality pollution	5x2=10 high	<b>Risk bearers:</b> public/private sectors <b>Risk Control</b> By strictly adhering to measures to prevent and mitigate air quality impacts, such as: Arrange personnel to spray water, covering piles of construction materials, opening the construction area in stages, completely covering the backs of construction material trucks, controlling weight and speed of the trucks, and clean road surface in the construction area once a day at night.	3x1= 3 low

Table 9-6 Risk Management

Risk issues	Risk Level	Risk Management Guidelines	Risk level after management
Noise and vibration	5x2=10 high	<b>Risk bearers:</b> public/private sectors <b>Risk Control</b> By installing sound barrier walls, using bored piles, constructing only during the day ( 8:00 AM - 5:00 PM), inspecting and maintaining machinery and vehicles once a week, using rubber flooring under steel plates for temporary roads, and controlling weight and speed of trucks not to exceed the law and 30 km/hr.	4x1= 4 medium
Wastewater or garbage	5x2=10 high	<b>Risk bearers:</b> public/private sectors <b>Risk Control</b> by providing sufficient toilets and installing a wastewater treatment system, as well as providing sufficient waste containers and contacting Lad Krabang District Office to properly dispose of waste.	3x1= 3 low
<b>Risks occurring during project operations</b>			
<b>Project maintenance risks</b>			
Electrical system work	5x3=15 high	<b>Risk bearer,</b> private sectors <b>Risk Control</b> Designed with a backup generator to supply necessary equipment.	2x2= 4 medium
Parts/equipment exchange rate	3x4=12 high	<b>Risk bearer,</b> private sectors <b>Risk control and risk transfer</b> By making forward contracts and adjusting financial plans and management to be consistent with the project's financial status.	1x1=1 low
/ equipment price changes	3x4=12 high	<b>Risk bearer,</b> private sectors <b>Risk Control</b> by setting effective project cost management policies that are consistent with project conditions, and regularly updating and reviewing cost management plans to ensure they are consistent with the environment.	2x3=6 medium
<b>Environmental risks</b>			
Air pollution	5x2= 10 high	<b>Risk bearers:</b> public/private sectors <b>Risk Control</b> By organizing traffic flow to be smooth by installing traffic signals and various signs and specifying types and speeds of vehicles.	3x2=6 medium
Noise and vibration	5x2= 10 high	<b>Risk bearers:</b> public/private sectors <b>Risk Control</b> By organizing traffic flow to be smooth by installing traffic signals and various signs and specifying types and speeds of vehicles.	3x1=3 low
Wastewater or garbage	5x2= 10 high	<b>Risk bearers:</b> public/private sectors <b>Risk Control</b> by providing ready-made toilets and wastewater treatment systems, providing sufficient waste containers, and contacting Lad Krabang District Office to properly dispose of waste.	3x1=3 low

Table 9-6 Risk Management

Risk issues	Risk Level	Risk Management Guidelines	Risk level after management
Other risks			
Commercial Risk			
Risk of lower-than-expected expressway user volume	4x3=12 high	<p><b>Risk bearer:</b> In the case of PPP Net cost, the private sector bears the risk. In the case of PPP Gross cost, the public sector bears the risk.</p> <p><b>Risk Control</b> By considering appropriate investment formats, such as private sector co-investment, where private sector accepts income risks.</p>	3x2=6 medium

## 9.8 Options and models of Public Private Partnership investment

### 9.8.1 Public Private Partnership : PPP Scheme

The project's operational guidelines and investment formats are shown in Figure 9-11.

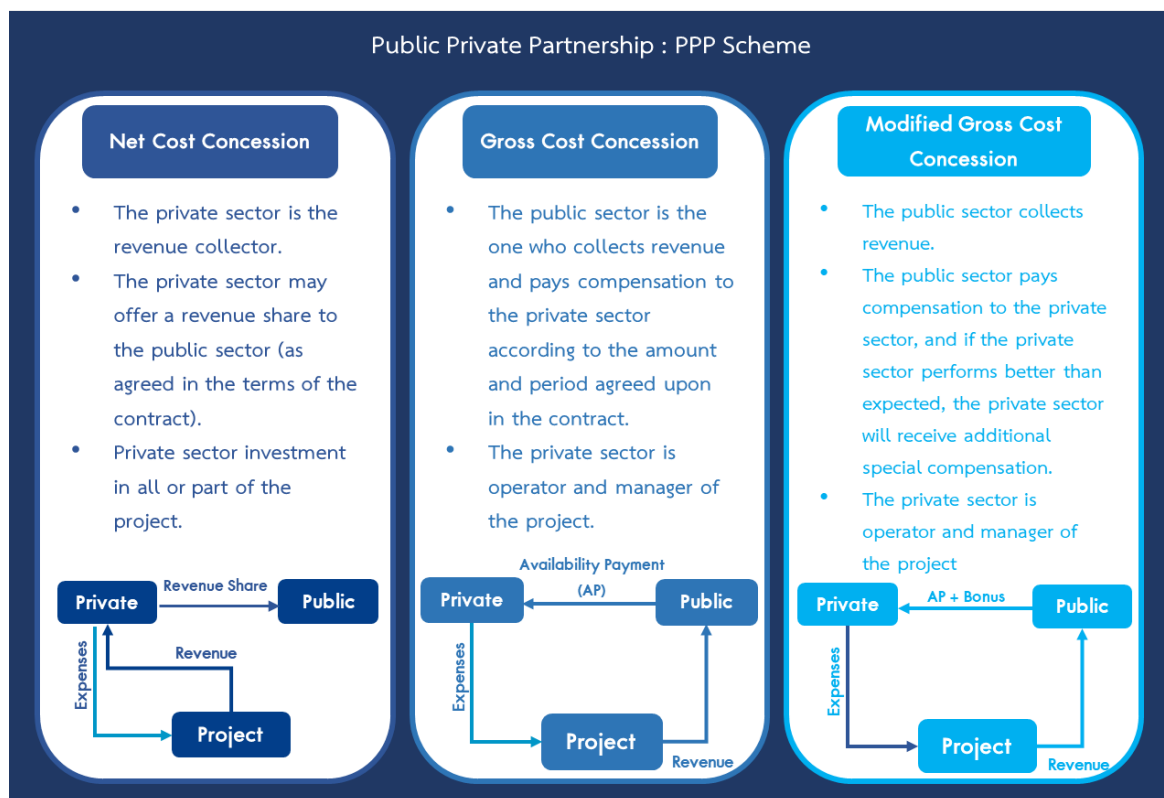


Figure 9-11. Public Private Partnership : PPP Scheme



### 9.8.2 The scope and responsibilities between the public and private sectors.

The scope of public-private partnership is divided into 4 main categories: land acquisition, civil works, system installation, and project operation and maintenance. It is divided into 2 cases: PPP1: the private sector will be responsible for all civil works investment, system installation, operation and maintenance of the entire project, and PPP2: the public sector will be responsible for all civil works investment, while the private sector will be responsible for system installation, operation and maintenance of the entire project, as shown in Figure 9-12.

Scope of responsibility	PPP 1						PPP 2					
	PPP Net Cost		PPP Gross Cost		PPP Modified Gross Cost		PPP Net Cost		PPP Gross Cost		PPP Modified Gross Cost	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Land acquisition	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-
Civil Works	-	✓	-	✓	-	✓	✓	-	✓	-	✓	-
System Installation	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
Operation and Maintenance work	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
Revenue	-	✓	✓	-	✓	-	-	✓	✓	-	✓	-

Figure 9-12 The scope and responsibilities between the public and private sectors.

## 9.9 Feasibility of Relevant Government Agencies in Project Development and Implementation

	<p>In terms of readiness to integrate transportation networks, the government, under Ministry of Transport, has a policy that requires all agencies to operate based on principles of integration, participation, and public awareness through communication efforts. This policy aims to foster collaboration in the development of highway projects, rural roads, and expressway projects. The approach includes building inter-agency cooperation in planning, studying, and designing projects, while also promoting innovation and investment in highways, rural roads, and expressways. Additionally, there is a focus on managing the integration of road networks and traffic data to analyze and resolve traffic issues within the national road transportation network, with the goal of maximizing efficiency.</p>
	<p>Currently, the Expressway Authority of Thailand (EXAT) is responsible for addressing traffic issues and improving systems to meet the needs of expressway users. These efforts have consistently supported and enhanced the development of the country's transportation sector. EXAT currently operates 8 expressway routes, with 4 connecting routes, covering a total distance of 224.6 kilometers. The organization has undergone structural improvements to adapt to changes and strengthen its operations, aiming to achieve its goal of becoming an "Innovation for better drive and better life" organization. EXAT is also focused on becoming a leader in transportation business with Smart Expressways, elevating management practices and improving services for the public effectively. The Srinakarin-Suvarnabhumi Airport Expressway project is included in the public-private partnership (PPP) investment plan for 2020-2027, as outlined by State Enterprise Policy Office (SEPO).</p> <p>Although EXAT is ready to implement Srinakarin-Suvarnabhumi Airport Expressway project, the investment will be a long-term financial commitment for government. Therefore, involving the private sector participation in the project is another option that will help ensure the project is successfully executed with highest efficiency and effectiveness.</p>



