

## Supplementary Information

### History, Geography and Climate of the Srinagar city:

Srinagar is the shortened word of Shri Nagara. Kalhana, the author of Raj Tarangni (first recorded History in India) wrote that Shri Nagara was founded by King Ashoka (272 BC – 231 BC). Since foundation Srinagar remains the capital city of Kashmir Valley ruled by different rulers and presently the summer capital of the Jammu and Kashmir state. Till 9<sup>th</sup> Century Kashmir Valley was mostly submerged. In this century King Awantivarnam under took the drainage of Kashmir Valley, which made available vast lands for cultivation and growth of settlements. Srinagar city has grown in a haphazard manner on both banks of river Jhelum. Presently it has Kashmir University, National Institute of Technology, Medical College, good number of educational institutions, Hospitals, Stadiums and good number of Industrial Estate.

It is geo-graphically located at 34°04 North latitudes and 74°48 East longitudes and at an average elevation of about 1586 meter above M.S.L. Being the valley, surrounded by mountain ranges and on the bank of beautiful Dale Lake, it is one of the best known tourist destinations of India. Srinagar is accessible by air from Jammu and outside the State in India as well as internationally through international flights, by highways of Banihal cart Road with Jammu and Towns enroute. Across snow clad hills of Zogilla it is also accessible to Kargil and Leh by air round the year and by road in summer months.

Percentage of maximum relative humidity for all months in the year is very high in Srinagar. It varies from 90% in winter months to 78% in summer months. Temperature falls normally to -4°C in winter and rises to about 33°C in July and August when there are no rains in these two months. Annual rainfall in the city is of the order of less than 700 mm, most of it in winter and spring seasons. Snowfall usually occurs from December to March. All round the year wind blows from North, North West and West sides and for most of the period normally it remains calm. The wind forces are usually 1.5 to 5 Km/Hours.

### Status of Road Network and Traffic Systems in Srinagar:

The Srinagar city is situated along the both bank of Jhelum River. The city has distinctly a twin city character. Congested old parts of the city lie on the North of Tsunti Khul (channel) and Kut Khul. The new extensions lie toward South and West of these channels. Intra city traffic crosses the Jhelum river through bridges Zero bridge, Ameera Kadal (bridge), Budshah bridge, Haba Kadal and Safa Kadal. The present Srinagar city is characterised by a radial pattern of development with the major transportation corridors responsible for urban expansion in linear direction. This in turn leads to undeveloped patches in the interior areas which are not accessible by a road network. The present system of transportation is grossly inadequate.

The intra city traffic comprises of public transport (Mini buses and Taxis) as the main component, para-transit in the form of Auto rickshaws and personal modes of transport. Traffic congestion within city is made worse by the inadequate public transport system coupled with the absence of effective traffic management enforcement measures. One of the major traffic hurdles on the city roads is the

haphazard stopping of mini-buses/taxis near the road junctions and anywhere on the main carriageway of road.

### **Background**

All major Government, Commercial and Transport terminals are located in the Central Business District extending from Dalgate to Batmaloo and passes through Jehangir Chowk. Air port road meet this road perpedicularly at Jehangir Chowk. Location of High Court and Secretariat on the West of Jehangir Chowk makes this intersection a very important hub in the road network of Srinagar city. Due to consistent traffic growth observed on this junction and other junctions at Air Port road, at different locations the traffic flows are observed beyond the capacity of the existing roads, thereby reducing the level of service on the road and causing congestion. The situation warrants for enhancing the capacity of the road. The existing road carriageway has been widened to the maximum possible limits at critical points on the road. Considering the existing traffic demand and future growth of traffic there is need for a grade separated facility on this road.

### **Description of the Subproject**

By providing the grade separated facility will segregate through traffic from public transport vehicles as well as from local and slow moving traffic. Sub project stretch passes through congested commercial establishments on both sides of road which includes shops, malls, industrial establishments, school, religious places, parks, offices (Government and private) and residences from Jehangir Chowk to Rambagh beyond Natipura Y-junction on Air port road. Each carriage way (at grade as well as elevated) will have two lanes facilities. Present traffic coming from Lal Chowk and passing through Ameera Kadal (Bridge) is unidirectional. This traffic reaches at Jehangir Chowk and takes left turn to approach Air port. At grade two lanes unidirectional direct connection between Ameera Kadal and Air port has been proposed, so that this traffic will not reach at Jehangir Chowk, which will ease out the traffic congestion at Jehangir Chowk. Bigger size rotary at Jehangir Chowk underneath the existing flyover and rotaries at other junctions have been proposed for smooth follow of traffic at grade. To and fro connectivity to elevated highway from Jawahar Nagar road at Bakshi Stadium junction and Natipura road at Natipura junction has been proposed. To minimize the obstruction in flow of water, foundations of proposed bridges over Flood Channel have been proposed along the foundations of the existing bridges in direction of flow. Pre-cast PSC Girders with RCC deck slab arrangement has been proposed for main elevated Highway portion.