

नेपाल सरकार
भौतिक पूर्वाधार तथा यातायात मन्त्रालय
सडक विभाग
गुणस्तर अनुसन्धान तथा विकास केन्द्र
सिद्धबाबा सुरुङमार्ग योजना

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ईमेल: siddababatunnel79@gmail.com



Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Quality Research and Development Centre
Siddhababa Tunnel Project

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साइटको प्रगति विवरण
२०८१ पौष

Salient Features of the Siddababa Tunnel Project

- 1) **Scope of Works:** Planning, Design, Engineering, Procurement, Construction, Commissioning and Five Years of Service Operation and Maintenance of One Double Lane Standard Highway Tunnel, Rock shed Structure on the existing Highway, Rock Fall Mitigation and Road Rehabilitation Works of Siddababa Tunnel Project on Engineering Procurement Construction (EPC) basis.
- 2) **Contract no.:** DOR_QRDC/EPC/ICB/STP/077/78-05
- 3) **Employer:** Government of Nepal, Ministry of Physical Infrastructure and Transport(MOPIT), Department of Roads.
- 4) **Implementing Agency:** Quality Research and Development Center, Siddababa Tunnel Project Office, Butwal.
- 5) **Technical Assistance:** Swiss Development Cooperation (Consultant: PINI SMART ENGINEERING)
- 6) **Estimated Amount:** 9,40,09,12,330.35 (including VAT,Contingency and PS)
- 7) **Contractor's Name :** M/S China State Construction Engineering Co. Ltd, No.15, Sanlihe Road, Haidan District, Beijing, China.
- 8) **Contract Agreement Date :** March 9, 2022 (२०७८/११/२५)
- 9) **Contract Amount :** Rs.7,34,21,04,734.14 (including VAT & PS)
- 10) **Contract Completion Date:** March 22, 2027 (२०८३/१२/०८)
Phase I: Engineering, Procurement and Construction Works:
1825 calendar days from the date of commencement.
(Here, commencement date shall be 14th date from the date of agreement.)
Phase II: Warranty, Operation and Maintenance Works:
1825 calendar days from the date of issuance of Taking Over Certificate.
- 11) **Financing Source:** Government of Nepal.
- 12) **Major Work Details:**
 - A. **Main Tunnel** Length: 1126 m. (1089m excavation, 37m cut and cover)
Width: 9.9 m (Standard Section)
Height: 11.5 m
Lane: 2
Jet Fans: 15 Nos.

- B. **Road Length Improvement:** 2398m. (Main Road-1(towards Butwal):
904m + 944m Tunnel section + Main Road-2 (towards Palpa): 550m)
- C. **Rock shed Length:** 780 m.
Width: 5m
Height: 5m
- D. **Bypass/ Evacuation Tunnels:** 3 nos ;
Total length of 431m (Bypass 1=150 m, Bypass 2=161 m,
Bypass 3=130 m)
Width: 3.43m
Height: 4.4m
- E. Two terminal buildings, one at each North and South Portal
- F. Electromechanical structures
- G. Medium Voltage Power supply from National grid at the South Portal.
- H. Lighting facilities with sensors.
- I. Ventilation facilities with Sensors
- J. Signage
- K. Surveillance system; Video-surveillance, Fire detection.
- L. Control system communication network, Radio system, Emergency telephone system
- M. Cabling system; earthing, Fibre-optic cabling, Copper cablings
- N. Auxiliary systems; electrical and heating/air-conditioning systems in buildings, telephone systems, gates, doors, double floors, pumping stations
- O. Control room
- P. Rock shed in high hazard section (high risk of rock-fall): Inner Dimension: 5m * 5m with 780m length.

Project)





3D view of North Portal



3D view of South Portal

योजनाको उद्देश्य र सान्दर्भिकता

- सिद्धार्थ राजमार्गको सिद्धबाबा क्षेत्रमा वर्षायाम र सुख्खा मौसममा समेत ढुङगा खस्ने, माटो बगेर आउने र सुख्खा पहिरो समेत जाने, ढुङगा झर्ने समस्याका कारण बारम्बार थुप्रै दुर्घटना भएर मानवीय क्षति हुँदै आएको छ । वर्षा याममा समस्या झन् विकराल बन्ने गरेको र यसले गर्दा घण्टौंसम्म ट्राफिक अवरोध हुने गरेको छ । तसर्थ नेपाल सरकारले उक्त समस्याको समाधान गर्न यस खण्डमा सुरुङ मार्ग बनाउने योजना बनाएको हो ।
- सुरुङ मार्ग निर्माण भएपछि सिद्धार्थ राजमार्ग भएर यात्रा गर्ने यात्रुका लागि सुरक्षित र भरपर्दो यात्राको सुविधा हुने, यात्रा समय र दूरी घट्ने, सडक सुरुङ मार्ग निर्माणको प्रविधि हस्तान्तरण हुने, ट्राफिक दुर्घटनाहरु तथा सवारी सञ्चालन खर्च घट्ने मात्र नभईकन यातायात पहुँचमा सुधार भई आर्थिक लाभका अवसरहरु समेत सिर्जना हुने भएकोले यस आयोजना समग्र क्षेत्रका लागि नै महत्वपूर्ण देखिएको छ ।

आयोजनाको हाल सम्मको प्रगति: 8th January 2025 (२०८१/०९/२४ सम्मको)

- मुख्य सुरुङ खन्ने कार्य : १०८१.२ मिटर (सुरुङ को खन्नु पर्ने कुल लम्बाई = १०८९ मीटर)

- बाईपास सुरुङ-१ खन्ने कार्य: १५१ मिटर
- बाईपास सुरुङ-२ खन्ने कार्य: १६१ मिटर
- बाईपास सुरुङ-३ खन्ने कार्य: १३० मिटर

समस्या तथा चुनौतिहरू:

- ✓ ठेक्का सम्झौतामा र स्वीकृत वातावरणीया अध्ययन प्रतिवेदनमा भए बमोजिम निर्माण व्यवसायीले crusher plant install गर्दा स्थानीय द्वारा बिरोध भएको
- ✓ EPC मोडालिटीको ठेक्का भएको हुनाले Functional basis मा specification हुनुपर्नेमा ठेक्का सम्झौतामा detailed specification भएको हुनाले कार्यान्वयनमा समस्या परेको

Some Photographs During Construction of Tunnel:

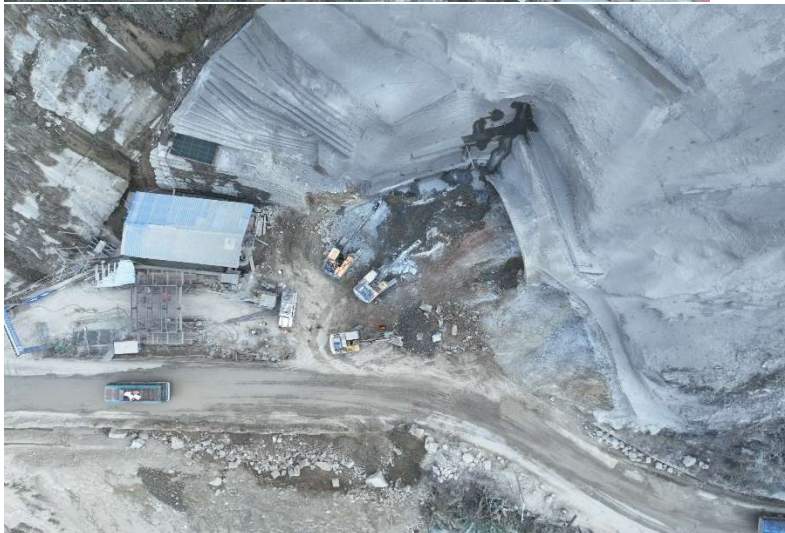


Fig: South portal area before slope stabilization

Fig: North Portal Area



Fig: South Portal Area after slope stabilization



Fig: MR1 Section



Fig: MR2 Section



Fig: During Mechanical Excavation Works in Main Tunnel From South Portal Area



Fig: During core cutting for excavation of Rock in Bypass 2 Tunnel



Fig: During Drilling of hole to load explosive material for Blasting



Fig: During preparation for Blasting Works



Fig: Main Tunnel after construction of Invert





Fig: Shotcreting Works at North Portal



Fig: Workshop Area/ Crusher Plant /Batching Plant



fig: Contractor's Site Camp and Lab



Fig:Cement Testing Room



Fig: Mechanical Properties Testing Room



Fig: Concrete and Aggregate Testing Machine



Fig: Concrete Test Block Curing Room



Thank You