



**CREDIBLE**  
Management & Consultants Pvt. Ltd.

## ***TECHNO ECONOMIC VIABILITY REPORT***

***Development and Operation of Bikaner-Suratgarh Section  
of NH-15 by Two Laning with paved shoulder in the State  
of Rajasthan through PPP on Design, Build, Finance,  
Operate and Transfer (DBFOT) basis.***



### **Submitted To,**

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## 1.0 Introduction

Credible Management & Consultants Pvt. Ltd. have been appointed by the project sponsor M/S Suratgarh Bikaner Toll Road Company private limited, to prepare **Techno Viability Report** of Two laning of Bikaner-Suratgarh section of NH 15 from km 553+869 of NH 11 to km 173.000 section of NH-15 in the state of Rajasthan under PPP on DBFOT (Toll basis.).

### Project background

The Ministry of Road transport and highways, Govt. of India has ambition Plan to upgrade rehabliltate and widening of national highways in various states .This project comes under Rajasthan PWD involving of Development and operation of Bikaner- Suratgarh Section of NH-15(from Km 553.869 of NH 11 to Km 173.000 of NH 15) Via km 10.630 of NH 15 by Two laning with paved shoulder in the State of Rajasthan under through Public Private partnership (PPP) on Design, Build, Finance, Operate and Transfer ("DBFOT" Toll Basis)

The Govt. of Rajasthan Pubic Work Department has approved the implementation of the project for the construction of Development and operation two laning of Suratgarh-Bikaner section of NH-15 (from Km 553.869 of NH-11 to Km 173.000 of NH-15) via Km 10.630 of NH in the state of Rajasthan through PPP on DBFOT (toll) basis with a TPC of Rs. 620.07 Crores. The PWD invited the bids and the work was awarded to Suratgah-Bikaner toll Road Company private Limited (MBLIL) on the basis of highest amount of revenue sharing (Premium) of Rs. 2.51 Crore Per Annual with escalated of 5% each year during the Concession Period. The concession agreement was signed on 9.05.2012 between Suratgarh-Bikaner Toll Road Company Private Limited and Govt. of Rajasthan PWD to execute the work.

### 1.2 Executive Summary

The present Project consists of **Development and operation of Bikaner- Suratgarh Section of NH-15(from Km 553.869 of NH 11 to Km 173.000 of NH 15) Via km 10.630 of NH 15 by Two laning with paved shoulder in the State of Rajasthan under through Public Private partnership (PPP) on Design, Build, Finance, Operate and Transfer ("DBFOT" Toll Basis)**

The present existing chainage of project is km. 553.869 of NH 11 to 173.00 of NH 15. (Existing length 173.000 Km.) and the design chainage of project is from km 0.00 of NH 15 to 172.348 of NH-15 (Design Length 172.348 Km.)

The designed highway is two lane with flexible pavement except at 2 built up areas where it is four lane. Thus the existing lengths of four lane and two lane is 4.337 km. and 168.047 Km respectively.

The project highway starts from Bikaner, an important commercial town of Rajasthan and ends at Suratgarh by joining in NH-15. The highway mostly passes through plain area except for few built up areas. The proposed highway will follow the existing alignment with proposal for one bypass and no



areas. The proposed highway will follow the existing alignment with proposal for one bypass and no realignment. The Project has proposal of Reconstruction of existing 1 major bridge as new structure over ghagghar river on right side and 1 no of reconstruction of existing minor bridge as new structure over canal on right side . One new ROB is proposed to constructed at level of crossing at existing chainage 45.957, 2 number Cattle under Pass are proposed at existing chainage 48.931 and 143.464. Two Service road are proposed to be constructed from existing chainage of 70.500 to 72.500 and 171.00 to 173.00 on both side. Reconstruction of 1 number Major Bridges, 1 number of minor Bridges, 7 numbers syphon pipe Culverts, 2 number of pipe & 5 number RCC Culvert are proposed on the project highway. Further widening of 7 numbers RCC Culverts and 1 number Hume pipe culvert is also proposed for construction. Three toll plazas at km. 24.439 (design), km.83.725 (design) and km 144.100(design) are proposed for construction. At each toll plazas traffic aid post, Medical aid post and vehicle rescue post, 3 number Truck lay bye (two on Right side and one Left Side) , 22 number bus bays (11 numbers on each side) are also proposed for Construction.

The Concession Agreement was signed between Rajasthan and Suratgarh-Bikaner Toll Road Company Pvt. Ltd. on 09<sup>th</sup> May 2012. The concessionaire has achieved financial close on date 10.4.2013 and complied all conditions precedent stipulated in the Concession Agreement, Rajasthan PWD has notified no 16<sup>th</sup> Sept 2013 as appointed date. The total concession period is 16 years including 2 years construction period. Premium payable to RPWD is Rs. 2.51 Crores per year with 5% escalation per year.

### 1.3 The salient features of the Concession Agreement are as under

<b>Name of the Project:</b>	<b>Development and Operation of Bikaner- Suratgarh Section of NH-15 by Two laning with paved shoulder in the State of Rajasthan under through Public Private partnership (PPP) on Design, Build, Finance, Operate and Transfer ("DBFOT" Toll Basis)</b>
<b>Name of Client-</b>	Rajasthan PWD
<b>Letter of acceptance</b>	F.7 (259)/Part-IV/BOT/PPP-NH/D-1390
<b>Dated of LOA</b>	09.01.2012
<b>Name of Concessionaire</b>	<b>Suratgarh-Bikaner Toll Road Company Private Limited</b>
<b>Name of Independent Engineer</b>	ICT Pvt. Ltd.
<b>Project Road Length</b>	Km.172.384
<b>Project EPC Cost</b>	Rs 510.00 Cr.
<b>Project TPC as per R PWD</b>	Rs. 501.00Cr.
<b>Project total cost</b>	Rs 620.07Cr
<b>Revised Coast</b>	<b>750.89 Cr.</b>
<b>Performance Security</b>	25.05 Crores
<b>Date of financial Close</b>	30 <sup>th</sup> March 2013
<b>Premium payable to Rajasthan PWD</b>	Rs 2.51 Crore P.A
<b>Date of Concession Agreement</b>	09 May 2012
<b>Appointed Date</b>	16.9.2013
<b>Date of Completion</b>	15th Sept, 2015
<b>Completion time</b>	730 days
<b>Concession period</b>	16 years including construction period
<b>Total existing length</b>	173.00 Km

<b>Total Design length</b>	172.384 km (including Bikaner Bye pass)
<b>Length of Four lane section</b>	4.337 km
<b>Length of Two lane section</b>	168.047
<b>Present Chainage of the project</b>	Km.9.869 of NH-11 to Km.173.000 of NH-15
<b>Design Chainage of the project</b>	Km.0.000 of NH-11 to Km172.384 of NH-15
<b>No. of Toll Plaza</b>	3 (Three)
	Km.24.739 (Proposed)
	Km. 84.025 (Proposed)
	Km 144.400 (Proposed)
<b>Bypass</b>	1
<b>Re-alignment</b>	Nil
<b>Service Road</b>	Nil
<b>Vehicular Underpasses</b>	Nil
<b>Pedestrian/ Cattle Underpasses</b>	Nil
<b>Existing Major bridges</b>	2
<b>Existing Minor Bridges</b>	6
<b>Existing R.O.B</b>	Nil
<b>New R.O.B</b>	1
<b>Existing No. of Pipe Culverts</b>	6 Nos
<b>Existing No. of Syphon Pipe</b>	55 Nos
<b>Existing No. of RCC Slab Culverts</b>	5 Nos
<b>Existing No. of Sub Minor Irrigation</b>	18 Nos
<b>Canal</b>	
<b>Reconstruction of existing Major Bridges</b>	- 1 No's
	Km.163.101---3x24.4m

**Reconstruction of existing Minor Bridges**      1 Nos

Km.107.050--- 1x16.2 m

**New construction of pipe Culverts**      17 Nos. (Design Chainage)

1. At Km 9.520.
2. At Km 48.160.
3. At Km 56.040.
4. At Km 71.080.
5. At Km 71.257.
6. At Km 71.637.
7. At Km 101.860.
8. At Km 102.920.
9. At Km 106.240.
10. At Km 108.340.
11. At Km 124.880.
12. At Km 125.040.
13. At Km 137.400.
14. At Km 143.940.
15. At Km 162.780.
16. At Km 164.120.
17. At Km 169.380.

**Reconstruction of pipe Culverts**      1 Nos. at Km.141.500

**Reconstruction of RCC Culverts**      1 no.

**Widening of existing RCC slab**

**Culverts**      6 Nos.

**Widening of existing pipe Culverts**      9 No. Proportional Road width

**Truck Lay Bys**

3 Nos.

**Proposed Chainage:-**

- (i) Km. 23.559 -23.959 (Right)
- (ii) Km. 65.450-65.850 (Left)
- (iii) Km. 141.196-141.596 (Right)

**Bus bays with Bus Shelters**

22 Nos. (11 Nos. on each side)

**Proposed Chainage**

- (i) Km. 20.438 (Both side)
- (ii) Km. 27.045 (Both side)
- (iii) Km. 44.424 (Both side )
- (iv) Km. 56.712 (Both side)
- (v) Km. 59.116 (Both side)
- (vi) Km. 71.213(Both side)
- (vii) Km. 92.563(Both side)
- (viii) Km.107.939(Both side)
- (ix) Km.124.817(Both side)
- (x) Km.140.395(Both side)
- (xi) Km.160.399(Both side)

**Rest Areas**

1 Nos (Proposed Chainage)

Km.64.810 to Km 65.035(Right side)

**New ROB**

1 Nos

At Km.45181(existing Chainage )

**Traffic Aid Posts**

As per Clause 13.7

**Medical Aid Posts**

As per Clause 13.8

**Vehicle Rescue Posts**

Nil



## 2 PROJECT COMPANY

### 2.1 Profile of the company

Name	Suratgarh Bikaner Toll Road Company Private Limited
CIN	U45400WB2012PTC174476 of 2011-2012
Industry	Transportation (Roads)
Registered Office	'Divine Bliss', 2/3 Judges Court Road, 1 <sup>st</sup> Floor, Kolkata – 27
Project Scope	Development and operation of the Bikaner– Suratgarh Section of NH-15 (from Km 553.869 of NH-11 to Km 173.000 of NH-15) via Km 10.630 of NH-15 by Two Laning with paved shoulder in the State of Rajasthan through Public Private Partnership on Design Build, Finance, Operate and transfer (DBFOT – Toll) basis in state of Rajasthan
Date of Incorporation	20 <sup>th</sup> February, 2012
Constitution	Private Limited Company
Project Length	Design length: 172.384 Km.
Date of Signing CA	9 <sup>th</sup> May, 2012
Appointed Date	16 <sup>th</sup> September 2013
Construction Period	From 16 <sup>th</sup> September, 2013 to 31 <sup>st</sup> March, 2019 ( as informed by the concessionaire )
Expected Partial COD	30 <sup>th</sup> April, 2018 ( as informed by the concessionaire )
Expected Full COD	31 <sup>st</sup> March, 2019 ( as informed by the concessionaire )

### 2.2 Capital Structure and Shareholding Pattern

The proposed equity of the project is Rs. 170.07 crores. As on 31.03.2017, the authorized and paid up equity share capital of SBTRCPL is Rs. 170,07,00,000/- (Rs. One Hundred Seventy Crores and Seven Lacs only) divided into 17,00,70,000 Equity Shares of Rs. 10/- each).

As per the CA, MBL together with their Associates shall have minimum 51% shareholding in the SPV during the construction period and two years thereafter.

The stipulations of the Concession Agreement in respect of shareholding structure of SBTRCPL are as under:

Period	CA Stipulation
During the construction period and 2 years thereafter	The holding of the consortium members and their associates should not be less than 51% of issued and paid up Equity as on the date of signing of Concession Agreement and each member of the Consortium and their associates should hold not less than 26% of Equity.



### 2.3 Management and Board of Directors

The Articles of Association (AoA) of Suratgarh Bikaner Toll Road Company Private Limited provide for a minimum of 2 and a maximum of 12 Directors on the Board of the Company. The Board of SBTRCPL comprises of the following directors:

Name	Designation	Qualification	Experience
Mr. Anjaneer Kumar Lakhotia	Director	Chartered Accountant; B.Com (Hons)	He is a commerce graduate from St. Xavier's College, Kolkata and a fellow member of the Institute of Chartered Accountants of India. He has over two decades of experience in the infrastructure industry.
Mr. RamDayal Modi	Independent Director	MA (Pol. Sc), Gold Medalist, University of Udaipur; CAIIB (Part I)	He is an Independent Director on our Board. He is a Gold Medalist in MA (Pol. Sc) from the University of Udaipur, Rajasthan and also holds a degree in CAIIB (Part I). He has also received training in Project Appraisal, Merchant Banking and other related areas from the Reserve Bank of India Training College, Mumbai and NIBM, Pune. He specialises in banking and is an expert in areas like corporate credit, finance, investment and operations. He was associated with State Bank Group for over three decades before retiring as General Manager -State Bank of Patiala in the year 2011.
Mr. Kumar Singh Baghel	Independent Director	M.A. (English); CAIIB (Part I)	He is an Independent Director on our Board. He holds a masters degree in English and CAIIB (Part I). He was associated with the State Bank Group for over thirty four years and retired as the general manager of State bank of Bikaner and Jaipur. He was responsible for the administration of fields such as corporate credit and forex, planning and development and finance and investments. He has been associated with our Company since September 2006.



Ms. Sunita Palta	Independent Director	Post Graduate Diploma in Journalism & Anthropology	She is a post graduate in anthropology from Miranda House, Delhi University with a post-graduate diploma in journalism from Indian Institute of Mass Communication, New Delhi. She has held academic positions with the World Food Programme and UNICEF on Child Rights Issues as part of Integrated Child Development Services of the Government of India.
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SBTRCPL has experienced project coordinator for the development of the Project. He is suitably assisted by a team of professionals at various levels specializing in critical functions related to design & planning, management of contracts, liaising with Rajasthan PWD/ Independent Engineer, tolling strategy, finance & accounts.

(\*Source Project Information Memorandum of Concessionaire)



### 3 PROJECT SPONSORS

#### 3.1 MBL Infrastructures Ltd (Project Sponsor)

MBL is engaged in the execution of civil engineering projects. The Company provides integrated engineering, procurement and construction (EPC) services for civil construction and infrastructure sector projects. In recent years, MBL has executed and commenced a number of praiseworthy projects in 14 states of India. The Company has successfully completed the execution of the BOT project of 114 km long Seoni - Balaghat - Gondia State Highway (Madhya Pradesh), which is operational since February, 2008 and another project of 18.3 kms of Waraseoni-Lalbarra Road Project (Madhya Pradesh) is operational since August, 2015.

MBL Infrastructures Limited is a Public Limited Company listed on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE).

### BUSINESS SEGMENTS

#### Civil Engineering Projects

MBL Infrastructures Limited is engaged in the execution of Civil Engineering Projects.

##### 1. Highway Construction

In recent years, MBL has executed and commenced a number of praiseworthy projects in the states of West Bengal, Madhya Pradesh, Maharashtra, Assam, Uttar Pradesh, Delhi, Rajasthan, Karnataka, Haryana, Orissa, Andhra Pradesh, Bihar and Uttarakhand.

##### 2. Road Operations & Maintenance

India possesses the second largest road network in the world which amounts to approximately 3.3 Million km., creating a significant opportunity in the area of road maintenance. The Company has an early mover advantage into this segment. The Company has successfully executed the work of comprehensive maintenance of Ring road & Outer ring road. T

##### 3. Highway - BOT Projects

The Company has successfully completed the execution of the BOT project of 114 km Seoni-Balaghat- Gondia State Highway (100% owned SPV Company, AAP Infrastructure Limited) and Waraseoni - Lalbarra Road project (100% owned SPV Company, MBL (MP) Toll Road Company Limited) in the state of Madhya Pradesh awarded by MPRDC.

##### 4. Industrial Infrastructure

MBL is also engaged in Industrial Infrastructure Development projects across the country. Pre-incorporation, MBL was a part of the development of Haldia Petrochemicals in the state of West Bengal. The Company was also involved in the expansion of the IISCO Steel Plant in Burnpur (WB) where it constructed the Approach Road, which included Railway Over Bridge connecting the steel plant from the National Highway.



### **5. Housing Infrastructure**

MBL has successfully completed Housing Project at Rajiv Gandhi Thermal Power Project, Khedar-Hissar, Haryana and Group Housing Residential Apartments namely "NBCC Town" on Delhi Saharanpur Highway, Village Khekra, Distt. Baghpat, UP, Construction of Police Station & Residences at Hari Nagar, New Delhi. The Company is currently executing several Housing / Building Projects PAN India.

### **6. Railway Infrastructure**

Indian Railways have embarked upon expansion programme as per Vision Document 2020. Metro Railways are being constructed in major cities all over country.

MBL has completed two RUBs at Narela & Badli and two ROB's at Faridabad and Sonapat. MBL is executing two ROB's at Sonapat, Haryana.

Work of Kalindi Kunj depot of Delhi Metro Rail Corporation is nearing completion.

### **7. Other Infrastructure Projects**

The Company also forays into urban infrastructure development, Flyovers, mining, water supply / sanitation etc. MBL has concrete and bitumen divisions to ensure adequate and timely supply of high quality concrete and bitumen mixes. MBL also has quarrying / mining division to ensure adequate and timely supply of bulk raw material of stone aggregates.

### **8. Civil Engineering Projects of Construction of Ports, Harbour / Marine Structure, Water Supply / Sanitation, Bridges, Viaducts and Elevated Structures**

Company is foraying into these works and have executed an MOU with M/s. PIACENTINI COSTRUZIONI ("PIACENTINI"), Italy for the same.

### **Board of Directors**

The Company is promoted by Mr. Anjanee Kumar Lakhotia. Mr. Anjanee Kumar Lakhotia is Chairman & Managing Director of the Company. He is a commerce graduate from St. Xavier's College, Kolkata and is a fellow member of the Institute of Chartered Accountants of India. He has over two decades experience in the infrastructure industry.

**Mr. Ashwini Kumar Singh** is an Independent Director on our Board. He holds a degree in electrical engineering from Jadavpur University, Kolkata. He had been associated with SAIL as Director, Commercial and as Managing Director of Rourkela Steel Plant. He was also associated with the Muktanand Steel Plant as the managing director. He had also been associated with Essar Steel Limited as the resident director of their Jharkhand Unit. He is a fellow member of the Institute of Engineers, Indian Council of Arbitration, All India Management Association and the National HRD Network. He has been associated with our Company since May 2006.

**Mr. Ram Dayal Modi** is an Independent Director on our Board. He is a Gold Medalist in MA (Pol. Sc) from the University of Udaipur, Rajasthan and also holds a degree in CAIIB (Part I). He has also



received training in Project Appraisal, Merchant Banking and other related areas from the Reserve Bank of India Training College, Mumbai and NIBM, Pune. He specialises in banking and is an expert in areas like corporate credit, finance, investment and operations. He was associated with State Bank Group for over three decades before retiring as General Manager -State Bank of Patiala in the year 2011.

**Mr. Bhagwan Singh Duggal** is an Independent Director on our Board. He holds a bachelors degree in architecture from School of Planning and Architecture, Delhi. He has a post graduate diploma in housing, planning & building from Netherlands. He has professional experience of about 40 years. He was associated with the planning, design and execution of a large number of buildings of national importance like Nehru Memorial Library, Jawahar Lal Nehru Stadium, Parliamentary Library and Indian embassy at Berlin. He was the representative of Delhi Government on planning of Metro Project. He was also associated with the planning and design of Buddha Jayanti Park, Rajiv Gandhi Memorial at Sriparmbdur. He was associated with modernisation/ renovations/ restorations of various government buildings like Rastrapati Bhawan, North & South Block, Vigyan Bhawan, Parliament House and Hyderabad House.

**Ms. Sunita Palita** is a post graduate in anthropology from Miranda House, Delhi University with a post-graduate diploma in journalism from Indian Institute of Mass Communication, New Delhi. She has held academic positions with the World Food Programme and UNICEF on Child Rights Issues as part of Integrated Child Development Services of the Government of India. As Staff Correspondent with 'The Statesman', New Delhi, she handled the University Beat while also doing the 'Passing By' Column of the said newspaper. She is the founder director of 'SAHAS India', a non-profit organisation working with the economically deprived families living under extreme poverty conditions. She had been associated as advisor's post with AECOM, an American Infrastructure Company associated with the Government of India on Yamuna Action Plan Project ("YAP"). Currently she is working as Consultant – Design Development with M/s UG Design Pvt. Ltd.

#### 4. CONCESSION AGREEMENT

Government of Rajasthan had authorized PWD, Rajasthan to invite proposals on behalf of Ministry of Road Transport & Highways, Govt. of India for Development and Operation of Bikaner - Suratgarh Section of NH-15 (from Km. 553.869 of NH-11 to Km.173.000 of NH-15) via Km. 10.630 of NH-15 by Two Laning with paved shoulder in the State of Rajasthan through Public – Private Partnership on Design, Build, Finance, Operate and Transfer (DBFOT – Toll) basis. Based on the evaluation of bids received, PWD, Rajasthan selected the consortium led by MBL Infrastructures Ltd for construction, operation and maintenance of the said section.

The contract was awarded to the Consortium based on its offer to pay highest premium of Rs. 2.51 Crores in the first year of COD (and an increase of 5% thereafter every year) to the Rajasthan PWD who issued its Letter of Award (LoA) on 9.01.2012. The Consortium members incorporated Suratgarh Bikaner Toll Road Company Private Ltd (SBTRCPL) on 20<sup>th</sup> February, 2012. The Concession Agreement has been signed on 9<sup>th</sup> May, 2012 between Rajasthan PWD and SBTRCPL. The Concession Period is 16 years & starts from the appointed date. The Construction period as stipulated in the Concession Agreement is 730 days from the Appointed Date. The Appointed Date of the project is 16<sup>th</sup> September, 2013. Due to various delays in fulfilment of conditions precedent, delay in handing over of land & other permissions, the Independent Engineer has recommended extension of COD upto 31<sup>st</sup> March, 2017. Upon completion of the Concession Period, SBTRCPL would hand over the Project Highway to PWD, Rajasthan.

##### 4.1 Grant of Concession

##### Rights and Obligations

The Concession granted shall entitle SBTRCPL to:

- Concession period of 16 years (Construction period 2 yrs + Tollable Period 14 Yrs);
- Concessionaire shall complete the entire project highway before the 2<sup>nd</sup> anniversary of the Appointed Date;
- Right of way, unencumbered access and license to the Site;
- Finance and Construct the Project Highway;
- Manage, operate & maintain the Project Highway and regulate the use thereof by third parties;
- Demand, collect and appropriate the fees from vehicles and users liable for payment of fees for using the Project Highway or any part thereof and refuse entry of any vehicle to the Project Highway if the due Fee is not paid;
- Perform and fulfill all of the obligations under and in accordance with the Concession Agreement;
- Bear and pay all expenses, costs and charges in connection with or incidental to the performance of the obligations under the Concession Agreement;
- Not assign, transfer or sublet or create any lien or encumbrance on the Concession Agreement or the concession granted or on the whole or any part of the Project Highway nor transfer, lease or part possession thereof save and except as expressly permitted by the Concession Agreement or the Substitution Agreement.

**Concession Period**

Concession period is of 16 years from the Appointed Date (including construction period of 2 years).

The 730th day from the Appointed Date is the scheduled date for completion of project. In the event the two laning is not completed within 270 days from the scheduled Two Laning date, unless the delay is due to reasons attributable to the Government or Force Majeure, the government shall be entitled to terminate the CA.

The Independent Engineer vide its letter no. ICT:687:TPV:9215 dated 18<sup>th</sup> October, 2016 has deferred the Project Milestone III to 11<sup>th</sup> December, 2016 and the scheduled completion date of construction of the project to 31<sup>st</sup> March, 2017. After that, the scheduled completion date has been agreed as 31<sup>st</sup> March, 2018 and the Partial Completion date as 31<sup>st</sup> July, 2017 vide meeting dated 5<sup>th</sup> May, 2017. However, considering the present conditions (due to non-availability of funds till date) the Partial COD may be achieved by 30<sup>th</sup> April, 2018, provided funds are made available with need fifteen days

Accordingly, the concession period will be extended by the Authority in accordance with the power granted to the Authority, in terms of the Clause 35.3 of the Concession agreement, in proportion to the delay that may be caused in the achievement of COD, given the delay in procurement of ROW, Land acquisition/ transfer of land in favor of PWD and other clearances and approvals. Accordingly the repayment schedule and drawdown schedule will be shifted in line with the extension in concession period.

The revised COD date is 31<sup>st</sup> March, 2019.

**Important execution dates are given in table below:**

Particulars	Date
Date of Signing of CA	9 <sup>th</sup> May, 2012
Financial Closure as per CA	30 <sup>th</sup> March 2013
Appointed Date as per CA	16 <sup>th</sup> September 2013
Original COD as per CA	15 <sup>th</sup> September, 2015
Partial COD ( Expected )	30 <sup>th</sup> April 2018 ( as informed by the concessionaire )
Revised Commercial Operations Date (COD)	31 <sup>st</sup> March, 2019 ( as informed by the concessionaire )
End of Concession Period	31 <sup>st</sup> March, 2033 ( as informed by the concessionaire )

**Performance Security**

As per requirements of concession agreement, SBTRCPI, has submitted an irrevocable and unconditional Bank Guarantee of Rs. 25.05 Crores to PWD, Rajasthan towards performance security as per requirements of CA.

BG No. 5073212BG000217 dated 02.11.2012 of Rs. 18 crores issued by State Bank of Patiala, New Delhi and BG No. 64201LG001812 dated 02.11.2012 of Rs. 7.05 crores issued by Punjab National Bank, Noida were submitted vide letter no. SBTPL/2012/1656 dated 02.11.2012.



The Performance Security shall remain in force and effect for a period of one year from the Appointed Date, but shall be released earlier if 20% or more of the Total Project Cost has been expended in the project.

The Performance Security has already been released by the client i.e. PWD, Rajasthan.

### Premium

On the COD date the Concessionaire shall pay a premium in the form of an additional Concession Fee of Rs. 2.51 crores (Rupees Two Crores and Fifty One Lakhs Only) as due to the authority that year, due and payable for the period remaining in that year. The aforesaid amount of 'Premium' shall be applicable for one financial year (i.e. 12 months). If payment of such 'Premium' is due and payable for **part of the financial year**, then only pro-rata payments @  $1/12^{\text{th}}$  of such Premium shall be payable for each month of such part financial year and part of the month shall be deemed to be full month for the purpose of assessing the due amount of Premium. For each subsequent year of the Concession Period after 1<sup>st</sup> year of COD, the Premium shall be escalated @ 5% (five percent) as compared to immediately preceding year.

### Fees/Toll Charges

The Concessionaire (SBTRCPL) shall have the sole and exclusive right to demand and collect toll from the Users on and from the COD in accordance with the CA and the National Highways Fee (Determination of Rates and Collection) Rules, 2008 read along with the National Highway Fee (Determination of Rates and Collection) Amendment Rules 2010 and National Highways Fees (Determination of Rates and Collection) Amendment Rules 2011 (the "Fee Rules"). The said "Fee Rules" has prescribed levying toll on following basic rates from different types of vehicles as under which shall be rounded off to the nearest 5 (five) rupees in accordance with the Fee Rules.

Type of vehicle	Base rate of fee per vehicle per km (in rupees)
Car, jeep, Van or Light Motor Vehicle	0.65
Light Commercial Vehicle, Light Goods Vehicle or Mini Bus	1.05
Bus or Truck 2 Axle	2.20
Truck (Three Axle)	2.40
Multi Axle Truck (4 – 6 Axle)	3.45
Oversized vehicle (7 or more Axle)	4.20

The rate of fee for use of a section of National Highway having two lanes and on which average investment for up gradation has exceeded Rupees two & half crores per Km shall be sixty percent of the rate specified.

The rates specified under rule 4 shall be increased without compounding by three percent each year with effect from 1<sup>st</sup> day of April, 2008 and such increased rate shall be deemed to be the Base Rate for the subsequent years.

The Base Rates will increase on every toll plaza every year on the basis of Wholesale Price Index and will be rounded off to the nearest five rupees. The increase will be made effective from 1<sup>st</sup> April



every year, based on the wholesale price index for the year ending 31<sup>st</sup> December. The basic toll rates will be as per the rates notified effective as on 01-09-2007. The calculation of toll increase every year will be done as per the formula given below:-

Basic Wholesale Price Index for the Month of December of the preceding year - WPI (A)

Wholesale Price Index Of the week ending on 6<sup>th</sup> Jan, 2007 - WPI (B)

Formula for Calculation:-

Applicable rate of fee = Base rate + Base rate \* [WPI (A) - WPI (B) / WPI (B)] \* 0.4

Local traffic will remain exempted from payment of toll. Such vehicles will be issued monthly passes by the Concessionaire. Such passes will be issued to the eligible vehicle owners by the Concessionaire on production of necessary documents and after payment of a monthly fee of Rs.150 to be revised annually to reflect the variation in WPI as compared to the WPI of the year ended March 31, 2007. Local traffic means Private Car/Jeep or equivalent vehicle which is owned by a person who resides within 20 km from the Toll Plaza.

The toll fee will be collected at 3 Toll Plazas which are proposed at the following chainage as per CA:

S.No	Location of (Existing Chainage)	Toll Plaza (Design Chainage)	Length for which Toll collected
1	Km 25.500	At Km 24.739	Kms.50.155 (excluding 9.845 Km. on Bikaner bypass)
2	Km 84.500	At Km 84.025	Kms.60.000
3	Km 145.000	At Km 144.400	Kms.52.384

In addition to the above, the Concessionaire shall be entitled to levy and collect toll fee for the Bypass costing more than Rs. 10 cr. (Rupees ten crores) as specified below at the following Toll Plaza as per CA:

S.No.	Location of Toll Plaza (Design Chainage)	Nature of Structure	Length, Km	Cost (in Rs. Crore)
1	Km. 24.739	Bikaner Bypass	9.845	19.30

#### Revision of Fee

The Concessionaire and the authority agree that the fee shall be revised annually and will be made effective from 1<sup>st</sup> April every year, subject to the provisions of the Fee Rules.

#### Additional Tollway:

As per the Concession Agreement, Additional Tollway is defined as any expressway or other toll road between; *inter alia*, Bikaner and Suratgarh i.e. Km 553.869 of NH-11 and Km 173.000 of NH-15 via Km 10.630 on National Highway No.15. However, Additional Tollway does not include any



expressway or other toll road connecting this stretch if the length of such expressway or toll road exceeds the length of the existing route comprising the project highway by 20% thereof.

The CA provides that PWD, Rajasthan or any Government Agency shall not construct any expressway or other toll road for use of traffic any time before the 12th anniversary from the Appointed Date.

In the event if the Additional Tollway is opened to traffic between the 8<sup>th</sup> and 16<sup>th</sup> anniversary from the Appointed Date, the Concessionaire shall be entitled to an additional Concession Period, which shall be equal in duration to the period between the opening of the Additional Tollway and the 16<sup>th</sup> anniversary.

PWD, Rajasthan also undertakes that the toll fee to be levied and collected during the Concession Period from any vehicle or class of vehicles using the Additional Tollway, shall at no time be less than 25% (Twenty five percent) higher than the Fee levied and collected from similar vehicles using the Project Highway.

#### **Competing Road:**

As per the Concession Agreement, Competing Road means a road connecting the two end points of the Project Highway and serving as an alternative route thereof, such road being an existing paved road, which has been widened by more than 2 metres of paved road for at least 75% of the total length at any time after the date of this Agreement, or a new road, which is constructed after such date, as the case may be, but does not include any road connecting the aforesaid two points if the length of such road exceeds the length of the Project Highway by 20%.

The CA stipulates that neither Rajasthan PWD nor any Government Instrumentality shall, at any time before the 10<sup>th</sup> year of the Appointed Date, construct or cause to be constructed any competing road; provided that the restriction shall not apply if the average traffic on the Project Highway in any year exceeds 90% (ninety per cent) of its designed capacity where the designed capacity of the road is 24,500 PCUs.

## **4.2 Obligations**

### **Main Obligations of Suratgarh Bikaner Toll Road Company Private Limited:**

- Design, engineer, procure, construct, operate and maintain the Project on BOT basis in accordance with the provisions of the CA;
- Obtain necessary approvals / clearances and comply with all Applicable Laws and Applicable Permits;
- Arranging necessary finance for the project and Perform and fulfill its obligations under the Financing Agreements;
- Make reasonable efforts to facilitate the acquisition of land required for the purpose of the Agreement;
- Support, cooperate with and facilitate PWD, Rajasthan in the implementation and operation of the Project;
- Transfer the Project Highway to PWD, Rajasthan upon Termination of the CA;



- SBTRCPL shall submit to the authority all the Project Agreements or amendments or replacements thereto within 7 days of execution, duly attested by the director for their review and comments;
- SBTRCPL shall not undertake or permit any Change in Ownership, except with the prior approval of PWD, Rajasthan;
- Concessionaire shall ensure that the personal engaged by it in the performance of its obligations under CA are at all times properly trained for the respective functions.

**Main Obligations of PWD, Rajasthan:**

- Assist and provide support to the Concessionaire in procuring Applicable Permits required from any Government Instrumentality for the project implementation;
- Provide reasonable support and assistance to the Concessionaire in obtaining all the necessary infrastructure facilities and utilities including water and electricity on similar terms as available to other commercial customers;
- Make best endeavors to procure that no local tax, toll or charge is levied or imposed on the use of whole or any part of the Project Highway;
- Maintain the project highway prior to the Appointed Date, at its own cost and expense, so that its traffic worthiness and safety are at no time materially inferior as compared to its condition 7 (seven) days prior to the last date for submission of the Bid, and in the event of any material deterioration or damage other than normal wear and tear, undertake repair thereof, or pay to the Concessionaire the cost and expense, as determined by the Independent Engineer, for undertaking such repair after the Appointed Date;
- Neither PWD, Rajasthan nor the Government shall at any time before the 10<sup>th</sup> (tenth) anniversary of the appointed date construct or cause to be constructed any Competing Road.

**Conditions Precedent:**

The "Conditions Precedent" required to be fulfilled by both the Concessionaire and Rajasthan PWD on or before the Appointed Date are as under:-

- PWD, Rajasthan shall have granted vacant access and Right of Way to the Concessionaire to the extent that area of the Site to which vacant access and Right of Way has not been Granted to the Concessionaire shall not be more than 20% ( as per "Appendix" to be prepared jointly as per CA) of the total area of the site required and necessary for the Two-Lane Project Highway;
- PWD, Rajasthan shall issue the Fee Notification;
- PWD, Rajasthan shall have procured all Applicable Permits relating to environmental protection and conservation of the site, if applicable;
- PWD, Rajasthan to procure approval of the Railway authorities in the form of General Arrangement Drawing for construction of ROB/RUB at level crossings on the Project Highway;
- The Concessionaire shall have provided Performance Security to PWD, Rajasthan and shall have executed the Escrow Agreement and the Substitution Agreement;
- The Concessionaire shall have procured all the Applicable Permits as per Schedule E;
- The Concessionaire shall have executed the Financing Agreements and delivered 3 Copies to PWD, Rajasthan of the Financing Agreements, Financial Package and the Financial Model duly attested by a director;



- SBTRCPL shall have delivered to PWD, Rajasthan a confirmation, in original, of its representations and warranties;
- SBTRCPL shall have delivered to PWD, Rajasthan a legal opinion from the legal counsel with respect to its authority to enter into the CA and the enforceability of the provisions thereof;
- Each party shall promptly inform the other party when any condition precedent for which it is responsible has been satisfied

#### **4.3 Project Development and Operations**

##### **Existing and Additional Right of Way**

Existing and additional right of way shall be made available to the Concessionaire by PWD, Rajasthan free from all encumbrances and without the Concessionaire is required to make any payment to PWD, Rajasthan on account of any costs, expenses and charges for the use of such sites for the duration of the Concession Period.

The Concession Agreement also stipulates the damages payable by PWD, Rajasthan and the Concessionaire respectively in the event of non-availability of Site and non-completion of construction within the stipulated schedule.

The project site has been handed over by the Government to the Concessionaire on 'as is where is basis' which is not fully vacant and free of all encumbrances as per concession agreement. Accordingly, the concessionaire has requested for extension of concession period and hand over of land.

##### **Construction & Commercial Operations**

As per the provisions of the CA, M/s ICT Private Limited were appointed on 30<sup>th</sup> July 2013 as an Independent Engineer (IE) by PWD, Rajasthan in consultation with the Concessionaire.

The IE would monitor the construction and operations of the project. IE would also help assist in resolution of disputes, if any, which may arise between PWD, Rajasthan & the Concessionaire. IE is yet to be appointed for this project.

##### **Change of Scope**

PWD, Rajasthan has the right to Change the Scope of the project (addition/deletion to the works and services on or about the Project Highway) as compared to the Scope of Work specified in the Schedules of the Concession Agreement. Within the 7 days of issuing Change of Scope order, the Govt. shall make an advance payment to the Concessionaire in a sum equal to the 20% of the cost of Change of Scope as agreed hereunder, and in the event of a dispute 20% of the cost assessed by the Independent Engineer. The Concessionaire shall, after commencement of work, present to the govt., bills for the payment in respect of the works in progress or completed works along with supporting documents. Within 30 days of receipt of such bills, the PWD, Rajasthan shall disburse to the Concessionaire such amounts as are certified by the Independent Engineer as reasonable after making proportionate deduction for advance payment. However, all costs arising out of any Change of Scope Order issued during the Construction Period shall be borne by the Concessionaire to the extent of 0.25% of the Total Project Cost i.e. upto the limit of Rs. 1.25 Crore (0.25% of Rs. 501.08 Crores).



### **Operation and Maintenance**

The Concessionaire shall operate and maintain the Project Highway either by itself or through the O&M contractor and if required, modify, repair or improve the Project Highway to comply with the provisions of the CA, applicable laws and applicable permits, and conform to good industry practice. The O & M obligations of the Concessionaire include:

- Permit safe smooth and uninterrupted flow of traffic on the project highway during normal operating conditions;
- Collect and appropriating the Fee;
- Undertake preventative maintenance of the project highway;
- Undertake routine maintenance including prompt repairs of potholes, cracks, concrete joints, drains, line marking, lighting and signage;
- Undertake major maintenance such as resurfacing of pavements, repair to structures, repairs and refurbishment of tolling system and hardware and other equipments;
- Prevent encroachments and unauthorized use of the Project Highway.
- Shall not close any lane of the project highway for undertaking maintenance or repair work without written approval from IE.
- Protection of the environment including provisions of equipment & materials thereof, operations and maintenance of all communications, control and other systems for efficient operations;
- Complying with safety requirements.

The CA also provides for damages for breach of maintenance obligations.

On or before and no later than 45 days prior to the beginning of each accounting year during the operation period, the Concessionaire shall provide the authority and IE, its proposed annual programme ("Maintenance Programme") to comply with the maintenance requirements.

### **4.4 Financing Arrangements**

#### **Financial Close**

The financial closure of the Company was achieved on 30<sup>th</sup> March 2013. The total debt sanctioned is Rs. 450 crores. Punjab National Bank is the lead Bank of the consortium banking arrangement.

#### **Escrow Account:**

The Concessionaire (SBTRCPL) has opened an Escrow Account with Punjab National Bank (Escrow Bank) prior to the Appointed Date and all funds constituting the financing package for meeting the total project cost are routed through such Escrow Account.

During operations period, all fees to be collected by M/s SBTRCPL from the users of the project highway shall be exclusively deposited therein. The CA also defines the priorities in accordance with which the above funds are to be applied under different conditions. The Escrow Agreement governing the setting up and operations of the Escrow Account was executed between the Senior Lenders, Rajasthan PWD, M/s SBTRCPL and an Escrow Bank.



**Priority of Payments from Escrow Account:-**

Withdrawals of payments during Concession period	Withdrawals of payments in the event of termination
a) All taxes due and payable by the concessionaire	a) All taxes due and payable by the Concessionaire in respect of this Project
b) All payments related to the construction of project highway in accordance with the financing agreements	b) 90% of the Debt Due excluding Subordinate Debt
c) O&M expenses subject to the ceiling, if any, set forth in the Financing Agreements	c) Outstanding Concession Fee
d) O&M expenses and other costs and expenses incurred by PWD, Rajasthan as per CA	d) All payments and damages as due and payable by the Concessionaire to PWD, Rajasthan as per CA including Premium, repayment of Revenue Shortfall Loan and any claims due to Termination
e) Concession fee due and payable to PWD, Rajasthan	e) Retention and payments relating to the liability for defects and deficiencies as per Article 39 of the CA
f) Monthly proportionate provision of Debt Service payments due in an accounting year	f) Outstanding Debt Service including the balance of Debt Due
g) Premium due and payable to Rajasthan PWD	g) Outstanding Subordinated Debt
h) All payments and damages due and payable to Rajasthan PWD as per CA including repayment of Revenue Shortfall Loan	h) Incurred or accrued O&M Expenses
i) Monthly proportionate provision of debt service payments in respect of Subordinated Debt	i) Any other payments required to be made under the CA
j) Any reserve requirements set forth in the Financing Agreements	j) Balance, if any, in accordance with the instructions of the Concessionaire
k) Balance, if any, in accordance with the instructions of the Concessionaire	

**Insurance**

The Concessionaire got renewed Contractor's All risk insurance policy from The Oriental Insurance Company Ltd. through PNB MCB Noida Branch and workmen compensation insurance policy from United India Insurance Company Ltd. towards risks associated during the construction period and shall effect and maintain during operations period such insurances for sums as may be required in accordance with the financing agreements, applicable laws and good industry practice.

Any additional insurance that may be required by law and under all applicable major project contracts will be put in place.



Construction Period	Operation Period
Contractor's all risk insurance	Third party liability
Third party liability	Property all risk insurance including loss of revenue
Workmen compensation	Workmen Compensation

### Construction Phase Insurance

#### Contractor's All Risk Insurance (CAR)

The Concessionaire has got renewed Contractor's All risk insurance policy from The Oriental Insurance Company Ltd. through PNB MCB Noida Branch and workmen compensation insurance policy from United India Insurance Company Ltd. towards risks associated during the construction period. It would cover physical loss or damage to the works, including permanent and temporary works for the project, materials, supplies, equipment and other property relating to the construction of the project up to the take-over from the various Contractor(s) and would extend to the Defects Liability Period. The policy will cover physical loss or damage resulting from, but not limited to, fire, lightning, earthquake, explosion, riot, civil commotion, malicious damage, damage from vehicles, storm, tempest, flood and damage consequent upon defects in design, materials or workmanship including any physical loss or damage arising during the testing and commissioning periods of the project.

#### Change of Law

If as a result of change in law, the Concessionaire suffers an increase in costs or reduction in net after-tax return or other financial burden, the aggregate financial effect of which exceeds the higher of Rs.1 Crore or 0.5% of the Realisable Fee in any Accounting Year, the Concessionaire may so notify PWD, Rajasthan and propose amendments to the CA so as to place the Concessionaire in the same financial position as it would have enjoyed had there been no such Change in Law resulting in the cost increase, reduction in return or other financial burden.

Similarly, if as a result of Change in Law, the Concessionaire benefits from a reduction in costs or increase in net after-tax return or other financial gains, the aggregate financial effect of which exceeds the higher of Rs 1 crore or 0.5% of the realisable fee in any accounting year, PWD, Rajasthan may so notify the Concessionaire and propose amendments to the CA so as to place the Concessionaire in the same financial position as it would have enjoyed had there been no such Change in Law resulting in the decreased costs, increase in return or other financial gains.

Thus there is adequate provision in the Concession Agreement to protect the financial interest of the Concessionaire due to any Change in Law/Legislation.

### 4.5 Variation in Traffic Growth

The Concession Agreement provides for sharing of risk due to variation in traffic growth and has adequate provision which is quite favourable from Concessionaire's perspective in this regard.



As per the CA, Clause no. 29.1.1 the "Target Traffic" as on 1<sup>st</sup> April, 2021 ("Target Date") has been specified as 18,337 ("Target Traffic") PCUs per day. PCUs for the purpose of CA shall include only motorized vehicles liable to pay toll fees and the Exempted Vehicles and does not include Tractors, M/Cycles and non-motorized vehicles.

#### **4.6 Modification in the Concession period**

Subject to the provision of clause 29.1.2 in the event that the Actual Traffic falls short of the Target Traffic by more than 2.5% on the Target Date, then for every 1% shortfall as compared to the Target Traffic, the Concession Period shall, subject to payment of Concession Fee in accordance with the CA, be increased by 1.5% thereof; provided that such increase in Concession Period shall not in any case exceed 20% of the Concession Period. Similarly, in the event the Actual Traffic exceeds the Target Traffic on Target Date by more than 2.5%, then for every 1% excess as compared to the Target Traffic, the Concession Period shall be reduced by 0.75% thereof; provided that such reduction in Concession Period shall not in any case exceed 10% thereof.

Provided further that in lieu of a reduction in Concession Period under this Clause 29.2.2. the Concessionaire may elect to pay, in addition to the Concession fee that would be due and payable if the concession period were not reduced hereunder, a further premium equal to 25% ( twenty five percent)of the Realizable fee in the respective year (s) and upon notice given to this effect by the concessionaire no later than 2 year prior to the transfer data contemplated under this clause 29.2.2 the authority shall waive the reduction in Concession period hereunder and recover the Concession fee and the aforesaid premium for the period waived hereunder.

If the average daily traffic of PCU's in any Accounting Year shall exceed the designed capacity of the Project Highway, the Authority at its option may cause preparation of a Detailed Project Report (DPR). The said DPR, inter-alia will assess the cost as may have to be incurred for augmenting the capacity of the Project Highway such that its capacity shall have increased sufficiently for carrying the then current traffic in accordance with the corresponding provisions of the Indian Roads Congress publication no. IRC:64-1990 or any substitute thereof and extension of Concession Period, if any, that may be required to yield the Concessionaire a post-tax return on equity (Equity IRR) of 16% per annum, such assessment being made at an assumed debt:equity ratio of 70:30. Such extension of Concession Period shall be however limited to 5 (five) years. For avoidance of doubt it is stated that there shall be no reduction in the Concession Period as originally accepted. The Authority may thereafter, at their sole option, issue a notice to the Concessionaire, (to be responded within a period of three months from the date of such notice), to undertake within six months of such notice, augmentation so determined by the Authority. For this purpose, all realizable fees that shall accrue from three months from the date of issuance of the aforesaid notice by the Authority, requiring the Concessionaire to procure capacity augmentation under this clause, shall be included in the assessment of revenue generated against the capacity augmentation and the equity IRR calculations as aforesaid shall be so based on such revenues. On refusal or non-acceptance by the Concessionaire to undertake such augmentation, either absolutely or on such extension of Concession Period as assessed under the DPR, or on the failure of the Concessionaire to undertake such augmentation on the due date so intimated by the Authority, an Indirect Political Event shall be deemed to have occurred and the Authority may in its discretion terminate this Agreement by issuing a Termination Notice and making a Termination Payment under and in accordance with the provisions of Clause



34.9.2 of the concession agreement (relating to Termination payments for Indirect Political Event as mentioned in the following section of Force Majeure); without the Authority being liable to issue any further notice under this provision.

#### 4.7 Force Majeure

The Force Majeure (FM) events under the concession are classified into three categories viz. Non-Political FM Events, Indirect Political FM Event and Political Event.

The concession further provides for following payments for termination due to SBTRCPL under the FM events:

FM Events	Event	Termination Payment
<b>Non-political</b>	<ul style="list-style-type: none"> <li>a. Acts of God, epidemic, extremely adverse weather conditions, lightning, earthquake, cyclone, flood, volcanic eruption or fire, radioactive contamination.</li> <li>b. Strikes or boycotts</li> <li>c. Any Judgment or court order made against the Concessionaire in any proceedings for reasons other than (i) failure of the Concessionaire to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the PWD, Rajasthan;</li> <li>d. Failure or delay of a Contractor due to Non-Political Event</li> <li>e. Discovery of geological conditions, toxic contamination or archaeological remains, etc.</li> </ul>	Payment of an amount equal to 90% of the debt due less Insurance Cover.
<b>Indirect Political Event</b>	<ul style="list-style-type: none"> <li>a. An act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;</li> <li>b. Civil commotion, boycott or politically motivated sabotage which</li> </ul>	Payment equivalent to <ul style="list-style-type: none"> <li>a. Debt due less Insurance Cover. In case any insurance claims forming part of Insurance Cover are not paid, then 80% of such unpaid claims shall be included in the computation of debt due.</li> </ul>



	prevents collection of Fees, c. Industry wide or state wide strikes or industrial action which prevent collection of Fees d. Failure or delay of a Contractor due to an Indirect Political Event e. Any Indirect Political Event that causes a Non-Political Event (Event b and c - for a period exceeding a continuous period of 7 days in an Accounting Year.)	b. 110% of the adjusted equity
<b>Political Event</b>	a. Change in Law; b. Expropriation or compulsory acquisition by any Governmental Agency of any Project Assets or rights of the Concessionaire or of the Contractors; c. Unlawful or unauthorized or without jurisdiction revocation of, or refusal to renew or grant without valid cause any clearance or approval required by SBTRCPL d. Any failure or delay of a Contractor due to another Political Event	a. Debt due b. 150% of the Adjusted Equity

#### 4.8 Events of Default & Termination Provisions

##### SBTRCPL Event of Default

If SBTRCPL fails to perform its duties under the Concession or perform its statutory obligations or construct the Project Highway as per the schedule or operate and maintain the project facilities, PWD, Rajasthan may instruct SBTRCPL to remedy such default within the specified cure period, or where no cure period is specified, then within a cure period of 60 days. If, however, SBTRCPL does not remedy its default to the satisfaction of PWD, Rajasthan or goes into liquidation, reconstruction or similar process or becomes insolvent, PWD Rajasthan can terminate the agreement by giving a further fifteen-day notice period.

##### PWD, Rajasthan's Event of Default

If PWD, Rajasthan commits a material default and such default has a Material Adverse Effect on the Concessionaire; or PWD, Rajasthan repudiates this agreement or evidences an irrevocable intention not to be bound by this Agreement; or the State commits a material default in complying with the provisions of the State Support Agreement and such default has a Material Adverse Effect on the Concessionaire; or PWD, Rajasthan has delayed any payment that has fallen due under this Agreement, and if these defaults are not remedied within the cure period of 90 days.

**Compensation Provisions**

The CA provides for the following compensation provisions on termination of the Concession Agreement under various events of termination:

Event of Default	During construction (after financial closure)	During operations
Concessionaire's event of default	No payment	Payment equal to 90 % of Debt Due less Insurance Cover
PWD, Rajasthan event of default	a. The total Debt Due, plus b. 150% of the Adjusted Equity	

**4.9 Other Agreements****Substitution Agreement**

The PWD, Rajasthan, Project Sponsors and Lender has executed Substitution Agreement on 30<sup>th</sup> March 2013, under which the senior lenders would have the right to substitute the sponsors with another concessionaire under the following circumstances:

- In case of a Concessionaire Default as per the CA, which entitles PWD, Rajasthan to terminate the CA
- In case of any material default in payment under the financing documents.

**State Support Agreement**

The Government of Rajasthan and Government of India acting through MoRTH has executed State Support Agreement on 13<sup>th</sup> April, 2010 whereby the State Government agrees and undertakes to provide following support and services to the Concessionaire as specified therein:

- Provide applicable permits to the extent GoR or any government agency is entitled to issue;
- Ensure free flow of traffic on the project highway;
- Provide necessary infrastructure facilities and utilities support including water, electricity and telecommunication facilities to the Concessionaire on terms similar to other commercial customers;
- Ensure that all relevant municipal and other local authorities and bodies including Panchayats in the State do not levy or impose local taxes on the project highway or on the traffic and/or Goods moving on the project highway without obtaining prior express written consent of the GoR and after prior consultation with PWD, Rajasthan.

The State Support Agreement is an integral part of the Concession Agreement and a certified true copy of the aforesaid State Support Agreement has been furnished by Rajasthan PWD to the Concessionaire.

**\*(Source Project Information Memorandum of Concessionaire)**



## 5 PROJECT CORRIDOR & SCOPE

### 5.1 Location of the Project Corridor

The Project Highway is Bikaner - Suratgarh Section of NH-15. Bikaner-Suratgarh Project commences at Km 553.869 of NH 11 at Bikaner and terminates at Km 173.000 of NH 15 at Suratgarh. National Highway 15 is a major National Highway in Western and Northwestern India. It connects Kandla in Gujarat with Pathankot in Punjab, therefore traffic from Gujarat going to Punjab, passes through our Project Corridor. This 1,526 km (948 mi)-long highway passes through Pathankot, Amritsar, Kotkapura, Bhatinda, Ganganagar, Bikaner, Jaisalmer and Barmer. At Bikaner, the National Highway 11 terminates on this Highway. Of its total length of 1,526 km, the National Highway 15 traverses 350 km in Punjab, 906 km in Rajasthan, and 270 km in Gujarat.

The length of the Project Highway is approximately 172.348 km. The Project Highway traverses through two Districts of Rajasthan State viz., Bikaner and Sriganganagar. NH-15 including the project section passes mostly through plain terrain. The road is a two lane, in the stretch. The black topped carriageway width measures 7.0 m (two lanes) with 1.0 in to 1.5 m gravel shoulders on either side of the road.



The project consists of the work of strengthening and widening to two lanes with paved shoulder along with 4 laning from Km. 70.014 to Km 72.015 at Loonkaransar Town and from Km 170.048 to



Km 172.384 at Suratgarh. The project also involves improvement of Bikaner Bypass measuring 9.845 Km. in length.



*Map showing project road connecting Punjab, Haryana to Gujarat & Rajasthan and other major cities.*

The project road lies between at Bikaner-27.11' to 29.03', N Latitude and 71.54', to 74.22', N Longitude, Sriganganagar lies at 28.4', to 30.6', N Latitude and 72.2' to 75.3' E Longitude.

#### Project Influence Area

Districts	Latitude	Longitude	Total Geographical Area (Million HA)
Bikaner	27.11' to 29.03' N	71.54' to 74.22' E	1092800
Sriganganagar	28.4' to 30.6' N	72.2' to 75.3' E	2724400

## 5.2 Villages and Urban Settlements

The section of NH-15 from Bikaner to Suratgarh passes through several towns, villages, settlements, market areas and roadside business areas which are located within/outside the ROW.

**List of the villages on NH-15 (Bikaner to Suratgarh)**

Sr. No.	Name	District	Chainage	Remarks
1	Bikaner	Bikaner	0/000	Bypass
2	Udasar	Bikaner	6/400	Bypass
3	Khara	Bikaner	21/200	
4	Jamsar	Bikaner	27/800	
5	Kasturia	Bikaner	40/000	
6	Bamanwali	Bikaner	45/200	
7	Dharera	Bikaner	54/100	
8	Dulmera	Bikaner	57/200	
9	Hansera	Bikaner	59/600	
10	Lunkaransar	Bikaner	71/000	
11	Bhadhera	Bikaner	86/200	
12	Malkisar	Bikaner	93/020	
13	Mahajan	Bikaner	108/450	
14	Arjunsar	Bikaner	125/400	
15	Rajiasar	Sri Ganganagar	141/000	
16	Hindore	Sri Ganganagar	145/400	
17	Birdhwal	Sri Ganganagar	154/000	
18	Piperan	Sri Ganganagar	161/000	
19	Suratgarh	Sri Ganganagar	171/000	

## 5.3 Salient Features

Salient features of Bikaner-Suratgarh Section Km 0/0 to 171/0 NH-15 in the State of Rajasthan are as under:-

Location of Project	Bikaner – Suratgarh Section from Km 10/500 to 171/000 of NH-15, Km 0/000 to Km 10/000 Jaipur Bypass		
Name of Distt.	Bikaner & Sri Ganganagar		
No. of Tehsils	3 Nos. Namely Bikaner Distt. - 1. Bikaner, 2. Loonkaransar Sri Ganganagar – 1. Suratgarh		
No. of Villages	19 Nos. 1. Bikaner Distt – 14 2. Sri Ganganagar Distt – 5		
Latitude/Longitude	Distt.	Latitude	Longitude



	Bikaner, Bikaner	28° 2' N	73° 7' E
	SGNR, Suratgarh	29° 18' N	73° 53' E
Carriageway	Existing - 2 Lane (7m)		
	Proposed - 2 Laning with paved shoulder 1.5 m		
ROW	Existing 45m		
	Proposed same		
Existing by pass	1		
No. of Proposed bypass	Nil		
No. of inter section	59 Nos.		
	T junction 26, X-5, Rly Crossing-1, Rotary-1, Y Junction-26		
Existing major bridges	2 Nos. consisting of: 1 No. ( on IGNP Main Canal at Km. 157/600) 1 No. (on GDC at Km. 163/050)		
Existing minor bridges	6 Nos.		
Existing Culverts	84 Nos.		
Proposed under pass	NIL		
Proposed ROB	1 No. Km 45/957 LC No. C-132 E <sub>3</sub> TVU 1,21,287 (Oct 07)		
Proposed Cattle Pass	2 Nos. at Design chainage 48/158 Km & 142/858 Km		
Proposed way side Amenities	1 No. Km 65/400		
Rest Area	1 No. from Km 64.810 to 65.035 on Right side.		
Truck laybye	3 Nos. Design chainage 23.559-23.959 Km on Right side. Design chainage 65.450-65.810 Km on Left side Design chainage 141.196-141.596 Km on Right side		
Toll Plaza	3 No. at Design chainage 24.739Km , 84.025 Km & 144.400 Km		
Proposed Bus bays	11 Nos. Khara, Jamsar, Bamanwali, Hansera, Dulmera, Loonkaransar, Malkisar, Mahajan, Arjunsar, Rajaisar, Piperan		
Location of Service road	At the location of ROB, Cattlepass, & along 4-lane portions in Urban areas.		

Project Highway has very vital importance from the view of connectivity. National Highway 15 (NH-15) is a major National Highway in Western and North Western India which connects **Kandla in Gujarat with Pathankot in Punjab**. This 1526 Km long highway passes through Pathankot, Amritsar, Bhatinda, Sri Ganganagar, Bikaner, Jaisalmer, Barmer, Radhanpur and Samakhiali. At Bikaner the National Highway-11 terminates on this Highway. Of its total length, the National Highway 15 traverses 350 Km in Punjab, 906 Km in Rajasthan, 270 Km in Gujarat.

#### **Salient Features NH – 15**

Length	1,526 Kilometres (948 miles)
Terminal 1	Pathankot, Punjab
Major destinations	Pathankot – Amritsar – Bhatinda - Sri Ganganagar – Bikaner – Jaisalmer – Barmer- Samakhiali.
Terminal 2	Samakhiali, Gujarat
Major interchanges	NH 1A in Pathankot



	NH 20 in Pathankot NH 1 in Amritsar NH 95 in Talwandi Bhai NH 64 in Bhatinda NH 10 in Malaut NH 11 in Bikaner NH 89 in Bikaner NH 114 in Pokaran NH 112 in Barmer NH 14 in Radhanpur NH 8A in Samakhiali
States	Punjab: 350 Km Rajasthan: 906 Km Gujarat: 270 Km
National Highways Development Project	East-West Corridor: 143 Km (Samakhiali – Radhanpur)

The Bikaner – Suratgarh section of National Highway 15 has been selected as one of highway to be developed under NHDP IV, this project is only for widening & strengthening of existing 2 lane roads to 2 lane paved shoulder & improvement of its geometry.

Accompanying the sudden growth in traffic volume in recent years, travel costs are rising as the roads level of serviceability decline due to increase traffic, accidents and traffic jams. In response to this state of affairs, the Government of India has taken up a massive program of up-gradation and development of National Highways.

The project will benefit the state in improving connectivity of the road network, and facilitate traffic movement between rural areas to the state highways and national highways networks in a better way.

There are number of tourist attractions in the area. Most of the Foreign / Domestic traffic is generated due to these tourist places where this project highway is implemented.

#### 5.4 Tourism and Pilgrimage Sites

##### Sri Ganganagar District:-

- Historical Gurudwara Buddha Johad:- A large amazing gurudwara, which is 85 Kms from Sri Ganganagar in South-West. This is a place where Bhai Sukha Singh and Mehtab Singh brought head of Massa Rangarh(guilty of sacrilege of Amritsar Golden temple) and hung it on a tree in 1740
- Bror Village: - The ruins of Indus valley civilisation are found here. It is located on Anoopgarh-Ramsinghpur road.
- Dada Pamparam 's Dera :- It is at Vijayanagar town, where Samadhi(tomb) of Baba Pamparam is present;
- Laila- Manjnu ki Mazar(tomb), Binjaur village :- It is 11 kms far from Anoopgarh in western side. Here is so-called Mazar of Laila-Majnu, that's why a fair is organised in June month.



- Chanana-Dham (Chanana shrine):- A great temple of Lord Hanuman ji is here, built in 1971. It is located 4 Kms far from village 17 BB on Ganganagar-Padampur road.
- Suratgarh Thermal power plant: - It has a thermal power plant of 1250 MW and a PLF of 93%, which has won an award for one of the best operated plants in India.
- Shri Jagadamba Andh-vidhyalaya: - One of the largest institutes of India for education of visually hearing and speech impaired people. It is situated within Ganganagar city.
- Anoopgarh fort: - It is in ruin form in city of Anoopgarh. It was built by Anoop Singh Rathore.
- Suratgarh – Jaitsar State Agriculture Farm

### **Bikaner District:-**

**Junagarh Fort:** The fort was built by Raja Rai Singh, the sixth ruler of Bikaner who reigned from 1571 to 1612. Rai Singh had conquered part of Marwar and had been granted territory in Gujarat and Burhanpur by the Mughal emperor Akbar as a reward for his services as military commander.

**Laxmi Niwas Palace:** The style of architecture is Indo-Saracenic. It is now a luxury hotel owned by golden Triangle Fort & Palace P. Ltd. The magnificent structure in red sandstone is one of the most popular destinations for tourists in Bikaner.

**Lalgarh Palace:** The building features magnificent pillars, elaborate fireplaces, Italian colonnades and intricate latticework and filigree work. The palace houses the Shri Sadul Museum as well as the fourth largest library in the world. Though the Bikaner Royal Family still lives in the palace, part of the building has been converted into a Heritage hotel operated by the Royal family of Bikaner.

**Moolnayakji:** Constructed in 1486, Moolnayakji was the first Vaishnav Temple built in Bikaner. It was the principal seat of the Vaishnav sect. The presiding deity is Lord Moolnayak Krishna.

**Laxmi Nath Temple:** Laxmi Nath Temple is one of the oldest temples in Bikaner. The Foundation of the city was laid here in 1488 by Rao Bikaji. The temple was erected during the reign of Rao Lunkaran and was added to by Maharaja Ganga Singh.

**Bhandasar Jain Temple:** Out of the 27 beautiful Jain Temples adorning the landscape of Bikaner city, this temple dedicated to 5<sup>th</sup> Tirthankar Lord Sumatinath is considered to be the most beautiful and also the highest. This temple was built by a Jain merchant Bhanda Shah. The foundation of this temple was filled by pure ghee and dry coconuts. This temple is mainly famous for wall paintings and usta art. The temple is built of red sandstone and is divided in three floors. One can see the skyline of Bikaner by climbing to the topmost floor of this temple.

### **Other famous Jain Temples**

There are total 27 Jain temples in Bikaner. Followings is the list of most revered and some of the oldest Jain temples of the city.

1. Sri Adishwar ji- dedicated to 1<sup>st</sup> Tirthankar Lord Rishabhdev
2. Sri Chintamani Ji- dedicated to 1<sup>st</sup> Tirthankar Lord Rishabhdev. Boasts of more than 1500 sacred jain idols which Maharaja of Bikaner secured from the hands of insane Muslim chiefs.
3. Sri Baido ka Mahavir ji – dedicated to 24<sup>th</sup> and last Tirthankar Lord Mahavira



4. **Sri Naminath Ji** – dedicated to 21<sup>st</sup> Trithankar Lord Naminath. It is situated inside the campus of Laxminath temple. Thus it a testimony to the cordial relations between the two main communities of Bikaner – Jains & Hindus. Consists of good wall paintings.

**Kolayat:** Kolayat is a famous pilgrimage spot with a temple dedicated to Kapil Muni who, according to his devotees, sat in meditation near the lake. One week before Pushkar Festival and till one week later this lake is more interesting if you like to see Sadhus. Pushkar will have some Sadhus but Kolayat will have many hundreds.

**Karni Mata Temple:** The world famous shrine of Karni Mata can found in the town of Deshnoke 30 Km south from Bikaner on the road to Jodhpur. Karni Mata is worshiped as an incarnation of Goddess Durga. This Temple is famous for rats which can be seen everywhere in the temple.

**Shiv Bari Temple:** Built from red sandstone by Dungar Singh in the late 19<sup>th</sup> century, the temple is surrounded by a wall with battlements. It has a four faced black marble statue of Shiva and a bronze Nandi facing the Shiva Lingam. There are also two large reservoirs of water known as bawaris. The Temple attracts thousands of visitors during Shravan (August) especially on Mondays.

#### **Other attractions**

- Camel Farm
- Sur Sagar
- Public Park and Zoo
- Raj Ratan Bihariand Rasik Siromani Temple
- Lakshminath Temple
- Bhandasar Jain Temple
- Vaidehi Global Trust
- Vaishno Dham
- Ganga Golden Jubilee Museum
- Rajasthan State Archives
- Rampuria Havelis
- Ratan Bihari Temple
- Historical Gopi Nath Temple, Opp. Government Press
- Devi Kund Sagar.
- Gajner Wildlife Sanctuary.
- Kolayat
- MUKAM Nokha
- Deshnok Goddess Karni Temple.
- Doda thora

#### **5.5 Road Inventory**

An inventory of the project road has been carried out by visual observations supplemented with sample measurements using tape etc. Kilometer wise features like terrain, land-use, surfacing type and width, shoulder, subgrade, local soil type, curve details, inter sectional detail, retaining structures details, location of water bodies, height of embankment or depth of cut, ROW, CD structures, roadside arboriculture, existing utility services, general drain conditions etc were recorded. The road inventory has been referred to the existing Km posts established along the road side.



## 1. Site

The Site of Two-Lanning the Project Highway comprises the section of National Highway 15 commencing from Km 553.869 of NH-11 to Km 173.000 of NH-15 via Km 10.630 of NH-15 i.e. Bikaner to Suratgarh section in the State of Rajasthan. The land, carriageway and structures comprising the Site are described below.

## 2. Land

The Site of the Project Highway comprises the land described below:

SI No.	Existing Chainage		Length (m)	Width Cm)	Remark
	From	To			
1	553/869 (NH-11)	10/630 (NH-15)	9845	45	
2	10/630 (NH-15)	70/700 (NH-15)	60070	45	
3	70/700 (NH-15)	71/300 (NH-15)	600	45	
4	71/300 (NH-15)	71/600 (NH-15)	300	22	Loonkaransar Urban Settlement
5	71/600 (NH-15)	71/800 (NH-15)	200	45	
6	71/800 (NH-15)	173/000 (NH-15)	101200	45	

## 3. Major Bridges

The Site includes the following Major Bridges:

S. No	Existing Chainage	Type of structure		Span. Arrangement (Nos. x Length of spans)	Width of Carriageway Between Kerbs(m)
		Super Structure	Sub- Structure		
1	157 + 631	RCC T Beam	Brick Masonry	7 x 9.7	8.8
2	163 + 101	RCC T Beam	Brick Masonry	6 x 12.2	8.9

## 4. Railway Over Bridges/ Level crossing

One existing level crossing at km 45+957 (Bikaner - Suratgarh railway section)

## 5. Grade Separators

Nil

## 6. Minor Bridges

The Site includes the following Minor Bridges:

S. No	Existing Chainage	Type of structure		Span. Arrangement (Nos. x Length of spans)	Width of Carriageway Between Kerbs(m)
		Super Structure	Sub- Structure		
1	0 +500 on Bikaner	RCC Solid Slab	RCC	1 x 6.7	8.5



	Bypass				
2	60 + 308	RCC Solid Slab	Brick Masonry	3 x 5.35	9.0
3	80 + 265	RCC Solid Slab	Brick Masonry	3 x 7.8	8.7
4	92 + 661	RCC Solid Slab	Brick Masonry	3 x 11	8.5
5	107 + 050	RCC Solid Slab	Brick Masonry	3 x 5.4	8.5
6	109 + 500	RCC Solid Slab	Brick Masonry	3 x 5.0	8.5

## 7. Total number of structures

The total numbers of structures on the Site are noted below:

(a)	No. of Major Bridges	2
(b)	No. of Railway Over Bridges/Level crossing	Nil/1
(c)	No. of Grade Separators	Nil
(d)	No of Minor Bridges	6 Nos.
(e)	No. of Vehicular and Non Vehicular Underpasses	Nil
(f)	No. of Box Culverts	Nil
(g)	No. of Pipe Culverts	6 Nos.
(h)	Syphon pipe	55 Nos.
(i)	No. of RCC Slab Culverts	5 Nos.
(j)	No of sub minor irrigation Canal	18 Nos.
(k)	No of Brick Arch Culvert	Nil

## 8. Bus bays and Truck Lay byes

Nil

## 9. Permanent Bridge or Tunnel costing Rs. 50 crore or more

Nil

## 10. Existing Bypass

S.No.	Name of Township	Existing Chainage (In Km)		Length (Km)
		From	To	
1	Bikaner	553.869 of NH-11	10/630 of NH-15	9.845

## 11. Width of Carriageway

The Width of Carriageway shall be provided as per IRC: SP: 73-2007 "Manual of Standards and Specifications for two-laning of highways on BOT basis. Therefore, different types of cross-section need to be developed in different segment of the project length provided that the following sections of the project highway where carriageway width (excluding median width), shall be provided not less than as described below:

S.No	Name of Township	Design Chain age		Carriageway Width (m)
		From (Km)	To (Km)	
1	Khara	19.638	21.138	12.00
2	Jamsar	26.745	27.337	12.00



3	Bamanwali	44.035	44.724	12.00
4	Bamanwali	44.781	45.581	10.50
5	Dulmera	56.512	57.062	12.00
6	Hansera	58.716	59.718	12.00
7	Loonkaransar	70.014	72.015	17.50 (Four Lane)
8	Malkisar	92.317	92.793	12.00
9	Mahajan	107.589	108.649	12.00
10	Arjunsar	124.617	124.667	12.00
11	Arjunsar	124.667	125.167	12.00 (Rigid pavement)
12	Arjunsar	125.167	125.391	12.00
13	Rajiasar	139.912	140.895	12.00
14	Piparan	160.207	160.899	12.00
15	Suratgarh	170.048	172.384	17.50 (Four Lane)

## 12. Project facilities

Project facilities shall be constructed in conformity with Concession Agreement.

## 13. Specifications and Standards

The Project Highway shall be constructed in conformity with the Specifications and Standards specified in Manual of Standards and specifications of Two lane Highway.

## 14. Other Features of Two-Laning

### 15.1 Sections requiring footpath and lined Drains

At following towns/built-up areas, footpath and lined drains shall be provided as per Manual

S. No.	Name of the Village / Town	Existing Chainage (In Km)	Design Chainage (In Km)	Length (In Km)
1	Loonkaransar	70.500 – 72.500	70.014 – 72.015	2.001
2	Suratgarh	171.000 – 173.000	170.408 – 172.384	1.976

### 15.2 Curves requiring improvement

Subject to provision of land by the Authority, all curves shall be improved by the Concessionaire for achieving the Ruling design speed as per manual.

### 15.3 Sections requiring raising of embankment

The embankment in following sections shall be raised as per manual.

S. No.	Existing Chainage (In Km)		Design Chainage (In Km)	
	From	To	From	To



1	70.500	72.500	70.014	72.015
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#### 15.4 Bypass

S.No.	Name of Township	Existing Chainage (In Km)		Design Chainage (In Km)		Length (In Km)
		From	To	From	To	
1	Bikaner	553.869 of NH-11	10.630 of NH-15	0.000	9.845	9.845

#### 15.5 Realignments

Nil

#### 15.6 A. Reconstruction of existing major bridges as new Structure\*

The following major bridge shall be constructed as per Manual

S.No.	Existing Chainage (In Km)	Design Chainage (In Km)	Type	Side	Proposed span arrangement (m)	Proposed overall Width (m)
1	163+101	162+491	Major bridge Ghagghar River	Right side	3 x 24.4	14.80

\*The required ROW is not available on approved location on RHS. Hence, realignment of the bridge on LHS has been proposed. The IE vide letter no. ICT:687:TPV;1145 dated 03.02.2015 requested the Authority for according 'Approval in principle' for shifting the New bridge on LHS and reduction in overall deck width from 14.8 mtr to 12.00 mtr.

#### B. Widening of Existing Major Bridges

NIL

#### C. Repair/ strengthening of major bridges

The following major bridges shall be repaired or strengthened as per Manual

S/ No	Name of Bridge	Existing Chainage (In Km)	Design Chainage (In Km)	Width (m)	Span arrangement (nos x Length (m))	Type of Structure		
						Found ation	Substruct ure	Superst ructure
1	Indra Gandhi Canal Bridge	157+631	157+067	8.8	7 x 9.7= 67.9	Open	Brick Masonry	RCC T Beam

\*The concessionaire noted the condition of existing bridge is poor and unsatisfactory and beyond repair/ rehabilitation. In view of above, the concessionaire found the reconstruction of the bridge as new structure imperative for providing safer services to the users and accordingly notified the Authhority vide letter no. SBTRCPL/2014/1123 dated 16.08.2014 for approving reconstruction of new bridge under change of scope as per Article 16 of the CA. The IE has recommended to the Authority for reconstruction of this Bridge under change of scope.



**15.7 A. Re-construction of Existing Minor Bridges as new Structure\***

The following minor bridges shall be constructed as per Manual

S.No.	Existing Chainage (In Km)	Design Chainage (In Km)	Type	Side	Proposed span arrangement (m)	Proposed overall Width (m)
1	107+050	106+530	Canal	Right	1 x 16.2(skew)	12.9

\*Considering delay and uncertainty in availability of canal closure which is essential for the purpose of carrying out reconstruction work and in view of the sound and satisfactory condition of the existing Minor Bridge, IE vide letter no ICT/687/TPV/2118 dated 05.03.2015 has recommended retention of minor bridge with repair and rehabilitation. Approval of CE (NH) for retaining the minor bridge with necessary repairs and rehabilitation is awaited.

**B. Widening & Rehabilitation of Existing Minor Bridges**

NIL

**C. Repair/ strengthening of minor bridges**

The following minor bridges shall be repaired or strengthened as per Manual

S.No.	Existing Chainage (In Km)	Design Chainage (In Km)	Width (m)	Span arrangement [nos x Length (m)]	Type of Structure		
					Foundation	Substructure	Superstructure
1	0+500 on Bikaner Bypass	9+353	8.5	1 x 6.7	Open	RCC	RCC Solid Slab
2	60+308	59+859	9.0	3 x 5.35	Open	Brick Masonry	RCC Solid Slab
3	80+265	79+832	8.7	3 x 7.8	Open	Brick Masonry	RCC Solid Slab
4	92+661	92+261	8.5	3 x 11	Open	Brick Masonry	RCC Solid Slab
5	109+500	108+980	8.5	3 x 5.0	Open	Brick Masonry	RCC Solid Slab

**15.8 (A) Reconstruction of Culverts**

1 No

The following culverts shall be reconstructed as per Manual

Sl. NO.	Existing Chainage (In Km)	Design Chainage (In Km)	Type of Culvert
1	141+500	140+896	Pipe

**(B) Widening of Culverts**

The following culverts shall be widened as per Manual

Sr. No.	Existing Chainage (In Km)	Design Chainage (In Km)	Type of Culvert	Remark
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1	5+845 on Bikaner Bypass	3+994	Pipe	Syphon
2	4+000 on Bikaner Bypass	5+846	Pipe	Syphon
3	3+680 on Bikaner Bypass	6+174	Pipe	Syphon
4	3+350 on Bikaner Bypass	6+515	Pipe	Syphon
5	23+050	22+316	Slab	Canal crossing
6	31+800	31+062	Pipe	Syphon
7	71+937	71+486	Pipe	Culvert
8	72+272	71+821	Pipe	Culvert
9	86+250	85+910	Slab	Canal crossing
10	89+200	88+726	Slab	Canal crossing
11	107+100	106+646	Pipe	Syphon
12	123+480	122+886	Slab	Canal crossing
13	133+300	132+740	Pipe	Syphon
14	165+700	165+129	Slab	Culvert
15	166+150	165+574	Slab	Culvert

### (C) Rehabilitation of Culverts

Sr. No.	Existing Chainage (In Km)	Design Chainage (In Km)	Type of structure	Remark
1	9+400 on Bikaner Bypass	0+445	Pipe	Syphon
2	8+850 on Bikaner Bypass	0+996	Pipe	Syphon
3	8+300 on Bikaner Bypass	1+550	Pipe	Syphon
4	8+100 on Bikaner Bypass	1+751	Pipe	Syphon
5	7+300 on Bikaner Bypass	2+555	Pipe	Syphon
6	7+200 on Bikaner Bypass	2+655	Pipe	Syphon
7	6+940 on Bikaner Bypass	2+916	Pipe	Syphon
8	6+350 on Bikaner Bypass	3+506	Pipe	Syphon
9	5+825 on Bikaner Bypass	4+031	Pipe	Syphon
10	5+250 on Bikaner Bypass	4+605	Pipe	Syphon
11	4+650 on Bikaner Bypass	5+205	Pipe	Syphon
12	2+750 on Bikaner Bypass	7+105	Pipe	Syphon
13	1+495 on Bikaner Bypass	8+359	Pipe	Syphon
14	1+300 on Bikaner Bypass	8+554	Pipe	Syphon
15	10+700	9+871	Pipe	Syphon
16	11+829	11+054	Pipe	Syphon
17	12+300	11+528	Pipe	Syphon
18	13+400	12+635	Pipe	Syphon
19	14+950	14+191	Pipe	Syphon
20	15+300	14+542	Pipe	Syphon
21	15+600	14+843	Pipe	Syphon
22	23+370	22+614	Pipe	Syphon
23	23+700	22+952	Slab	Sub minor irrigation canal
24	29+100	28+342	Pipe	Syphon
25	34+650	33+889	Pipe	Syphon



26	36+130	35+739	Pipe	Syphon
27	36+160	35+399	Slab	Sub minor irrigation canal
28	36+500	35+369	Pipe	Syphon
29	37+050	36+289	Pipe	Syphon
30	37+600	36+839	Pipe	Syphon
31	37+900	37+139	Slab	Sub minor irrigation canal
32	38+700	37+938	Slab	Sub minor irrigation canal
33	39+300	38+547	Pipe	Syphon
34	41+030	40+271	Pipe	Syphon
35	41+250	40+496	Pipe	Syphon
36	44+500	43+73	Slab	Culvert
37	54+380	53+562	Pipe	Culvert
38	75+100	74+628	Slab	Sub minor irrigation canal
39	76+550	76+073	Pipe	Syphon
40	77+200	76+722	Slab	Sub minor irrigation canal
41	77+730	77+257	Slab	Sub minor irrigation canal
42	78+873	78+403	Slab	Sub minor irrigation canal
43	79+430	78+962	Pipe	Syphon
44	80+030	79+563	Slab	Sub minor irrigation canal
45	80+900	80+427	Slab	Sub minor irrigation canal
46	81+700	81+231	Slab	Sub minor irrigation canal
47	82+060	81+591	Pipe	Culvert
48	82+200	81+726	Pipe	Culvert
49	82+500	82+015	Slab	Sub minor irrigation canal
50	83+500	83+011	Pipe	Syphon
51	86+900	86+466	Slab	Sub minor irrigation canal
52	91+050	90+666	Pipe	Syphon
53	91+870	91+444	Slab	Sub minor irrigation canal
54	99+030	98+591	Pipe	Syphon
55	114+950	114+568	Pipe	Syphon
56	125+850	125+245	Pipe	Syphon
57	128+990	128+400	Pipe	Syphon
58	131+100	130+508	Pipe	Syphon



59	132+420	131+828	Pipe	Syphon
60	134+850	134+254	Pipe	Syphon
61	135+900	135+354	Pipe	Syphon
62	139+350	138+753	Pipe	Syphon
63	139+430	138+834	Pipe	Syphon
64	156+400	155+802	Pipe	Syphon
65	157+400	156+808	Pipe	Syphon
66	158+300	157+711	Pipe	Syphon
67	171+070	170+476	Slab	Culvert
68	171+950	171+333	Slab	Culvert

#### (D) New construction of Culverts

The following culverts shall be constructed as per Manual

Sr. No.	Existing Chainage (In Km)	Design Chainage (In Km)	Proposed Structure	Proposed span arrangement (nos. x dia (m))
1	0+328 on Bikaner Bypass	9+250	Pipe	1 x 1.2
2	48+931	48+160	Pipe	1 x 1.2
3	56+865	56+040	Pipe	1 x 1.2
4	71+566	71+080	Pipe	1 x 1.2
5	71+742	71+257	Pipe	1 x 1.2
6	72+122	71+637	Pipe	1 x 1.2
7	102+284	101+860	Pipe	1 x 1.2
8	103+310	102+920	Pipe	1 x 1.2
9	106+564	106+240	Pipe	1 x 1.2
10	108+931	108+340	Pipe	1 x 1.2
11	125+460	124+880	Pipe	1 x 1.2
12	125+619	125+040	Pipe	1 x 1.2
13	138+000	137+400	Pipe	1 x 1.2
14	144+543	143+940	Pipe	1 x 1.2
15	163+392	162+780	Pipe	1 x 1.2
16	164+728	164+120	Pipe	1 x 1.2
17	169+970	169+380	Pipe	1 x 1.2

#### 15.9 New ROB's

New ROB shall be constructed at following level crossings.

Sl. No.	Existing Chainage (In Km)	Design Chainage (In Km)	Span Arrangement		Length (m)	Total width with Footpaths	Solid Fill Approaches
			No. of Spans	Length of Span			
1	45+957	45+181	1	15	43.2+Railway Span	14.8	RE Wall/RCC Retaining
			1	30			
			1	13.2			



		1	15			Wall
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\*GAD drawings have been approved on 29.04.2015. The detailed design and drawings of ROB submitted to Authority for onward submission to Railway Authorities for their approval.

#### 15.10 New Grade Separator

Nil

#### 15.11 New VUP

Nil

#### 15.12 New Cattle Passes

New Cattle under pass as per Manual shall be constructed at following locations.

S.No.	Existing Chainage (In Km)	Design Chainage (In Km)	Minimum Size (M)
1	48.931	48.158	7x5.5
2	143.464	142.858	7x5.5

#### 15.13 Details of Service Roads

Service Road as per Manual shall be constructed at following locations.

S.No.	Existing Chainage (In Km)		Design Chainage (In Km)		Length (Km)	Width (m)	Side	C/s Type
	From	To	From	To				
1	70.500	72.500	70.014	72.015	2.001	7.0	Both	TCS-6
2	171.000	173.000	170.408	172.384	1.976	7.0	Both	TCS-6

#### Appendix-I

S.N o.	Existing Km		Proposed Km		Length (Km)	TCS Type
	From	To	From	To		
1	9.845 of Bikaner Bypass	3.400 of Bikaner Bypass	0.000	6.454	6.454	TCS-1
2	3.400 of Bikaner Bypass	3.300 of Bikaner Bypass	6.454	6.554	0.100	TCS-2
3	3.300 of Bikaner Bypass	2.206 of Bikaner Bypass	6.554	7.650	1.096	TCS-1
4	2.206 of Bikaner Bypass	2.000 of Bikaner Bypass	7.650	7.856	0.206	TCS-2
5	2.000 of Bikaner Bypass	0.845 of Bikaner Bypass	7.856	9.000	1.144	TCS-1
6	0.845 of Bikaner Bypass	0/10.630 of NH-15	9.000	9.845	0.845	TCS-2
7	0/10.630 of NH-15	13.070 of NH-15	9.845	12.300	2.455	TCS-1
8	13.070 of NH-15	13.270 of NH-15	12.300	12.500	0.200	TCS-2
9	13.270 of NH-15	14.508 of NH-15	12.500	13.750	1.250	TCS-1
10	14.508 of NH-15	14.708 of NH-15	13.750	13.950	0.200	TCS-2
11	14.708 of NH-15	20.400 of NH-15	13.950	19.638	5.688	TCS-1
12	20.400 of NH-15	20.612 of NH-15	19.638	19.850	0.212	TCS-3
13	20.612 of NH-15	20.912 of NH-15	19.850	20.150	0.300	TCS-4
14	20.912 of NH-15	21.262 of NH-15	20.150	20.500	0.350	TCS-3



15	21.262 of NH-15	21.462 of NH-15	20.500	20.700	0.200	TCS-4
16	21.462 of NH-15	21.900 of NH-15	20.700	21.138	0.438	TCS-3
17	21.900 of NH-15	27.500 of NH-15	21.138	26.745	5.607	TCS-1
18	27.500 of NH-15	28.100 of NH-15	26.745	27.337	0.592	TCS-3
19	28.100 of NH-15	28.263 of NH-15	27.337	27.500	0.163	TCS-1
20	28.263 of NH-15	28.513 of NH-15	27.500	27.750	0.250	TCS-2
21	28.513 of NH-15	44.000 of NH-15	27.750	43.235	15.485	TCS-1
22	44.000 of NH-15	44.300 of NH-15	43.235	43.535	0.300	TCS-2
23	44.300 of NH-15	44.800 of NH-15	43.535	44.035	0.500	TCS-1
24	44.800 of NH-15	45.500 of NH-15	44.035	44.724	0.689	TCS-3
25	45.500 of NH-15	45.558 of NH-15	44.724	44.781	0.057	TCS-1
26	45.558 of NH-15	46.354 of NH-15	44.781	45.581	0.800	TCS-8
27	46.354 of NH-15	49.574 of NH-15	45.581	48.800	3.219	TCS-1
28	49.574 of NH-15	49.774 of NH-15	48.800	49.000	0.200	TCS-2
29	49.774 of NH-15	52.468 of NH-15	49.000	51.650	2.650	TCS-1
30	52.468 of NH-15	52.668 of NH-15	51.650	51.850	0.200	TCS-2
31	52.668 of NH-15	57.000 of NH-15	51.850	56.512	4.662	TCS-1
32	57.000 of NH-15	57.550 of NH-15	56.512	57.062	0.550	TCS-3
33	57.550 of NH-15	59.200 of NH-15	57.062	58.716	1.654	TCS-1
34	59.200 of NH-15	60.200 of NH-15	58.716	59.718	1.002	TCS-3
35	60.200 of NH-15	70.500 of NH-15	59.718	70.014	10.296	TCS-1
36	70.500 of NH-15	71.300 of NH-15	70.014	70.813	0.799	TCS-6
37	71.300 of NH-15	71.600 of NH-15	70.813	71.113	0.300	TCS-6
38	71.600 of NH-15	72.500 of NH-15	71.113	72.015	0.902	TCS-6
39	72.500 of NH-15	73.136 of NH-15	72.015	72.650	0.635	TCS-1
40	73.136 of NH-15	73.386 of NH-15	72.650	72.900	0.250	TCS-2
41	73.386 of NH-15	73.686 of NH-15	72.900	73.200	0.300	TCS-1
42	73.686 of NH-15	73.836 of NH-15	73.200	73.350	0.150	TCS-2
43	73.836 of NH-15	92.283 of NH-15	73.350	91.850	18.500	TCS-1
44	92.283 of NH-15	92.483 of NH-15	91.850	92.050	0.200	TCS-2
45	92.483 of NH-15	92.750 of NH-15	92.050	92.317	0.267	TCS-1
46	92.750 of NH-15	93.250 of NH-15	92.317	92.793	0.476	TCS-3
47	93.250 of NH-15	98.524 of NH-15	92.793	98.080	5.287	TCS-1
48	98.524 of NH-15	98.744 of NH-15	98.080	98.300	0.220	TCS-2
49	98.744 of NH-15	104.596 of NH-15	98.300	104.200	5.900	TCS-1
50	104.596 of NH-15	104.796 of NH-15	104.200	104.400	0.200	TCS-2
51	104.796 of NH-15	106.140 of NH-15	104.400	105.800	1.400	TCS-1
52	106.140 of NH-15	106.290 of NH-15	105.800	105.950	0.150	TCS-2
53	106.290 of NH-15	106.740 of NH-15	105.950	106.400	0.450	TCS-1
54	106.740 of NH-15	107.222 of NH-15	106.400	106.700	0.300	TCS-2
55	107.222 of NH-15	107.892 of NH-15	106.700	107.370	0.670	TCS-1
56	107.892 of NH-15	108.100 of NH-15	107.370	107.589	0.219	TCS-2
57	108.100 of NH-15	109.200 of NH-15	107.589	108.649	1.060	TCS-3
58	109.200 of NH-15	125.200 of NH-15	108.649	124.617	15.968	TCS-1
59	125.200 of NH-15	125.250 of NH-15	124.617	124.667	0.050	TCS-3
60	125.250 of NH-15	125.750 of NH-15	124.667	125.167	0.500	TCS-5
61	125.750 of NH-15	126.000 of NH-15	125.167	125.391	0.224	TCS-3
62	126.000 of NH-15	140.500 of NH-15	125.391	139.912	14.521	TCS-1
63	140.500 of NH-15	141.500 of NH-15	139.912	140.895	0.983	TCS-3
64	141.500 of NH-15	160.118 of NH-15	140.895	159.525	18.630	TCS-1
65	160.118 of NH-15	160.443 of NH-15	159.525	159.850	0.325	TCS-2
66	160.443 of NH-15	160.800 of NH-15	159.850	160.207	0.357	TCS-1
67	160.800 of NH-15	161.500 of NH-15	160.207	160.899	0.692	TCS-3



68	161.500 of NH-15	161.551 of NH-15	160.899	160.950	0.051	TCS-1
69	161.551 of NH-15	161.801 of NH-15	160.950	161.200	0.250	TCS-2
70	161.801 of NH-15	162.804 of NH-15	161.200	162.200	1.000	TCS-1
71	162.804 of NH-15	163.610 of NH-15	162.200	163.000	0.800	TCS-2
72	163.610 of NH-15	164.407 of NH-15	163.000	163.800	0.800	TCS-1
73	164.407 of NH-15	164.607 of NH-15	163.800	164.000	0.200	TCS-2
74	164.607 of NH-15	167.711 of NH-15	164.000	167.050	3.050	TCS-1
75	167.711 of NH-15	167.961 of NH-15	167.050	167.300	0.250	TCS-2
76	167.961 of NH-15	168.638 of NH-15	167.300	168.000	0.700	TCS-1
77	168.638 of NH-15	168.838 of NH-15	168.000	168.200	0.200	TCS-2
78	168.838 of NH-15	171.000 of NH-15	168.200	170.408	2.208	TCS-1
79	171.000 of NH-15	173.000 of NH-15	170.408	172.384	1.976	TCS-6

## 5.6 Project Facilities

The Concessionaire shall construct the following Project Facilities to form part of the Two-Lane Project Highway. The Project Facilities shall include:

- toll plazas;
- roadside furniture;
- street lighting;
- pedestrian facilities;
- landscaping and tree plantation
- rest areas;
- truck lay-bys;
- bus-bays and bus shelters;
- Cattle Crossing
- traffic aid posts;
- medical aid posts;
- vehicle rescue posts;
- telecom system

### (a) Description of Project Facilities

Each of the Project Facilities shall be constructed in accordance with the Manual of Standards and Specifications for construction of the two lane project highway.

The location of Toll plazas are as under:

S.No.	Location of Toll Plaza (Proposed Km)
1	24.439 - 25.039
2	83.725 - 84.325
3	144.100 - 144.700

### (b) Road side Furniture

Road side furniture shall be provided in accordance with section-11 of the Two Lane Manual of Standards and Specifications.



**(c) Street Lighting**

Street lighting and lighting system shall be provided in accordance with clause 13.3 of section-13 of the Two Lane Manual of Standards and Specifications.

**(d) Pedestrian Facilities**

Pedestrian crossing Facilities shall; be provided in accordance with clause 13.2 of section-13 of the Two Lane Manual of Standards and Specifications.

**(e) Landscaping and Tree Plantation**

Highway landscaping and tree plantation shall be provided in accordance with section-12 of the Two Lane Manual of Standards and Specifications.

**(f) Rest areas**

Rest areas shall be provided in accordance with clause 13.4.3 of section-13 of the Manual of Standards and Specifications

S.No.	Proposed Chainage	Side
1	64.810 - 65.035	Right

**(g) Truck Lay-bys;**

3 truck lay-byes shall be provided as shown in Table:-

S.No.	Proposed Chainage	Side
1	23.559 – 23.959	Right
2	65.450 – 65.850	Left
3	141.196 – 141.596	Right

**(h) Bus-bays and Bus Shelter**

Bus-bays and Bus Shelter shall be provided at following locations conforming to clause 13.5 of the Two Lane Manual of Standards and Specifications.

S.No.	Location (km)	Side (Left/Right)
1	20.438	Left and Right
2	27.045	Left and Right
3	44.424	Left and Right
4	56.712	Left and Right
5	59.116	Left and Right
6	71.213	Left and Right



7	92.563	Left and Right
8	107.939	Left and Right
9	124.817	Left and Right
10	140.395	Left and Right
11	160.399	Left and Right

**(i) Cattle and Pedestrian Crossings**

New Cattle under Pass confirming to clause 2.14.3 of the Manual of Standards and specifications of two lane highways shall be constructed at following locations.

S. No	Existing Chain age (km)	Size(M)
1	48.931	7x5.5
2	143.464	7x5.5

**(j) Traffic Aid Posts**

Traffic Aid Posts shall be provided at the Toll Plazas in accordance with Clause 13.7 of Manual of Standards and Specifications of Two Lane highway.

**(k) Medical Aid Posts**

Medical aid posts shall be provided at the Toll Plazas in accordance with clause 13.8 of Manual of Standards and Specifications of Two lane highway.

**(l) Vehicle rescue post**

IL

NIL

N

**(m) Telecom system**

Telecom posts shall be provided at the Toll Plazas locations for convenience of the users of the Project Highway with necessary equipments.

**(n) Rainwater Harvesting**

As per Ministry of Environment and Forests Notification, New Delhi dated 14.01.1997 (as amended on 13.01.1998, 05.01.1999 & 6.11.2000), the construction of Rain Water Harvesting Structure is mandatory in and around Water Crisis Area, notified by the Central Ground Water Board and the same shall be provided accordingly.

**Note:** In case of any discrepancy in numbers or location of any of the project facilities mentioned above, the Independent Engineer shall finalize the number/location of these facilities as per site requirement



### **5.7 Change of Scope Items**

1. **Vehicular Under Pass & Construction of Bus-Bay**
  - Location - Km 172+100 for VUP & km 53+900
  - Cost – Rs 9.581 crores
  - Status – Approval in place
2. **Indira Gandhi Canal Bridge**
  - Location – Km 157+631
  - Cost - Rs 10.19 crores
  - Approval Status – In-Principal approval has been given. However, financial approval is awaited.
3. **Electronic Toll Collection**
  - Location – All Toll Plazas
  - Approximate Cost – Rs 1.62 crores
  - Approval Status – Request to be given by PWD, Rajasthan to the Concessionaire

**\*(Source Project Information Memorandum of Concessionaire)**



## 6.0 Project Consultants

SBTRCPL has enlisted services of different specialist agencies to provide their expertise on various aspects of the project implementation and operations. The list of consultants is given below:

### List of Parties/ Consultants involved in the Project

Consultant / Constructor	Agency
Concessionaire	Suratgarh Bikaner Toll Road Company Private Ltd
EPC Contractor	MBL Infrastructures Ltd.
Project Design, Engineering, Traffic & PMC Consultant	STI Infrastructures Limited in association with Gifford India (P) Ltd. (Part of Ramboll, United Kingdom)

### 6.1 EPC Contract

The EPC contract has been executed between M/s MBL Infrastructures Ltd and M/s Suratgarh Bikaner Toll Road Co (P) Ltd. for Rs. 510 crores on 29<sup>th</sup> May 2012. It is a fixed time, fixed price Engineering, Procurement and Construction (EPC) contract at total cost of Rs. 510.00 Crores. The Project Management Team is established by the Concessionaire to supervise the construction of the project highway. For the EPC cost unit rates for haulage of materials from the local quarries, the bill of quantities (BOQs), the prevailing prices for raw materials and such other factors have been taken into consideration. EPC Contractor will ensure that the provisional certificate is issued by the Independent Engineer before the expiry of time completion.

### Salient features of the EPC Contract:

#### Responsibilities of EPC Contractor

- Engineer, execute and complete the works in accordance with the contract and remedy any defects in works.
- Procure all necessary equipment.
- Responsible for maintenance of existing project highway and for all traffic management.
- Responsible for coordination among the subcontractors engaged for the project.
- Conduct activities in compliance with environment requirements.
- During the works, keep the site free from all unnecessary obstructions.

#### Defects Liability Period

- Defects Liability Period shall mean a period of five years starting from the date of completion certificate. EPC Contractor shall during defects liability period, execute works required to remedy defects at its own costs and expenses. If EPC Contractor fails to remedy defect within reasonable time, it shall pay to the Concessionaire and such amount would be appropriated from the available performance security/outstanding dues.
- The total amount of retention money in the contract shall be 2% of the contract amount. The retention money shall be released during the defect liability period, in 5 equal yearly installments.



Delay Damages

- EPC Contractor shall pay to the Concessionaire damages equal to the amount of LDs under the Concession Agreement with PWD, Rajasthan.

Bonus

- In case the COD for the project is achieved earlier than completion date, and SBTRCPL begins earning toll revenue, then EPC Contractor shall be entitled to receive payment equal to 50% of the actual toll revenue of the extra toll collected due to earlier completion. The duration of early completion in excess of 45 days will be considered for revenue sharing.

**6.2 Independent Engineer**

ICT Private Limited has been appointed as an Independent Engineer (IE) by PWD, Rajasthan w.e.f 30.07.2013 to oversee the activities of the Concessionaire during design, construction, operation and maintenance of the project highway.

As per terms and conditions of CA, Independent Engineer is required to:

- Independently review activities associated with design, construction, operation and maintenance of the project on behalf of both PWD, Rajasthan and the Concessionaire so as to ensure compliance of requirements of CA;
- The Independent Engineer shall submit regular periodic reports to PWD, Rajasthan;
- Assist the parties to the CA in arriving at settlement of disputes, if any.

According to CA, the remuneration, cost and expenses of the I.E. shall be paid by PWD, Rajasthan and **one-half** of such remuneration, cost and expenses shall be reimbursed by the Concessionaire within 15 days of receiving a statement of expenditure from PWD, Rajasthan. 6.5

**6.3 Permits & Approvals**

The Concessionaire (SBTRCPL) has initiated appropriate steps for securing the approvals required to implement the proposed road project. A summary of the permits and approvals is tabulated below:

**Status of Approvals**

Sanction/Approval	Authority	Status
Quarrying Permits for extraction of boulder	Govt. of Rajasthan	The EPC contractor has supply arrangements from local stone crushers and raw material suppliers. Accordingly no quarry permits for extraction of boulder is required
Installation of Crusher	Village Panchayat and Pollution Control Board	Same as above
Drawing water from river/reservoir	Govt. of Rajasthan	Water is being procured from private tube well owners.
Batching Plant	Inspector of factories and	The EPC contractor is using mini



	Pollution Control Board	mobile batching plant. NOC from village panchayat available.
Asphalt Plant	Village Panchayat and Pollution Control Board	Available
Borrow Earth	Village Panchayat and State Government	Available
Use of Explosives	Govt. of Rajasthan	Not Applicable. The EPC contractor is not undertaking any quarry operations.
Cutting of Trees	Govt. of Rajasthan	Will be obtained by EPC contractor as the project progresses
Environmental protection and conservation	MOEF	Obtained by PWD, Rajasthan

#### 6.4 Project Insurance

The Concessionaire got renewed Contractor's All Risk Insurance Policy and Workmen Compensation Insurance Policy during the construction period and shall effect and maintain operations period insurances for such sums as may be required in accordance with the financing agreements, applicable laws and Good industry practice.

#### 6.5 Balance Works for Partial COD

S. No.	Item	Unit	Total Quantity	Required for PCOD (95%)	Complete	Balance
1	Shoulder Preparation	KM	172.38	164	124	40
2	Road Marking	KM	172.38	164	126	38
3	KM Stone Fixing, Painting & Writing	KM	172.38	164	130	34
4	Sign Board fixing ( Minor)	KM	172.38	164	102	62
5	R & R for Minor Bridge, Painting & Numbering	Nos.	5	5	3	2
6	Guard Rail	Lane Km	4	4	0	4
7	Toll Plaza Equipment	Nos.	3	3	0	3
8	Toll Plaza Canopy including booth	Nos.	3	3	1	2
9	High Masts	Nos.	6	6	0	6
10	Bus Shelters	Nos.	22	20	6	14
11	Matel Beam Crash Barrier	KM	5	3	2	1
12	Truck Lay Bye with toilet blocks	Nos.	3	2	1	1
13	CUP	Nos.	2	2	0	2
14	Cuvert Painting/ Numbering	Nos.	18	15	0	15
15	Median kerb and plantation	KM	4	2	0	2
16	BC	KM	168.75	161	146.5	14.5



## 6.6 Balance Works for COD

Sl. No.	DESCRIPTION OF ITEMS	UNIT	Qty	Total Qty	Completion Target Till Provisional COD	Balance as on Provisional COD 30.04.2018
1	Clearing & Grubbing of Jungles including shrubs, Site clearance including dismantling of structure, kerb stones etc	Km	1	172.38	172.00	0.38
2	Earthwork in excavation of existing embankment,	Km	8000	172.38	170.15	2.390
3	Providing & laying Granular Sub-base as per specification					
a	In Road Widening	Km	1352	172.38	167.45	2.00
b	In Hard Shoulder	Km	300	172.38	164.00	79.590
4	Wet Mix Macadam as per Specification	Km	800	168.98	164.30	0.970
5	Providing & applying Primer coat/ Tack Coat	Km	10000	168.98	164.00	1.920
6	Providing & Laying Bituminous Macadam	Km	175	132.00	132.00	0.00
7	Providing & Laying Dense Bituminous Macadam using VG30 / VG40	Km	650	168.75	164.10	1.920
8	Bituminous Concrete using Bitumen grade VG30/40	Km	400	168.75	161.00	13.81
9	Construction of Concrete Pavement with PQC and D.I.C	Km	5400	3.35	3.35	0.00
10	CULVERTS					
a	Widening of Pipe / Slab Culverts	Nos		16.00	16.00	0.00
b	Rehabilitation of RCC Pipe / Slab Culverts	Nos		68.00	59.00	8.00
c	New construction of RCC Hume Pipe Culverts	Nos		19.00	19.00	0.00
11	Repair / Strengthening of Major /Minor bridge					
a	Minor Bridge	Nos		5.00	5.00	0.00
12	Reconstruction of Existing Major /Minor Bridge as New Structure					
a	Major Bridge at 163+101 (Ghaggar)	Nos/cum		1.00	0.50	0.50



13	Construction of New ROB with Approach Road & RE Wall Complete	Nos		1.00	0.00	1.00
14	Providing Traffic Signs & Sign Boards	KM		172.38	164.00	8.38
15	Providing Road Markings Complete	KM		172.38	164.00	8.38
16	Providing Km Stone Fixing Complete	KM		172.38	164.00	8.38
17	Bus-Bays	No		22.00	14.00	8.00
18	Truck Laybys	No		3.00	3.00	0.00
19	Providing Toll Plaza with Toll Booths etc. Complete	No	1	3.00	3.00	0.00

### 6.7 Implementation Schedule

The Concessionaire shall complete the project highway by the 31<sup>st</sup> March 2019. The proposed implementation schedule is given as under:

#### Proposed Implementation Schedule

Key activities	Timeline/To be completed by
Issue of LOA as per CA	9 <sup>th</sup> January, 2012
Signing of Concession Agreement as per CA	9 <sup>th</sup> May, 2012
Financial Closure as per CA	30 <sup>th</sup> March 2013
Appointed Date as per CA	16 <sup>th</sup> September 2013
Partial COD ( Expected ) as informed by the concessionaire	30 <sup>th</sup> April, 2018
Commercial Operation Date ( as informed by the concessionaire)	31 <sup>st</sup> March, 2019
Concession End Date ( as informed by the concessionaire)	31 <sup>st</sup> March, 2033

### 6.8 Current Status

The work was almost stand still since December 2016 due to financial crisis and restarted only on 09.11.2017 after pressure from clients and lenders during various meetings held. Only some items involving less finance were executed with the available raw material and resources but works involving more monetary implication like BC, Toll plazas could not taken up due lack of funds.

\*(Source Project Information Memorandum of Concessionaire)



## 7.0 Present Proposal

**To finance an additional Rs 50.00 Crores due to increase in Interest during Construction and other costs and shift the repayment schedule by 33 months in line with shifting of COD as per discussion held in various meetings with the client and lenders**

The total cost of the project is estimated at Rs. 750.89 Crores and is given as under which is proposed to be funded through a mix of debt & equity.

The components of project cost are presented hereunder:-

<b>Cost Of Project</b>	<b>%</b>	<b>Revised</b>	<b>Original</b>
EPC Cost	74.82%	561.81	510.00
Preliminary & Pre-Operative Expenses	1.98%	14.84	14.08
IDC & other financial charges	23.20%	174.24	64.28
Contingencies			17.65
DSRA fund			14.06
<b>Total</b>	<b>100.00%</b>	<b>750.89</b>	<b>620.07</b>

### EPC Cost

The original EPC cost was Rupees 510. Cr. The original completion period of the project was September 2015 as per contract, but the project was substantially delayed due to various reasons and discussed in various meetings of lenders, clients with the concessionaire. Considering all the issues involved in delaying the project, the period was prolonged and the period of prolongation of 927 days (i.e upto 31.03.2018) as time line for completion of the entire project proposed by the concessionaire/ IE was agreed by all the members present in the meeting held in the office of the chief engineer (NH PWD) Rajasthan as per minutes of the meeting dated 05.05.2017 (copy enclosed) as **annexure -I**

The EPC contractor has claimed an additional cost of Rs 51.81 crores resulting in a total EPC cost of Rs 561.81 crores, which is due to the increase in fixed overhead charges as per standard data book for analysis of rates of MORTH for prolongation of contract of 927 days and seems to be reasonable. Copy of Agreement between Concessionaire and EPC contractor ( provided by the concessionaire) is enclosed. Further this cost of Rs. 51.81 Cr. has already been accounted for in the financial statement of the SPV for the financial year 31.03.2017 audited by the Statutory Auditor M/s S. R Goyal & Co. Jaipur empanelled with the client i.e Govt. of Rajasthan PWD.

### Preliminary & Pre-operative Expenses, Financing, Consultants, Legal fees

The Concessionaire has estimated Preliminary & Pre-operative Expenses, Financing, Consultants, Legal fees expenses at Rs 14.84 crores, which includes incorporation expenses of the Concessionaire including cost of preparation of bid, insurance costs during construction and other administrative and capital expenses of the Concessionaire during the construction period.

### Interest during construction & other financial Charges



**Interest during construction & other financial Charges**

Interest during Construction for the project including upfront fee etc. has been provided at Rs. 174.24 Crores.

**7.1 Means of Finance**

The total project cost is proposed to be financed by a mix of debt & equity. The proposed components of financing are

**Means of Finance**

Means of Finance	%	Amount	Original
Equity	22.65%	170.07	170.07
Term Loan	59.93%	450.00	450.00
Priority Loan – PNB/MORTH/Other Lenders	6.66%	50.00	
FITL-1 (Outstanding Interest up to 31.03.2017)	4.53%	34.02	
FITL-2 (01.04.17 to 31.04.18)	6.17%	46.36	
Project Cash Flows	0.06%	0.44	
<b>Total</b>	<b>100.00%</b>	<b>750.89</b>	<b>620.07</b>

**7.2 Cost of Scheme & Sources of Fund**

Cost Of Scheme	Revised
Revised Cost of project	750.89
FITL-2 <sup>1</sup> (After PCOD from 1.05.2018 to 30.06.2019 i.e. Up to Complete Repayment of Priority Loan)	54.89
<b>Total</b>	<b>805.78</b>

The total equity contribution for the project is proposed at Rs. 170.07 Crores by the promoters. The debt of Rs. 50.00 Crores (original Rs. 450 crores + additional Rs. 50.00 crores) is proposed to be funded by way of Term Loan from Banks/Financial Institutions.

Sources of Finance	Amount
Equity	170.07
Debt	450.00
Priority Loan Others	50.00
FITL-1 (up to 31.03.2017)	34.02
FITL-2 (01.04.17 to 30.06.19)	101.25
Project Cash Flows	0.44
<b>Total</b>	<b>805.78</b>

The key financial indicators of the project are as under:



Financial Indicator	Results
Average DSCR	1.39%
Project IRR ( Post tax)	10.63%
Project IRR (Pre tax)	11.36%
Equity IRR	11.56%

Considering the sound financial indicators of the project, traffic volumes and financial strength of the promoters, the proposal for an additional debt of Rs. 50.00 crores can be considered a fair banking risk.

### 7.3. Traffic Detail:-

TP	Cars/ Jeep/ Van	Buses	LCV\Mini Bus	Trucks	3 Axle	4-6 Axle	7 + Axle
TP 1	1497	199	574	232	600	2023	1
TP 2	1289	172	697	272	689	1878	31
TP 3	967	157	268	314	715	1705	3

### 7.4 Indicative Revised Terms and Conditions

The indicative revised terms and conditions are as follows:

<b>Borrower</b>	Suratgarh Bikaner Toll Road Company Private Limited (SBTRCPL)
<b>Sponsors</b>	MBL Infrastructures Ltd.
<b>Purpose</b>	To part finance the cost of "Development and Operation of Bikaner-Suratgarh Section of NH-15 by Two Laning with Paved Shoulder in the State of Rajasthan through Public Private Partnership on Design, Build, Finance, Operate and Transfer (DBFOT) Basis".
<b>Partial COD (95%)</b>	30 <sup>th</sup> April, 2018 ( as informed by the concessionaire)
<b>COD</b>	31 <sup>st</sup> March, 2019 ( as informed by the concessionaire)
<b>Total Project Cost</b>	Rs. 750.89 Crore ( as informed by the concessionaire )
<b>Means of Finance &amp; Project Debt: Equity ratio</b>	<p>The project is to be funded as follows:</p> <ul style="list-style-type: none"> <li>Rupee Term Loan : Rs. 450.00 Crores</li> <li>FITL-1 : Rs. 34.02 Crores</li> <li>FITL-2 : Rs. 46.36 Crores<sup>2</sup></li> <li>Priority Loan – PNB/MoRTH/Other Lenders : Rs. 50.00 Crores</li> <li>Promoters Contribution : Rs. 170.07 Crores</li> <li>Project Cash Flows : Rs. 0.44 Crores</li> </ul>
<b>Facility</b>	<ul style="list-style-type: none"> <li>Rupee Term Loan;</li> <li>Priority Loan – Punjab National Bank(PNB)/MoRTH/Other Lenders;</li> <li>Fixed Interest Term Loan (FITL) – 1 &amp; 2</li> </ul>



<b>Facility Amount</b>	<ul style="list-style-type: none"> <li>Rs. 450.00 Crores (original Term Loan)</li> <li>Rs. 50 Crores (Priority Loan – PNB/MoRTH/Other Lenders)</li> <li>Rs. 34.02 Crores (FITL-1) for interest upto Cut-Off date i.e. 31<sup>st</sup> March, 2017</li> <li>Rs. 101.25 Crores (FITL-2) for interest on Term Loan, FITL-1 &amp; FITL-2 from Cut-Off date up to complete repayment of Priority Loan i.e. 30<sup>th</sup> June, 2019</li> <li><b>TOTAL FACILITY – Rs 635.27 Crores</b></li> </ul>
<b>Indicative Rate of Interest</b>	<ul style="list-style-type: none"> <li>As per Sanction terms up to Cut-off Date i.e. 31<sup>st</sup> March, 2017</li> <li>After Cut-off date, 5-year PNB MCLR i.e. 8.45% p.a. on Term Loan &amp; FITLs</li> <li>12.50% p.a. on priority loan</li> </ul>
<b>Repayment period</b>	<ul style="list-style-type: none"> <li>Repayment in 40 <i>un-equal</i> installments commencing from 30<sup>th</sup> September, 2019 (Quarter 2 of FY 2019-20) i.e. 17 months from PCOD &amp; 6 months from Full COD;</li> <li>Priority Funding repayment to commence from 1<sup>st</sup> June, 2018 &amp; will end by 30<sup>th</sup> June, 2019;</li> <li>FITL-1 to be repaid in 19 un-equal quarterly instalments commencing from 30<sup>th</sup> September, 2019 &amp; ending on 31<sup>st</sup> March, 2024</li> <li>FITL-2 to be repaid in 28 un-equal quarterly instalments commencing from 30<sup>th</sup> September, 2019 &amp; ending on 30<sup>th</sup> June, 2026</li> </ul>
<b>SECURITY For Priority Loan 1</b>	<ul style="list-style-type: none"> <li>Priority charge on toll &amp; escrow account &amp; cash flows including termination payments over other lenders for Priority loan of Rs. 50 crores.</li> <li>Entire money to be used to pay for interest &amp; principal of Priority Loan (apart from regular project expenses) after PCOD. The servicing of interest &amp; principal repayment of existing lenders will start only after repayment of entire priority debt</li> </ul>
<b>2</b>	<p>The Priority Loan &amp; Rupee Term Loan together with interest, costs, expenses and all other monies whatsoever shall be secured by:</p> <ul style="list-style-type: none"> <li>A first charge on all the movable and immovable assets, if any, of the project Company.</li> <li>A first charge on the Escrow Account (after repayment of Priority loan).</li> <li>A first charge/assignment of all toll revenues and receivables of the Borrower from the Project or otherwise (after repayment of Priority loan).</li> <li>A first charge on all intangible assets including but not limited to the Goodwill, undertaking, uncalled capital, and Intellectual Property Rights of the Project Company.</li> <li>Assignment in favor of the lenders, all the rights, titles and interests of the Borrower from all contracts, insurances, licenses in, to, under all the assets of the Project and all project documents (including the concession agreement), which the Borrower is party to including contractor guarantees, liquidated damages and all other contracts relating to the project.</li> <li>Lender's security package listed in the Project Document, including Substitution Rights and termination payments due in respect of the Project in specified circumstances.</li> <li>Pledge of 51% of the equity shares in the project company subject to compliance</li> </ul>



	with the Banking Regulations Act. • Corporate Guarantee of MBL Infrastructures Ltd. to continue for the entire loan <i>The aforesaid security will rank pari-passu amongst the Lenders for the Project.</i>						
3	• Personal Guarantee of Mr. A K Lakhotia for the entire loans in terms of the current request						
Prepayment Penalty	• Nil prepayment penalty on Priority Loan, all FITLs & Term Loan						
	<b>Quarter Ending</b>	<b>Original Term Loan</b>	<b>Priority Loan 1</b>	<b>Priority Loan 2</b>	<b>FITL 1</b>	<b>FITL 2</b>	<b>Total</b>
	30-Jun-18		1.00	1.00			2.00
	30-Sep-18		6.00	6.00			12.00
	31-Dec-18		6.00	6.00			12.00
	31-Mar-19		6.00	6.00			12.00
	30-Jun-19		6.00	6.00			12.00
	30-Sep-19	1.00			0.8505	1.3500	3.20
	31-Dec-19	1.00			0.8505	1.3500	3.20
	31-Mar-20	1.50			0.8505	1.3500	3.70
	30-Jun-20	1.50			1.4884	2.0250	5.01
	30-Sep-20	1.50			1.4884	2.0250	5.01
	31-Dec-20	1.50			1.4884	2.0250	5.01
	31-Mar-21	4.00			1.4884	2.0250	7.51
	30-Jun-21	4.00			1.7010	2.0250	7.73
	30-Sep-21	4.00			1.7010	2.0250	7.73
	31-Dec-21	4.00			1.7010	2.0250	7.73
	31-Mar-22	6.50			1.7010	2.0250	10.23
	30-Jun-22	6.50			1.7010	3.0375	11.24
	30-Sep-22	6.50			1.7010	3.0375	11.24
	31-Dec-22	6.50			1.7010	3.0375	11.24
	31-Mar-23	7.75			1.7010	3.0375	12.49
	30-Jun-23	7.75			2.9768	4.0500	14.78
	30-Sep-23	7.75			2.9768	4.0500	14.78
	31-Dec-23	7.75			2.9768	4.0500	14.78
	31-Mar-24	9.00			2.9768	4.0500	16.03
	30-Jun-24	9.00				4.5563	13.56
	30-Sep-24	9.00				4.5563	13.56
	31-Dec-24	9.00				4.5563	13.56
	31-Mar-25	12.75				4.5563	17.31
	30-Jun-25	12.75				5.5688	18.32
	30-Sep-25	12.75				5.5688	18.32



31-Dec-25	12.75				5.5688	18.32
31-Mar-26	15.25				5.5688	20.82
30-Jun-26	15.25				12.1500	27.40
30-Sep-26	15.25					15.25
31-Dec-26	15.25					15.25
31-Mar-27	17.50					17.50
30-Jun-27	17.50					17.50
30-Sep-27	17.50					17.50
31-Dec-27	17.50					17.50
31-Mar-28	18.75					18.75
30-Jun-28	18.75					18.75
30-Sep-28	18.75					18.75
31-Dec-28	18.75					18.75
31-Mar-29	38.00					38.00
30-Jun-29	38.00					38.00
<b>TOTAL</b>	<b>450.00</b>	<b>25.00</b>	<b>25.00</b>	<b>34.02</b>	<b>101.25</b>	<b>635.27</b>

**(\*Source Project Information Memorandum of Concessionaire)**



## 8.0 Financial Analysis

### 8.1 Background

The main objective of financial analysis is to assess the viability of the project to assess the likely return to the investors. In the present studies the financial viability the project is assessed on the basis of project's internal rate of return on investments which is estimated on the basis of cash flow analysis.

### 8.2 Approach to Financial Evaluation

The viability of the project is evaluated on the basis of Project IRR and Equity IRR. The IRR is estimated on the basis of cash flow analysis, where both costs and revenue have been indexed to take account of inflation. Financial Analysis has been carried out for the entire project road with debt equity ratio of 74.62, 25.38. The basic indicators for assessing the financial viability of the project are as follows:

**IRR (Internal Rate of Return):** The IRR should have a value above the discount rate.

**Cash Flow:** The cash flow situation should be satisfactory in each year of Concession Period. In other words, the cash balance at the end of every year should be positive.

### 8.3 Assumptions

Particulars	Details
Concession Agreement Signing Date	9 <sup>th</sup> May, 2012
Financial Closure Date	30 March, 2013
Appointed Date	16 <sup>th</sup> September, 2013
Provisional COD (95%)	30 <sup>th</sup> April, 2018
Completion of Project (Full-COD)	31 <sup>st</sup> March, 2019
Concession Period	16 years
Debt equity ratio	74.62, 25.38
Repayment Period and Installments	40 unequal installments starting from 30 <sup>th</sup> September, 2019 up to 30 <sup>th</sup> June 2029
Inflation Rate	6%
Traffic Growth Rate	6%

#### Assumptions for Restructuring:

Cut - Off Date	31-Mar-17
FITL - 1	Outstanding of banks as on Cut Off Date i.e. Rs 34.02 crores



FITL - 2	Interest on Principal of Rs 450 crores & on FITL-1 & FITL-2 from 1st April, 2017 up to date of complete repayment of Priority Loan i.e. 30 June, 2019 amounting to about Rs 101.25 crores
Interest Rate Post Cut-Off Date on Principal, FITL-1 & FITL-2	8.45% i.e. 5 year PNB MCLR

**Debt Repayment Schedule:**

Quarter Ending	Original Term Loan	Priority Loan 1	Priority Loan 2	FITL 1	FITL 2	Total
30-Jun-18		1.00	1.00			2.00
30-Sep-18		6.00	6.00			12.00
31-Dec-18		6.00	6.00			12.00
31-Mar-19		6.00	6.00			12.00
30-Jun-19		6.00	6.00			12.00
30-Sep-19	1.00			0.8505	1.3500	3.20
31-Dec-19	1.00			0.8505	1.3500	3.20
31-Mar-20	1.50			0.8505	1.3500	3.70
30-Jun-20	1.50			1.4884	2.0250	5.01
30-Sep-20	1.50			1.4884	2.0250	5.01
31-Dec-20	1.50			1.4884	2.0250	5.01
31-Mar-21	4.00			1.4884	2.0250	7.51
30-Jun-21	4.00			1.7010	2.0250	7.73
30-Sep-21	4.00			1.7010	2.0250	7.73
31-Dec-21	4.00			1.7010	2.0250	7.73
31-Mar-22	6.50			1.7010	2.0250	10.23
30-Jun-22	6.50			1.7010	3.0375	11.24
30-Sep-22	6.50			1.7010	3.0375	11.24
31-Dec-22	6.50			1.7010	3.0375	11.24
31-Mar-23	7.75			1.7010	3.0375	12.49
30-Jun-23	7.75			2.9768	4.0500	14.78
30-Sep-23	7.75			2.9768	4.0500	14.78
31-Dec-23	7.75			2.9768	4.0500	14.78
31-Mar-24	9.00			2.9768	4.0500	16.03
30-Jun-24	9.00				4.5563	13.56
30-Sep-24	9.00				4.5563	13.56
31-Dec-24	9.00				4.5563	13.56
31-Mar-25	12.75				4.5563	17.31
30-Jun-25	12.75				5.5688	18.32
30-Sep-25	12.75				5.5688	18.32
31-Dec-25	12.75				5.5688	18.32



31-Mar-26	15.25				5.5688	20.82
30-Jun-26	15.25				12.1500	27.40
30-Sep-26	15.25					15.25
31-Dec-26	15.25					15.25
31-Mar-27	17.50					17.50
30-Jun-27	17.50					17.50
30-Sep-27	17.50					17.50
31-Dec-27	17.50					17.50
31-Mar-28	18.75					18.75
30-Jun-28	18.75					18.75
30-Sep-28	18.75					18.75
31-Dec-28	18.75					18.75
31-Mar-29	38.00					38.00
30-Jun-29	38.00					38.00
<b>TOTAL</b>	<b>450.00</b>	<b>25.00</b>	<b>25.00</b>	<b>34.02</b>	<b>101.25</b>	<b>635.27</b>



## 8.4 Traffic Assumptions (in 2017-18)

Tollable Traffic (nos)			
	Km 25	Km 84	Km 145
Car	1497	1289	967
LCV/Minibus	574	697	268
Bus	199	172	157
Truck (2 Axle)	232	272	314
Truck (3 Axle)	600	689	715
MAV	2023	1878	1705
Oversized Vehicles	3	51	7
<b>Total vehicles</b>	<b>5128</b>	<b>5048</b>	<b>4133</b>

**Toll Rates<sup>3</sup>**

The rate of fee for use of a section of National highway, for the base year 2007-08 will be the product of length of section multiplied by the following:

Type of vehicle	Base rate of fee per vehicle per km (in rupees)
Car, jeep, Van or Light Motor Vehicle	0.65
Light Commercial Vehicle (LCV) or Mini Bus	1.05
Bus or Truck (2 Axle)	2.20
Truck (Three Axle)	2.40
Multi Axle Truck (4 – 6 Axle)	3.45
Over sized vehicle (7 or more Axle)	4.20

The rate of fee for use of a section of National Highway having 2 lanes and on which average investment for up gradation has exceeded Rs 2.5 crores per km shall be 60% of the rate specified.

The rates specified under rule 4 shall be increased without compounding by three percent each year with effect from 1<sup>st</sup> day of April, 2008 and such increased rate shall be deemed to be the base rate for the subsequent years.

The base rates will increase on every toll plaza every year on the basis of Wholesale Price Index and will be rounded off to the nearest five rupees. The increase will be made effective from 1<sup>st</sup> April every year, based on the wholesale price index for the year ending 31<sup>st</sup> December. The basic toll rates will be as per the rates notified effective as on 01-09-2007. The calculation of toll increase every year will be done as per the formula given below:-

Basic Wholesale Price Index for the Month of December of the preceding year - WPI (A)

Wholesale Price Index Of the week ending on 6<sup>th</sup> Jan, 2007 - WPI (B)



**Formula for Calculation:-**

$$\text{Applicable rate of fee} = \text{Base rate} + \text{Base rate} * [\text{WPI (A)} - \text{WPI (B)} / \text{WPI (B)}] * 0.4$$

Local traffic will remain exempted from payment of toll. Such vehicles will be issued monthly passes by the concessionaire. Such passes will be issued to the eligible vehicle owners by the concessionaire on production of necessary documents and after payment of a monthly fee of Rs.150 to be revised annually to reflect the variation in WPI as compared to the WPI of the year ended March 31, 2007. Local traffic means Private Car/Jeep or equivalent vehicle which is owned by a person who resides within 20 km from the Toll Plaza.

**Operating Expenses (Base year FY 2011-12)**

Particular	Details
Routine Maintenance Cost	Rs 4.31 Crores
Escalation for routine maintenance cost every year	6.00%
SPV & Toll Plazas Operation Cost	Rs 3.40 Crores
Independent Engineers Fee Cost	1% of Toll receipts
<b>Major Maintenance</b>	
MM Base Year Cost (FY 2011-12)	Rs 62.78 Crores
MM Frequency	Every 7 <sup>th</sup> year (over a period of 5 years)
Annual escalation	6.00%
<b>Insurance</b>	
Insurance during O&M Phase (% of total project cost)	0.025%

**Tax and Depreciation**

Tax Structure	
Income Tax Rate	34.608%
MAT Rate	21.3416%
Tax Exemption Period (u/s 80 IA)	10 years out of first 15 years operation

**Depreciation**

Toll Collection Rights are amortized over the concession period. The rights are amortized based on the projected toll revenue which reflects the pattern in which the assets' economic benefits are consumed. However, the entire depreciation is being accounted for in the original concession period.



## 8.5 Projected Key Financials

(Figures In Rs Crores)

Year Ended	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33
Collable Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Months (for toll revenue)	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Revenue	95%	100%													
Toll Receipts	63.34	81.78	91.44	101.95	114.20	127.78	143.34	160.89	181.19	202.74	227.82	255.18	287.84	323.46	363.22
Total Revenue	63.34	81.78	91.44	101.95	114.20	127.78	143.34	160.89	181.19	202.74	227.82	255.18	287.84	323.46	363.22
Expenditure															
Capex & Toll Plaza															
Operational Cost	4.15	4.80	5.08	5.39	5.71	6.06	6.42	6.80	7.21	7.64	8.10	8.59	9.10	9.65	10.23
Routine Maintenance Cost	4.19	4.84	5.13	5.44	5.77	6.11	6.48	6.87	7.28	7.72	8.18	8.67	9.19	9.74	10.33
Premium to PWD, Rajasthan	2.51	2.64	2.77	2.91	3.05	3.20	3.36	3.53	3.71	3.89	4.09	4.29	4.51	4.73	
Periodic Maintenance Cost	0.00	0.00	0.00	0.00	0.00	0.00	23.70	25.12	26.63	28.23	29.92	0.00	0.00		
Independent Engineer Fee	0.63	0.82	0.91	1.02	1.14	1.28	1.43	1.61	1.81	2.03	2.28	2.55	2.88	3.23	3.63
Operational Insurance	0.25	0.26	0.28	0.30	0.32	0.33	0.35	0.38	0.40	0.42	0.45	0.47	0.50	0.53	0.56
Total Expenditure	11.73	13.36	14.18	15.05	15.99	16.98	41.75	44.31	47.04	49.94	53.02	24.58	26.19	27.89	29.76
EBIT	51.62	68.42	77.27	86.89	98.21	110.79	101.58	116.57	134.14	152.81	174.79	230.60	261.66	295.56	338.47
Less: Depreciation	29.48	38.06	42.56	47.45	53.15	59.47	66.71	74.88	84.33	94.36	106.03	54.43	0.00	0.00	0.00
EBIT	22.13	30.36	34.71	39.45	45.06	51.32	34.87	41.70	49.82	58.45	68.77	176.17	261.66	295.56	338.47
Less: Interest	46.75	49.29	47.97	45.72	42.45	38.10	33.15	25.45	20.61	14.98	8.80	0.80	0.00	0.00	0.00
PBT	-24.62	-18.93	-13.26	-6.27	2.61	13.23	1.72	16.25	29.21	43.47	59.97	175.36	261.66	295.56	338.47
Less: Income Tax	0.00	0.00	0.00	0.00	0.56	2.82	0.37	3.47	6.23	9.28	12.80	37.43	55.84	63.08	72.23
PAT	-24.62	-18.93	-13.26	-6.27	2.06	10.41	1.36	12.78	22.98	34.19	47.17	137.94	205.81	232.48	266.23
Cash Accruals (A)	51.62	68.42	77.27	86.89	97.65	107.97	101.22	113.11	127.91	143.53	162.00	193.17			
Total Debt Servicing (B)	42.34	61.17	70.52	79.12	88.65	98.45	91.13	101.22	96.01	86.23	103.05	38.80			
DSCR (A/B)	1.22	1.12	1.10	1.10	1.10	1.10	1.11	1.12	1.33	1.66	1.57	4.98			
Avg. DSCR	1.39														

## 8.6 Key Financial Indicators

The key financial indicators of the project are as follows:

### Key Financial Indicators

Financial Indicator	Estimated Value
Average DSCR	1.39
Project IRR (Post tax)	10.63%
Project IRR (Pre-tax)	11.36%
Equity IRR	11.56%

The debt servicing ability of SBTRCPL would be comfortable with an average DSCR of 1.39.

The projections are very conservative since the actual traffic is less than Target Traffic as per Concession Agreement. Also the extra fee to be collected from the Overloaded Vehicles has not been considered in the projections and thus this is a very safe and bankable proposal.



Annexure I: Revenue Projections

(In Rs. Crores)

Revenue - Toll Plaza 1 @ Km 25	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33
PCJ	1.91	2.36	2.76	2.93	3.39	3.64	4.18	4.77	5.42	5.87	6.63	7.46	8.44	9.43	10.59
LCV / Mini-bus	1.01	1.29	1.49	1.65	1.82	2.03	2.32	2.58	2.91	3.27	3.67	4.10	4.63	5.19	5.88
BUS	0.73	0.95	1.05	1.18	1.32	1.47	1.64	1.86	2.09	2.34	2.62	2.92	3.32	3.72	4.16
Truck (2 axle)	1.07	1.39	1.57	1.76	1.98	2.21	2.47	2.75	3.11	3.51	3.89	4.37	4.96	5.54	6.25
Truck (3 axle)	3.18	4.11	4.61	5.15	5.75	6.40	7.26	8.05	9.07	10.19	11.41	12.74	14.42	16.25	18.25
MAV (4-6 axle), Heavy Construction Machinery	15.47	20.06	22.14	24.86	27.80	31.52	35.06	39.48	44.31	49.58	56.00	62.31	70.68	79.06	89.03
Oversized Vehicles (7 or more axles)	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07
<b>Actual Revenue</b>	<b>23.40</b>	<b>30.19</b>	<b>33.64</b>	<b>37.56</b>	<b>42.09</b>	<b>47.32</b>	<b>52.98</b>	<b>59.54</b>	<b>66.96</b>	<b>74.81</b>	<b>84.26</b>	<b>93.95</b>	<b>106.51</b>	<b>119.25</b>	<b>134.23</b>

Revenue - Toll Plaza 2 @ Km 84	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33
PCJ	1.46	1.99	2.12	2.49	2.65	3.07	3.28	3.78	4.33	4.93	5.28	5.98	6.75	7.61	8.53
LCV / Mini-bus	1.40	1.82	2.06	2.33	2.62	2.81	3.15	3.67	4.09	4.56	5.07	5.80	6.42	7.30	8.06
BUS	0.59	0.76	0.86	0.95	1.06	1.19	1.34	1.49	1.69	1.91	2.14	2.40	2.70	3.04	3.41



Truck (2 axle)	1.24	1.56	1.77	1.99	2.24	2.51	2.80	3.12	3.47	3.93	4.44	4.90	5.60	6.27	6.99
Truck (3 axle)	3.46	4.49	5.05	5.67	6.34	7.08	7.88	8.95	9.91	11.17	12.56	14.06	15.96	17.77	20.03
MAV (4-6 axle), Heavy Construction Machinery	13.87	17.65	19.93	21.99	24.68	27.61	31.32	34.83	39.23	44.03	49.26	55.65	62.64	70.25	78.57
Oversized Vehicles (7 or more axles)	0.45	0.58	0.64	0.73	0.82	0.92	1.02	1.15	1.30	1.46	1.62	1.82	2.04	2.28	2.57
<b>Actual Revenue</b>	<b>22.47</b>	<b>28.84</b>	<b>32.44</b>	<b>36.14</b>	<b>40.40</b>	<b>45.19</b>	<b>50.80</b>	<b>56.99</b>	<b>64.02</b>	<b>71.98</b>	<b>80.36</b>	<b>90.61</b>	<b>102.11</b>	<b>114.52</b>	<b>128.16</b>

<b>Revenue - Toll Plaza 3 @ Km 145</b>	<b>Mar-19</b>	<b>Mar-20</b>	<b>Mar-21</b>	<b>Mar-22</b>	<b>Mar-23</b>	<b>Mar-24</b>	<b>Mar-25</b>	<b>Mar-26</b>	<b>Mar-27</b>	<b>Mar-28</b>	<b>Mar-29</b>	<b>Mar-30</b>	<b>Mar-31</b>	<b>Mar-32</b>	<b>Mar-33</b>
PCJ	0.90	1.18	1.29	1.51	1.61	1.87	2.04	2.35	2.55	2.91	3.31	3.59	4.05	4.64	5.20
LCV / Mini bus	0.50	0.61	0.70	0.80	0.90	0.96	1.08	1.23	1.37	1.54	1.71	1.99	2.20	2.44	2.80
BUS	0.60	0.79	0.87	0.99	1.08	1.23	1.38	1.55	1.73	1.93	2.20	2.45	2.77	3.11	3.49
Truck (2 axle)	1.27	1.67	1.84	2.10	2.30	2.60	2.93	3.29	3.68	4.10	4.68	5.19	5.87	6.61	7.42
Truck (3 axle)	3.25	4.10	4.66	5.10	5.76	6.47	7.25	8.10	9.24	10.26	11.62	12.84	14.44	16.48	18.41
MAV (4-6 axle), Heavy Construction Machinery	10.91	14.33	15.93	17.67	19.98	22.06	24.79	27.77	31.54	35.10	39.57	44.44	49.77	56.27	63.37
Oversized Vehicles (7 or more axles)	0.05	0.06	0.07	0.07	0.07	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.12	0.12	0.13
<b>Actual Revenue</b>	<b>17.48</b>	<b>22.74</b>	<b>25.37</b>	<b>28.24</b>	<b>31.71</b>	<b>35.27</b>	<b>39.56</b>	<b>44.36</b>	<b>50.21</b>	<b>55.95</b>	<b>63.19</b>	<b>70.62</b>	<b>79.22</b>	<b>89.68</b>	<b>100.83</b>

TOTAL Revenue	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33
PCJ	4.27	5.52	6.17	6.93	7.64	8.58	9.51	10.90	12.30	13.71	15.22	17.03	19.23	21.68	24.32
LCV / Mini bus	2.91	3.72	4.26	4.77	5.33	5.80	6.55	7.47	8.37	9.37	10.44	11.89	13.25	14.93	16.74
BUS	1.92	2.49	2.78	3.11	3.47	3.90	4.36	4.90	5.51	6.18	6.96	7.77	8.79	9.87	11.06
Truck (2 axle)	3.58	4.63	5.18	5.85	6.52	7.32	8.20	9.16	10.26	11.55	13.00	14.46	16.43	18.41	20.66
Truck (3 axle)	9.89	12.70	14.32	15.93	17.85	19.94	22.39	25.09	28.22	31.62	35.59	39.64	44.83	50.51	56.69
MAV (4-6 axle), Heavy Construction Machinery	40.26	52.04	58.00	64.52	72.46	81.20	91.17	102.08	115.08	128.71	144.83	162.40	183.09	205.58	230.97
Oversized Vehicles (7 or more axles)	0.53	0.67	0.74	0.84	0.93	1.03	1.15	1.28	1.44	1.60	1.78	1.98	2.22	2.47	2.77
Actual Revenue	63.34	81.78	91.44	101.95	114.20	127.78	143.34	160.89	181.19	202.74	227.82	255.18	287.84	323.46	363.22



Annexure II: Projected Profit & Loss Statement

(In Rs. Crores)

Year Ended	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33
Tollable Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
months (for toll revenue)	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Revenue	95%	100%													
Toll Receipts	63.34	81.78	91.44	101.95	114.20	127.78	143.34	160.89	181.19	202.74	227.82	255.18	287.84	323.46	363.22
Total Revenue	63.34	81.78	91.44	101.95	114.20	127.78	143.34	160.89	181.19	202.74	227.82	255.18	287.84	323.46	363.22
Expenditure															
SPV & Toll Plaza Operational Cost	4.15	4.80	5.08	5.39	5.71	6.06	6.42	6.80	7.21	7.64	8.10	8.59	9.10	9.65	10.23
Routine Maintenance Cost	4.19	4.84	5.13	5.44	5.77	6.11	6.48	6.87	7.28	7.72	8.18	8.67	9.19	9.74	10.33
Premium to PWD, Rajasthan	2.51	2.64	2.77	2.91	3.05	3.20	3.36	3.53	3.71	3.89	4.09	4.29	4.51	4.73	
Periodic Maintenance Cost	0.00	0.00	0.00	0.00	0.00	0.00	23.70	25.12	26.63	28.23	29.92	0.00	0.00		
Independent Engineer Fee	0.63	0.82	0.91	1.02	1.14	1.28	1.43	1.61	1.81	2.03	2.28	2.55	2.88	3.23	3.63



Operational Insurance	0.25	0.26	0.28	0.30	0.32	0.33	0.35	0.38	0.40	0.42	0.45	0.47	0.50	0.53	0.56
Total Expenditure	11.73	13.36	14.18	15.05	15.99	16.98	41.75	44.31	47.04	49.94	53.02	24.58	26.19	27.89	24.76
<b>PBDIT</b>	<b>51.62</b>	<b>68.42</b>	<b>77.27</b>	<b>86.89</b>	<b>98.21</b>	<b>110.79</b>	<b>101.58</b>	<b>116.57</b>	<b>134.14</b>	<b>152.81</b>	<b>174.79</b>	<b>230.60</b>	<b>261.66</b>	<b>295.56</b>	<b>338.47</b>
Less: Depreciation	29.48	38.06	42.56	47.45	53.15	59.47	66.71	74.88	84.33	94.36	106.03	54.43	0.00	0.00	0.00
<b>EBIT</b>	<b>22.13</b>	<b>30.36</b>	<b>34.71</b>	<b>39.45</b>	<b>45.06</b>	<b>51.32</b>	<b>34.87</b>	<b>41.70</b>	<b>49.82</b>	<b>58.45</b>	<b>68.77</b>	<b>176.17</b>	<b>261.66</b>	<b>295.56</b>	<b>338.47</b>
Less: Interest	46.75	49.29	47.97	45.72	42.45	38.10	33.15	25.45	20.61	14.98	8.80	0.80	0.00	0.00	0.00
<b>PBT</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-6.27</b>	<b>2.61</b>	<b>13.23</b>	<b>1.72</b>	<b>16.25</b>	<b>29.21</b>	<b>43.47</b>	<b>59.97</b>	<b>175.36</b>	<b>261.66</b>	<b>295.56</b>	<b>338.47</b>
Less: Income Tax	0.00	0.00	0.00	0.00	0.56	2.82	0.37	3.47	6.23	9.28	12.80	37.43	55.84	63.08	72.23
<b>PAT</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-6.27</b>	<b>2.06</b>	<b>10.41</b>	<b>1.36</b>	<b>12.78</b>	<b>22.98</b>	<b>34.19</b>	<b>47.17</b>	<b>137.94</b>	<b>205.81</b>	<b>232.48</b>	<b>266.23</b>



## Annexure III: Projected Balance Sheet

(In Rs. Crores)

For the year ending	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30	Mar-31	Mar-32	Mar-33
<b>LIABILITIES</b>																				
Equity Shares	90.00	90.00	158.52	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07	170.07
Reserves & Surplus			0.00	0.00	0.00	-24.62	-43.55	-56.81	-63.08	-61.02	-50.62	-49.26	-36.48	-13.50	20.69	67.86	205.80	411.62	644.10	910.33
Priority Loan					25.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Senior Debt	161.00	236.00	384.00	449.84	450.00	450.00	446.50	438.00	419.50	392.25	360.00	320.25	266.75	203.50	132.25	38.00	0.00	0.00	0.00	0.00
Current Liabilities	2.12	60.72	45.04	42.28	6.00	6.00														
FITL - 1					34.02	34.02	31.47	25.52	18.71	11.91	0.00									
FITL - 2					42.66	89.04	97.20	89.10	81.00	68.85	52.65	34.43	12.15							
<b>Total Liabilities</b>	<b>253.12</b>	<b>386.72</b>	<b>587.56</b>	<b>662.19</b>	<b>727.75</b>	<b>736.51</b>	<b>701.69</b>	<b>665.88</b>	<b>626.20</b>	<b>582.05</b>	<b>532.10</b>	<b>475.48</b>	<b>412.49</b>	<b>360.07</b>	<b>323.01</b>	<b>275.93</b>	<b>375.87</b>	<b>581.69</b>	<b>814.17</b>	<b>1080.40</b>
<b>ASSETS</b>																				
Gross Block					0.00	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89	750.89
Depreciation					0.00	29.48	67.54	110.10	157.55	210.69	270.16	336.87	411.75	496.08	590.43	696.46	750.89	750.89	750.89	750.89
<b>Net Block</b>					0.00	721.41	683.35	640.79	593.35	540.20	480.73	414.02	339.14	254.82	160.46	54.43	0.00	0.00	0.00	0.00
Capital WTP	100.90	244.57	527.38	660.92	726.01	750.89														
Less: Capitalized	0.00	0.00	0.00	0.00	0.00	750.89														
Closing Capital WTP	100.90	244.57	527.38	660.92	726.01															
Net Fixed Assets	100.90	244.57	527.38	660.92	726.01	721.41	683.35	640.79	593.35	540.20	480.73	414.02	339.14	254.82	160.46	54.43	0.00	0.00	0.00	0.00
Total Assets	100.90	244.57	527.38	660.92	726.01	721.41	683.35	640.79	593.35	540.20	480.73	414.02	339.14	254.82	160.46	54.43	0.00	0.00	0.00	0.00
Loan & Advances	106.68	80.90	46.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Current Assets	0.00	6.49	1.02	1.17	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cash & Bank																				
<b>Balances</b>	<b>45.54</b>	<b>54.76</b>	<b>13.12</b>	<b>0.10</b>	<b>0.57</b>	<b>15.09</b>	<b>18.34</b>	<b>25.08</b>	<b>32.85</b>	<b>41.85</b>	<b>51.37</b>	<b>61.46</b>	<b>73.35</b>	<b>105.25</b>	<b>162.55</b>	<b>221.50</b>	<b>375.87</b>	<b>581.69</b>	<b>814.17</b>	<b>1080.40</b>
<b>Total Assets</b>	<b>253.12</b>	<b>386.72</b>	<b>587.56</b>	<b>662.19</b>	<b>727.75</b>	<b>736.51</b>	<b>701.69</b>	<b>665.88</b>	<b>626.20</b>	<b>582.05</b>	<b>532.10</b>	<b>475.48</b>	<b>412.49</b>	<b>360.07</b>	<b>323.01</b>	<b>275.93</b>	<b>375.87</b>	<b>581.69</b>	<b>814.17</b>	<b>1080.40</b>



Annexure IV: Projected Cash Flow Statement

(In Rs. Crores)

Financial Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33
<b>Sources:</b>																				
Promoters Equity	90.00	0.00	68.52	11.55	0.00															
Senior Debt	161.00	75.00	148.00	65.84	0.16															
Priority Loan - Others					25.00	25.00														
Increase in WC	2.12	58.60	-15.68	-2.76	36.28	0.00	-6.00	0.00												
FITL - 1					34.02	0.00	-2.55	-5.95	-6.80	-6.80	11.91	0.00								
FITL - 2					42.66	46.38	8.16	-8.10	-8.10	12.15	16.20	18.23	22.28	-12.15						
Net Cash Accruals			0.00	0.00	0.00	4.86	19.13	29.30	41.18	55.20	69.87	68.07	87.66	107.30	128.55	153.20	192.37	205.81	232.48	266.23
Total	253.12	133.60	200.84	74.63	65.56	76.24	18.74	15.25	26.27	36.25	41.77	49.84	65.39	95.15	128.55	153.20	192.37	205.81	232.48	266.23
<b>Applications:</b>																				
Capital Costs	100.90	143.67	282.81	133.54	65.09	24.88														
Loans & Advances	106.68	-25.78	-34.86	-46.04	0.00															
Other Current Assets		6.49	-5.47	0.15	0.00	-1.17														
Repayment of Senior Debt			0.00	0.00	0.00	0.00	3.50	8.50	18.50	27.25	32.25	39.75	53.50	63.25	71.25	94.25	38.00			
Repayment of Priority Loan					0.00	38.00	12.00													
Total	207.58	124.38	242.48	87.65	65.09	61.72	15.50	8.50	18.50	27.25	32.25	39.75	53.50	63.25	71.25	94.25	38.00	0.00	0.00	0.00
Surplus/Deficit	45.54	9.22	-41.64	-13.02	0.47	14.52	3.24	6.75	7.77	9.00	9.52	10.09	11.89	31.90	57.30	58.95	154.37	205.81	232.48	266.23
Opening Cash & Bank Balance	0.00	45.54	54.76	13.12	0.10	0.57	15.09	18.34	25.08	32.85	41.85	51.37	61.46	73.35	105.25	162.55	221.50	375.87	581.69	814.17
Closing Cash & Bank Balance	45.54	54.76	13.12	0.10	0.57	15.09	18.34	25.08	32.85	41.85	51.37	61.46	73.35	105.25	162.55	221.50	375.87	581.69	814.17	1080.40



Annexure V: Projected Debt Service Coverage Ratio (DSCR)

(In Rs. Crores)

Particulars	2018- 19	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24	2024- 25	2025- 26	2026- 27	2027- 28	2028- 29	2029- 30
PAT	-24.62	-18.93	-13.26	-6.27	2.06	10.41	1.36	12.78	22.98	34.19	47.17	137.94
Add: Interest	46.75	49.29	47.97	45.72	42.45	38.10	33.15	25.45	20.61	14.98	8.80	0.80
Add: Depreciation	29.48	38.06	42.56	47.45	53.15	59.47	66.71	74.88	84.33	94.36	106.03	54.43
<b>Cash Accruals (A)</b>	<b>51.62</b>	<b>68.42</b>	<b>77.27</b>	<b>86.89</b>	<b>97.65</b>	<b>107.97</b>	<b>101.22</b>	<b>113.11</b>	<b>127.91</b>	<b>143.53</b>	<b>162.00</b>	<b>193.17</b>
Interest	46.75	49.29	47.97	45.72	42.45	38.10	33.15	25.45	20.61	14.98	8.80	0.80
Less: Interest Conversion into FITL 2	46.38	10.22										
Add: Interest During Construction	3.97											
Add: Repayment of Priority Loan	38.00	12.00										
Add: Repayment of FITL 1	0.00	2.55	5.95	6.80	6.80	11.91						
Add: Repayment of FITL 2	0.00	4.05	8.10	8.10	12.15	16.20	18.23	22.28	12.15			
Add: Debt Repayment (Term loan)	0.00	3.50	8.50	18.50	27.25	32.25	39.75	53.50	63.25	71.25	94.25	38.00
<b>Total Debt Servicing (B)</b>	<b>42.34</b>	<b>61.17</b>	<b>70.52</b>	<b>79.12</b>	<b>88.65</b>	<b>98.45</b>	<b>91.13</b>	<b>101.22</b>	<b>96.01</b>	<b>86.23</b>	<b>103.05</b>	<b>38.80</b>
<b>DSCR (A/B)</b>	<b>1.22</b>	<b>1.12</b>	<b>1.10</b>	<b>1.10</b>	<b>1.10</b>	<b>1.10</b>	<b>1.11</b>	<b>1.12</b>	<b>1.33</b>	<b>1.66</b>	<b>1.57</b>	<b>4.98</b>
<b>Avg. DSCR</b>	<b>1.39</b>											



## 8.7 Traffic Related Assumptions:

Survey year: December 2017

TP	Tollable Length	Cars	Buses	LCV\Mini Bus	Trucks	3 Axle	4-6 Axle	7 + Axle
TP 1 (25+000)	60 kms (including Bikaner Bypass of 9.85 Km)	1497	199	574	232	600	2023	1
TP 2 (84+000)	60 km	1289	172	697	272	689	1878	31
TP 3 (145+100)	52.384 (including 4 lane of 2.34 km)	967	157	268	314	715	1705	3

## Traffic Break up:

TP 1	Cars	Buses	LCV\Mini Bus	Trucks	3 Axle	4-6 Axle	7 + Axle
Local	11.66%	51.85%	27.50%	0.00%	0.00%	0.00%	0.00%
Single	65.34%	48.15%	27.50%	76.69%	92.77%	94.87%	94.87%
Daily/ Multiple	22.68%	0.00%	42.50%	22.56%	7.23%	5.13%	5.13%
Monthly	0.32%	0.00%	2.50%	0.75%	0.00%	0.00%	0.00%

TP 2	Cars	Buses	LCV\Mini Bus	Trucks	3 Axle	4-6 Axle	7 + Axle
Local	17.08%	53.57%	0.00%	0.00%	0.00%	0.00%	0.00%
Single	72.98%	46.43%	72.09%	88.89%	97.88%	98.89%	98.89%
Daily/ Multiple	9.94%	0	3.49%	3.70%	0.30%	0.00%	0.00%
Monthly	0.00%	0	24.42%	7.41%	1.82%	1.11%	1.11%

TP 3	Cars	Buses	LCV\Mini Bus	Trucks	3 Axle	4-6 Axle	7 + Axle
Local	16.71%	11.43 %	15.38%	0	0	0	0
Single	41.93%	88.57 %	84.62%	100.00 %	100.00%	100.00%	100.00 %
Daily/ Multiple	41.36%	0	0.00%	0.00%	0.00%	0	0
Monthly	0.00%	0	0.00%	0.00%	0	0	0



**Toll Rates for FY 2017-18**

TP	Cars	Buses	LCV\Mini Bus	Trucks	3 Axle	4-6 Axle	7 + Axle
TP 1	40.00	140.00	65.00	140.00	150.00	222.000	265.00
TP 2	40.00	130.00	65.00	130.00	145.00	190.00	250.00
TP 3	35.00	115.00	55.00	115.00	125.00	180.00	220.00

**8.8 Conclusion:**

The concessionaire expects Partial COD by 30<sup>th</sup> April, 2018 and it may collect toll from date of PCOD as per certified work done which is expected to be 95%. The concessionaire also expects to achieve Full-COD by 31<sup>st</sup> March, 2019. as per minutes of meeting of lender dated 03.02.2018 ( copy enclosed). as **Annexure-II** However the Provisional COD can be achieved by 30.04.2018, subject to availability of fund at the earliest and deployment of required man power and machinery by the concessionaire in due of course of time.

The Financial Analysis has been carried out on the basis of the information and traffic Projections provided by the Concessionaire and it is found that the project is techno commercial viable as is given below table:-

DSCR	PIRR ( Post tax)	PIRR (Pre tax)	EIRR
1.39%	10.63%	11.36%	11.56%

**Annexure No. I.**  
**Minutes Meeting letter dated 05.05.2017**

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**MINUTES OF MEETING**

A meeting was held on 5th May 2017 in the Chairmanship of the Chief Engineer (NH), PWD, Rajasthan, Jaipur to review the Bikaner-Suratgarh PPP-NH projects. The list of members attended the meeting is enclosed as Annex-A.

**Bikaner-Suratgarh NH-15**

Name of Concessionaire	: M/s Suratgarh - Bikaner Toll Road Company Pvt. Ltd (MBL-SREI Consortium)
Name of IE	: M/s ICT Ltd.
Total project cost	: Rs. 501.08 Cr. (with a Premium of Rs 2.51 Crores)
Project length	: 172.38 Km (2 L + PS)
Available length	: 170.00 km
Appointed Date	: 16.09.2013
Stipulated date of completion	: 15.09.2015
Construction period	: 2 Years
Concession period	: 16 Years (including construction period)
Progress	: Financial = 603.10 Cr. (97.26%) Physical = 161.00 km (87.57%)

With the permission of the Chair, Mr T P Velayudhan, Independent Engineer (ICT Private Ltd.) updated on the status of the project and stated that an estimate amount of Rs. 40 crores approx. would be required to achieve Pre COD for 93% of the completion of the Project (toll for 93% length of the highway can be collected). He further stated that this would make Concessionaire eligible to start commercial operation of the Project and generate revenue to the tune of Rs. 8 crores to Rs. 9 crores on the monthly basis through toll collections.

Pursuant to that Mr. Lakhota stated that as per estimate an amount of Rs. 25 crores will be required, for achieving pre COD. Concessionaire has arranged the same from other external sources. It was also informed by Concessionaire that entire equity and debt released by Banks, have already been spent on the project, however, additional amount of Rs. 75 crores (Rs. 25 crores for pre COD) will be required for completion of the project due to increase in interest during the construction period. He assured to start the project immediately and will provide a bar chart programme to infuse the funds to the IE.

In relation to the queries/issues raised by the Project Lenders (enclosed with this minute), the Authority stated that all of Project Lenders' issues are in relation to the Project beyond 93% and the same has no bearing on the 93% pre-COD. The timelines for completion of the entire Project (full COD) was agreed by all the members as March 31, 2018 as proposed by Concessionaire / IE.



The members noted that with availability of funds of Rs. 25 crores, 93% pre-COD can be achieved within 60 days. It was also decided that the Lenders shall discuss and resolve all the issues with approval from their Competent Authority regarding utilization of the proposed fund of Rs. 25 crore, which is being brought by the Concessionaire for 93% pre-COD, to enable the Concessionaire to start the development work immediately.

Mr. Subeer Srivastava, from PNB, Lead Bank, (representing the Project Lenders) requested the Authority present in the meeting to appraise on the completion formalities to be completed within the time frame. He further requested that schedule of activities for completion of the 93% pre-COD may be finalized.

With the above mentioned proposed timeline, and subject to the approval of the Lenders regarding use of the proposed funds of Rs. 25 crores for 93% pre-COD, the pre COD date can be achieved till 31<sup>st</sup> July 2017. Detailed timelines-work programme will be provided by the Concessionaire to all the stakeholders.

In the meeting it was also agreed that safety audit be initiated in terms of the Concession Agreement.

Encl :- A/A

F. -7 (259)/Part-IV/BOT/PPP-NH/D- 71

(Anil Kumar Garg)  
Chief Engineer (NH)  
Dated: 05.05.2017

Copy to following for information & necessary action please -

1. SA to Hon'ble PWM, Govt. of Rajasthan
2. PS to Addl. Chief Secretary, PWD & Infra Govt. of Rajasthan Jaipur.
3. PS to Secretary, PWD Govt. of Rajasthan Jaipur
4. PS to Chief Engineer (NHDP-IVA), MoRTH, New Delhi
5. Regional Officer, MoRTH, Jaipur.
6. Project Director cum Superintending Engineer PWD NH Circle Jaipur
7. Senior Leader, Chief Manager, PNB, MCB, Noida.
8. AGM, SBI (State Bank of Patiala), Janpath, Near Delhi.
9. Senior Manager, Corporation Bank, Kolkatta.
10. DGM, Dena Bank, Delhi.
11. DGM, Central Bank of India,
12. IEM's ICT Ltd. New Delhi
13. M/s Suratgarh Bikaner Toll Road Company Pvt. Ltd., New Delhi.
14. M/s SREL, Kolkata

(V.K. Singh)  
SE (NH-PPP)



**Annexure No. II**  
**Minutes of Meeting letter 03.02.2018**

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**Mid Corporate Branch**  
**H-1A/11 Sector – 63 NOIDA**  
**0120-2427156-160**

Central Bank of India Corporate Finance Branch, 33, N.S. Road, Kolkata-700001	State Bank of India Project Finance Cell, 4 <sup>th</sup> Floor, Red Fort Capital Parsvnath Towers, Bhai Veer Singh Marg, Gole Market, New Delhi- 110001
Dena Bank Corporate Business Branch E-13/29, Harsha Bhawan, Cannaught Circus, New Delhi-110001	Corporation Bank Corporate Banking Branch, Hindustan Times House, 10 <sup>th</sup> Floor, 18/20, K.G. Marg, Connaught Place, New Delhi-110001
Suratgarh Bikaner Toll Road Company Pvt Ltd Baani Corporate one, 303, 3 <sup>rd</sup> Floor, Plot No. 5 Commercial Centre, Jasola,, New Delhi- 110076	The Director, Credible Management and Consultants Pvt Ltd 177, Block-R, Greater Kailash-I, New Delhi-110048
The Chief Engineer (NH), Office of Chief Engineer (NH), Public Works Department (PWD), Govt. of Rajasthan, Room no- 201, 2 <sup>nd</sup> Floor, A Block, Nirman Bhawan, Civil Lines, Jacob Road, Jaipur	The Director, (IE, Govt. of Rajasthan) M/s Intercontinental Consultants and Technocrats Private Limited A-8, Green Park, New Delhi-110016
IRR Insolvency Professionals Private Limited Defence Colony New Delhi	

**Date: 19.02.2018**

**Minutes of the meeting of JLF of M/s Suratgarh Bikaner Toll Road Company Private Limited (SBT) held on 03.02.2018 (Saturday) at 11.00 AM at Punjab National Bank, Zonal Office Delhi**

The meeting was attended by all consortium lenders, representatives of the company and IRR Insolvency Professionals Pvt Ltd. The attendance sheet is enclosed

Shri V P Jain, Zonal Manager welcomed the participants and thanked them for participating in the meeting. He requested them to deliberate on the agenda one by one.

1. **Confirmation of last minutes:** The minutes of the last JLM and lenders' meeting held on 20.01.2018 already circulated on 20.01.2018 were confirmed
2. **To discuss the progress of the project:**

It was informed by the lead bank that during the course of the inspection of project site by IE on 20.01.2018, IE in the report dated 23.01.2018 has apprised that major construction work has not been started. The copy of the IE letter dated 23.01.2018 was circulated to the bankers.

Shri Lakhota informed that though all works involving less monetary implications like signages, thermo plastic paint, shoulder preparation, maintenance etc have been taken up, financially heavy items like BC, toll plaza etc could not be taken up due to lack of funds. The lack of funds was caused because the parent company was under the CIRP and the company could not arrange the funds from the external sources on



*[Handwritten signature]*

mutually acceptable terms. He also informed that though PWD, Rajasthan had recommended to MORTH for considering the loan facility of Rs 50.00 crore way back in July 2017, no decision on the same has yet been taken by MORTH so far.

The lenders expressed their concern over inordinate delay in project implementation and were of the view that the urgency to achieve PCOD without any further loss of time cannot be over emphasized.

The company was requested to do all the necessary acts, deeds and things which may be required to rectify the deficiencies pointed out/implement the suggestions made by IE and achieve the PCOD/COD without any further delay.

### **3. To discuss further developments and way forward:**

It was informed by the lead bank that as decided in the last lenders' meeting, the proposal for HO approval for making reference under NCLT has already been submitted to HO.

The company circulated sequence of events from March 2017 leading to the present state of affairs. Presently, out of the cure period, only 1.5 months are remaining which can at maximum be increased by 3 months by PWD subject to performance during this period. Shri Lakhota informed that the resolution plan of the parent company M/s MBL Infrastructure Limited is likely to be approved as more than 75% of the lenders have voted in favour. The efficacy of the securities available to the lenders of SBT is dependent on the said resolution plan. Though the SBT project is under the close monitoring of the highest authorities of MORTH, Shri Lakhota was not optimistic of getting the loan sanctioned by MORTH during the remaining curing period of 1.5 months. He also ruled out the possibility of the sanction of loan by external sources on reasonable terms. He requested the banks not to take the harsh action by taking the company to NCLT as nearly 90% of the project work is already complete and the resolution of the parent company is immediate. The bankers agreed to the request of Shri Lakhota for not approaching the NCLT and to find ways for completing PCOD at the earliest. Shri Lakhota requested the existing banks to consider additional exposure of Rs 25.00 crore so that the PCOD may be achieved by 30.04.2018 and full COD by 31.03.2019.

The matter was deliberated at length by the lenders who were of the view that they have been left with no choice but to accept the request of the company for additional funding of Rs 25.00 crore. However considering the time constraints it was suggested that PNB (being the Lead Bank), subject to approval from its competent authorities, should take the entire exposure (instead of each bank taking the pro rata share). All banks agreed to cede priority charge on entire cash flows of the project and pari passu charge on the project assets in favour of PNB for the said priority funding of Rs 25.00 crore. Shri Lakhota agreed to execute his personal guarantee in favour of the consortium banks for securing their original loans of Rs 450.00 crore (along with interest and other charges) immediately & additional funding of Rs 25.00 crore and perfect the existing & future securities for the consortium banks. It was agreed by all that the remaining work will be done by another EPC contractor of

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repute. It was clarified by the company that the approval of PWD will not be required for getting such work done by other EPC contractor. It was assured by the company that MBL will provide the existing plant & machinery and other resources at the project site to facilitate the earliest completion of work.

#### 4. Pool Account

It was decided that the company will reimburse immediately to the lead bank all expenses such as insurance etc already incurred/to be incurred by the lead bank.

Thereafter, the meeting came to an end with a vote of thanks to the chair.



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