

Infrastructure - Construction

MSRDC – Setting a precedent for infrastructure construction in the country

Summary

We had recently organized a meeting of investors with Maharashtra State Road Development Corporation (MSRDC) senior officials on "Discussion on Mega Infrastructure Projects in Maharashtra". We discussed four key projects that MSRDC is executing and came out with positive vibes on the innovative, time bound and result oriented approach of the corporation in executing these projects. What impressed us most is that despite the humongous scope of the projects, myriad obstacles and political intervention, these projects are likely to set a precedent in the history of infrastructure building in the country on how to plan and execute a mega infrastructure project. The cumulative cost of these projects is Rs750bn to be executed over the next 3 to 5 years. In this report we look at the details of these projects and EPC opportunity therein.

Introduction of MSRDC: MSRDC is a Maharashtra state owned entity responsible for planning, designing, constructing and managing road projects, flyovers, bridges, light rail transit, sea links and water transport in the state of Maharashtra. At present Mr. Eknath Shinde is the Chairman of the corporation and Mr R. L. Mopalwar (IAS) is Vice Chairman and Managing Director. Current projects under MSRDCL are Mumbai Nagpur Samruddhi Mahamarg, Versova-Bandra Sea Link Project, Mumbai-Pune Expressway-Missing Link, Thane Creek Bridge-3 etc.

Mumbai Nagpur Expressway-big on scope, big on execution: This project was the main point of discussion with the investors as it one of the largest greenfield expressway in the country spanning 700 kms with EPC cost of Rs554bn. Key highlight of the project is the pace of execution unprecedented in the country right from conception to DPR to Land acquisition to environmental approvals to finalization of contracts and award of appointed dates. All this happened in the span of approximately 2 years which we believe is a record in the country.

Other projects: Along with Mumbai Nagpur, the other projects discussed in the meeting are Bandra – Versova Sea link (Rs111bn cost and work to start post monsoon), Mumbai – Pune expressway missing link (Rs48bn cost and work orders given out and work is in progress) and Thane creek bridge (Rs5.6bn EPC work awarded to L&T)

Conclusion: As mentioned earlier, we like the pace of execution of these projects which coupled with innovative ways of getting approvals, faster land acquisition with consent and achieving financial closure of the project has set an envious example for various other infrastructure implementing authorities in the country. Completion of these projects is likely to have an enormous impact on the overall economy in terms of attracting investments and job creation in our view.

Exhibit 1: Valuation Snapshot

Companies –	СМР	TP		Revenue	(Rs mn)	Ebitda (Rs mn)	EPS	(Rs)	PER	(x)	P/B	(x)	EV/EBI	TDA (x)	RoE(%)	RoCE(%)
Companies –	(Rs)	(Rs)	Reco	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E	FY20E	FY21E	FY21E	FY21E
Dilip Buildcon Ltd	485	717	BUY	1,08,130	1,20,708	19,006	21,224	60.5	71.7	8.0	6.8	1.6	1.3	5.2	4.4	21.8	18.8
PNC Infratech Ltd	157	183	BUY	34,767	41,720	4,884	5,861	10.5	13.2	14.9	11.9	1.7	1.5	9.3	7.6	13.7	14.5
Sadbhav Engineering Ltd	220	219	BUY	43,815	50,767	5,331	6,130	14.1	16.9	15.6	13.0	1.7	1.5	9.3	8.0	12.1	13.6
Ashoka Buildcon Ltd	117	174	BUY	46,235	55,482	5,548	6,658	11.8	13.2	10.0	8.9	1.3	1.2	7.0	6.0	13.9	16.1
KNR Constructions	231	218	HOLD	24,237	28,193	4,115	4,579	13.9	15.3	16.7	15.1	2.1	1.8	8.5	7.1	12.9	14.6

Source: BSE: IDBI Capital Research



Introduction to MSRDC

The Maharashtra State Road Development Corporation Limited (MSRDCL) is an Indian public limited company established on 9th July 1996 and owned by Government of Maharashtra. It's responsible for planning, designing, constructing and managing road projects, flyovers, bridges, light rail transit, sea links and water transport in the state of Maharashtra. At present Mr. Eknath Shinde is the Chairman and Mr. R. L. Mopalwar (IAS) is the Vice Chairman and Managing Director.

It has delivered various projects in past viz. Mumbai- Pune Expressway, Bandra-Worli Sea Link, Airoli Bridge, Four Laning of NH-4 stretch between Satara and Kolhapur, 35 flyovers in Mumbai, skywalks, Santacruz Chembur Link Road (SCLR), Jogeshwari-Vikhroli Link Road (JVLR).

Current projects under MSRDCL are Mumbai Nagpur Super Communication Expressway, Maharashtra Samruddhi Mahamarg, Versova-Bandra Sea Link Project, Mumbai-Pune Expressway-Missing Link, Thane Creek Bridge-3.

Exhibit 2: Management Details					
Name	Designation				
Shri. Eknath Shinde	Hon'ble Minister for Public Works(Public Undertaking), Chairman				
Shri. Madan Madhukarrao Yerawar	Hon'ble Minister of state for Public Works(Public Undertaking), Co Chairman				
Shri. R.L.Mopalwar (I.A.S)	Vice Chairman & Managing Director.				
Shri. R.A. Rajeev	Nominee Director, Metropolitan Commissioner- MMRDA				
Shri. C.P. Joshi	Secretary (Roads) PWD				
Shri. A. A. Sagane	Secretary(Works), PWD				
Shri. Vijay Waghmare (I.A.S)	Joint Managing Director (II)]				
Dr. Chandrakant Pulkundwar (I.A.S)	Joint Managing Director (III)				
Shri. Shreedhar Maccha	CFO/MSRDC & NMSCEW				
Source:MSRDC					



Mumbai Nagpur Expressway

It is one of the biggest projects in Maharashtra with total cost estimated to be Rs.554 Billion. This project will work as a catalyst to Maharashtra's overall economic growth. Mumbai, major port city of Maharashtra and an economic hub is very well connected with Pune (via. 10 Lanes), Pune to Satara (via 6 Lanes) and Satara to Kolhapur (via 6Lanes). Western Maharashtra is well connected but Eastern Maharashtra which compromise of 2/3rd of Maharashtra is not connected. This project will connect hinterland of Maharashtra which are major producer of Agro-products, mineral resources ,etc. As a part of this project, various spurs are also being constructed to provide accessibility to this expressway to various remote districts and villages. This project, over time would create 20 new townships which in span of time will generate 20,000 direct employments and 30,000 indirect employments.

Maharashtra Samruddhi Mahamarg project includes:

- The Nagpur Mumbai Super Communication Expressway, connecting JNPT in Mumbai and MIHAN in Nagpur.
- A feeder network, linking 14 neighboring districts to this expressway and
- Twenty plus Krushi Samruddhi Kendra (new towns), equipped with modern amenities, agro-based industries, and a commercial hub will be developed at the intersections.

Features of the Projects:

- Expressway will be 700 Km long and will have a speed limit of 150 KMPH. Commuters will cover the distance between Nagpur and Mumbai in 8 hours and transporters in 16 Hours.
- Total width of the expressway is 120m with a central median of 22.5m will follow the international standards of design. It will be 8 lanes project, 4 lanes on each side. It will also have service roads on both sides of the roads connected by the underpass.
- It will have around 50+ flyovers, 24+ interchanges, 5+ tunnels, 400+ Vehicular and 300+ pedestrians' underpasses.
- Automated toll collection is proposed. Rain water would also be harvested along the span of the expressway.
- The expressway is proposed to be a Zero Fatality Mahamarg; it will have CCTV surveillance and free telephone booths at every 5 km to allow reporting in case of any accidents.
- It will provide connectivity to 24 districts out of 36 districts in Maharashtra. It will cover 392 villages and will cover five out of six revenue divisions.



- It will connect several industrial areas, Delhi Mumbai Industrial Corridor (DMIC), the Western Dedicated Freight Corridor (WDFC), dry ports of Wardha and Jalna and Mumbai's JNPT.
- The hinterland of Maharashtra will be connected to the port of Mumbai and multi-modal cargo hub in Nagpur.

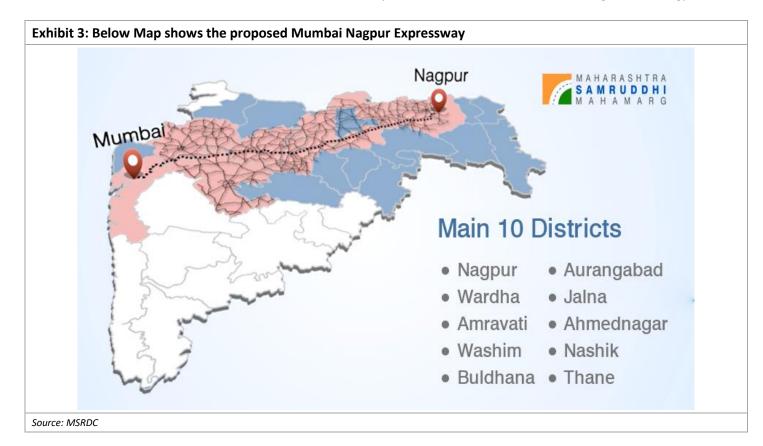
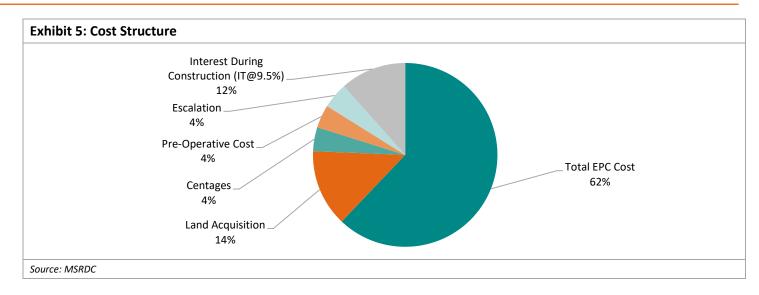


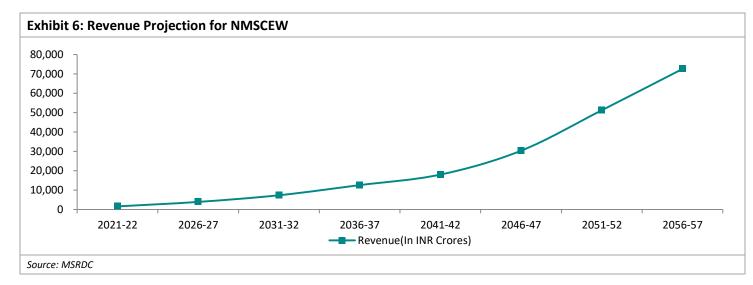


Exhibit 4: EPC packages and the contractors

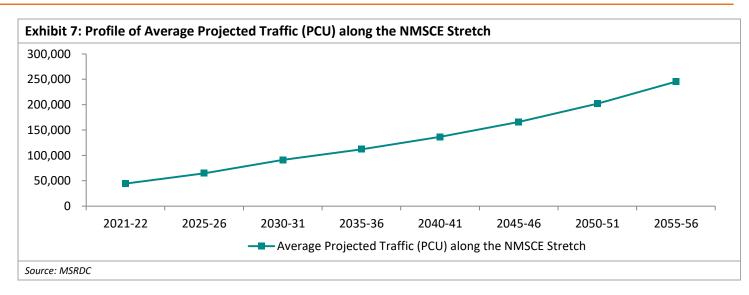
Package No.	Name of EPC Contractor	Length (in Km)
CP-1	M/s. Megha Engineering & Infrastructure Ltd	31
CP-2	M/s. Afcon Infrastructure Ltd.	58.4
CP-3	M/s. NCC Ltd.	73.4
CP-4	M/s. PNC Infratech Ltd.	54.4
CP-5	M/s. Sadbhav Engineering Ltd.	42.9
CP-6	M/s. APCO Infratech Pvt. Ltd.	36.1
CP-7	M/s. Reliance Infrastructure Ltd	51.2
CP-8	M/s. Montecalro Ltd. Iron Tingle Ltd. JV	42.7
CP-9	M/s. Megha Engineering & Infrastructure Ltd	54.4
CP-10	M/s. L & T Limited	57.9
CP-11	M/s. Gayatri Projects Ltd	29.4
CP-12	M/s. Dilip Buildcon Ltd	45.6
CP-13	M/s. BSCPL GVPR JV	45.6
CP-14	M/s. AFCONS Infrastructure Ltd.	13.1
CP-15	M/s. Navayuga Engineering Company Ltd	28
CP-16	M/s. Navayuga Engineering Company Ltd	37













Versova Bandra Sea Link

It is one of the important project to decongest the traffic transit from Suburbs (like Bandra, Andheri, Goregaon) from city road of Mumbai like SV Road, Western Express Highway, etc. Project was awarded to Reliance Infrastructure Ltd and Astaldi S.p.A, (JV) on 5th May, 2018, when it emerged as a lowest bidder. The bidding amount is Rs.69.93 Billion. The EPC contractor has submitted the Performance Bank Guarantee amounting to Rs.3.49 Billion. The Total project cost is Rs. 113.32 Billion. The Scheduled Construction period is 5 years from the Appointed Date.

Benefits of the Projects:

- Reduction in travel distance and increase in speed. As more than 50% of traffic for south Mumbai is generated from Suburbs like Andheri, Goregaon, Bandra. Construction of the sea link would divert traffic from city roads like S.V. Road, Western Express Highway, etc.
- Saving in travel time (about 45 Minutes) due to a reduction in distance & increased in speed.
- Fuel saved due to the reduction in journey time.
- Environmental Benefits due to less burning of fuel.
- Ease of traffic results in a good driving experience.

Exhibit 8: Salient Features of Pr	•
Main Link (Bandra to Versova)	9.60 Km (4+4 Lane)
Bandra Connector	1.17 Km (2+2 Lane)
Otter's Club Connector	1.80 Km (3+3 Lane)
Juhu Koliwada Connector	2.80 Km (2+2 Lane)
Nana Nani Park	1.80 Km (3+3 Lane)
Total Cost of Project	Rs113.3bn
Concession Period	Up to 2052.
Navigational Channel	4 Nos. 100m span at Bandra, Otter's Club, Juhu Koliwada and 150m span at Versova.
Source:MSRDC	

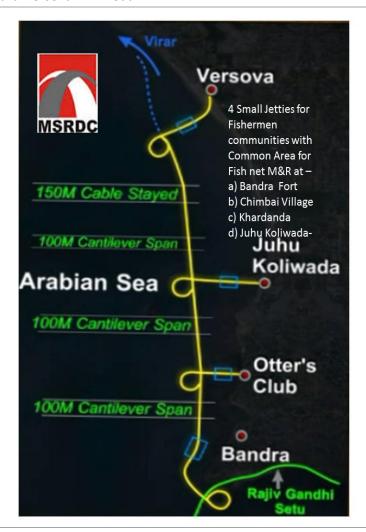


Present Status:

Physical work will commence after the monsoon.

Work will be completed in 5 years from the date of commencement.

Exhibit 9: Schematics of Bandra Versova Link Road



Source: MSRDC



Mumbai Pune Expressway – Missing Link

The Mumbai Pune Expressway is 6 lane road connecting Mumbai to Pune. Mumbai Pune Expressway meets NH-4 near Khalapur Toll plaza and separate near Khandala exit. The section from Adoshi Tunnel to Khandala exit is a 6-lane road but the traffic of 10-lane road (6-lane of Mumbai-Pune Expressway + 4-lane of NH-4) is plying in this section. This results in requirement of Mumbai Pune Expressway-Missing Link. Estimated cost of the project is Rs.47.97bn. Concession period of 15 years from 2030 to 2045 was sanctioned. Actual traffic and toll collection be reviewed after 10 years (if necessary) and the concession period be revised accordingly. Letter of Acceptance was issued to EPC contractor M/s. Navayuga Engineering Co. Ltd. for Package-I and M/s. Afcons Infrastructure Ltd. for Package-II on 30.08.2018.

Benefits of the Project

- The length of existing Mumbai Pune Expressway section from Khopoli exit to Sinhgad Institute is presently 19 km. This distance will be reduced to 13.3 km after the construction of this new missing link. After the completion of projects, travel time will be saved by 20-25 Mins and the distance between Mumbai-Pune will be reduced by 6 Kms.
- The Project will ensure smooth traffic movement and fewer accidents. Traffic congestion in the ghats section will be reduced as major traffic will be diverted on Missing Link Alignment

Projects Key Highlights

- The project includes widening of the existing expressway from 6 lanes to 8 lane (km. 32+800 to km. 38+660)
- Construction of 2 viaducts which includes 1 cable-stayed bridge.
- Improvement of 3 Toll Plazas (Shedung Toll, Khalapur Toll, and Talegaon Toll)
- Construction of Twin Tube Tunnels (4 Lane each) of diameter 21.45 m each.

Details of Projects

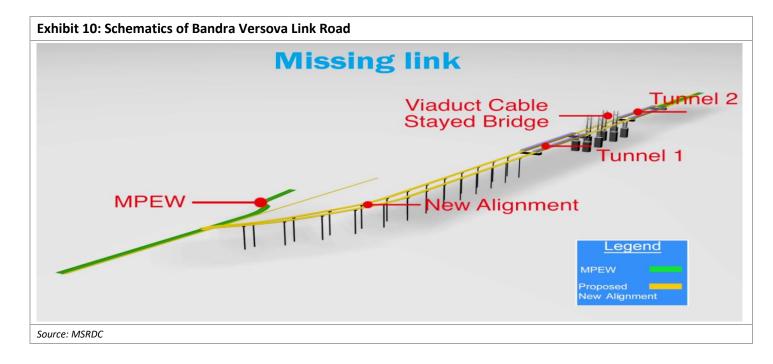
- M/s. Geodata-LB Consortium is appointed as Authority Engineer
- M/s. Navayuga Engineering Co. Ltd. Appointed as EPC contractor for Package I- Tunnel Section amounting to Rs. 26.97 bn. Appointed Date declared as 21st February 2019.
- M/s. Afcons Infrastructure Ltd. Appointed as EPC contractor for Package-II Viaduct Section amounting to Rs. 14.92 bn. Appointed date declared is 3 years for both packages.



- Cabinet Sub Committee of Infrastructure has approved revised estimated project cost of Rs.66.95 bn.
- State Environmental Impact Assessment Authority (SEIAA) granted environmental clearance for the Missing Link Project on 24th August 2018.
- This project has received Stage I Forest Clearance subject to compliance of conditions.
- Working Permission is awaited from CCF, Pune (Nodal officer).

Physical Work Progress

- The package I (tunnel): Excavation of tunnel 2 exit portal is in progress.
- Package II (Widening Section (5.86 Kms)): Widening of existing major bridges (3 Nos.)- Foundation works on all major bridges (3 Nos.) is in progress.







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