



ELSAMEX MAINTENANCE SERVICES LIMITED

**ADAPTIVE | COLLABORATIVE | DRIVE | INCLUSIVE |
CONSCIENTIOUS**

**1207-1210, Shapath V, Nr. Hotel Crowne Plaza, S. G. Highway,
Ahmedabad, Gujarat, India - 380015**

Overview



Project Experience

Micro-surfacing

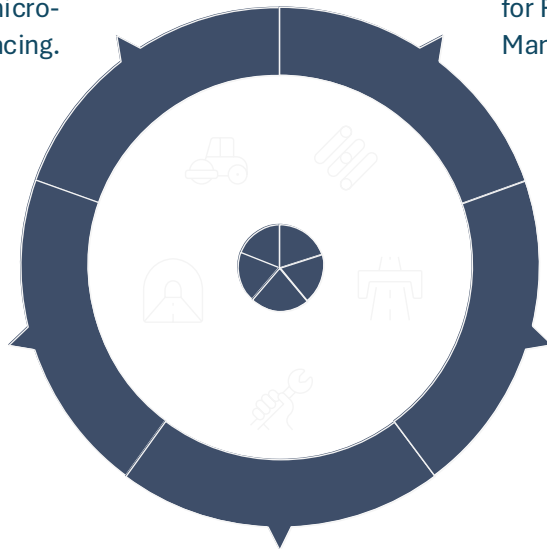
Executed over 50 lakh square meters of micro-surfacing.

Project Manager

Managed 6 InvIT entities for Roadstar Investment Managers Ltd.

Tunnel O&M

Managed operations of the largest road tunnel in Southeast Asia.



Toll Operations

Handled toll operations at 23 toll plazas across India.

O&M Operator

Operated assets for NHIT, Cube Highways, and Adani Roads.

Sikar Bikaner Highway Ltd. (SBHL)

Two Lane with Paved Shoulder of Sikar - Bikaner Section of NH-11

Moradabad Bareilly Expressway Limited (MBEL)

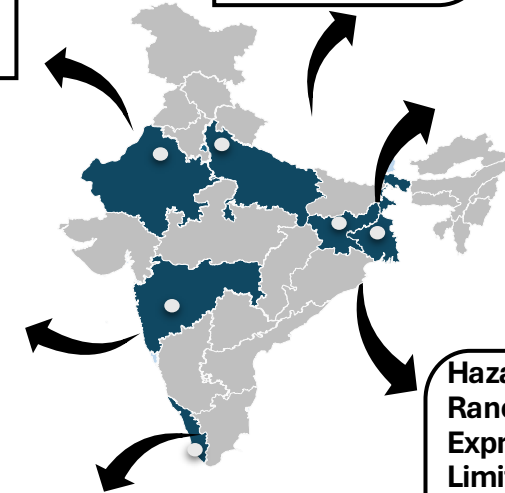
Four Lane Moradabad – Bareilly Road Section of NH-24

Barwa Adda Expressway Limited (BAEL)

Six Lane Barwa – Adda Road Section of NH-2

Pune Sholapur Road Development Company Limited (PSRDCL)

Four-lane of Pune-Sholapur section of NH-9



Hazaribagh Ranchi Expressway Limited (HREL)

Four Lane of Hazaribagh - Ranchi Section of NH - 33

Thiruvananthapuram Road Development Company LTD (TRDCL)

Thiruvananthapuram City Road Improvement Project

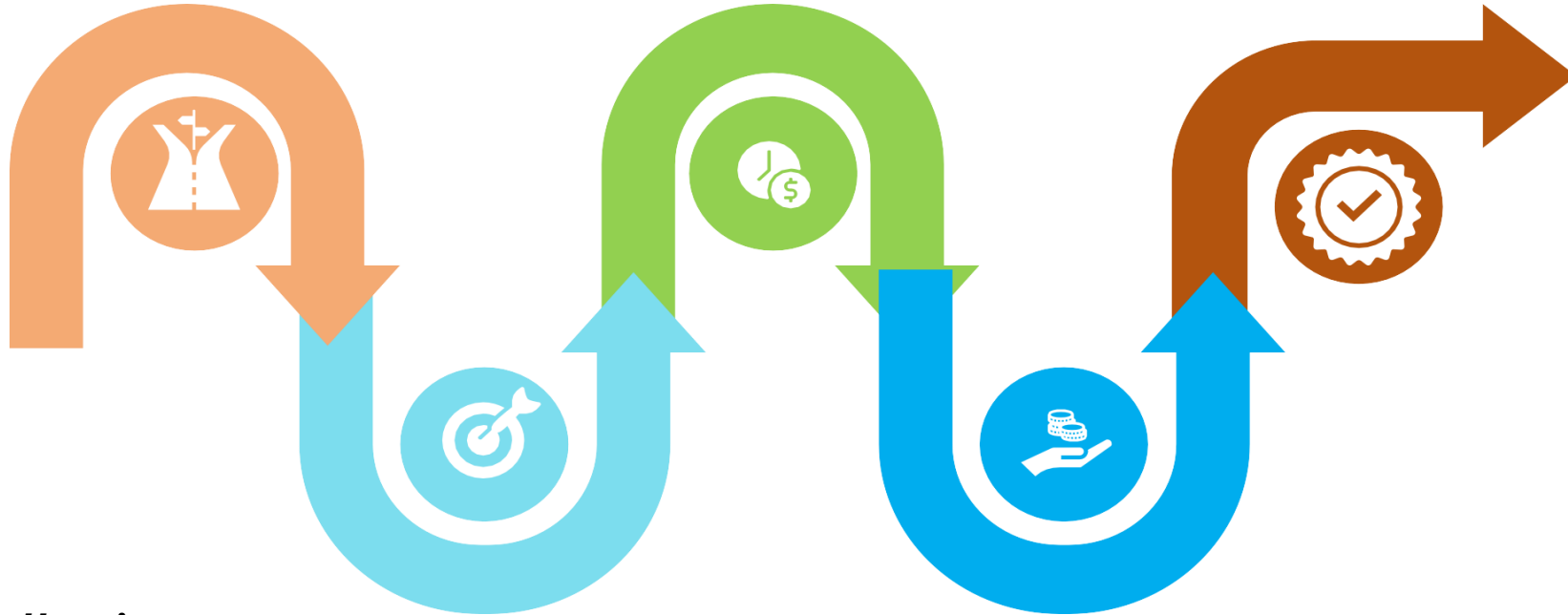
- O&M Operator for Assets of NHIT, Cube Highways ,Adani Roads.
- O&M of Largest road Tunnel in Southeast Asia 9.28 Km
- Pioneer in Micro-surfacing with over 50 lakh square meters executed till date

Journey Outlook



EMSL Recently Acquired ATMS Work Worth 62 Crores

Portfolio
Over 4700 lane-kms
Across 12 States



Revenue
FY2023 : ₹223 Cr.
FY2024 : ₹198 Cr.
FY2025 : ₹233 Cr.

Toll Collections
FY2023 : ₹1,485 Cr.
FY2024 : ₹1,562 Cr.
FY2025 : ₹1,094 Cr.

Annuity
FY2023 : ₹1,402 Cr.
FY2024 : ₹1,257 Cr.
FY2025 : ₹1,257 Cr.

Net Worth
FY 2023 : ₹31 Cr.
FY 2024 : ₹52 Cr.
FY 2025 : ₹48 Cr.

Services Bouquet



Structured & Quick take over from Implementation team/ old Concessionaire

- ✓ *Project Documents, Drawings, Warranties, TMS, ATMS, Asset survey & inventory*
- ✓ *Existing WO/PO/Contracts*

Routine Maintenance

- Fulfil all the maintenance requirements as per CA
- General cleaning & upkeep of Project Highway
- Avenue & Median Plantation, Weed removal, watering, maturing, trimming
- Maintenance & upkeep of Road furniture – Sign boards, Crash barriers, road marking
- Maintenance of Highway Lighting and other ancillary features
- Pavement Maintenance

Routine Maintenance

- Periodic Overlay
- Bituminous Overlay / Resurfacing
- Structural Rehabilitation
- Micro-surfacing

Preventive Maintenance

- Bituminous repairs like fog seal, chip seal, slurry seal, micro-surfacing, crack treatment, and hot mix overlays.
- Pre & Post Monsoon Activities
- Structural safety audits

Incident Management



**Round the
clock Route
Patrolling**



**Ambulance
Services**



**Towing
Services**



**First Aid &
Accident
Assistance**



**Watch & ward
of Project
Assets**



**Maintenance
of Road User
facilities**



Complete ITS Solutions Onsite and remote support for the Automated infrastructure on Round the Clock basis

- Inhouse teams for ITS Software Development and round the clock support
- Fully configurable & scalable software pre-integrated with various HETC and ATMS hardware from multiple OEMs
- Multi-Level Quality check and Software Integration test before deployment
- Onsite and remote support on round the clock basis
- Proven experience in seamless upgradation of any existing TMS System to HETC as per mandated guidelines and specifications
- Regular Vulnerability Assessment & Penetration Testing (VAPT) for the software and network infrastructure
- Certifications –
 - CMMI Level -3
 - ISO 9001:2015
 - ISO 20000-1:2018
 - ISO 27001:2022
 - ISO 27017:2015

Premier System Integrator in SITC & Integration of Toll Management Systems on 100+ Tolls Across India. In House toll Collection Software. Empaneled with IHMCL as System Integrator

- | | |
|---|--|
| <ul style="list-style-type: none">• 360° perspective due to expertise and years of experience in<ul style="list-style-type: none">• Concessionaire• ITS System Integrator (Empanelled with IHMCL)• Tolling Operator• Design, Development & Implementation• Operation & Maintenance of ITS & Electrical Systems• Extensive Project Management and execution experience• Proven Track Record of Successful Project Implementation | <ul style="list-style-type: none">• Design, Development, SITC and Operation & Maintenance & In-house software<ul style="list-style-type: none">• Toll Management Systems• Semi Automatic Toll Collection Systems• Fully Automatic Toll Collection Systems• Hybrid Electronic Toll Collection systems• Multi-Lane Free Flow Toll Collection Systems (under development)• Highway/Advanced Traffic Management Systems (H/ATMS)• Toll Plaza Electrical Works• Highway Lighting |
|---|--|

Revenue & Traffic Management

- Revenue Reconciliation, Assurance and Management
- Exemption and Violation Control
- Traffic Management
- Ensure Road and User Safety
- Weight Enforcement and Revenue Analysis
- Control Analytics and Implementation
- MIS, Data Analysis, Monitoring & Reporting
- **Regular Monitoring and support from HO**
Strengthening Verification Processes
- Employee Training & Shift Briefings
- Potential Revenue Areas
- Process Gaps Identification
- Root Cause Analysis
- Risk Assessment, Control and Mitigation measures
- Threats & Opportunities
- Stakeholder's Co-ordination and liasoning



1. Highway Lighting Systems

- **High Mast & Street Lighting Installation:**

Deployment of durable, energy-efficient lighting for highways, expressways, toll plazas, interchanges, and service roads.

- **Smart Lighting Controls:**

Use of automated systems with **time-based**, **sensor-based**, or **remote-controlled** operations to optimize energy usage.

- **Solar-Powered Solutions:**

Integration of **Solar street lights** for eco-friendly illumination in remote and energy-deficient corridors.

2. Operations & Maintenance

- **Routine & Preventive Maintenance:**

Scheduled inspection, cleaning, and timely replacement of luminaires and electrical components.

- **Fault Detection & Response:**

Real-time alerts for lighting faults, enabling prompt action via EMSL's central O&M control centers.

Routine Maintenance

- Annual Maintenance Program (AMP) Finalization
- Cost Allocation & Optimization as per AMP
- Monthly Work Program & Progress Tracking
- IE & NHAI Inspection Compliance and Reporting
- Pre- and Post-Monsoon Maintenance Activities
- Submission of O&M MIS, Contractual & Compliance Reports
- Pavement & Structure Testing and Intervention Planning
- Audit Observation Tracking & Compliance Reporting

Contract Management & Procurement

- Overlay Strategies
- Periodic Pavement test (Half yearly BI Test) & Pavement condition report analysis
- Standard progress reporting (DPR & MPR), tracking of Major maintenance work
- MIS with facts, issues & mitigation measures
- Review & modify contractor's work program for timely completion
- Structure Safety Audit coordination and analysis
- Technical studies analysis and recommendation of cost-effective solutions

Contract Management & Procurement

- *Concession compliances*
- *Contractual correspondence*
- *Vendor Management for SPV – Maintenance, Procurement of products and services to meet technical specifications and budget overlay*
- *Claim management*
- *Central Bill Processing for routine activities and major maintenance works*

Process Consulting

- *Tolling – Data Analytics, Support*
- *IT systems – ATMS, TMS, H-ETC etc.*

Periodic Maintenance

- *Various models of Maintenance Contracts*
- *Maintenance Program*
- *Pavement & Structure Tests*
- *IE Test result analysis*

Micro-Surfacing

- ✓ *Longer Life and reduces total pavement oxidation*
- ✓ *Increased Skid Resistance*
- ✓ *Waterproof Surface – Protection from rains*
- ✓ *Environment Friendly – reduced emissions*
- ✓ *Minimum Changes in Road Furniture*
- ✓ *Cost Effective*



In House Micro-surfacing Slurry Machines

Pioneer with over **50 lakh square meters** executed till date

Micro-Surfacing : Glimpses



S N	Financial Year	Qty executed (sqm)
1	FY 17-18	15,47,998
2	FY 18-19	5,12,500
3	FY 19-20	11,82,779
4	FY 20-21	3,61,505
5	FY 21-22	2,20,762
6	FY 22-23	86,108
7	FY 23-24	3,21,708
8	FY 24-25	1,26,914
Total		43,60,274



- O&M of the longest Road Tunnel in SE Asia – 9.28 km long Main Tunnel with Escape Tunnel and cross passages
- Routine Maintenance of 8.45 km long twin tube tunnels.
- Total ~41 kms of tunnels being maintained across 3 projects.
- Only O&M Contractor in the country which specializes in Tunnel Maintenance.

Tunnel Operation & Maintenance



An Integrated Tunnel Control System (ITCS) along with MEP Systems ensures the safe and efficient operation of road tunnels by integrating various subsystems. It provides real-time monitoring, incident management, and automated control mechanisms to maintain optimal traffic flow.

Mechanical, Electrical and Plumbing (MEP) Works

- Power Supply System
- Tunnel Lighting System
- Heat detection system
- Fire Fighting System
- Communication System - VHF, GSM, PA, and FM communication system
- Fully Transverse Tunnel Ventilation System

Integrated Tunnel Control System (ITCS)

- Traffic Control & Management System
- Video Surveillance System
- Electrical Fire Signalling System
- Access Control System
- Emergency Call System
- ITCS Command & Control Centre with Supervisory Control and Data Acquisition (SCADA)

Emergency and Incident Management Operation and services

- Ambulances, Route Patrolling Vehicles, tow trucks/crane and Fire Fighting Vehicles with all resources to handle any type of incident. Accident across the project
- Quick response Teams for handling accidents, vehicle breakdowns, and emergencies
- Incident reporting, root cause analysis, and preventive measures implementation
- Inspection of readiness of emergency response equipment

Projects



S N	Project	Tunnel	Configuration	Length	Maintaining since
1	Chenani Nashiri Tunnelway Ltd.	Main Tunnel	Single tube 11.75m wide tunnel for two- way traffic	9.28 km	28 Nov 2017
		Escape Tunnel	Single tube 5m wide for emergency evacuation only	9.28 km	
		Cross Passages	8 Vehicular cross passages 7.5m wide 23 Pedestrian cross passages 7.5m wide	31 nos'	

Project Monitoring & Supervision

- **Ensure Tolling Operations with proper revenue collection; minimizing traffic leakages & forced exemptions – Following SOP in line with good industry practice.**
- **Toll Management System ensuring proper revenue assurance – Design, Development, Implementation & Maintenance of TMS, ATMS & MEP works.**

Manpower Deployment

- **Deployment of suitably qualified and experienced manpower at all sites**

Vendor & Material Management

- **Deployment of Contractors and vendors to supply manpower, equipment, vehicles etc. to undertake O&M of asset**
- **Provide necessary materials and equipment for necessary upkeep of the project in line with Maintenance requirements of CA, SLAs**

CA Compliance Management

- CA & Statutory Compliance of the SPV
- Timely compliance to IE & Authority observations to ensure compliance with Maintenance requirements
- Timely Pavement Tests – Roughness and FWD/ BBD to check roughness and structural adequacy to advise IM on overlays
- Internal & External (SPV) Audit compliances for the projects.

Coordination & Liaison

- Coordination Amongst various Stakeholders for Timely Compliances
- Liaison with NHAI, MoRTH and Other Agencies

HR & Legal Compliance

- HR Compliances Including ESIC, PF, Labour Law Compliance
- Legal & Contractual Compliances
- Updating of process systems as per Good Industry practice and circulars from Authority.

Leadership



Danny Samuel
Group CEO



K R Khan
Business Head



Rajnish Saxena
Chief Operating Officer

Team Leaders



*F & A – Rakesh Agarwal
(Qualified and experienced Finance & Accounts)*

*O&M - Vishvesh Desai
(Experienced Highway Engineers & technical staff)*

Tolling & IT Systems – Lalit Singh Chakravarti (Experienced Industry veterans with IT & equipment specialists & Software Engineers)



*CPC – Tapan Parikh
(Procurement, Contracts & Billing - Mix of Highway engineers, Contract specialist)*

*HR & Compliance – Navin Prakash
(Handling over 2700+ resources)*

*Internal Audit
(Internal audits, toll validation)*

Team Leaders



- ⚙ **Rakesh Agarwal – Chief Financial Officer** - CA & MBA by qualification with **18+ years of extensive experience** in managing and leading finance and accounting function in organization like Deloitte, Tata, Dabur etc. specializes in business partnering, strategic finance, Technology led improvements.
- ⚙ **Lalit Singh Chakravarti – Head Tolling** - has over **26 years** of extensive experience across diverse fields specializing in Tolling & Route Operations including Project Management, Operations and Maintenance, Implementation, Contract Compliance, Business Development, Revenue Collections, Project Management of ITS & MEP works, as well as Highway O&M. He has earlier worked in Road sector with Intertoll, L&T IDPL, L&T RVTL, Efkon- Strabag besides stints in Manufacturing field with Samtel Group, The Control Group, Moser Baer.
- ⚙ **Vishvesh Desai – Head O&M** - has **24+ years of experience** managing highway projects of NHAI and delivering all the projects before/within timeline also has extensive experience in maintenance and monitoring highway projects. He is civil engineer graduated by qualifications. He has worked in Sadbhav Engineering for 21 years prior to joining EMSL.
- ⚙ **Tapan Parikh – Assis Vice President -Procurement & Billing** - has **16+ years of exp** in various corporate functions in Project Development Organization including Procurement, Billing, Bidding, Estimation & Costing, Project Monitoring, Operations & Maintenance, Construction etc. having worked in DLF Laing O'Rourke & IITNL. He has PG Diploma in Advance Construction Management
- ⚙ **Rajesh Bhudhrani – Head PMU-** has **24+ years experience** in field of Highway/infrastructure Project Management including project development proposals, Contracts, Quality Control, Planning, Bidding & Costing, Project Monitoring, Operations and Maintenance, Asset Management etc. He has a ME in Highway & Transportation
- ⚙ **Navin Prakash – Head HR – 22+ years of work experience** who is committed to creating workplace environments that increase engagement and output Proficient in Employee Benefits, Performance Management, and Conflict Resolution. His professional journey includes working with CDS Infra, Welspun Group, Valecha Engineering, Mukand Ltd.

Core Competency



Cost
Optimization



Toll Leakage
Control



Asset
Management



Liasioning



Revenue
Assurance



Budgeting



Audits



Data Analytics

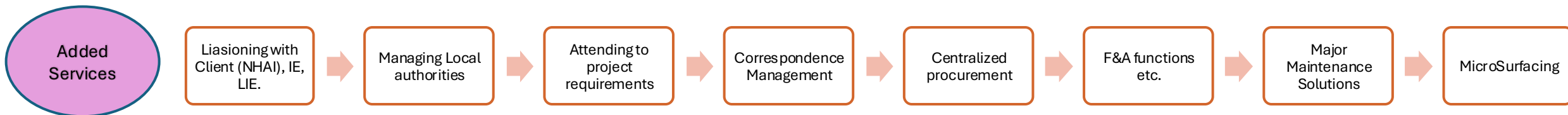


Traffic Due Diligence

Current Portfolio : InVIT & SPV



Entity	SPV	Project	State	Authority	Model	Serving Since	Project Length Lane KM	Tolling	TMS/ ATMS	Incident Mgt.	O&M	Monitoring & Supervision Sr.
InvIT (6 Projects.)	PSRDCL	Pune Solapur	Maharashtra	NHAI	Toll	Feb, 2014	571	✓	✓	✓	✓	✓
	SBHL	Sikar Bikaner	Rajasthan	MoRT&H	Toll	Nov, 2015	540	✓	✓	✓	✓	✓
	MBEL	Moradabad Bareilly	U.P	NHAI	Toll	Feb, 2015	522	✓	✓	✓	✓	✓
	HREL	Hazaribagh Ranchi	Jharkhand	NHAI	Annuity	Apr, 2015	319		✓	✓	✓	✓
	TRDCL	Thiruvananthapuram City Roads	Kerala	KRFB, GoK	Annuity	Jan, 2016	108			✓	✓	✓
	BAEL	Barwa Adda Panagarh	W.B/Jharkhand	NHAI	Toll	Apr, 2015	727	✓	✓	✓	✓	✓
SPV (6 Projects.)	BKEL	Baleshwar Kharagpur	W.B/Odisha	NHAI	Toll	Apr, 2018	477	✓	✓	✓	✓	✓
	CNTL	Chenani Nashri	J&K	NHAI	Annuity	Dec, 2014	38		✓	✓	✓	✓
	JRPICL	5 stretches of JRPICL	Jharkhand	Govt. of Jharkhand	Annuity	Apr, 2015	664			✓	✓	✓
	JIICL	Ranchi Ring Road - 7	Jharkhand	Govt. of Jharkhand	Annuity	Apr, 2015	141			✓	✓	✓
	RIDCOR	Toll Collection at 4 TPs	Rajasthan	Govt of Rajasthan	Toll	Jul, 2022	4 TP's	✓		✓		
	RIDCOR	TMS Maintenance at 11 TPs	Rajasthan	Govt of Rajasthan	TMS	Jul, 2022	60 Lanes		✓			



Current Portfolio : External Clients



Project Credentials							Work Area Engagement			
Client	Location	Authority	Model	Serving Since	Length, Km	Tolling	TMS/ ATMS	Incident Mgt.	O&M	Monitoring & Supervision Sr.
NHAI InvIT	Kelapur, MH	NHAI	Toll	Feb, 2024	20.60	✓				
NHAI InvIT	Rahiba, UP	NHAI	Toll	Mar, 2024	32.80	✓				
Athaang Infra	Lalanagar, UP	NHAI	Toll	Mar, 2024	72.39	✓				
NHAI InvIT	Khemana, GJ	NHAI	Toll	Jun, 2024	76.00	✓				
NHAI InvIT	Undavariya, RJ	NHAI	Toll	Jun, 2024	76.00	✓				
NHAI InvIT	Khawasa, MP	NHAI	Toll	1 Oct 2024	28.74	✓				
NHAI InvIT	Boharipaar, MP	NHAI	Toll	17 Feb 2025	80.82	✓				
Shree Jagannath Expressways Private Limited (SJEPL)	Bhubaneshwar, Odisha	NHAI	Toll	1 May 2025	67.00				✓	



Completed Projects : Maintenance & Toll



Client/Authority	Project Name :	Lane Length LKM
GRICL	Vadodara Halol Road Project	4 Lane 31.4 KM 126 Lane KM
GRICL	Ahmedabad Mehsana Road Project	4 Lane 51.6 KM 206 Lane KM
ITNL/NHAI	Jetpur – Gondal - Rajkot Road Section of NH-27 (DBFOT TOLL)	4 Lane 67 KM 389 Lane KM
ITNL/NHAI	Khed Sinnar Expressway Ltd	4 Lane 137.94 KM 552 Lane KM
IRIDCL/MoRT&H	Beawar – Gomti Section of NH-08 (DBFOT TOLL)	4 Lane 116.30 KM 232 Lane KM
IECCL JV NCC LTD	Tindivanam to Puducherry (Pondicherry)	4 Lane 37.92 KM 152 Lane KM

Scope of Works :

1. Toll Operations
2. Incident Management Services
3. O&M of the Entire Project
4. Asset Management



Completed Projects : Maintenance



Client/Authority	Project Name :	Lane Length LKM
JSELN/NHAI	Jorabat - Shillong Section of NH-40 (BOT Annuity)	4 Lane 61.80 KM 262 Lane KM
EHELHMDA /HGCL	Outer Ringroad AP 03 Package from Amberpet to Bongalur (DBFOT Toll)	8 Lane 13.00 KM 173 Lane KM
ADANI/NHAI	Panagarh Palsit Section of NH-02	6 Lane 67.75 KM 406.50 Lane KM
ATHAANG/NHAI	Quazigund Banihal Section of NH-1A (Tunnel Project)	4 Lane 16.27 KM 65.07 Lane KM
ATHAANG/NHAI	Jammu Udhampur Section of NH-1A (Tunnel Project)	4 Lane 47.80 KM 191.20 Lane KM

Scope of Works :

1. Incident Management Services
2. O&M of the Entire Project
3. Asset Management



Completed Projects : Toll Management



Client/Authority	Project Name :	No. Of Plaza	Lanes
RIDCOR	Hanumangarh Kishangarh	6	36
RIDCOR	Lalsot-Kota (LJ-1)	4	24
RIDCOR	Jhalawar- Jhalawar Road (JJ)	1	6
RIDCOR	Alwar-Sikandra (AS)	2	12
RIDCOR	Alwar- Bhiwadi (AB)	2	12
RIDCOR	Gangapur -Bhadoti (GB)	1	4
RIDCOR	Arjunsar-Pallu (AP)	1	6
RIDCOR	Hanumangarh Sangariya (HS)	1	4
MPRDC	MP Border Check Post Fee Collection	21	145

Scope of Works :

1. Toll Operations
2. Incident Management Services



Completed Projects : Major Maintenance



Ranchi Ring Road Project Section III to VI (RRR)

1. BC and DBM
19,027 M³
2. Semi Dense Bitumen Concrete
3,545 M³
3. Hot in Place Recycling
2,11,202 Sqm.

Moradabad - Bareilly Road Section of NH-24

1. Micro-surfacing
7,42,611 Sqm.
2. BC Works
34809 M³
3. Crack Sealing
161876 Sqm.

Sikar – Bikaner Section of NH-11 & NH-89

1. Micro-surfacing
5,34,730 Sqm.
2. BT Works :-
45,315 M³
3. Crack Sealing :-
42,809 Sqm.

Hazaribagh Ranchi Section of NH 33

1. Micro-surfacing :-
2,17,096 Sqm.
2. BT Works :-
34,809 M³

Completed Projects : Major Maintenance



Jorabat – Shillong Section of NH-40

1. Micro-surfacing
1,78,289 Sqm.
2. BT Works :-
3,394 M³

Jetpur – Gondal - Rajkot Road Section of NH-27

1. Micro-surfacing
832008 Sqm.
2. BT Works :-
15,580 M³

Ahmedabad Mehsana Road Project (AMRP)

1. Micro-surfacing :-
214394 Sqm.
2. BT Works :-
3,171 M³

Pune Solapur Section of NH 09

1. BT Works :-
6,577 M³
2. Cold in Place Recycling
1,22,570 Sqm.

Microsurfacing:

- Phalodi-Pachpadra (PR-1) and Pachpadra-Ramji Ki Gol (PR-2) - **1,12,719 Sqm.**
- Micro Surfacing Work of Type-III on Various Roads of West Zone in Ahmedabad City - **1,27,500 Sqm.**
- Micro Surfacing work of Type-III & Type-II on various roads/ bridges within Surat city limit with contractors own machine and mobile lab (Pkg-6) - **2,93,423 Sqm.**

OUR PROJECTS



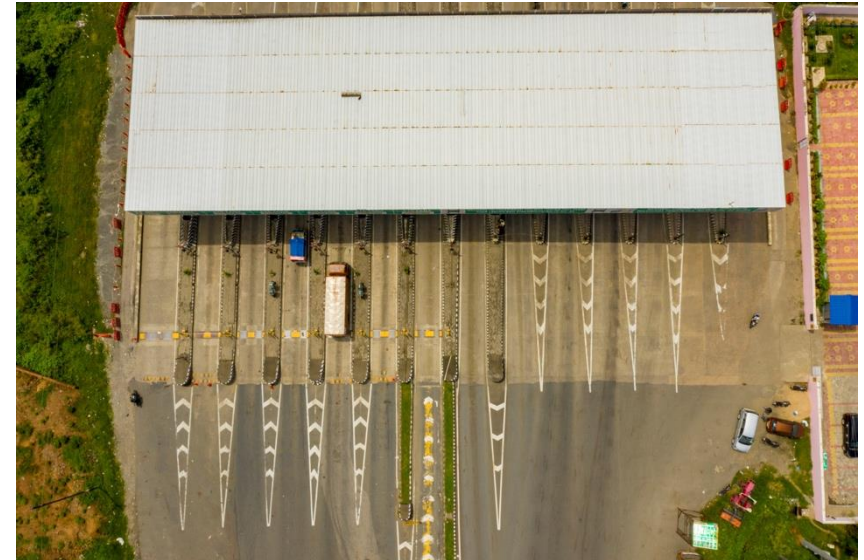
Barwa Adda Expressway Limited (BAEL)



Sikar Bikaner Highway limited (SBHL)



Moradabad Bareilly Expressway Limited (MBEL)



Hazaribagh Ranchi expressway Limited (HREL)

OUR PROJECTS

ELSAMEX



Sikar Bikaner Highway limited (SBHL)



Pune Sholapur Road Development Company Limited (PSRDCL)



Thiruvananthapuram Road Development Company LTD (TRDCL)

OUR PROJECTS



Sikar Bikaner Highway limited (SBHL)



Thiruvananthapuram Road Development Company LTD (TRDCL)



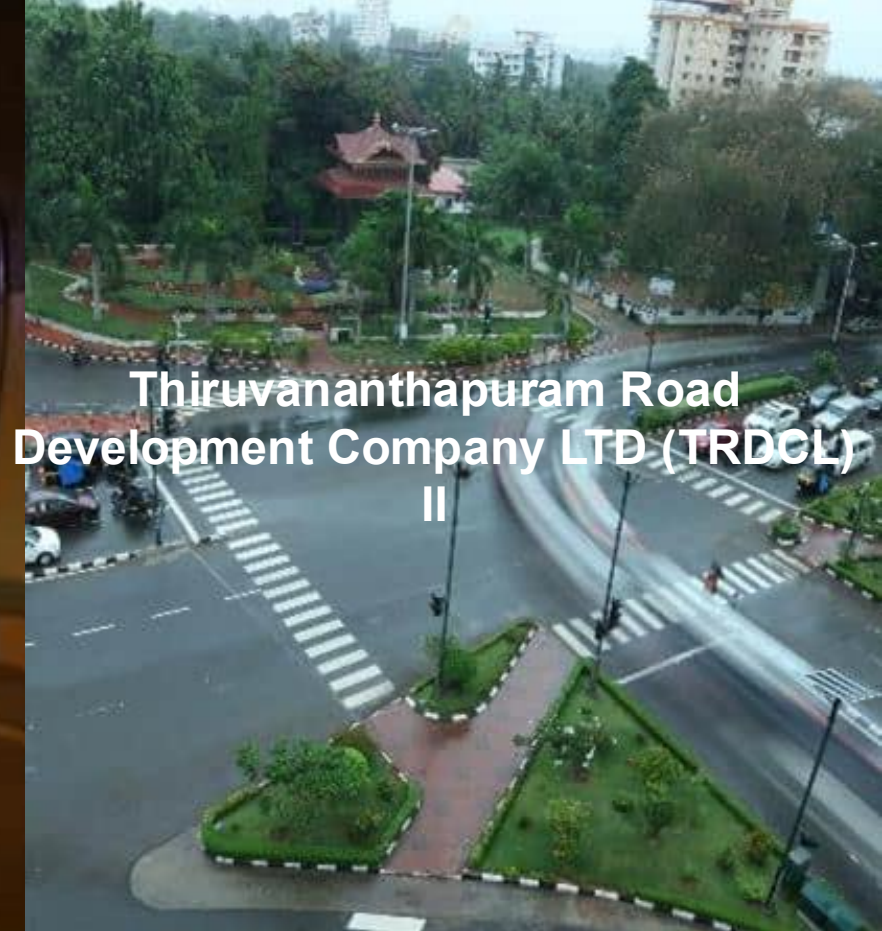
The Sikar-Bikaner project in Rajasthan is a 2/4 lane National Highway Spanning 237.58 km



Thiruvananthapuram City Roads Improvement Project (TCRIP) in Kerala involved constructing, operating, and maintaining 10 corridors and 3 NH-bypass links totaling ~102.08 km



CHENANI NASHRI TUNNELWAY LIMITED



**Thiruvananthapuram Road
Development Company LTD (TRDCL)
II**



**Jharkhand Road Projects
Implementation Company Limited**

OUR PROJECTS



COMPLETED PROJECTS





Staff Training



Environment Day



Women's Day



Staff Training Activity



Road Safety Week



THANK YOU!

- Elsamex Maintenance Services Limited
- Ph : +91 98211 35733
- Email : alakshendra.mishra@emslindia.com