Crystal Construction Company

Company Profile…

About Us

M/S. Crystal Construction Company is a leading multi-discipline Construction firm in India. Since its Establishment in 2010, the firm has been providing construction for civil works. Crystal Construction Company is a leading construction & infrastructure company providing value-added Engineering, Construction and Service skills. We develop infrastructure for young India.

The most important aspect of any mission in life is the basic thought behind it. If the sense-of-purpose is strong then the outcome is gratifying as well. This sense-of-purpose, which very appropriately describes Crystal Constructions, is to offer State of the Art Development and construction that it undertakes.

Since the very first year of inception, it is on a journey of architectural excellence and client satisfaction. This multi-interest, multi-utility, Construction Company is determined to create new architectural marvels in the coming future with its deep-rooted foundation of ethics and values. Crystal Constructions promises to conquer new horizons, thus pioneering and identifying new vistas of growth for the realty and infrastructure sectors. The company not only wishes to create innovative architecture, but is also determined to transform infrastructure of the country as a whole.

In this regard, recently, we have tried to expand our horizons to build a futuristic India. For civil engineering applications- highways and roads, the company has started executing projects of **RE Walls.**

We take the culture of “think globally, act locally” to mean that we consider the impact of our work sites and materials in everything we do. We are here to provide the processes and availability of a global firm with the stability and resources of a local provider.

Vision and Values

Our goal is not merely to be one of the most successful companies in the sector, but to be the most preferred partner-of-choice. To be distinguished as the most trusted: by the people we work with, as well as the people we work for. Our soul is a set to abide by the values which translate our actions:

Agility: We perform with speed and suppleness.

Team Spirit: Celebrating the power of 'We'.

Learning: Individually, collectively and constantly.

Meritocracy: Nourishing capability and performance.

Community: A positive impact on the world.

Strengths

We have a well defined, strategically focused portfolio and high visibility of cash flows from our ongoing projects. We also have a successful track record of optimizing cash flows. A large cross-section of our infrastructure ongoing projects consists of Roads, Flyovers, and Building works.

Response & Adaptability:
A key strength is our efficient use of capital and ability to respond to changing regulatory and economic environment with imagination and speed. This strength, the experience of our management team and its understanding of the construction and infrastructure business helps us to achieve business momentum in the difficult economic environment.
We intend to continue our focus on Infrastructure Projects, while leveraging partnerships in order to take advantage of the expertise of reputed professionals in various fields and add value to our projects. We already outsource our construction activities which are labour intensive to achieve higher efficiency.
Experienced leadership and management team:
A young and dynamic team which is focused and relies on multi tasking is our key strength in helping to take our vision to new horizons.

Work Experience

We have a team of young and dynamic people who have the zeal to undertake every little aspect of construction to new heights. Every little detail is given due importance so that the architectural design is enhanced and appeals to the masses in general.

Some Major Projects of RE wall: -

Year	Name of the Project	Client	Approximate Project Area
2024	4-Lanning of Shahpur Bypass to Muktainagar section of NH-753L from design ch.- 186.000 to design ch.- 216.278 in the state of Madhya Pradesh on Hybrid Annuity Mode.	Muktainagar – Shahpur Corridor Pvt. Ltd. (B.N. Constructions)	70,000 SQM
2024	Construction of 4-Lane access controlled Greenfield Highway section of NH-163G (Khammam-Vijayawada) from- V.Venkatayapalem village at Design ch.- 220+480 km. to Brahmanapalli(K) village at Design ch.- 250+400 km. (Total Length - 29.920 km) under other Economic Corridor (NH(O) Programme on Hybrid Annuity Mode in the state of Telangana (Package-I).	Dinesh Chandra R. Agrawal Infracon Pvt. Ltd.	100,000 SQM
2024	Four laning of NH-119 from Behsuma at Km 39.250 (Ex. Km 39+240) To Bijnor at Km 78.810 (Ex. Km 86+590) (Design Length= 39.560 Km) in the state of Uttar Pradesh on Hybrid Annuity Mode.	KRC Infra Projects Pvt. Ltd.	80,000 SQM
2024	Construction of Four Lane access controlled Greenfield National Highway (NH-119D), starting from its Junction with NH-19 (Old NH-02) near village Amas connecting Ramnagar, Kachhi Dargah, Kalyanpur (Hajipur), Tajpur and terminating at its Junction with NH-27 near village Bela Nawada (Darbhanga) under Bharatmala Pariyojna in the state of Bihar- Package-II from village Shivrampur (Design Ch.55+002) to village Ramnagar at its Junction with SH-78 (Proposed Patna Ring Road) (Design Ch.109+324) Total Length – 54.322 Km.	MEIL Ramnagar Four Lane Roadways Pvt. Ltd. OR Megha Engineering & Infrastructures Ltd.	1,25,000 SQM
2024	Construction of Shohratgarh Bypass (Design Length - 6.273 Km) to Two Lane with Paved Shoulder on NH-730 (Starts near Ch.- 413+700 and Ends near Ch.- 419+000) under Engineering, Procurement & Construction (EPC) Mode in the state of Uttar Pradesh.	Bhardwaj Unibuild Pvt. Ltd.	30,000 SQM
2024	Construction of 6-Lane Chittoor - Thatchur (Greenfield Alignment) from Km.- 0.000 to Km.- 43.800 on Hybrid Annuity Mode under Bharatmala Pariyojana in the state of Andhra Pradesh and Tamil Nadu (Package-I).	KCC Chittoor Highways Pvt. Ltd.	25,000 SQM
2024	Four Laning of Munger to Mirzachauki (NH-80) section from Rasalpur to Mirzachauki design chainage Km. 157+350 to Km. 193+931 (PKG-IV) on Hybrid Annuity Mode in the state of Bihar.	APCO Vikramshila Expressway Pvt. Ltd.	30,000 SQM
2024	Six Laning of Varansi- Aurangabad section of NH-2 from km.- 786+000 to km. 871+000 (Length - 85km.) in the state of Uttar Pradesh & Bihar under NHDP Phase V on DBFOT (Toll) Basis.	SGSR Pvt. Ltd.	10,000 SQM

2024	Khed - Sinnar VUP (NH-60) Design and construction of vehicular underpass with approaches at Khodad junction (km.78.600) and Ambikhalsa junction (km.113.150) on Khed Sinnar section of NH-60 (old NH-50) in the state of Maharashtra as standalone project on EPC mode.	New India Structure Pvt. Ltd. / NVR	5,000 SQM
2024	Construction of 4-Lane Greenfield Delhi-Amritsar-Katra Expressway from Jussur Kheri in KMP Expressway to Junction Rohtak-Panipat Road (NH-709) near Rukhi Pani village (Km.- 0+000 to 34+000) on Hybrid Annuity Mode under Bharatmaa Pariyojana in the state of Haryana (Phase I - Package – I).	KCC DAK Package-I Expressway Pvt. Ltd.	40,000 SQM
2023	Development of Six - Lane Access-Controlled Highway of DaatKali Tunnel - Dehradun of Ganeshpur - Dehradun Section of NH-72A from Km.- 16+380 to Km.- 19+785 (Design Chainage) in the state of Uttarakhand under Bharatmala Pariyojana on EPC Mode (Package-3).	KRC Infra Projects Pvt. Ltd.	18,000 SQM
2023	Construction of 4-Lane Banglore Chennai Expressway from km.- 180.000 to km.- 204.500 (Walajahpet to Arakkonam section in the state of Tamilnadu) under Bharatmala on Hybrid Annuity Mode (Phase III - Package II).	KCC WALAJAHPET Expressway Pvt. Ltd.	20,000 SQM
2023	Construction of 4-Lane greenfield highway from km.- 134+737 to km.- 163+253 (on the RME - Right Median Edge) and km.- 135+003 to km.- 163+253 (on the LME - Left Median Edge) Bhopal Sagar (Sagar Link Road - Berkhedi - Sagar) under Bharatmala Pariyojana in the state of Madhya Pradesh on EPC Mode.	P. D. Agarwal Infrastructure Ltd.	50,000 SQM
2023	Development of 4/6 Lane Access Control Expressway from Design Chainage Km.- 515.000 to Km. 528.300 (Kunjwani to Sidhra Section of NH-44) and from Design Chainage Km. 550.900 to Km. 566.520 (Domel to Katra Section) on Hubrid Annuity Mode under Bharatmala Pariyojna in the UT of J&K (Phase II - Package XVII).	APCO Maa Vaishno Expressway Pvt. Ltd.	50,000 SQM
2023	Connectivity to Jewar International Airport Construction of 6-Lane Greenfield Connectivity to Jewar International Airport from DND - Faridabad - Ballabhgarh Bypass KMP Link - SPUR to Delhi Mumbai Expressway on Hybrid Annuity mode in the state of Haryana and Uttar Pradesh under Bharatmala Pariyojana.	APCO Jewar Expressway (P) Ltd.	1,00,000 SQM
2023	Construction of Eight-Lane acces controlled Expressway from Km. 3.000 to Km. 20.200 (Shirsad to Akloli section - SPUR of Vadodara Mumbai Expressway) in the state of Maharashtra on Hybrid Annuity Mode under Bharatmala Pariyojana.	APCO Infratech Pvt. Ltd. / IRCON International Ltd.	12,000 SQM
2023	Construction of 4-Lane Greenfield Jalbehra - Shahbad section of NH-152G start from Km. 0+000 to Km. 22+850 (Part of Shahbad - Thol Feeder Route) in the state of Haryana on Hybrid Annuity Mode under Bharatmala Pariyojana Phase-I.	Ceigall India Ltd.	1,25,000 SQM
2023	Six Laning of Varansi - Aurangabad section of NH-2 from Km. 786+000 to Km. 978+400 (Length - 192.400 Km) in the states of Uttar Pradesh & Bihar under NHDP Phase - V as BOT (Toll) on DBFO Pattern.	Welspun Enterprise Ltd. / Ayush Procon Pvt. Ltd.	10,000 SQM

2022	Widening and Strengthening for Improvement and Up-gradation of NH-709A Garhmukteshwar (Chainage - 83+200 of NH-24) to Meerut (Chainage- 9+860 of NH-235) including connector to NH-119 Package-XII in the state of Uttar Pradesh.	Tata Projects Ltd.	60,000 SQM
2022	Detailed Engineering Design for Construction of 4/ 6-Lane Access- Controlled Expressway (Package- XIV) from junction near Balsua with NH-54 to junction with Hiranagar road near village - Gurha Baildaran (Km. 423+500 to Km. 468+100) of Delhi - Amritsar - Katra Expressway in the state of Punjab and UT of J&K.	Megha Engineering & Infrastructures Ltd.	2,50,000 SQM
2022	4-Laning of Indore to Raghavgarh section of NH-59 (Indore - Harda, Package-1 Stretch) from MR-10 junction on NH-3 Bypass Ch. - 0.250 to Raghavgarh Ch.- 26.903 (Design 26.653 Km) under Bharatmal Pariyojana Phase-I (EC) in Madhya Pradesh on EPC Mode.	P. D. Agarwal Infrastructure Ltd.	80,000 SQM
2022	Rectification of 01 No. black spot identified by Ministry of Road Transport & Highways (MORT&H) under jurisdiction of PIU-Chittorgarh at Km. 05+900 (JK Circle) on Rajasmand – Bhilwara section of NH-758 from Km. 0.000 to Km. 87.250 in the state of Rajasthan.	K. K. Gupta Constructions Pvt. Ltd.	12,000 SQM
2022	Construction of Four Lane Flyover with service road at the junction of NH-58E with NH-48 under annual plan 2021-22 of road safety in the state of Rajasthan on EPC Mode for permanent rectification of black spot ID no. RJ-02/282.	K. K. Gupta Constructions Pvt. Ltd.	12,000 SQM
2022	Construction of Reinforced Earth wall for Construction of 4-Lane Greenfield Delhi-Amritsar-Katra Expressway from junction with Jind-Panipat Road (NH-352A) near Gangana village to junction with Jind-Karnal Road (NH-709A) near Alewa village (Km. 60+800 to Km. 91+400) on Hybrid Annuity Mode under Bharatmala Pariyojana in the state of Haryana - Package - III.	KCC KATRA Expressway Pvt. Ltd.	1,00,000 SQM
2022	Construction of 8-Lane Expressway starting before KMP Expressway and ends at CH.- 47+000 near Khanpur Ghat (Km.- 18+500 to Km. 47+000) section of Delhi - Vadodara Green Field Alignment (NH-148N) on EPC mode under Bharatmala Pariyojana in the state of Haryana.	APCO Infratech Pvt. Ltd.	40,000 SQM
2021	Four laning work of Package-2 from km. 220.000 (near Kurankhand) to km. 270.000 (near Shelad) section of Amravati - Chikhli NH-6 in the state of Maharashtra to be executed as Hybrid Annuity Project under NHDP Phase - IV.	Rajpath Infracon NH-6 PKG-2 Pvt. Ltd.	25,000 SQM
2021	Four-Laning of Ausa - Chakur of NH-361 from km. 55.835 to km. 114.600 (Existing chainage: km. 470.000 to km 528.200) under NH (O) on Hybrid Annuity Mode in the state of Maharashtra.	Gangamai Industries and Construction Ltd.	45,000 SQM
2021	Four-Laning of Katni Bypass section of National Highway-30 (Old NH-7) from km. 359+375 to km. 378+555 having a length of 19.230 km in the state of Madhya Pradesh on EPC Mode.	Shreeji Infrastructure India Pvt. Ltd.PRL Projects & Infrastructures Pvt. Ltd.	25,000 SQM
2021	Remodeling of existing pucca ramps along right marginal embankment (RME) from R.D. 0m TO R.D. 10500m on city side to maintain accessibility from various villages to RME.	Irrigation & Flood Control Department (Delhi)	18,000 SQM

2021	Balance Four-Laning work of Package-4 from km. 315.000 (near Nandura) to km. 360.000 (near Chikhali) section of Amravati - Chikhali NH-6 in the state of Maharashtra to be executed as Hybrid Annuity Project under NHDP Phase- IV.	Kalyan Toll Infrastructure Ltd.	35,000 SQM
2021	Proposed Underpass/ Flyover at FNG, near Bahlolpur village, Noida, Uttar Pradesh.	New Okhla Industrial Development Authority	6,000 SQM
2021	Four-Laning of Chakur-Loha section of NH-361 from km. 114+600 to km. 187+800. (Existing chainage: km. 528+200 on MSH-3 to km 514+885 on MSH-2) under NH (O) on Hybrid Annuity Mode in the state of Maharashtra.	Kalyan Toll Infrastructure Ltd	1,20,000 SQM
2021	Four Laning of Nanasa to Pidgaon from (Design CH:95+000/ Existing CH:95+000) to (Design 142+445/ Existing CH: 141+530) Section of NH-47 (Old NH - 59A) (Design Length-47.445 Km) under Bharatmala Pariyojana Phase-1 (Economic Corridor) in the state of Madhya Pradesh on HAM Mode- Package III (Indore-Harda).	Adani Road Transport Ltd	35,000 SQM
2021	Construction of Reinforced Earth wall for 4-Laning of Akola to Medshi from Km 0.000 to Km 47.700 (Design Chainage) of NH-161 including Bypasses at Patur and Medshi in the state of Maharashtra on EPC Mode.	Monte Carlo Limited	25,000 SQM
2021	Construction of ROB in Rehabilitation and upgradation of Allahabad bypass road junction, Allahabad city section of NH-96 from existing km. 135/230 to km. 153/000 (Design ch. 153.550 to 153.330) (excluding existing km. 148/600 to km. 149/900) to four Lane with paved shoulders in the state of Uttar Pradesh on (EPC) basis contract.	Prabha Engineering Ltd.	20,000 SQM
2020	Consultancy services for preparation of detailed design for construction of Ring Road for Rae-Bareli City (Phase-I) on Eastern side of NH-24B in the state of Uttar	Mahakaleshwar Infratech Pvt. Ltd.	35,000 SQM
2020	Construction of 4-Lane ROB at K.M. 30.00 on NH- 162-E (Pali-Nadol Road section) crossing the Falna – Marwar Railway section at L/C No. C-67 near Somesar in the state of Rajasthan.	MORT&H	12,000 SQM
2020	Balance Work of 4-Lane of Bareilly-Sitapur Section of NH-24 from Km.-262 to km.-413.200 in the state of Uttar Pradesh.	Raj Corporation Ltd / Siddharath construction/ Jagdish saran (JV)	20,000 SQM
2020	Supply of RS Wall System for Bundelkhand Expressway (Package IV) Auraiya to Etawah, U.P.	Dilip Buildcon Ltd.	65,000 SQM
2020	Casting and Erection of RE Wall from Tanot- Ramgarh-Bhadasar- Jaisalmer Section of NH-68, Rajasthan.	Brij Gopal Construction Co. Pvt. Ltd.	45,000 SQM
2019	Casting and Erection of RE at Bhadrak-Baleshwar Section NH-16, in the state of Odisha.	Brij Gopal Construction Co. Pvt Ltd.	55,000 SQM
2019	Proposed ROB (2Lane) in Lieu of engineering L.C. No.-175C at km.- 173/6-7 on Rewari – Jaipur section.	North Western Railway	11,000 SQM
2019	Casting and Erection of RE Wall at Mumbai- Vadodra Expressway, Vadodra, Gujarat.	Larsen & Tubro Ltd.	33,000 SQM
2019	Supply of RS Wall System for Sangli- Solapur Package IV: Mangalwedha to Solapur, NH-166, Maharashtra.	Dilip Buildcon Ltd.	1,10,000 SQM
2018	Casting and Erection of RE Wall at Chikhali- Tarasod Section of NH-6, Maharashtra.	Welspun / APPL	1,25,000 SQM
2018	Casting and Erection of RE Wall for the development of Purvanchal Expressway from Jaraikala (Amethi) to Sidhi Ganeshpur (Sultanpur), U.P.	APCO Infratech Pvt. Ltd.	40,000 SQM

2018	Casting and Erection of RE Wall at Chitradurga-Devangere Road Project, Karnataka.	PNC Infratech Ltd.	35,000 SQM
2017	Casting and Erection of RE Wall at Bhavnagar-Talaja, NH-8E, Gujarat	Sadbhav Engg Ltd.	40,000 SQM
2016	Casting and Erecton of RE Wall at Lambra- Shahkot Section of NH-71, Punjab.	Patel Infrastructure Pvt. Ltd.	48,000 SQM
2015	Casting and Erection of RE Wall at Delhi- Agra Section of NH-2, Haryana.	Larsen & Tubro Ltd.	1,15,000 SQM
2014	Casting and Erection of RE Wall at Rohtak- Hissar Section of NH-10, Haryana.	Sadbhav Engg Ltd.	67,000 SQM
2012	Casting and Erection of RE Wall at Indore-Devas section of NH3, M.P.	Gayatri Projects Ltd.	58,000 SQM

Some Major Projects of Crash Barrier & Friction Slab: -

Year	Name of the Project	Client	Approximate Project Area
2024	Development of 4/6 Lane Access Control Expressway from Design Chainage Km.- 515.000 to Km. 528.300 (Kunjwani to Sidhra Section of NH-44) and from Design Chainage Km. 550.900 to Km. 566.520 (Domel to Katra Section) on Hubrid Annuity Mode under Bharatmala Pariyojna in the UT of J&K (Phase II - Package XVII).	APCO Maa Vaishno Expressway Pvt. Ltd.	10,000 MTR
2024	Construction of 4-Lane Greenfield Jalbehra - Shahbad section of NH-152G start from Km. 0+000 to Km. 22+850 (Part of Shahbad - Thol Feeder Route) in the state of Haryana on Hybrid Annuity Mode under Bharatmala Pariyojana Phase-I.	Ceigall India Ltd.	8,000 MTR
2024	Khed - Sinnar VUP (NH-60) Design and construction of vehicular underpass with approaches at Khodad junction (km.78.600) and Ambikhalsa junction (km.113.150) on Khed Sinnar section of NH-60 (old NH-50) in the state of Maharashtra as standalone project on EPC mode.	New India Structure Pvt. Ltd. / NVR	1,000 MTR
2023	4-Laning of Boregaon Buzurg to Shahpur section of NH-753L from km. 139.000 to km. 186.000 (length- 47km.) under Bharatmal Pariyojana in the state of Madhya Pradesh on Hybrid Annuity Mode.	Kalyan Toll Infrastructure Ltd.	25,000 MTR
2023	Widening and Strengthening for Improvement and Up-gradation of NH-709A Garhmukteshwar (Chainage - 83+200 of NH-24) to Meerut (Chainage- 9+860 of NH-235) including connector to NH-119 Package-XII in the state of Uttar Pradesh.	Tata Projects Ltd.	10,000 MTR
2023	Detailed Engineering Design for Construction of 4/ 6-Lane Access- Controlled Expressway (Package- XIV) from junction near Balsua with NH-54 to junction with Hiranagar road near village - Gurha Baildaran (Km. 423+500 to Km. 468+100) of Delhi - Amritsar - Katra Expressway in the state of Punjab and UT of J&K.	Megha Engineering & Infrastructures Ltd.	28,000 MTR
2022	Construction of Reinforced Earth wall for Construction of 4-Lane Greenfield Delhi-Amritsar-Katra Expressway from junction with Jind- Panipat road (NH-352A) near Gangana village to junction with Jind-Karnal road (NH-709A) near Alewa village (Km. 60+800 to Km. 91+400) on Hybrid Annuity Mode under Bharatmala Pariyojana in the state of Haryana - Package - III.	KCC KATRA Expressway Pvt. Ltd.	10,000 MTR
2022	Rectification of 01 No. black spot identified by Ministry of Road Transport & Highways (MORT&H) under jurisdiction of PIU-Chittorgarh at Km. 05+900 (JK Circle) on Rajasmand – Bhilwara section of NH-758 from Km. 0.000 to Km. 87.250 in the state of Rajasthan.	K. K. Gupta Constructions Pvt. Ltd.	2,000 MTR
2022	Construction of Four Lane Flyover with service road at the junction of NH-58E with NH-48 under annual plan 2021-22 of road safety in the state of Rajasthan on EPC Mode for permanent rectification of black spot ID no. RJ-02/282.	K. K. Gupta Constructions Pvt. Ltd.	1,500 MTR

2021	Construction of 8-Lane Expressway starting before KMP Expressway and ends at CH.- 47+000 near Khanpur Ghat (Km.- 18+500 to Km. 47+000) section of Delhi - Vadodara Green Field Alignment (NH-148N) on EPC mode under Bharatmala Pariyojana in the state of Haryana.	APCO Infratech Pvt. Ltd.	7,000 MTR
2021	Four laning work of Package-2 from km. 220.000 (near Kurankhand) to km. 270.000 (near Shelad) section of Amravati - Chikhli NH-6 in the state of Maharashtra to be executed as Hybrid Annuity Project under NHDP Phase - IV.	Rajpath Infracon NH-6 PKG-2 Pvt. Ltd.	15,000 MTR
2021	Four-Laning of Ausa - Chakur of NH-361 from km. 55.835 to km. 114.600 (Existing chainage: km. 470.000 to km 528.200) under NH (O) on Hybrid Annuity Mode in the state of Maharashtra.	Gangamai Industries and Construction Ltd.	10,000 MTR
2021	Balance Four-Laning work of Package-4 from km. 315.000 (near Nandura) to km. 360.000 (near Chikhali) section of Amravati - Chikhali NH-6 in the state of Maharashtra to be executed as Hybrid Annuity Project under NHDP Phase- IV.	Kalyan Toll Infrastructure Ltd.	10,000 MTR
2021	Consultancy services for preparation of detailed design for construction of Ring Road for Rae-Bareli City (Phase-I) on Eastern side of NH-24B in the state of Uttar Pradesh.	Mahakaleshwar Infratech Pvt. Ltd.	12,000 MTR
2020	Development of Purvanchal Expressway (Package-III) from Jaraikala (Dist. Amethi) to Sidhi Ganeshpur (Dist. Sultanpur) (Km 79+900 to Km 121+600) in the state of Uttar Pradesh on EPC Basis.	APCO Infratech Pvt. Ltd.	7,000 MTR
2020	Casting and Erection of RCC Crash Barrier with Friction Slab at Aligarh to Kanpur Road project (Package -III)	APCO Infratech Pvt. Ltd.	9,000 MTR
2020	Casting and Erection of RE Wall from Tanot- Ramgarh-Bhadasar- Jaisalmer Section of NH-68, Rajasthan.	Brij Gopal Construction Co. Pvt. Ltd.	10,000 MTR
2019	Casting and Erection of RE at Bhadrak-Baleshwar Section NH-16, in the state of Odisha.	Brij Gopal Construction Co. Pvt Ltd.	20,000 MTR
2019	Casting and Erection of RCC Crash Barrier with Friction Slab at Solapur-Bijapur Section NH-13, Maharashtra	IJM / SDPL	10,000 MTR
2019	Casting and Erection of RCC Crash Barrier with Friction Slab at Chikhali- Tarasod Section of NH-06, Maharashtra.	Welspun / APPL	15,000 MTR
2018	Casting and Erection of RCC Crash Barrier with Friction Slab at Jhansi-Khajuraho Pkg-II Section of NH-75/76, M.P.	PNC Infratech Ltd.	14,383 MTR
2017	Casting and Erection of Crash Barrier at Nagpur – Mansar – Pauni, Section of NH-7, Maharashtra	Oriental Structural Engg. Pvt. Ltd.	12,000 MTR

Reinforced Soil Wall System: -

The Reinforced soil technique is a thousand of years old concept, and has experienced different types of reinforcing material, from bamboo to steel strips, from tree branches to geogrids. The synthetic types of reinforcement have the advantages of providing greater durability, strength, proven experience and finally a more theoretical design approach.

Reinforced soil walls comprise of some type of reinforcing element incorporated into the fill soil in horizontal layers to help resist lateral earth pressure and to assure stability of the structure. These systems are more flexible and faster to construct than other available conventional systems of retaining soil.

The major advantage of using Geostrips for designing and building a reinforced soil wall is that the construction is quite simple and rapid, experienced craftsmanship is not required and the final overall structure is flexible and ductile allowing differential settlement of the base without failure.

A variety of facings can be used and the resulting aesthetic options can be provided. The most popular facing currently used for RS wall construction worldwide is with **Modular Concrete Block Units** and **Pre-cast Concrete fascia Panels**. These are popular because of their aesthetic appeal, ease in installation, higher durability and flexibility.

Reinforced Soil wall Design Theory: -

This design methodology covers the safe and economic design of vertical soil reinforced structures.

for the purpose of building retaining walls having vertical face or nearly vertical face (>70 degree).

The inclusion of the reinforcements into the soil creates a reinforced composite structure, which is able to resist high compressive and tensile stresses. The reinforcement improves the soil properties by preventing tensile failures.

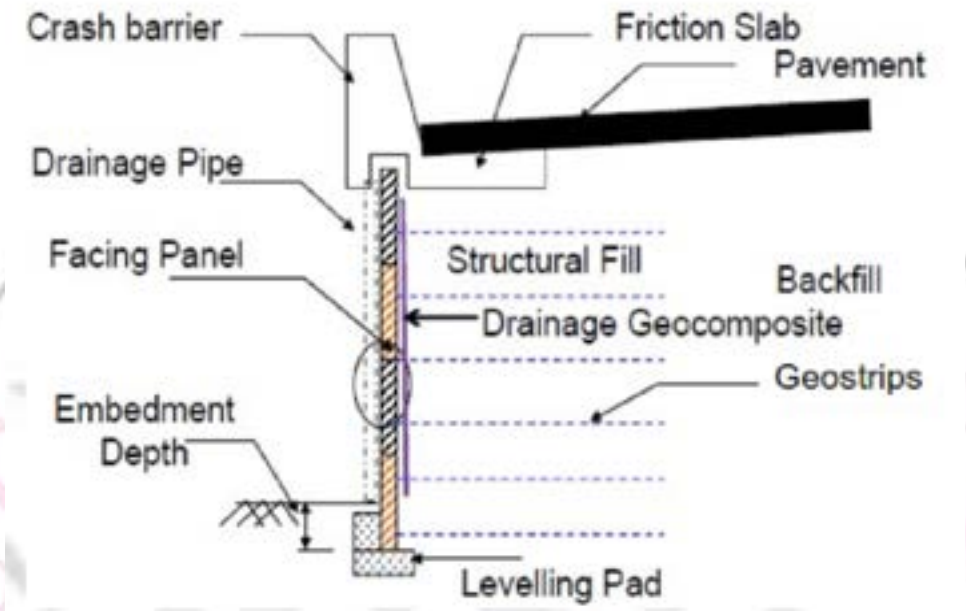
The Reinforced soil walls have designed accordance with the following standards / code of practice:

- "Code of Practice for Strengthened/Reinforced Soils and Other fill", BS:8006-1-2010.
- AFNOR NF-P94-270- "Geotechnical Design- Retaining Structures-Reinforced and Soil Nailing Structure".
- "Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes – Volume I and II" FHWA-10-024 and FHWA-NHI-10-025.
- "Guidelines for Design and Construction of Reinforced Soil Walls" – IRC: SP:102-2014

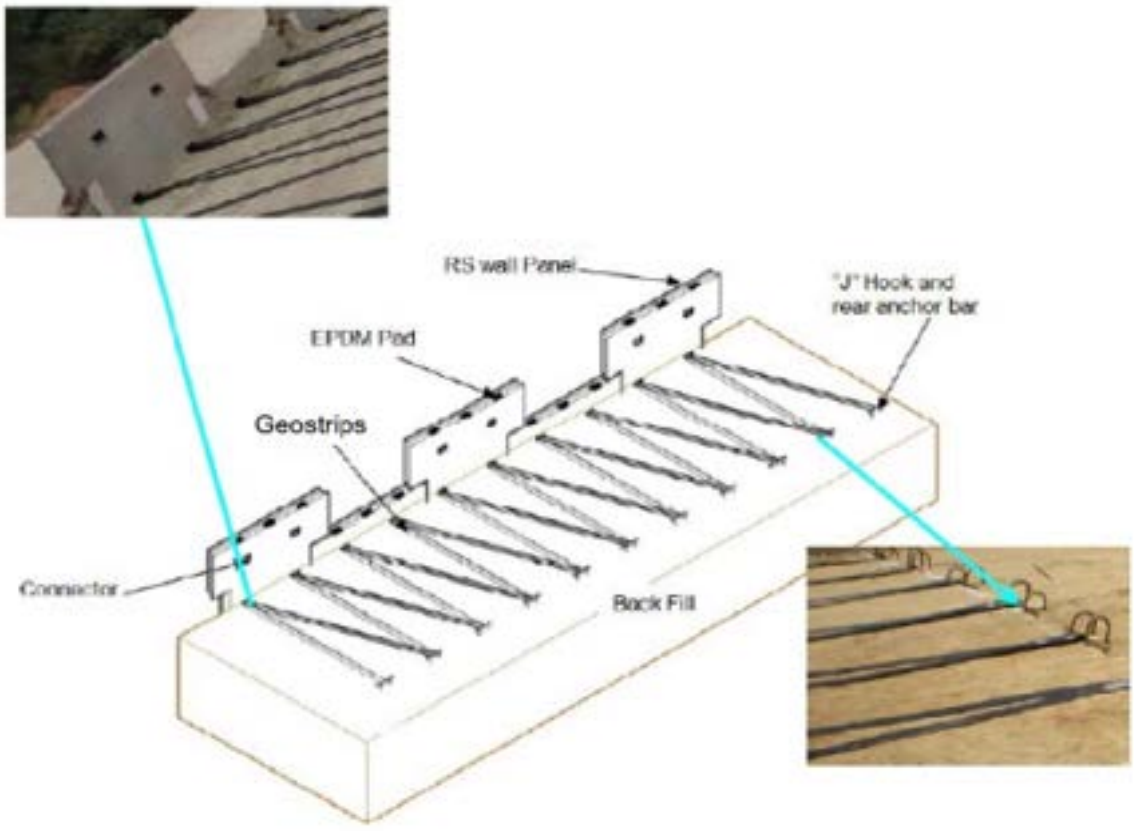
For Static Analysis and seismic analysis, we used US FHWA Documents. "Mechanically Stabilized Earth Walls and Reinforced Soil Slopes –Design and Construction Guidelines, FHWA NHI -10-024 and FHWA-NHI-10-025, 2009".

Reinforced Soil wall Components: -

Reinforced soil wall comprises of pre-cast reinforced concrete fascia panels, polymeric strips, Geostrips connected to the pre-cast units by passing around cavity shaped Connectors and passing around anchor bars at the rear, the earth fill and accessories, as shown below-



The Connectors are cast into the panels. Geostrips is generally laid in zigzag pattern passing around the rear anchor bars. Rear anchor bar is used just to keep the Geostrips in position during the filling and compaction operation and has no design significance. The Geostrips strips are generally spaced at 1.0 m c/c in horizontal plane and 0.8m c/c in vertical plane.



1) **GEOSTRIPS: -** Geostrips comprise of tendons made from high tenacity polyester yarns concentrated in ten separated bundles and encased in a durable polyethylene sheath. The polyester yarns are placed in tension and polyethylene is then co- extruded on to the polyester to form polymeric strip. While polyester is the load bearing element, polyethylene sheath protects the polyester yarns and provides the size and shape to the strips.

   Geostrips are supplied in various strengths between 30 to 100kN. The width of Geostrips varies between 85 to 90mm depending on the strength of strip.

Geostrip

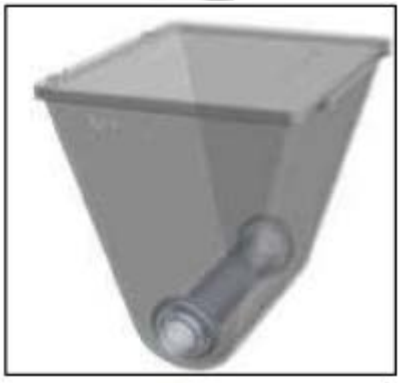
Strength embossed on Geostrip

2) **CONNECTORS: -** The Connector is made up of High-Density Polyethylene (HDPE) and comprises of a cavity which is provided with a sleeve near the bottom through which the Geostrip is passed. A lid is provided over a connector to restrict the flow of concrete slurry side. The Connectors are cast into the panel and are used to connect the Geostrip to the panels through sleeves.

   For Geostrips up to 75kN strength, 100mm deep Light-Connectors are used while for Geostrip with more than 75kN strength, 145 mm deep Connectors also known as Heavy- Connectors are used.

Cavity box

Heavy and Light Connectors.



3) **DRAINAGE GEO-COMPOSITE: -** Drainage composite is a specifically designed geo-composite to meet the drainage and protection requirements in structurally demanding water draining applications. Drainage composites effectively eliminate hydrostatic pressure against below- grade structures and aid in dewatering saturated soil by collecting and conveying groundwater to a drain pipe for discharge.

Drainage geo-composite which are made of lightweight three- dimensional, high- compressive strength polyethylene core and heat bonded polypropylene geotextile, provided on one side or both sides as per requirements. The drainage composite may also be provided with geomembrane on one side to act as hydraulic barrier and at the same time drain of excess water for area above the drainage composite.

Drainage composite reduces the pore water pressure and thus increases the overall stability of earth retaining structures.

The desirable properties of drainage composite as per IRC:34-2011 –

a) Geotextile properties: -

Apparent opening size - EN ISO 12956 ; ≤ 0.15 mm
Permittivity – EN ISO 11058 ; ≥ 100 l/m2.sec

b) Property of composite material: -

Wide width Tensile strength – EN ISO 10319 ; ≥ 16 Kn/M

CBR puncture resistance – EN ISO 12236 ; ≥ 3000 m (Drainage composite properties)

Mass per unit Area – EN ISO 9864 ; ≥ 710 g/m2 (Drainage composite properties)

IN Plane permeability – EN ISO 12958

Hydraulic gradient (i =1) @ 100kPa ; ≥ 0.55 l/m.s (Drainage composite properties)
@ 200kPa ; ≥ 0.45 l/m.s (Drainage composite properties)

Thickness of composite material - EN ISO 9863; ≥ 4.50mm (Drainage composite properties)

RE Fascia Panels:-

Casting: -

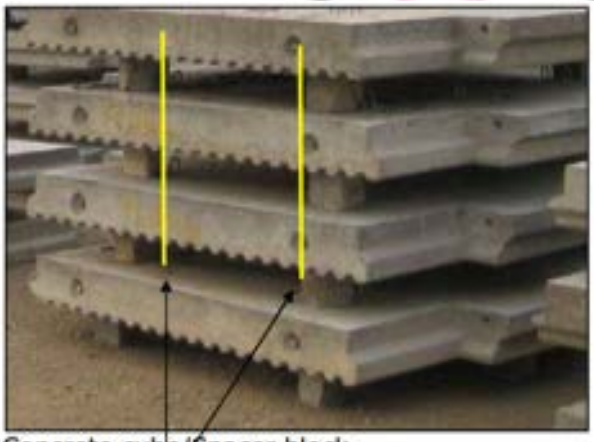
Mould placed on concrete beam.

Top surface of panel with broom finish.

Panel type and date of casting painted on EPDM location.

Curing: -

Stacking & Transportation: -



Concrete cube/Spacer block

Erection Work

Fixing of clamps between two panels.

RE WALL WORK AT VARIOUS HIGHWAY PROJECTS

Crash Barrier and Friction Slab

Crash barriers and friction slabs are designed to withstand the impact of vehicles of certain weights at certain angle while traveling at the specified speed. They are expected to guide the vehicle back on the road while keeping the level of damage to vehicle as well as to the barriers within acceptable limits.

Crash Barriers need to be provided at the following locations:

a) Where height of embankment is 3m or more.

b) Where height of embankment is retained by a retaining structure.

c) Between main carriageway and cycle track (if any) in bridges.

d) At hazardous location identified through safety audit or at the edge of the flyovers/ bridges.

Traffic barriers (Crash barriers) are constructed over the front face of the reinforced walls.

Friction Slabs are structural members which extend over a part of the width of the approach embankment of a highway bridge/flyover, to which the crash barriers are anchored (doweled).

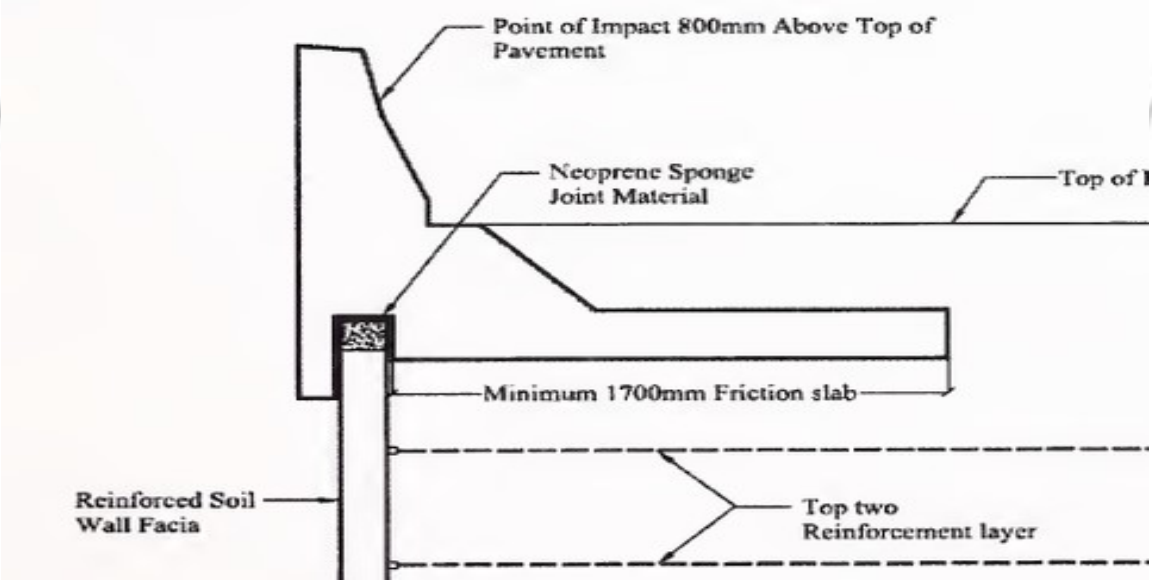
a) Commonly, a friction slab is used to transfer the lateral loads due to impact of vehicles on the barriers.

b) Typically, a friction slab varies from 1500 to 2500 mm width and 250 mm thick depending on the type of crash barrier provided.

c) One aspect to be taken care of is the 'Friction slab' in the approach embankments. Unlike the approach slab which extends throughout the width of the embankments, the friction slab width depends upon the design adequacy extending only for the part of the embankment width.

d) It is necessary to make detailed design for the friction slab taking care of adequate factor of safety against sliding, overturning etc. in addition to the structural design of crash barrier.

e) It helps to transfer the impact loads/forces due to the crash, equally to the top two rows of the soil reinforcements (resisted over their full lengths), safely.



Completion Certificates

KCC Katra Expressway Private Limited.

Completion Certificate

Ref No. KCC/DAK 3/MISC/251
Date: -10.05.2024

Name of the Project	Construction of Reinforced Earth wall for 4-Lane Greenfield Delhi-Amritsar-Katra Expressway from junction with Jind – Panipat road (NH 352A) near Gangana village to junction with Jind-Karnal Road (NH-709A) near Alewa village (Km. 66+900 to Km. 91+400) on Hybrid Annuity Mode under Bharatmala Pariyojana in the state of Haryana – Package - [illegible]
Scope of work	Design and Supply of Polymeric Geo Reinforcing Elements for soil reinforcement including supply of moulds (on a returnable basis), casting connectors, Geostrips, EPDM Pad & Geo-textile complete etc on pro-rata basis as per Design & Drawings with supervision and execution for pre-casting of fascia panels and erection of fascia panels with laying of geo reinforcement and permanent fixtures etc.
Reference	Work Order
Name of Client	National Highways Authority of India
Name of Concessionaire	KCC Katra Expressway Pvt. Ltd.
Name of Designer	KCC Buildcon Pvt. Ltd.
Name of Independent Engineer	Chaitanya Projects Consultancy Pvt. Ltd.
Name of RE Wall Agency	Crystal Construction Company
Date of Completion	10.05.2024

This is to certify that Crystal Construction Company has carried out the execution of design & drawing, supply of moulds, supply of Geo strips, panel accessories & on site technical assistance of Reinforced Soil Technology throughout casting of Panels and erection of RS wall for our project.

The Reinforced Soil covered total fascia area of 1,04,656sqm with maximum height of 14m.

The work has been satisfactorily completed under supervision by Crystal Construction Company and their valuable contribution is gratefully acknowledged.

For & on Behalf of KCC Buildcon Pvt Ltd

Authorized Signatory

Registered Office: [illegible] West Delhi, India 110034
Corporate Office: 5th Floor, [illegible], Sector-42, Gurugram, Haryana [illegible]
CIN: [illegible]
+91-124-4938000
[illegible]

Ref No - **MCL (P)/RD/4340/CLT/2023-2024/549**
Date: - 01/09/2023

MONTECARLO
BORN TO ACHIEVE

Completion Certificate

Name of the Project	Construction of Reinforced Earth wall for 4-Laning of Akola to Medshi from Km 0.000 to Km 47.700 (Design Chainage) of NH-161 including Bypasses at Patur and Medshi in the state of Maharashtra on EPC Mode.
Scope of work	17964.00 Sqm.
Reference	Work Order
Name of Authority	National Highways Authority of India
Name of EPC contractor	Monte Carlo limited
Name of Authority Engineer	Lion Engineering Consultants Pvt. Ltd. (In Association with) Synergy Engineers Group Pvt. Ltd.
Name of Proof Consultant	Khanna Designers & Consultants Pvt. Ltd.
Name of Safety Consultant	M A Solutions Pvt. Ltd.
Name of Design Consultant	Civil Mantra Infracon Pvt. Ltd
Name of RE Wall Agency	Crystal Construction Company
Date of Completion	25/08/2023

This is to certify that Crystal Construction Company has carried out the execution of design & drawing, supply of moulds, supply of Geostrap, panel accessories & onsite technical assistance of Reinforced Soil Technology throughout casting of Panels and erection of RS wall for our project.

The Reinforced Soil covered total fascia area of 17236 Sqm (The area is tentative, not valid for billing & may vary as per as built drawing) with maximum height of 12m. Presently the RS wall work is still pending about 100m near the abutment on both sides. Once the pending work has been completed, the completion certificate has been revised accordingly.

The work has been satisfactorily completed under supervision by Crystal Construction Company and their valuable contribution is gratefully acknowledged.

RE Wall Work Detail

CH From	CH To	Length	Structure Detail	Re Wall Scope (Sqm)	Completed (Sqm)	To Be Completed (Sqm)	Remarks
30+850	31+700	850	Flyover at 31+390	10,248.00	10,248.00	-	
46+322	47+050	728	VUP at 46+780	7,716.00	6,988.00	728.00	LHS 100m (46+670 To 46+770) length is pending due to hinderance balance length is completed
			Total	**17,964.00**	**17,236.00**	**728.00**	

Monte-Carlo Limited

Rajesh Soni
(Authorised Signatory)

GSTIN : 06AAHFM3503D1ZT (Hr.)
03AAHFM3503D1ZZ (Pb.)
09AAHFM3503D1ZN (U.P)

GSTIN : 23AAHFM3503D1ZX (M.P)
05AAHFM3503D1XV(U.K.)
08AAHFM3503D1ZP (Raj.)
PAN : AAHFM3503D

MEHTA CONSTRUCTION COMPANY

120. Sector 14, Urban Estate, Karnal-132001
Tel/: 0184-2205605, Fax # 0184-2205940
Email : mehtaconst09@gmail.com

Ref. No. .....

Dated .....

MCC/ROB-PALI/CRYSTAL/2022-23/002

30-12-2022

COMPLETION CERTIFICATE

Name of the Project	Construction of Four Lane ROB at km 30.00 on NH-162E (Pali-Nadol Section) Crossing the Falna-Marwar Railway Section at L/C No. C-67 near Somesar in the state of Rajasthan.
Scope of Work	Design and Supply of Polymeric Geo Reinforcing Elements for soil reinforcement including supply of molds (on a returnable basis), casting connectors, Para web, EPDM, Pad & Geotextile complete on pro-rata basis as per Design & Drawings with supervision and execution for pre-casting of fascia panels and erection of fascia panels with laying of geo reinforcement and permanent fixtures, etc. complete as per RE-Wall methodology (within 10 Km Lead)
Reference	PW/2020-21/56 on 01-12-2020
Client	Ministry of Road Transport & Highways
EPC Contractor	Mehta Construction Company
Design Consultant	Ecstatic Engineering Consultant
RS Wall Agency	Crystal Construction Company
Date of Completion.	15-10-2022

This is to certify that Crystal Construction Company, having its registered office at H-9/260, Vardhman Corporate Plaza, New Delhi 110034, has carried out the execution of the design & drawing, supply of molds, supply Geo-straps, panel accessories & onsite technical assistance of Reinforced Soil Technology throughout the casting of panels and Erection of the RS wall up to 12 to 14 meter height for the above-cited project.

The Reinforced Earth covered a total fascia of 12,328 sqm. the work has been satisfactorily completed under the supervision of Crystal Construction Company and their valuable contribution is gratefully acknowledged.

For Mehta Construction Company

For MEHTA CONSTRUCTIONS COMPANY

AUTHORISED SIGNATURE

Ankur Gupta
(Authorized Signatory)

GST No. : 08ABLFM3907A1ZH PAN : ABLFM3907A

MODI CONSTRUCTION COMPANY

MODI GROUPS

Ref. :- **MCC/ROB/CIVIL/514300901** Date – **01.09.2022**

TO WHOMSOVER IT MAY CONCERN

This is to certify that **M/s. Crystal Construction Company** (the "Contractor") having its Registered office at **192, Gali No 2 Gulab Bari, Ajmer, 305001, Rajasthan** was awarded the work of "Design, Supply, Supervision of RE Walls at LC No. 175 Between Khan Bhankari Dausa Station " vide Letter of Award dated 10.12.2019 bearing no. MCC/Dausa/WO/2019-20/02.

The details of executed work are as under: -

S. No.	Height	Qty.
1.	00 to 04 Mtr.	1050.74 M²
2.	04 to 06 Mtr.	1624.44 M²
3.	06 to 08 Mtr.	1826.41 M²
4.	08 to 10 Mtr.	2884.29 M²
5.	10 to 12 Mtr.	3714.81 M²
	Total	**11100.69 M²**

The above works was completed satisfactorily.

The Certificate is in favor of **M/s. Crystal Construction Company** and has been issued at the specific request of the Contractor.

Date of actual work completion: **31.05.2022.**

Also, **M/s. Crystal Construction Company** is liable for the performance & Maintenance of RE Wall work as per the scope of work order for the period of 15 Year from the date of Completion of the work.

It is clarified that above information in Certificate is furnished without any risk or any liability or any financial and legal consequences on our part.

For M/s Modi Construction Company

For Modi Construction Company

Authorized Signatory

(Authorized Signatory)

Completion Certificate

DILIP BUILDCON LIMITED
INFRASTRUCTURE & BEYOND

Ref No: - DBL/HO/Bundelkhand Expressway Project (Package-VI)/CC/2022/099
Date :- 25.07.2022

Name of project	: Development of **Bundelkhand Expressway Project (Package-VI)** From Bakhariya (Dist. Auraiya) to Kudrail (Dist. Etawah) (Km 250+000 to Km 295+280) Access Controlled (Greenfield) Expressway Project in the state of Uttar Pradesh.
Scope of work	: Supply of MacRes Reinforced Soil Wall System using Polymeric Geostrap (Paraweb®) with pre-cast R.C.C Panels including design & drawing, approval thereof, supply of moulds, supply of Geostrap as soil reinforcing material, panel accessories & onsite technical assistance.
Reference	: Work order no. 4900006308 dated 05.02.2020 & amendment no. DBL/HO/Bundelkhand/Amendment/2020/066 dated 12.03.2020
Name of Client	: Uttar Pradesh Expressways Industrial Development Authority (UPEIDA)
Name of EPC Contractor	: Dilip Buildcon Ltd.
Independent Engineer	: Intercontinental Consultants and Technocrats Pvt. Ltd.
Name of Design Consultant	: Infinite Civil Solutions Pvt. Ltd.
Name of RS wall agency	: Crystal Construction Company
Date of Completion	: 24.07.2022

This is to certify that Crystal Construction Company, having its registered office at C-223, Sector 105, Gautam Budh Nagar, Noida 201301, Uttar Pradesh, India has carried out the execution of design & drawing, supply of moulds, supply of Geostrap, panel accessories & onsite technical assistance of Reinforced Soil Technology throughout casting of Panels and erection of RS wall for our project.

The Reinforced Earth covered total fascia of 48,459 sqm (The area is tentative, not valid for billing & may vary as per as built drawing). The work has been satisfactorily completed under supervision by Crystal Construction Company and their valuable contribution is gratefully acknowledged.

For & on behalf of
Dilip Buildcon Ltd.

Pradeep Kumar
AVP Structure

ISO 9001:2015
CIN No. L45201MP2006PLC018689

Regd. Office :
Plot No. 5, Inside Govind Narayan Singh Gate,
Chuna Bhatti, Kolar Road, Bhopal - 462 016 (M.P.)
Ph. : 0755-4029999, Fax : 0755-4029998
E-mail : db@dilipbuildcon.co.in, Website : www.dilipbuildcon.com

Completion Certificate

Ref No: - DBL/HO/Mangalwedha Solapur/CC/2022/73
Date :- 02.02.2022

DILIP BUILDCON LIMITED
INFRASTRUCTURE & BEYOND

Name of project	: Four Laning of Sangli - Solapur (Package - IV : Mangalwedha to Solapur) Section of NH-166 from existing Km 314+969 to Km 370+452 (Design Km 321+600 to Km 378+100) of length 56.500 Km in the state of Maharashtra on Hybrid Annuity Mode.
Scope of work	: Supply of MacRes Reinforced Soil Wall System using Polymeric Geostrap (Paraweb®) with pre-cast R.C.C Panels including design & drawing, approval thereof, supply of moulds, supply of Geostrap as soil reinforcing material, panel accessories & onsite technical assistance.
Reference	: Work order no. 4900003139 dated 29.12.2018 & amendment no. DBL/HO/Mangalwedha Solapur/Amendment/2019/053 dated 15.07.2019
Name of Client	: National Highways Authority of India
Name of EPC Contractor	: Dilip Buildcon Ltd.
Independent Engineer	: Dhruv Consultancy Services Ltd. In JV with Infinite Civil Solutions Pvt. Ltd.
Name of Design Consultant	: Proprime Infra Services LLP.
Name of RS wall agency	: Crystal Construction Company
Date of Completion	: 30 Oct 2021

This is to certify that Crystal Construction Company, having its registered office at H. No. 193, Pauni Tha Ramtek, Nagpur 441409, Maharastra, India has carried out the execution of design & drawing, supply of moulds, supply of Geostrap, panel accessories & onsite technical assistance of Reinforced Soil Technology throughout casting of Panels and erection of RS wall for our project.

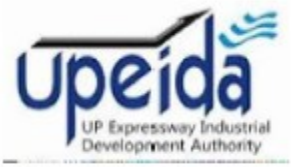
The Reinforced Earth covered total fascia of 1,06,016 sqm (The area is tentative, not valid for billing & may vary as per as built drawing) with maximum height of 9.60 meter. The work has been satisfactorily completed under supervision by Crystal Construction Company and their valuable contribution is gratefully acknowledged.

For & on behalf of
Dilip Buildcon Ltd.

Pradeep Kumar
GM Structure

Our Esteemed Clients

We are able to receive appreciation from our clients all across the globe as we maintain the quality, technical efficiency, cost effectiveness and timely delivery of our projects. These are our ability to maintain close and mutually beneficial relation with the client which has helped us to achieve complete client satisfaction.




KALYAN
GROUP


bgcc


LARSEN & TOUBRO


Sadbhav
TODAY FOR TOMORROW


ITD Cem
ITD CEMENTATION INDIA LIMITED


GIACL


Gayatri
Projects Limited


TATA
TATA PROJECTS LIMITED


Ceigall
PURSUIT WITH EXCELLENCE

Some Independent Engineers/ Consultants

SA INFRASTRUCTURE CONSULTANTS PVT LTD

CEG

Intercontinental Consultants and Technocrats Pvt. Ltd.

L.N. MALVIYA INFRAPROJECT PVT. LTD BHOPAL

FP Project Management
Formerly Frischmann Prabhu (India) Private Limited

Management Services Value
MSV

Indian Engineering Consultants India Pvt. Ltd.

ARMENGE
Engineering and Management Consultants

Lion ENGINEERING CONSULTANTS

Infrastructure

You can contact us at:

(Unit No.- 521-522, Tower-B, 5th

Floor, Bhutani Alphathum, Sector-90,

Noida – 201305, Uttar Pradesh)

Mob: +91-9582215262, +91-9582215263

Email: crystalconstructioncompany@gmail.com, shikhar.crystal@gmail.com

Our organization has a workforce with strength of around 60 members with representatives at Delhi, Noida, Maharashtra, Karnataka, Punjab and Haryana to ensure a better market presence of our services.

Our infrastructure is well equipped with:

Construction Equipment:

S. No.	Machinery	Make	Capacity	No's
1	Hydra	Ace	9 Ton	10
2	Hydra	Ace	12 Ton	50
3	Second Generation Crane	Escorts	15 Ton	2
4	Second Generation Crane	Indopower	15 Ton	2
5	Second Generation Crane	Ace	15 Ton	4
6	Trailer	Eicher	-	5

Experienced Workforce for the Civil Work:

S. No.	Designation	Number of Employees
1	Project Manager	15
2	Experienced Civil Engr.	15
3	Supervisor	50
4	Office-Staff	20