

**National Highway Authority of India**  
(Ministry of Road Transport & Highways)

**PATEL DARAH-JHALAWAR HIGHWAY PRIVATE LIMITED**

**CONSTRUCTION OF 4-LANE ROAD ON NH-12 (NEW NH-52) FROM Km. 299.000 TO Km. 346.540 (DESIGN CHAINAGE 9.860 TO 58.740) (DARAH – JHALAWAR – TEENDHAR) IN THE STATE OF RAJASTHAN UNDER NHDP PHASE-III ON HYBRID ANNUITY PROJECT.**

**AUTHORITY ENGINEER**

*To be Appointed*

---

**MONTHLY PROGRESS REPORT**

**For The Month of May & June-2018.**

## **Executive Summary**

The old National Highway 12 runs through two big states Rajasthan and Madhya Pradesh. The total length of the old NH- 12 was 897/00 Km. The length of Old NH 12 was 408/700 Km in the state of Rajasthan. Recently MORTH has amended the number and length of the National highways. The old NH 12 in the state of Rajasthan has become the part of the New National highway 52. The New NH 52 starting from its junction with NH-7 near Sangrur in the state of Punjab connecting Narwana, Hisar in the state of Haryana, Fatehpur, Jaipur, Tonk, Kota, Aklera in the state of Rajasthan, Rajgarh, Biora, Dewas, Indore, Sendhwa in the state of Madhya Pradesh, Dhule, Aurangabad, bed, Osmanabad, Solapur in the state of Maharastra, Bijapur, Hubli and terminating at its junction with NH-66 near Ankola in the state of Karnatka.

The Project stretch Darah-Teendhar is connected to Jaipur at one end and it is connected to Bhopal at the other end. The project highway is very important highway as it connects the Capital of Rajasthan states and National capital of country through Jaipur- Delhi Highway.

The project highway is very important highway as it connects to two state Rajasthan and Madhya Pradesh. The Darah-Jhalawar-Teendhar section of National Highway has moderate traffic density. In addition to this there are few sections where alignment needs geometric improvements to maintain riding quality of highway and safe movement of vehicles. Apart from this the present alignment of NH is passing through various congested towns and villages. All of the above factors are demanding the existing 2-lane highway to be developed as 4-lane divided carriageway with bypass provisions in congested towns/ villages.

The Project Highway traverses through two districts viz. Kota and Jhalawar in Rajasthan State. The project study corridor starts at the end of ROB approach near to Darah at km 289+500 and passes through five major towns Darah, Sarvada, Dabadeh, Suket and Jhalawar, and It ends at the Teendhar at Existing km 346.540 Km. Existing road width is 2 lane standard. The Existing ROW varies from 15 m to 30 m. The whole of the project is coming under the administrative control of PIU Kota. The map of project road is given in Figure below. The details of the habitations are given in table 0-1.

## **Project Synopsis**

National Highways Authority of India plans to undertake the Construction of 4-lane Road on NH-12 (New NH-52) from Km 299.000 to 346.540 (Design Chainage From 9.860 to 58.740) (Darah-Jhalawar-Teendhar section) in the State of Rajasthan under NHDP Phase-III on Hybrid Annuity Mode (Length 48.880 Km.) – Package II.

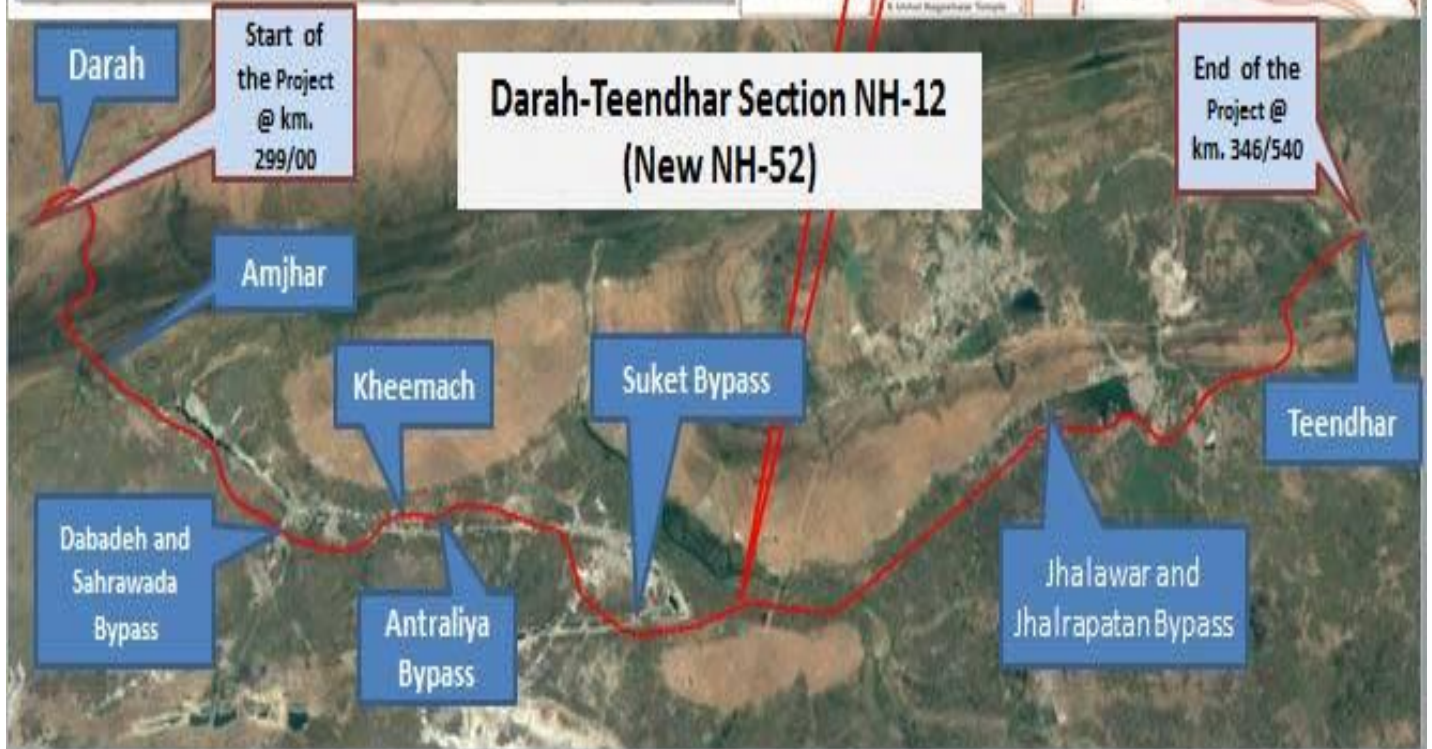
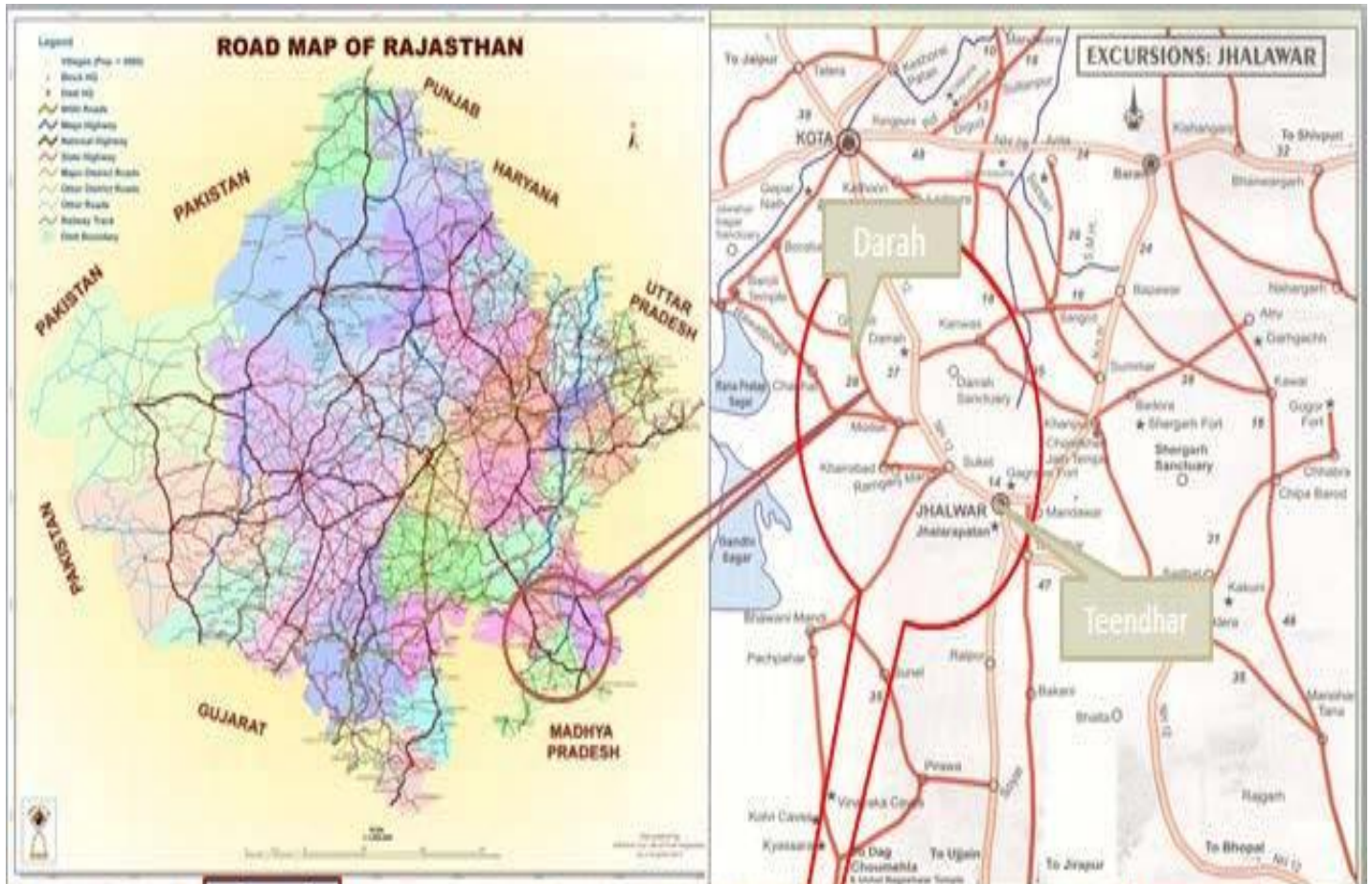
The National Highways Authority of India (NHAI) is undertaking the upgrade of a road in Rajasthan, India.

The project involves up gradation of 48.88 Km from two-lane to the four-lane divided carriageway. It includes the construction of bridges, intersections, service roads, culverts and related infrastructure, and the installation of signaling systems and signboards. The project will be developed under National Highways Development Project (NHDP) Phase-III on Hybrid Annuity Mode.

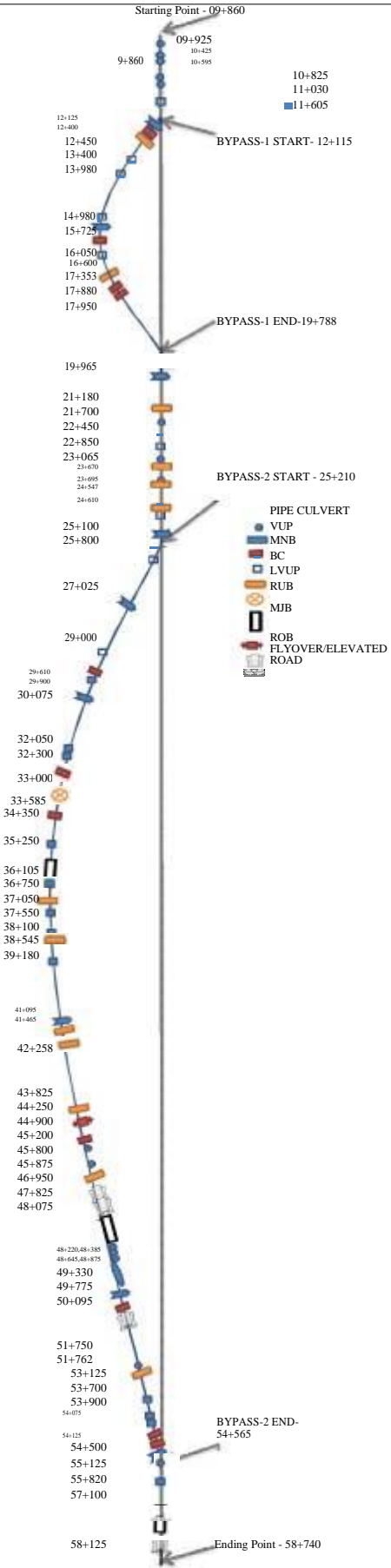
**Existing and Proposed alignment**

SR. NO.	Existing Chainage (Km)		Length	Design Chainage (Km)		Design Length (Km)	Name of Revenue Village
	To	From		To	From		
1	299	299.34	0.34	9.86	10.2	0.34	KAMALPURA
2	299.34	299.74	0.4	10.2	10.6	0.4	KAMALPURA
3	299.74	300.14	0.4	10.6	11	0.4	KAMALPURA
4	300.14	300.44	0.3	11	11.3	0.3	KAMALPURA
5	300.44	300.778	0.338	11.3	11.638	0.338	KOOKARA KHURD
6	300.778	301.255	0.477	11.638	12.115	0.477	MANPURA
7	Dabadeh & Sahrawad a Bypass			12.115	12.3	0.185	MANPURA
8				12.3	13.028	0.728	ZALIMPURA
9				13.028	14.2	1.172	SAHRAWADA
10				14.2	15.661	1.461	TELYA KHERI
11				15.661	17.242	1.581	ASKALI
12				17.242	19.273	2.031	HIRIYA KHERI
13				19.273	19.788	0.515	KHEEMACH
14	308.203	308.515	0.312	19.788	20.1	0.312	KHEEMACH
15	308.515	308.715	0.2	20.1	20.3	0.2	KHEEMACH
16	308.715	308.915	0.2	20.3	20.5	0.2	ATRALIYA
17	308.915	309.079	0.164	20.5	20.664	0.164	ATRALIYA
18	Atraliya Realignment			20.664	21.682	1.018	ATRALIYA
19	310.007	310.125		21.682	21.8	0.118	ATRALIYA
20	310.125	310.325		21.8	22	0.2	ATRALIYA
21	310.325	310.444		22	22.119	0.119	GORDHANPURA
22	Atraliya Realignment			22.119	22.464	0.345	GORDHANPURA & PAMA KHERI
23	310.789	311.125		22.464	22.8	0.336	PAMA KHERI
24	311.125	311.494		22.8	23.169	0.369	PAMA KHERI
25	311.494	311.625		23.169	23.3	0.131	PAMA KHERI
26	311.625	311.776		23.3	23.451	0.151	PAMA KHERI
27	311.776	312.025		23.451	23.7	0.249	PAMA KHERI
28	312.025	312.725		23.7	24.4	0.7	DEENGASI
29	312.725	312.925		24.4	24.6	0.2	DEENGASI
30	312.925	313.025		24.6	24.7	0.1	DEENGASI
31	313.025	313.125		24.7	24.8	0.1	DEENGASI
32	313.125	313.37		24.8	25.045	0.245	DEENGASI
33	313.37	313.535		25.045	25.21	0.165	DEENGASI
34	342.895	343.673		25.21	25.254	0.044	DEENGASI
35	343.673	347.127		25.254	26.124	0.87	UMMEDPURA
36				26.124	27	0.876	RAMPURIYA
37				27	27.358	0.358	SUKET
38				27.358	27.854	0.496	BEER MANDI

SR. NO.	Existing Chainage (Km)		Length	Design Chainage (Km)		Design Length (Km)	Name of Revenue Village
39				27.854	28	0.146	SUKET
40				28	29.571	1.571	ARANYA KHURD
41				29.571	31.212	1.641	SURERA
42				31.212	33.617	2.405	BANSYA HERI
43				33.617	35.565	1.948	ARANYA KALAN
44	Suket,			35.565	36.1	0.535	KALMANDI
45	Jhalawar & Jhalrapatan Bypass			36.1	38	1.9	HARISH PURA
46				38	38.537	0.537	RALAYTI
47				38.537	40.343	1.806	RALAYTA
48				40.343	41.784	1.441	JHALRAPATAN
49				41.784	44.224	2.44	MADHOPUR
50				44.224	49.8	5.576	HARIPURA
51				49.8	51.434	1.634	HARIPURA,
52				51.434	52.516	1.082	BANJARI &
53				52.516	54.2	1.684	BHANWARSA
54				54.2	54.565	0.365	BHANWARSA
55	342.895	343.673		54.565	55.343	0.778	BHANWARSA
56	343.673	347.127		55.343	58.74	3.397	BHANWARSA & ROOPAREL



# KEY PLAN OF THE PROJECT



## PROJECT SUMMARY

Project	Construction of 4-lane Road on NH-12 New NH-52 from Km 299.000 to 346.540 Design Chainage From 9.860 to 58.740 Darah-Jhalawar-Teendhar Section in the State of Rajasthan under NHDP Phase-III Length 48.880 km Package II on Hybrid Annuity Mode.
Owner/Client	National Highways Authority of India
Concessionaire	Patel Darah Jhalawar Highway Pvt. Ltd.
Independent Engineer	Yet to be appointed
Project Length (In Km)	48.88 Km
Total Project Cost as per CA	1123.63 Cr.
Concession Period	15 Years
Construction Period	910 Days from the Appointed Date.
Date of Signing of Concession Agreement	16 <sup>th</sup> November 2017
Appointed Date	Requested by Concessionaire for declaration as 24 <sup>th</sup> May 2018

## 1.2 Project Overview

### 1.2.1 Structures

S. No.	Feature	Description
1	Major Bridge	02 Nos. – (13 x 25mtr) & (13 x 31.6mtr_2-Lane)
2	Elevated Flyover cum MJB	01 Nos. – (20 x 25mtr)
3	Flyovers/ Interchange	03 Nos. (1 Nos. – 4x25mtr.) (2 Nos. – 3 x 24mtr.)
4	ROB/ RUB	1/1 = 2 Nos.
5	Minor bridges	11 Nos.
6	Vehicular underpass	09 Nos. – (1x24mtr)
7	Light Vehicular Underpasses	13 Nos.
8	Culverts (HP/BC)	37 Nos. (16 Nos. Pipe / 21 Nos. Box)
9	RE Wall	14.454 Km



## Project Milestones

Project Milestone	Condition	Time Line	Financial Progress
I	Commenced construction of Project and achieved 20% of Physical Progress	290 <sup>th</sup> Day from Appointed date	224.73 Cr.
II	Commenced construction of Project and achieved 35% of Physical Progress	430 <sup>th</sup> Day from Appointed date	393.29 Cr.
III	Commenced construction of all Project Facilities and achieved 75% of Physical Progress	690 <sup>th</sup> Day from Appointed date	842.76 Cr.
IV	Completion Of the Project	910 <sup>th</sup> Day from Appointed date	1123.68 Cr.

### 1.1 Summary of Current Month's Progress

#### Summary of Progress (May + June 2018)

##### Highway Progress:

Sr. No.	Item	Unit	Scope of work	Completed / Work in progress	Balance work
	C & G	Km	48.88	19	29.88
1	Earthwork	Km	48.88	13.63	35.25
2	GSB	Km	48.88	1.5	47.38
3	WMM (SR)	Km	48.88	0	48.88
4	DBM (SR)	Km	48.88	0	48.88
5	BC ( SR)	Km	48.88	0	48.88
7	DLC (MC)	Km	48.88	0	48.88
8	PQC (MC)	Km	48.88	0	48.88

<b>Sl. No.</b>	<b>Structure Details:-</b>	<b>Unit</b>	<b>Scope</b>	<b>Completed</b>	<b>Work Started</b>	<b>Yet to be Work Started</b>
1	Major Bridge	<b>Nos</b>	2	0	2	0
2	Elevated Road	<b>Nos</b>	1	0	1	0
3	Minor Bridge	<b>Nos</b>	11	0	0	11
4	Box Culvert	<b>Nos</b>	21	1	9	11
5	Pipe Culvert	<b>Nos</b>	16	2	8	6
6	Vehicular Underpass	<b>Nos</b>	9	0	2	7
7	Light Vehicular Underpass	<b>Nos</b>	13	0	1	12
8	Flyover	<b>Nos</b>	3	0	0	3
9	ROB	<b>Nos</b>	1	0	0	1
10	RUB	<b>Nos</b>	1	0	0	1
11	Drain	<b>Km</b>	28.38	0	0	28.38

Concessionaire has requested to declare 24-05-2018 as the appointed date for the project. 85% of the land measuring to Km 41.548 has been handed over by the Authority. 15% of land is balance due to presence of structures, religious structure and other land related issues.

1. Permission for cutting of trees on Government land and forest land received.
2. Stage II clearance of Forest Land Received.
3. Electrical Utilities estimate approve in both district Kota & Jhalawar. Work for shifting of electrical utilities under progress.
4. Water Pipelines have been identified and estimate submitted for approval.
5. HT line have been identified and submitted to concerned Department for preparation of estimate

Revenue Camps organized in both districts to collect documents for pending disbursement of compensation and initiate the process of mutation of land in the name of NHAI.

**Details of numbers and length is as below: -**

Sl No	Utility	Length/No.	Present Status
1	Electric Poles	741Nos	Shifting work in progress
2	Water Pipe Line (km)	25.50 Km	Estimate submitted for approval
3	HT Line Crossing	8 nos	Under estimation
4	Trees	7822	In progress

**Summary of Clearances.**

<b>Proposal Description</b>	<b>Status</b>	<b>Length Impacted</b>	<b>Current Stage</b>	<b>Issues/ Comments</b>
1) Environment	Done	-	Done	
2) Forest Land	Done	-	Done	Stage II clearance obtained
3) Wild Life	NA	-	NA	
4) Tree Cutting	In Progress	-	In Progress	Permission for cutting trees on Govt. Land received.
5) Rail (ROB/RUB)	GAD of ROB Approved	-	GAD of ROB Approved	Revised GAD for RUB submitted for approval to Railways

## Mobilization of Manpower

### TECHNICAL DEPARTMENT

Name of the Employee		Designation	Department
Amit	Garg	General Manager	Technical
Atul Kumar	Mishra	Project Manager	Technical
Rajesh	Chaturvedi	Dy. Project Manager	Technical
Sheikh Irfanul	Hodda	Dy. Project Manager	Technical
Ranjay Kumar	Anju	Dy. Project Manager	Technical
Sajjan Lal	Sharma	Dy. Project Manager	Technical
Deepakkumar	Singh	Sr. Engineer	Technical
Sandeepkumar	Lakhotra	Sr. Engineer	Technical
Dalbir	Amar	Sr. Engineer	Technical
Kumar	Rajesh	Sr. Engineer	Technical
Mukesh			
Mulchand	Kumavat	Sr. Engineer	Technical
Arun Kumar	Chaudharyq	Sr. Engineer	Technical
Pankaj	Tyagi	Sr. Engineer	Technical
Devendra	Agrawal	Sr. Engineer	Technical
Anjani	Singh	Engineer	Technical
Brijkishor	Ramsewak	Engineer	Technical
Rajesh	Raval	Engineer	Technical
Sourabh	Bansal	Engineer	Technical
Arpit	Jain	Engineer	Technical
Sudhanshu	Shekhar	Engineer	Technical
Harveer	Singh	Jr. Engineer	Technical
Maninder	Singh	Jr. Engineer	Technical
Rohit	Brijpal	Jr. Engineer	Technical
Satya	Hanuman	Jr. Engineer	Technical
Mohan	Lal	Jr. Engineer	Technical
Kuldeepsingh	Shivnathsingh	Sr. Surveyor	Technical
Manojkumar	Ramdhani	Surveyor	Technical
Deepak	Kumar	Surveyor	Technical
Ranjeet	Kishor	Surveyor	Technical
Durgalal	Kumar	Lab Technician	Technical
Laljit	Singh	Lab Technician	Technical
Kedar	Singh	Lab Technician	Technical
Saminullah	Khan	Lab Technician	Technical
Ajeet	Kumar	Lab Technician	Technical
Rakeshkumar	Lal	Lab Technician	Technical
Prahlad		Lab Technician	Technical
Kuldeepsingh	Shivnathsingh	Sr. Surveyor	Technical

<b>Name of the Employee</b>		<b>Designation</b>	<b>Department</b>
Dilipkumar	Shukla	Supervisor	Technical
Dhananjaykumar	Pandey	Supervisor	Technical
Jagdamba	Verma	Supervisor	Technical
Mukesh	Singh	Supervisor	Technical
Md.	Khan	Supervisor	Technical
Shivam	Singh	Supervisor	Technical
Ajaykumar	Singh	Jr.Supervisor	Technical
<b>MECHANICAL DEPARTMENT</b>			
Subhash	Kumar	Sr.Manager	Mechanical
Ajay Kumar	Mahato	Sr. Engineer	Mechanical
Nilesh Kumar	Pandey	Sr. Engineer	Mechanical
Sanjivkumar	Narayan	Engineer	Mechanical
Praveen Kumar	.	Engineer Trainees	Mechanical
Sanjeev	Singh	Asst. Engineer	Mechanical
Manoj Kumar	Upreti	Asst. Engineer	Mechanical
Rohit	Singh	Asst. Engineer	Mechanical
Dinanath	Gupta	Foreman	Mechanical
Driver / Operator		108 nos	Mechanical
<b>IT DEPARTMENT</b>			
Rishi Kumar	Bhatt	Executive	IT
<b>STORES DEPARTMENT</b>			
Naresh	Kumar	Asst. Manager	Store
Prabha Shankar	Jha	Sr.Executive	Store
Rakesh Kumar	Pal	Sr.Executive	Store
Akhilesh	Jha	Executive	Store
Ganpat	Dudsingh	Executive	Store
Ramniwas	Kashniya	Executive	Store
Rahul	Bachate	Executive	Store
Pramod		Executive	Store
Sunil	Kumar	Executive	Store
Raviranjn Kumar	Singh	Executive	Store
Subhash	Kumar	Executive	Store
Rahul Kumar	Mishra	Executive	Store
Akash	Mishra	Executive	Store
Briendra	Anil	Jr. Executive	Store
Atul Kumar	Dubey	Jr. Executive	Store
Pankaj Kumar		Jr. Executive	Store
Rakesh Kumar	Bairava	Jr. Executive	Store
Satish	Vishwakarma	Jr. Executive	Store

Name of the Employee		Designation	Department
Gopal Lal	Meena	Jr. Executive	Store
Shivendra	Vishvkumar	Jr. Executive	Store
Bahaduram	Saharan	Jr. Executive	Store
Mosin	Pathan	Jr. Executive	Store
<b>PURCHASE DEPARTMENT</b>			
Bhagwan	Jha	Manager	Purchase
Satish	Singh	Dy. Manager	Purchase
Vishal	Chawla	Sr.Executive	Purchase
Hariom	Singh	Jr. Executive	Purchase
<b>HSE DEPARTMENT</b>			
Kaushledra	vikramshree	Sr. Supervisor	HSE
Dayanand	Prakash	Engineer	HSE
Girdhar Gopal	Gour	Executive	HSE
<b>HR &amp; ADMIN DEPARTMENT</b>			
Shailendra Mani	Tiwari	Dy.Manager	HR & Admin
Ruchir	Malhotra	Dy. Manager	HR & Admin
Manoj Kumar	Shukla	Sr.Executive	HR & Admin
Shibasis	Mohanty	Sr.Executive	HR & Admin
Vikas	Vats	Executive	HR & Admin
Kaushal Kishor	Pathak	Executive	HR & Admin
Rajesh	Raikwar	Jr. Executive	HR & Admin
Lokesh	Kumar	Jr. Executive	HR & Admin
<b>FINANCE DEPARTMENT</b>			
Ashokkumar	Walia	Accountant (F&A)	Finance & Accounts
Ravi	Kishore Pandey	Sr. Accountant (F&A)	Finance & Accounts

## Mobilization of Resources (Plant and Machineries)

<b>Plants &amp; Machinery Mobilized Details</b>			
<b>S. No</b>	<b>Name of Machinery</b>	<b>TOTAL</b>	<b>Remarks</b>
1	Excavator	11	
2	Hywa/Tipper	52	
3	Soil Compactor	7	
4	Dozer	3	
5	Water Tanker	6	
6	Diesel Dispenser	1	
7	Grader	5	
8	Loader	3	
9	Paver	1	
10	Back Hoe	2	
11	Transit Mixer	6	
12	Crusher	1	
13	Concrete Batching Plant	2	
14	Weigh Bridge	4	
15	WMM Plant	1	
16	Sand classifier	1	
17	Tractor	4	
18	Tower Light	3	
19	DG Set	5	
20	Light Vehicle	24	
21	Trailer	1	



## Laboratory Equipment

Sl. No	Equipment Name	Required No.
<b>General</b>		
<b>1-A.</b>	<b>Balance</b>	
1	60 Kg capacity Semi-Self indicating type-Accuracy 1 gm electronic	1
2	30 Kg capacity Semi-Self indicating type-Accuracy 0.5 gm Electronic	2
3	15 Kg capacity Semi-Self indicating type-Accuracy 0.1 gm Electronic	1
4	6 Kg capacity Semi-Self indicating type-Accuracy 0.1 gm Electronic	1
5	500 gm capacity- semi-self indicating Type Accuracy .01 gm Electronic	1
<b>B.</b>	Ovens-electrically operated, thermostatically controlled (including thermometer), stainless steel interior	
1	Temperature range ambient to 300°C, Sensitivity 1°C, capacity 120 Litre	1
2	Temperature range ambient to 300°C, Sensitivity 1°C, capacity 250 Liter	1
<b>C.</b>	<b>Sieves: as per IS:2386 PART I</b>	
1	Test sieve set 450mm internal dia. As per IS complete with lid and pan	1 sets
	75 mm	1
	63 mm	1
	53 mm	1
	50 mm	1
	31.5 mm	1
	16 mm	1
	11.2mm	1
	6.7 mm	1
	5.6 mm	1
	2.8 mm	1
2	Test sieve set 450mm internal dia. As per IS complete with lid and pan	2 sets
	45 mm	2
	40 mm	2
	37.5 mm	2
	26.5 mm	2
	25 mm	2
	22.4 mm	2
	20 mm	2
	19 mm	2
	13.2 mm	2
	12.5 mm	2
	10 mm	2
	9.5 mm	2
	6.3 mm	2

Sl. No	Equipment Name	Required
	4.75 mm	2
3	Test sieve set 200mm internal dia( brass frame and brass wire cloth mesh) as per IS complete with lid and pan	2sets
	1.70 mm	2
	1.40 mm	2
	0.850 mm	2
	0.710 mm	2
	0.355 mm	2
	0.250 mm	2
	0.212 mm	2
	0.125 mm	2
	0.045 mm	2
4	Test sieve set 200mm internal dia( brass frame and brass wire cloth mesh) as per IS complete with lid and pan	3sets
	4.75mm	3
	2.8mm	3
	2.36 mm	3
	2.0 mm	3
	1.18 mm	3
	0.090 mm	3
5	Test sieve set 200mm internal dia( brass frame and brass wire cloth mesh) as per IS complete with lid and pan	4 & more sets
	1.00 mm	4
	0.600 mm	4
	0.425 mm	4
	0.300 mm	4
	0.180 mm	4
	0.150 mm	4
	0.075 mm	6
D.	200 tonnes compression testing machine with Flexural attachment to compression testing machine DIGITAL	1
E.	10 tonnes Flexural testing machine	2
F.	stop watches 1/5 sec. accuracy	1
G.	Glass ware comprising beakers, pipettes, dishes, measuring cylinders(100 to 1000cc capacity glass rods and funnels, glass beakers)	
	100ml Graduation (0-100mm) - Borocil Make	16
	500ml	1
	1000ml	2
	Beaker - 500 ml	2
H.	Hot plates 200mm dia(1500watt)	3
I.	Riffle box	
1	Riffle box of slot size 75mm as per ASTM C-136	1
2	Riffle box of slot size 50mm as per ASTM C-136	1
J.	Spatula set of 100,200 and 300 mm long	
	300mm	10
K.	First aid box	1
L.	TRAYS	
	Enamel trays (300 mm X 250 mm x 40 mm)	6

Sl. No	Equipment Name	Required
	GI Trays (300 mm X 250 mm x 40 mm)	6
	GI Trays (600 mm X 450 mm x 50 mm)	10
	GI Trays (1500 mm X 1000 mm x 80 mm)	2
<b>M.</b>	Max. / Min. Thermometer with Humidity meter	1
<b>N.</b>	Rainfall Gauge	1
<b>O.</b>	PVC WARES	
	100ml	4
	Wash bottle	5
<b>P.</b>	Wind Velocity Meter(Amenometer)	1
<b>Q.</b>	Scoop Medium size	6
<b>R.</b>	Digital Thermometer range (0 <sup>o</sup> to 200 <sup>o</sup> )	6
<b>S.</b>	Vernier Callipers calibrated 45cm long	1
<b>T.</b>	Steel Tape 5m and 30 meter	1 each
<b>U.</b>	Standard Weights Calibrated (50 gm-10 kg)	01 set
	<b>FOR SOILS AND AGGREGATES</b>	
<b>2-A</b>	Liquid limit and plastic limit - IS-2720 (Part-5)	
1	a) Liquid limit device with Casagrande and grooving tools and as per IS:2720	1 sets
	b) Single point LL device	1 set
	c) Moisture content cans 100 gm capacity	100
	d) Plastic Limit Apparatus	1 sets
<b>B.</b>	Laboratory compaction as per IS-2720(Part-8)	
	a) Compaction apparatus (heavy) 1000cc mould	2
	b) Compaction apparatus (heavy) 2250cc	3
	c) Compaction hammer (heavy) 4.89 kg rammer	3
<b>C.</b>	Sand pourig cylinder (100mm) with conical funnel and top and base plate as per IS:2720 (Part-28)	
1	100 mm dia	2
2	200 mm dia	2
<b>D.</b>	Sand Pouring Trays 100 mm	6
<b>E.</b>	Sand Pouring Trays 200 mm	6
<b>F.</b>	Electrically operated Laboratory C.B.R testing equipment to the requirements of IS:2720 (Part 16) and consisting of following	
	a) Floor mounted electro-mechanical load frame 5 tone capacity with automatic strain control CBR plunger with penetration dial gauge holder	1
	b) CBR mould complete with collar, base plate, etc.	21
	c) Swell stands for holding dial gauge with dial gauge	6
	e) Surcharge weight with central hole of 2.5 kg. weight with central and slotted hole	21 each
	f) Spacer disc with handle	2
	g) Perforated brass swell plate with adjustable cap on handle	21
	h) High tensile steel calibrated proving rings of 30 kn	1
	i) Dial gauge, 25mm travel-0.01mm/division	3
<b>G.</b>	Speedy moisture tester complete with carrying case and supply of reagent ( with 25% dial gauge)	4
<b>H.</b>	Rubber Mallet	1
<b>I.</b>	Cutting Edge 30 cm long	2
<b>J.</b>	Shear Test test Apparatus	1 Set

Sl. No	Equipment Name	Required
	<b>FOR BITUMEN AND BITUMINOUS MIXES</b>	
3-A.	Constant temperature bath for accommodating bitumen test specimen , electrically operated, and thermostatically controlled, stainless steel interior, 50 litres capacity, ambient to 100 degree temperature range	1
B.	Bitumen penetrometer automatic type, including adjustable weight arrangement, and needles as per IS 1203	1
	PENETRATION CUP (Small)	1
C.	Soxhlet Extraction or Centrifuge type motorized bitumen extraction apparatus to the requirement of AASHTO T164	1
	FILTER PAPER	1 packs
D.	a) Marshall compaction Testing apparatus as per ASTM 1559-62 T and complete with electrically operated automatic loading unit, compaction pedestal, breaking assembly (100mm &150mm),flow meter, load transfer bar	1
	PROVING RING 50 kN	1
	b) compaction pedestal 100 mm dia	1
	c)specimen moulds 100 mm dia with base plate, collars	15
	d) compaction hammer 4.53 kgx457 mm fall 100mm and 150 mm dia	1
E.	Ring and ball Apparatus as per IS 1205 with stirrer and all Accessories	1
F.	Apparatus for Determination of specific Gravity IS-1202 (50ml and 100ml)	3
G.	Maximum specific gravity Apparatus with all accessories (01 nos Bottles)	1 set
H.	Viscosity Test Apparatus as per IS -1206(part-II & III)	1
	<b>FOR CEMENT, CEMENT CONCRETE AND MATERIALS</b>	
4-A.	Vicat needle apparatus for setting time with plungers	1
B.	Moulds	
	a) 150mm x 150mm x 150mm cube moulds	115
	b) 70.6mm moulds ( each size) as per IS	9
	d) 100mm x 100mm x 100mm moulds	6
	e) 150x150x700mm Beam moulds	40
C.	High frequency mortar cube vibrator for cement testing with poking Rod	1
D.	Concrete mixer power driven, 2 cu.ft. capacity	2
E.	Vibrating Table for PQC Beam Casting 1m X 1m as per relevant British standard	1
F.	Flakiness and Elongation test gauges as per IS:2386, Part-1	1 sets
G.	Aggregate Impact Value Test apparatus as per IS 2386(part-iv)	1
G.	Equipment for slump test(C-143)/compacting factor Apparatus complete	6
H.	Equipment for Determination of specific gravity for fine aggregate as per IS:2386(part-3)	3
I.	Equipment for Determination of specific gravity for coarse aggregate as per IS:2386(part-3)	2
J.	Le-chatelier Soundness testing apparatus for cement	1 set
K.	Ennore Sand (grade-I,II & III) each	2 bags

Sl. No	Equipment Name	Required
L.	Vibratory Hammer for DLC	1
M.	Cement Gauging Trowel	1 set
N.	Standard measures of 30, 15, 3 litre capacity along with standard tamping rod	1 set
O.	Core Cutting Machine	1 set
P.	Rebound Hammer	1

### Status of Conditions precedent

a	Provided Performance Security to the Authority	Submitted
b	Executed and procured execution of Escrow Agreement	Submitted. Vide this office letter no. PDJHPL / NHAI / FC / 039 .2018 Dt. 21-05-2018.
c	Executed and procured execution of Substitution Agreement	Submitted. Vide this office letter no. PDJHPL / NHAI / FC / 039 .2018 Dt. 21-05-2018.
d	Procure all Applicable Permits as per Schedule -E	Obtained/ under progress
e	Executed Financing Agreements and delivered 3 copies duly attested by Director of the Concessionaire	Submitted. Vide this office letter no. PDJHPL / NHAI / FC / 039 .2018 Dt. 21-05-2018
f	Delivered to Authority 3 true copies of Financial Package and Financial Model duly attested by Director of the Concessionaire	Submitted. Vide this office letter no. PDJHPL / NHAI / FC / 039 .2018 Dt. 21-05-2018..
g	Delivered to Authority from Selected Bidder its respective confirmation in original of the correctness of their representations and warranties set forth in Sub Clause (k), (l) and (m) of Clause 7.1 of CA	Submitted

## 7. Project Progress Photographs



**Office**



Project Manager + Billing and Planning / Highway / Structure / Survey / HR Admin / Purchase  
Dept / Account



Quality Control (Lab)



Store



**Engineers Quarters**



**Staffs Quarters**





Staff MESS



Safety Induction Office



**Machinery Mobilized**



**Machinery Mobilized**



**Workshop**



Workshop



Steel Yard



Batching Plant



Crusher Plant



Crusher Plant



Crusher Plant



Crusher Plant



Crusher Plant





Project Physical Progress

DLC LAYING



EarthWork Progress



# Pile Load Test at Major Bridge





Pile Cage Lowering at MJB 57+127



RAFT CONCRETE AT 47+830 ELEVATED HIGHWAY



25+100VUP A2 1<sup>st</sup> Lift

