



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

PATEL SETHIYAHOPU - CHOLOPURAM HIGHWAY PRIVATE LIMITED

Four laning of Sethiyahopu - Cholopuram from Km 65.960 to Km.116.440 section of NH-45C in the state of Tamil Nadu under NHDP Phase-IV on Hybrid Annuity Mode.

INDEPENDENT ENGINEER  
M/s. Theme Engineering Services Pvt. Ltd

MONTHLY PROGRESS REPORT  
JUNE 2019

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## Executive Summary

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The old National Highway (NH -45C) runs through the state of Tamil Nadu. The project road is part of the 168 km long Vikravandi to Thanjavur section of the existing National Highway 45C (NH-45C). Recently MORTH has amended the number and Length of the National Highways. The old NH 12 in the state of Tamil Nadu has become the part of the New National Highway 36. It links Chennai with Thanjavur and is 418 km long.

The Sethiyahopu to Cholopuram section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Cholopuram, Thanjavur, kumbakonam, Puducherry. The project is also expected to provide improved connectivity to other religious places & other major cities like Rameswaram, Madurai, Tiruchirappalli, etc. The Project stretches passing through the 03 nos. of districts of Cuddalore, Ariyalur and Thanjavur.

## Project Synopsis

The Government of India had entrusted to the National Highway Authority of India (NHAI) the development, maintenance and management of National Highway No. 45C including the section from km 65.960 to Km 116.440 (approx. 50.480 Km). The Authority had resolved to augment for four Laning of Sethiyahopu - Cholopuram from Km 65.960 to Km 116.440 section of NH - 45C in the State of Tamil Nadu under NHDP Phase-IV on design, build, operate and transfer (the "DBOT Annuity" or "Hybrid Annuity") basis.

The scope of work will broadly include rehabilitation, upgradation and widening of the existing carriageway to four - lane standards with construction of new pavement, rehabilitation of existing pavement, construction and/or rehabilitation of major and minor bridges, culverts, road intersections, interchanges, drains etc. Including those prescribed in the Concession Agreement and its Schedule and the operation and maintenance itself. The map of project road is given in Figures below. The details of habitations are given in table - 01.

Figure 1: Project Location Map

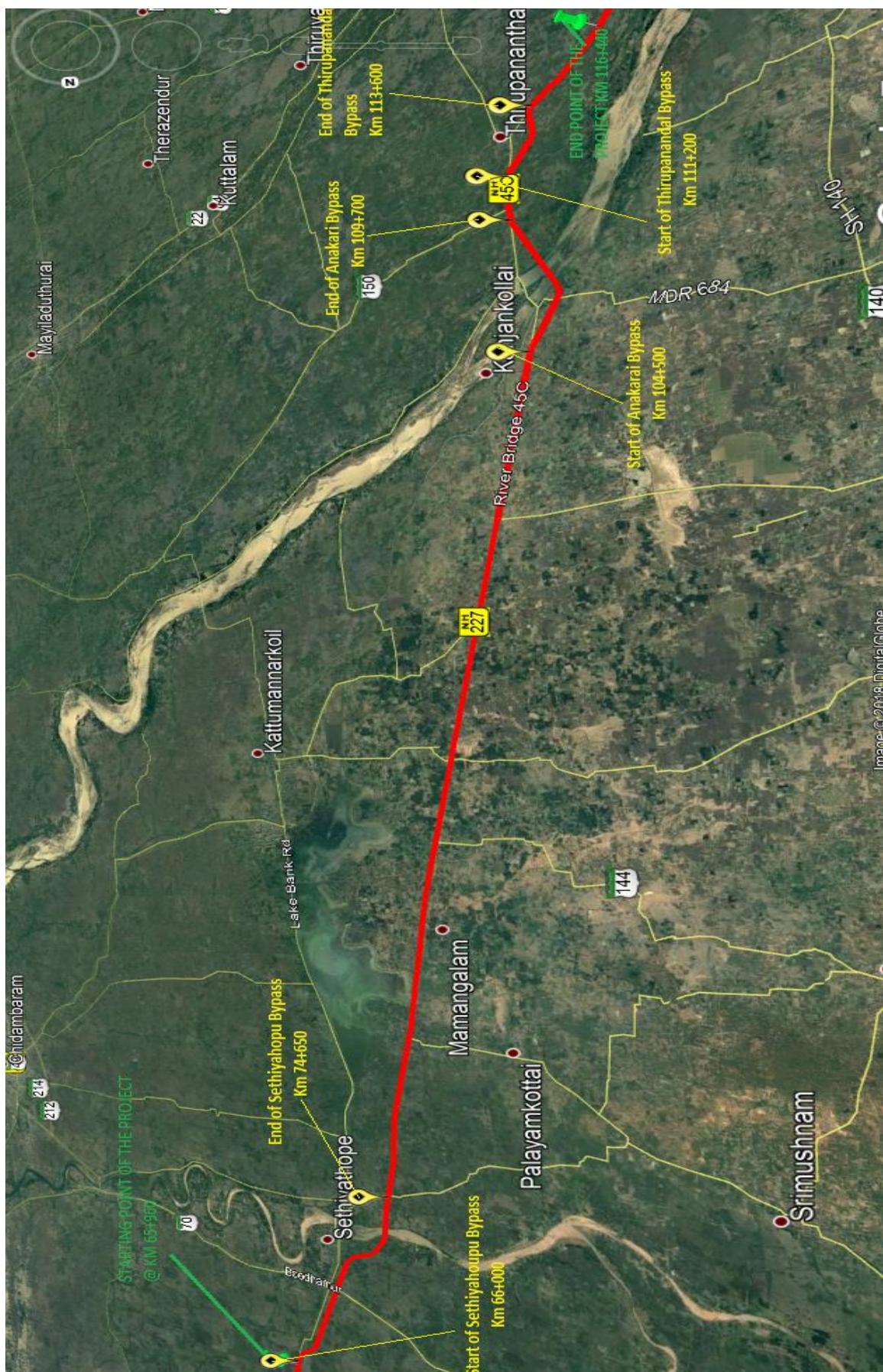


Figure 2: Project Alignment Map

SETHI YAHOPU TO CHOLOPURAM HIGHWAY PROJECT OF NH45 C

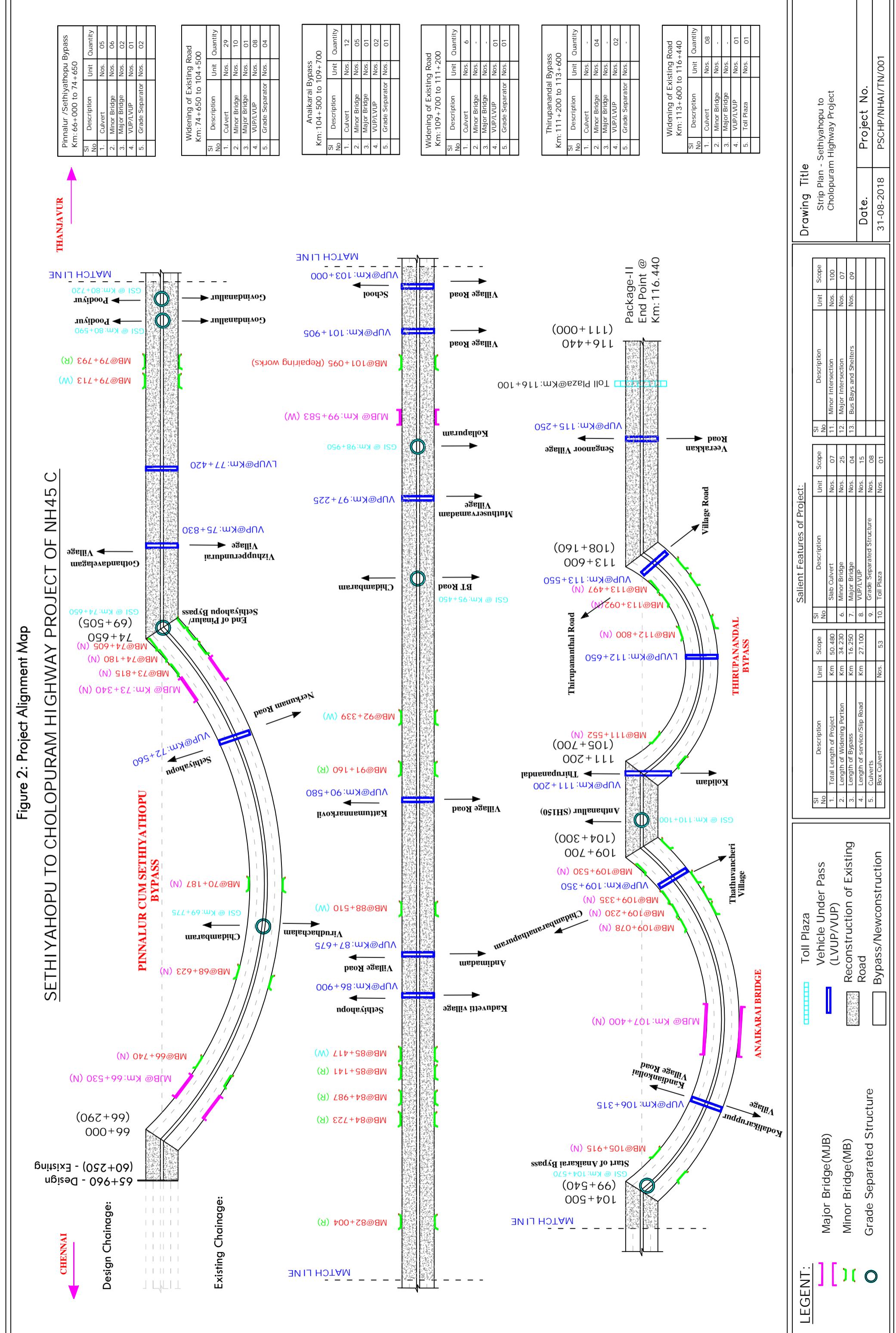


Table - 1.1 : Details of Project Alignments

Existing and Proposed Alignments							
Sl. no.	Existing Chainage (Km)		Design Chainage (Km)		LENGTH (Km)	TCS Type	Remarks
	From	To	From	To			
1	60.250	Bypass	65.960	69.460	3.500	Type-A-3 (Fig 2.4 of the manual)	Bypass
2	Bypass	Bypass	69.460	70.090	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
3	Bypass	Bypass	70.090	72.350	2.260	Type-A-3 (Fig 2.4 of the manual)	Bypass
4	Bypass	Bypass	72.350	72.775	0.425	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
5	Bypass	Bypass	72.775	74.335	1.560	Type-A-3 (Fig 2.4 of the manual)	Bypass
6	Bypass	69.820	74.335	74.960	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
7	69.820	70.375	74.960	75.520	0.560	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
8	70.375	71.010	75.520	76.150	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
9	71.010	71.855	76.150	76.900	0.750	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
10	71.855	72.170	76.900	77.220	0.320	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
11	72.170	72.570	77.220	77.620	0.400	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
12	72.570	72.800	77.620	77.850	0.230	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
13	72.800	73.230	77.850	78.300	0.450	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
14	73.230	75.105	78.300	80.150	1.850	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
15	75.105	76.080	80.150	81.120	0.970	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
16	76.080	76.460	81.120	81.500	0.380	TCS-1	Concentric Widening
17	76.460	77.000	81.500	82.240	0.740	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
18	77.000	78.115	82.240	83.150	0.910	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
19	78.115	79.110	83.150	84.150	1.000	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
20	79.110	79.510	84.150	84.550	0.400	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
21	79.510	80.610	84.550	85.650	1.100	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
22	80.610	81.555	85.650	86.580	0.930	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
23	81.555	82.170	86.580	87.210	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	

24	82.170	82.320	87.210	87.360	0.150	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
25	82.320	82.910	87.360	87.990	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
26	82.910	83.180	87.990	88.265	0.275	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
27	83.180	83.660	88.265	88.745	0.480	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
28	83.660	85.220	88.745	90.265	1.520	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
29	85.220	85.850	90.265	90.895	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
30	85.850	86.555	90.895	91.600	0.705	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
31	86.555	87.015	91.600	92.050	0.450	TCS-1	Concentric Widening
32	87.015	87.525	92.050	92.560	0.510	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
33	87.525	90.000	92.560	95.035	2.475	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
34	90.000	90.830	95.035	95.865	0.830	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
35	90.830	91.350	95.865	96.400	0.535	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
36	91.350	91.970	96.400	96.910	0.510	TCS-1	Concentric Widening
37	91.970	92.460	96.910	97.535	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
38	92.460	93.550	97.535	98.535	1.000	TCS-1	Concentric Widening
39	93.550	94.370	98.535	99.335	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
39A	94.370	94.875	99.335	99.840	0.505	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
40	94.875	95.350	99.840	100.300	0.460	Type-B (Fig 2.6 of the manual) with both side service road	
41	95.350	96.630	100.300	101.590	1.290	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
42	96.630	97.260	101.590	102.225	0.635	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
43	97.260	97.720	102.225	102.685	0.460	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
44	97.720	98.360	102.685	103.315	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
45	98.360	99.190	103.315	104.160	0.845	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
46	99.190	Bypass	104.160	104.990	0.830	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
47	Bypass	Bypass	104.990	106.000	1.010	Type-A-3 (Fig 2.4 of the manual)	Bypass

48	Bypass	Bypass	106.000	106.625	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
49	Bypass	Bypass	106.625	109.035	2.410	Type-A-3 (Fig 2.4 of the manual)	Bypass
50	Bypass	104.260	109.035	109.660	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
51	104.260	105.015	109.660	110.515	0.855	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
52	105.015	105.390	110.515	110.890	0.375	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
53	105.390	Bypass	110.890	111.515	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
54	Bypass	Bypass	111.515	112.430	0.915	Type-A-3 (Fig 2.4 of the manual)	Bypass
55	Bypass	Bypass	112.430	112.840	0.410	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
56	Bypass	Bypass	112.840	113.225	0.385	Type-A-3 (Fig 2.4 of the manual)	Bypass
57	Bypass	108.410	113.225	113.850	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
58	108.410	109.395	113.850	114.835	0.985	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
59	109.395	110.220	114.835	115.660	0.825	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
60	110.220	111.000	115.660	116.440	0.780	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening

## 1.1. Project Overview

<b>Name of Work</b>	Four Laning of Sethiyahopu-Cholopuram from km. 65.960 to Km.116.440 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.
<b>Name of Employer</b>	National Highways Authority of India (NHAI) G-5 & 6, Sector-10, Dwarka, New Delhi -110075
<b>Name of Concessionaire</b>	Patel Sethiyahopu – Cholopuram Highway Pvt Ltd, Patel House, Beside Prakruti Resorts, Channi Road, Vadodara. Gujarat– 391740 Tel: +91-265 277 6678 Fax: +91-265 277 7878
<b>Independent Engineer</b>	M/s. Theme Engineering Services Pvt. Ltd, S.F B1&B2, gateway Apartments, koranattu Karuppur, Kumbakonam – 612501.
<b>EPC Contractor</b>	M/s. Patel Infrastructure Limited, Patel House, Beside Prakruti Resorts, Channi Road,Vadodara Gujarat– 391740, Tel: +91-265 277 6678 Fax: +91-265 277 7878
<b>Design Consultant</b>	CTL Global Services Pvt. Ltd. 101, 1st Floor, Krishna Chambers, HAL, Airport Road, Bangalore-560017
<b>Senior Lender</b>	Punjab National Bank, Large Corporate Branch, Neelkamal Building, Opp. Sales India, Ashram Road, Ahmedabad - 380009
<b>Lenders Independent Engineers</b>	Sharul Techno-Financial Consultancy Services Pvt. Ltd., 403, Aspire Tower 5, Amanora Park Town, Hadapsar, Pune - 411028.
<b>Length of Road (Design Length)</b>	50.480 Kms
<b>Total Bid Cost</b>	Rs. 1461.00 Crores (as per concession agreement)
<b>Date of Concession Agreement</b>	November 9, 2017
<b>Concession Period</b>	17 Years ( Construction Period 2 Years from Appointed date, Operation period 15 years from COD)
<b>Appointed Date</b>	16.08.2018
<b>Construction Period</b>	2 years from Appointed date
<b>Completion Date</b>	15.08.2020
<b>Maintenance Period</b>	15 years from COD

## 1.2. Salient Project Features

Besides the construction of new carriageways and widening and strengthening of existing carriageways, the following table summaries the major elements of the project construction:

4 - Lane Divided Carriage Way	50.48 Km.
Service Road/ Slip Road	26.595 Km
Major Bridge	04 Nos.
Minor Bridge	25 Nos.
Grade Separate Intersection	08 Nos.
Vehicular Underpass	13 Nos.
Light Vehicular Underpass	2 Nos.
Culverts	60 Nos.
Major Intersections	07 Nos.
Minor Intersections	100 Nos.
Bus Bays	09 Nos.
Toll Plaza	01 Nos.

### 1.3. Contractual Project Milestones

Following is a listing of the Key Project Milestones:

Mile Stone	Description	Target Date
Mile Stone-I	Concessionaire shall expended not less than 20 % of the Total capital cost and shall have commenced construction of the project and achieved 20% of physical progress on 214 <sup>th</sup> day from the Appointed Date.	18 <sup>th</sup> March 2019
Mile Stone-II	Concessionaire shall expended not less than 35% of the Total capital cost and shall have commenced construction of the project and achieved 35% of physical progress on 334 <sup>th</sup> day from the Appointed Date.	16 <sup>th</sup> July 2019
Mile Stone-III	Concessionaire shall expended not less than 75 % of the Total capital cost and shall have commenced construction of the project and achieved 75% of physical progress on 584 <sup>th</sup> day from the Appointed Date.	22 <sup>nd</sup> March 2020
Scheduled Completion	Concessionaire shall have completed Project on 730 <sup>th</sup> day from the Appointed Date.	15 <sup>th</sup> August 2020

### 1.4. Payment milestone during Construction Period

Payment Mile Stone	Eligibility Criteria	Payment Amount (Rs.)
Mile Stone-I	On Achievement of 10% of Physical Progress	116.88 Crs.
Mile Stone-II	On Achievement of 30% of Physical Progress	116.88 Crs.
Mile Stone-III	On Achievement of 50% of Physical Progress	116.88 Crs.
Mile Stone-IV	On Achievement of 75% of Physical Progress	116.88 Crs.
Mile Stone-V	On Achievement of 90% of Physical Progress	116.88 Crs.

### 1.5. Permits & Approvals

Sr. No.	Details	Authority	Current Status	Remarks
1	Extraction of Boulders from Quarries	Dist. Mining Officer	Obtained	PIL (EPC Contractor) have executed an agreement with Mr. Thiru V. Sekar for supply of boulders that is having a valid license for extraction of boulders for the quarry at Padalur Village, Perambalur District.
2	Installation of Crusher	Village Panchayat Head	Obtained	
3	----D O----	Pollution Control Board	Obtained	
4	Use of Explosives	District Collector	Obtained	
5	Labour License	Labour Commissioner	Obtained	
6	Environmental Clearance		NA	

Sr. No.	Details	Authority	Current Status	Remarks
7	Trees Cutting Permission	Forest department through NHAI	Obtained	Work in Progress
8	Electric Poles Shifting	Tamil Nadu Electricity Board	Obtained	Work in Progress
9	Water Pipes Shifting	Tamilnadu Water Supply and Drainage Board	Obtained	Work in Progress
10	Drawing Water from river/ reservoir		NA	

## 2. Right of Way Status

### 2.1. Land Acquisition

As per the Schedule – A of Concession Agreement, the Proposed Right of Way (ROW) is of 45 & 60 meters as per table below.

**Table 2.1-1: Details of proposed ROW as per Schedule-A**

	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
<b>Full Right of Way (full width)</b>				
Stretch	65.960 to 75.150	9.190	60.00	
Stretch	75.150 to 82.380	7.230	45.00	
Stretch	82.380 to 83.080	0.700	60.00	
Stretch	83.080 to 84.050	0.970	45.00	
Stretch	84.050 to 86.440	2.390	60.00	
Stretch	86.440 to 87.660	1.220	52.50	
Stretch	87.660 to 91.730	4.070	45.00	
Stretch	91.730 to 93.730	2.000	52.50	
Stretch	93.730 to 95.900	2.170	45.00	
Stretch	95.900 to 99.700	3.800	60.00	
Stretch	99.700 to 104.500	4.800	30.00	
Stretch	104.500 to 109.700	5.200	60.00	
Stretch	109.700 to 110.980	1.280	30.00	
Stretch	110.980 to 113.700	2.720	60.00	
Stretch	113.700 to 116.440	2.740	30.00	
<b>Total Length</b>		<b>50.480</b>		

**Balance Right of way (width)**

	Design Chainage (Km)	Design Length (Km)	Width (m)	
Stretch	099.700 to 104.500	4.800	15.00	Within 90(Ninety) days of the Appointed date
Stretch	109.700 to 110.980	1.280	15.00	
Stretch	113.700 to 116.400	2.740	15.00	

Besides this, the Authority has to acquire additional land at Toll plaza location, Bus bays, Turning radius at Major junctions.

**Table 2.1-2: Status of Land Acquisition as per Site Condition.**

Sl. No.	Description	Unit	Present Status	Remarks
A)	<b>Total Length of the Project Highway</b>	Km	<b>50.48</b>	
1	Use of Existing Road Portion	Km	34.23	
2	Proposed Bypass / Realignment portion	Km	16.25	
B)	<b>Hindered Length</b>			
1.	LA pending	Km	7.620	
2.	Payment Pending	Km	9.675	
3.	Existing Buildings	Km	4.545	
4.	Temple & Bus stand	Km	0.100	
5.	Electrical Lines	Km	2.165	
6.	Rural Water Supply lines	Km	20.01	
7.	NOC Irrigation Dept.	Km	1.965	
8.	Paddy/Cotton fields	Km	0	
9.	Trees	Km	0.736	
10.	Net Hindered Length (both Side)	Km	43.480	
C)	Total Project Length (both Side)	Km	100.96	
D)	% Hindered Length	%	<b>43.06%</b>	

The details of land acquisition status and available hindrances are produced on a strip chart under section 04.

The status of compensation disbursed is as below: -

Table 2.1-3: Compensation disbursement for land					
SL No.	Name of the District	Total No. of Land cases	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Cuddalore	710	556	154	
2	Ariyalur	355	272	83	
3	Thanjavur	102	91	11	
	<b>Total in Nos.</b>	<b>1167</b>	<b>919</b>	<b>248</b>	
		<b>Total in %</b>	<b>78.75%</b>	<b>21.25%</b>	

Table 2.1-4 - Compensation disbursement for Structures					
Sl No.	Name of the District	Total No. of structures	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Cuddalore	383	317	66	
2	Ariyalur	359	312	47	
3	Thanjavur	153	73	80	
	<b>Total in Nos.</b>	<b>895</b>	<b>702</b>	<b>193</b>	
		<b>Total in %</b>	<b>78.43%</b>	<b>21.57%</b>	

The details of chainages under hindrance due to such balance compensation issues to their land owners, structure payment issues, standing crops, water pipe lines etc. are as below -

Table 2.1.5 - Details of Stretches Under Hindrance						
Sr. No .	From	To	Length	Effective Hindered Length	Side	Remarks
1	066+100	066+260	160	320	BHS	Veeranam Pipe Line
2	066+700	067+300	600	1200	BHS	Giri Land
3	068+550	068+620	70	140	BHS	Compensation Disbursement balance - Not allowed to work by owner
4	072+450	072+600	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
5	072+600	072+700	100	100	RHS	Compensation Disbursement balance - Not allowed to work by owner
6	072+800	073+100	300	400	BHS	Compensation Disbursement balance - Not allowed to work by owner
7	073+700	073+800	100	100	RHS	Compensation Disbursement balance - Not allowed to work by owner
8	073+900	074+200	300	600	BHS	Compensation Disbursement balance - Not allowed to work by owner
9	074+570		10	20	BHS	Structure - Payment pending
10	075+500	076+150	650	1300	BHS	Compensation Disbursement balance - Not allowed to work by owner
11	077+200	077+600	400	800	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner

12	078+600	078+700	100	100	RHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
13	080+100	081+150	1050	2100	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
14	083+400	084+200	800	1600	BHS	Compensation Disbursement balance - Not allowed to work by owner
15	085+500	086+500	1000	2000	BHS	Compensation Disbursement balance - Not allowed to work by owner
	086+900	087+000	100	200	BHS	
	087+500	088+200	700	1400	BHS	
16	089+400	091+000	1600	3200	BHS	Compensation Disbursement balance - Not allowed to work by owner
17	091+700	091+850	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
18	092+750	094+100	1350	2700	BHS	Compensation Disbursement balance - Not allowed to work by owner
19	095+050	095+900	850	1700	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
20	097+900	098+750	850	1700	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
21	098+500	099+400	900	1800	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
22	099+400	099+900	500	1000	BHS	Compensation Disbursement balance - Not allowed to work by owner
23	099+400	099+900	500	1000	BHS	Compensation Disbursement balance - Not allowed to work by owner
24	100+300	101+600	1300	2600	BHS	Compensation Disbursement balance - Not allowed to work by owner
25	101+600	102+230	630	1260	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
28	102+230	102+700	470	940	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
29	102+700	103+320	620	1240	BHS	Compensation Disbursement balance - Not allowed to work by owner
30	103+320	104+200	880	1760	BHS	Compensation Disbursement balance - Not allowed to work by owner
31	104+200	104+500	300	600	BHS	Compensation Disbursement balance - Not allowed to work by owner
32	109+500	109+700	200	200	LHS	Compensation Disbursement balance - Not allowed to work by owner
33	110+400	110+850	450	900	BHS	Compensation Disbursement balance - Not allowed to work by owner
34	110+900	111+050	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
35	113+250	113+450	200	400	BHS	Temple Land, Local not allowing to Work

36	113+550	113+990	440	880	BHS	Village Limit – Ribbon Development - Compensation, Disbursement balance - Not allowed to work owner
37	114+400	114+650	250	500	BHS	Village Limit – Ribbon Development - Compensation, Disbursement balance - Not allowed to work owner
38	115+700	116+440	740	1480	BHS	Toll Plaza Area - LA under Progress

**Table 2.1.6 - Hindrance Photographs**

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	240	Veeranam Pipe Line	65+960	66+200	Veeranam Pipe Line	240		
			68+600		Sluice Gate (2 Nos)	40		
	150	HT Line Crossing	70+030	70+200				
			70+700		Building			
	550	Agriculture Land & Trees	71+000	71+550				
		Teek Farm, Pump Set & 5 Poles	71+250					
		Bore Well	71+300					
		Borewell	71+550		Borewell			
		Pump Set	72+200					Damaged
	100	Veera mudaiyaan natham Village	72+450	72+550	Veera mudaiyaan natham Village	100		
	10	Hand Pump	72+550		Hand Pump	10		
	50	Pump Set & Trees	72+700					
			72+850		Pump Set, Bore Well & Trees			
			72+900		Bore & Pump Set			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Bore & Pump Set	72+950					
			73+400		HT Line Tower	20		
			73+450		Bore Well, Pump Set & Tree EB Pole	50		
	150	Kumarakudi Village	74+500	74+650	Kumarakudi Village	150		
			74+500		Bore Well			
		Telephone Poles	74+710	74+850	Telephone Poles			2 - Telephone Pole
		Temple, Hand Pump,	74+710					
	300	Eb Poles	74+850	75+200	EB Poles	300		8 Nos
			74+900		Marriage Hall			
		Trees	75+200	75+700	Trees			140 Nos
		Hut	75+210					
			75+260		Bore Well & Water Tank			
		Huts	75+270	75+350	Huts			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Flag Poles	75 + 390					
			75 + 520		Huts			
			75 + 560		Huts			
			75 + 565	75 + 640	Pond			
		Building	75 + 640					
			75 + 650		Temple			
			75 + 660		Water Tap			
		Building	75 + 680					
			75 + 700		OFC			
		Bore Well & Water Tank	75 + 700					
		Kothanda vilagam Village	75 + 700	76 + 200	Kothanda vilagam Village			
		Hand Pump	75 + 710					
		Water Tap	75 + 810					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Street Light	75+840					
		Flag Pole	75+840		Existing Culvert			
		Water Tap	75+880					
		Bore Well & Water Tank	76+025					
		Pump Set	76+260					
		Trees & EB Poles	76+300	76+800	Trees & EB Poles	450		
		Trees & EB Poles	76+300	76+800				
		Bus Shelter	76+410					
			76+410		Flag Pole			
			76+600		Temple			
			76+695		OFC & Compound Wall			
		EB Poles	76+800	77+300	EB Poles			
			76+800	77+300	Telephone Pole			3 nos

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			76+850		OFC			
			76+940		Bore & Water Tank			
		Buildings	76+980		Buildings			
			77+060		Bore & Water Tank			
			77+080	77+190	School Compound Wall			
		Building	77+100	77+300				
			77+220		Building			
			77+240		OFC			
			77+280		Compound Wall			
	300	Buildings	77+300	77+600	Buildings	300		
		Trees, EB Poles	77+300	77+600	Trees, EB Poles			
		Flag Pole	77+390	77+420				4 Nos
		Hand Pump	77+505					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Telephone Pole	77+390	77+510				3 Nos
		Hand Pump	77+590					
			77+700		OFC			
		Building	77+730					
			77+760		Water Tank & Motor Room			
		EB Pole	77+900	78+400	EB Pole			10 Nos
		Water Tap	77+975					
			78+120		OFC			
			78+390		EB Pole, Bore Well			
		OFC	78+400					
	450		78+400	79+000	EB Pole, Trees	450		340 Trees, 16 Poles
			78+680		OFC			
			78+725		Transformer			

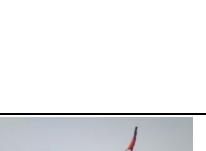
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Huts	78+670	78+760				
			78+860		OFC			
	400	Trees & EB Poles	79+000	79+500	Trees & EB Poles	400		
			79+080		OFC			
		Hand Pump	79+105					
			79+110					
		Existing Culvert	79+220		Flag Pole			
			79+240					
		Water Tank & Motor Room	79+260		OFC			
			79+520		Transformer			
			79+565		OFC			
			79+955					
	400	EB Pole, Water Tap, Trees, Telephone Pole	80+000	80+500	EB Pole, Water Tap, Trees, Telephone Pole	400		

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Water Tank, Motor Room, Hand Pump & Existing Culvert	80+120					
			80+125		Temple			
			80+170		Existing Culvert			
			80+190		OFC			
		Transformer	80+340					
	400		80+500	81+000	EB Poles, Telephone Poles, Trees, Water Tap	400		
			80+530	80+570	Flag Poles			6nos
		Bore Well	80+740					
			80+900		OFC			
	400	Tree, EB Poles	81+000	81+500	Tree, EB Poles	400		
			81+125		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			81+325	81+360	Existing Culvert & Compound Wall			
		Pond	81+360	81+460				
		OFC & Temple	81+445					
	450	EB Pole & Tress	81+500	82+000	EB Pole & Tress	450		
			81+585		OFC			
		Transformer	81+715					
		Sluice Gate	82+020		Sluice Gate			5 Nos
			82+510		OFC			
			82+595		OFC			
			82+875		Existing Culvert			
			82+890		OFC			
		Existing Culvert	82+975					
	450	Water Tap	83+000	83+500	Water Tap	450		Tap - 6

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			83+060		OFC			
		Existing Culvert	83+205					
		OFC	83+265					
			83+310		OFC			
		Flag Post	83+385					
			83+425		Transformer			25
	450	EB Pole, Water Tap, Trees, Telephone Pole	83+500	84+000	EB Pole, Water Tap, Trees, Telephone Pole	450		Pole - 13, Tap - 37, Tree - 239
			83+615		Temple			
			83+625		OFC			
		EB, Transformer	83+850					
			83+890		Flag Poles			4 nos
			83+935		Water Tank			
			83+995		Hand Pump			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	450	Water Tap, Telephone Pole & Buildings	84 + 000	84 + 500	Water Tap, Telephone Pole & Buildings	450		Tap - 2, Tree - 185
		Temple & Well	84 + 070					
		Flag Pole, Telephone Pole	84 + 110					
			84 + 110		OFC & Flag Pole			
			84 + 280		Transformer			
		Transformer	84 + 480					
			84 + 500	84 + 560	Huts			
			84 + 560		Flag & Ex Culvert			Pole 2 Nos
			84 + 650		OFC			
			84 + 920		OFC			
		Building	84 + 930	84 + 980				
	400		85 + 000	85 + 500	EB Pole, Trees	400		Poles - 23 & Tree 200
		Hut	85 + 045					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			85 + 060		EB, Transformer			
			85 + 090		OFC			
	300		85 + 500	86 + 000	Water Tap	300		Tap - 3
			85 + 770		OFC			
		Transformer	85 + 865					
		Building	85 + 910					
		Hut	85 + 930					
			85 + 955		Temple			
			85 + 990		OFC			
	500		86 + 000	86 + 700	EB Pole, Tree, Water Tap, T Poles	500		Eb Pole - 20, Tree - 275, Tap - 36, T Pole -5
			86 + 280		Temple			
			86 + 350		Bore Well			
		Temple	86 + 390					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			86+500		OFC			
			86+585		Motor Room			
		Buildings	86+000	86+700	Buildings			
	700	Building & Huts	86+700	87+500	Building & Huts	700		
			86+700	87+500	EB Pole, Tree, Water Tap, T Poles			EB - 38, Tree - 392, Tap - 30, T Pole - 2
			86+720		Flag Pole			
			86+830		OFC, Transformer			
		Transformer	86+915					
			86+985		OFC			
		Existing Culvert	87+080					
			87+155		OFC			
		Transformer	87+330					
			87+360		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	400	EB Pole, Tree, Tap, Telephone Pole	87+500	88+000	EB Pole, Tree, Tap, Telephone Pole	400		EB - 24, Tree - 163, Tap - 13, T Pole - 5
		Buildings & Huts	87+500	88+000	Buildings & Huts			
		Temple	87+500					
			87+640		OFC			
			87+670		Water Tank, Motor Room			
			87+690		Temple			
			87+735		Flag Pole			
			87+810		Transformer & OFC			
			87+835		Water Tank			
			87+990		OFC			
	450	EB Pole, Tree, Tap, Telephone Pole	88+000	88+500	EB Pole, Tree, Tap, Telephone Pole	450		EB - 16, Tree - 145 Water Tap - 15
		Buildings	88+000	88+500	Huts			
			88+190		OFC			

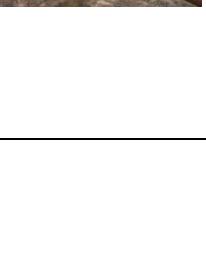
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			88+225		Transformer			
	450	EB Pole, Tree, Tap	88+500	89+000	EB Pole, Tree, Tap	450		EB -11. Tap - 2, Tree - 110
		House	88+500	89+000	House			
			88+580		OFC			
			88+590	88+710	Compound Wall			
			88+780		OFC			
			88+910		Temple			
		Existing Culvert	88+965					
	450	water Tap, Telephone Pole	89+000	89+500	water Tap, Telephone Pole	450		Tap - 15, T Pole - 5, Tree - 195
		Flag Post Pedestal	89+110					
			89+210		Transformer			
			89+240		OFC			
			89+350		Water Tank With Bore Well			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			89+355		Temple			
	450	water Tap, Telephone Pole	89+500	90+000	water Tap, Telephone Pole	450		Tap - 18, T Pole - 3
		Water Tank	89+515					
		Flag Pole	89+590					
		Motor Room	89+690					
			89+710		OFC			
			89+805		Well			
			89+910		OFC			
	400	EB Pole, Water Tap, House	90+000	90+500	EB Pole, Water Tap, House	400		EB - 34, Tap - 4
		Pond	90+000	90+060				
			90+090	90+180	Compound Wall			
			90+180		Transformer			
			90+195		OFC			

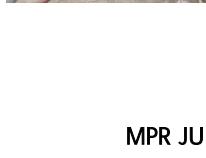
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			90+230		Transformer			
			90+325		Temple			
			90+375		Existing Culvert			
	400	EB Pole, Telephone Pole, Water Tap	90+500	91+000	EB Pole, Telephone Pole, Water Tap	400		EB - 14, Tap - 5, T. Pole 7
			90+560		OFC			
			90+610		Water Tank			
		Water Tank	90+630					
			90+830	90+860	Pond			
			90+955		OFC			
	450	EB Pole	91+000	91+500	EB Pole	450		EB - 34
			91+080		OFC			
			91+480		OFC			
	450	EB Pole, Water Tap, Telephone Pole, Trees	91+500	92+000	EB Pole, Water Tap, Telephone Pole, Trees	450		

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			91+600		OFC			
			91+730		OFC			
			91+780		Temple			
		Pond	91+780	91+860				
			91+840		OFC			
			91+955		OFC			
	700	EB Pole, Water Tap, Telephone Pole	92+000	93+000	EB Pole, Water Tap, Telephone Pole	700		EB - 16, Tap - 10, T, T Pole - 7
			92+080		OFC			
		Temple	92+135					
			92+265		OFC			
		Pond	92+270	92+330				
			92+300	92+380	Water Pipe Crossing			
			92+390		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Temple	92+455					
			92+570		Temple			
			92+600		OFC			2 Nos
			92+770		OFC			2 Nos
		OFC	92+995					
	750	EB Pole, Water Tap, Tree	93+000	94+000	EB Pole, Water Tap, Tree	750		EB - 44, Tape - 14, Tree - 270
			93+045		OFC			
			93+115		Transformer			
			93+200		OFC			
			93+360		OFC			
			93+660		OFC			
			93+800		OFC			
			93+930		Hand Pump			

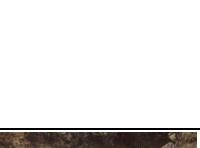
Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			93+975		OFC			
	400	Tree, EB Poles, T. Pole, Water Tap, House	94+000	94+500	Tree, EB Poles, T. Pole, Water Tap, House	400		Tree - 220, EB - 25, T Pole - 5, Tap - 7
			94+130		OFC			
		OFC	94+170					
			94+385		OFC			
		TEMPLE	94+440					
			94+500	95+000	Tree, EB Pole, T. Pole	400		Tree - 146, EB - 23, T Pole - 4, Tap - 6
			94+530		OFC			
			94+555					
			94+780		OFC, Transformer			
			94+830	94+900				
		Pond, Pipe Line	94+935		OFC			
			95+000	95+500	EB Pole, Tape, Telephone Pole	450		EB - 16, T Pole - , Tap 5

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			95+130	95+230	Compound Wall			
			95+210		Telephone Panel, Water Tank With Well			
			95+255		Police Station Arch			
			95+290		OFC			
		Flag Pole & Stage	95+415					
			95+435		Street Light			
	400	EB Pole, Tape, Telephone Pole	95+500	96+000	EB Pole, Tape, Telephone Pole	400		EB - 25, T Pole - 7, Tap - 6,
			95+570		Temple			
		OFC	95+850					
		Pond	95+950					
	400	EB Pole, Tape, Telephone Pole	96+000	96+500	EB Pole, Tape, Telephone Pole	400		EB - 39, T Pole - 5, Tap - 6,
			96+120		OFC			
			96+150		Transformer			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			96+480		Transformer			
	450	EB Pole, Tape, Telephone Pole	96+500	97+000	EB Pole, Tape, Telephone Pole	450		EB - 16, T Pole - 3,
			96+710		OFC			
			96+965		OFC			
			97+080		OFC			
			97+195		OFC			
			97+395		OFC			
			97+390	97+500	Pond			
	300	EB Pole, Tape, Telephone Pole	97+500	98+000	EB Pole, Tape, Telephone Pole	300		EB - 16,Tap - 5,
		Temple	97+520					
			97+600		OFC			
			97+680		Motor Room With Bore			
		Transformer	97+700					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	97+770					
			97+880		OFC			
		OFC	97+965					
	350	EB Pole, Tape, Telephone Pole	98+000	98+500	EB Pole, Tape, Telephone Pole	350		EB - 9, T Pole - 2
		OFC	98+280					
	350	EB Pole, Tape, Telephone Pole	98+500	99+000	EB Pole, Tape, Telephone Pole	350		EB - 19, T Pole - 3
			98+620		Transformer			
		OFC	98+635		Temple			
			98+710		Temple			
		Water Tank with Bore	98+735					
		OFC	98+825					
		Street Light	98+920					
		Flag Pole	98+940					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	98+950					
	750	EB Pole, Tree, Tape, Telephone Pole	99+000	100+000	EB Pole, Tree, Tape, Telephone Pole	750		EB - 47, T Pole - 4, Tap - 5, Tree 118
			99+120		Temple			
		Motor Room With Bore	99+150					
			99+160		Transformer			
			99+195		Temple With Water Tank			
		OFC	99+300					
		OFC	99+490					
	650	EB Pole, Tree, Tape, Telephone Pole	100+000	101+000	EB Pole, Tree, Tape, Telephone Pole	650		EB - 32, Tap - 12, Tree 210, T Pole - 3
		Transformer	100+150					
			100+195		Bore Well			
			100+200		OFC			
		OFC	100+320					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Pond	100+350					
		Motor Room With Tank	100+390					
			100+475		Water Tank			
		OFC	100+600					
		OFC	100+670					
		OFC	100+720					
		OFC	100+740					
		Pond	100+740	100+820				
	650	EB Pole, Tree, Tape, Telephone Pole	101+000	102+000	EB Pole, Tree, Tape, Telephone Pole	650		EB - 42, T Pole - 5, Tap - 6 Tree 100
			101+005		OFC			
		OFC	101+125					
			101+120	101+300	Pond			
		OFC	101+330					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			101+480		Hand Pump			
			101+805		OFC			
		Transformer	101+835					
	750	EB Pole, Tree, Tape, Telephone Pole	102+000	103+000	EB Pole, Tree, Tape, Telephone Pole	750		EB - 30, T Pole - 2, Tap - 13, Tree 110
		OFC	102+100					
			102+240		Temple			
			102+365		Transformer			
		OFC	102+390					
		OFC	102+435					
			102+520		Flag Pole			
		OFC	102+575					
		OFC	102+730					
		Transformer	102+930					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Schooh Arch	102+960					
	800	Tape, Telephone Pole	103+000	104+000	Tape, Telephone Pole	800		T Pole - 2, Tap - 13
		OFC	103+025					
		Pond	103+090	103+300				
		OFC	103+130					
		OFC	103+320					
		OFC	103+400					
		OFC	103+425					
		OFC	103+530					
			103+590		Temple			
		OFC & Flag Pole	103+720					
		Pond	103+775	103+815				
			103+860	103+910	Pond			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Pond	103+935	104+250				
		Existing Irrigation Sluice	103+990					
	400	EB Pole, Tree	104+000	104+500	EB Pole, Tree	400		EB - 4 , Tree - 3
		House	104+500		House			
	350	EB Pole, Tree, Tape	104+500	105+200	EB Pole, Tree, Tape	350		Tree - 21, EB - 23, Tap - 3
	500	EB Pole, Tree, Tape	105+200	105+900	EB Pole, Tree, Tape	500		Tree - 42, EB - 4, Tap - 4
			105+850		Motor Room			
	750	EB Pole, Tree, Tape	105+900	106+900	EB Pole, Tree, Tape	750		Tree - 100, EB - 1, Tap - 7
			105+920		Well			
		Motor Room	106+900					
	1150	EB Pole, Tree, Tape	107+900	109+700	EB Pole, Tree, Tape	1150		Tree - 94, EB - 9, Tap - 6
	1350	Tape	109+700	111+200	Tape	1350		Tap - 18
		OFC	109+705					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	109+710					
			109+720		Motor Room			
			109+985		Water Pipe			
		OFC	110+330					
		Water Tank	110+450					
			110+725		OFC			
			110+740		Motor Room with well			
	1750	EB Pole, Tree, Tape	111+200	113+500	EB Pole, Tree, Tape	1750		Tree - 460, EB -23,Tap - 12
		OFC	111+230		OFC			
			111+450		Motor Room With Bore			
		Gate Valve	111+500					
		Motor Room With Bore	111+600					
			111+680		Motor Room With Bore			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Motor Room With Bore	112+300					
			112+310		House & Hand Pump			
			112+390		Motor Room With Bore			
			113+220		Motor Room With Bore			
			113+250		House			
			113+330		Motor Room With Bore			
	750	EB Pole, Telephone Pole, Tape	113+500	114+600	EB Pole, Telephone Pole, Tape	750		Tree - 280, EB -38, T Pole - 9. Tap - 6
			113+670	113+720	Sub Station			
			113+700		HT Line Crossing			
			114+060		Flag Pole			
			114+090		Flag Pole, Water Tank			
		HT Line	114+130					
		Transformer	114+460					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Water Tank	114+450					
		Water Tank	114+495					
		OFC	114+520		Temple			
		Pond	114+540	114+580				
	650	EB Pole, Telephone Pole, Tree, Tape	114+600	115+600	EB Pole, Telephone Pole, Tree, Tape	650		Tree - 80, EB - 18, Tap - 2
		Hand Pump	114+610					
		Transformer	114+950					
		Transformer	115+210					
			115+230		Flag Pole			5 Nos
	700	Telephone Pole, Tape	115+600	116+440	Telephone Pole, Tape	700		EB -26, T Pole - 2 Tap - 16
			115+650		Motor Room			
		OFC	115+820					
		Transformer	115+970					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	116+095					
		OFC	116+170					
		Hand Pump	116+200					
		Water Tank & Motor Room	116+210					
		OFC	116+275					
		OFC	116+410					
			116+560		Flag Pole			
		House	115+600	116+440	House			

## 2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Table 2.2-1: Status of Removal of Religious structures				
Sl No.	Name of the District	Total No. Of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	Cuddalore	10	1	9
2	Ariyalur	10	1	9
3	Thanjavur	2	1	1
	Total in Nos.	22	3	19

## 2.3. Shifting of Utilities and Electrical HT/LT Lines

To proceed with the project construction, several utilities are required to be shifted under the supervision of the respective authorities. These include a water supply line, hand pumps, overhead water tanks, besides Electrical lines, as shown in the table below.

Table 2.3-1: Status of sanction of Estimates - Relocation of RWS Pipe line

Sr. No.	Name of the District	Chainages			Total Number of Estimates	Remarks
		From	To	Length in Km		
1	Cuddalore	65+960	86+440	20.48	25	Work in Progress
2	Ariyalur	86+440	106+860	20.42	46	
3	Thanjavur	106+860	116+440	9.58	4	

Table 2.3-2: Status of sanction of Estimates - Electrical Lines Relocation

Sr. No	Name of the District	Chainages			Number of Estimates	Present Status	Remarks
		From	To	Length in Km			
1	Cuddalore	65+960	86+440	20.48	10	Estimate Approved	Supervision Charges paid.
2	Ariyalur	86+440	106+860	20.42	5	Estimate Approved	Supervision Charges paid.
3	Thanjavur	106+860	116+440	9.58	5	Estimate Approved	Supervision Charges paid for 4 Nos
4	Cuddalore & Thanjavur	Km:70+020, Km:73+470 and Km:113+720			3	Estimate Approved	Supervision Charges yet to be paid

Estimates for shifting of the above Electric lines have been prepared. The estimated cost is Rs. 17.45 Crores.

Estimates have been done for the shifting of the water supply pipeline & related items mentioned above. The final amount of Rs. 15.87 Crores sanctioned by RO, NHAI, Madurai.

Table 2.3-3: Status of Utility Relocation								
Sl. No.	Authority	Description		Unit	Total Length/ Nos.	Work done	Balance	Remarks
1	BDO & EE,TWAD	Water Supply Pipe Line		Kms.	72.695	10.090	62.605	Work in progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well		Nos.	24	10	14	
3	BDO of Concern Union	Over Head Tank		Nos.	15	8 Nos Completed	7	
4	TNEB	Electrical Lines		Kms.	6.83	4.665	2.165	

#### 2.4. Tree felling

Table 2.4-1: Status of Tree felling									
Sl.N o.	Name of the District	Chainages			Effected Length in Kms.	Completed as on Date	Balance as on Date	Balance no. of Trees	Remarks
		From	To	Length in Km					
1	Cuddalore	65+960	86+440	20.48	6.535	6.289	0.246	26	Permission is awaited for removal of 123 nos of teak wood trees.
2	Ariyalur	86+440	106+860	20.42	8.385	8.215	0.170	54	
3	Thanjavur	106+860	116+440	9.58	2.515	2.195	0.320	50	
Total				50.48	17.435	16.699	0.736	130	

### 3.1. Pre-construction Activities

#### Detailed Design & Drawings

The Plan and Profile, as well as the Pavement Designs for the entire 50.48 km project length has been completed and reviewed by the Independent Engineer (IE). Construction Methodology, QA & QC procedures submitted to the IE has been reviewed and accepted.

Table 3.1-1: Status of Design and Drawings-Highway					
Sl No.	Description	Unit	Total Scope as per Sch.-B As per Sch. B	Design submitted	Drawing Approved
1	Pavement Design	Km	50.480	50.48	50.48
2	Plan & Profile	Km	50.480	50.48	48.48
3	Typical Cross Sections	Type	7	7	7
4	Major Intersections	No	07	-	-
5	Minor Intersections	No	100	-	-
6	Toll Plaza (Typical Details)	No	01	-	-
7	Service Roads	No	26.595	26.595	26.169

Table 3.1-2 : Status of Design and Drawings –Structures					
Sr. No	Description	Unit	Total Scope As per Sch. B	Design Submitted	Drawing Approved
1	Major Bridges	No	04	04	1
2	Minor Bridges	No	25	25	22
3	Grade Separated Intersection	No	08	08	8
4	VUP/LVUP	No	15	15	12
5	Box /Slab Culvert	No	60	60	53

#### 4.1. Physical Progress of Work

The Progress of the Major Works carried out at the Site in the Month of June 2019 is as follows.

#### CUMMULATIVE STATEMENT For Main Carriageway

Sr. No.	Description	Total Length of Highway Excluding Toll Plaza (in. Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	<b>Clearing and Grubbing</b>							
	LHS	47.28	29.20	1.14	30.340	0	16.94	64.17%
	RHS	47.28	27.35	1.16	28.510	0	18.77	60.30%
2	<b>Embankment</b>							
	LHS	47.28	4.91	3.31	8.22	9.72	39.06	17.39%
	RHS	47.28	2.14	2.66	4.80	10.85	42.48	10.15%
3	<b>Sub grade</b>							
	LHS	47.28	3.40	3.77	7.17	1.01	40.11	15.16%
	RHS	47.28	0.60	0.73	1.33	2.87	45.95	2.81%
4	<b>GSB/ Cement Treated Base</b>							
	LHS	47.28	0	5.73	5.73	1.22	41.55	12.12%
	RHS	47.28	0	0	0	0.72	47.28	0.00%
5	<b>Wet Mix Macadam</b>							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%
6	<b>Dense Bitumen Macadam</b>							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%
7	<b>Bituminous Concrete</b>							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%

#### For Service Road

Sr. No.	Description	Total Length of Service Road (Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Embankment	53.19	0	1.63	1.63	2.37	51.56	3.06%
2	Sub grade	53.19	0	0.50	0.50	0.70	52.69	0.94%
3	GSB/ Cement Treated Base	53.19	0	0	0	0.24	53.19	0.00%
4	Wet Mix Macadam	53.19	0	0	0	0	53.19	0.00%
5	Dense Bitumen Macadam	53.19	0	0	0	0	53.19	0.00%
6	Bituminous Concrete	53.19	0	0	0	0	53.19	0.00%

<u>Structure Work</u>					
Sr. No.	Type of Structure	Total No. of Structures	Nos. of Structures		
			Completed	In Progress	Balance to be taken up
1	Culvert	60	8.5	24	30.5
2	Light Vehicular Underpass	2	0	1	1
3	Vehicular Underpass	13	0	9	4
4	Minor Bridges	25	6	14	5
5	Major Bridge	4	0	2	2
6	Flyover	8	0	5	3

The Physical Progress of the Project up to June 2019 as per Approved Schedule G is as follows:-

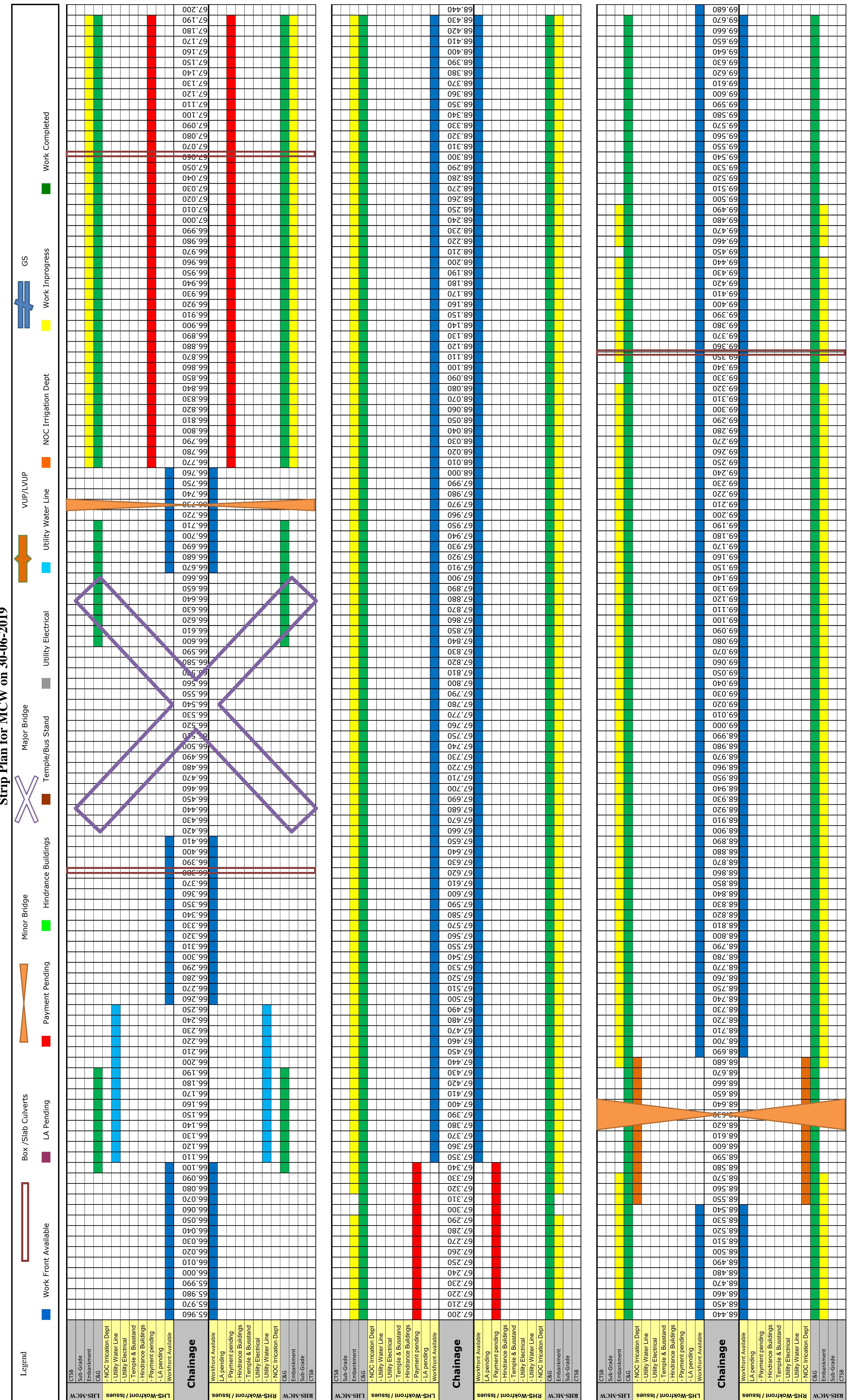
Item	Stage for Payment	Unit	Qty.	Weightage in percentage to Contract Price	EPC Cost	Completed up to 30.06.2019	% Physical Progress
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	A- Widening and strengthening of existing road						
	(1) Earthwork up to top of the sub-grade	Km	66.96	9.517%	1,259,149,811	8.50	1.208%
	(2) Granular work (sub-base, base, shoulders)	Km					
	(a) GSB/ Cement Treated Base	Km	65.52	2.873%	380,125,589	5.73	0.251%
	(b) WMM/ Cement Treated Base	Km	65.52	3.546%	469,110,512		
	(3) Shoulders	Km	17.65	0.112%	14,871,740		
	(4) Bituminous work	Km					
	(a) DBM	Km	65.52	5.370%	710,391,656		
	(b) BC	Km	65.52	1.998%	264,329,795		
	(5) Rigid Pavement						
	(6) Widening and repair of culverts	Nos.	16	0.440%	58,232,176	0.5	0.014%
	(7) Widening and repair of minor bridges	Nos.	4	0.959%	126,889,505	1	0.240%
	B- New realignment/bypass						
	(1) Earthwork up to top of the sub-grade	Km	28.68	7.437%	983,900,859		
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB/ Cement Treated Base	Km	28.68	1.615%	213,638,057		
	(b) WMM/ Cement Treated Base	Km	28.68	1.436%	189,985,659		
	(3) Shoulders	Km	24.63	0.112%	14,871,740		
	(4) Bituminous work						

(a) DBM	Km	28.68	1.656%	219,132,172		
(b) BC	Km	28.68	0.781%	103,340,561		
(5) Rigid Pavement						
C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:						
(1) Culverts	Nos.	44	1.570%	207,725,198	8.5	0.303%
(2) Minor bridges						
(a) Foundation	Nos.	58	1.453%	192,185,204	23	0.576%
(b) Substructure	Nos.	134	2.423%	320,544,497	41	0.741%
(c) Superstructure (including crash barrier etc. complete)	Nos.	50	1.559%	206,310,836	11.5	0.359%
(3) Cattle/Pedestrian underpasses						
(a) Foundation	Nos.		0.000%			
(b) Substructure	Nos.		0.000%			
(c) Superstructure (including crash barrier etc. complete)	Nos.		0.000%			
(4) Pedestrian overpasses						
(a) Foundation	Nos.		0.000%			
(b) Substructure	Nos.		0.000%			
(c) Superstructure (including crash barrier etc. complete)	Nos.		0.000%			
(5) Grade separated structures						
(a) Underpass (13 VUP, 2 LVUP)						
(i) Foundation	Nos.	56	1.274%	168,578,361	13	0.296%
(ii) Substructure	Nos.	60	0.751%	99,383,595	11	0.138%
(iii) Superstructure (including crash barrier etc. complete)	Nos.	30	1.589%	210,173,790		
(b) Overpass						
(i) Foundation			0.000%			
(ii) Substructure			0.000%			
(iii) Superstructure (including crash barrier etc. complete)			0.000%			
(c) Flyover						
(i) Foundation	Nos.	36	0.926%	122,463,747	11	0.283%
(ii) Substructure	Nos.	36	0.470%	62,236,342	1	0.013%
(iii) Superstructure (including crash barrier etc. complete)	Nos.	20	1.744%	230,794,019		
(d) Foot over Bridge						
<b>Major Bridge works and ROB/RUB</b>	A- Widening and repairs of Major Bridges					
	(1) Foundation		0.000%			
	(a) Open Foundation		0.000%			
	(b) Pile Foundation/ Well Foundation		0.000%			
	(2) Sub-structure		0.000%			
	(3) Super-structure (including crash barriers etc. complete)		0.000%			
	C- New Major Bridges					
	(1) Foundation		0.000%			

	(a) Open Foundation			0.000%			
	(b) Pile Foundation/ Well Foundation	Nos.	84	5.289%	699,701,550	6	0.378%
	(2) Sub-structure	Nos.	84	3.612%	477,891,273		
	(3) Super-structure (including crash barriers etc. complete)	Nos.	77	3.208%	424,381,248		
	<b>D- New rail-road bridges</b>						
	<b>(a) ROB</b>						
	(1) Foundation	Nos.		0.000%			
	(2) Sub-structure	Nos.		0.000%			
	(3) Super-structure (including crash barriers etc. complete)	Nos.		0.000%			
	<b>(b) RUB</b>						
	(1) Foundation	Nos.		0.000%			
	(2) Sub-structure	Nos.		0.000%			
	(3) Super-structure (including crash barriers etc. complete)	Nos.		0.000%			
<b>Structures (elevated sections, reinforced earth)</b>	<b>A- Elevated Structures</b>						
	(1) Foundation	Nos.		0.000%			
	(2) Sub-structure	Nos.		0.000%			
	(3) Super-structure (including crash barriers etc. complete)	Nos.		0.000%			
	<b>B- Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc.)</b>	Sqm	196027	9.104%	1,204,450,614	14616	0.679%
<b>Other Works</b>	(i) Service roads/ Slip Roads	Km	53.19	5.690%	752,725,608		
	(ii) Toll Plaza	Nos.	1	1.821%	240,951,085		
	(iii) Road side drains	Km	28.85	5.429%	718,314,179	1.000	0.188%
	(iv) Road signs, markings, km stones, safety devices, ....						
	(a) Road signs, markings, km stones, ...	Km	100.96	3.058%	404,615,279		
	(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work	Km					
	(i) Concrete Crash Barrier	Km	26.5	1.679%	222,129,021		
	(ii) W-Beam Crash Barrier	Km	10.03	0.788%	104,276,599		
	(v) Project facilities						
	(a) Bus Bays	No.	18	0.009%	1,168,188		
	(b) Truck Lay-byes	No.		0.000%			
	(c) Rest areas	No.		0.000%			
	(vi) Repairs to bridges/structures	Nos.					
	(vii) Road side plantation	Km	23.66	0.451%	59,629,564		
	(viii) Protection works						
	(a) Boulder pitching on slopes	Km	10.03	0.218%	28,903,487		
	(b) Toe/Retaining wall	Km	10.03	0.000%			
	(x) Miscellaneous	Ls.	100%	8.031%	1,062,496,886	56%	4.497%
	<b>Total</b>			100.000%	13,230,000,000		10.164%

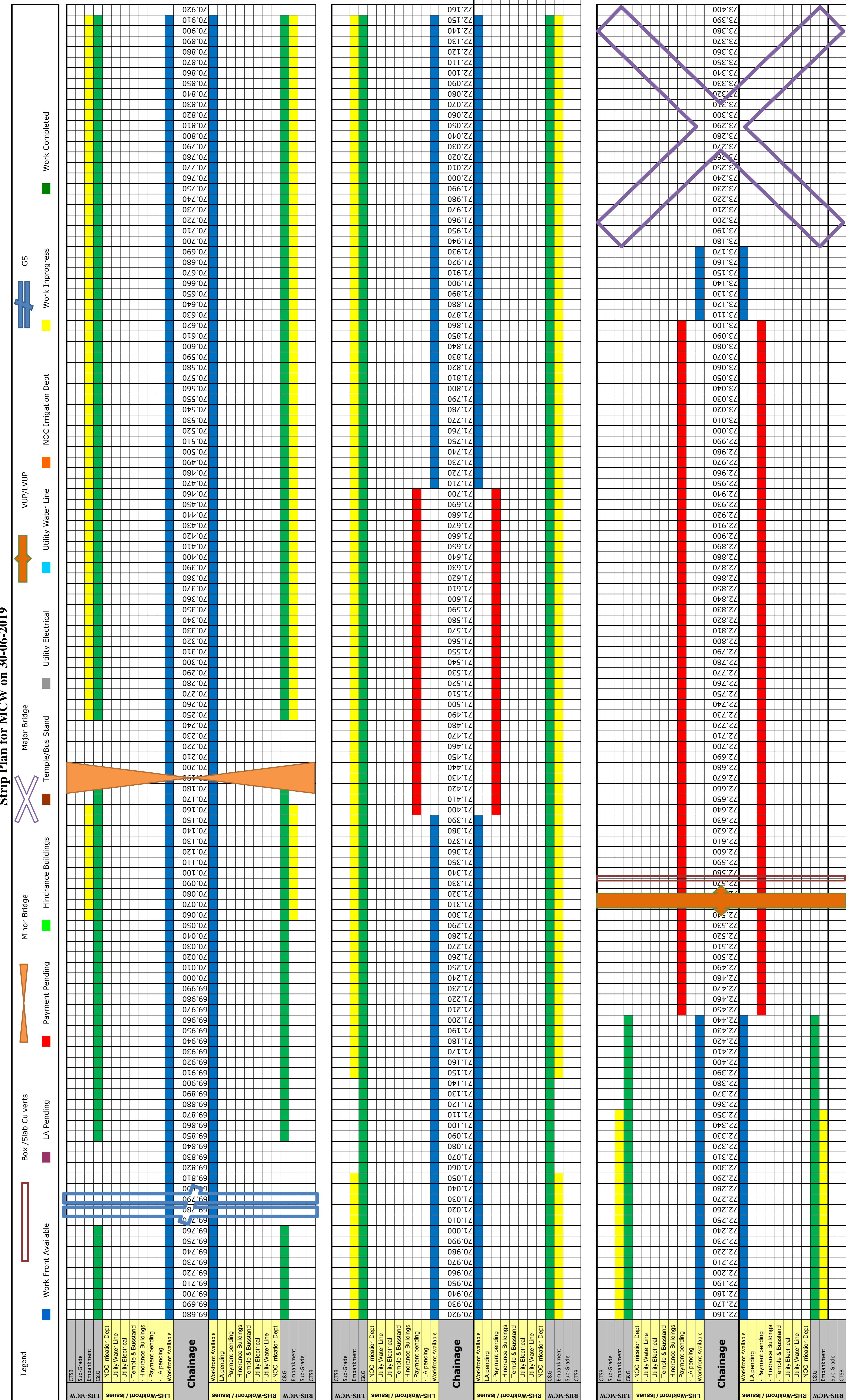
**Four Laning of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDTP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects



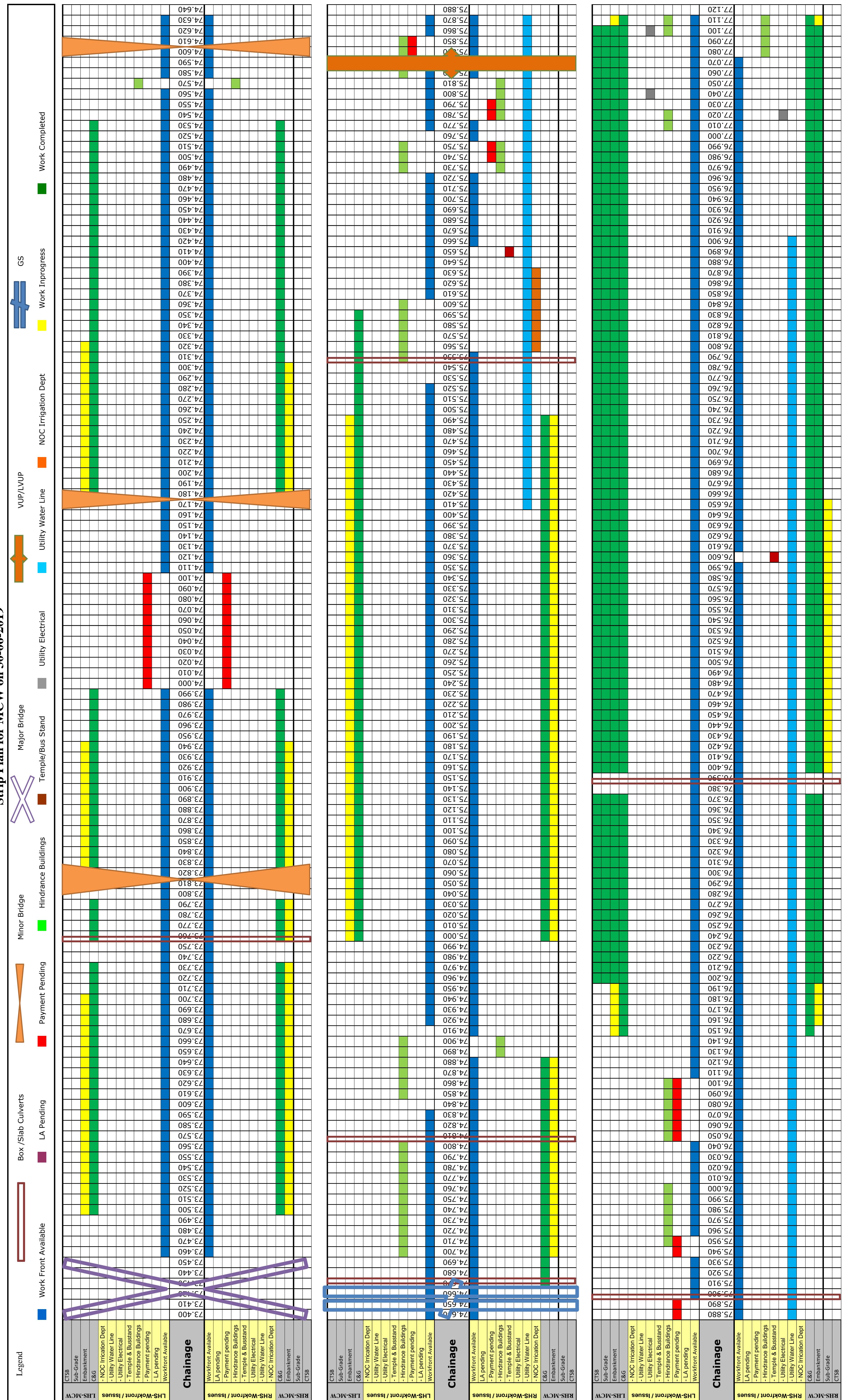
## Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects



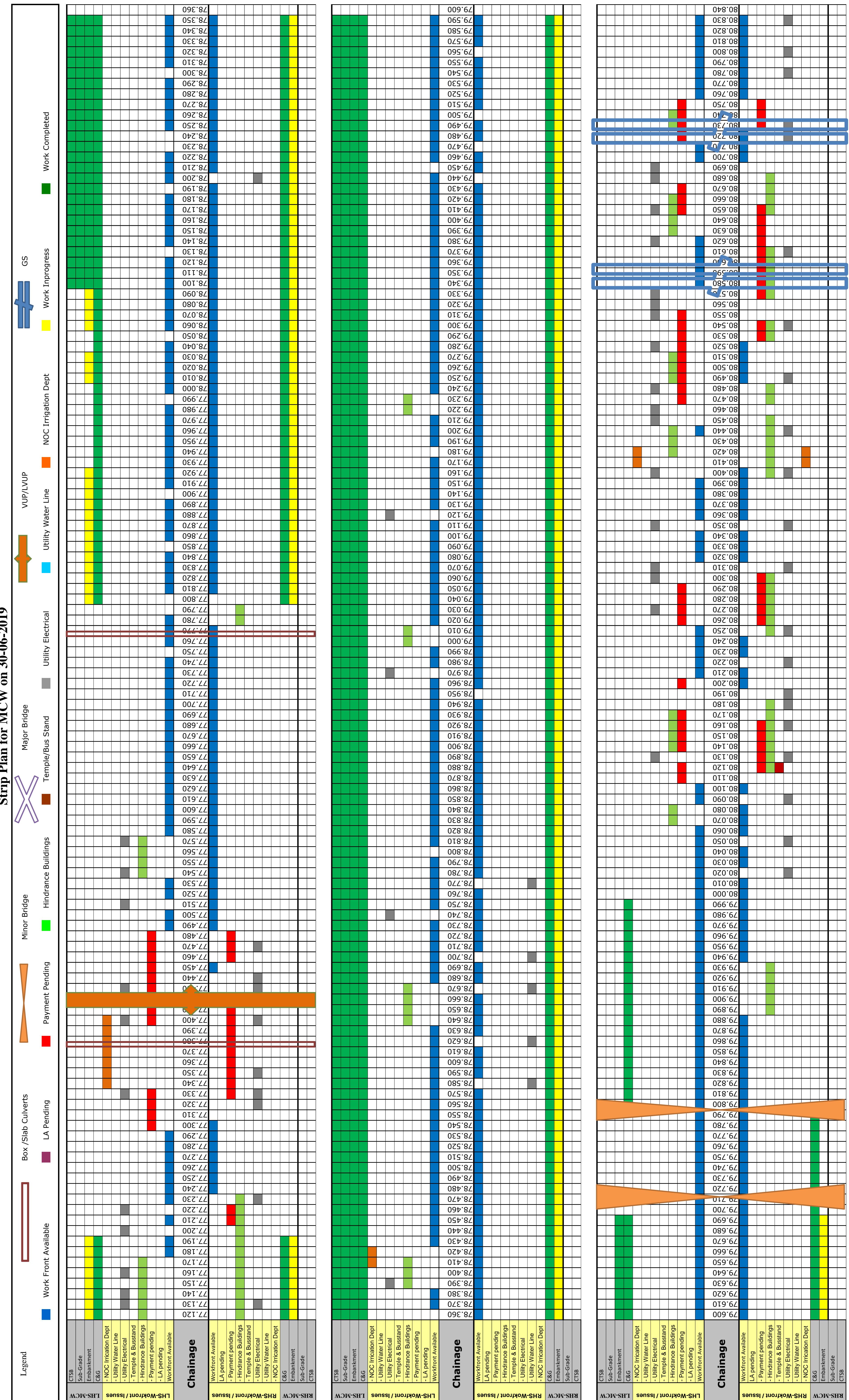
## **Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Annuity Mode**

**Sethiyahopu - Cholopuram Road Projects**



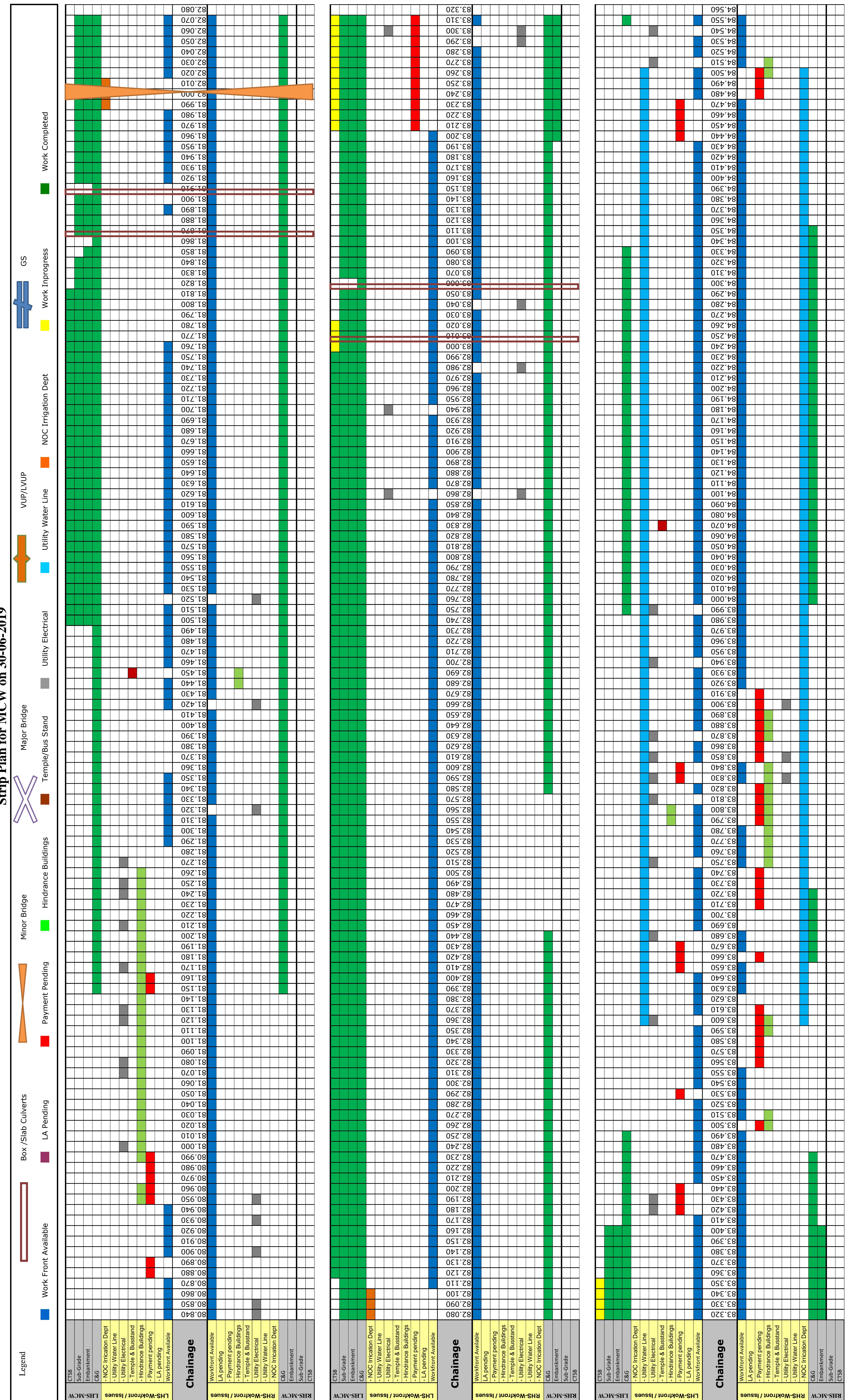
**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDTP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects



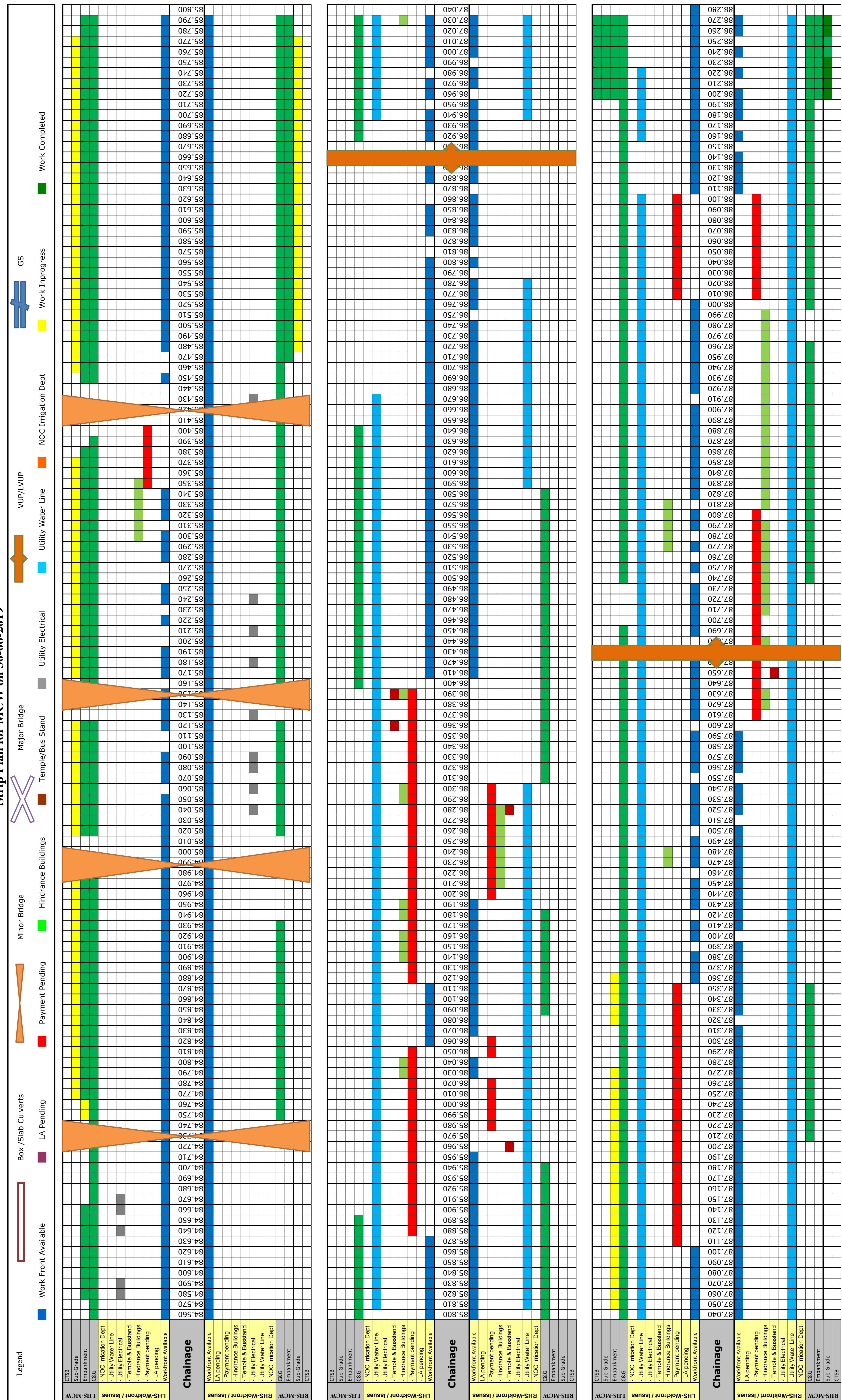
**Four Laning of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects



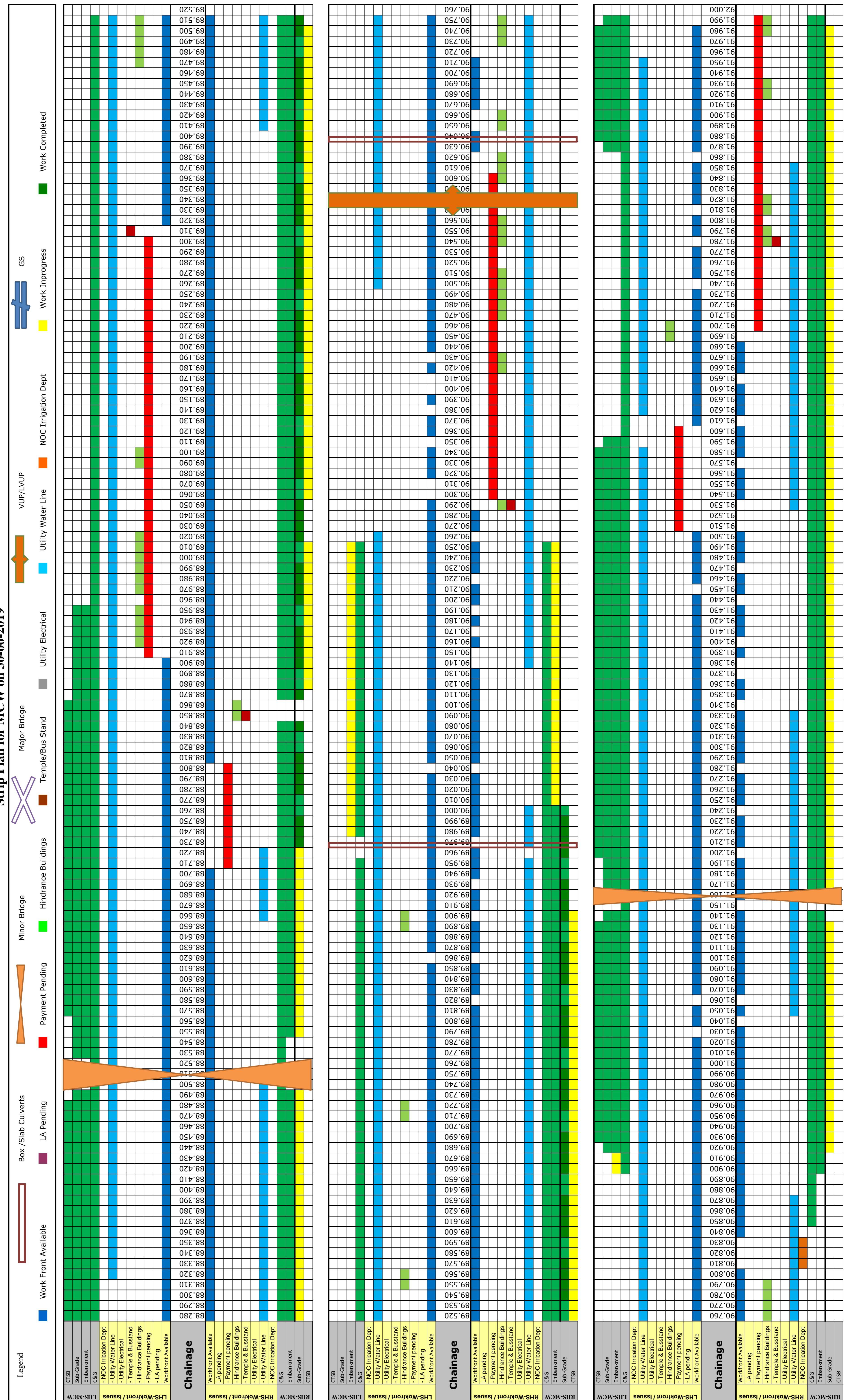
## **Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

**Sethiyahopu - Cholopuram Road Projects**



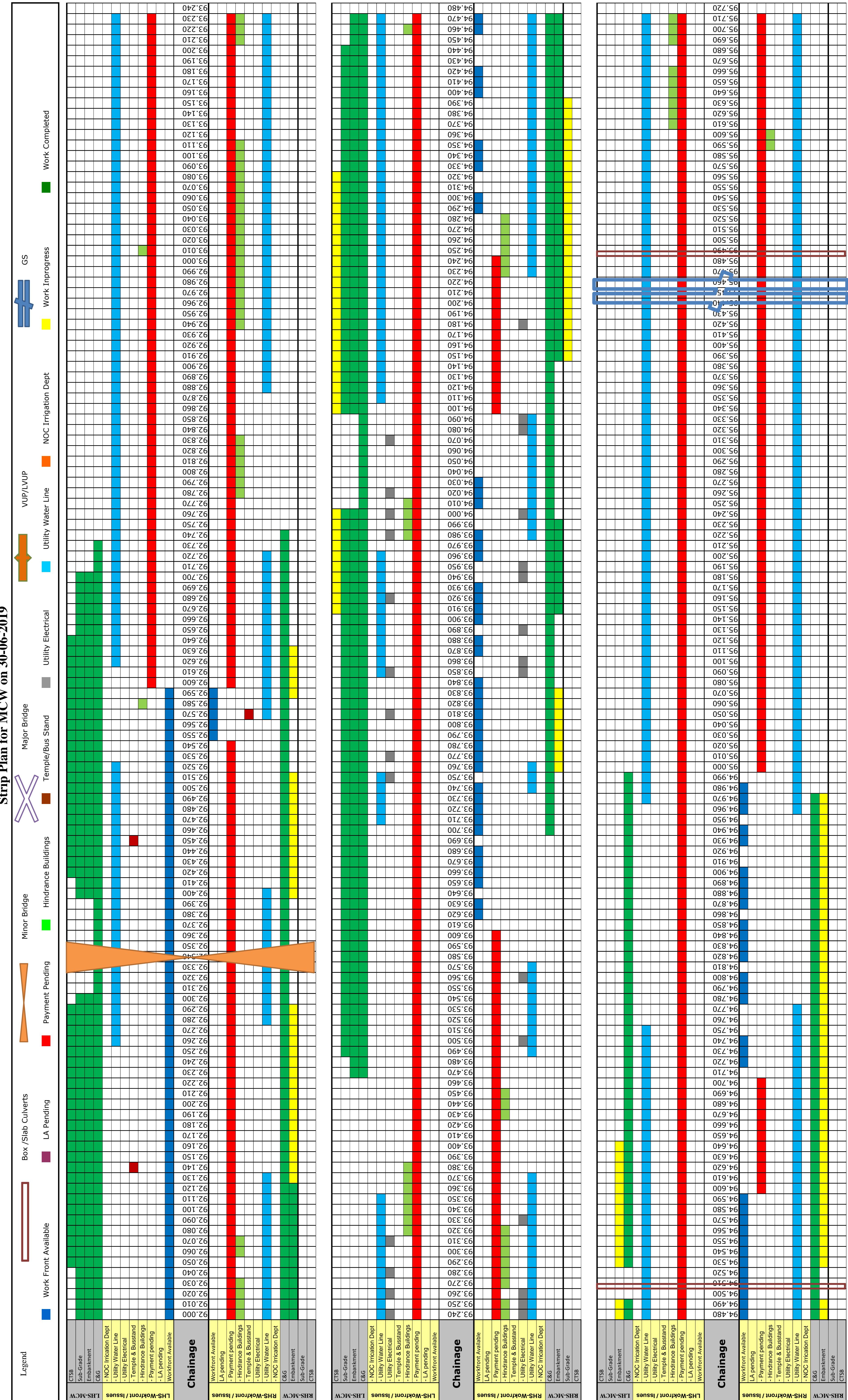
## **Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

## Sethivahopu - Cholomparam Road Projects



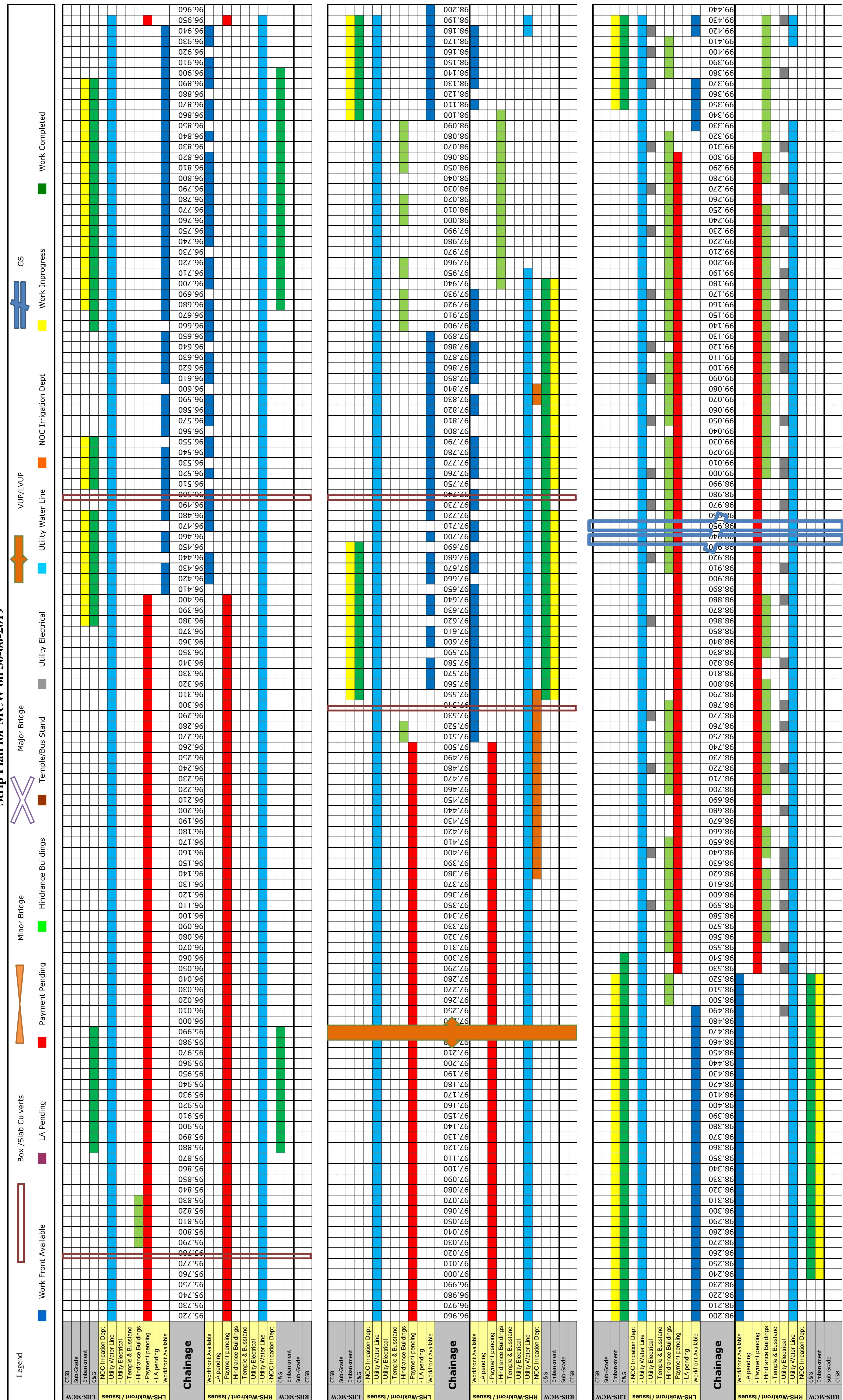
**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects



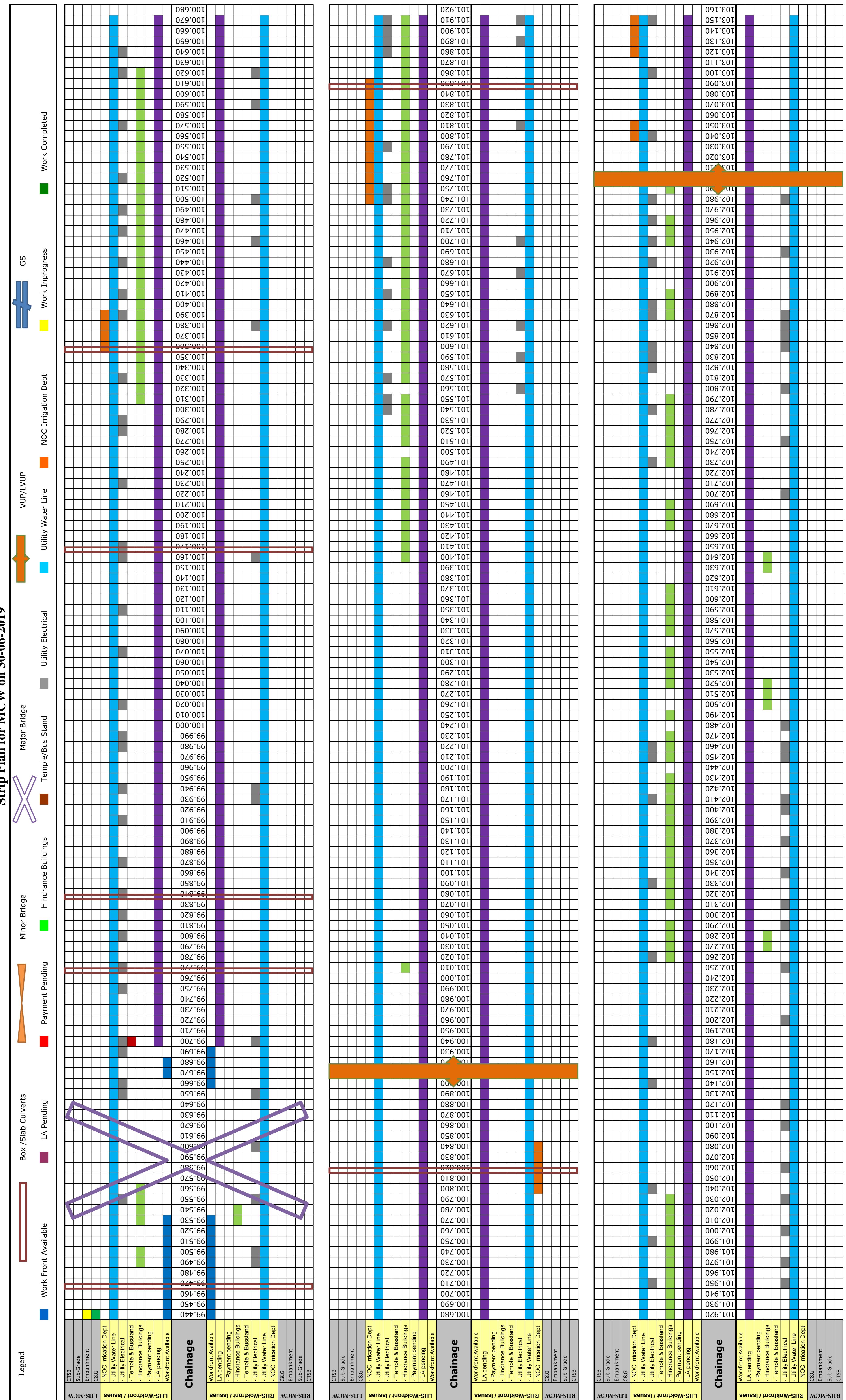
## **Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

**Sethiyahopu - Cholopuram Road Projects**



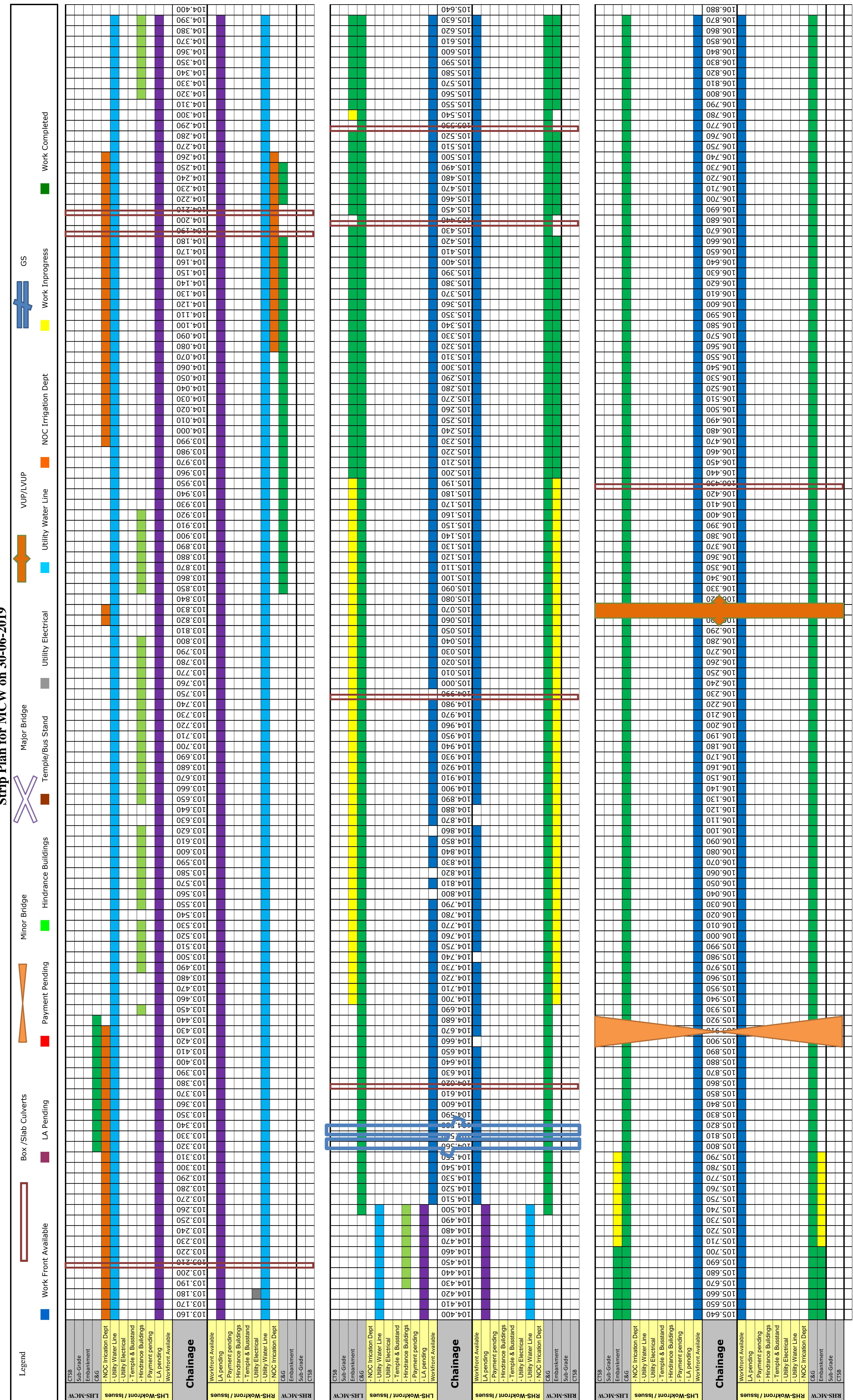
## Four Laning of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects



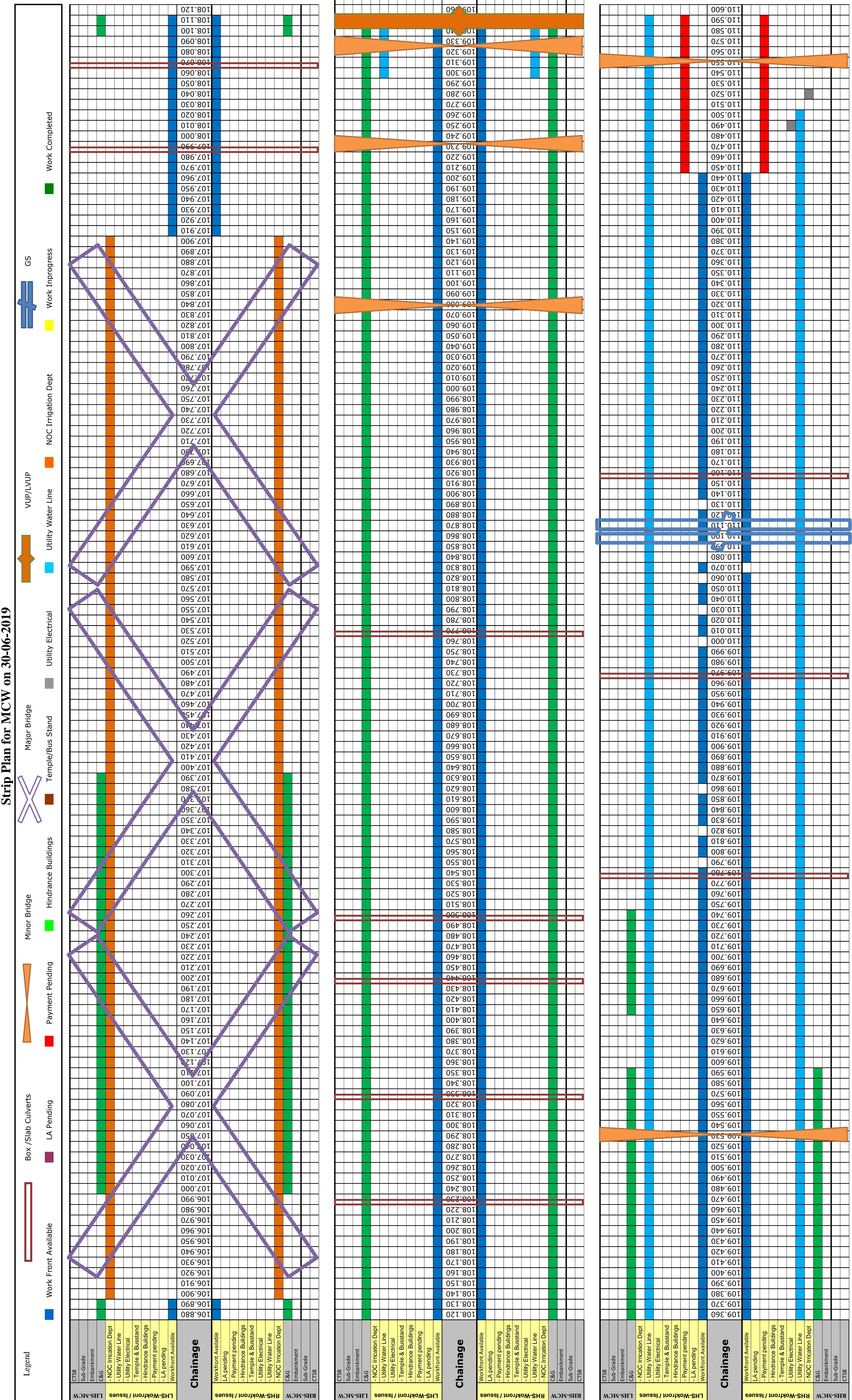
## Four Laning of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDTP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects



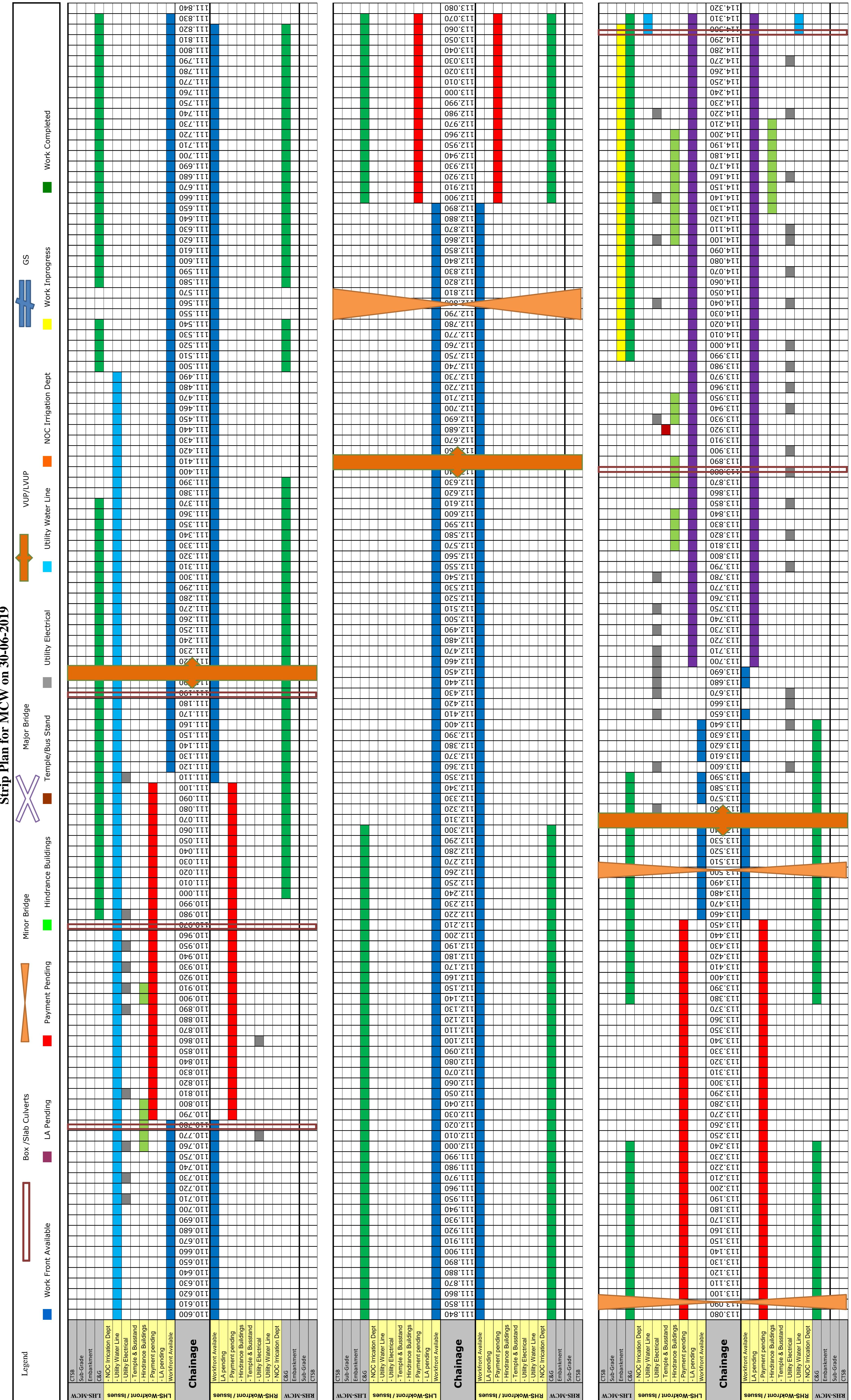
## Four Laning of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects



**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

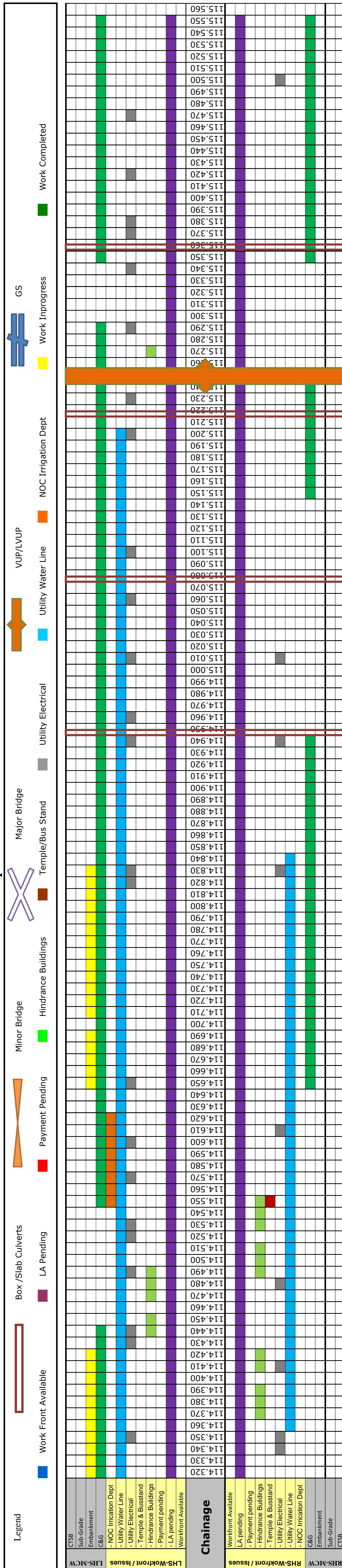
Sethiyahopu - Cholopuram Road Projects



**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDPP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects

Strip Plan for MCW on 30-06-2019



## **Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDTP-IV on Hybrid Annuity Mode**

Sethivaham - Cholondiram Road Projects

Strip Plan for SR on 30-06-2019

**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

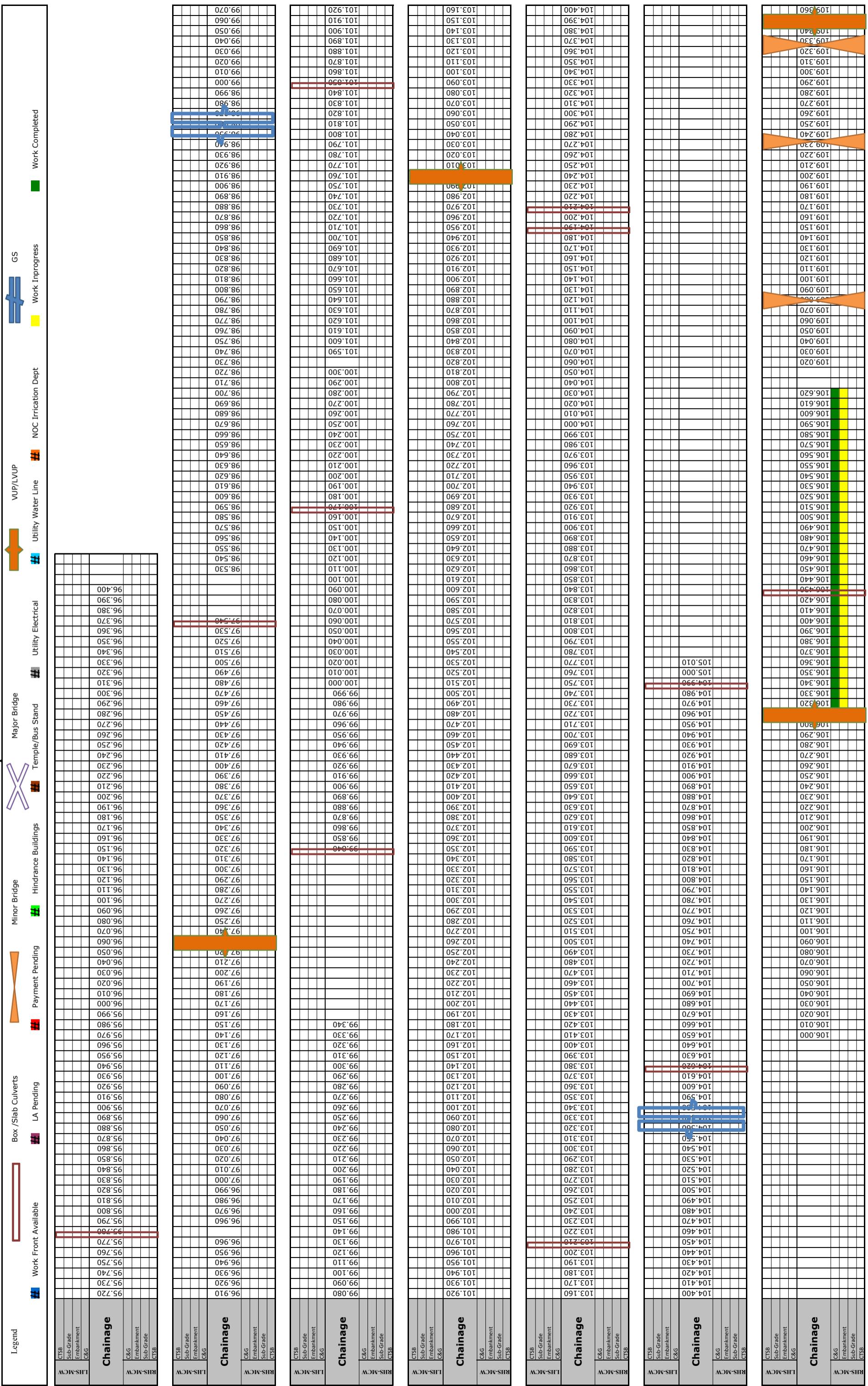
Sethivahoodu - Cholponuram Road Projects

Strip Plan for SR on 30-06-2019

## Four Lining of Sethiyahopu - Cholopuram from Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDPP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

### Strip Plan for SR on 30-06-2019



**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDTP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects

**Strip Plan for SR on 30-06-2019**

Legend		Box / Slab Culverts		Minor Bridge		VUP/LVUP		Utility Water Line		Utility Electrical		NOC Irrigation Dept		Work Inprogress		Work Completed	
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW
	Work Front Available		LA Pending		Payment Pending		GS		Chainage		C&G		LHS-MCW		RHS-MCW		RHS-MCW

SETHIYAHOPU CHOLPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - MCW							Completed		In Progress		RHS		
Status Upto	30.06.2019			Type of Structure			LHS		RHS				
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Remarks		Slab	Wall	Ratf	PCC	Granular Filling	Excavation	Protection Work
1	74+675	74.670	EXISTING	1 x 3.0m x 2.0m	New Construction	BOX CULVERT							
2	74+800	74.808	EXISTING	1 x 1.20m	Reconstruction	BOX CULVERT							
3	75+558	75.555	EXISTING	1x3.0m	Reconstruction	BOX CULVERT							
4	75+902	75.897	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT							
5	76+390	76.387	EXISTING	1 x 3.0m	Reconstruction	BOX CULVERT							
6	77+382	77.379	EXISTING	1 x 4.0m	Reconstruction	BOX CULVERT							
7	77+766	77.764	EXISTING	1 x 2.0m	Widening	BOX CULVERT							
8	81+868	81.867	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT							
9	81+913	81.910	EXISTING	1 x 1.95m x 1.0m	Widening	BOX CULVERT							
10	83+012	83.007	EXISTING	2 x 2.0m x 2.0m	Reconstruction	BOX CULVERT							
11	83+065	83.062	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT							
12	89+973	89.969	EXISTING	4 x 0.75m	Widening	BOX CULVERT							
13	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	BOX CULVERT							
14	94+509	94.509	EXISTING	1 x 3.6m x 1.6m	Widening	BOX CULVERT							
15	95+495	95.490	EXISTING	1 x 1.2m x 0.9m	Reconstruction	BOX CULVERT							
16	95+794	95.787	EXISTING	1 x 1.20m	Reconstruction	BOX CULVERT							
17	96+511	96.505	EXISTING	1 x 5.0m	Reconstruction	BOX CULVERT							
18	97+530	97.534	EXISTING	1x2.0m	Reconstruction	BOX CULVERT							
19	97+742	97.738	EXISTING	1 x 3.0m x 1.0m	Widening	BOX CULVERT							
20	99+471	99.467	EXISTING	1 x 3.0m x 4.0m	Repair & Widening	BOX CULVERT							
21	99+776	99.769	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT							
22	99+840	99.838	EXISTING	1 x 1.5m x 1.5m	Repair & Widening	BOX CULVERT							
23	100+177	100.173	EXISTING	1 x 1m	Repair & Widening	BOX CULVERT							
24	100+364	100.358	EXISTING	1 x 10m	Repair & Widening	BOX CULVERT							
25	100+823	100.817	EXISTING	1 x 3.5m x 2.5m	Repair & Widening	BOX CULVERT							
26	101+851	101.851	EXISTING	1 x 1.5m x 1.5m	Repair & Reconstruction	BOX CULVERT							
27	103+220	103.214	EXISTING	1 x 4.0m x 2.5m	Repair & Reconstruction	BOX CULVERT							
28	104+197	104.190	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT							
29	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	BOX CULVERT							
30	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT							
31	109+975	109.967	EXISTING	1 x 2.0m x 1.7m	Repair & Reconstruction	BOX CULVERT							
32	110+167	110.160	EXISTING	2 x 1.0m	Repair & Reconstruction	BOX CULVERT							
33	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT							
34	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT							
35	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	BOX CULVERT							
36	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	BOX CULVERT							
37	114+703	114.703	EXISTING										
38	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT							
39	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	BOX CULVERT							
40	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT							
41	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT							
42	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	BOX CULVERT							
43	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT							

**SETHIYAHOPU CHOLOPURAM PROJECT -  
STATUS OF BOX CULVERTS ON EXISTING ROAD - SERVICE ROAD**

Status Upto	Completed				In Progress			
	Sr. No.	As Approved by IE	Design Challenge As per CA	Number and Length of Spans (m)	Remarks	Type of Structure	LHS	RHS
	1	74+675	74.670	EXISTING	1 x 3.0m x 2.0m	New Construction	BOX CULVERT	
	2	74+800	74.808	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT	
	3	75+558	75.555	EXISTING	1x3.0m	Reconstruction	BOX CULVERT	
	4	75+902	75.897	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT	
	5	76+390	76.387	EXISTING	1 x 3.0m	Reconstruction	BOX CULVERT	
	6	77+382	77.379	EXISTING	1 x 4.0m	Reconstruction	BOX CULVERT	
	7	77+766	77.764	EXISTING	1 x 2.0m	Widening	BOX CULVERT	
	8	83+012	83.007	EXISTING	2 x 2.0m x 2.0m	Reconstruction	BOX CULVERT	
	9	83+065	83.062	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT	
	10	89+973	89.969	EXISTING	4 x 0.75m	Widening	PIPE CULVERT	
	11	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT	
	12	94+509	94.509	EXISTING	1 x 3.6m x 1.6m	Widening	BOX CULVERT	
	13	95+495	95.490	EXISTING	1 x 1.2m x 0.9m	Reconstruction	BOX CULVERT	
	14	95+794	95.787	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT	
	15	96+511	96.505	EXISTING	1 x 5.0m	Reconstruction	BOX CULVERT	
	16	97+530	97.534	EXISTING	1x2.0m	Reconstruction	BOX CULVERT	
	17	99+776	99.769	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT	
	18	99+840	99.838	EXISTING	1 x 1.5m x 1.5m	Repair & Widening	BOX CULVERT	
	19	100+177	100.173	EXISTING	1 x 1m	Repair & Widening	PIPE CULVERT	
	20	100+364	100.358	EXISTING	1 x 10m	Repair & Widening	BOX CULVERT	
	21	101+851	101.851	EXISTING	1 x 1.5m x 1.5m	Repair & Reconstruction	BOX CULVERT	
	22	103+220	103.214	EXISTING	1 x 4.0m x 2.5m	Repair & Reconstruction	BOX CULVERT	
	23	104+197	104.190	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT	
	24	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	PIPE CULVERT	
	25	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT	
	26	109+975	109.967	EXISTING	1 x 2.0m x 1.7m	Repair & Reconstruction	BOX CULVERT	
	27	110+167	110.160	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT	
	28	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT	
	29	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT	
	30	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT	
	31	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT	
	32	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT	
	33	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT	
	34	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT	
	35	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT	
	36	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	PIPE CULVERT	
	37	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT	

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - MCW										
Status Upto	Completed			In Progress			Remaining			
	Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	LHS	RHS	Wall	Slab	Protection Work
	1	66+357	66.383	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	2	67+068	67.068	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	3	69+357	69.357	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT				
	4	72+570	72.578	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	5	73+755	73.755	BYPASS	1x1.2.0mx2.0m	PIPE CULVERT				
	6	104+622	104.618	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT				
	7	104+998	104.992	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT				
	8	105+440	105.440	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT				
	9	105+536	105.525	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT				
	10	106+442	106.432	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT				
	11	108+002	107.994	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	12	108+080	108.070	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT				
	13	108+225	108.225	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	14	108+345	108.334	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	15	108+441	108.441	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT				
	16	108+540	108.500	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT				
	17	108+767	108.767	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT				
	18	111+205	111.196	BYPASS	1 x 1.0m	PIPE CULVERT				
	19	111+452	111.452	BYPASS		PIPE CULVERT				

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - SERVICE ROAD		Completed		In Progress		RHS	
Status	Up to	LHS	RHS	Slab	Wall	Raft	PCC
As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work	Work Protection	Excavation	Granular Filling
Sr. No.							
1	72+570	72.578	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT		
2	104+622	104.618	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT		
3	104+998	104.992	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT		
4	106+442	106.432	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT		
5	111+205	111.196	BYPASS	1 x 1.0m	PIPE CULVERT		

## **SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - MCW**

		Completed		In Progress			
						RHS	
						Excavation	Granular Filling
						Raft	PCC
Status Upto		As Approved by IE		Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work
Sr. No.	30.06.2019						
1	79+716	79.715	1 x 12.50m	MNBB	Widening		
2	79+795	79.795	2 x 12.50m	MNBB	Re-Const.		
3	82+007	82.006	2 x 12.50m	MNBB	Widening		
4	85+144	85.144	2 x 12.50m	MNBB	Re-Const.		
5	85+435	85.432	1 x 12.50m	MNBB	Widening		
6	88+513	88.513	1 x 12.50m	MNBB	Widening		
7	91+164	91.165	2 x 12.50m	MNBB	Re-Const.		
8	92+343	92.342	1 x 12.50m	MNBB	Widening		
9	101+101	101.100		MNBB	EXISTING		
10	66+757	66.730	2 x 12.5m	MNBB	BYPASS		
11	68+644	68.650	2 x 12.5m	MNBB	BYPASS		
12	74+173	74.175	2 x 12.5m	MNBB	BYPASS		
13	74+605	74.600	2 x 12.5m	MNBB	BYPASS		
14	105+915	105.915	2 x 12.5m	MNBB	BYPASS		
15	109+090	109.088	2 x 12.5m	MNBB	BYPASS		
16	109+195	109.208	2 x 12.5m	MNBB	BYPASS		
17	109+365	109.365	2 x 12.5m	MNBB	BYPASS		
18	109+540	109.540	2 x 12.5m	MNBB	BYPASS		
19	111+563	111.565	2 x 12.5m	MNBB	BYPASS		
20	112+807	112.807	1 x 25m	MNBB	BYPASS		
21	113+100	113.100	2 x 12.5m	MNBB	BYPASS		
22	113+505	113.505	2 x 12.5m	MNBB	BYPASS		

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - SERVICE ROAD		Completed		In Progress	
Status Upto	30.06.2019	LHS		RHS	
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work
1	74+605	74.600	2 x 12.5m	MNBB	BYPASS
2	105+915	105.915	2 x 12.5m	MNBB	BYPASS
3	109+090	109.088	2 x 12.5m	MNBB	BYPASS
4	109+195	109.208	2 x 12.5m	MNBB	BYPASS
5	109+365	109.365	2 x 12.5m	MNBB	BYPASS
6	109+540	109.540	2 x 12.5m	MNBB	BYPASS
7	111+563	111.565	2 x 12.5m	MNBB	BYPASS
8	112+807	112.807	1 x 25m	MNBB	BYPASS
9	113+100	113.100	2 x 12.5m	MNBB	BYPASS
10	113+505	113.505	2 x 12.5m	MNBB	BYPASS

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF LVUP				Completed		In Progress		RHS	
				LHS					
Sr. No.	As Approved by IE	Number and Length of Spans (m)	Type of Structure						
1	77+420	1X10.5	LVUP	EXISTING					
2	112+643	1X10.5	LVUP	BYPASS					
			Protection Work						
			Slab						
			Wall						
			Raft						
			PCC						
			Excavation						







Status upto	FO at Chainage	Span	Completed		LHS	RHS
			In Progress	Completed		
30.06.2019						
Sr.No.						
1	69+785	1x30	BYPASS	A1 A2		
2	74+655	1x30	BYPASS+EXISTING	A1 A2		
3	80+556	1x30	EXISTING	A1 A2		
4	80+720	1x30	EXISTING	A1 A2		
5	95+455	2x30	EXISTING	P1 A2		
6	98+950	2x30	EXISTING	A1 A2		
7	104+570	1x30	BYPASS	A1 A2		
8	110+110	1x30	EXISTING	A1 A2		

SETHIYAHOPU CHOLPURAM PROJECT - STATUS OF VUP		Completed		In Progress		RHS	
Status upto	30.06.2019	LHS	RHS	LHS	RHS	LHS	RHS
SR.NO.	VUP at Chainage	Span		Crash Barrier	Slab	Girders Casting	Pilecap /Abtcap
1	72+545	1x25	BYPASS	A1 A2			
2	75+830	1x25	EXISTING	A1 A2			
3	86+677	1x25	EXISTING	A1			
4	87+670	1x25	EXISTING	A1 A2			
5	90+580	1x25	EXISTING	A1 A2			
6	97+225	1x25	EXISTING	A1 A2			
7	101+910	1x25	EXISTING	A1 A2			
8	102+975	1x25	EXISTING	A1 A2			
9	106+318	1x25	BYPASS	A1 A2			
10	109+350	1x25	BYPASS	A1 A2			
11	111+235	1x25	BYPASS+EXISTING	A1 A2			
12	113+550	1x25	BYPASS+EXISTING	A1 A2			
13	115+258	1x25	EXISTING	A1 A2			

## 5. Financial & Physical Progress of Work

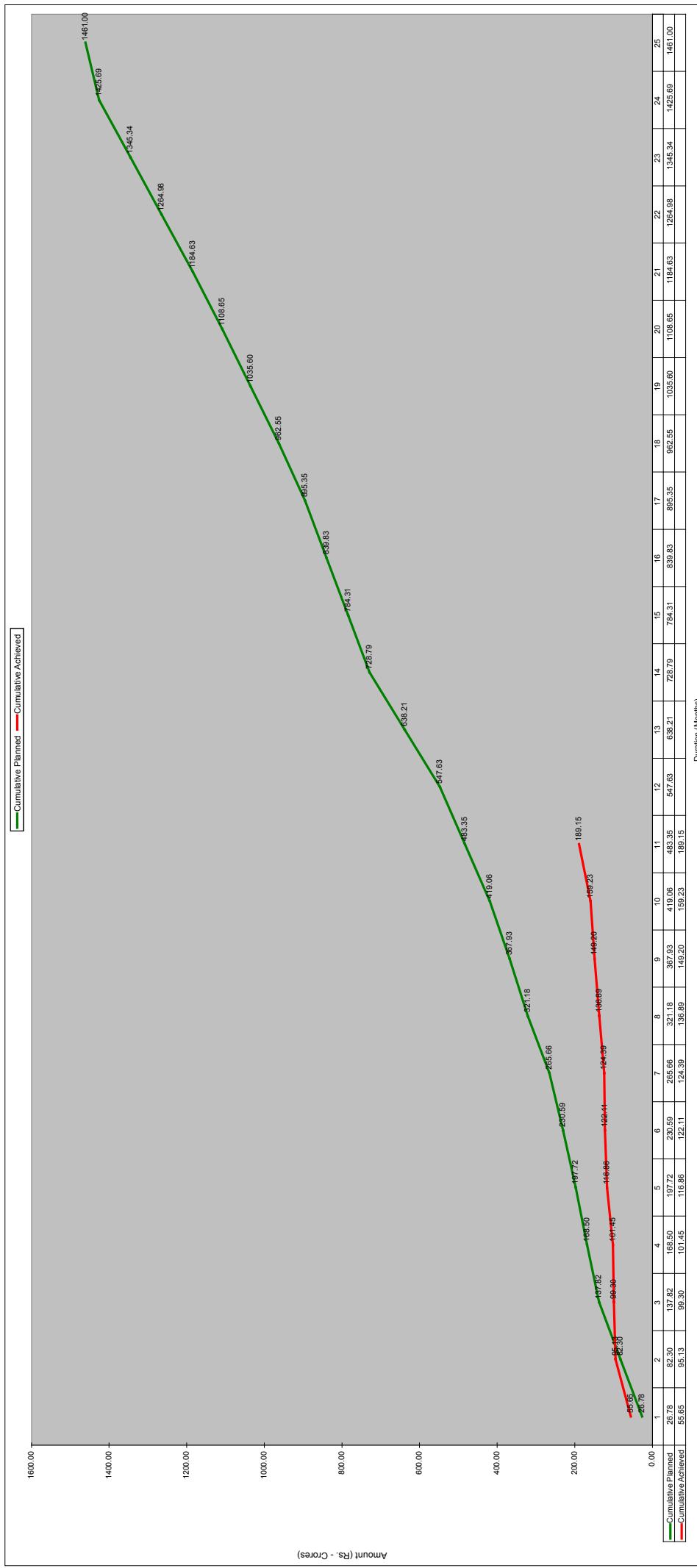
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Figure 3a: Financial Progress - Planned vs Achieved - S Curve

Figure 3b: Physical Progress - Planned vs Achieved - S Curve

**Four Laning of Sehiyahopu - Cholopuram from Km. 65.960 to 116.440 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode**

**Fig. 03a- Financial Progress (S-Curve)**

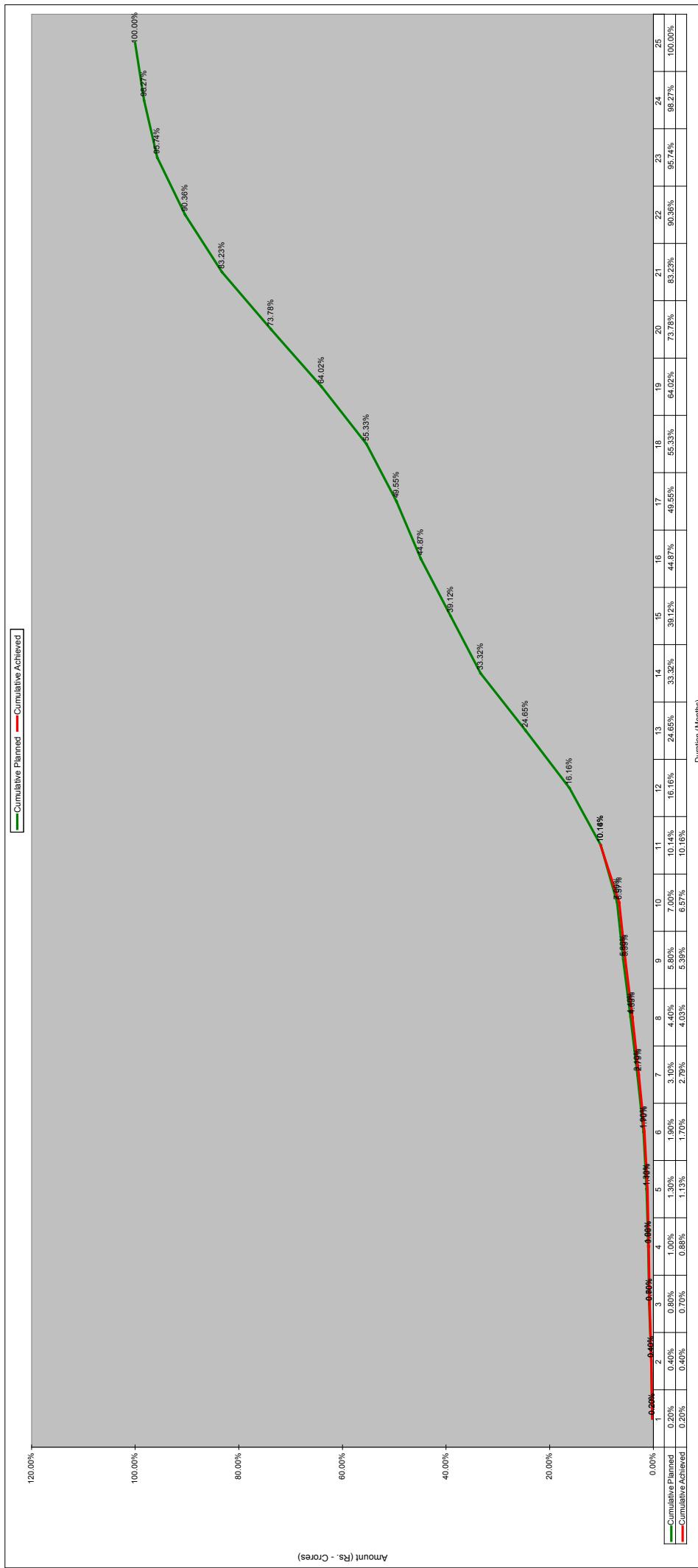


2020												
Schedule	Aug 1	Sep 2	Oct 3	Nov 4	Dec 5	Jan 6	Feb 7	Mar 8	Apr 9	May 10	Jun 11	Jul 12
Monthly Planned	26.78	55.52	55.52	30.68	29.22	32.87	35.06	55.52	46.75	51.14	64.28	90.58
Monthly Achieved	55.65	39.48	4.17	2.15	15.41	5.26	2.27	12.50	12.31	10.03	29.92	55.52
Cumulative Planned	26.78	82.30	137.82	168.50	197.72	230.59	265.66	321.18	367.93	419.06	483.35	962.55
Cumulative Achieved	55.65	95.13	99.30	101.45	116.86	122.11	124.39	136.89	149.20	159.15	169.23	1035.60
Monthly Achieved (%)	1.8%	3.8%	3.8%	2.1%	2.0%	2.3%	2.4%	3.8%	3.2%	3.5%	4.4%	5.2%
Monthly Achieved (%)	3.8%	2.7%	0.3%	0.1%	0.4%	0.1%	0.2%	0.9%	0.8%	0.7%	2.0%	5.5%
Cumulative Planned (%)	1.8%	5.6%	9.4%	11.5%	13.5%	15.8%	18.2%	22.0%	25.2%	28.7%	33.1%	86.5%
Cumulative Achieved (%)	3.8%	6.5%	6.8%	6.9%	8.0%	8.4%	8.5%	9.4%	10.2%	10.9%	12.9%	97.6%

MPR JUNE 2019

**Four Laning of Sehiyahopu - Cholopuram from Km. 65.960 to 116.440 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode**

**Fig. 03b- Physical Progress (S-Curve)**



2020												
Schedule	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
1	2	3	4	5	6	7	8	9	10	11	12	13
Monthly Planned	0.20%	0.20%	0.40%	0.40%	0.20%	0.30%	0.60%	1.20%	1.30%	1.40%	1.20%	3.14%
Monthly Achieved	0.20%	0.20%	0.30%	0.18%	0.25%	0.57%	1.09%	1.24%	1.36%	1.18%	3.59%	
Cumulative Planned	0.20%	0.40%	0.80%	1.00%	1.30%	1.90%	3.10%	4.40%	5.80%	7.00%	10.14%	24.65%
Cumulative Achieved	0.20%	0.40%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	1.13%	6.57%

2019												
Schedule	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
1	2	3	4	5	6	7	8	9	10	11	12	13
Monthly Planned	0.20%	0.20%	0.40%	0.40%	0.20%	0.30%	0.60%	1.20%	1.30%	1.40%	1.20%	3.14%
Monthly Achieved	0.20%	0.20%	0.30%	0.18%	0.25%	0.57%	1.09%	1.24%	1.36%	1.18%	3.59%	
Cumulative Planned	0.20%	0.40%	0.80%	1.00%	1.30%	1.90%	3.10%	4.40%	5.80%	7.00%	10.14%	24.65%
Cumulative Achieved	0.20%	0.40%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	1.13%	6.57%

## 6. Quality Control and Quality Assurance

### 6.1. List of Lab Equipment's

A site laboratory has been set up with all equipment required for testing soil, GSB, WMM, Bitumen, aggregate and concrete. Following tables represents the list of QA/QC equipment's available at Annaikarai & Meensurity Lab.

**Table 6.1 - 1 QA/QC Lab Equipment at Annaikarai Lab**

Sl. NO	EQUIPEMENT LIST'S	QUANTITY
1	compression testing machine 2000 kN	1
2	cement mortar vibrating machine	1
3	AlV Apparatus	1
4	Elecrronic weighing balance (50 kg)	1
5	Elecrronic weighing balance (600 gm)	1
6	Hot Air Oven( 250° c)	1
7	Hot plate	1
8	Rain Gauge	1
9	Sieve: as per IS 460 -1962 200 dia Brass frame	
10	4.75 mm	1
11	1.18 mm	1
12	600 mic	1
13	300 mic	1
14	90 mic	1
15	75 mic	1
16	Pan with Lid	1
17	Sieve: as per IS 460 -1962 200 dia GI frame	
18	40 mm	1
19	20 mm	1
20	12.5 mm	1
21	10 mm	1
22	4.75 mm	1
23	2.36 mm	1
24	Pan with Lid	1
25	Thickness Gauge	1
26	Glass Rain measuring jar (200CM <sup>2</sup> )	2
27	GI Tray ( 18 x24 x50 )	5
28	Enamel Tray ( medium)	4
29	Enamel Tray ( small)	6
30	spectula wooden handle	8
31	GI Tray ()	1
32	Iron tray	1
33	slump cone apparatus with tamping rod	2

**Table 6.1 - 2 QA/QC Lab Equipment at Meensurity Lab**

<b>Sl. NO</b>	<b>EQUIPEMENT LISTS</b>	<b>QUANTITY</b>
1	Test Sieves Set 450mm internal diameter as per IS complete with lid & pan of hole sizes	
a	100mm	2 Nos
b	75mm	2 Nos
c	90mm	2 Nos
d	63mm	2 Nos
e	53mm	2 Nos
f	50mm	2 Nos
g	45mm	2 Nos
h	40mm	2 Nos
i	37.5mm	2 Nos
j	31.5mm	2 Nos
k	26.5mm	2 Nos
l	25mm	2 Nos
m	22.4mm	2 Nos
n	20.0mm	2 Nos
o	19.0mm	2 Nos
p	18mm	2 Nos
q	16mm	2 Nos
r	14mm	2 Nos
s	13.2mm	2 Nos
t	12.5mm	2 Nos
v	11.2mm	2 Nos
u	10mm	2 Nos
w	9.5mm	2 Nos
x	6.3mm	2 Nos
y	5.6mm	2 Nos
z	4.75mm	2 Nos
2	Test Sieves Set 200mm internal diameter (Brass frame & steel or brass wire cloth mesh ) as per IS complete with lid & pan of sieve	
a	37.5mm	2 Nos
b	26.5mm	2 Nos
c	22.4mm	2 Nos
d	19mm	2 Nos
e	16mm	2 Nos
f	14mm	2 Nos
g	13.2mm	2 Nos
h	12.5	2 Nos
i	11.2mm	2 Nos
j	10mm	2 Nos
k	9.5mm	2 Nos
l	4.75mm	2 Nos
m	2.8mm	2 Nos
n	2.36mm	2 Nos
o	2.0mm	2 Nos

SL. NO	EQUIPEMENT LISTS	QUANTITY
p	1.80mm	2 Nos
q	1.7mm	2 Nos
r	1.4mm	2 Nos
s	1.18mm	2 Nos
t	1.0mm	3 Nos
v	0.600mm	2 Nos
u	0.425mm	2 Nos
w	0.355mm	2 Nos
x	0.300mm	2 Nos
y	0.180	2 Nos
z	0.090mm	2 Nos
aa	0.075mm	6 Nos
3	Measuring cylinder - Borosilicate glass - 100ML	40 Nos
4	Glass Thermometer 00c to 3000c	10 Nos
5	Flash filtering borosil glass - 2000ML	1 No
6	Flash filtering borosil glass - 5000ML	1 No
7	Round hot Plate	2 Nos
8	Measuring cylinder - Borosilicate glass - 1000ML	4 Nos
9	Measuring cylinder - Borosilicate glass - 250ML	4 Nos
10	Measuring cylinder- Borosilicate glass - 500ML	4 Nos
11	Beakers - glass borosil - low from cap 600ML	4 Nos
12	Compaction pedestal - 4"	4 Nos
13	Extractor plate - 6" dia for marshal test	1 No
14	Rammer marshal - 4"	4 Nos
15	Thermometer Infra red - MTX - 2	2 Nos
16	LE - Chatlier mould one set of six	2 Nos
17	Cone penetrometer	1 No
18	Los angeles abrasion testing machine	1 No
19	Marshal Mould - 4" dia	51 nos
20	G.I Tray - 1500*1500*100MM	4 Nos
21	Compaction pedestal - 6"	1 No
22	Marshal stability apparatus	1 No
23	Measuring cylinder- Plastic - 50ML	4 Nos
24	Measuring cylinder- Plastic - 250ML	2 Nos
25	Measuring cylinder- Plastic - 500ML	2 Nos
26	Measuring cylinder- Plastic - 1000ML	2 Nos
27	Vibrating machine with digital timer	1 No
28	Hot Air Oven - Thermostatic - NoN Digital - 45*45*45 CM	1 No
29	Hot Air Oven - Thermostatic - NoN Digital - 90*60*60 CM	1 No
30	Penetration cup - 55*70 MM	2 Nos
31	Penetration cup - 55*35MM	6 Nos
32	Standard Penetrometer - Automatic with digital timer	1 No
33	proctor compaction mould 100mm dia with 2.69kg Rammer mid steel	4 Nos
34	proctor compaction mould 150mm dia with 4.89kg Rammer mid steel	6 Nos
35	proving ring compression type 10kn	1 Nos

Sl. NO	EQUIPEMENT LISTS	QUANTITY
36	proving ring compression type 2.5kn	1 Nos
37	proving ring compression type 25kn	1 Nos
38	proving ring compression type 50kn	1 Nos
39	pycnometter bottle	4 Nos
40	Rapid moisture meter-0-25%	4 Nos
41	Riffle sample divider -G.I-20mm , no of slot ;16	1 nos
42	Riffle sample divider -G.I-40mm , no of slot ;12	1 Nos
43	Pipette borosilicate glass - 10 ml	4 Nos
44	Sant equivalent value test apparaus with accessories	1 Nos
45	fileld density test app - sand replacement method small	2 Set
46	shrinkage limit set W/O mercury	1 Nos
47	Mercury 250 Gm	1 Nos
48	Buoyancy balance	1 Nos
49	Spatula 8"	10 Nos
50	Spatula 4"	10 Nos
51	Standard sand - grade III - Bag of 25 kg	2 Nos
52	Standard sand - grade I - Bag of 25 kg	2 Bag
53	Standard sand - grade II - Bag of 25 kg	2 Bag
54	stanard penetrometer - automatic with digital timer	1 Nos
55	Beaking head assembly - 6'	1 Nos
56	Bulk density cylindrical metal measure - 15 LTR	1 Nos
57	Bulk density cylindrical metal measure - 5 LTR	1 Nos
58	Bulk density cylindrical metal measure - 30 LTR	1 Nos
59	Calcium carbide - 500 GM for rapid moisture meter	10 Nos
60	Liquid limits device - hand operated	1 Nos
61	CBR mould mild steel 150mm dia eith coller and base plate	60 Nos
62	Perforated plate - for CBR test AS per 1377	57 Nos
63	Spacer disc - for CBR test	4 nos
64	surcharge weight 2.5kg annular for cbr test	120 nos
65	cbr load frame electrical single speed	1 nos
66	chiesel 25mm wide *300mm long	20 nos
67	compression testing machine 2000kn digital manual pace	1 nos
68	cube moulds 7.06cm isi marked for cement	12
69	Concrete mixer - Tilting drum type	1 No
70	Constant temperature waterbath for marshal test with digital	2 Nos
71	Core drilling machine with disel engine	1 No
72	Electronic weighing balance - 10KG	1 No
73	Cube moulds - 10CM	18 Nos
74	Cube moulds - 5CM	12 Nos
75	Electronic weighing balance - 600Gms	2 Nos
76	Dial gauge 0.01*30mm	4 Nos
77	Electronic platform balance - 100KG	1 Nos
78	Electronic weighing balance - 30KG	2 Nos
79	Electronic weighing balance - 50KG	2 Nos
80	Electronic weighing balance - 5KG	1 No
81	Stop watch - digital	4 Nos

SL. NO	EQUIPEMENT LISTS	QUANTITY
82	Direct shear apparatus	1 No
83	Bottle wash plastic - 1000ML	4 Nos
84	Length gauge	1 No
85	Tray - G.I 300*300MM (12"*12")	6 Nos
86	Enamel tray -300*250*40 mm (10"*12")	9 Nos
87	Tray G.I -300*250*40 mm (10"*12")	9 Nos
88	Enamel tray -450*600*40 mm (18"*12")	12 Nos
89	Field density test app -sand replacement method medium	2 Set
90	Field density test app -sand replacement method Large	2 Set
91	Filter paper for marshal test 100mm dia	10 PKT
92	Filter paper for CBR test 15cm dia PKT of 100 circles	10 PKT
93	Flakiness gauge - M.S .Chrome / powder coated	1 Nos
94	Pensky marten flash piolet apparatus	1 Nos
95	Flexural strength testing machine curve	1 Nos
96	French curve	2 Nos
97	Slump test appratus with tamping rod 16mm dia *600mm long	9 Nos
98	Thermometer dial 100mm dia * 300mm long 00 - 3000c	10 Nos
99	Tripod stand for CBR test	4 Nos
100	Gauging trowel 6" (150mm)	4 Nos
101	U tube glass viscometer	1 Nos
102	Saybolt viscometer with energy regulator	1 Nos
103	Vacuum pump -Singal Stage	1 Nos
104	Vibrating table -60*60 CM	1 Nos
105	Needle final setting time for vicat needle appratus	1 Nos
106	Needle Intial setting time for vicat needle appratus	1 Nos
107	Vicat Needle apparatus	2 Nos
108	Hammer with Handle - 1000 GM	4 Nos
109	Aggregate Impact testing machine	1 Nos
110	Beakers - glass borosil - low form cap ; 600ML	2 Nos
111	Beam mould -15*15*70 CM - Mild steel	17 Nos

## 6.2. Quality Control Test Summary

GSB material, soil samples from borrow areas, aggregates, cement and bitumen are being tested regularly. Trial mix design for concrete with different admixtures is also in progress.

The detailed list of quality control test conducted up to the month of June - 2019 are tabulated below -

**7. Weather Report**

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Min	Max		Min	Max	
6/1/2019	30.40	40.8	0.00	29	75	Sunny
6/2/2019	31.10	41.7	0.00	28	74	Sunny
6/3/2019	30.70	43.6	0.00	30	75	Sunny
6/4/2019	31.50	44.5	0.00	29	65	Sunny
6/5/2019	31.50	43.6	0.00	30	67	Sunny
6/6/2019	30.70	41.7	0.00	28	68	Sunny
6/7/2019	31.80	43.7	0.00	30	61	Sunny
6/8/2019	30.70	44.5	0.00	29	75	Sunny
6/9/2019	30.80	43.6	0.00	30	74	Sunny
6/10/2019	30.80	46.3	0.00	32	66	Sunny
6/11/2019	31.20	43.7	0.00	31	61	Sunny
6/12/2019	32.40	41.7	0.00	31	58	Sunny
6/13/2019	31.50	44.5	0.00	30	67	Sunny
6/14/2019	30.70	43.6	0.00	29	68	Sunny
6/15/2019	31.20	41.7	0.00	32	61	Sunny
6/16/2019	30.80	41.7	0.00	29	75	Sunny
6/17/2019	31.90	43.7	0.00	30	60	Sunny
6/18/2019	31.20	42.6	0.00	30	61	Sunny
6/19/2019	32.40	38.6	0.00	31	55	Sunny
6/20/2019	32.10	40.0	0.00	35	59	Sunny
6/21/2019	31.70	38.8	0.00	30	61	Sunny
6/22/2019	32.50	39.1	0.00	31	60	Sunny
6/23/2019	31.20	39.6	0.00	36	58	Sunny
6/24/2019	32.50	37.1	0.00	28	59	Sunny
6/25/2019	30.10	36.0	0.00	40	75	Sunny
6/26/2019	30.10	36.8	3.00	28	73	Rainfall
6/27/2019	32.50	37.1	0.00	31	60	Sunny
6/28/2019	31.20	38.6	0.00	36	58	Sunny
6/29/2019	32.50	36.8	0.00	25	58	Sunny
6/30/2019	31.50	38.5	0.00	25	57	Sunny

- Various issues related to environment and safety, such as traffic management, safety signage, disposal of waste materials and oil spillage, housekeeping, area barricading and traffic management, etc, are being taken care of during the execution of the project.

Periodic Safety meetings being conducted on a regular basis and the details of the photographs for the same along with action taken are as below.



## 9. Support required from NHAI

Concessionaire requests NHAI to take early action on the following issues:

1. Pending Disbursement of Payment to the beneficiaries from CALA towards Land and Buildings in Thanjavur District. – Request Authority to advise/instruct the Competent Authority of Land Acquisition to speed up the process of disbursement of pending payment.
2. Delay in Disbursement of compensation to the effected landowners in Cuddalore district due to nonavailable/non appointment of District Revenue officials in Cuddalore district.
3. Permission from Local Authorities for procurement of Borrow Earth from Irrigation Tanks/Pond.

Sl. No	District	Taluk	Location/ Villages	Survey No	Area in Hectares	Date of Applied	Present Status
1	Cuddalore	kattumannar koil	Veeranam Lake - 01	189/1	4.8	-	
2	Cuddalore	kattumannar koil	Veeranam Lake - 02	189/1	4.9	-	
3	Cuddalore	kattumannar koil	Palayamkottai Kelpatti Lake	240	4.9	31.08.2018	Special Permission received from PWD and for the period of 84days and expired the duration.
4	Cuddalore	kattumannar koil	Kuruchikollai	122	4.8	-	-
5	Cuddalore	Kurinjipadi	Man Eri	2/1	4.5	20.07.2018	EC Clearance is pending
6	Cuddalore	kattumannar koil	Nelli Kolli	129	4.8	-	NOC Under Process
1	Ariyalur	Udayarpalayam	Kundavelly East	461	13.66.5	26.11.2018	EC Clearance received for 08 nos and 02 nos of borrow area granted permission for the period 90 days and the same shall be extended up to 11 months.
2	Ariyalur	Udayarpalayam	Thaluthalaimedu	118	28.15.5	26.11.2018	
3	Ariyalur	Udayarpalayam	Thaluthalaimedu	118	28.15.5	26.11.2018	
4	Ariyalur	Udayarpalayam	Muthuservamadam	125	6.29.5	26.11.2018	
5	Ariyalur	Udayarpalayam	Ulkottai North	320	19.66	26.11.2018	
6	Ariyalur	Udayarpalayam	Vempakkudi	110	12.69	26.11.2018	
7	Ariyalur	Udayarpalayam	Uthayanatham East	313-2A	6.83.5	26.11.2018	
8	Ariyalur	Udayarpalayam	Uthayanatham East	227, 231-3, 232	12.83.5	26.11.2018	
9	Ariyalur	Udayarpalayam	Ammannakkanthodi	66, 65, 104, 105, 106, 110, 112, 116, 123, 124	43.83.5	26.11.2018	
10	Ariyalur	Udayarpalayam	Ammannakkanthodi	57, 58, 59, 61, 62	19.07.5	26.11.2018	
11	Ariyalur	Udayarpalayam	Kuruvalaper kovil	1, 226, 227, 228, 427, 428, 429, 430, 431, 432, 433	38.62	26.11.2018	
12	Ariyalur	Udayarpalayam	Udayarpalayam	614-4B, 615-2, 616 - 1, 617, 610- 2B	10.03.5	26.11.2018	

Sl. No	District	Taluk	Location/ Villages	Survey No	Area in Hectares	Date of Applied	Present Status
13	Ariyalur	Udayarpalayam	Periya Eri, Papakudi	290	12.24	12.01.2018	
14	Ariyalur	Udayarpalayam	Eswarakulam, Papakudi	185	5.7	12.01.2018	Under process for submission of proposal to SIEAA committee for EC clearance.
15	Ariyalur	Udayarpalayam	Pandian eri.	283	5.7	02.03.2019	Temporary permission granted for 30 days and expired the duration.

4. Change of Scope notice required for relocation of VUP @ Km 113+500 due to existence of electrical substation of TANGENDCO at Km:113+700 to 113+800(RHS).

5. Change of Scope notice required for widening of Existing Minor Bridge @ Km 101+095 from two lane to four lane carriageway.

6. Change of Scope notice required for reconstruction of Existing Box Culvert @ Km 110+785 because the existing structure of said location at site is a Pipe Culvert which has been mentioned as Box type in the concession agreement.

7. Removal of Electrical substation 85+300 to 85+400 which is obstructing the project highways.

8. NOC from PWD/WRO, Govt of Tamilnadu for construction of Minor Bridge (13 Nos) and Major Bridge (3 Nos) as per below

Sl No	Description	Total scope (Nos.)	Submitted as on date (Nos.)	Approved as on date (Nos.)	Balance (Nos.)	Present Status
1	MNB	26	26	13	13	Under Processing with Engineer In Chief, Chennai
2	MJB	4	4	1	3	
	Total	30	30	14	16	

9. In sufficient Right of Way with respect to the land handed over as per Clause 10.3.1 of Concession Agreement at the time of Signing of Joint Memorandum.

10. Payment disbursement and necessary clearances required for removal of religious and Govt. buildings.

11. NOC from PWD/WRO, Govt. of Tamilnadu for construction of project highways in the existing ponds (in a length of 1.702 Kms).

Sl No	Chainage		Length Affected (M)	Side	AVG Toe Width from CL "A"	Width/distance of Pond Edge from CL "C"
	From	To				
1	75+557	75+632	74.75	RHS	32.50	7.00
2	77+330	77+400	70.00	LHS	28.16	3.00
3	78+404	78+422	17.90	LHS	16.00	9.50
4	80+396	80+415	19.00	LHS	27.00	7.00

5	80+400	80+423	23.00	RHS	24.00	6.50
6	81+356	81+416	60.30	LHS	18.00	9.00
7	81+760	81+835	75.00	LHS	14.30	2.00
8	90+804	90+837	32.77	RHS	32.00	12.80
9	97+376	97+551	175.00	RHS	32.67	11.00
10	97+822	97+845	23.00	RHS	27.50	7.80
11	99+961	100+020	59.70	RHS	25.00	17.28
12	100+350	100+389	39.00	LHS	22.70	4.00
13	100+800	100+845	44.70	RHS	23.00	12.25
14	100+731	100+854	123.75	LHS	23.00	5.00
15	103+039	103+056	17.60	LHS	23.00	6.60
16	103+125	103+435	310.10	LHS	23.00	6.00
17	103+822	103+846	24.00	LHS	23.20	5.20
18	104+091	104+262	171.00	RHS	23.00	16.80
19	103+992	104+264	271.50	LHS	23.00	10.90
20	114+547	114+617	70.00	LHS	20.62	0.00
<b>Total Length affected (in M)</b>			<b>1702.1</b>			

12. Removal/relocation of existing irrigation sluice and regulator in the locations.

Sl. No.	Chainage	Distance from PCL	Remarks/Action to be taken	Present Status
1	68+644 (02 Nos)	-	To be shifted to edge of PROW	The site inspection by irrigation officials has been done and the relocation estimate to be forwarded by the PWD, Chidambaram to NHAI.
2	81+850	9.3m	To be shifted to edge of PROW	
3	81+870	1.8m	To be shifted to edge of PROW	
4	81+910	1.8m	To be shifted to edge of PROW	
5	82+010	1.8m	To be shifted to edge of PROW	
6	82+100	7.4m	To be shifted to edge of PROW	
7	103+990	5.97m	To be shifted to edge of PROW	Approval of estimate is pending with NHAI

13. Additional land acquisition for Toll plaza location, Bus bays. Turning radius at Major junctions.

14. Permission for Removal of Teak wood trees from the Project Highway in Cuddalore District in a length of 2.84 Kms.

Sl no	Name of the Village	Location/Chainage	Effected Length (in Km)	Remarks
1	Nandeeswaramagalam	78+400 to 79+400	1.00	Teak Trees under Forest Dept. to be removed.
2	Cholatharam	79+730	0.25	
3	Pudaiyur	81+860	0.20	
4	Pudaiyur	82+100	0.15	
5	Agaraputhur	84+680	0.25	
6	Agaraputhur	84+830	0.25	
7	Agaraputhur	84+990	0.28	
8	Mamangalam Addl.	85+450	0.21	
9	Mamangalam Addl.	85+420	0.15	

15. Removal of Religious structures of 19 Nos. and Bus stand from the proposed ROW.

SL No	Chainage	Type of Structure	Side	Distance from PCL (M)	TCS Type	Formation Width Required from PCL	ROW From PCL	Remarks
<b>Priority I – Obstruction of Main Carriage way &amp; Service Road :-</b>								
1.	85+955	Temple	RHS	10	Type - B with SR 7.5	21.25	30.00	
2.	86+350	Temple	LHS	7	Type - B with SR 7.5	21.25	26.10	
3.	87+500	Temple	LHS	13	Fig -7.8 with SR 5.5	22.75	26.80	
4.	88+850	Temple	RHS	6	Type - B with SR 7.5	21.25	22.70	
5.	92+455	Temple	LHS	14	Type - A3	18.80	23.70	
6.	92+570	Temple	RHS	12	Type - B with SR 7.5	21.25	28.80	
<b>Priority II – Obstruction of Service Road :-</b>								
1.	75+650	Temple	RHS	15	Fig -7.8 with SR 5.5	22.75	25.50	
2.	80+125	Temple	RHS	16	Type -A3	20.80	23.50	
3.	83+615	Temple	RHS	16	Type - B with SR 7.5	21.25	21.25	
4.	84+070	Temple	LHS	16	Type - B with SR 7.5	21.25	29.00	
5.	86+280	Temple	RHS	23	Type - B with SR 7.5	21.25	30.00	
6.	86+390	Temple	LHS	18	Type - B with SR 7.5	21.25	26.10	
7.	89+310	Temple	RHS	16	Type - B with SR 7.5	21.25	22.50	
8.	90+325	Temple	RHS	14	Fig -7.8 with SR 5.5	22.75	23.00	
<b>Priority III – Falling Within ROW and effecting the Utility shifting works:-</b>								
1.	76+600	Temple	RHS	24.5	Type - B with SR 7.5	21.25	31.10	
2.	91+780	Temple	RHS	22	TCS - 1	14.00	26.00	
3.	92+135	Temple	LHS	22	Type - A3	15.65	26.00	
4.	99+710	Temple	LHS	20	Type - A3	17.95	25.00	
5.	114+550	Temple	RHS	17	Type - A3	18.00	22.70	

16. Removal of Government Buildings like VAO office, School, Post Office & Ration Shop etc. in 12 nos. in Cuddalore district, 45 nos. in Ariyalur district & 14 Nos in Thanjavur District.
17. Removal of unauthorized occupations in 38 nos. in Cuddalore dist. & 32 nos. in Ariyalur dist. in the project highways,
18. Removal/relocation of Veeranam Pipes between Km: 65+960 to 66+200 causing material adverse effect on construction, Authority requested to take up the matter with Concern Department for early removal of the same.
19. Providing/finalization of land by the concern owning department for construction of Over Head Tank in the following locations:

S. No	Name of the Village	Location/ Chainage	Capacity of OHT	Remarks
1	Vanamadevi	86+310	30 KL	Land yet to be finalized

20. Hindrances/Occupations/Land Acquisition issues in the following locations due to various reasons,

Sr. No.	From	To	Length	Description of Issues
1	065+070	066+000	930	Payment of compensation is not made to the concern Land owner of Mr. Giri and not allowing to take possession of land.
2	073+000	073+600	600	Payment of compensation is not made to the concern Land owner and not allowing to take possession of land.
3	073+600	074+100	500	Payment of compensation is not made to the concern Land owner of Mr.Venkatachalam and not allowing to take possession of land.

Sl No	Chainage		Name of the land owner	SF.No.	Name of the Village	Court Order reference no.
	From	To				
1.	78+400	79+000	Mrs.Sivasunthari	148/2B	Nandeeswaraman galam	W.P.No.17113/2018, W.P.No.17118/2018 & W.P.No.17114/2018 dated 10.07.2018
2.			Mr.S.Baskaran	148/1B1		
3.			Mr.Thamotharan	148/1B3		W.P.No.14874/2018 dated 21.06.2018
4.			Mrs.S.Sebastiyan mal	143/1A1		
5.	113+200	113+600	Mr.A.R.Iqbal	177/2,177/4, 181/1,181/ 3, 183/3A	Thirupanandal	W.P.No.11852/2014 dated 22.07.2014
6.	74+590	74+610	Mr.Murugan	61/5	Kumarakudi	-

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**10. Important Events**

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<b>Table 10.1. Details of Important Events</b>			
Sl. No	Date of Events	Description of Events	Remarks

## 11. Organization Chart

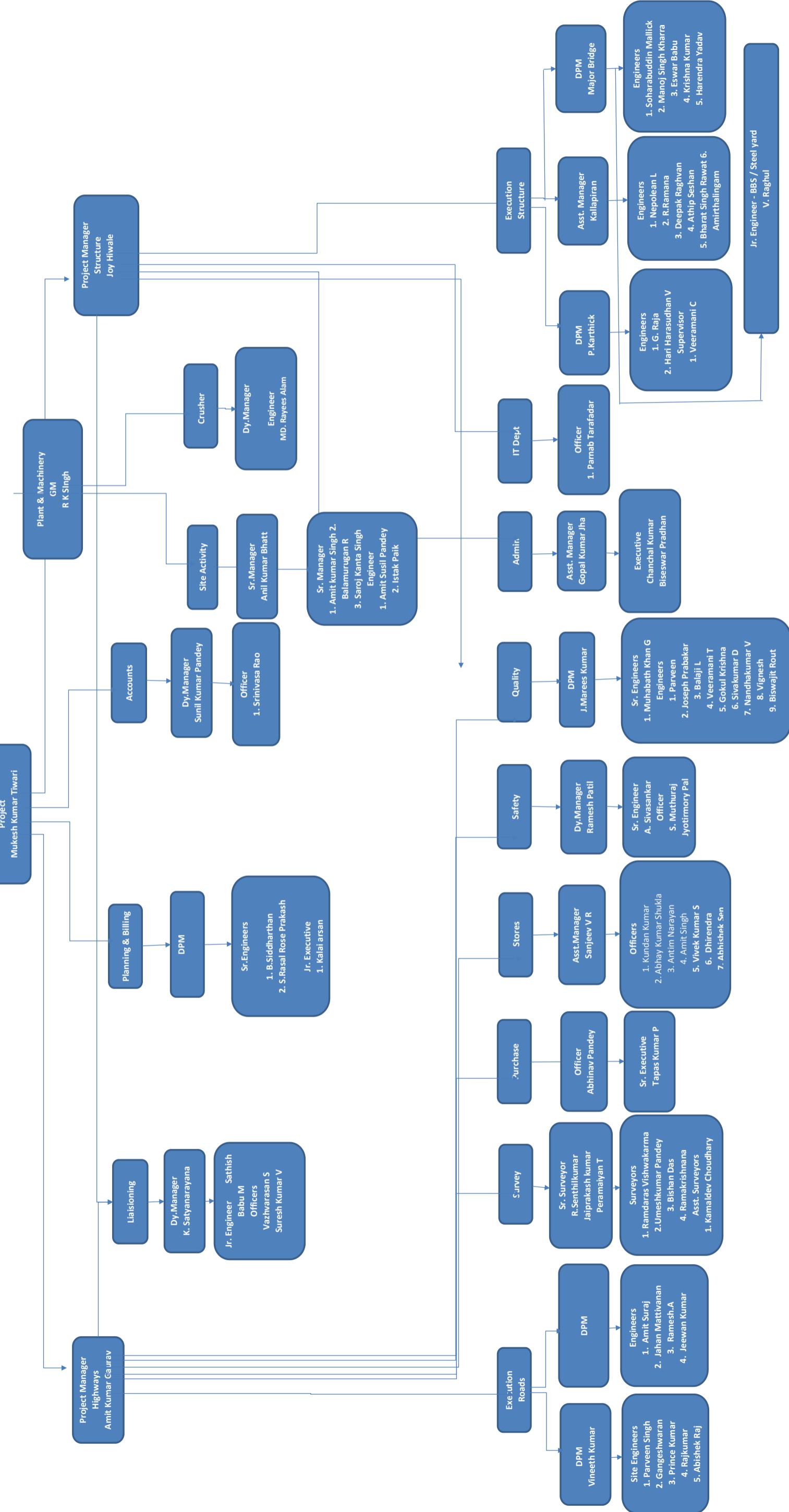
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The following figures represents the organization structure of the EPC and SPV Team.

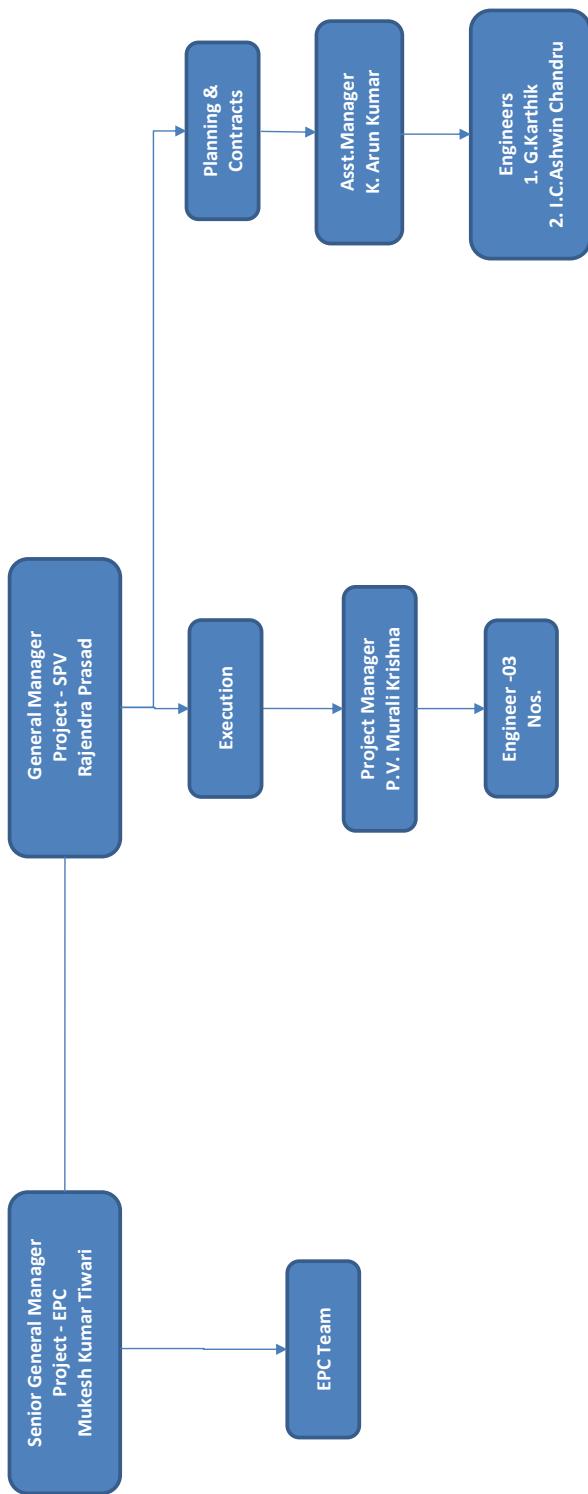
1. Fig. 4 - Organization Chart - EPC Team

2. Fig. 5 - Organization Chart - SPV Team

## ORGANIZATION CHART - EPC TEAM



**Figure 5 - ORGANIZATION CHART - SPV TEAM**



12. List of Plants, Machinery and Equipment's

Table 12.1 - List of Plants, Machinery and Equipment's				
S.No	Name of the Machinery	Capacity / Model	Mobilized in Nos.	Remarks
1	Grader	120K2	9	
2	Excavator	JCB-220	9	
3	Dozer		3	
4	Soil Compactor	HAMM 311	8	
5	Backhoe Loader	JCB 3DX	7	
6	Tipper	Bharat Benz- 3128C	73	
7	Transit Mixture	2523C	8	
8	Loader	455 ZX	4	
9	Trailer		2	
10	Water Tanker		5	
11	Boom Placer	S-36	1	
12	Tractor	5036 D V-2	2	
13	Mobile Service Van		1	
14	Tower Light	AJASKY	3	
11	Hydra Crane		2	
12	Asphalt Batch Mix Plant		1	
13	Wet Mix Plant	250 TPH	1	
14	Concrete Batch Mix Plant	45 cum	1	
15	Concrete Batch Mix Plant	60 cum	2	
16	Crusher Plant (3 Stage)	250 TPH	2	
17	Weigh Bridge for Camp 100MT	100MT	3	
18	Weigh Bridge for Crusher 100MT	100MT	2	
19	Genset Base Camp	25KV	1	
20	Genset 63KVA Boiler	63KVA Boile	1	
21	Genset (H.M & B/P)	82.50KV	3	
22	Genset (B/P-CP-45)	125KV	2	
23	Genset Concrete Plant-180 KVA	180 KVA	1	
24	Genset (Crusher)	1010KVA	3	
25	Gantry at Box Segment Casting Yard	100 MT	2	

13. Change of Scope Proposals

Table 13.1 - Status of Change of Scope Proposals

Sl. No	Proposal Details	Date of Proposal	Current Status	COS Amount	Actual Date of Approval
1	Replacement of Pipe Culvert with box Culvert	25.04.2018	Approved in-principle by Authority. Preparation of Details Quantities in proper order is in Progress.	NA	NA
2	Relocation of VUP from Km. 113+550 to Km. 113+273	13.11.2018	The proposal for Shifting of VUP at Km. 113+550 had been submitted to IE/Authority through letter no. PSCHPL/HO/IE/101/2018 dated 13.11.2018.	NA	NA
3	Widening of existing Box Culvert at Km 110+ 785	25.01.2019	NHAI vide letter no. NHAI/PIU/Thanj/11019/59/2017/ 913 dated 17.05.2019 advised the IE to submit the comprehensive statement in this regards.	NA	NA
4	Widening of Existing MNB at Km. 101+095	29.05.2019	The proposal for Widening of Existing MNB at Km. 101+095 had been submitted to IE/Authority through letter no. PSCHPL/HO/SCP/IE/008/2019 dated 29.05.2019.	NA	NA
5	COS proposal for 09 nos of Box culvert and 01 MNB under +ve COS and 01 nos of Box culvert under -ve COS.	07.06.2019	IE had submitted the COS proposal to Authority vide Lr.No.TES/IE/SCP/NHAI/2019/087 dated 07.06.2019 for 09 nos of Box culvert and 01 MNB under +ve COS and 01 nos of Box culvert under -ve COS.	NA	NA

#### **14. Details of Correspondences**

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The following tables list out the correspondences between the parties.

Table 14.1. - Concessionaire to NHAI

Table 14.2. - NHAI to Concessionaire

Table 14.3. - Concessionaire to Independent Engineer

Table 14.4. - Independent Engineer to Concessionaire

TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI

S.No	Date	Letter No	Subject	Remarks
1	6/8/2019	PSCHPL/SCP/NHAI/2019/409	Shifting of electrical utility as per cl 11.2.1of Concession agreement	
2	6/8/2019	PSCHPL/SCP/NHAI/2019/410	Details of right of way made available and remains affected /not made availableas on 146th day from the appointed	
3	6/10/2019	PSCHPL/SCP/NHAI/2019/417	Construction activities hampered due to delay in disbursement of payment to the affected land owners in cuddalore district	
4	6/12/2019	PSCHPL/SCP/NHAI/2019/418	Utility Shifting works hampered due to the various hindrances & obstructions along the project	
5	6/24/2019	PSCHPL/SCP/NHAI/2019/424	Land Acquired - Handing over of possession of balance land. - Reg	
6	6/24/2019	PSCHPL/SCP/NHAI/2019/426	Pending in disbursement of payment to the effected landowners between Km 73 + 600 to 74 + 100 - Reg	
7	6/24/2019	PSCHPL/SCP/NHAI/2019/427	Disruption of Construction activities of proposed GSI at Km 74 + 650 -Reg.	
8	6/24/2019	PSCHPL/SCP/DC/2019/428	Issues in dismantling of Existing building due to protest of land owners	
9	6/24/2019	PSCHPL/SCP/NHAI/2019/429	Disruption of Construction activities of proposed GSI at Km 74 + 650-Reg.	
10	6/24/2019	PSCHPL/SCP/DC/2019/430	Issues in dismantling of existing buildings due to the protest of land owners in Ariyalur district	
11	6/24/2019	PSCHPL/SCP/DC/2019/431	Issues in dismantling of existing buildings due to the protest of land owners in Thanjavur district	
12	6/24/2019	PSCHPL/SCP/NHAI/2019/432	DC Issues in dismantling of existing buildings due to the protest of land owners in Ariyalur district	
13	6/24/2019	PSCHPL/SCP/NHAI/2019/433	Issues in dismantling of existing buildings due to the protest of land owners in Thanjavur district	

TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE

S.No	Date	Letter No	Subject	Remarks
1	5/27/2019	NHAI/PIU/Thanj/11025/09/2018/976	Shifting of water supply utilities	
2	6/3/2019	NHAI/PIU/Thanj/11025/17/2018/1014	Supply of pond Ash- requested	
3	6/3/2019	NHAI/PIU/Thanj/11025/03/2018/1027	Public representation -request to provide bridge at vembukudi	
4	6/6/2019	NHAI/PIU/Thanj/11025/08/2018/1094	Shifting of Electrical utilities like HT/LT lines & structures in Ariyalur diviion- Meensuritti section	
5	6/6/2019	NHAI/PIU/Thanj/11025/03/2018/1096	Hindrance/obstruction of Religious structures within the proposed carriageway	
6	6/6/2019	NHAI/PIU/Thanj/11025/25/2018/1098	Utility shifting works hampered due to various hindrances & obstructions along the project	
7	6/7/2019	NHAI/PIU/Thanj/11025/17/2018/1103	Finalization of plan and profile drawings for the slip & service road of the project highway	
8	6/10/2019	NHAI/PIU/Thanj/11025/18/2018/1124	Distressed condition of existing culvert at Km 63 + 300 (Existing Chainage) LHS	
9	6/10/2019	NHAI/PIU/Thanj/11025/28/2019/1132	Discrepancies of structure with respect to schedule-B of concession agreement and site	
10	6/10/2019	NHAI/PIU/Thanj/11025/25/2019/1136	Hindrance/obstruction of structures along the project highway	
11	6/11/2019	NHAI/PIU/Thanj/11025/51/2017/1148	Details of payment made for utility shifting	
12	6/11/2019	NHAI/PIU/Thanj/11025/51/2017/1149	Details of payment made for Water supply utility shifting	
13	6/14/2019	NHAI/PIU/Thanj/11025/17/2018/1160	pond Ash- requested	
14	6/15/2019	NHAI/PIU/Thanj/11025/17/2018/1185	Independent Consultancy Services for the months of April'2019 -50%	

TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER

S.No	Date	Letter No	Subject	Remarks
1	5/29/2019	PSCHPL/SCP/IE/2019/395	Submission of initial pile load test report for proposed major bridge at Km 66 + 547 & High strain dynamic test reports for the proposed GSI at Km 69 + 785 and VUP at km 102 + 975	
2	5/29/2019	PSCHPL/SCP/IE/2019/396	Submission of soil test reports for the borrow area no 7 ( Extension -02)	
3	5/29/2019	PSCHPL/SCP/IE/2019/397	Submission of soil test reports for the borrow area no 18	
4	5/30/2019	PSCHPL/SCP/IE/2019/398	Submission of SBC tests reports for a box culvert & MNB	
5	5/30/2019	PSCHPL/SCP/IE/2019/399	Submission of GFC drawings for 3 Nos of Minor bridges	
6	5/31/2019	PSCHPL/SCP/IE/2019/400	Job Mix Design Report for CTSB	
7	5/31/2019	PSCHPL/SCP/IE/2019/401	Compliance report-Safety -Reflective strips provided in the sand bags placed at work zone area	
8	6/3/2019	PSCHPL/SCP/IE/2019/402	Submission of reinforced earth wall drawings for a proposed GSI at Ch 74 +650	
9	6/3/2019	PSCHPL/SCP/IE/2019/403	Submission of reinforced earth wall drawings for a proposed GSI at Ch 69 +785	
10	6/3/2019	PSCHPL/SCP/IE/2019/404	Submission of monthly progress report for the month of May 2019	
11	6/4/2019	PSCHPL/SCP/IE/2019/405	RA Bill No 05 Shifting of electrical utilities as per cl 11.2.1 of concession agreement	
12	6/5/2019	PSCHPL/SCP/IE/2019/407	Submission of factory Inspection Report-Ms Earthcon systems india pvt ltd	
13	6/5/2019	PSCHPL/SCP/IE/2019/408	Submission of soil test reports for the borrow area no 17	
14	6/8/2019	PSCHPL/SCP/IE/2019/409	RA Bill 06 - Shifting of Electrical Utility as per cl 11.2.1 of CA	
15	6/8/2019	PSCHPL/SCP/IE/2019/410	Details of Right of way made available and remains not made available as on 14/6 day from Appointed Date	
16	6/8/2019	PSCHPL/SCP/IE/2019/411	Application for CTO for blue metal Crusher	
17	6/8/2019	PSCHPL/SCP/IE/2019/412	Submission of Methodology for CTSB	
18	6/8/2019	PSCHPL/SCP/IE/2019/413	Compliance report-dressed conditions of existing culvert at km 63 + 300 (Existing Chainage)HS	
19	6/8/2019	PSCHPL/SCP/IE/2019/414	Submission of Design and Drawings of proposed Minor Bridges at Km 112 + 810	
20	6/10/2019	PSCHPL/SCP/IE/2019/416	Submission of Third Party Test Reports on Properties of Steel (Kamachi Steels)	
21	6/10/2019	PSCHPL/SCP/IE/2019/417	Construction activities hampered due to delay in disbursement of payment to the affected landowners in Cuddalore District	
22	6/12/2019	PSCHPL/SCP/IE/2019/418	Utility Shifting works hampered due to the various hindrances & obstructions along the Project	
23	6/13/2019	PSCHPL/SCP/IE/2019/420	Submission of Design & drawings of Drains	
24	6/19/2019	PSCHPL/SCP/IE/2019/422	Submission of soil test reports for the borrow area 19-Reg	
25	6/19/2019	PSCHPL/SCP/IE/2019/423	Submission of concrete mix design reports for M-15 PCC, M-30-RCC, M-35 RCC, M-35 (Pumpable) & M-35 (Piling)-Reg	
26	6/24/2019	PSCHPL/SCP/IE/2019/425	Compliance report - List of Minor Major repair of Distressed Structures pertaining to RO	
27	6/24/2019	PSCHPL/SCP/IE/2019/434	Compliance report list of minor and major repair of distressed structures pertaining to RO NHAI Madurai	
28	6/24/2019	PSCHPL/SCP/IE/2019/435	Submission of soil test report for Borrow Area No.07	
29	6/27/2019	PSCHPL/SCP/IE/2019/436	Compliance Report Design and drawings of Drains	

**TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI**

S.No	Date	Letter No	Subject	Remarks
1	5/30/2019	TES/IE/SCP/PIL/2019/313	High embankment area proning to flood	
2	6/1/2019	TES/IE/SCP/PIL/2019/314	Proposal of Barrow Area no. 18	
3	6/1/2019	TES/IE/SCP/PIL/2019/315	Proposal of borrow area no 7 extention 02	
4	6/1/2019	TES/IE/SCP/PIL/2019/316	Submission of Alternate proposal for VUP at Km 113+550	
5	6/4/2019	TES/IE/SCP/PIL/2019/317	Submission of initial pile load test report for proposed major bridge at km 66 + 547 and high strain dynamic test reports for the proposed grade separator at km 69 + 785 and vehicular underpass at km 102 + 975	
6	6/4/2019	TES/IE/SCP/PIL/2019/318	Submission of GFC drawings for 3 nos of minor bridges	
7	6/7/2019	TES/IE/SCP/PIL/2019/319	Factory Inspection report for M.5 Earthcon Systems (Maruti RUB-Plast Pvt.Ltd)	
8	6/7/2019	TES/IE/SCP/PIL/2019/320	Proposal of Borrow Area No-17	
9	6/7/2019	TES/IE/SCP/PIL/2019/321	List of Minor/Major repair of Distressed Structures pertaining to RO NHAI Madurai(PIU-Thanjavur)	
10	6/8/2019	TES/IE/SCP/PIL/2019/322	Without approval of mix design CTSB laying at site	
11	6/11/2019	TES/IE/SCP/PIL/2019/323	Comments on MPR for the month of May 2019	
12	6/11/2019	TES/IE/SCP/PIL/2019/324	Finalization of plan & profile Drawings for slip & service road of the Project highway	
13	6/14/2019	TES/IE/SCP/PIL/2019/325	Discrepancies of structures with respect to Schedule B of Concession Agreement and site	
14	6/14/2019	TES/IE/SCP/PIL/2019/326	Compliance report-Distressed condition of existing culvert at Km 63 + 300 LHS	
15	6/14/2019	TES/IE/SCP/PIL/2019/327	Submission of Third party reports on properties of kamatchi steel	
16	6/15/2019	TES/IE/SCP/PIL/2019/328	Submission of revised (R4) structure design and drawing of minor bridges at km 66 + 740	
17	6/17/2019	TES/IE/SCP/PIL/2019/329	Removal of advertisement hoardings on NH within ROW	
18	6/18/2019	TES/IE/SCP/PIL/2019/330	Submission of revised design and drawing of pile cap abutment A1 (RHS) of grade separator at km 69 + 785-Reg	
19	6/19/2019	TES/IE/SCP/PIL/2019/331	Submission of Revised Design and Drawing of Minor Bridges 04 Nos. (R3)-Reg	
20	6/19/2019	TES/IE/SCP/PIL/2019/332	Submission of GFC drawings of 04 Nos. of Minor Bridge – Reg.	
21	6/20/2019	TES/IE/SCP/PIL/2019/333	Approval of Plan & Profile drawings for Slip & Service Road of the Project Highway	
22	6/22/2019	TES/IE/SCP/PIL/2019/334	Submission of Structure Design and Drawing of Minor Bridge at Ch.112+810 (SR)	
23	6/22/2019	TES/IE/SCP/PIL/2019/335	Proposal of Borrow Area No- 19	
24	6/24/2019	TES/IE/SCP/PIL/2019/336	Submission of formwork design and drawings for the Project	
25	6/25/2019	TES/IE/SCP/PIL/2019/337	Submission of Design and Drawings for Drain-RO	
26	6/25/2019	TES/IE/SCP/PIL/2019/338	List of Minor Major repair of Distressed Structures pertaining to RO NHAI Madurai (PIU-Wise)- MOM-Communicated (1)	

**15. Progress Photographs**

Sl. No	Description	Location	Side	Remarks
1.	BOX CULVERT - SLAB COMPLETED	74+675	RHS	
2.	BOX CULVERT – SLAB COMPLETED	99+840	LHS	
				
Sl. No	Description	Location	Side	Remarks
3.	BOX CULVERT – WALL 1 <sup>ST</sup> LIFT COMPLETED	103+220	LHS	
4.	BOX CULVERT – RAFT COMPLETED	104+706	LHS	
				

Sl. No	Description	Location	Side	Remarks
5.	MINOR BRIDGE - SLAB COMPLETED	74+173	BHS	
6.	MINOR BRIDGE - R/W A1 & A2 FINAL LIFT COMPLETED	88+513	LHS	
				
Sl. No	Description	Location	Side	Remarks
7.	MINOR BRIDGE- R/W A1 & A2 FINAL LIFT COMPLETED	91+164	LHS	
8.	MINOR BRIDGE- SLAB COMPLETED	111+563	BHS	
				

Sl. No	Description	Location	Side	Remarks
9.	VUP - A-2 - PILE IN PROGRESS	72+545	RHS	
10.	VUP - A 1 ABUT. CAP COMPLETED	106+318	LHS	
				
Sl. No	Description	Location	Side	Remarks
11.	VUP - A2 - ABUT. WALL COMPLETED	111+235	RHS	
12.	VUP - A1 -ABUT. WALL COMPLETED	111+235	RHS	
				

Sl. No	Description	Location	Side	Remarks
13	VUP - ABUTMENT CAP COMPLETED.	106+318	BHS	A1 & A2 Side
14	VUP - RCC GIRDER CASTING IN PROGRESS	106+318	-	
				
Sl. No	Description	Location	Side	Remarks
15	LVUP - WALL 1st LIFT COMPLETED	112+643	RHS	A1 & A2 Side
16	LVUP - RETAINING WALL 1st LIFT COMPLETED	112+643	RHS	A1 Side
				

Sl. No	Description	Location	Side	Remarks
17	GSI - A-1 LHS PILE CAP COMPLETED	69+785	LHS	
18	GSI - A-2 RHS PILE CAP COMPLETED	69+785	RHS	
				
Sl. No	Description	Location	Side	Remarks
19	GSI - RHS – A1 ABUTMENT WALL COMPLETED	104+570	RHS	
20	GSI - RHS – A2 ABUTMENT WALL IN PROGRESS	104+570	RHS	
				

Sl. No	Description	Location	Side	Remarks
21	MJB - PILE CHIPPING WORK IN PROGRESS	99+595	LHS	P2 Side
22	MJB - PILE WORK IN PROGRESS	99+595	LHS	P1 Side
				
Sl. No	Description	Location	Side	Remarks
23	MJB - PIER- 06 PILE IN PROGRESS	107+400	RHS	
24	MJB - PIER- 05 PILE CHIPPING IN PROGRESS	107+400	LHS	
				

Sl. No	Description	Location	Side	Remarks
25	EARTHWORK IN PROGRESS	75+350 to 75+500	LHS	
26	EARTHWORK IN PROGRESS	76+400 to 77+200	LHS	
				
Sl. No	Description	Location	Side	Remarks
27	EARTHWORK IN PROGRESS	92+400 to 92+700	LHS	
28	EARTHWORK IN PROGRESS	92+400 to 92+450	RHS	
				

Sl. No	Description	Location	Side	Remarks
29	CTSB IN PROGRESS	88+200	RHS	
30	CTSB IN PROGRESS	89+300	RHS	
				
Sl. No	Description	Location	Side	Remarks
31	CTSB IN PROGRESS	88+550 TO 88+900	LHS	
32	CTSB IN PROGRESS	91+000 TO 91+130	LHS	
				