



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

PATEL SETHIAHOPU - 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**  
**MARCH 2019**

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## Executive Summary

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The old National Highway (NH -36) 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 36 (NH-36). 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 45C. 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.

## 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

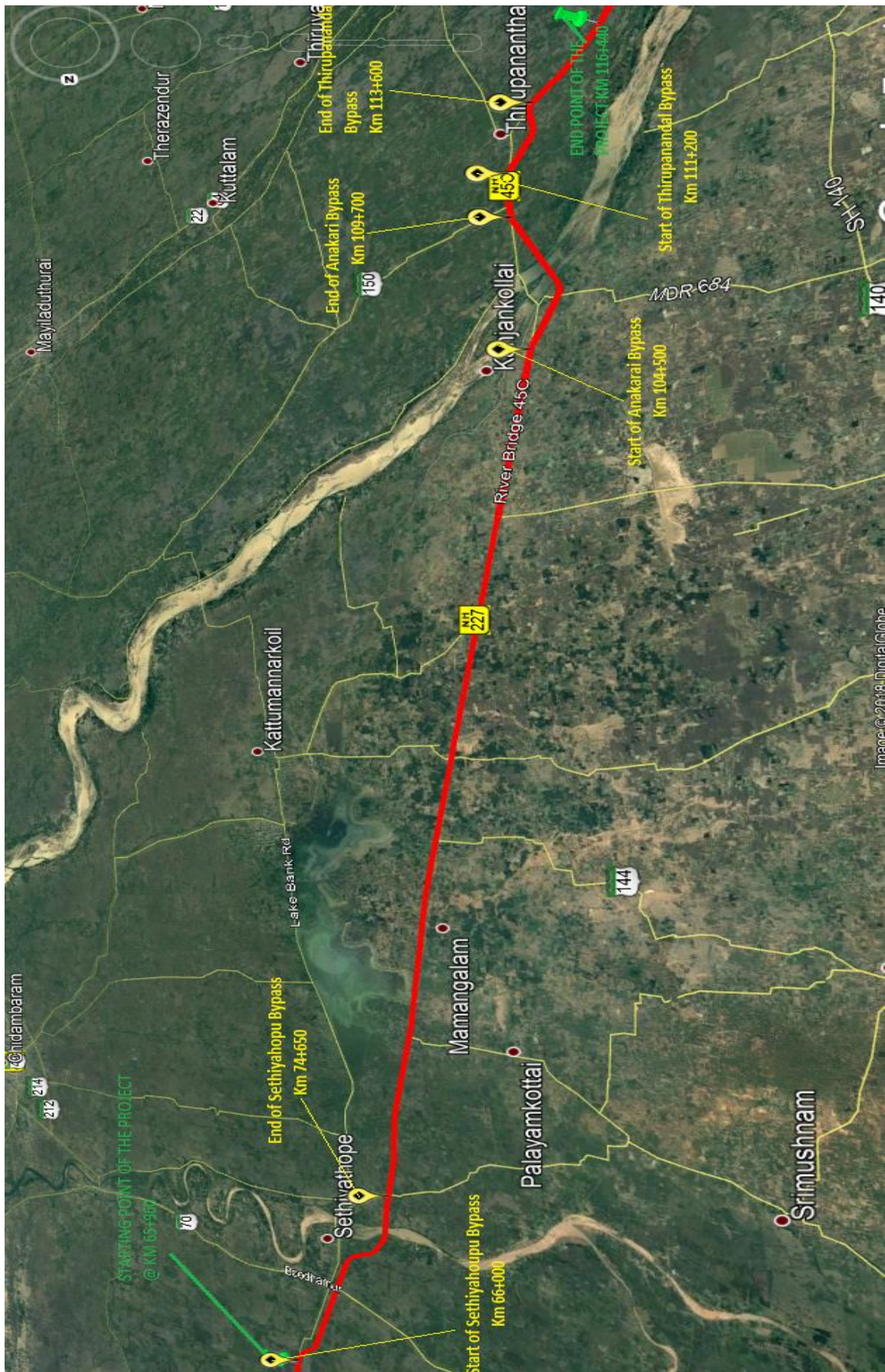
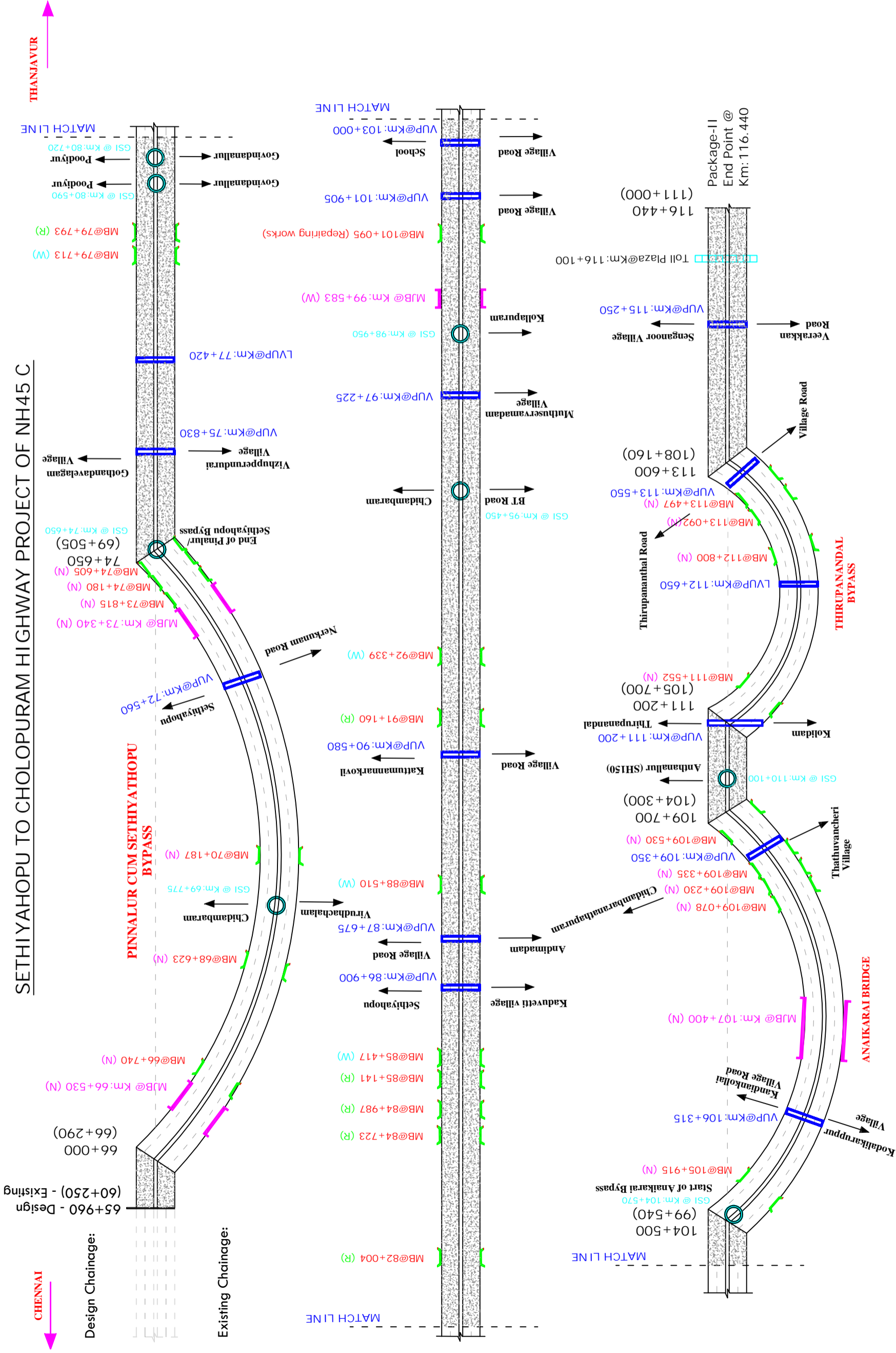


Figure 2: Project Alignment Map



Pinnalar / Sethiyathopu Bypass  
Km: 66+000 to 74+650

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	05
2.	Minor Bridge	Nos.	06
3.	Major Bridge	Nos.	02
4.	VUP/LVUP	Nos.	01
5.	Grade Separator	Nos.	02

Widening of Existing Road  
Km: 74+650 to 104+500

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	29
2.	Minor Bridge	Nos.	10
3.	Major Bridge	Nos.	01
4.	VUP/LVUP	Nos.	08
5.	Grade Separator	Nos.	04

Anaikarai Bypass  
Km: 104+500 to 109+700

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	12
2.	Minor Bridge	Nos.	05
3.	Major Bridge	Nos.	01
4.	VUP/LVUP	Nos.	02
5.	Grade Separator	Nos.	01

Widening of Existing Road  
Km: 109+700 to 111+200

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	6
2.	Minor Bridge	Nos.	-
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	01
5.	Grade Separator	Nos.	01

Thirupanandal Bypass  
Km: 111+200 to 113+600

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	-
2.	Minor Bridge	Nos.	04
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	02
5.	Grade Separator	Nos.	-

Widening of Existing Road  
Km: 113+600 to 116+440

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	08
2.	Minor Bridge	Nos.	-
3.	Major Bridge	Nos.	-
4.	VUP/LVUP	Nos.	01
5.	Toll Plaza	Nos.	01

Drawing Title  
Strip Plan - Sethiyahopu to Cholapuram Highway Project

Date: 31-08-2018  
Project No. PSCHP/NHA1/TN/001

Salient Features of Project:

SI No	Description	Unit	Scope
1.	Total Length of Project	Km	50.480
2.	Length of Widening Portion	Km	34.230
3.	Length of Bypass	Km	16.250
4.	Length of service/Slip Road	Km	27.100
5.	Culverts	Nos.	53
6.	Slab Culvert	Nos.	01
7.	Minor Bridge	Nos.	07
8.	Major Bridge	Nos.	25
9.	VUP/LVUP	Nos.	04
10.	Grade Separated Structure	Nos.	15
11.	Minor Intersection	Nos.	09
12.	Major Intersection	Nos.	07
13.	Bus Bays and Shelters	Nos.	09
14.	Toll Plaza	Nos.	01

LEGEND:

- Major Bridge (MJB)
- Minor Bridge (MB)
- Grade Separated Structure
- Toll Plaza
- Vehicle Under Pass (LVUP/VUP)
- Reconstruction of Existing Road
- Bypass/Newconstruction

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	We 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 is in Progress	Tree felling permission obtained for all the three districts & Work in Progress.
8	Electric Poles Shifting	Tamil Nadu Electricity Board	Obtained & work is in Progress	Work in progress in all Three districts.
9	Water Pipes Shifting	Tamilnadu Water Supply and Drainage Board	Obtained & work is in Progress	All the estimates are approved and 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	Within 15 days of date of Agreement.
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)	Remarks
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
<b>A)</b>	<b>Total Length of the Project Highway</b>	<b>Km</b>	<b>50.48</b>	
1	Use of Existing Road Portion	Km	34.23	
2	Proposed Bypass / Realignment portion	Km	16.25	
<b>B)</b>	<b>Hindered Length</b>			
1.	LA pending	Km	7.620	
2.	Payment Pending	Km	10.460	
3.	Existing Buildings	Km	4.860	
4.	Temple & Bus stand	Km	0.105	
5.	Electrical Lines	Km	3.525	
6.	Rural Water Supply lines	Km	20.105	
7.	NOC Irrigation Dept	Km	2.050	
8.	Paddy/Cotton fields	Km	0	
9.	Trees	Km	0.736	
10.	Net Hindered Length (both Side)	Km	46.86	
<b>C)</b>	<b>Total Project Length (both Side)</b>	<b>Km</b>	<b>100.96</b>	
<b>D)</b>	<b>% Hindered Length</b>	<b>%</b>	<b>46.41%</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	546	164	
2	Ariyalur	355	261	94	
3	Thanjavur	102	89	13	
	<b>Total in Nos.</b>	<b>1167</b>	<b>896</b>	<b>271</b>	
		<b>Total in %</b>	<b>76.77%</b>	<b>23.23%</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	386	240	146	
2	Ariyalur	359	237	122	
3	Thanjavur	153	78	75	
	<b>Total in Nos.</b>	<b>898</b>	<b>555</b>	<b>343</b>	
		<b>Total in %</b>	<b>61.80%</b>	<b>38.20%</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	068+550	068+620	70	140	BHS	Compensation Disbursement balance - Not allowed to work by owner
3	070+520	070+600	80	160	BHS	Compensation Disbursement balance - Not allowed to work by owner
4	070+800	070+900	100	200	BHS	Compensation Disbursement balance - Not allowed to work by owner
5	072+450	072+600	150	300	BHS	Compensation Disbursement balance - Not allowed to work by owner
6	072+600	072+700	100	200	BHS	Compensation Disbursement balance - Not allowed to work by owner
7	072+800	073+100	300	600	BHS	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	080+100	081+150	1050	2100	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
13	083+200	084+500	1300	2600	BHS	Compensation Disbursement balance - Not allowed to work by owner
14	085+700	086+500	800	1600	BHS	Compensation Disbursement balance - Not allowed to work by owner
	086+900	087+000	100	200	BHS	
	087+500	088+200	700	1400	BHS	
15	088+900	091+000	2100	4200	BHS	Compensation Disbursement balance - Not allowed to work by owner
16	095+050	095+850	800	1600	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
17	098+600	099+300	700	1400	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
18	099+500	099+900	400	800	RHS	Compensation Disbursement balance - Not allowed to work by owner
19	099+900	100+300	400	800	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
20	100+300	101+600	1300	2600	BHS	Compensation Disbursement balance - Not allowed to work by owner
21	101+600	102+230	630	1260	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
22	102+230	102+700	470	940	BHS	Village Limit - Ribbon Development - Compensation Disbursement balance - Not allowed to work owner
23	102+700	103+320	620	1240	BHS	Compensation Disbursement balance - Not allowed to work by owner
24	103+320	104+200	880	1760	BHS	Compensation Disbursement balance - Not allowed to work by owner
25	104+200	104+500	300	600	BHS	Compensation Disbursement balance - Not allowed to work by owner
26	110+400	110+850	450	900	BHS	Compensation Disbursement balance - Not allowed to work by owner
27	113+250	113+450	200	400	BHS	Temple Land, Local not allowing to Work
28	114+400	114+650	250	500	BHS	Village Limit - Ribbon Development - Compensation, Disbursement balance - Not allowed to work owner
29	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		
	10	Trees (2 Nos)	66+400					
			67+400		Motor Room	25		
			67+850		Motor Room	50		
			67+850		Bore Well	20		
			68+600		Motor Room	50		
			68+600		Sluice Gate (2 Nos)	40		
		Bore Well & Water Tank	69+750					
	150	HT Line Crossing	70+030	70+200				
	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		
	150	Kumarakudi Village	74+500	74+650	Kumarakudi Village	150		
		Telephone Poles	74+710	74+850	Telephone Poles			2 - Telephone Pole
		Temple, Hand Pump,	74+710					
			74+900		Marriage Hall			
		Hut	75+210					
			75+260		Bore Well & Water Tank			
		Huts	75+270	75+350	Huts			
			75+560		Huts			
			75+565	75+640	Pond			
		Building	75+640					
			75+650		Temple			
			75+660		Water Tap			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		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					
		Street Light	75+840					
		Flag Pole	75+840		Existing Culvert			
		Water Tap	75+880					
		Bore Well & Water Tank	76+025					
			76+600		Temple			
			76+695		OFC & Compound Wall			
			76+940		Bore & Water Tank			
		Buildings	76+980		Buildings			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			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		
		Hand Pump	77+505					
		Building	77+730					
			77+760		Water Tank & Motor Room			
		Water Tap	77+975					
			78+725		Transformer			
		Huts	78+670	78+760				
		Water Tank & Motor Room	79+240					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Hut	79+955					
		Water Tank, Motor Room, Hand Pump & Existing Culvert	80+120					
			80+125		Temple			
			80+170		Existing Culvert			
			80+190		OFC			
			80+300	80+390	Pond			
		Transformer	80+340					
	400		80+500	81+000	EB Poles, Telephone Poles, Trees, Water Tap	400		
		Flag Poles	80+530	80+570	Flag Poles			ónos
			80+710		Existing Culvert			
		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					
		Sluice Gate	82+020		Sluice Gate			5 Nos
			82+875		Existing Culvert			
		Existing Culvert	82+975					
	450	Water Tap	83+000	83+500	Water Tap	450		Tap - 6
			83+060		OFC			
		Existing Culvert	83+205					
		OFC	83+265					
			83+310		OFC			
		Flag Post	83+385					
	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			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			83+890		Flag Poles			4 nos
			83+935		Water Tank			
			83+995		Hand Pump			
	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+500	84+560	Huts			
			84+560		Flag & Ex Culvert			Pole 2 Nos
			84+650		OFC			
			84+920		OFC			
		Building	84+930	84+980				
			85+090		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	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					
			86+500		OFC			
			86+585		Motor Room			
		Buildings	86+000	86+700	Buildings			






Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	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			
		Existing Culvert	87+080					
			87+155		OFC			
		Transformer	87+330					
			87+360		OFC			
	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			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			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			
			88+225		Transformer			
			88+580		OFC			
			88+590	88+710	Compound Wall			
			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					

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			89+210		Transformer			
			89+240		OFC			
			89+350		Water Tank With Bore Well			
			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			
















Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			90+180		Transformer			
			90+195		OFC			
			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			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	450	EB Pole, Water Tap, Telephone Pole, Trees	91+500	92+000	EB Pole, Water Tap, Telephone Pole, Trees	450		
			91+780		Temple			
		Pond	91+780	91+860				
	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
		Temple	92+135					
			92+300	92+380	Water Pipe Crossing			
			92+390		OFC			
		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			









Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			93+115		Transformer			
			93+200		OFC			
			93+360		OFC			
			93+660		OFC			
			93+800		OFC			
			93+930		Hand Pump			
			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					
	400		94+500	95+000	Tree, EB Pole, T. Pole	400		Tree - 146, EB - 23, T Pole - 4, Tap - 6
			94+530		OFC			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	94+555					
			94+780		OFC, Transformer			
		Pond, Pipe Line	94+830	94+900				
			94+935		OFC			
	450	EB Pole, Tape, Telephone Pole	95+000	95+500	EB Pole, Tape, Telephone Pole	450		EB - 16, T Pole - , Tap 5
			95+130	95+230	Compound Wall			
			95+210		Telephone Panel, Water Tank With Well			
			95+255		Police Station Arch			
			95+290		OFC			
			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					



Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	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			
			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			

















Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			97+680		Motor Room With Bore			
		Transformer	97+700					
		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+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

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			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					
		Pond	100+350					
		Motor Room With Tank	100+390					
			100+475		Water Tank			


















Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		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					
			101+480		Hand Pump			
			101+805		OFC			
	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					



Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			102+240		Temple			
		OFC	102+390					
		OFC	102+435					
			102+520		Flag Pole			
		OFC	102+575					
		OFC	102+730					
		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					


Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		OFC	103+530					
			103+590		Temple			
		OFC & Flag Pole	103+720					
		Pond	103+775	103+815				
			103+860	103+910	Pond			
		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			
	1350	Tape	109+700	111+200	Tape	1350		Tap - 18
			109+985		Water Pipe			
		Water Tank	110+450					
			110+725		OFC			
			110+740		Motor Room with well			

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
		Gate Valve	111+500					
			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					
		Water Tank	114+450					
		Water Tank	114+495					
		OFC	114+520		Temple			
		Pond	114+540	114+580				
		Hand Pump	114+610					
			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

Photo	Obstruction Length (m)	LHS -Type of Hindrance	Chainage		RHS -Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			115+650		Motor Room			
		Transformer	115+970					
		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

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
	<b>Total in Nos.</b>	<b>22</b>	<b>3</b>	<b>19</b>

## 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.

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	

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	04 Estimates are Approved and 01 estimate is under process with NHAI.	Supervision Charges 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	9.702	62.993	Work in progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well	Nos.	24	4	20	
3	BDO of Concern Union	Over Head Tank	Nos.	15	3 completed & 04 Nos in progress	12	
4	TNEB	Electrical Lines	Kms.	6.83	2.75	4.08	

## 2.4. Tree felling

Table 2.4-1: Status of Tree felling

Sl. No.	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	Work in Progress
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	120	
<b>Total</b>				<b>50.48</b>	<b>17.435</b>	<b>16.699</b>	<b>0.736</b>	<b>200</b>	

## 3. Progress Briefing – Contractor Activities

## 3.1. Pre-construction Activities

## Detailed Design &amp; 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	-

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	18
3	Grade Separated Intersection	No	08	08	8
4	VUP/LVUP	No	15	15	12
5	Box /Slab Culvert	No	60	60	53

## 4. Physical Progress of Work

## 4.1. Physical Progress of Work

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

CUMMULATIVE STATEMENTFor 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	19.46	4.5	23.96	0	23.32	50.68%
	RHS	47.28	17.11	3.61	20.72	0	26.56	43.82%
2	<b>Embankment</b>							
	LHS	47.28	0	0	0	8.795	47.28	0.00%
	RHS	47.28	0	0	0	6.300	47.28	0.00%
3	<b>Sub grade</b>							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	47.28	0.00%
4	<b>GSB/ Cement Treated Base</b>							
	LHS	47.28	0	0	0	0	47.28	0.00%
	RHS	47.28	0	0	0	0	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	0	0	0	53.19	0.00%
2	Sub grade	53.19	0	0	0	0	53.19	0.00%
3	GSB/ Cement Treated Base	53.19	0	0	0	0	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%

<b>Structure Work</b>					
Sr. No.	Type of Structure	Total No. of Structures	Nos. Of Structures		
			Completed	In Progress	Balance
1	Culvert	60	2	26	32
2	Light Vehicular Underpass	2	0	1	1
3	Vehicular Underpass	13	0	7	6
4	Minor Bridges	25	1	18	6
5	Major Bridge	4	0	1	3
6	Flyover	8	0	5	3

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

Item	Stage for Payment	Unit	Qty.	Weightage in percentage to Contract Price	EPC Cost	Completed upto 31.03.2019	% Physical Progress
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	<b>A- Widening and strengthening of existing road</b>						
	(1) Earthwork up to top of the sub-grade	Km	66.96	9.517%	1,259,149,811		
	(2) Granular work (sub-base, base, shoulders)	Km					
	(a) GSB/ Cement Treated Base	Km	65.52	2.873%	380,125,589		
	(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		
	(7) Widening and repair of minor bridges	Nos.	4	0.959%	126,889,505		
	<b>B- New realignment/bypass</b>						
	(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					
	<b>C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:</b>					
	<b>(1) Culverts</b>	Nos.	44	1.570%	207,725,198	2 0.071%
	<b>(2) Minor bridges</b>					
	(a) Foundation	Nos.	58	1.453%	192,185,204	17 0.426%
	(b) Substructure	Nos.	134	2.423%	320,544,497	23 0.416%
	(c) Superstructure (including crash barrier etc. complete)	Nos.	50	1.559%	206,310,836	7 0.218%
	<b>(3) Cattle/Pedestrian underpasses</b>					
	(a) Foundation	Nos.		0.000%		
	(b) Substructure	Nos.		0.000%		
	(c) Superstructure (including crash barrier etc. complete)	Nos.		0.000%		
	<b>(4) Pedestrian overpasses</b>					
	(a) Foundation	Nos.		0.000%		
	(b) Substructure	Nos.		0.000%		
	(c) Superstructure (including crash barrier etc. complete)	Nos.		0.000%		
	<b>(5) Grade separated structures</b>					
	<b>(a) Underpass (13 VUP, 2 LVUP)</b>					
	(i) Foundation	Nos.	56	1.274%	168,578,361	11 0.250%
	(ii) Substructure	Nos.	60	0.751%	99,383,595	3 0.038%
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	30	1.589%	210,173,790	
	<b>(b) Overpass</b>					
	(i) Foundation			0.000%		
	(ii) Substructure			0.000%		
	(iii) Superstructure (including crash barrier etc. complete)			0.000%		
	<b>(c) Flyover</b>					
	(i) Foundation	Nos.	36	0.926%	122,463,747	5 0.129%
	(ii) Substructure	Nos.	36	0.470%	62,236,342	
	(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>	<b>A- Widening and repairs of Major Bridges</b>					
	(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%			

	<b>C- New Major Bridges</b>						
	(1) Foundation			0.000%			
	(a) Open Foundation			0.000%			
	(b) Pile Foundation/ Well Foundation	Nos.	84	5.289%	699,701,550		
	(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	4089	0.190%
<b>Other Works</b>	<b>(i) Service roads/ Slip Roads</b>	Km	53.19	5.690%	752,725,608		
	<b>(ii) Toll Plaza</b>	Nos.	1	1.821%	240,951,085		
	<b>(iii) Road side drains</b>	Km	28.85	5.429%	718,314,179		
	<b>(iv) Road signs, markings, km stones, safety devices, ....</b>						
	(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		
	<b>(v) Project facilities</b>						
	(a) Bus Bays	No.	18	0.009%	1,168,188		
	(b) Truck Lay-byes	No.		0.000%			
	(c) Rest areas	No.		0.000%			
	<b>(vi) Repairs to bridges/structures</b>	Nos.					
	<b>(vii) Road side plantation</b>	Km	23.66	0.451%	59,629,564		
	<b>(viii) Protection works</b>						
	(a) Boulder pitching on slopes	Km	10.03	0.218%	28,903,487		
	(b) Toe/Retaining wall	Km	10.03	0.000%			
	<b>(x) Miscellaneous</b>	Ls.	100%	8.031%	1,062,496,886	26%	2.068%
		<b>Total</b>			<b>100.000%</b>	<b>13,230,000,000</b>	



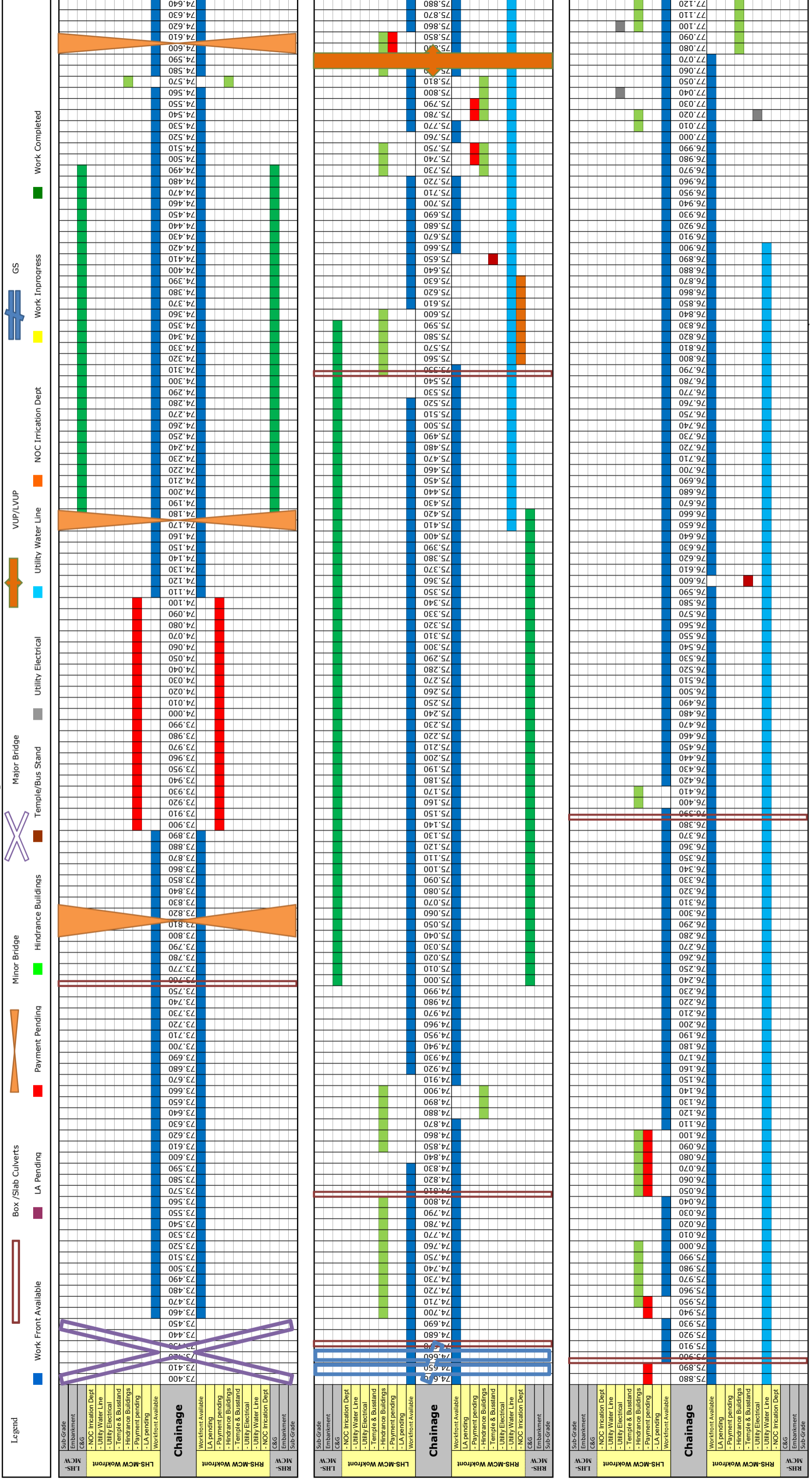




**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects

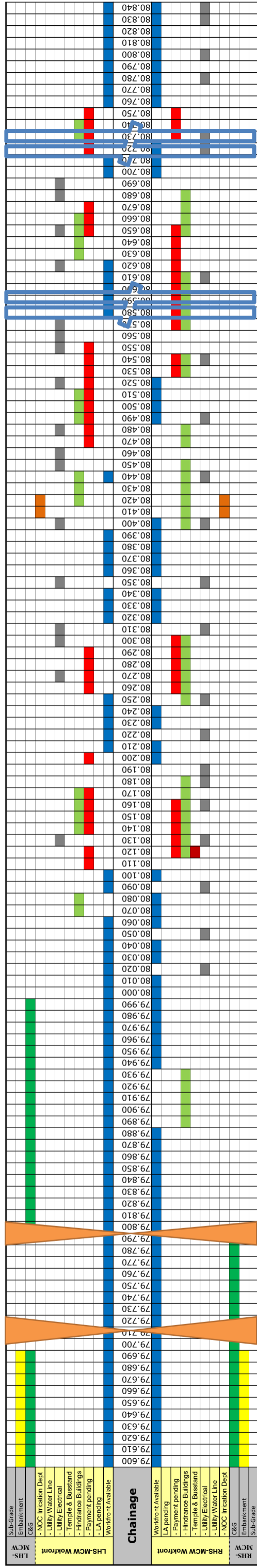
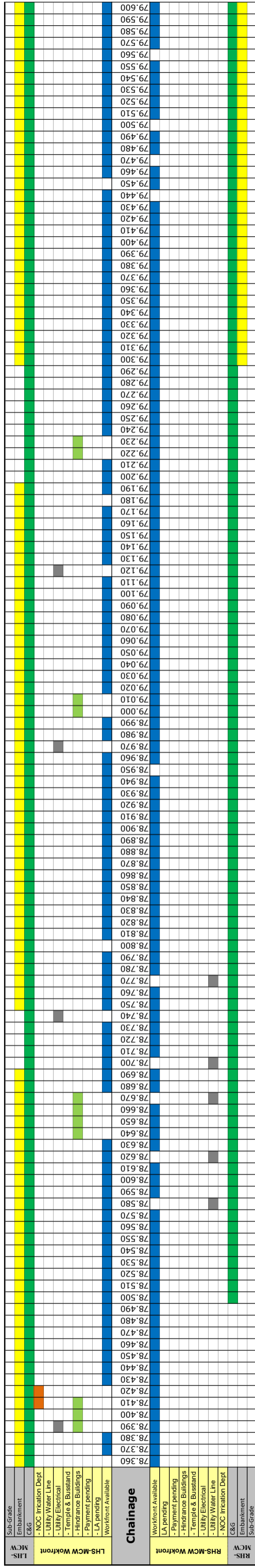
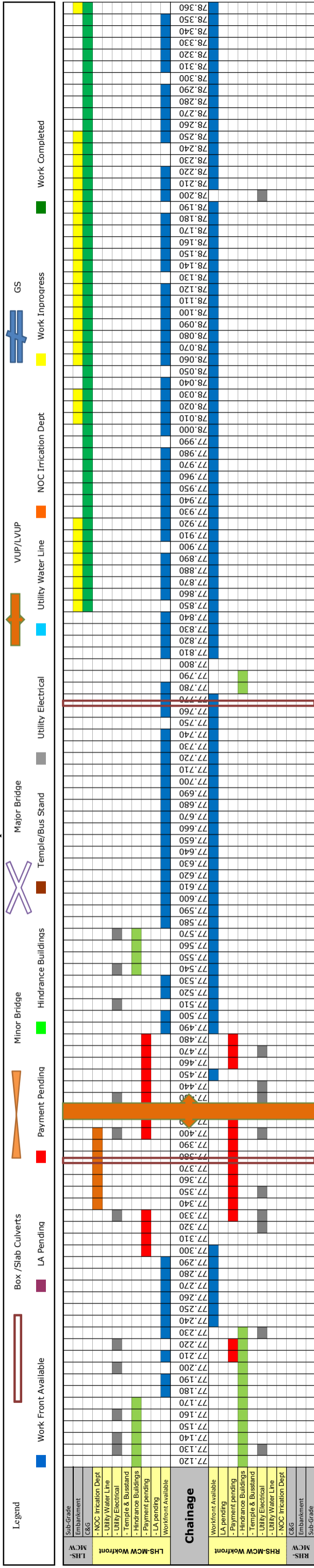
**Strip Plan on 31-03-2019**



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Sethiyahopu - Cholopuram Road Projects

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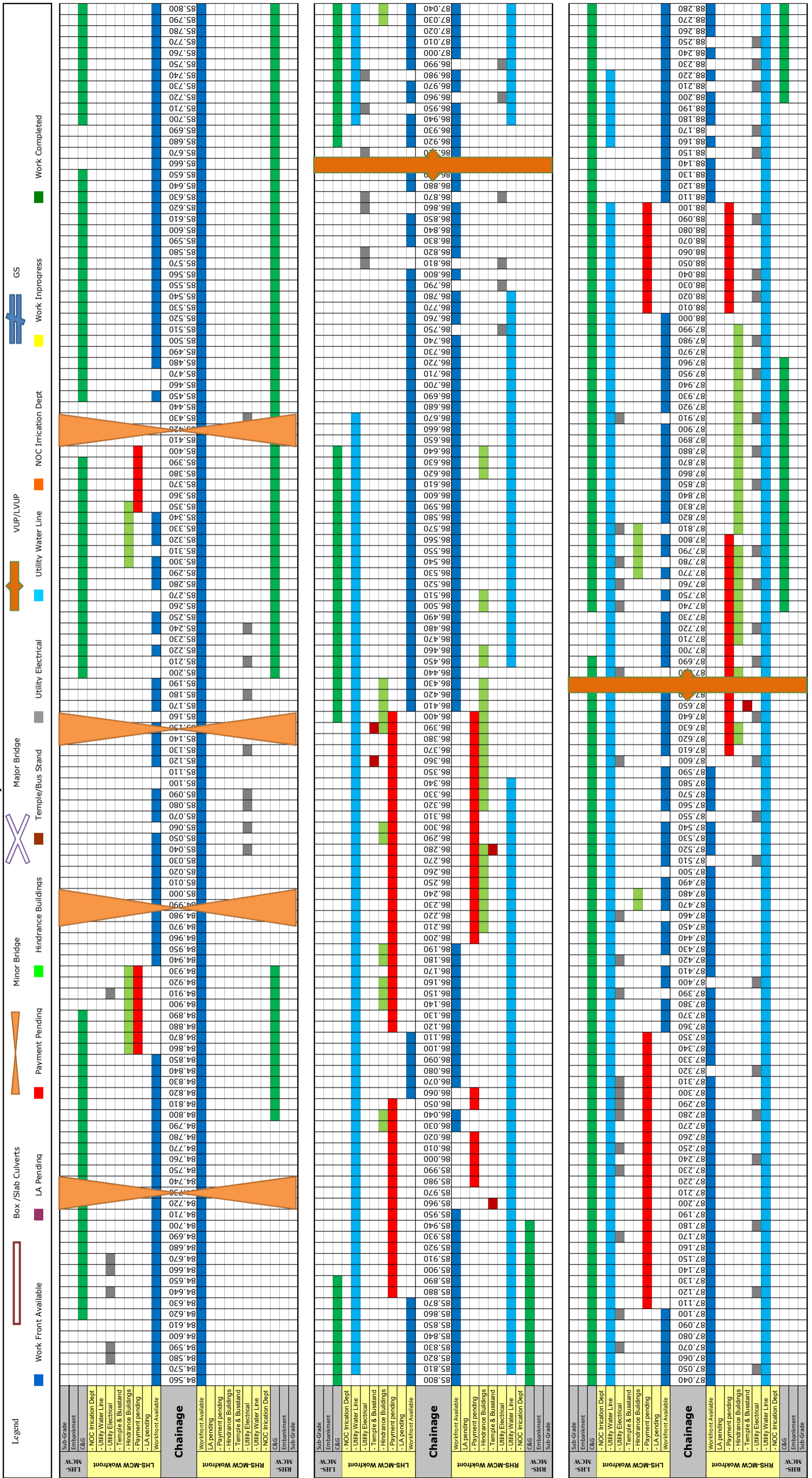




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Sethiyahopu - Cholopuram Road Projects

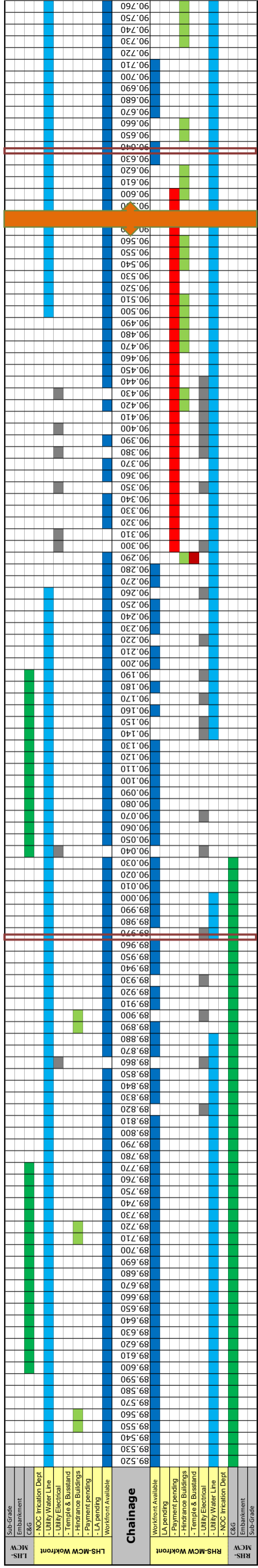
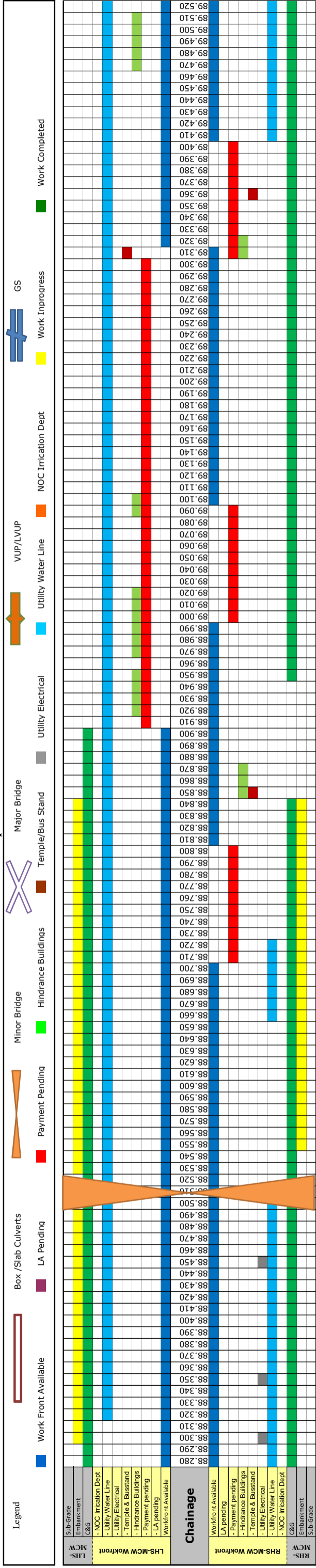
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**Four Laning of Sethiyahopu - Cholopuram from Km.65.960 to Km.116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Sethiyahopu - Cholopuram Road Projects

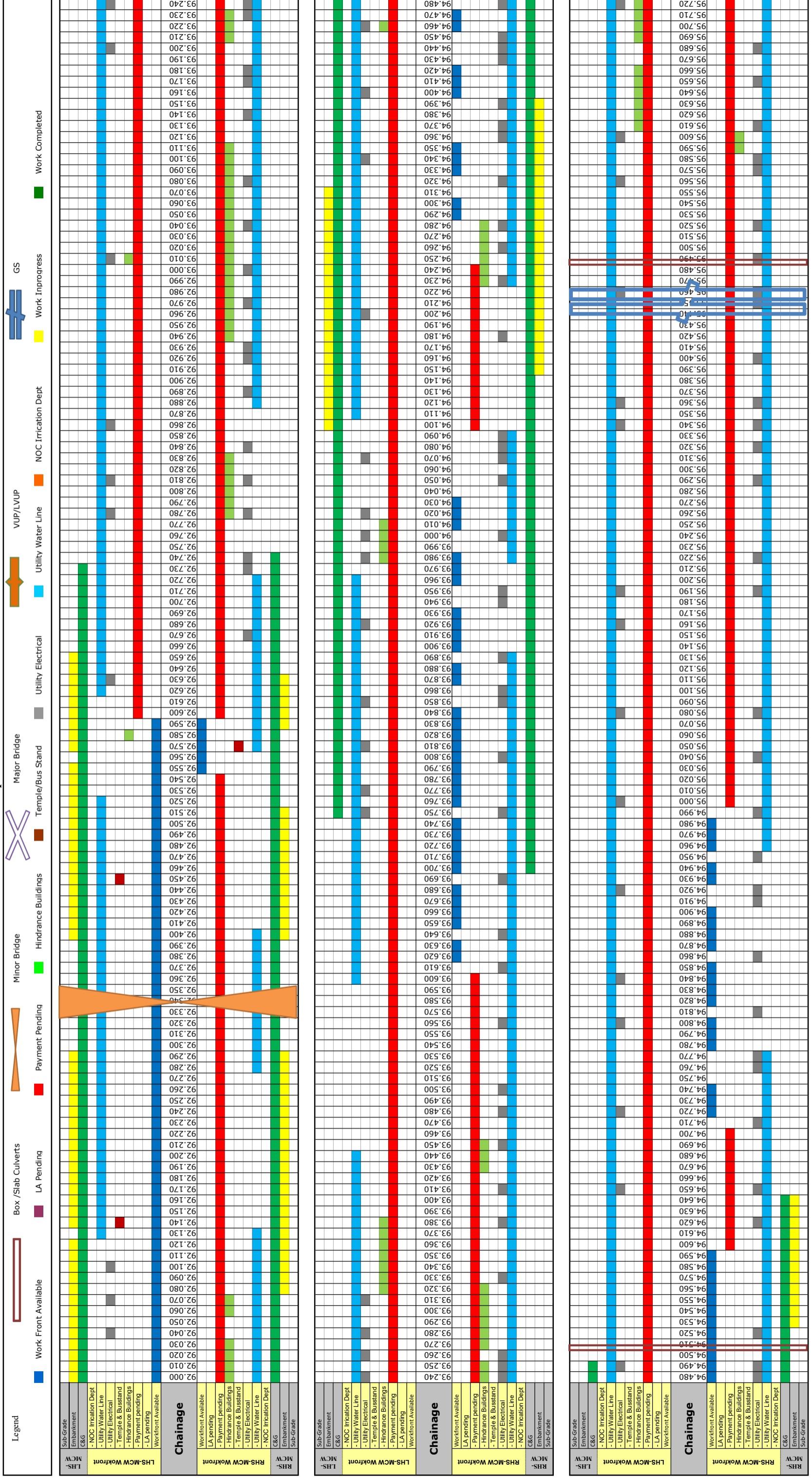
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Sethiyahopu - Cholopuram Road Projects

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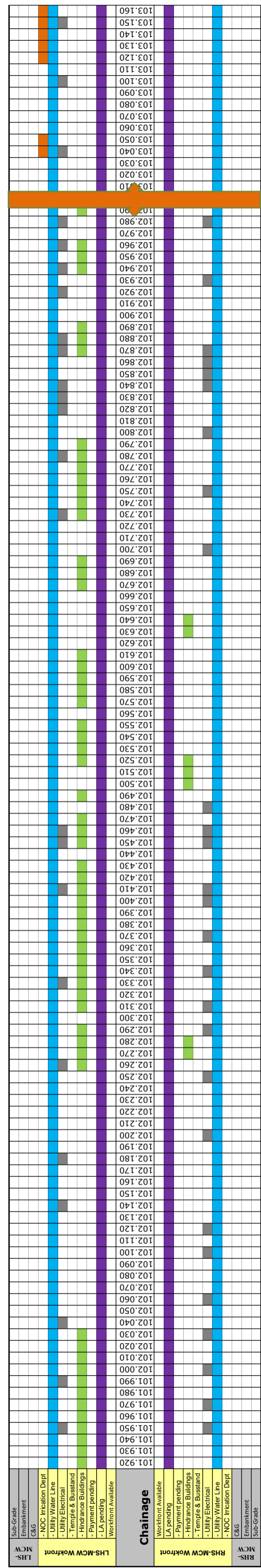
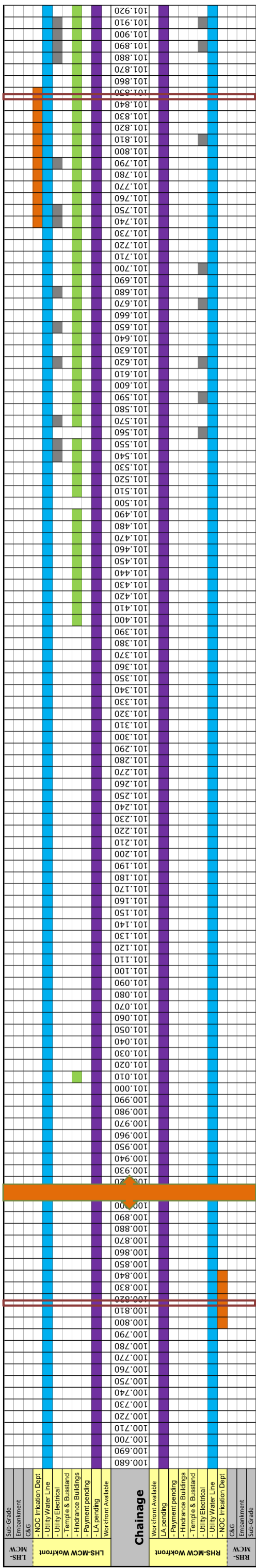
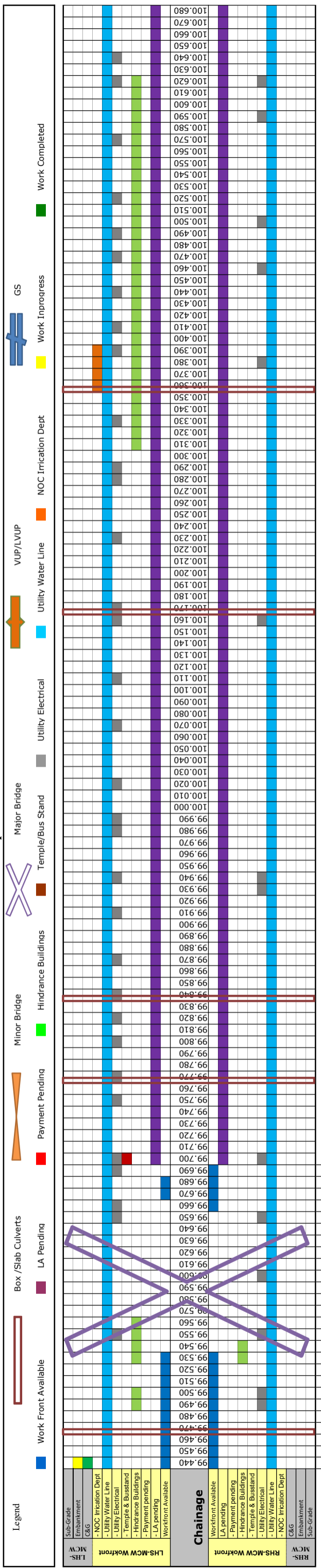




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Sethiyahopu - Cholopuram Road Projects

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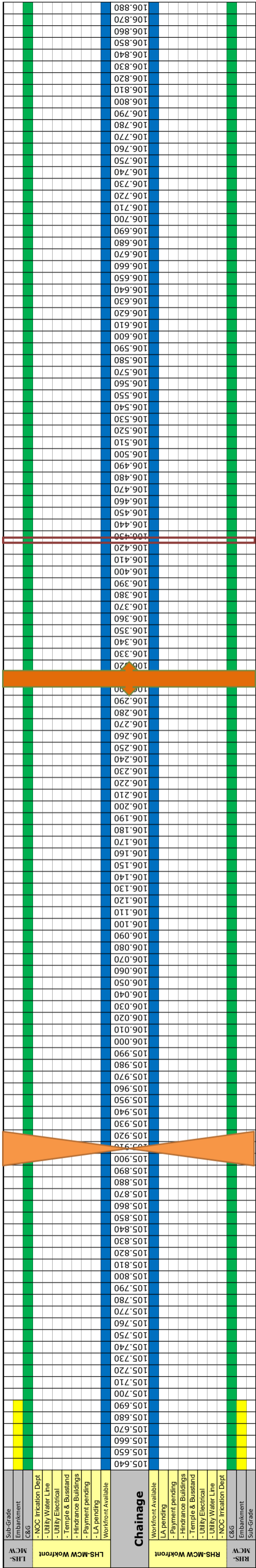
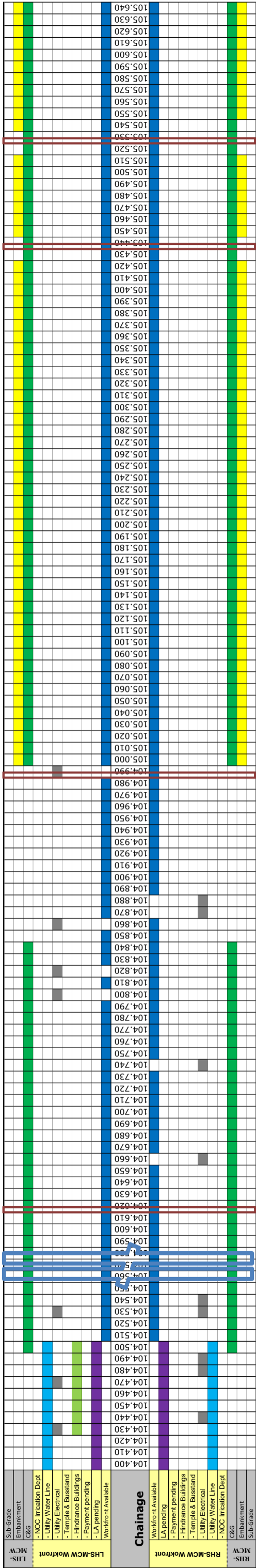
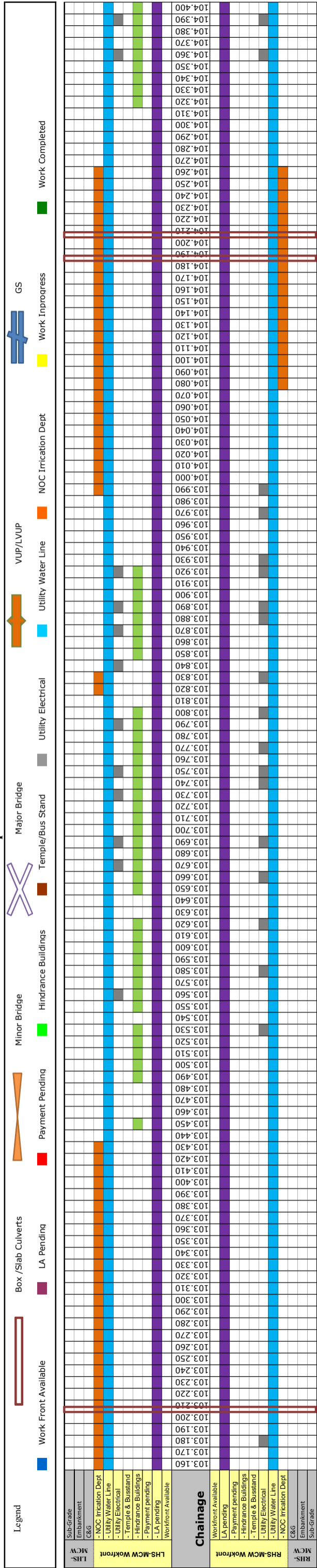




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Sethiyahopu - Cholopuram Road Projects

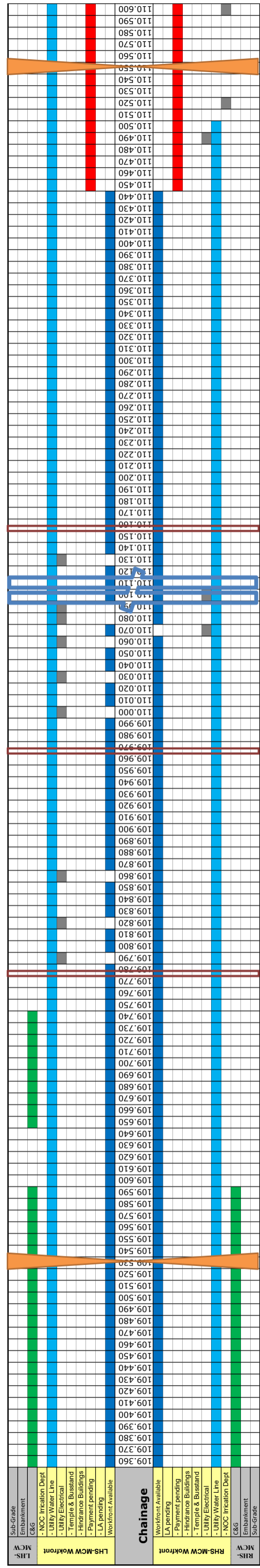
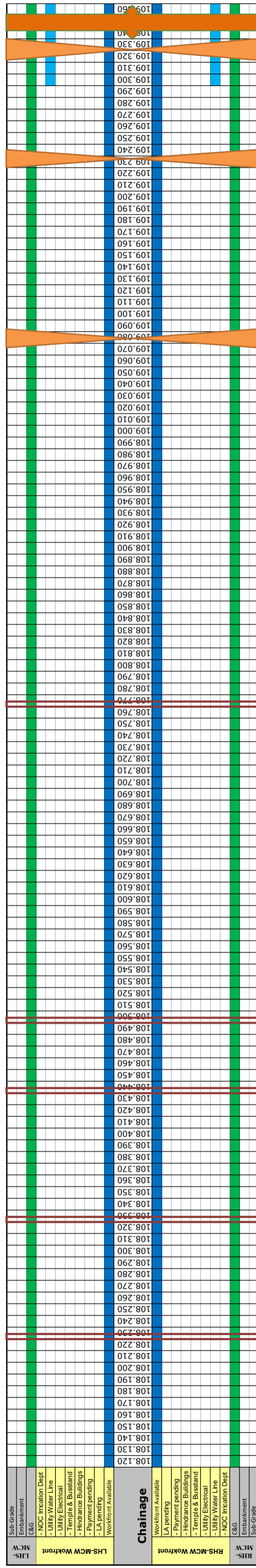
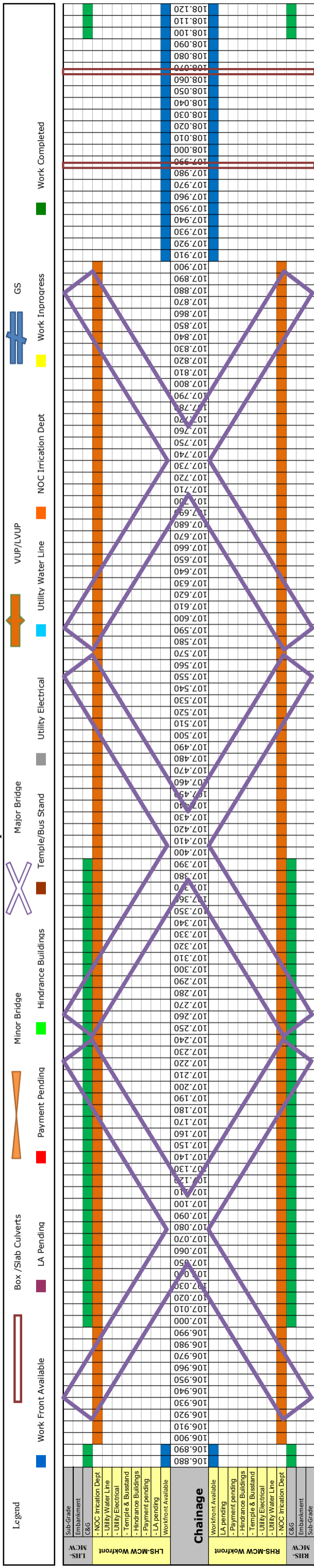
Strip Plan on 31-03-2019



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Sethiyahopu - Cholopuram Road Projects

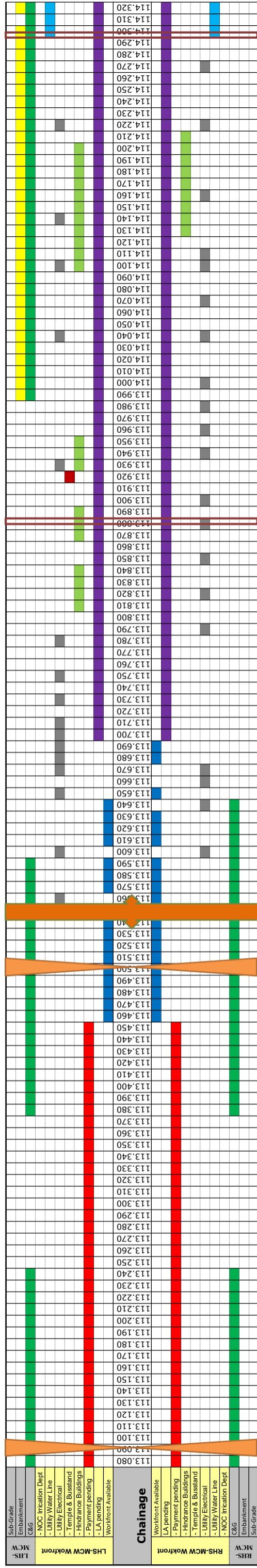
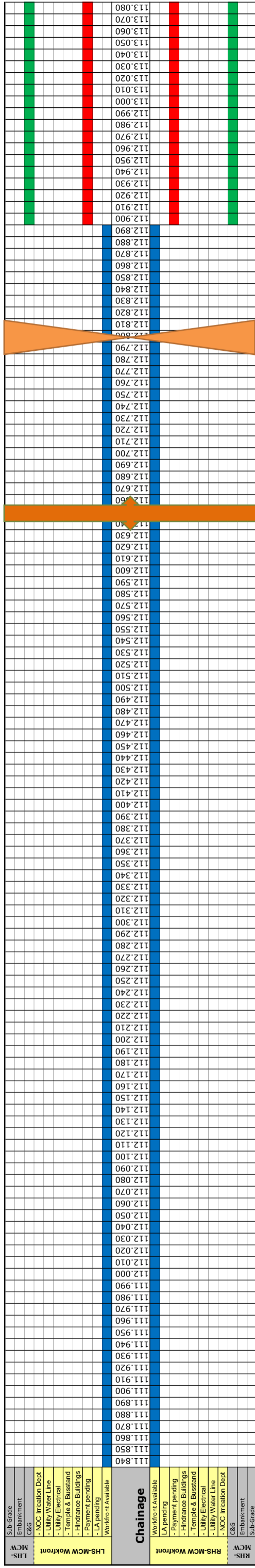
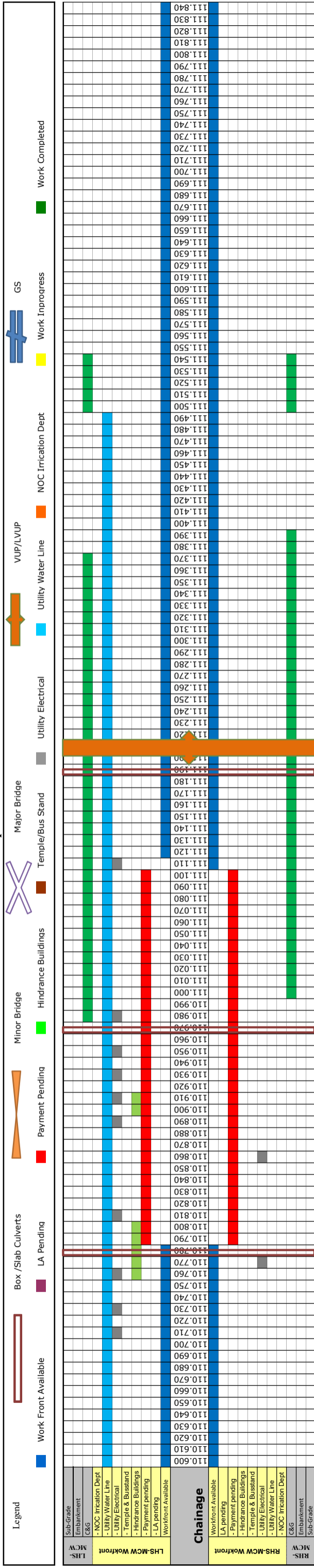
## Strip Plan on 31-03-2019



# 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

Sethiyahopu - Cholopuram Road Projects

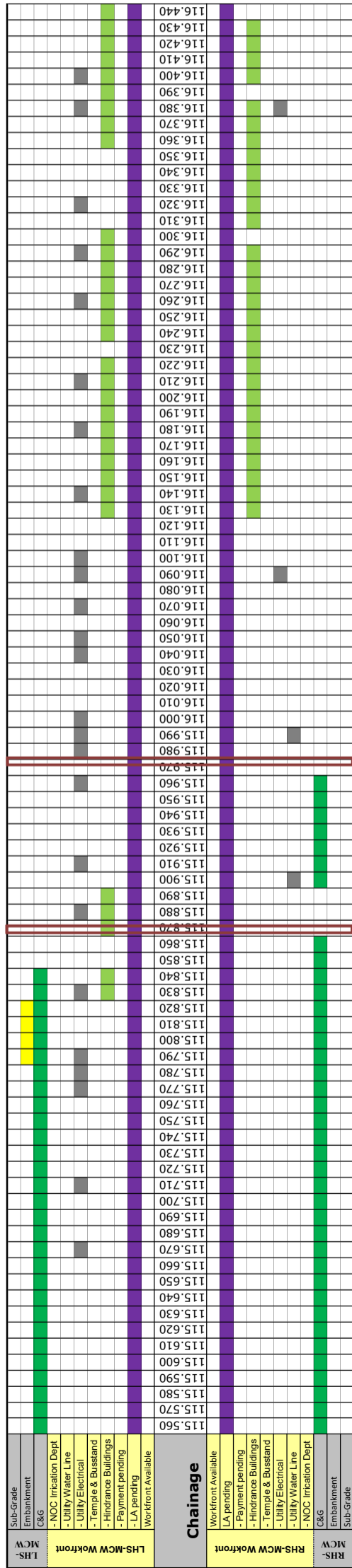
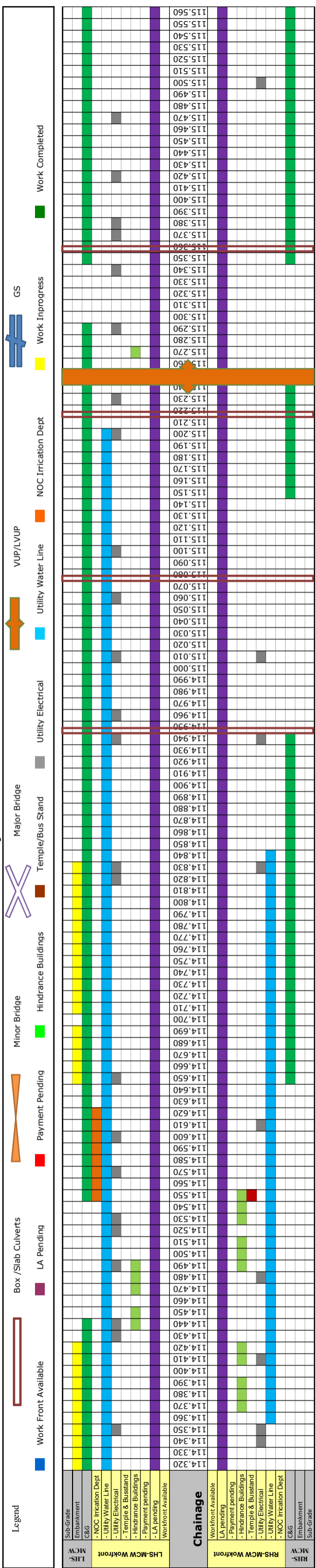
## Strip Plan on 31-03-2019



## 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

Sethiyahopu - Cholopuram Road Projects

### Strip Plan on 31-03-2019



SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX						Completed	In Progress													
Status Upto	31.03.2019					LHS							RHS							
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure		Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Protection Work	
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															

SETHIAHOPI CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS																									
Status Upto	31.03.2019	Completed					In Progress																		
		Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	Excavation														
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Type of Structure	Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	RHS	Excavation	Granular Filling	Excavation	Slab	Wall	Raft	PCC	Granular Filling	Excavation	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																				

SETHIAHOPI CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - SERVICE ROAD																				
Status Upto	31.03.2019	Completed					In Progress													
		Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	Protection Work									
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	LHS						RHS									
1	72+570	72.578	1 x 3.0m x 2.0m	BOX CULVERT																
2	104+622	104.618	1 x 2.0m x 2.0m	BOX CULVERT																
3	104+998	104.992	1 x 4.0m x 2.0m	BOX CULVERT																
4	106+442	106.432	1 x 2.0m x 2.0m	BOX CULVERT																
5	111+205	111.196	1 x 1.0m	PIPE CULVERT																

SETHIAHOPI CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD											Completed						In Progress						
Status Upto	31.03.2019										LHS						RHS						
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	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	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	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	PIPE CULVERT																	
13	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	PIPE 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	PIPE 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	PIPE 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	PIPE CULVERT																	
29	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	PIPE CULVERT																	
30	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE 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	PIPE 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	PIPE CULVERT																	
36	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT																	
37	114+703	114.703	EXISTING			PIPE CULVERT																	
38	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT																	
39	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE 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	PIPE CULVERT																	
43	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																	



SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MJB								Completed			
MJB at Chainage 66+530 (8x30) - BYPASS								In Progress			
LHS/LSR				RHS/LSR							
Crash Barrier	Slab	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Slab	Crash Barrier
A1											
P1											
P2											
P3											
P4											
P5											
P6											
P7											
A2											
MJB at Chainage 73+340 (9x30) - BYPASS								Completed			
MJB at Chainage 73+340 (9x30) - BYPASS								In Progress			
LHS/LSR				RHS/LSR							
Crash Barrier	Slab	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Slab	Crash Barrier
A1											
P1											
P2											
P3											
P4											
P5											
P6											
P7											
P8											
A2											

MJB at Chainage 99+583 (3x25) - EXISTING ROAD								Completed	
								In Progress	
LHS/LSR				RHS/LSR					
Crash Barrier	Slab	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier Cap/Abt Cap	Pier/Abt	Pile Cap
A1									
P1									
P2									
A2									
MJB at Chainage 107+400 - BYPASS								Completed	
								In Progress	
LHS/LSR				RHS/LSR					
Crash Barrier	Slab	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier Cap/Abt Cap	Pier/Abt	Pile Cap
A1									
P1									
P2									
P3									
P4									
P5									
P6									
P7									
P8									
P9									
P10									
P11									
P12									
P13									
P14									
P15									
P16									
P17									
P18									
P19									
A2									

SETHIAHOPI CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - SERVICE ROAD											Completed					In Progress							
Status Upto	31.03.2019										LHS					RHS							
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	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	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																	

SETHIAHOPI CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - MCW											Completed						In Progress					
Status Upto	31.03.2019										LHS						RHS					
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	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	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	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	PIPE CULVERT																	
13	90+640	90.637	EXISTING 1 x 1.20m	Reconstruction	PIPE 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	PIPE 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	PIPE 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	PIPE CULVERT																	
29	104+215	104.208	EXISTING 1 x 1.0m	Reconstruction	PIPE CULVERT																	
30	109+786	109.779	EXISTING 1 x 1.0m	Repair & Reconstruction	PIPE 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	PIPE 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	PIPE CULVERT																	
36	114+313	114.300	EXISTING 1 x 1.0m	Repair & Widening	PIPE CULVERT																	
37	114+954	114.952	EXISTING 1 x 1.0m	Repair & Reconstruction	PIPE CULVERT																	
38	115+097	115.087	EXISTING 2 x 1.0m	Repair & Reconstruction	PIPE CULVERT																	
39	115+232	115.221	EXISTING 1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT																	
40	115+381	115.368	EXISTING 1 x 2.0m	Repair & Reconstruction	BOX CULVERT																	
41	115+884	115.872	EXISTING 2 x 1.0m	Repair & Widening	PIPE CULVERT																	
42	115+978	115.978	EXISTING 1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																	

SETHIAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - MCW																								
Status Upto	31.03.2019	Completed										In Progress												
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	LHS						RHS													
					Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Protection Work						
1	66+357	66.383	1 x 3.0m x 2.0m	BOX CULVERT																				
2	67+068	67.068	1 x 3.0m x 2.0m	BOX CULVERT																				
3	69+357	69.357	1 x 2.0m x 2.0m	BOX CULVERT																				
4	72+570	72.578	1 x 3.0m x 2.0m	BOX CULVERT																				
5	73+755	73.755	1x1.2.0mx2.0m	PIPE CULVERT																				
6	104+622	104.618	1 x 2.0m x 2.0m	BOX CULVERT																				
7	104+998	104.992	1 x 4.0m x 2.0m	BOX CULVERT																				
8	105+440	105.440	1 x 2.0m x 2.0m	BOX CULVERT																				
9	105+536	105.525	1 x 2.0m x 2.0m	BOX CULVERT																				
10	106+442	106.432	1 x 2.0m x 2.0m	BOX CULVERT																				
11	108+002	107.994	1 x 3.0m x 2.0m	BOX CULVERT																				
12	108+080	108.070	1 x 4.0m x 2.0m	BOX CULVERT																				
13	108+225	108.225	1 x 3.0m x 2.0m	BOX CULVERT																				
14	108+345	108.334	1 x 3.0m x 2.0m	BOX CULVERT																				
15	108+441	108.441	1 x 3.0m x 2.0m	BOX CULVERT																				
16	108+540	108.500	1 x 2.0m x 2.0m	BOX CULVERT																				
17	108+767	108.767	1 x 4.0m x 2.0m	BOX CULVERT																				
18	111+205	111.196	1 x 1.0m	PIPE CULVERT																				

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - MCW																			
Status Upto	31.03.2019	Completed						In Progress											
		Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Protection Work					
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure															
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																			
Status Upto	31.03.2019																		
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Completed					In Progress									
					Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Granular Filling	Excavation	PCC	Raft	Wall	Slab	Protection Work	
					LHS					RHS									
1	74+605	74.600	2 x 12.5m	MNBB															
2	105+915	105.915	2 x 12.5m	MNBB															
3	109+090	109.088	2 x 12.5m	MNBB															
4	109+195	109.208	2 x 12.5m	MNBB															
5	109+365	109.365	2 x 12.5m	MNBB															
6	109+540	109.540	2 x 12.5m	MNBB															
7	111+563	111.565	2 x 12.5m	MNBB															
8	112+807	112.807	1 x 25m	MNBB															
9	113+100	113.100	2 x 12.5m	MNBB															
10	113+505	113.505	2 x 12.5m	MNBB															

SETHYAHOPU CHOLOPURAM PROJECT - STATUS OF LVUP							Completed		In Progress							
Status Upto	31.03.2019	As Approved by IE	Number and Length of Spans (m)	Type of Structure	Protection Work	Slab	Wall	Raft	PCC	Excavation	Excavation	PCC	Raft	Wall	Slab	Protection Work
						LHS					RHS					
1	77+420	1X10.5	LVUP	EXISTING												
2	112+650	1X10.5	LVUP	BYPASS												



SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB (> 15m Span)										Completed						In Progress						
Status upto	31.03.2019			Span	MNB at Chainage			LHS						RHS								
SR.NO.								Crash Barrier	Slab	Girder	Piercap /Abtcap	Pier/Abt	Open Foundation	PCC	Excavation	Open Foundation	Pier/Abt	Piercap /Abtcap	Girder	Slab	Crash Barrier	
1	70+185	2 x 20	BYPASS	A1 P1 A2																		
2	73+815	1 x 15	BYPASS	A1 A2																		
3	84+725	1 x 15	EXISTING	A1 A2																		
4	84+987	2 x 15	EXISTING	A1 P1 A2																		

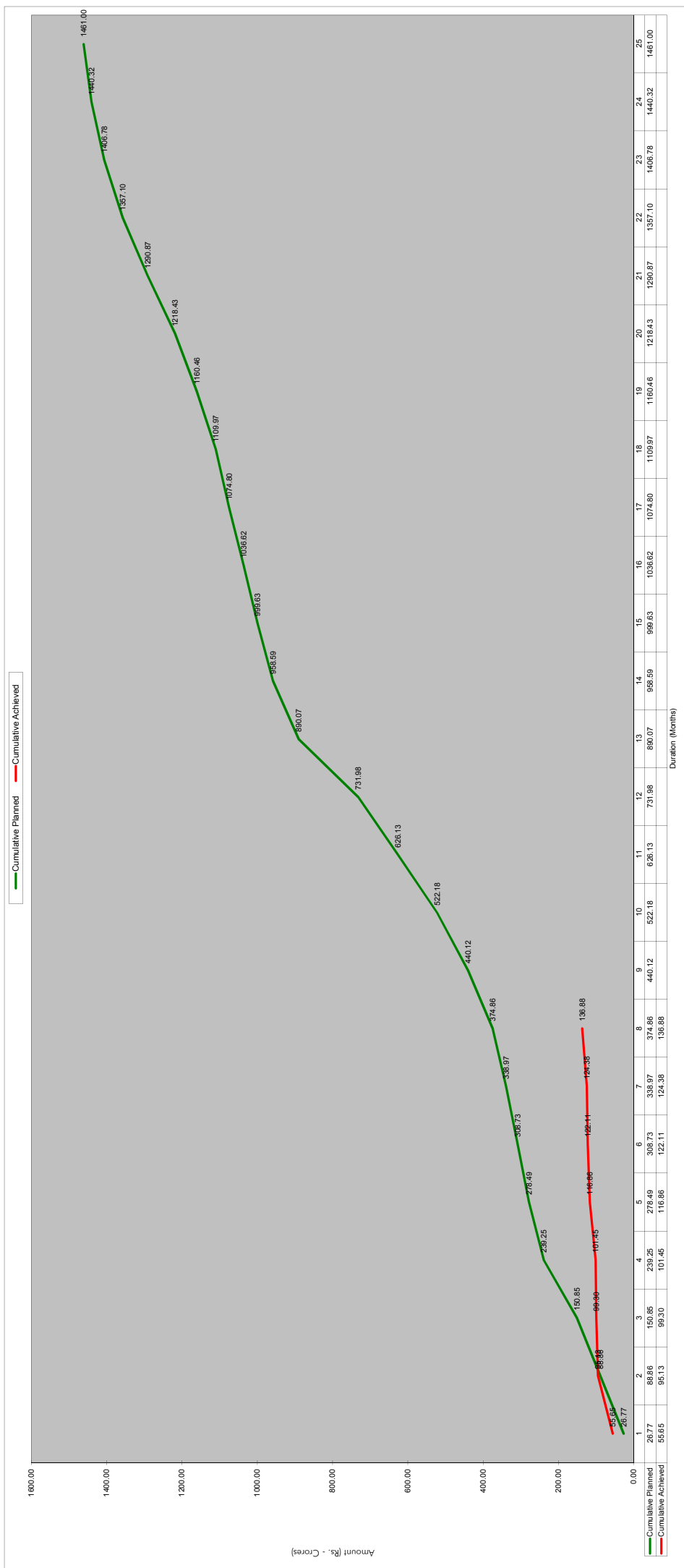
SETHYAHOPU CHOLOPURAM PROJECT - STATUS OF FLYOVER										Completed		In Progress								
Status upto	31.03.2019		FO at Chainage	Span	BYPASS	Crash Barrier	LHS							RHS						
Sr.No.	Span						Slab	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	Crash Barrier	Slab	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC
1	69+785	1x30	BYPASS	A1																
2	74+655	1x30	BYPASS+EXISTING	A1																
3	80+556	1x30	EXISTING	A1																
4	80+720	1x30	EXISTING	A1																
5	95+455	2x30	EXISTING	A1																
6	98+950	2x30	EXISTING	A1																
7	104+570	1x30	BYPASS	A1																
8	110+110	1x30	EXISTING	A1																

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF VUP				Completed								In Progress								
Status upto	31.03.2019			LHS								RHS								
SR.NO.	VUP at Chainage	Span		Crash Barrier	Slab	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	Crash Barrier	Slab	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	
1	72+545	1x25	BYPASS																	
2	75+830	1x25	EXISTING																	
3	86+677	1x25	EXISTING																	
4	87+670	1x25	EXISTING																	
5	90+580	1x25	EXISTING																	
6	97+225	1x25	EXISTING																	
7	101+910	1x25	EXISTING																	
8	102+975	1x25	EXISTING																	
9	106+318	1x25	BYPASS																	
10	109+350	1x25	BYPASS																	
11	111+235	1x25	BYPASS+EXISTING																	
12	113+550	1x25	BYPASS+EXISTING																	
13	115+258	1x25	EXISTING																	

Figure 3: Financial 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. 03- Financial Progress (S-Curve)



Schedule	2019												2020												
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Monthly Planned	26.77	62.10	61.99	88.40	39.24	30.24	30.24	35.88	65.26	82.06	103.95	105.85	158.09	68.52	41.04	36.99	38.18	35.17	50.49	57.96	72.45	66.23	49.67	33.54	20.68
Monthly Achieved	55.65	39.48	4.17	2.15	15.41	5.26	2.27	12.50																	
Cumulative Planned	26.77	88.86	150.85	239.25	278.49	308.73	338.97	374.86	440.12	522.18	626.13	731.98	890.07	958.59	999.63	1036.62	1074.80	1109.97	1160.46	1218.43	1280.87	1357.10	1408.78	1440.32	1461.00
Cumulative Achieved	55.65	95.13	99.30	101.45	116.86	122.11	124.38	136.88																	
Monthly Planned (%)	1.8%	4.3%	4.2%	6.1%	2.7%	2.1%	2.1%	2.5%	4.5%	5.6%	7.1%	7.2%	10.8%	4.7%	2.8%	2.5%	2.6%	2.4%	3.5%	4.0%	5.0%	4.5%	3.4%	2.3%	1.4%
Monthly Achieved (%)	3.8%	2.7%	0.3%	0.1%	1.1%	0.4%	0.2%	0.9%																	
Cumulative Planned (%)	1.8%	6.1%	10.3%	16.4%	19.1%	21.1%	23.2%	25.7%	30.1%	35.7%	42.9%	50.1%	60.9%	65.6%	68.4%	71.0%	73.6%	76.0%	79.4%	83.4%	86.4%	92.9%	96.3%	98.6%	100.0%
Cumulative Achieved (%)	3.8%	6.5%	6.8%	6.9%	8.0%	8.4%	8.5%	9.4%																	

## 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	AIV Apparatus	1
4	Electrronic weighing balance (50 kg)	1
5	Electrronic 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	spactula 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		
Sl. NO	EQUIPEMENT LIST'S	QUANTITY
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 LIST'S	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 LIST'S	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	pycnometer 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 apparatus with accessories	1 Nos
45	field 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	standard 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 with collar 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	chisel 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 diesel 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 LIST'S	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 piot 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 March - 2019 are tabulated below -

**Four Lining of Sethiyahopu - Cholopuram From km 65.960 to km 116.440 Section of NH-45C in the State of TamilNadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Monthly Progress Report : Summary of Quality Control Report : Month of March-2019

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Feb) month			Tests conducted during reporting month upto 31 <sup>st</sup> Mar-2019			Test conducted upto this month				
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE
<b>1.0 Tests on OGL</b>														
1.1	Grain size analysis	IS:2720 (Part4)	1 test / 250 meters	305	305	0	74	8	8	0	0	313	0	82
1.2	Atterberg Limits	IS:2720 (Part5)	1 test / 250 meters	305	305	0	74	8	8	0	0	313	0	82
1.3	Proctor	IS:2720 (Part8)	1 test / 250 meters	305	305	0	74	8	8	0	0	313	0	82
1.4	Free Swell index	IS:2720 (Part40)	1 test / 250 meters	305	300	5	74	8	8	0	0	313	308	5
1.5	California bearing ratio	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0
<b>2.0 Borrow Area for EMB/Subgrade (MoRT&amp;H 305)</b>														
2.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m <sup>3</sup>	141	141	0	101	10	10	0	0	151	151	0
2.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m <sup>3</sup>	141	141	0	101	10	10	0	0	151	151	0
2.3	Proctor	IS:2720 (Part8)	1 test /1500 m <sup>3</sup>	141	141	0	101	10	10	0	0	151	151	0
2.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m <sup>3</sup>	141	141	0	101	10	10	0	0	151	151	0
2.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0
<b>3.0 Cutting portion &amp; Existing for EMB/SG (MoRT&amp;H 305)</b>														
3.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m <sup>3</sup>	2	0	0	2	0	0	0	0	0	0	2
3.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m <sup>3</sup>	2	0	0	2	0	0	0	0	0	0	2
3.3	Proctor	IS:2720 (Part8)	1 test /1500 m <sup>3</sup>	2	0	0	2	0	0	0	0	0	0	2
3.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m <sup>3</sup>	2	0	0	2	0	0	0	0	0	0	2
3.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0
<b>4.0 FLYASH For Embankment</b>														
4.1	Liquid Limit & Plastic limit	TABLE-1	1 test /1500 m <sup>3</sup>	55	55	0	55	0	0	0	0	55	55	0
4.2	Maximum Dry Density	Clause 5.2	1 test /1500 m <sup>3</sup>	55	55	0	55	0	0	0	0	55	55	0
<b>5.0 Field Density Test MORT&amp;H 305</b>														
5.1	Field density (OGL)	IS:2720 (Part28)	1 test /3000 sqm	517	505	12	130	708	666	42	138	1225	1171	54
5.2	EMB field density	IS:2720 (Part28)	1 test /3000 sqm	825	813	12	142	1479	1419	60	160	2304	2232	72
5.3	SG field density	IS:2720 (Part28)	1 test / 2000 sqm	0	0	0	0	0	0	0	0	0	0	0
5.4	Shoulder field density	IS:2720 (Part28)	1 test / 2000 sqm	0	0	0	0	0	0	0	0	0	0	0
<b>6.0 Filter Media &amp; Back filling MoRT&amp;H 2500</b>														
6.1	Gradation		As required	0	0	0	0	0	0	0	0	0	0	0
6.2	Backfilling field density		1 test /1000 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0
6.3	RE Wall field density		As required	0	0	0	0	0	0	0	0	0	0	0

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Feb) month			Tests conducted during reporting month upto 31 <sup>th</sup> Mar-2019			Test conducted upto this month					
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE
<b>7.0 Safe Bearing capacity of soil</b>															
7.1	Free Swell index	IS:2720 (Part40)	As required	43	39	4	39	2	2	0	2	45	41	4	41
7.2	Grain size analysis	IS:2720 (Part4)	As required	43	43	0	43	2	2	0	2	45	45	0	41
7.3	Proctor	IS:2720 (Part8)	As required	43	43	0	43	2	2	0	2	45	45	0	41
7.4	Direct shear Test	IS:2720 (Part13)	As required	43	36	7	39	2	2	0	2	45	38	7	41
7.5	Bearing Capacity / Plate Load Test	IS:6403 / IS 1888	As required	3	3	0	3	0	0	0	0	3	3	0	3
<b>8.0 CTSB Mix Design/Site Frequency MoRT&amp;H 403</b>															
8.1	Gradation	Table 400-4	1 test/400m <sup>3</sup>	21	21	0	21	21	21	0	21	42	42	0	42
8.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m <sup>3</sup>	2	2	0	2	3	3	0	3	5	5	0	5
8.3	Proctor	IS:2720 (Part8)	As required	2	2	0	2	2	2	0	2	4	4	0	4
8.4	CBR Test or unconfined compressive	IS:2720 (Part16)	As required	0	0	0	0	1	1	0	1	1	1	0	1
8.5	Quality of cement		Minimum 1 test/5 tons	1	1	0	1	1	1	0	1	2	2	0	2
8.6	Aggregate Impact value	IS:2386 Part-4	As required	1	1	0	1	2	2	0	2	3	3	0	3
8.7	Field Density	IS:2720 (Part28)	1 set of 2 Test per	0	0	0	0	0	0	0	0	0	0	0	0
8.8	Specific gravity & Water absorption	IS:2386 (Part2)	As required	1	1	0	1	1	1	0	1	2	2	0	2
8.9	Cubes	IRC SP 89 (2010)	Minimum 5 Cubes	0	0	0	0	34	34	0	34	34	34	0	34
<b>9.0 Granular Bedding Material (For Structures-Ground Improvement)- Mix Design</b>															
9.1	Gradation	Table 400-1	1 test/400m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0
9.2	Atterberg Limits	IS:2720 (Part5)	1 test/400 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0
9.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0	0	0
9.4	CBR Test	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0
9.5	Aggregate Impact value	IS:2386 Part-4	As required	0	0	0	0	0	0	0	0	0	0	0	0
9.6	Field Density	IS:2720 (Part28)	1 Test per 1000Sq.m	0	0	0	0	0	0	0	0	0	0	0	0
<b>10.0 Granular Bedding Material (For Structures-Ground Improvement)- Site Frequency</b>															
10.1	Gradation	Table 400-1	1 test/400m <sup>3</sup>	0	3	0	3	0	0	0	0	0	3	0	3
10.2	Atterberg Limits	IS:2720 (Part5)	1 test/400 m <sup>3</sup>	0	3	0	3	0	0	0	0	0	3	0	3
10.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0	0	0
10.4	CBR Test	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0
10.5	Aggregate Impact value	IS:2386 Part-4	As required	0	0	0	0	0	0	0	0	0	0	0	0
10.6	Field Density	IS:2720 (Part28)	1 Test per 1000Sq.m	90	90	0	21	0	0	0	0	90	90	0	21

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous(Feb) month			Tests conducted during reporting month upto 31 <sup>th</sup> Mar-2019			Test conducted upto this month						
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	
<b>11.0 WMM Mix Design</b>																
11.1	Gradation	Table 400-3	1 test/200m <sup>3</sup>	0	0	0	0	25	25	0	0	25	25	0	0	25
11.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m <sup>3</sup>	0	0	0	0	3	3	0	0	3	3	0	0	3
11.3	Flakiness & Elongation index	IS:2386 Part1	1 test/ 500 m <sup>3</sup>	0	0	0	0	2	2	0	0	2	2	0	0	2
11.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m <sup>3</sup>	0	0	0	0	2	2	0	0	2	2	0	0	2
11.5	Water absorption & Sp. Gravity	IS:2386 Part2	As required	0	0	0	0	4	4	0	0	4	4	0	0	4
11.6	Proctor	IS:2720 (Part8)	As required	0	0	0	0	2	2	0	0	2	2	0	0	2
11.7	CBR	IS:2720 (Part16)	As required	0	0	0	0	1	1	0	0	1	1	0	0	1
11.8	Field Density	IS:2720 (Part28)	1 set Test per 1000sq.m / 3 pits	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>12.0 WMM Site Frequency MoRT&amp;H 406</b>																
12.1	Combined Gradation	Table 400-3	1 test/200m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0
12.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0
12.3	Flakiness & Elongation index	IS:2386 Part1	1 test/ 500 m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0
12.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m <sup>3</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0
12.5	Water absorption	IS:2386 Part2	As required	0	0	0	0	0	0	0	0	0	0	0	0	0
12.6	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0
12.7	CBR	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0
12.8	Field Density	IS:2720 (Part28)	1 set Test per 1000Sq.m	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>13.0 Prime Coat</b>																
13.1	Rate of Spread of Binder		Three tests per day	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>14.0 Tack Coat</b>																
14.1	Rate of Spread of Binder		Three tests per day	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>15.0 Fine Aggregate MoRT&amp;H 1008</b>																
15.1	Grade / Sieve analysis	IS:2386 (Part1)	1 test per day	237	237	0	102	38	38	0	0	11	275	275	0	113
15.2	Specific gravity & Water absorption	IS:2386 (Part2)	As required	16	16	0	15	0	0	0	0	16	16	0	0	15
15.3	Fineness Modulus	MORT&H Sec. 1008&383	1 test per day	95	95	0	30	38	38	0	0	11	133	133	0	41
15.4	Alkali aggregate reactivity test	IS:2386 (Part-7)IS : 456	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0
15.5	Deleterious material/silt	IS:2386 (Part2)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0

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<b>16.0 Coarse Aggregate MoRT&amp;H 1007</b>																
16.1	Gradation	IS:2386 (Part2)	1 test per day	237	237	0	113	38	38	0	11	275	275	0	124	
16.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	18	18	0	15	0	0	0	0	18	18	0	15	
16.3	Aggregate Impact Value	IS:2386 (Part4)	1 test / each source	96	96	0	56	14	14	0	6	110	110	0	62	
16.4	Flakiness index	IS:2386 (Part1)	1 test / each source & monthly	78	78	0	49	8	8	0	4	86	86	0	53	
16.5	Soundness	IS:2386 (Part5)	As required	0	0	0	0	0	0	0	0	0	0	0	0	
16.6	Alkali aggregate reactivity test	IS:2386 (Part-7)IS : 456	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	
16.7	Deleterious constituents	IS:2386 (Part2)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	
16.8	Petrographic Examination	IS:2386 (Part8)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	
<b>17.0 Cement MoRT&amp;H 1006</b>																
17.1	Chemical test / Physical test	IS:4031,4032	1 test per source	4	4	0	4	0	0	0	0	4	4	0	4	
17.2	Fineness	IS:4031 (Part1)	Every batch	120	120	0	102	18	18	0	8	138	138	0	110	
17.3	Normal Consistency	IS:4031 (Part4)	Every batch	120	120	0	102	18	18	0	8	138	138	0	110	
17.4	Initial, Final setting time	IS:4031 (Part5)	Every batch	120	120	0	102	18	18	0	8	138	138	0	110	
17.5	Soundness of Cement	IS:4031 (Part3)	Every batch	92	92	0	79	18	18	0	8	110	110	0	87	
17.6	Compressive Strength-set	IS:4031 (Part6)														
	3 days		1 test per Lot	91	91	0	67	10	10	0	5	101	101	0	72	
	7 days		1 test per Lot	88	88	0	66	11	11	0	4	99	99	0	70	
	28 days		1 test per Lot	77	77	0	57	13	13	0	5	90	90	0	62	
<b>18.0 Water</b>																
18.1	Chemical test	IS 2386	1 test per source	4	4	0	4	1	1	0	1	5	5	0	5	
<b>19.0 Admixture</b>																
19.1	Physical Properties	IS 9103	1 test per Lot	3	3	0	3	0	0	0	0	3	3	0	3	
19.2	Chemical Test	IS 9103	1 test per source	2	2	0	2	0	0	0	0	2	2	0	2	
<b>20.0 Steel</b>																
20.1	8 mm Dia	IS 1786	Physical Properties & Chemical Test 2 test per Lot	2	2	0	2	0	0	0	0	2	2	0	2	
20.2	10 mm Dia	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5	
20.3	12 mm Dia	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5	
20.4	16 mm Dia	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5	
20.5	20 mm Dia	IS 1786		5	5	0	5	0	0	0	0	5	5	0	5	
20.6	25 mm Dia	IS 1786		1	1	0	1	0	0	0	0	1	1	1	0	1
20.7	32 mm Dia	IS 1786		2	2	0	2	0	0	0	0	2	2	2	0	2

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<b>21.(A) Concrete Cube Strength</b>															
<b>M15 PCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	97	94	0	78	9	9	0	3	106	103	0	81
	28Days Compressive Strength			154	154	0	129	23	23	0	8	177	177	0	137
<b>M20 PCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	0	0	0	0	0	0	0	0	0	0	0	0
	28Days Compressive Strength			0	0	0	0	0	0	0	0	0	0	0	0
<b>M25 RCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	0	0	0	0	0	0	0	0	0	0	0	0
	28Days Compressive Strength			0	0	0	0	0	0	0	0	0	0	0	0
<b>M30 RCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	72	72	0	53	7	7	0	3	79	79	0	56
	28Days Compressive Strength			157	157	0	96	15	15	0	2	172	172	0	98
<b>M30 RCC PUMPABLE</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	2	2	0	2	0	0	0	0	2	2	0	2
	28Days Compressive Strength			0	0	0	0	4	4	0	4	4	4	0	4
<b>M35 RCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	97	97	0	87	5	5	0	2	102	102	0	89
	28Days Compressive Strength			182	182	0	141	11	11	0	9	193	193	0	150
<b>M35 RCC PILING</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	188	188	0	156	30	30	0	9	218	218	0	165
	28Days Compressive Strength			389	383	0	316	102	102	0	20	491	485	0	336
<b>M35 RCC PUMPABLE</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	51	51	0	27	25	25	0	8	76	76	0	35
	28Days Compressive Strength			120	120	0	67	67	67	0	39	187	187	0	106
<b>M35 RE BLOCK</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	77	77	0	63	42	42	0	18	119	119	0	81
	28Days Compressive Strength			245	245	0	188	48	48	0	24	293	293	0	212
<b>M40 RCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	3	3	0	3	0	0	0	0	3	3	0	3
	28Days Compressive Strength			6	6	0	6	0	0	0	0	6	6	0	6
<b>M40 PILE</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	54	54	0	54	0	0	0	0	54	54	0	54
	28Days Compressive Strength			114	114	0	114	0	0	0	0	114	114	0	114
<b>M45 RCC</b>															
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	3	3	0	3	0	0	0	0	3	3	0	3
	28Days Compressive Strength			6	6	0	0	0	0	0	0	6	6	0	0

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	<b>M50 RCC</b>			3	3	0	3	0	0	0	0	0	0	3	3	0	3
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	6	6	0	6	0	0	0	0	0	0	6	6	0	6
	28Days Compressive Strength																
	<b>M60 RCC</b>			3	3	0	3	0	0	0	0	0	0	3	3	0	3
	7Days Compressive Strength	MORT&H Sec. 1700	MORT&H Sec. 1700 No of sets	6	6	0	6	0	0	0	0	0	0	6	6	0	6
	28Days Compressive Strength																



## 7. Weather Report

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Min	Max		Min	Max	
01-03-2019	28.7	37.8	0.00	47	79	Sunny
02-03-2019	27.4	37.8	0.00	42	81	Sunny
03-03-2019	27.0	36.3	0.00	46	82	Sunny
04-03-2019	26.8	37.3	0.00	44	83	Sunny
05-03-2019	26.8	39.4	0.00	35	84	Sunny
06-03-2019	27.9	40.7	0.00	37	78	Sunny
07-03-2019	28.8	41.2	0.00	32	81	Sunny
08-03-2019	29.6	40.4	0.00	37	77	Sunny
09-03-2019	28.8	39.7	0.00	37	80	Sunny
10-03-2019	28.7	39.3	0.00	35	78	Sunny
11-03-2019	26.1	38.8	0.00	34	82	Sunny
12-03-2019	26.1	38.5	0.00	25	79	Sunny
13-03-2019	27.2	38.2	0.00	32	82	Sunny
14-03-2019	25.5	38.0	0.00	26	79	Sunny
15-03-2019	25.2	36.1	0.00	32	74	Sunny
16-03-2019	26.1	36.4	0.00	32	82	Sunny
17-03-2019	27.3	35.7	0.00	42	77	Sunny
18-03-2019	26.8	36.9	0.00	36	81	Sunny
19-03-2019	27.3	38.1	0.00	41	85	Sunny
20-03-2019	27.1	39.2	0.00	37	84	Sunny
21-03-2019	26.5	39.7	0.00	36	85	Sunny
22-03-2019	28.2	38.4	0.00	35	79	Sunny
23-03-2019	28.6	38.7	0.00	36	83	Sunny
24-03-2019	28.5	38.8	0.00	37	84	Sunny
25-03-2019	28.1	38.8	0.00	27	78	Sunny
26-03-2019	26.6	37.5	0.00	36	86	Sunny
27-03-2019	26.4	38.7	0.00	30	82	Sunny
28-03-2019	25.9	38.8	0.00	25	81	Sunny
29-03-2019	27.5	38.9	0.00	34	84	Sunny
30-03-2019	28.5	38.8	0.00	37	84	Sunny
31-03-2019	28.1	38.8	0.00	34	84	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. Approval of Estimate for Relocation of High Tension transmission tower lines causing material adverse effect on construction in the following locations:

Sl.No.	Chainage	Vertical Clearance above FRL	Remarks	Present Status
1.	113+720	-	HT Tower falling on the MCW	Sanctioned/Approved estimates to be provided for taking up the construction activities.
2.	70+020	4.16m	Vertical Clearance	
3.	73+470	11.586m	HT Tower falling on the MCW	

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 Kelpathi Lake	240	4.9	31.08.2018	Under Special Permission from PWD
4	Cuddalore	kattumannar koil	Kuruchikollai	122	4.8	-	-
5	Cuddalore	Kurinipadi	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 is pending
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	

Sl. No	District	Taluk	Location/ Villages	Survey No	Area in Hectares	Date of Applied	Present Status
12	Ariyalur	Udayarpalayam	Udayarpalayam	614-4B, 615-2, 616 - 1, 617, 610-2B	10.03.5	26.11.2018	
13	Ariyalur	Udayarpalayam	Periya Eri, Papakudi	290	12.24	12.01.2018	Application submitted with DC, Ariyalur Temporary permission received on 08.03.2019
14	Ariyalur	Udayarpalayam	Eswarakulam, Papakudi	185	5.7	12.01.2018	
15	Ariyalur	Udayarpalayam	Pandiyan eri.	283	5.7	02.03.2019	

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

6. 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 CE, Chennai
2	MJB	4	4	1	3	
	Total	30	30	14	16	

7. 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.

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

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

10. 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

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

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

13. Removal of Religious structures of 18 Nos. and Bus stand from the proposed ROW.
14. 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.
15. Removal of unauthorized occupations in 38 nos. in cuddalore dist & 32 nos in Ariyalur dist. in the project highways,
16. 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.
17. 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	Nandeeswaram anagalam	77+760	30 KL	Land Yet to be finalized
2	Cholatharam-Arokiya nagar	79+230	30 KL	
3	Cholatharam-Colony	80+120	30 KL	
4	Vanamadevi	86+310	30 KL	

18. 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		
4.			Mrs.S.Sebastiyam 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	-

## 10. Important Events

Table 10.1. Details of Important Events			
Sl. No	Date of Events	Description of Events	Remarks
1)	22-03-2019	Project Director, NHAI, Thanjavur Site Visit	
2)	07-03-2019	Kamachi Steel Factory Visit	
3)	04-03-2019 to 10-03-2019	National Safety Week Celebration	

## 11. Organization Chart

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

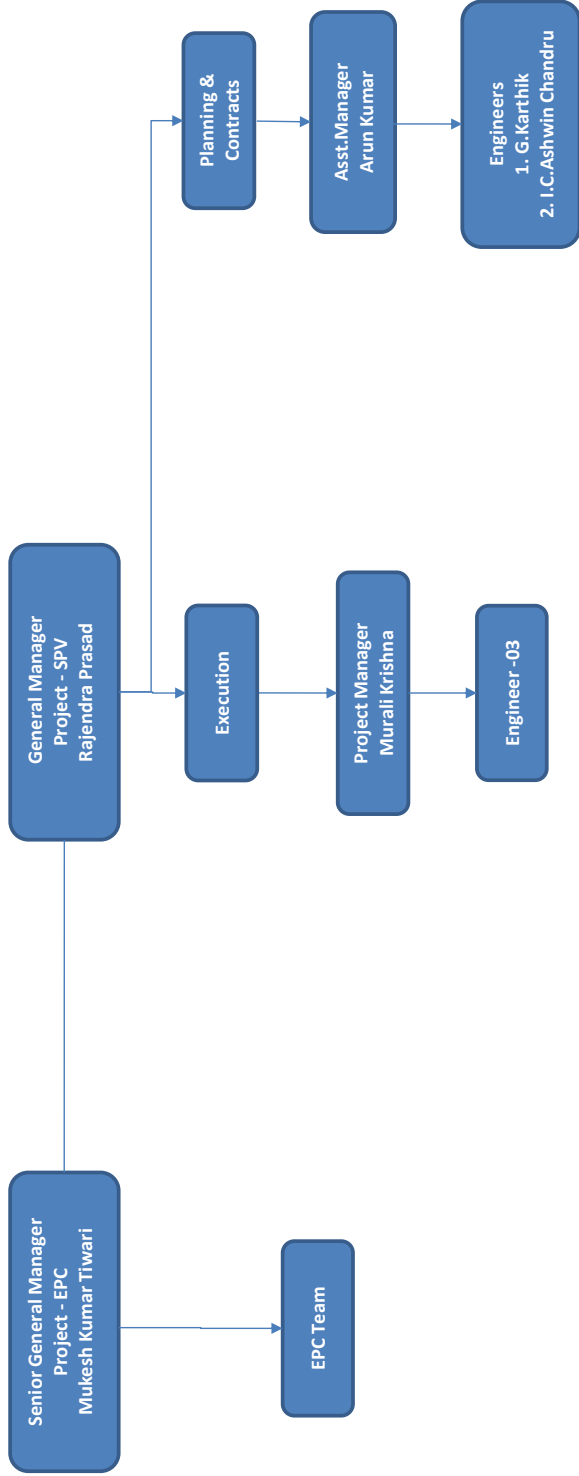
1. Fig. 4 - Organization Chart - EPC Team
2. Fig. 5 - Organization Chart - SPV Team

# 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	Erection in Progress
13	Wet Mix Plant	250 TPH	1	Erection in Progress
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	1 no. erected and 1 no. is in under erection.

## 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

## 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**

<b>S.No</b>	<b>Date</b>	<b>Letter No</b>	<b>Subject</b>	<b>Remarks</b>
1	08.03.2019	PSCHPL/SCP/NHAI/2018/301	Source approval for steel from Ms Kamachi Industries Limited-Joint Factory Inspection Requested	
2	14.03.2019	PSCHPL/SCP/NHAI/2018/309	Proposal of STRATA Geo Systems Pvt as system supplier for construction of RE wall and supply of geogrid-Joint factory inspection requested	
3	15.03.2019	PSCHPL/SCP/NHAI/2018/311	Submission of our GST payment auditor certificate for TWAD RA Bill No-01 of Pipe Line Utility shifting works	
4	15.03.2019	PSCHPL/SCP/NHAI/2018/312	Submission of our GST payment auditor certificate for RA Bill No-03 of Electrical Utility shifting works	
5	20.03.2019	PSCHPL/SCP/NHAI/2018/323	Request to provide the hindrance free land as per clause 10.3 of Concession Agreement	

TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE

S.No	Date	Letter No	Subject	Remarks
1	11.03.2019	NHAI/PIU/Thanj/11026/12/2018/525	Deetails of payment made for electrical utility shifting RA Bill 04	
2	11.03.2019	NHAI/PIU/Thanj/11023/01/2009/529	Identification of Test sections for field trails for field trails on Neology based geocell technology	
3	12.03.2019	NHAI/PIU/Thanj/11025/11/2018/538	Land Acquired-Handing over of poseession of balance land	
4	18.03.2019	NHAI/PIU/Thanj/11025/09/2018/579	Shifting of water supply utilities	
5	20.03.2019	NHAI/PIU/Thanj/11015/28/2009/599	Encroachment exist within right of way of NH Land-Removal of Encroachment-Report Called for	
6	22.03.2019	NHAI/PIU/Thanj/11013/01/2019/616	Submission of Annual Accounts for the year 2018-19 Value of work done till 31.03.2019	
7	23.03.2019	NHAI/PIU/Thanj/11013/01/2019/620	Minutes of meeting held regarding the Details of Retail Outlet Private Properties along National Highways in the State of Tamil Nadu	
8	25.03.2019	NHAI/PIU/Thanj/11013/01/2019/622	Identification of Trial Section for Research Project on Performance of Geogrid and Geocell Reinforced pavement (CBR-5 or below)	
9	26.04.2019	NHAI/PIU/Thanj/11013/01/2019/634	Independent Consultancy Services for the month of January 2019-50% Claim	
10	26.03.2019	NHAI/PIU/Thanj/11023/01/2009/640	Recommendation of expert committee for effective utilization of fly ash	

**TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER**

S.No	Date	Letter No	Subject	Remarks
1	01.03.2019	PSCHPL/SCP/IE/2019/294	Procurement of CGBS from Ms JSW Cement Ltd., Mumbai	
2	02.03.2019	PSCHPL/SCP/IE/2019/296	Submission of method statement for production of M-Sand	
3	04.03.2019	PSCHPL/SCP/IE/2019/297	Compliance to Observations on submitted revised Structure Design & Drawing of 04 Nos. of Minor Bridge at Km 109+088, Km 109+208, Km 109+365 & 109+540	
4	04.03.2019	PSCHPL/SCP/IE/2019/298	Submission of SBC Test reports for CD Structures	
5	04.03.2019	PSCHPL/SCP/IE/2019/299	Submission of Monthly progress report for the month of February 2019	
6	06.03.2019	PSCHPL/SCP/IE/2019/300	Maintenance of Existing Project Highway	
7	08.03.2019	PSCHPL/SCP/IE/2019/301	Source approval for steel from Ms Kamachi Industries Limited-Joint Factory Inspection Requested	
8	08.03.2019	PSCHPL/SCP/IE/2019/302	Submission of Soil Test reports for 3 Nos of Borrow Areas	
9	11.03.2019	PSCHPL/SCP/IE/2019/303	Submission of Test Reports for Fly Ash	
11	12.03.2019	PSCHPL/SCP/IE/2019/304	Submission of OGL Test Reports	
12	12.03.2019	PSCHPL/SCP/IE/2019/305	Submission of Concrete Mix Design Reports for M-50 RCC (Pump Concrete) & M-60 RCC (Pump Concrete)	
13	12.03.2019	PSCHPL/SCP/IE/2019/306	Request for smooth implementation of the Project Highway	
14	12.03.2019	PSCHPL/SCP/IE/2019/307	Submission of Typical Cross Sections of the Project Highway	
15	15.03.2019	PSCHPL/SCP/IE/2019/313	Submission of Revised Design Drawings of Minor Bridge at Km 66+730	
17	16.03.2019	PSCHPL/SCP/IE/2019/314	Procurement of Bitumen Emulsion (SS1 & RS1) from Ms Ooms Polymer Modified Bitumen Pvt. Ltd, Chennai	
18	18.03.2019	PSCHPL/SCP/IE/2019/315	Submission of OGL Test reports	
19	18.03.2019	PSCHPL/SCP/IE/2019/316	Submission of Lateral Pile Load Test & High Strain Dynamic Test Reports for the Proposed VUP Locations	
20	18.03.2019	PSCHPL/SCP/IE/2019/317	Submission of High strain dynamic test Reports for the Proposed GSI locations	
21	18.03.2019	PSCHPL/SCP/IE/2019/319	Discrepancy in the ROW between Km 109+680 to 109+780	
22	18.03.2019	PSCHPL/SCP/IE/2019/322	Submission of revised Structure Design & Drawing of Major Bridge at design Ch.107+400	
22	22.03.2019	PSCHPL/SCP/IE/2019/324	Compliance to observations on submitted revised structure Design & drawing of 04 Nos of Minor Bridges at km 109+088 Km 109+208 km 109+365 Km 109+540	
22	23.03.2019	PSCHPL/SCP/IE/2019/325	Submission of GFC drawings of Typical cross section of Project highway	
22	23.03.2019	PSCHPL/SCP/IE/2019/326	Submission of GFC drawings of 2 nos of Box Culvert of Ch 104+706 & Ch 104+990	
22	23.03.2019	PSCHPL/SCP/IE/2019/327	Submission of GFC drawings of 2 nos of Minor bridges ch 105+915 ch 112+810	
22	28.03.2019	PSCHPL/SCP/IE/2019/330	Submission of reinforced soil wall drawings for a proposed at ch 69+785	
22	29.03.2020	PSCHPL/SCP/IE/2019/331	Compliance report_Identification of trail section for research project on performance of geogrid and geocell reinforced pavement (CBR-5 or Below)	

TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI				
S.No	Date	Letter No	Subject	Remarks
1	28.02.2019	TES/IE/SCP/PIL/2019/242	Submission of Revised Design and Drawing of Minor Bridges 04 Nos	
2	02.03.2019	TES/IE/SCP/PIL/2019/243	Submission of revised box culvert design and drawings -02 Nos	
3	04.03.2019	TES/IE/SCP/PIL/2019/244	Submission of revised box culvert design and drawings -02 Nos -R1	
4	06.03.2019	TES/IE/SCP/PIL/2019/245	Submission of Contract Price Weightages as per clause 23.4 of Concession Agreement	
5	08.03.2019	TES/IE/SCP/PIL/2019/246	Submission SBC test Reports for CD Structures	
6	09.03.2019	TES/IE/SCP/PIL/2019/247	Source approval for Borrow Area no 08, 09, 10	
7	13.03.2019	TES/IE/SCP/PIL/2019/248	Submission of Revised Design & Drawings of Minor bridges of 4 Nos	
8	13.03.2019	TES/IE/SCP/PIL/2019/249	Submission of MPR for the month of February-2019	
9	14.03.2019	TES/IE/SCP/PIL/2019/250	Submission of revised method statement for ground improvement of weak soils	
10	18.03.2019	TES/IE/SCP/PIL/2019/252	Submission of Formwork Design and Drawings for Structures	
11	18.03.2019	TES/IE/SCP/PIL/2019/253	Removal of flagpoles erected by any political parties or organizations –Compliance report called for	
12	19.02.2019	TES/IE/SCP/PIL/2019/254	Source Approval of Bitumen Emulsion for Ms Ooms Polymer Modified Bitumen Pvt. Ltd, Chennai	
13	19.03.2019	TES/IE/SCP/PIL/2019/255	Test Reports of Fly Ash	
14	25.01.2019	TES/IE/SCP/PIL/2019/256	Submission of drawings of 03 Nos. of Box Culverts	
15	20.03.2019	TES/IE/SCP/PIL/2019/258	Improper ground improvement of box culvert at Km 76 + 390	
16	21.02.2019	TES/IE/SCP/PIL/2019/259	Submission of Lateral Pile Load Test and High Strain dynamic test reports for the proposed VUPs	
17	21.02.2019	TES/IE/SCP/PIL/2019/260	Submission of High Strain dynamic test reports for the proposed Grade Separators	
18	22.03.2019	TES/IE/SCP/NHAI/2019/067	Shifting of Water Supply Utilities – RA Bill No.2	
19	27.03.2019	TES/IE/SCP/PIL/2019/261	Poor Workmanship of Structures	
20	27.03.2019	TES/IE/SCP/PIL/2019/262	Submission of GFC drawing for Minor Bridges at Km 105+915 and Km 112+810	

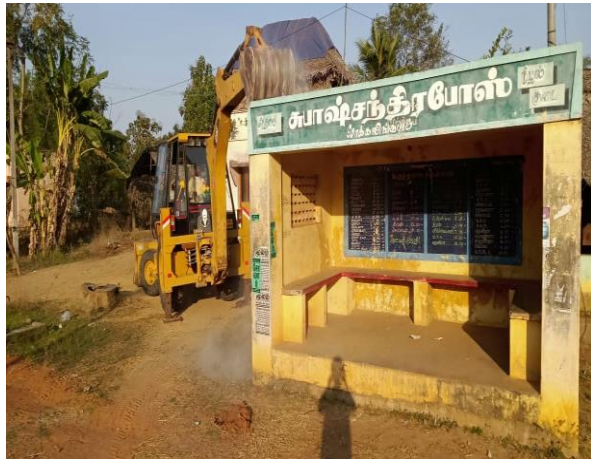


15. Progress Photographs

Sl. No	Description	Location	Side	Remarks
1.	Dismantling of Existing Structures	95+430		
2.		75+780		



Sl. No	Description	Location	Side	Remarks
3.	Dismantling of Existing Structures	93+330		
4.		92+130		
5.		92+750		
6.		90+560		



Sl. No	Description	Location	Side	Remarks
5.	1000 mm dia DI Pipe Shifting In Progress	110+100	LHS	



Sl. No	Description	Location	Side	Remarks
6.	Embankment Testing in progress	92+450	LHS	-



Sl. No	Description	Location	Side	Remarks
7.	Embankment Grading & Rolling In Progress	91+@200	LHS	



Sl. No	Description	Location	Side	Remarks
8.	Box Culvert Raft Completed	69+357	BHS	
9.	Box Culvert Wall In Progress	74+675	RHS	



Sl. No	Description	Location	Side	Remarks
10.	Box Culvert Slab Completed	83+065	BHS	
11.	Box Culvert Slab Completed	105+536	BHS	



Sl. No	Description	Location	Side	Remarks
12.	MNB-Wall In Progress	74+605	BHS	
13.	MNB-Wall In Progress	79+716	BHS	



Sl. No	Description	Location	Side	Remarks
14.	MNB-Slab In Progress	85+435	BHS	
15.	MNB-Wall In Progress	109+090	BHS	



Sl. No	Description	Location	Side	Remarks
16.	MNB-Raft Completed	109+540	BHS	
17.	MNB-Slab Completed	111+563	BHS	



Sl. No	Description	Location	Side	Remarks
18.	VUP-Abutment In Progress	75+830	A1&A2	



Sl. No	Description	Location	Side	Remarks
19.	VUP-Abutment In Progress	97+225	A1&A2	



Sl. No	Description	Location	Side	Remarks
20.	VUP-Abutment Cap Completed	106+318	A1&A2	



Sl. No	Description	Location	Side	Remarks
21.	VUP-Abutment In Progress	111+235	A1&A2	



Sl. No	Description	Location	Side	Remarks
22.	GSI-Abutment In Progress-A1	74+655	BHS	



Sl. No	Description	Location	Side	Remarks
23.	GSI-Abutment In Progress	104+575	RHS	





Sl. No	Description	Location	Side	Remarks
24.	<b><u>NATIONAL SAFETY WEEK CELEBRATIONS</u></b>			

