

सड़क परिवहन और राजमार्ग मंत्रालय  
**MINISTRY OF ROAD TRANSPORT & HIGHWAYS**  
भारत सरकार Government of India

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

Four Laning of Cholopuram Thanjavur from Km. 116.440 to Km.  
164.275 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.

PATEL CHOLOPURAM THANJAVUR HIGHWAY PRIVATE LIMITED



OCTOBER 2022

MONTHLY PROGRESS REPORT

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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.

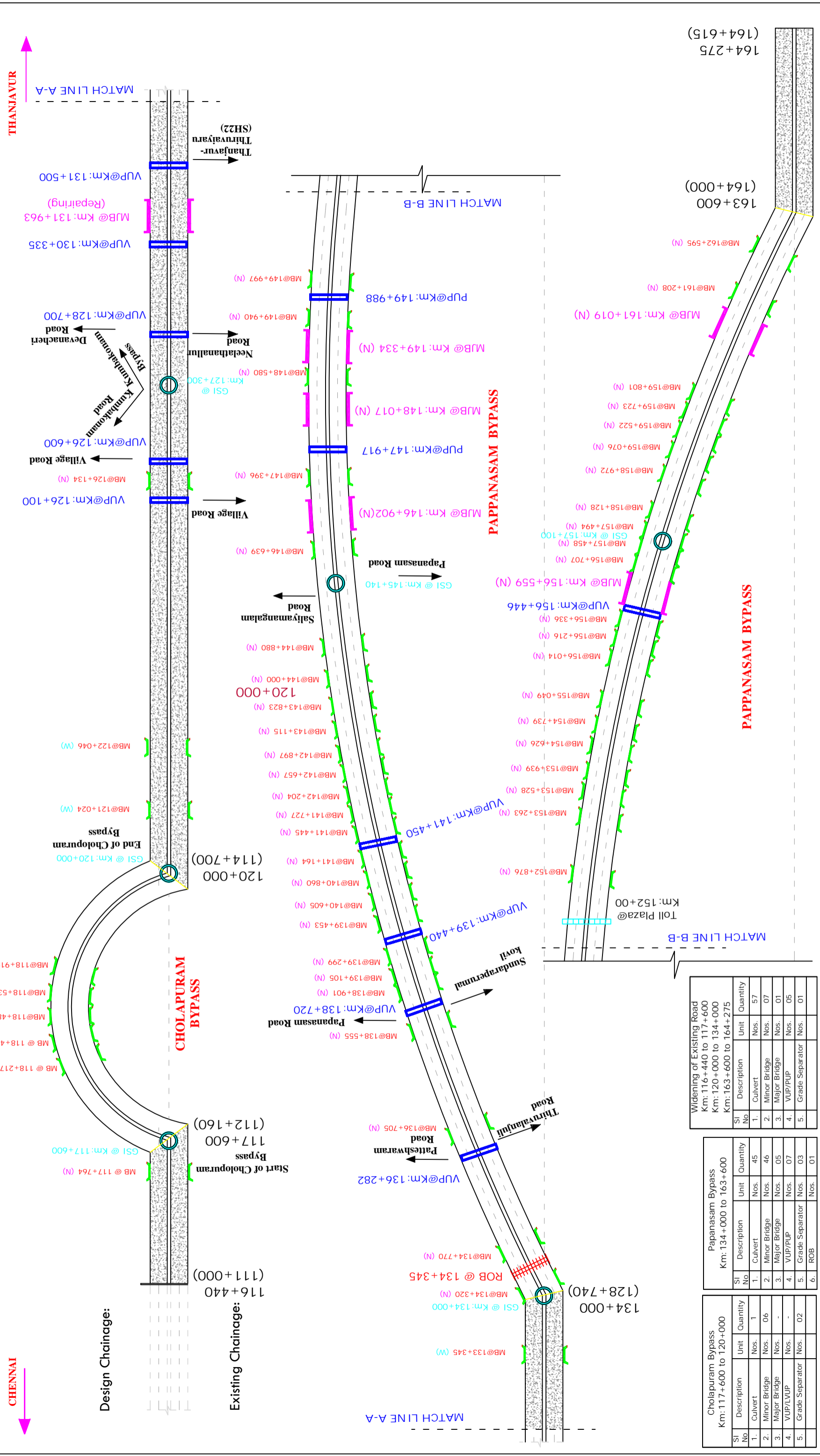
The Cholopuram to Thanjavur section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Kumbakonam, Thanjavur, Tiruchirapalli. The project is also expected to provide improved connectivity to other religious places & other major cities like Thanjavur, 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 116.440 to Km 164.275 (approx. 47.835 Km). The Authority had resolved to augment for four Laning of Cholopuram - Thanjavur from Km 116.440 to Km 164.275 section of NH - 45C in the State of Tamilnadu under NHDP Phase-IV on "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.

# STRIP PLAN - CHOLAPURAM TO THANJAVUR HIGHWAY PROJECT OF NH45 C



CHENNAI

THANJAVUR

Design Chainage:

Existing Chainage:

SI No	Description	Unit	Quantity
1.	Widening of Existing Road Km: 116+440 to 117+600	Km	1.16
2.	Km: 120+000 to 134+000	Km	14
3.	Km: 163+600 to 164+275	Km	0.675

SI No	Description	Unit	Quantity
1.	Culvert	Nos.	45
2.	Minor Bridge	Nos.	46
3.	Major Bridge	Nos.	01
4.	VUP/LVUP	Nos.	07
5.	Grade Separator	Nos.	03
6.	ROB	Nos.	01

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

**Drawing Title**  
Strip Plan - Cholapuram to Thanjavur Highway Project

**Date:** 30-09-2018  
**Project No.** PCTHP/NHAI/TN/001

**Salient Features of Project:**

SI No	Description	Unit	Scope
1.	Total Length of Project	Km	47.835
2.	Length of Widening Portion	Km	15.335
3.	Length of Bypass	Km	32.000
4.	Length of service/Ship Road	Km	27.100
5.	Culverts	Nos.	74
6.	Minor Bridge	Nos.	59
7.	Major Bridge	Nos.	06
8.	VUP/PUP	Nos.	12
9.	Grade Separated Structure	Nos.	06
10.	ROB	Nos.	01
11.	Minor Intersection	Nos.	22
12.	Major Intersection	Nos.	20
13.	Bus Bays and Shelters	Nos.	05
14.	Toll Plaza	Nos.	01

**LEGEND:**

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

Figure 1: Project Location Map





**Table- 01: Details of Project Alignments**

Sr. no.	Design Chainage (Km)		Length (Km)	TCS Type	Remarks
	From	To			
1	116.440	117.200	0.760	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
2	117.200	117.900	0.700	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
3	117.900	119.600	1.700	Type-A-3 (Fig 2.4 of the manual)	Bypass
4	119.600	120.420	0.820	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
5	120.420	122.000	1.580	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
6	122.000	125.300	3.300	Type-A-3 (Fig 2.4 of the manual)	Eccentric widening
7	125.300	125.700	0.400	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
8	125.700	127.700	2.000	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
9	127.700	128.300	0.600	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
10	128.300	129.100	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
11	129.100	129.970	0.870	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
12	129.970	130.700	0.730	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
13	130.700	131.050	0.350	Type-B (Fig 2.6 of the manual) without service road	Concentric widening
14	131.050	131.850	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
15	131.850	132.100	0.250	Type-A-3 (Fig 2.4 of the manual)	Eccentric widening
16	132.100	133.580	1.480	Type-B (Fig 2.6 of the manual) without service road	Concentric widening

Sr. no.	Design Chainage (Km)		Length (Km)	TCS Type	Remarks
	From	To			
17	133.580	134.800	1.220	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
18	134.800	136.000	1.200	Type-A-3 (Fig 2.4 of the manual)	Bypass
19	136.000	136.600	0.600	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
20	136.600	138.500	1.900	Type-A-3 (Fig 2.4 of the manual)	Bypass
21	138.500	139.750	1.250	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
22	139.750	141.100	1.350	Type-A-3 (Fig 2.4 of the manual)	Bypass
23	141.100	141.800	0.700	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
24	141.800	144.450	2.650	Type-A-3 (Fig 2.4 of the manual)	Bypass
25	144.450	145.580	1.130	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
26	145.580	147.600	2.020	Type-A-3 (Fig 2.4 of the manual)	Bypass
27	147.600	148.320	0.720	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
28	148.320	149.720	1.400	Type-A-3 (Fig 2.4 of the manual)	Bypass
29	149.720	150.450	0.730	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
30	150.450	152.700	2.250	Type-A-3 (Fig 2.4 of the manual)	Bypass
31	152.700	153.300	0.600	Toll Plaza	
32	153.300	156.000	2.700	Type-A-3 (Fig 2.4 of the manual)	Bypass
33	156.000	157.350	1.350	Figure 7.8- Grade separator and its approaches with RE wall and both side 7.5 m wide Slip road	
34	157.350	164.275	6.925	Type-A-3 (Fig 2.4 of the manual)	Bypass
		<b>Total Length</b>	<b>47.835</b>		

## 1. Background and Project Details

### 1.1. Project Overview

<b>Name of Work</b>	Four Laning of Cholopuram-Thanjavur from km. 116.440 to Km.164.275 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 Cholopuram-Thanjavur Highway Pvt Ltd, Patel House, Beside Prakruti Resorts, Chanani 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, 8, Thomaiyammal Nagar, 6 <sup>th</sup> Street, R.S College (Post), Thanjavur-613005.
<b>EPC Contractor</b>	M/s. Patel Infrastructure Limited, Patel House, Beside Prakruti Resorts, Chanani Road,Vadodara Gujarat- 391740, Tel: +91-265 277 6678 Fax: +91-265 277 7878
<b>Design Consultant</b>	CTL Global Services Pvt. Ltd. 101, IST 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>	47.835 Kms.
<b>Total Bid Cost</b>	Rs. 1345.60 Crores (as per concession agreement)
<b>Date of Concession Agreement</b>	October 12, 2017
<b>Concession Period</b>	17 Years ( Construction Period 2 Years from Appointed date, Operation period 15 years from COD)

Appointed Date	06.09.2018
Construction Period	02 years from Appointed date
Completion Date	04.09.2020
Settlement Agreement Date	04.03.2021
PCOD-I Date as per SA	31.05.2021
PCOD-II Date as per SA	30.11.2021
COD Date as per SA	31.07.2022
Maintenance Period	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	47.835 Kms
Service Road/ Slip Road	13.550 Kms
Major Bridge	06 Nos.
Minor Bridge	56 Nos.
Grade Separate Intersection	06 Nos.
Vehicular Underpass	10 Nos.
Pedestrian Underpass	02 Nos.
Rail-road Bridges	01 Nos
Culverts	103 Nos.
Major Intersections	20 Nos.
Minor Intersections	22 Nos.
Bus Bays	20 Nos.
Rest Area	01 Nos
Toll Plaza	01 Nos.

### 1.3. Contractual Project Milestones

Following is a listing of the Key Project Milestones:-

Mile Stone	Description	Target Dates as per CA	Revised Target Dates as per Settlement Agreement	Revised Target Dates recommended by PD, NHAI considering EOT of 87 days for PCOD-I & (105 + 200) Days for PCOD-II & PCOD-III
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.	07 <sup>th</sup> April 2019	➤ 31 <sup>st</sup> May'2021- Total 22.846 Km. four lane to be completed for PCOD-I.	➤ 27 <sup>th</sup> Aug'2021- Total 22.846 Km. four lane to be completed for PCOD-I (EOT of 87 days considered). ➤ 27 <sup>th</sup> Feb'2023- Total 34.675 Km. four lane to be completed for PCOD-II (EOT of 105 + 200 days considered). ➤ 01 <sup>st</sup> June'2023- Total 37.304 Km. four lane to be completed for PCOD-III (EOT of 105 + 200 days along with descope proposal in 10.531 Km length considered).
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.	05 <sup>th</sup> August 2019	➤ 30 <sup>th</sup> Nov'2021- Total 34.675 Km. four lane to be completed for PCOD-II.  ➤ Balance 11.990 Km. four lane shall be handed over to the Concessionaire by 31 <sup>st</sup> May'2021 and shall be completed by 31 <sup>st</sup> July'2022.	
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.	11 <sup>th</sup> April 2020	➤ Balance 1.170 Km. to be de-scoped from the scope of Concessionaire.	
Scheduled Completion	Concessionaire shall have completed Project on 730 <sup>th</sup> day from the Appointed Date.	04 <sup>th</sup> September 2020		

**Note:-** The Settlement Agreement has been signed between Authority and Concessionaire for the completion of 22.846 Kms length by 31.05.2021, and further completion of additional 11.829 Kms length by 30.11.2021 i.e. up to Payment Date of 1<sup>st</sup> Annuity. The non-workable length/non-handed over length is 13.160 Km as per joint site verification by Concessionaire, IE and NHAI. Out of the total non-workable length/non-handed over length of 13.160 Kms, length equal to 11.990 Kms shall be handed over to the Concessionaire by 31.05.2021 and shall be completed by 31.07.2022. Remaining length of 1.170 Kms (i.e. 13.160 kms -11.990 kms) shall be de-scoped from the scope of work of Concessionaire as per the provision given in Article 16.6 of the Concession Agreement.

However, out of 11.990 Kms, only 2.870 Kms was handed over to the Concessionaire by 31.05.2021. Out of the balance length equal to 9.120 Kms (i.e. 11.990 kms - 2.870 kms), Concessionaire considered 1.599 Kms length as workable length and remaining length equal to 7.521 Kms (i.e. 9.120 kms - 1.599 kms) was under approval of descope proposal at NHAI, HQ in addition to 1.170 Kms which was already descope from the scope of work of Concessionaire.

The Independent Engineer (IE) also requested to Authority to provide EOT of 105 days for PCOD - 2 & PCOD - 3 on account of 2<sup>nd</sup> wave of COVID-19 and the request for EOT is also under approval at NHAI, HQ.

The Concessionaire had also requested to Authority/IE for the extension of time for PCOD-2 up to 28.02.2023 and PCOD-3 up to 28.06.2023 due to constraints of issue in obtaining permission for extracting soils from borrow area and also due to interruption in the availability of pond ash.

The Concessionaire had also submitted the proposal for additional descope to Authority/IE in 1.840 Km length in addition to the already proposed descoping of 8.691 Km length due to interruption in the availability of pond ash required for the construction of RE Wall stretches, also due to local villagers were not allowing the concessionaire to continue the construction activities in some stretches and due to presence of existing irrigation canal within the project alignment. Hence, the concessionaire was not able to execute any construction activity in 1.840 Km length up to 31.05.2021 and submitted the proposal of additional descope to Authority/IE.

In line of the submission done by the concessionaire, Independent Engineer has examined both the proposals submitted by the concessionaire and Independent Engineer vide IE letter no. 4896 Dt. 04.11.2022 has recommended both the proposals to PIU, NHAI (i.e. total comprehensive descope proposal in 10.531 Km length (8.691Km+1.84Km) and extension of time proposal for PCOD-02 (completion of 34.675 Km) up to 27.02.2023 and extension of time proposal for PCOD-03 (completion of 37.304 Km duly considering the descope proposal of 10.531 Km length) up to 01.06.2023 for the approval of competent authority.

In line of the recommendation done by IE, PIU NHAI vide letter no. 3152 Dt. 04.11.2022 has also recommended both the proposals to RO, NHAI (i.e. total comprehensive descope proposal in 10.531 Km length (8.691Km+1.84Km) and extension of time proposal for PCOD-02 (completion of 34.675 Km) up to 27.02.2023 and extension of time proposal for PCOD-03 (completion of 37.304 Km duly considering the descope proposal of 10.531 Km length) up to 01.06.2023 for getting the approval from the competent authority.

#### Status of Progress of Work as per Settlement Agreement Dt. 04.03.2021 :-

Sr. No.	Description	Target	Achieved as on date	Remarks
1	Completion of 22.846 kms by 31.05.2021	45.01% (605.62 Cr.)	60.54%	IE vide letter no. 987 dated 02.11.2021 has issued the Provisional Completion Certificate-1 (PCC-1) for the completion of 22.846 Kms w.e.f. 27.08.2021.
2	Completion of 34.675 kms (i.e. 22.846 Kms + 11.829 Kms) by 30.11.2021	68.41% (920.48 Cr.)		
3	Completion of balance 11.990 kms by 31.07.2022	27.25% (366.74 Cr.)		
4	Estimate of balance 1.170 kms length (i.e. 13.160 Kms - 11.990 Kms)	4.34% (58.38 Cr.)		

#### 1.4. Payment milestone during Construction Period

Payment Milestone	Eligibility Criteria	Payment Amount (Rs.)
Milestone-I	On Achievement of 10% of Physical Progress	107.65 Crs.
Milestone-II	On Achievement of 30% of Physical Progress	107.65 Crs.
Milestone-III	On Achievement of 50% of Physical Progress	107.65 Crs.
Milestone-IV	On Achievement of 75% of Physical Progress	107.65 Crs.
Milestone-V	On Achievement of 90% of Physical Progress	107.65 Crs.

### 1.5. Permits & Approvals

Sr. No.	Details	Authority	Current Status	Remarks
1	Extraction of Boulders from Quarries	Dist. Mining Officer	Obtained	PIL (EPC Contractor) have engaged Agate Infra Engineering for supply of boulders that is having a valid license for extraction of boulders and other required permission for the quarry at Kalpadi Village, Perambalur District.
2	Installation of Crusher	Village Panchayat Head	Obtained	
3	-----D O-----	Pollution Control Board	Obtained	
4	Use of Explosives	Dist. Collector	Obtained	
5	Labour License	Labour Commissioner	Obtained	
6	Environmental Clearance		NA	
7	Trees Cutting Permission	Forest department through NHAI	Obtained	Work in Progress ( Permission for removal of Teak wood trees is awaited )
8	Electric Poles Shifting	Tamil Nadu Electricity Board	Obtained	Work in Progress
9	Water Pipes Shifting	Tamil Nadu Water Supply and Drainage Board	Obtained	Work in Progress
10	Drawing Water from river/ reservoir	-	NA	-



## 2. Right of Way Status

### 2.1. Land Acquisition

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

	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
<b>(i) Full Right of Way (full width)</b>				
Stretch	116.440 to 117.600	1.160	30	Within 15 (Fifteen) days from the date of Agreement.
Stretch	117.600 to 120.000	2.400	60	
Stretch	120.000 to 134.000	14.000	30	
Stretch	134.000 to 164.275	30.280	60	
<b>Total Length</b>		<b>47.835</b>		

	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
Stretch	116.440 to 117.600	1.160	30	Within 90 (Ninety) days of the Appointed date
Stretch	120.000 to 120.340	0.34	20	
Stretch	124.700 to 126.100	1.40	20	
Stretch	126.700 to 127.655	0.95	20	
Stretch	130.600 to 134.000	3.40	20	
<b>Total Length</b>		<b>7.250</b>		

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

Sl. No.	Description	Unit	Present Status	Remarks
<b>A )</b>	<b>Total Length of the Project Highway</b>	<b>Km</b>	<b>47.835</b>	
<b>i)</b>	Use of Existing Road Portion	Km	15.835	
<b>ii)</b>	Proposed Bypass / Realignment portion	Km	32.000	
<b>B )</b>	Hindered Length			
<b>i)</b>	LA Pending/Land under disputes	Km	8.691	
<b>ii)</b>	Existing Buildings	Km		
<b>iii)</b>	Pending for Disbursement of Payment	Km		
<b>iv)</b>	Electrical Lines	Km		
<b>v)</b>	Rural Water Supply lines	Km		
<b>C )</b>	Net Hindered Length (Both side)	Km	8.691	
<b>D )</b>	Total Project Length (Both side)	Km	47.835	
<b>E )</b>	<b>% Hindered Length</b>	<b>%</b>	<b>18.17%</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					
Sr. No.	Name of the District	Total No. of Land cases	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Thanjavur	1467	1074	393	
	<b>Total in Nos.</b>	<b>1467</b>	<b>1074</b>	<b>393</b>	
	<b>Total in %</b>		<b>73.21%</b>	<b>26.79%</b>	

Table 2.1-4 - Compensation disbursement for Structures					
Sr. No.	Name of the District	Total No. of structures	Amount paid (in Nos)	Balance to be Paid (in Nos)	Remarks
1	Thanjavur	813	670	143	
	<b>Total in Nos</b>	<b>813</b>	<b>670</b>	<b>143</b>	
	<b>Total in %</b>		<b>82.41%</b>	<b>17.59%</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. which are jointly inspected by the Independent Engineer and Authority are as below:-

Table 2.1-5 - Details of Stretches under hindrance					
Sr. No.	Start Chainage	End Chainage	Non Workable Length as on 31.10.2022 (Km)	Reason	Remarks
1	116.440	117.900	1.460	Removal of structures	
2	119.600	120.721	1.121	Removal of structures	
3	125.580	127.300	1.720	Removal of structures	
4	128.300	129.100	0.800	Removal of structures	
5	133.580	134.800	1.220	Removal of structures	
6	138.300	139.500	1.200	Removal of structures	
7	146.550	147.000	0.450	PWD Canal having a length of 700m need to be shifted for which NOC to be granted by PWD/WRD.	
8	147.600	148.320	0.720		
<b>Total Length (Km)</b>			<b>8.691</b>		

The 8.691 Km. length is still under non-workable length out of 13.16 km. non-workable length as per Settlement Agreement executed on dated 04.03.2021.

In addition to above 8.691 Km non-workable length, following are the details of Stretches under Hindrance due to practical constraints available at site:-

Sr. No.	Chainage		Length (km)	Length can not be taken up due to practical constraints	Side	Reason	Remarks
	From	To					
1	118.680	118.800	0.120	0.120	BHS	Local Villager's Problem	
2	127.300	127.700	0.400	0.400	BHS	Pond Ash Issue	
3	134.800	135.200	0.400	0.400	BHS	Electrical utility Problem	
4	144.450	145.160	0.710	0.710	BHS	Irrigation Canal within the Project alignment	
5	153.900	153.980	0.080	0.080	BHS	Local Villager's Problem	
6	155.070	155.200	0.130	0.130	BHS	Local Villager's Problem	
<b>Total in Kms</b>				<b>1.840 Km</b>			

Hindrance List in the Project												Date:- 31.10.2022
Details of Stretches Under Hindrance with Photographs												
Sr. No.	CHAINAGE		Effected Length	Side	Name of the Village	Type of Hindrances	Total No of Structures	Name of the Owner	Survey No	Payment Status	Photos	Remarks
	FROM	TO										
1	116+480	116+490	15	LHS	Manambadi	Hut	1	Tamilselvan S/o Annasamy	43/2A	Paid		Paid for 1st Payment and Awaiting for 2nd Payment
2	116+630	116+650	20	LHS	Manambadi	Sheet House	1	Ethiraj	49/7	Not paid		Proper Documents not Submitted
3	116+640	116+660	20	LHS	Manambadi	Hut	1	Elangovan Rajathi	49/11A,11B	Not paid		Family distribute Problem
4	116+660	116+680	20	LHS	Manambadi	Sheet House	1	Sitarasu S/O Thambusamy	49/7C, 2B	Paid		Paid for 1st Payment and Awaiting for 2nd Payment
5	116+670	116+690	20	LHS	Manambadi	Temple	1	-	-	Not paid		Land Owner not Identified
6	116+890	116+910	20	LHS	Manambadi	Hut	1	Chinnadurai S/O Murugesan	129/11, 12	Not paid		RDO Problem (Survey Number Change)

Sr. No.	CHAINAGE		Effectd Length	Side	Name of the Village	Type of Hindrances	Total No of Structures	Name of the Owner	Survey No	Payment Status	Photos	Remarks
	FROM	TO										
7	116+895	116+905	10	LHS	Manambadi	Sheet House	1	Sellakannu S/O Swaminathan	129/9	Not paid		RDO Problem (Survey Number Change)
8	116+890	116+910	20	LHS	Manambadi	RCC House	1	Ganesan S/o lakshmanan	129/8	Not paid		RDO Problem (Survey Number Change)
9	116+905	116+920	15	LHS	Manambadi	RCC House	1	AyiPonnu W/o Chinnaiyan	129/6,7	Not paid		RDO Problem (Survey Number Change)
10	120+685	120+695	10	LHS	Kovilacheri	RCC BUILDING	1	SANTHOSH KUMAR	48/7	Paid		Building Payment Paid Land Payment not Paid
11	122+080	122+100	20	RHS	Bagavathapuram	BIG BANIYAN TREE WITH VANAKALIAMMAN TEMPLE	1	MANOHARAN		Not Paid		
12	129+030	129+040	10	LHS	Asoor	DEVAR STATUE	1			Not Paid		Awaiting Approval from District Administration

## 2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Table 2.2-1: Status of Removal of Religious structures				
Sl. No.	Name of the District	Total No. of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	Thanjavur	13	3	10

Note: Pending for disbursement of payment to the Religious structures.

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

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

Table 2.3-1: Status of sanction of Estimates - Relocation of RWS Pipe line						
Sl. No	Name of the District	Chainages			Total Number of Estimates	Remarks
		From	To	Length in Km		
1	Thanjavur	116+440	164+275	47.835	32	Work is in Progress

Table 2.3-2: Status of sanction of Estimates - Electrical Lines Relocation							
Sl. No	Name of the District	Chainages			Number of Estimates	Present Status	Remarks
		From	To	Length in Km			
1	Thanjavur	116+440	164+275	47.835	16	Work in Progress	

**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 (including DI and PVC lines)	Kms.	35.750	7.960	27.79	Work in Progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well	Nos.	16	3	13	
3	BDO of Concern Union	Over Head Tank	Nos.	2	2	0	Completed
4	TNEB	Electrical Lines	Kms.	19.215	15.605	3.610	Work in Progress

**2.4. Tree felling**

**Table 2.4-1: Status of Tree felling**

Sl. No.	Name of the District	Chainages			Effected Length in Kms	Total No. of Trees	Felled/ Removed as on Date	Balance no. of Trees	Remarks
		From	To	Length in Km					
1	Thanjavur	116+440	164+275	47.835	15.310	1461	1448	13	Work in Progress
2	Thanjavur	116+440	164+275	47.835	-	508	508	0	Teak Wood trees
<b>Total</b>				<b>47.835</b>					

### 3. Progress Briefing – Contractor Activities

#### 3.1. Pre-Construction Activities

##### Detailed Design & Drawings

The Plan and Profile, as well as the Pavement Designs for the entire 47.835 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	Design/ Drawings submitted	Design/ Drawings Approved
1	Pavement Design	Km	47.835	47.835	47.835
2	Plan & Profile	Km	47.835	47.835	47.835
3	Typical Cross Sections	Type	5	5	-
4	Major Intersections	No	20	9	1
5	Minor Intersections	No	22	2	-
6	Toll Plaza	No	01	01	01
7	Rest Area	No	01	-	
8	Bus Bay	No	05	05	05
9	Service Roads	No	27.10	26.97	26.97

**Table 3.1-2 : Status of Design and Drawings –Structures**

Sr. No	Description	Unit	Total Scope as per Sch. B	Design/ Drawings Submitted	Design/ Drawings Approved
1	Major Bridges	No	06	04	04 (02 Nos of Major Bridges proposed for Descope from the scope of work)
2	Minor Bridges	No	56	56	54
3	Grade Separated Intersection	No	06	06	06
4	VUP/PUP	No	12	12	12
5	Box /Slab Culvert	No	103	103	103
6	ROB	No	01	01	Structural drawing approved



#### 4. Physical Progress of Work

##### 4.1. Physical Progress of Work

The following table summarize the quantum of work achieved towards the construction of the various elements of the highway.

The Progress of the Major works carried out at the Site in the Month of October 2022 is as follows.

##### CUMULATIVE STATEMENT

##### For Main Carriageway

Sr. No	Description	Total Length of Highway Excluding Toll Plaza (in. Km.)	Progress up to Previous Report (in Km)	Progress during this Report (In Km.)	Cumulative Progress Achieved up to this Report (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	<b>Clearing and Grubbing</b>							
	LHS	46.925	42.980	0.000	42.980	0	3.945	91.59%
	RHS	46.925	42.910	0.000	42.910	0	4.015	91.44%
2	<b>Embankment</b>							
	LHS	46.925	31.485	0.075	31.560	1.550	15.365	67.26%
	RHS	46.925	31.245	0.465	31.710	1.150	15.215	67.58%
3	<b>Subgrade</b>							
	LHS	46.925	29.906	0.000	29.906	1.654	17.019	63.73%
	RHS	46.925	29.886	0.295	30.181	1.529	16.744	64.32%
4	<b>GSB/ Cement Treated Sub-Base</b>							
	LHS	46.925	27.840	0.000	27.840	0	19.085	59.33%
	RHS	46.925	28.114	0.275	28.389	0	18.536	60.50%
5	<b>Wet Mix Macadam</b>							
	LHS	46.925	26.770	0.124	26.894	0	20.031	57.31%
	RHS	46.925	27.030	0.000	27.030	0	19.895	57.60%
6	<b>Dense Bituminous Macadam</b>							
	LHS	46.925	26.528	0.000	26.528	0	20.397	56.53%
	RHS	46.925	26.498	0.000	26.498	0	20.427	56.47%
7	<b>Bituminous Concrete</b>							
	LHS	46.925	25.671	0.000	25.671	0	21.254	54.71%
	RHS	46.925	25.669	0.000	25.669	0	21.256	54.70%

### 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	27.1	5.370	0	5.370	0.150	21.730	19.82%
2	Sub grade	27.1	5.370	0	5.370	0	21.730	19.82%
3	GSB/ Cement Treated Base	27.1	5.355	0	5.355	0	21.745	19.76%
4	Wet Mix Macadam	27.1	5.275	0	5.275	0	21.825	19.46%
5	Dense Bituminous Macadam	27.1	5.275	0	5.275	0	21.825	19.46%
6	Bituminous Concrete	27.1	2.400	0	2.400	0	24.700	8.86%

### For Structure Works

Sr. No.	Type of Structure	Total No. of Structures	No. of Structures				
			Completed up to previous Report	Completed during this Report	Completed up to this Report	In Progress	Balance
1	Culvert	103	92.775	0	92.775	9.225	1.00
2	Pedestrian Underpass (PUP)	2	2	0	2	0	0
3	Vehicular Under Pass (VUP)	10	9.00	0	9.00	0	Balance 1 No. has been considered under Negative COS
4	Minor Bridges (MNB)	56	49.00	0	49.00	2.00	5.00 (4 Nos. has been considered under descope proposal & 1 No. has been considered under Negative COS)
5	Major Bridges (MJB)	5	2.00	0	2.00	1.00	2.00 (Balance 2 Nos. has been considered under descope proposal)
6	Flyover	6	6	0	6	0	0
7	ROB	1	1.00	0	1.00	0	0

The Physical Progress of the Project up to **October 2022** as per approved Schedule G is given below:-

**Table 4.1 : Physical Progress of Works**

Item	Stage for Payment	Unit	Qty.	Weightage in % to Contract Price	Completed up to Oct '2022	% Physical Progress	Remarks
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.	28.70	4.26%	16.484	2.445%	
	(2) Granular work (sub-base, base, shoulders)	Km.					
	(a) GSB/ Cement Treated Base	Km.	28.70	1.40%	16.464	0.804%	
	(b) WMM/ Cement Treated Base	Km.	28.70	2.10%	15.584	1.140%	
	(3) Shoulders	Km.	7.10	0.03%	7.10	0.030%	
	(4) Bituminous work						
	(a) DBM	Km.	28.70	1.61%	15.404	0.863%	
	(b) BC	Km.	28.70	1.48%	15.056	0.779%	
	(5) Rigid Pavement						
	Concrete Work	Km.					
	(6) Widening and Repair of Culverts	Nos.	33	0.57%	31.650	0.548%	
	(7) Widening and Repair of Minor Bridges	Nos.	3	0.38%	1.850	0.235%	
	<b>B- New realignment/bypass</b>						
	(1) Earthwork up to top of the sub-grade	Km.	63.33	16.30%	43.603	11.225%	
	(2) Granular work (sub-base, base, shoulders)	Km.					
	(a) GSB/ Cement Treated Base	Km.	62.13	3.39%	39.765	2.173%	
	(b) WMM/ Cement Treated Base	Km.	62.13	3.83%	38.340	2.362%	
	(3) Shoulders	Km.	48.19	0.10%	30.140	0.063%	
	(4) Bituminous work						
	(a) DBM	Km.	62.13	3.48%	37.622	2.107%	
	(b) BC	Km.	62.13	3.21%	36.284	1.876%	
	(5) Rigid Pavement						
Concrete Work	Km						
<b>C- New culverts, minor bridges, underpasses, overpasses on</b>							

Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	existing road, realignments, bypasses:						
	(1) Culverts	Nos.	70	5.95%	61.125	5.191%	
	(2) Minor bridges						
	(i) Foundation	Nos.	170	6.71%	118.00	4.659%	
	(ii) Substructure	Nos.	270	3.50%	212.00	2.745%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	142	3.78%	94.65	2.517%	
	(3) Cattle/Pedestrian underpasses						
	(i) Foundation	Nos.	4	0.15%	4.00	0.150%	
	(ii) Substructure	Nos.	8	0.08%	8.00	0.084%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	4	0.06%	3.70	0.052%	
	(4) Pedestrian overpasses						
	(i) Foundation	Nos.					
	(ii) Substructure	Nos.					
	(iii) Superstructure (including crash barrier etc. complete)	Nos.					
	(5) Grade separated structures						
	(a) Underpass (10 VUP)						
	(i) Foundation	Nos.	40	2.50%	36.00	2.249%	
	(ii) Substructure	Nos.	40	0.91%	36.00	0.818%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	20	1.14%	15.75	0.895%	
	(c) Vehicular Overpass (VOP)						
	(i) Foundation	Nos.					
	(ii) Substructure	Nos.					
	(iii) Superstructure (including crash barrier etc. complete)	Nos.					
	(c) Flyover						
	(i) Foundation	Nos.	24	2.25%	24.00	2.250%	
	(ii) Substructure	Nos.	24	0.82%	24.00	0.818%	
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	12	1.02%	10.65	0.908%	
		Major Bridge works and ROB/RUB					
		A- Widening and Repair of Minor Bridges					

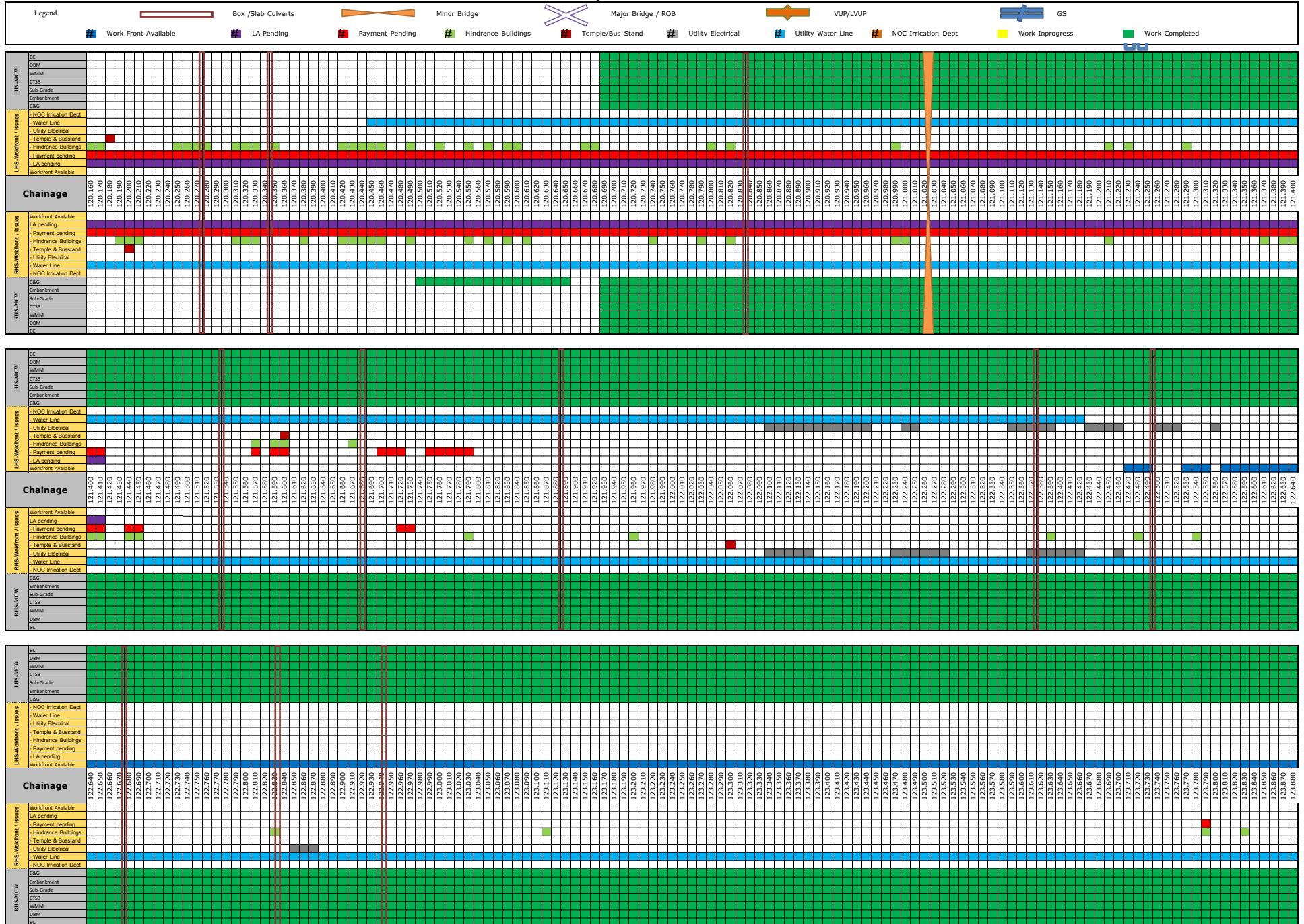
Major Bridge works and ROB/RUB	(1) Foundations						
	(a) Open Foundation	Nos.					
	(b) Pile foundation/ well foundation	Nos.					
	(2) Substructure	Nos.					
	(3) Superstructure (including crash barrier etc. complete)	Nos.					
	<b>C- New Major Bridges</b>						
	(1) Foundations						
	(a) Open Foundation	Nos.					
	(b) Pile foundation/ well foundation	Nos.	76	2.17%	47.00	1.345%	
	(2) Substructure	Nos.	76	1.23%	46.00	0.746%	
	(3) Superstructure (including crash barrier etc. complete)	Nos.	62	1.50%	30.60	0.739%	
	<b>D- New rail-road bridges</b>						
	<b>(a) ROB</b>						
	(i) Foundation	Nos.	8	1.50%	8.00	1.500%	
	(ii) Substructure	Nos.	8	0.80%	8.00	0.800%	
(iii) Superstructure (including crash barrier etc. complete)	Nos.	6	1.49%	5.10	1.264%		
Structures (elevated sections, reinforced earth)	<b>Structures (elevated sections, reinforced earth)</b>						
	(1) Foundation	Nos.					
	(2) Substructure	Nos.					
	(3) Superstructure (including crash barrier etc. complete)	Nos.					
	(4) Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses, Flyover etc)	Sqm	179469	7.52%	37,482.41	1.570%	Only RE Block Erection Quantity is considered
Other Works	<b>Other Works</b>						
	(i) Service roads/ Slip Roads	Km	27.1	3.86%	2.400	0.342%	
	(ii) Toll Plaza	Nos.	1	1.38%	0.250	0.345%	
	(iii) Road side drains	Km	12.08	1.64%	2.160	0.293%	
	(iv) Road signs, markings, km stones, safety devices, ....						
	(a) Road signs, markings, km stones, ...	Km	95.67	2.02%	46.820	0.989%	

(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work	Km					
(i) Concrete Crash Barrier	Km	25.42	2.01%	3.990	0.316%	
(ii) W-Beam Crash Barrier	Km	32.75	0.70%	11.340	0.243%	
<b>(v) Project facilities</b>						
(a) Bus Bays	No.	20	0.01%	3.00	0.001%	
(b) Truck Lay-byes	No.					
(b) Rest areas	No.	2	0.22%			
(vi) Repairs to bridges/structures	Nos.	4	0.01%			
(vii) Road side plantation	Km	22.54	0.60%			
(viii) Protection works						
(a) Boulder pitching on slopes	Km	32.75	0.19%	11.340	0.065%	
(b) Toe/Retaining wall	Km					
(x) Miscellaneous	Ls.	100%	0.150%			
<b>Total</b>			<b>100.00%</b>		<b>60.54%</b>	



**Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.**  
**Cholopuram - Thanjavur Project**

**Strip Chart as on 31.10.2022**

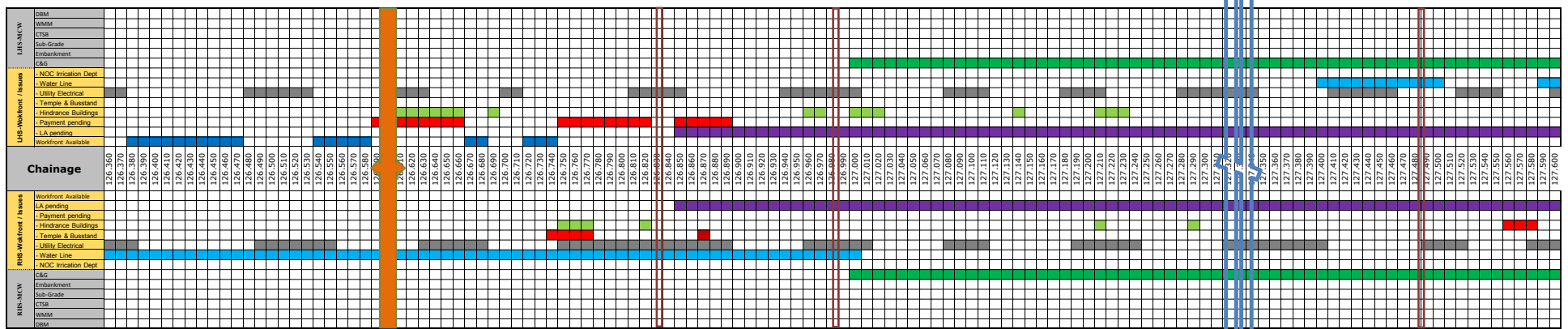
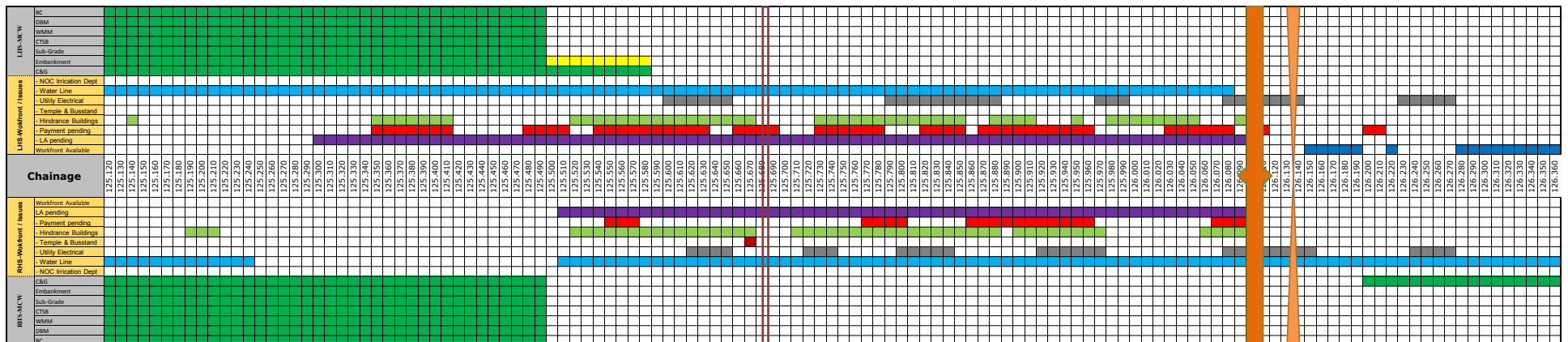
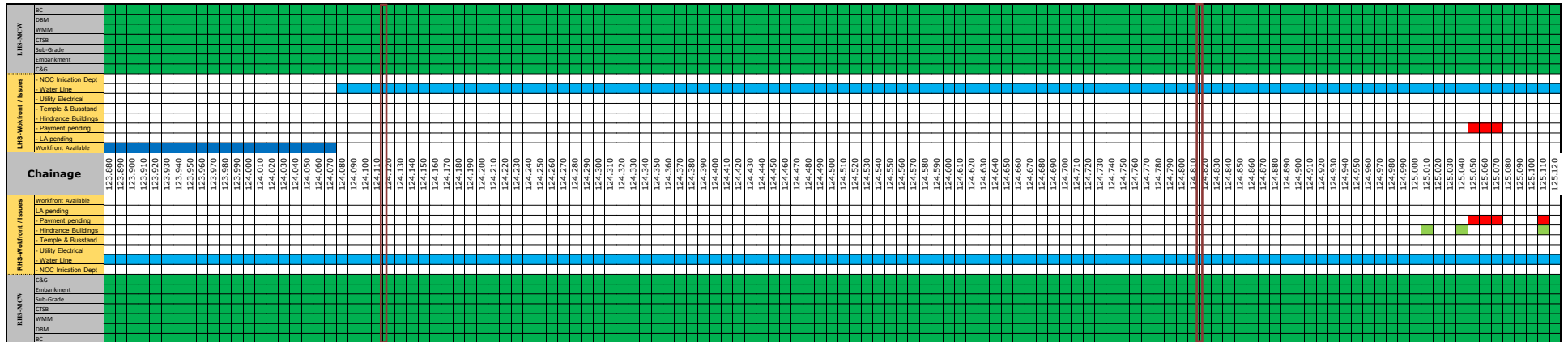
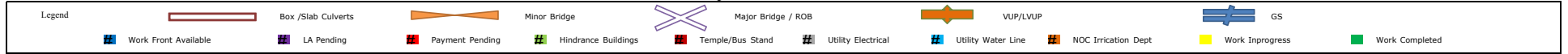




Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

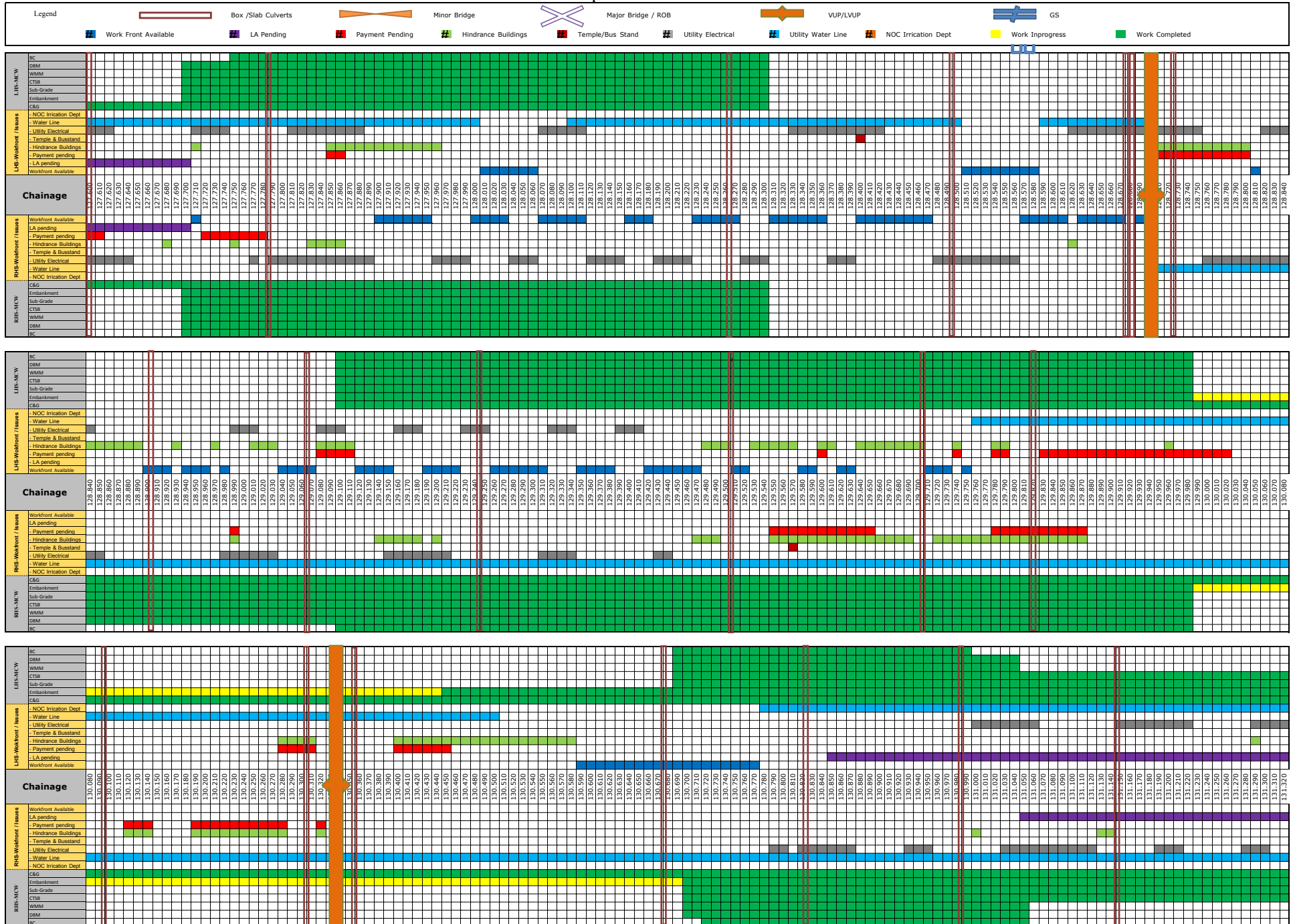
Cholopuram - Thanjavur Project

Strip Chart as on 31.10.2022



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Cholopuram - Thanjavur Project**

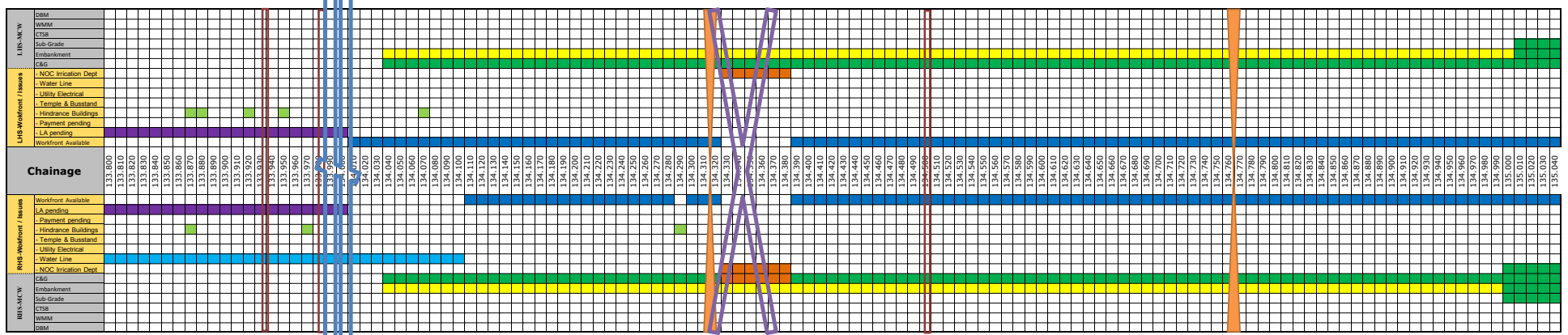
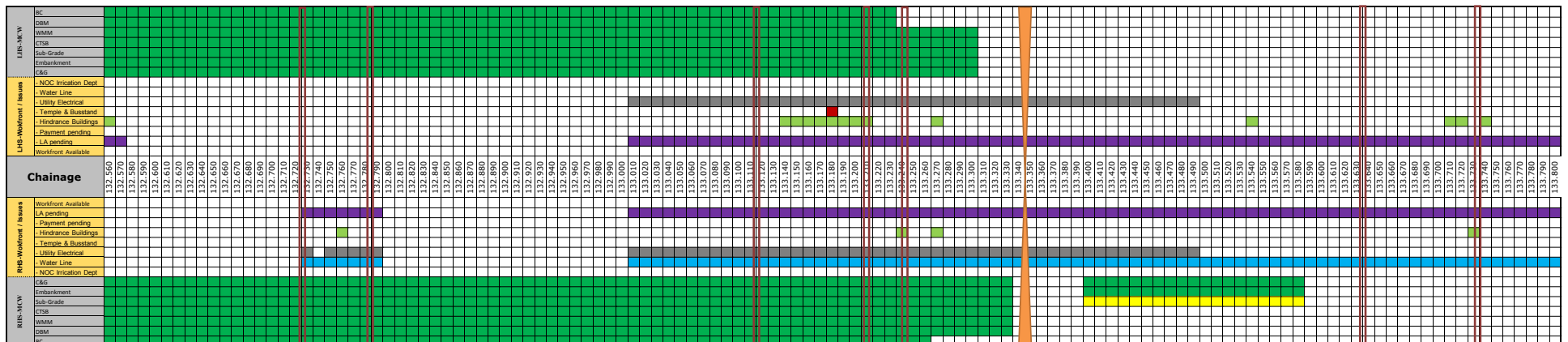
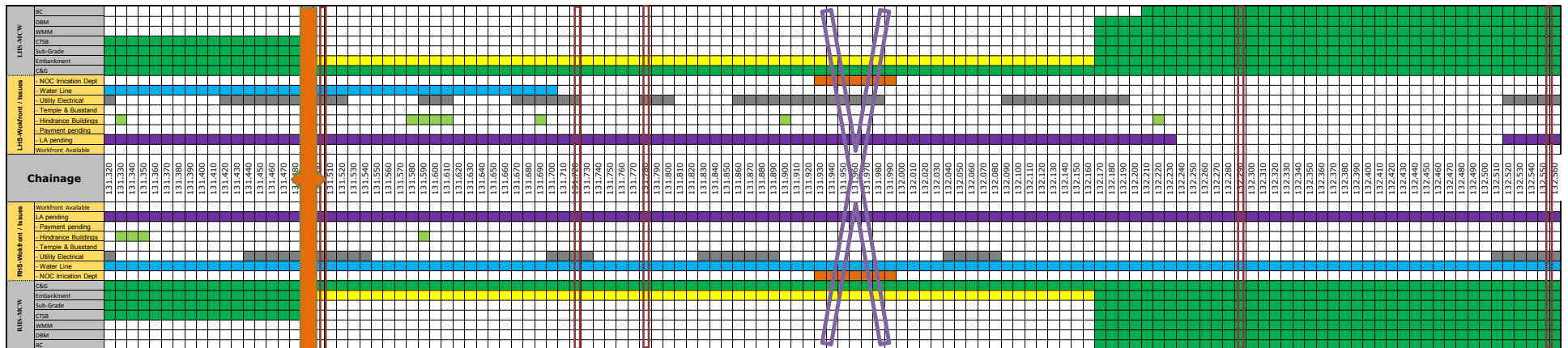
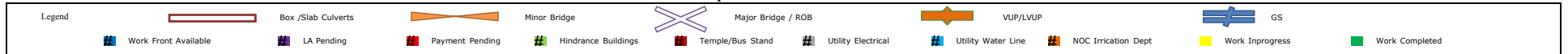
**Strip Chart as on 31.10.2022**



Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

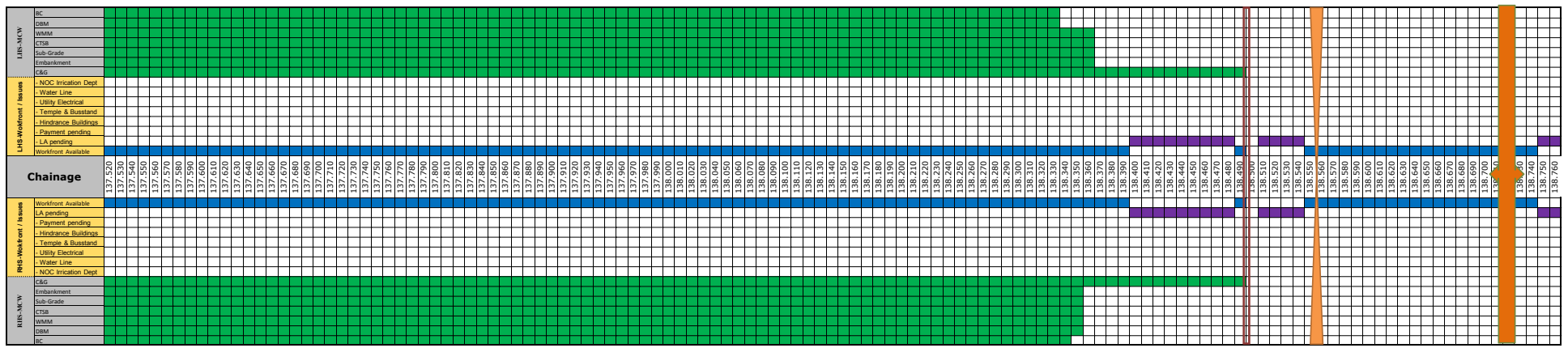
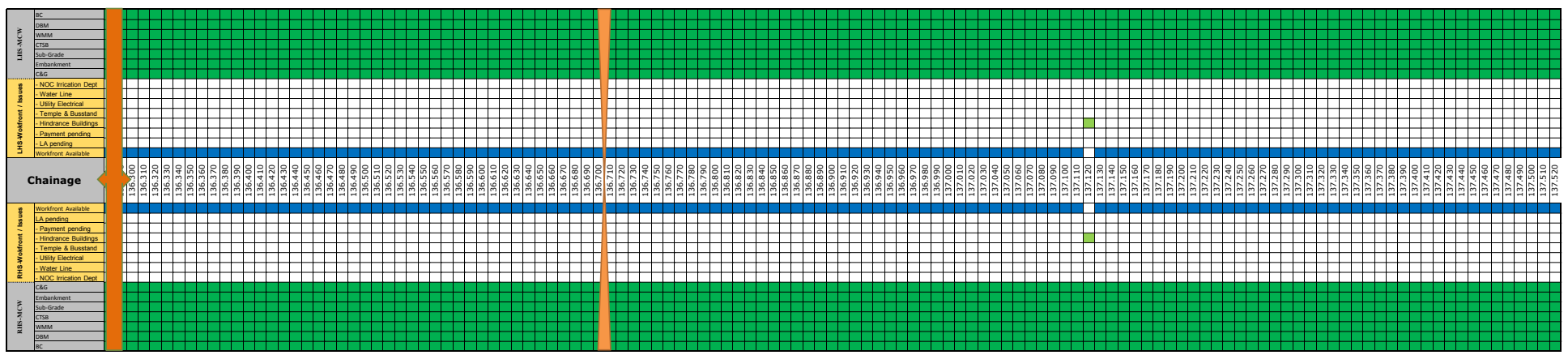
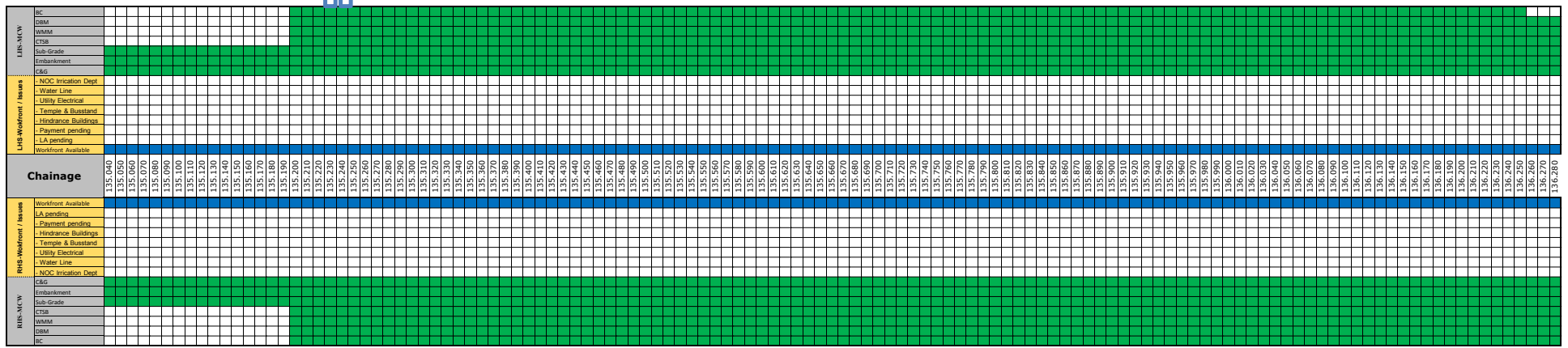
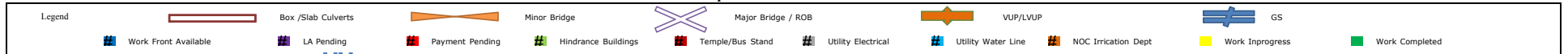
Strip Chart as on 31.10.2022



Four Lining of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

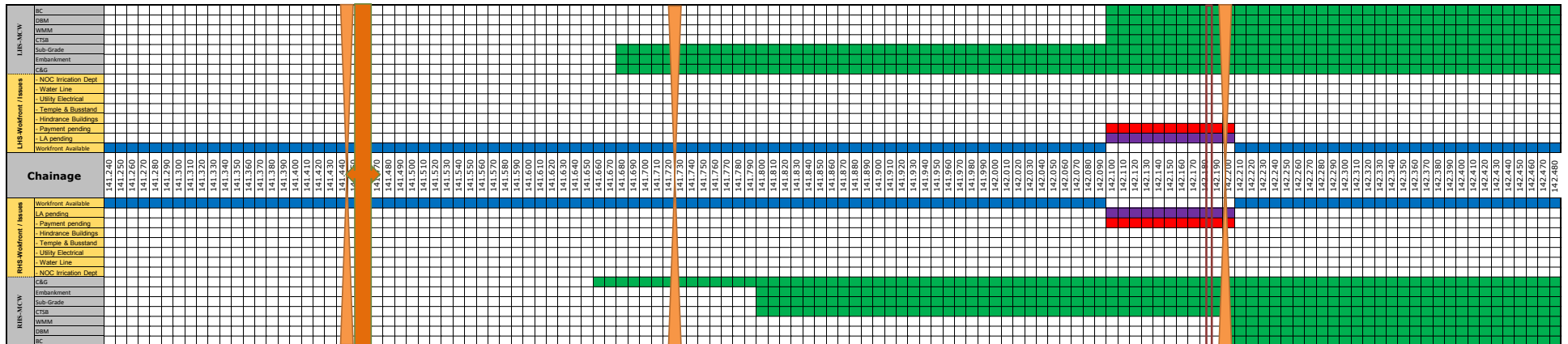
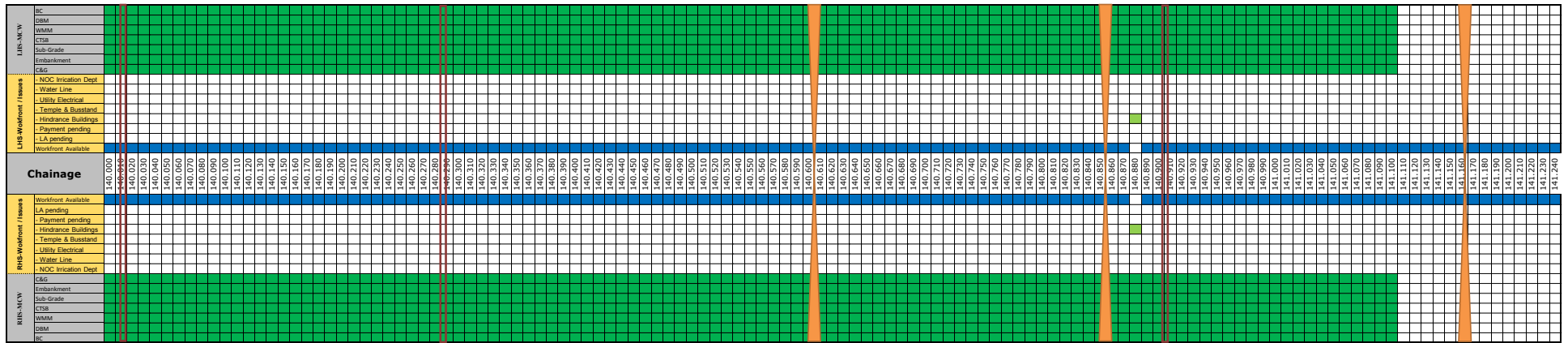
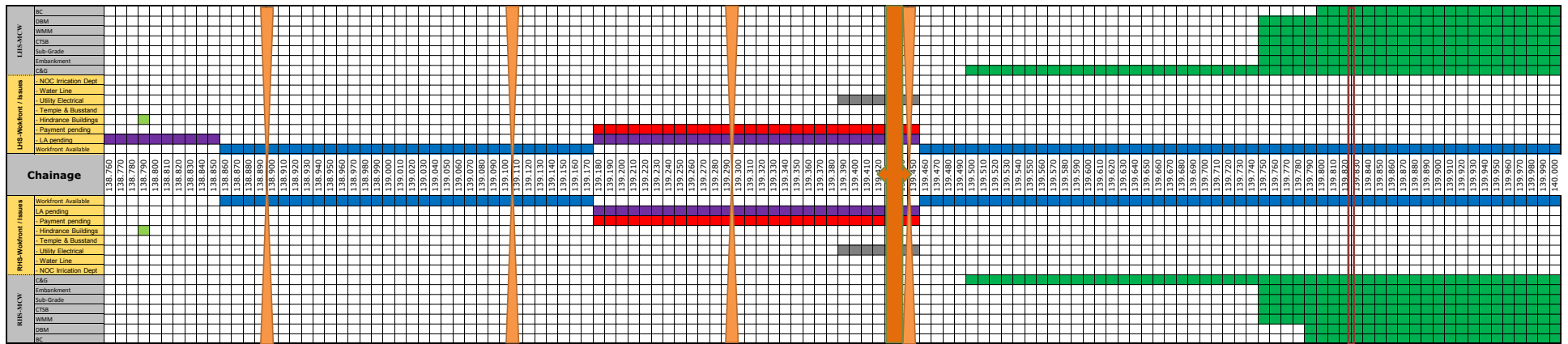
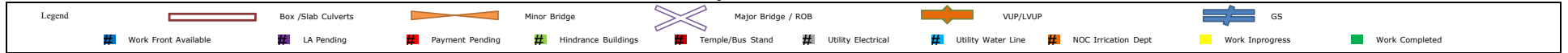
Strip Chart as on 31.10.2022



Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

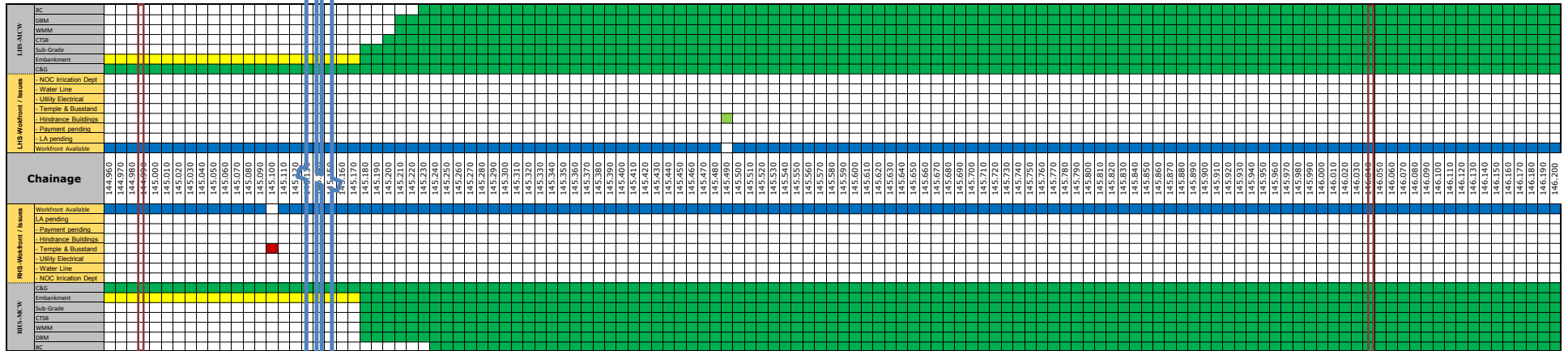
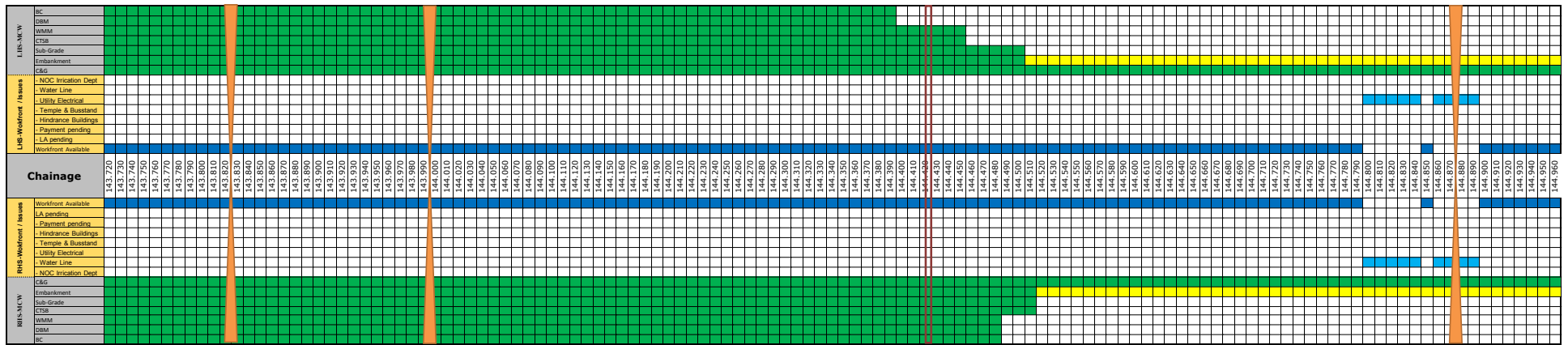
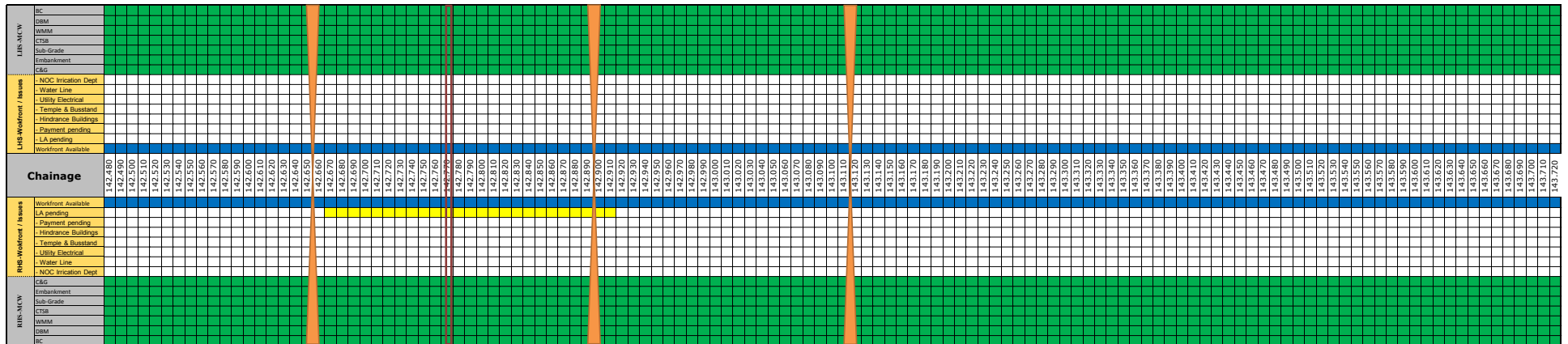
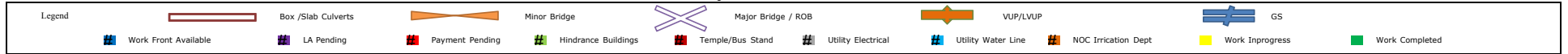
Strip Chart as on 31.10.2022



Four Lining of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

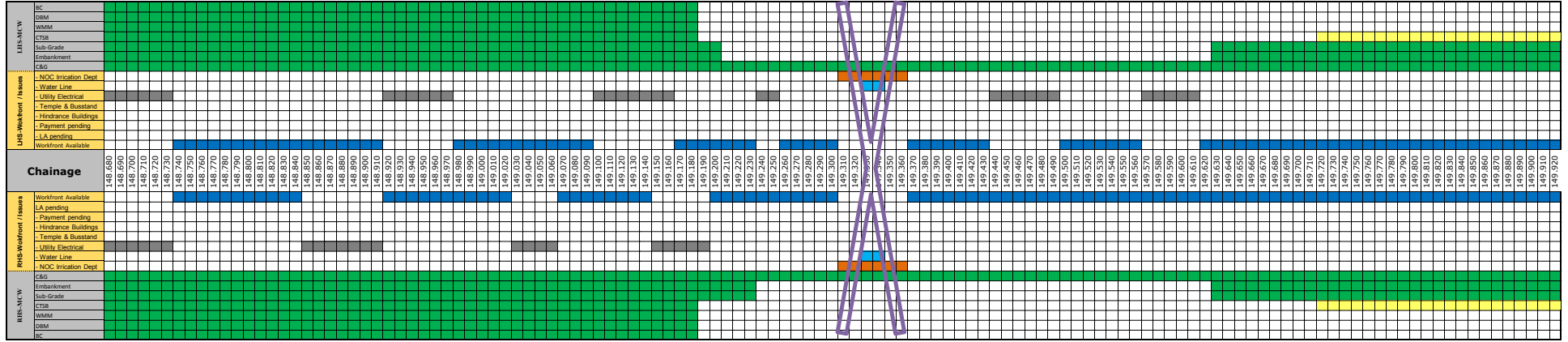
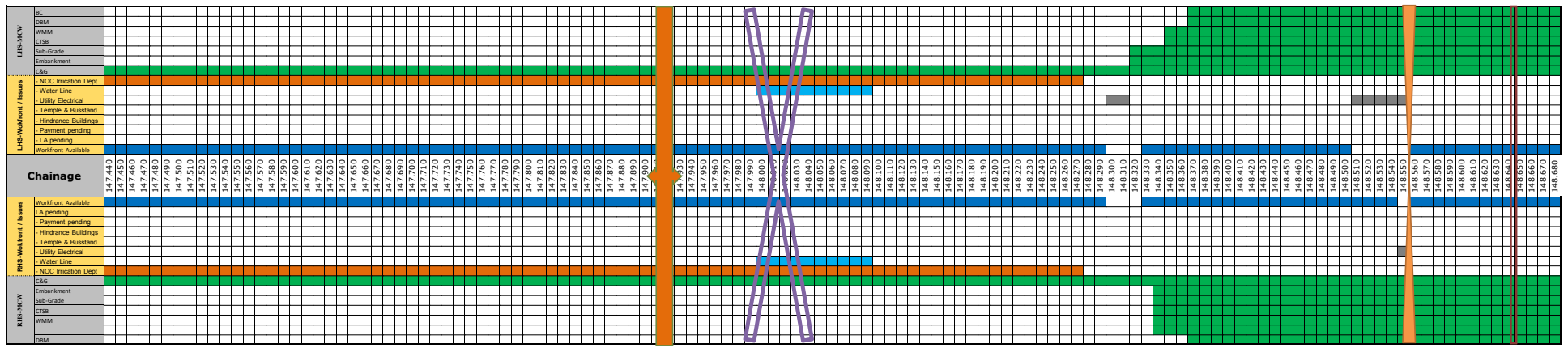
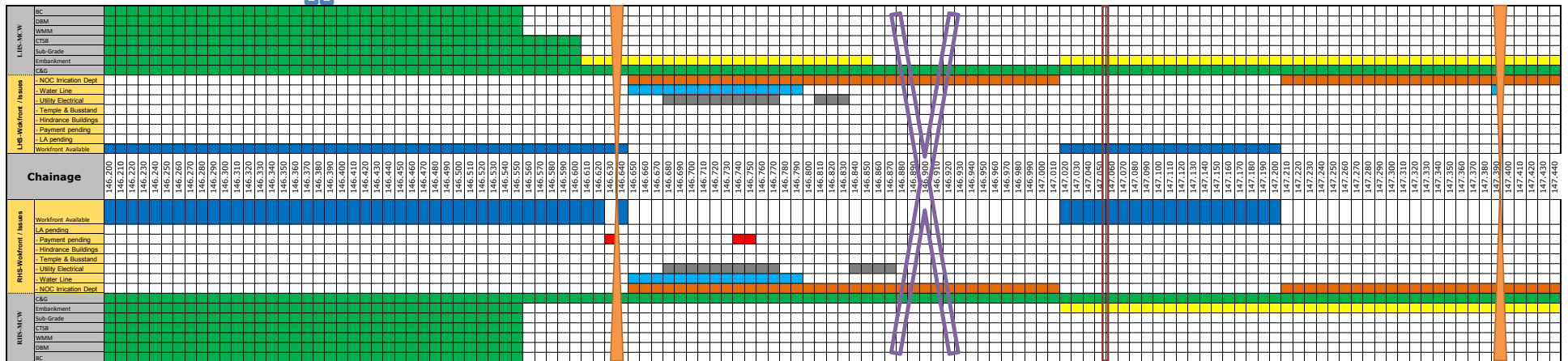
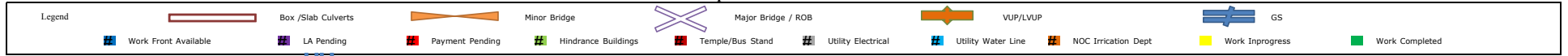
Strip Chart as on 31.10.2022



Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

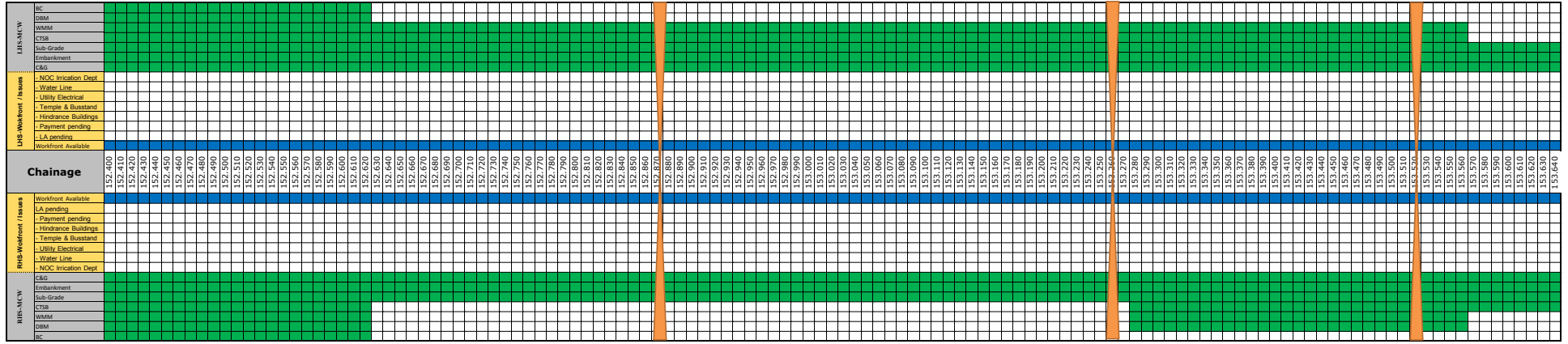
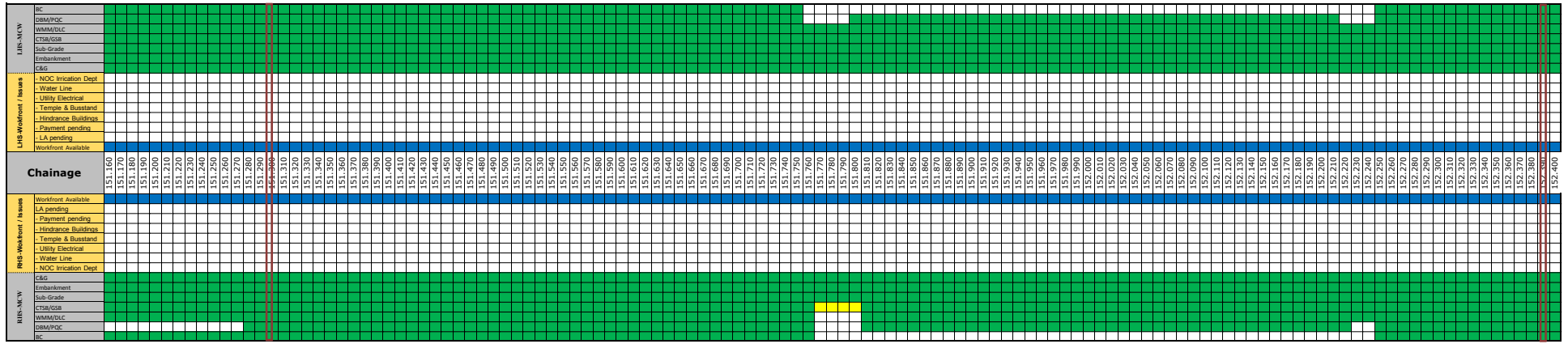
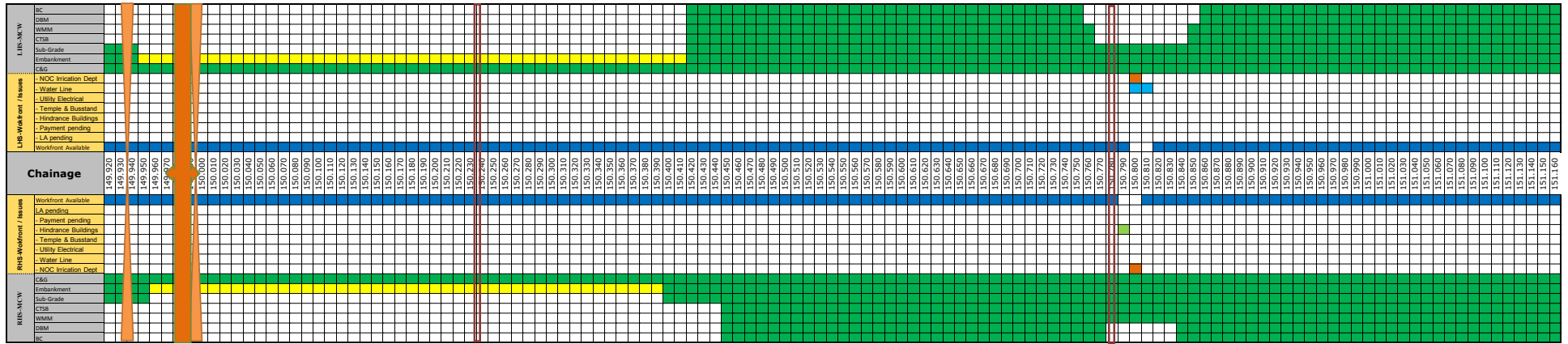
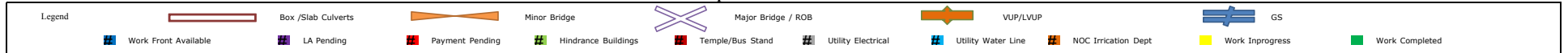
Strip Chart as on 31.10.2022



Four Lining of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

Strip Chart as on 31.10.2022

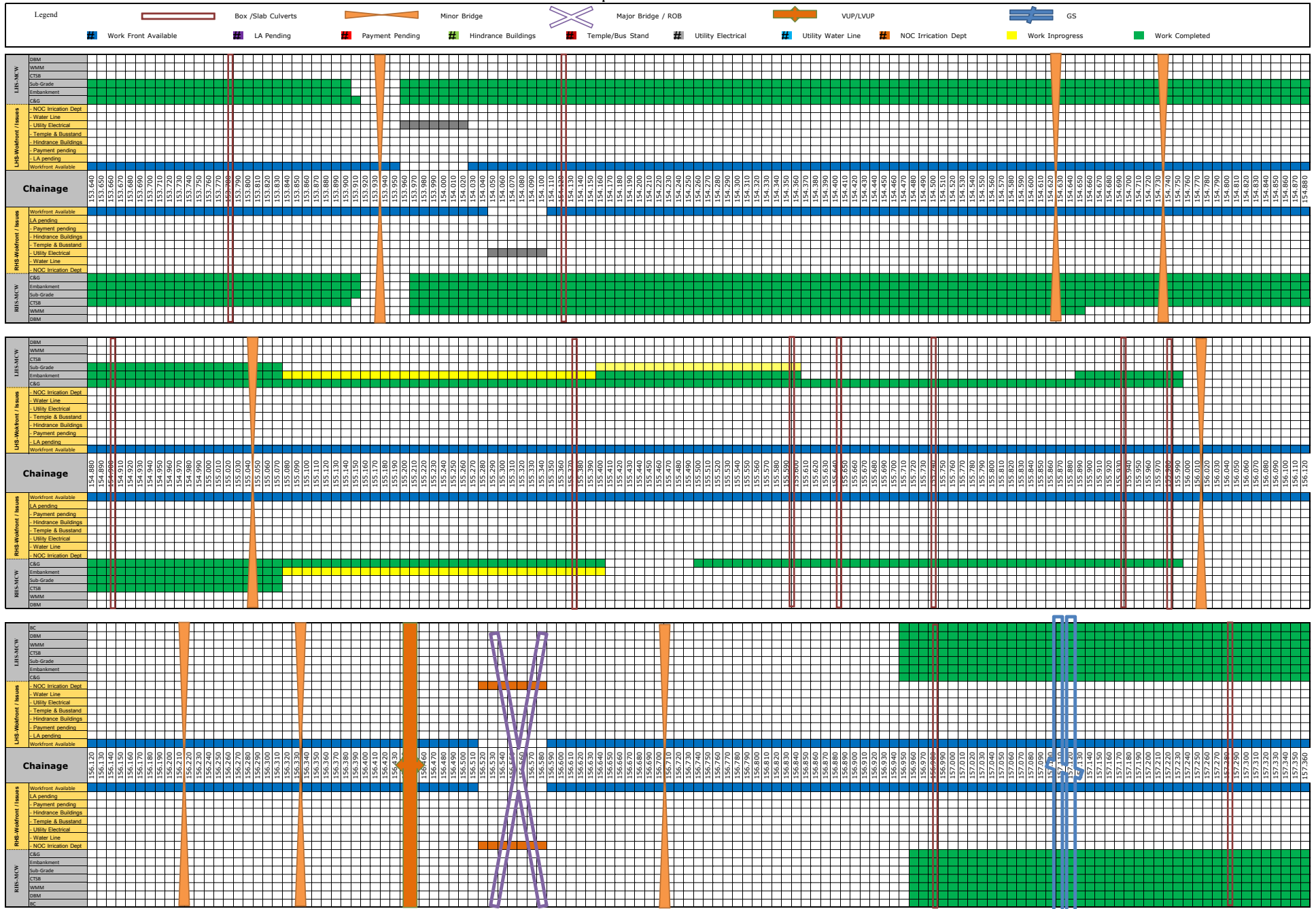




Four Lining of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

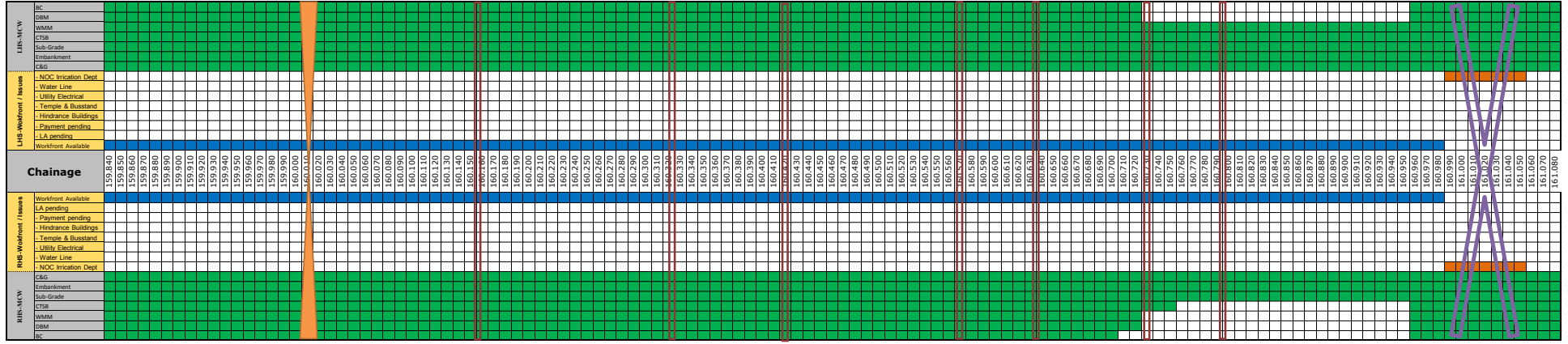
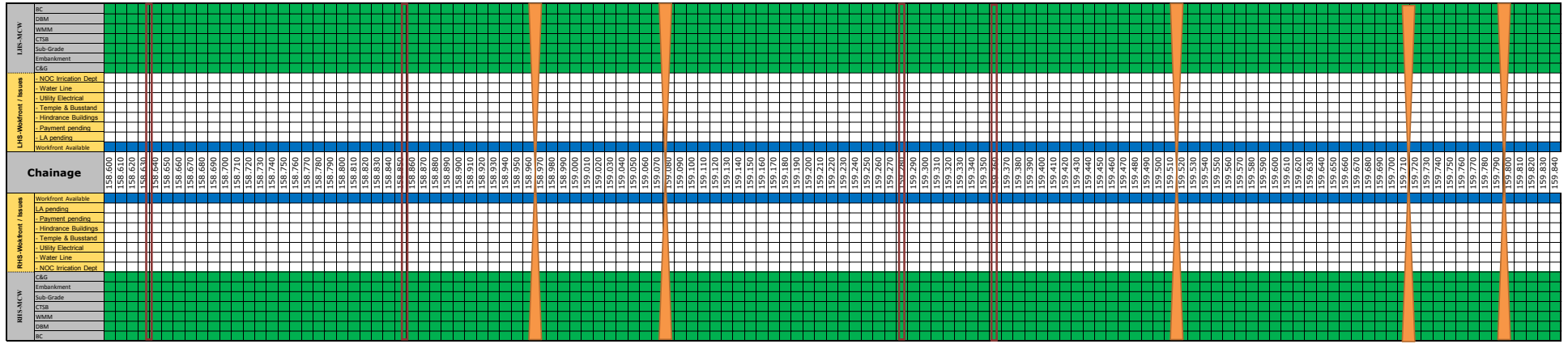
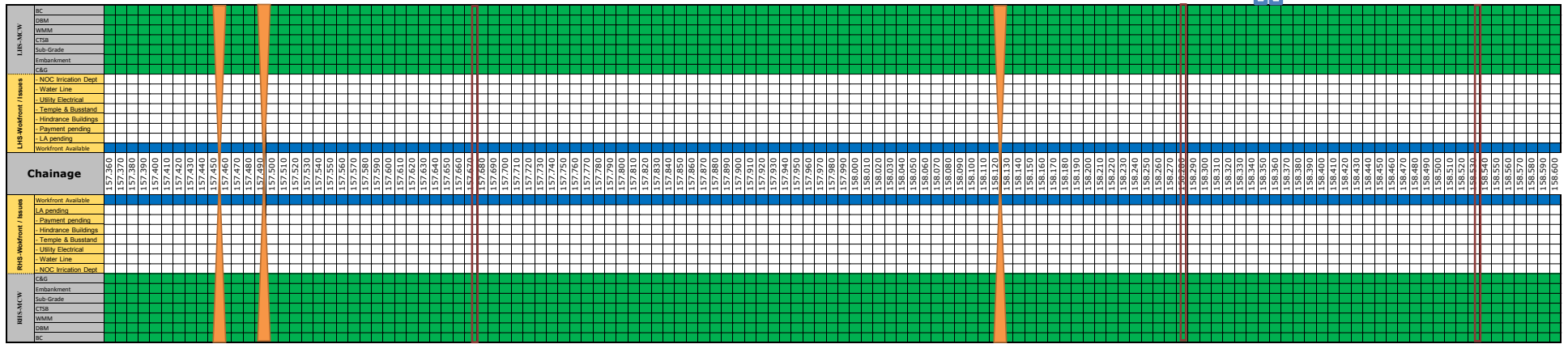
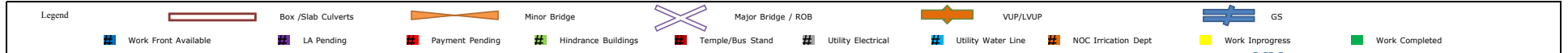
Strip Chart as on 31.10.2022



Four Lining of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

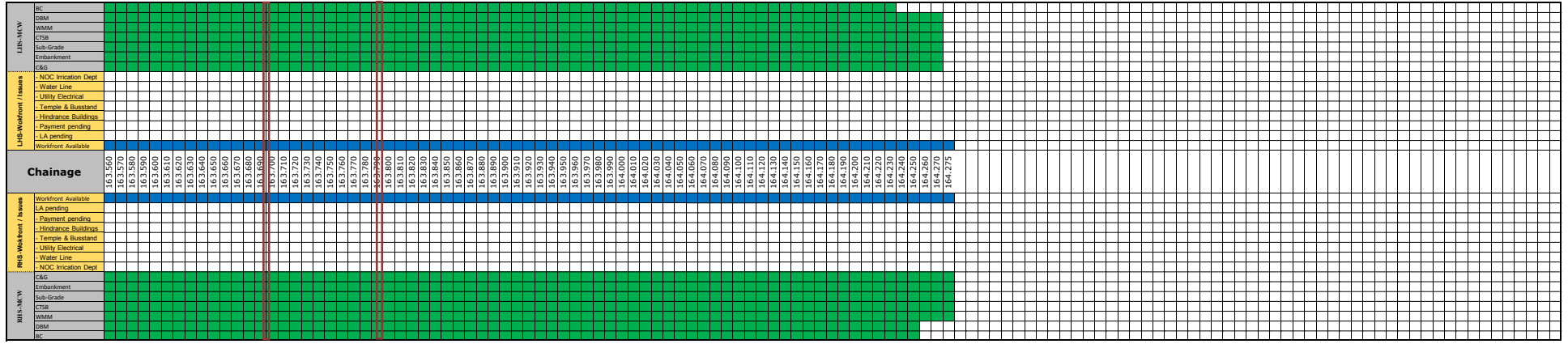
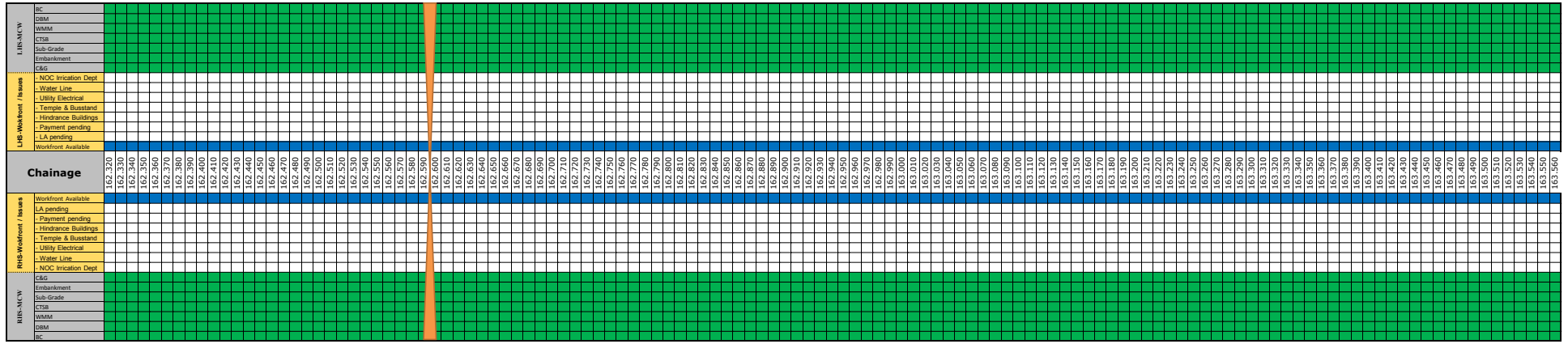
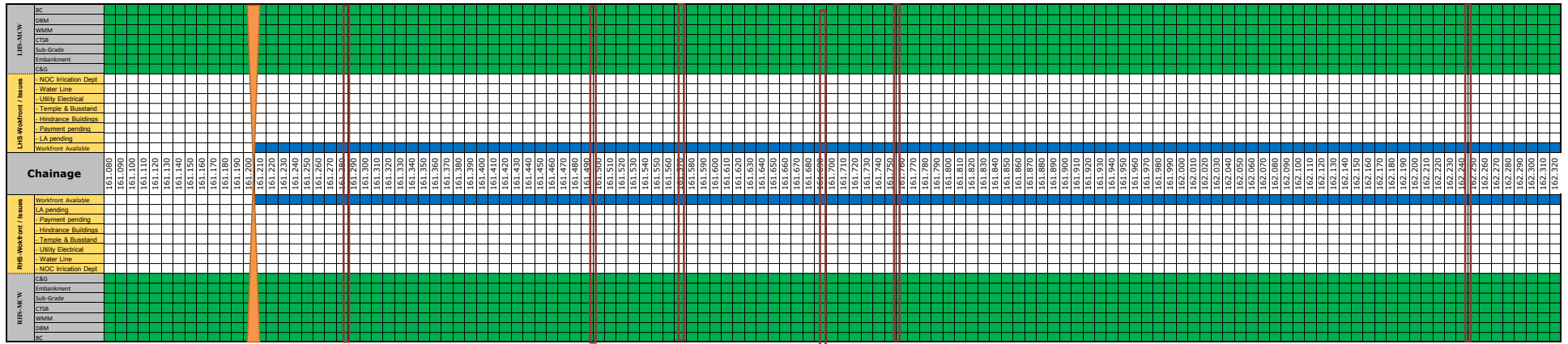
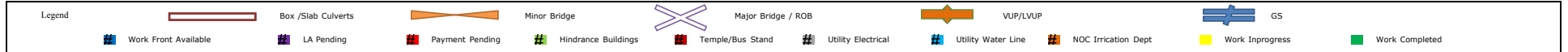
Strip Chart as on 31.10.2022



Four Lining of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.

Cholopuram - Thanjavur Project

Strip Chart as on 31.10.2022





**Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Table 4.3 - 1 : Strip Chart for status of Box Culverts on Existing Road ( Service Road )						IN PROGRESS								COMPLETED								
MPR OCTOBER 2022						LHS								RHS								
Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks (As per Schd B)	Type of Existing Structure	Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work	
1	120.068	120.077	1 x 3.0	Reconstruction	Slab Culvert																	
2	120.280	120.289	1 x 1.5	Reconstruction	Slab Culvert																	
3	120.346	120.356	1 x 1.5	Reconstruction	Box Culvert																	
4	126.836	126.854	1 x 3.0	Reconstruction	Slab Culvert																	
5	126.987	127.007	1 x 2.0	Reconstruction	Slab Culvert																	
6	127.488	127.498	1 x 1.2	Reconstruction	Pipe Culvert																	
7	127.600	127.612	3 x 1.2	Reconstruction	Pipe Culvert																	
8	128.494	128.505	1 x 1.2	Reconstruction	Pipe Culvert																	
9	128.675	128.667	1 x 2.0	Reconstruction	Box Culvert																	
10	128.682	128.693	1 x 2.0	Reconstruction	Slab Culvert																	
11	128.727	128.724	3 x 1.2	Reconstruction	Pipe Culvert																	
12	128.904	128.916	1 x 1.2	Reconstruction	Pipe Culvert																	
13	129.067	129.079	1 x 1.2	Reconstruction	Pipe Culvert																	
14	130.096	130.109	1 x 1.2	Reconstruction	Pipe Culvert																	
15	130.307	130.318	1 x 1.5	Reconstruction	Slab Culvert																	
16	130.357	130.369	1 x 1.5	Reconstruction	Slab Culvert																	
17	130.680	130.693	2 x 1.2	Reconstruction	Pipe Culvert																	
18	131.146	131.159	1 X 0.9	Widening	Pipe Culvert																	
19	131.505	131.517	1 x 3.0	Reconstruction	Slab Culvert																	
20	131.722	131.733	1 x 1.2	Reconstruction	Pipe Culvert																	
21	131.780	131.792	1 x 1.2	Reconstruction	Pipe Culvert																	
22	133.635	133.579	1 x 2.0	Reconstruction	Slab Culvert																	
23	133.734	133.748	1 x 2.0	Reconstruction	Slab Culvert																	
24	133.935	133.948	1 x 1.2	Reconstruction	Pipe Culvert																	
25	133.987	133.979	1 x 1.2	Reconstruction	Pipe Culvert																	

**Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

**Table 4.3 - 2 : Strip Chart for status of Box Culverts on Bypass ( Main Carriageway )**

MPR OCTOBER 2022						IN PROGRESS								COMPLETED								
						LHS								RHS								
Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work	
1	119.971	119.879	1 x 1.5m	Reconstruction	Slab Culvert																	
2	134.500	134.514	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
3	138.492	138.523	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
4	139.827	139.856	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
5	140.010	140.040	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
6	140.292	140.322	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
7	140.911	140.945	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
8	142.189	142.048	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
9	142.776	142.812	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
10	144.426	144.500	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
11	146.049	146.079	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
12	147.060	147.075	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
13	148.650	148.650	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
14	150.237	150.265	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
15	150.780	150.791	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
16	152.390	152.418	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
17	153.781	153.809	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
18	154.129	154.157	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
19	154.900	154.927	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
20	155.381	155.407	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
21	155.601	155.628	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
22	155.645	155.672	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
23	155.743	155.770	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
24	155.938	155.962	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
25	156.984	157.012	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
26	157.283	157.310	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
27	157.678	157.701	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
28	158.283	158.310	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
29	158.531	158.558	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
30	158.639	158.665	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
31	158.852	158.882	1 x 5.0m x 2.0m	New Costruction	Box Culvert																	
32	159.282	159.300	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
33	159.361	159.385	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
34	160.157	160.176	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
35	160.326	160.350	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
36	160.420	160.445	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
37	160.572	160.594	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
38	160.635	160.658	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
39	160.733	160.754	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
40	160.798	160.850	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
41	161.288	161.310	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
42	161.499	161.501	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
43	161.573	161.595	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
44	161.693	161.717	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
45	161.757	161.759	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
46	162.243	162.255	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	

**Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Table 4.3 - 2 : Strip Chart for status of Box Culverts on Bypass ( Service Road )						IN PROGRESS								COMPLETED								
MPR OCTOBER 2022						LHS								RHS								
Sr. No.	Design Chainage As per CA	Revised Design Chainage	Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Return Wall & Parapet	Protection Work	
1	119.971	119.879	1 x 1.5m	Reconstruction	Slab Culvert																	
2	134.500	134.514	1 x 2.0m x 2.0m	New Costruction	Box Culvert																	
3	138.492	138.523	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
4	144.426	144.500	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
5	150.237	150.265	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	
6	156.984	157.012	1 x 3.0m x 2.0m	New Costruction	Box Culvert																	
7	157.283	157.310	1 x 4.0m x 2.0m	New Costruction	Box Culvert																	





**Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

Table 4.3 - 3 : Strip Chart for status of MNB - Deck Type (Main Carriageway)				IN PROGRESS								COMPLETED										
MPR OCTOBER 2022				LHS								RHS										
SR. NO.	MNB at Chainage	Span	Pier/ Abutment	Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abt cap	Pier/Abt	Open Foundation	PCC For foundation	PCC For foundation/Piling work	Open Foundation/Pile Cap	Pier/Abt	Piercap/Abt cap	Girder Casting	Girder Launching	Slab	Crash Barrier			
1	133+345	3x12.5m	A1	EXISTING STRUCTURE																		
			P1																			
			P2																			
			A2																			
2	159+522	1x15.0m	A1																			
			A2																			

**Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode**

**Table 4.3 - 3 : Strip Chart for status of MNB - Box (Service Road )**

**IN PROGRESS**

**COMPLETED**

**MPR OCTOBER 2022**

**LHS**

**RHS**

Sr. No.	Design Chainage As per CA	Revised Chainage	Number and Length of Spans (m)	Type of Structure	Stretch	IN PROGRESS							COMPLETED										
						Protection Work	Slab	Wall	Reft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Reft	Wall	Slab	Protection Work				
<b>MNB SERVICE ROAD IN BYPASS</b>																							
1	117.764	117.779	2 x 10.0m	MNBB	Bypass																		
2	126.134	126.134	2 X 10.0m	MNBB	Realign																		
3	134.320	134.320	2x 10.0m	MNBB	Bypass																		
4	134.770	134.774	1 x 10.0m	MNBB	Bypass																		
5	138.555	138.585	1 x 6.0m	MNBB	Bypass																		
6	138.901	138.935	6 x 7.5m	MNBB	Bypass																		
7	139.105	139.138	2 x 15m	MNBB	Bypass																		
8	139.299	139.335	4 x 7.5m	MNBB	Bypass																		
9	139.453	139.485	1 x 7.0m	MNBB	Bypass																		
10	141.164	141.145	1 x 10.0m	MNBB	Bypass																		
11	141.445	141.466	1 x 8.0m	MNBB	Bypass																		
12	141.727	141.760	1 x 8.0m	MNBB	Bypass																		
13	144.880	144.916	4 x 7.5m	MNBB	Bypass																		
14	149.940	149.962	1 x 10.0m	MNBB	Bypass																		
15	149.997	150.028	1 x 6.0m	MNBB	Bypass																		
16	156.014	156.040	1 x 8.0m	MNBB	Bypass																		
17	156.216	156.244	1 x 6.0m	MNBB	Bypass																		
18	156.336	156.366	1 x 6.0m	MNBB	Bypass																		
19	156.707	156.734	1 x 10.0m	MNBB	Bypass																		

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 4 : Strip Chart for status of PUP				IN PROGRESS						COMPLETED						
MPR OCTOBER 2022				LHS						RHS						
Sr. No.	Design Chainage As per CA	Chainage as Per Site	Number and Length of Spans (m)		Protection Work	Slab	Wall	Raft	PCC	Excavation	Excavation	PCC	Raft	Wall	Slab	Protection Work
1	147.917	147.951	1 X 7 m	BYPASS												
2	149.988	150.023	1 X 7 m	BYPASS												

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3- 5 : Strip Chart for status of MJB ( Main Carriageway )									IN PROGRESS		COMPLETED						
MPR OCTOBER 2022																	
MJB at Chainage 131+980 (3x20) -WIDENING RHS																	
LHS/LSR									RHS/RSR								
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile		Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier	
A1	Existing Bridge (Repair Only)																
P1	Existing Bridge (Repair Only)																
P2	Existing Bridge (Repair Only)																
A2	Existing Bridge (Repair Only)																
MJB at Chainage 149+334 (3x20)- BYPASS																	
LHS/LSR									RHS/RSR								
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile		Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier	
A1																	
P1																	
P2																	
P3																	
A2																	
MJB at Chainage 156+559 (6x20)- BYPASS																	
LHS/LSR									RHS/RSR								
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile		Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier	
P2																	
P3																	
P4																	
P5																	
P6																	
A2																	
MJB at Chainage 161+019 (6x20)- BYPASS																	
LHS/LSR									RHS/RSR								
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile		Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier	
A1																	
P1																	
P2																	
P3																	
P4																	
P5																	
P6																	
A2																	

**Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu  
Under NHDP Phase-IV on Hybrid Annuity Mode**

Table 4.3 - 6 : Strip Chart for status of FLYOVER				IN PROGRESS										COMPLETED								
MPR OCTOBER 2022				LHS										RHS								
Sr. No.	FO at Chainage	Span		Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtc ap	Pier/Abt	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Pier/Abt	Piercap/Abtc ap	Girder Casting	Girder Launching	Slab	Crash Barrier	
1	117+600	1 x 30 m	BYPASS+ EXISTING	A1																		
				A2																		
2	120+000	1 x 30 m	BYPASS+ EXISTING	A1																		
				A2																		
3	127+300	1 x 30 m	EXISTING	A1																		
				A2																		
4	134+000	1 x 30 m	BYPASS+ EXISTING	A1																		
				A2																		
5	145+140	1 x 30 m	BYPASS	A1																		
				A2																		
6	157+100	1 x 30 m	BYPASS	A1																		
				A2																		

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu  
Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 7 : Strip Chart for status of VUP				IN PROGRESS										COMPLETED								
MPR OCTOBER 2022				LHS										RHS								
SR. NO.	VUP at Chainage	Span		Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtc ap	Pier/Abt	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Pier/Abt	Piercap/Abtc ap	Girder Casting	Girder Launching	Slab	Crash Barrier	
1	126+100	1x25	EXISTING	A1																		
				A2																		
2	126+600	1x25	EXISTING	A1																		
				A2																		
3	128+700	1x25	EXISTING	A1																		
				A2																		
4	130+335	1x25	EXISTING	A1																		
				A2																		
5	131+500	1x25	EXISTING	A1																		
				A2																		
6	136+282	1x25	BYPASS	A1																		
				A2																		
7	138+720	1x25	BYPASS	A1																		
				A2																		
8	139+440	1x25	BYPASS	A1																		
				A2																		
9	141+450	1x25	BYPASS	A1																		
				A2																		
10	156+446	1x25	BYPASS	A1																		
				A2																		

Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu  
Under NHDP Phase-IV on Hybrid Annuity Mode

Table 4.3 - 8 : Strip Chart for status of ROB

IN PROGRESS

COMPLETED

MPR OCTOBER 2022

ROB at Chainage 134+345 (1 x 20.285m+1 x 30.426m+1 x 20.285m (Skew 9.6 °))- EXISTING

LHS/LSR

RHS/RSR

	Crash Barrier	Slab	Steel Girder Launching	Steel Girder Fabrication	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Steel Girder Fabrication	Steel Girder Launching	Slab	Crash Barrier
A1			NA	NA													NA	NA		
P1					NA	NA									NA	NA				
P2					NA	NA									NA	NA				
A2			NA	NA													NA	NA		

## 5. Financial & Physical Progress of Work

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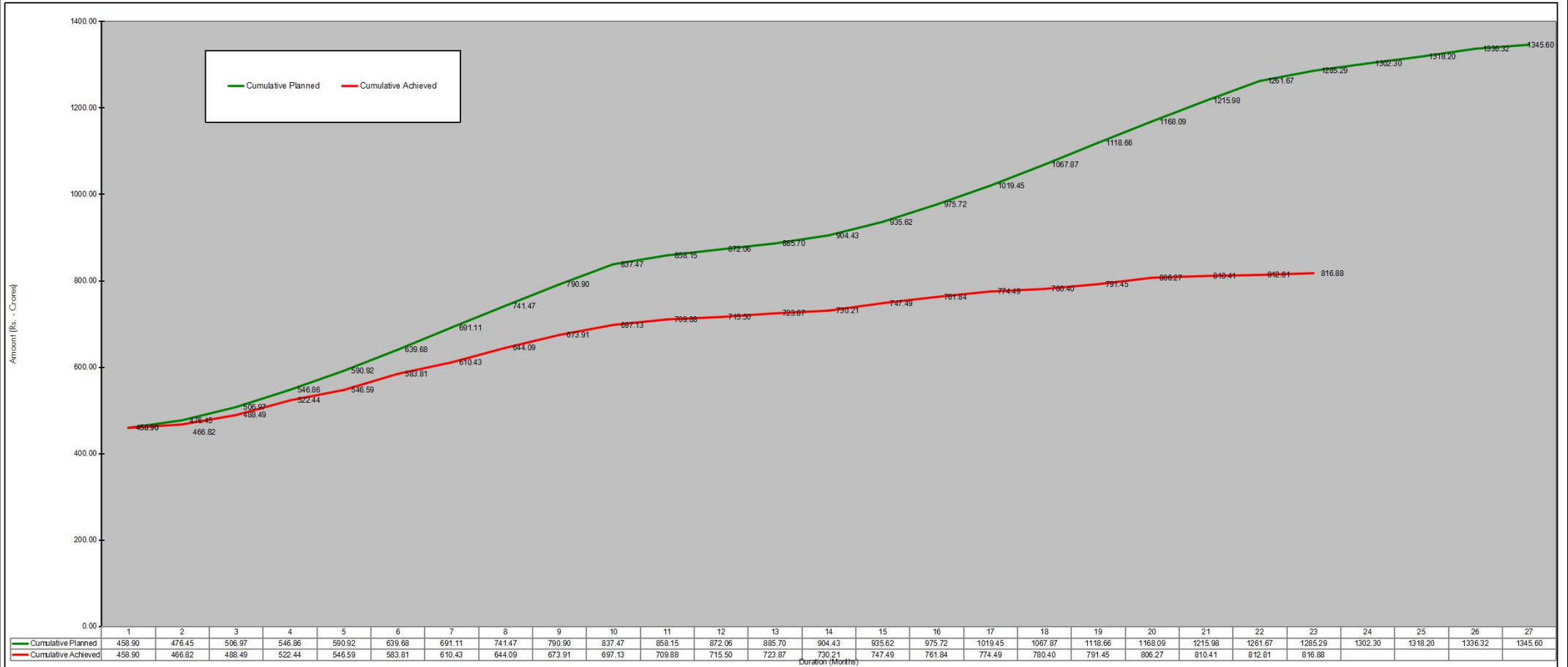
Figure 3a : Financial Progress - Planned vs Achieved - S Curve

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



## Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode

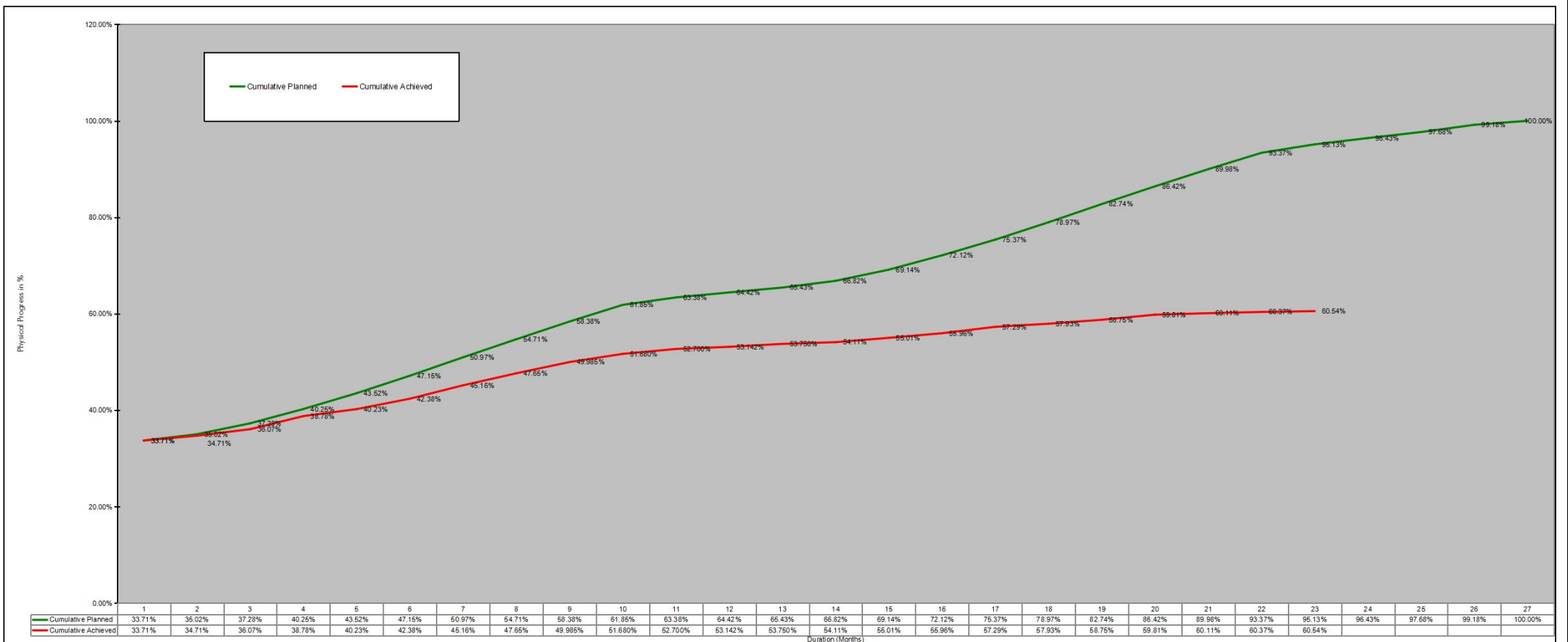
**Fig. 03a- Financial Progress (Revised S-Curve) as per revised target mentioned in the Settlement Agreement (including EOT of 105 days + 90 days grace period)**



	Schedule	2020												2021												2022					2023	
		Upto Dec 1	Jan 2	Feb 3	Mar 4	Apr 5	May 6	Jun 7	Jul 8	Aug 9	Sep 10	Oct 11	Nov 12	Dec 13	Jan 14	Feb 15	Mar 16	Apr 17	May 18	Jun 19	Jul 20	Aug 21	Sep 22	Oct 23	Nov 24	Dec 25	Jan 26	Feb 27				
Revised Target vs Achieved as per revised target	Monthly Planned	458.90	17.56	30.52	39.88	44.06	48.76	51.43	50.36	49.42	46.58	20.68	13.91	13.64	18.73	31.19	40.09	43.73	48.42	50.79	49.43	47.89	45.68	23.63	17.01	15.90	18.11	9.29				
	Monthly Achieved	458.90	7.92	21.67	33.95	24.15	37.21	26.63	33.66	29.81	23.23	12.75	5.61	8.37	6.34	17.28	14.35	12.65	5.90	11.05	14.82	4.14	2.40	4.07								
	Cumulative Planned	458.90	476.45	506.97	546.86	590.92	639.68	691.11	741.47	790.90	837.47	858.15	872.06	885.70	904.43	935.62	975.72	1019.45	1067.87	1118.66	1168.09	1215.98	1261.67	1285.29	1302.30	1318.20	1336.32	1345.60				
	Cumulative Achieved	458.90	466.82	488.49	522.44	546.59	583.81	610.43	644.09	673.91	697.13	709.88	715.50	723.87	730.21	747.49	761.84	774.49	780.40	791.45	806.27	810.41	812.81	816.88								
	Monthly Planned (%)	34.10%	1.30%	2.27%	2.96%	3.27%	3.62%	3.82%	3.74%	3.67%	3.46%	1.54%	1.03%	1.01%	1.39%	2.32%	2.98%	3.25%	3.60%	3.77%	3.67%	3.56%	3.40%	1.76%	1.26%	1.18%	1.35%	0.69%				
	Monthly Achieved (%)	34.10%	0.59%	1.61%	2.52%	1.80%	2.77%	1.98%	2.50%	2.22%	1.73%	0.95%	0.42%	0.62%	0.47%	1.28%	1.07%	0.94%	0.44%	0.82%	1.10%	0.31%	0.18%	0.30%								
	Cumulative Planned (%)	34.10%	35.41%	37.68%	40.64%	43.91%	47.54%	51.36%	55.10%	58.78%	62.24%	63.77%	64.81%	65.82%	67.21%	69.53%	72.51%	75.76%	79.36%	83.13%	86.81%	90.37%	93.76%	95.52%	96.78%	97.96%	99.31%	100.00%				
	Cumulative Achieved (%)	34.10%	34.69%	36.30%	38.83%	40.62%	43.39%	45.36%	47.87%	50.08%	51.81%	52.76%	53.17%	53.80%	54.27%	55.55%	56.62%	57.56%	58.00%	58.82%	59.92%	60.23%	60.41%	60.71%								

Note:- Due to force majeure event on account of 2nd wave of COVID -19 and due to problems/constraints at site on account of delay in process of obtaining permission for extraction of soil from the Borrow area and interruption in the supply of Pond Ash, the required progress could not be achieved.

**Four Laning of Cholopuram – Thanjavur from Km. 116.440 to 164.275 Section of NH45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode**  
**Fig. 03b- Physical Progress (Revised S-Curve) as per revised target mentioned in the Settlement Agreement (including EOT of 105 days + 90 days grace period)**



Schedule	2020												2021												2022												2023	
	Upto Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27											
Monthly Planned	33.71%	1.30%	2.27%	2.96%	3.27%	3.62%	3.82%	3.74%	3.67%	3.46%	1.54%	1.03%	1.01%	1.39%	2.32%	2.98%	3.25%	3.60%	3.77%	3.67%	3.56%	3.40%	1.76%	1.30%	1.25%	1.50%	0.82%											
Monthly Achieved	33.71%	1.00%	1.35%	2.71%	1.45%	2.16%	2.78%	2.49%	2.333%	1.695%	1.02%	0.44%	0.61%	0.36%	0.90%	0.96%	1.33%	0.64%	0.82%	1.06%	0.31%	0.26%	0.17%															
Cumulative Planned	33.71%	35.02%	37.28%	40.25%	43.52%	47.15%	50.97%	54.71%	58.38%	61.85%	63.38%	64.42%	65.43%	66.82%	69.14%	72.12%	75.37%	78.97%	82.74%	86.42%	89.98%	93.37%	95.13%	96.43%	97.68%	99.18%	100.00%											
Cumulative Achieved	33.71%	34.71%	36.07%	38.78%	40.23%	42.38%	45.16%	47.65%	49.985%	51.680%	52.700%	53.142%	53.750%	54.11%	55.01%	55.96%	57.29%	57.93%	58.75%	59.81%	60.11%	60.37%	60.54%															

Note:- Due to force majeure event on account of 2nd wave of COVID -19 and due to problems/constraints at site on account of delay in process of obtaining permission for extraction of soil from the Borrow area and interruption in the supply of Pond Ash, the required progress could not be achieved.

### 6.1. List of Lab Equipment's

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

Sl. No	Equipment List	Quantity
<b>A) SOIL</b>		
1	Proctor Moulds (Big) Collar or Base plate & Rammer 4.89 kg	6
2	Proctor Moulds (Small) Collar or Base plate & Rammer 2.6 kg	4
3	Atterberg Limits Test(Apparatus)	1
4	Soil Cone Penetrometer	1
5	CBR Moulds with collar or Base Plate	60
6	CBR Plunger	4
7	Proving Ring(25 KN)	1
8	Proving Ring(10 KN)	1
9	Proving Ring(2.5 KN)	1
10	FSI JARS BOROSIL -100 ml	40
11	Spacer Disc(with Handle)	4
12	CBR Testing Machine	1
13	CBR Surcharge Central Hole Weights 2.5 kg	60
14	CBR Surcharge Slotted Weights 2.5 kg	60
15	CBR Perorated Brass plates	60
16	Sand Pouring Cylinders (100 mm Dia) Complete with Calibrating Container with Trays	2
17	Sand Pouring Cylinders (150 mm Dia) Complete with Calibrating Container with Trays	2
18	Sand Pouring Cylinders (200 mm Dia) Complete with Calibrating Container with Trays	2
19	Rapid Moisture Meters	4
20	Calcium Carbide Bottles	10
21	Spatula Big	10
22	Spatula Small	10

23	Hammers big	4
24	Chisels big	20
25	Electronic Balance Capacity 100 kg (10 gram accuracy)	1
26	Electronic Balance Capacity 50 kg (1 gram accuracy)	2
27	Electronic Balance Capacity 30 kg (1 gram accuracy)	2
28	Electronic Balance Capacity 10 kg (1 gram accuracy)	1
29	Electronic Balance Capacity 5 kg (0.5 gram accuracy)	1
30	Electronic Balance Capacity 600gram(0.01 gram accuracy)	2
31	Hot Air Oven (Big)250oC	1
32	Hot Air Oven (Small)250oC	1
33	Direct Shear Test Apparatus	1
34	Filter Paper Dia 100 mm	10
35	Filter Paper Dia 150 mm	10
36	Pipettes	4
37	Plastic Bottles	4
38	Enamel tray -450x300x40 mm	12
39	G.I tray-1500x1500x100mm	4
40	French Curves	2
<b><u>B) CONCRETE WORKS</u></b>		
41	Compressive Testing machine(2000KN)	1
42	Flextural strength testing machine digital	1
43	Concrete Cube Moulds With Base Plate(15cm)	200
44	Concrete Cube Moulds With Base Plate(10cm)	18
45	Motor Cube Moulds (7.06cm) with Base Plate	12
46	Motor Cube Vibrating Machine(12000 Rmp)	1
47	Concrete Mixer Electrically Operated	1
48	Cube Vibrating Machine (Big)	1
49	Slump Cone Testing Apparatus	10
50	Vicat Needle Apparatus , with dash pot complete with set of needles and brass mould	2
51	Soundness Testing Apparatus	2
52	Trowels With Wodden Handles	4
53	A I V Testing Machine	1
54	Loss Angels abrasion Testing Machine	1

55	Sand Equivalant Testing Apparatus	1
56	Flakiness Index Test Guage	1
57	Elongation Index Test Guage	1
58	Density Basket	2
59	Bulk Density Cylinder (5lt)	1
60	Bulk Density Cylinder (15lt)	1
61	Bulk Density Cylinder (30lt)	1
62	Gi trays -450x600x50mm	9
63	Enamel trays -300x250x40 mm	9
64	Trays for Samples Collections	12
65	Riffle Box ( 40 MM )	1
66	Riffle Box ( 20 MM )	1
67	Pycnometer Bottles ( 1000 ml)	4
68	Specific Gravity & water absorption test apparatus with Electronic balance	1
69	DLC Compaction vibrating hammer	1
70	Cement mortar cube mould 5.0 cm	12
71	Standard Sand Grade-1 bag of 25 kg	2
72	Standard Sand Grade-2 bag of 25 kg	2
73	Standard Sand Grade-3 bag of 25 kg	2
<b><u>C) BITUMINOUS WORKS</u></b>		
74	Specific Gravity Bottles ( 50 ml )	2
75	Specific Gravity Bottles ( 100 ml )	2
76	Pen Sky- Martins closed Tester (Flash & Fire point)	2
77	Dial gauge 0.01x30 mm adis make	4
78	Ring & Ball Apparatus ( Softening Point )	1
79	Bitumen Penetrometer ( automatic)	1
80	Marshall Stability Apparatus (set)	1
81	Marshall Compaction Pedestal	2
82	Marshall Compaction Rammer 4.53 KG	4
83	Marshall Moulds (101.6 mm Dia )	30
84	Modified Marshall Compaction Pedestal	1
85	Modified Marshall Compaction Rammer 10.2 KG	4
86	viscometer u tub size no 12	2

87	Breaker - glass 600 ml for ring and ball apparatus	4
88	Bitumen Extraction Apparatus (centrifuge Type)	1
89	Proving Ring(50 KN)	1
90	Proving Ring(100 KN)	1
91	Digital Thermometers	10
92	Glass Thermometer	10
93	IR Thermometer	5
94	Core Cutting Machine With Apparatus (set)	1
95	Diamond Core Cutting Bit (100mm Dia)	1
96	Core Barrels for Core Cutting Machine	1
97	Vacuum Pump (specific Gravity of Bitumen Mix GMM )	1
98	Constant temperature Water bath (Digital)	2
99	Penetration cup 55x70 mm	2
100	penetration cup 55x35 mm	2
101	Specific Gravity Flask (2000 ml )	1
102	Specific Gravity Flask (5000 ml )	1
103	Specimen Extractor (Tikki, Goli & Rod)Marshall	1
104	Emulsion Trays	6
105	Viscometer viscosity of emulsified bitumen	1
106	Stop Watch	4
107	Hot Plates Electrical	2
108	Viscometer viscosity of bitumen	1
<b>FOR I.S SIEVES 450 MM DIA</b>		
109	100MM	2
110	90MM	2
111	75MM	2
112	63MM	2
113	53MM	2
114	50MM	2
115	45MM	2
116	40MM	2
117	37.5MM	2
118	31.5MM	2
119	26.5MM	2

120	25MM	2
121	22.4MM	2
122	20MM	2
123	19MM	2
124	16 MM	2
125	14MM	2
126	13.2MM	2
127	12.5MM	2
128	11.2MM	2
129	10MM	2
130	9.5MM	2
131	6.3MM	2
132	5.6MM	2
133	4.75MM	2
134	2.36 MM	2
<b>FOR I.S SIEVES 200 MM DIA</b>		
135	37.5MM	2
136	6.5MM	2
137	22.4MM	2
138	19MM	2
139	16MM	2
140	14 MM	2
141	13.2MM	2
142	12.5MM	2
143	11.2MM	2
144	10MM	2
145	9.5MM	2
146	5.6MM	2
147	4.75MM	2
148	2.80MM	2
149	2.36MM	2
150	2.00MM	2
151	1.80MM	2
152	1.40MM	2

153	1.18MM	2
154	1.00MM	2
155	0.710 mc	1
156	0.600 mc	2
157	0.500 mc	1
158	0.45 mc	1
159	0.425 mc	2
160	0.355 mc	2
161	0.300 mc	2
162	0.150 mc	2
163	0.090 mc	2
164	0.075 mc	6
<b>GENERAL &amp; CONTROL OF PROFILE AND SURFACE EVENNESS</b>		
165	Rain Gauge	1
166	Vernier Calliper	1
167	Glass Measuring Cylinder -1000 ml	2
168	Glass Measuring Cylinder -500 ml	2
169	Glass Measuring Cylinder -250 ml	2
170	Glass Measuring Cylinder -250 ml	2
171	Plastic Measuring Cylinder- 1000 ml	2
172	Plastic Measuring Cylinder- 500 ml	2
173	Plastic Measuring Cylinder- 250 ml	2
174	Plastic Measuring Cylinder- 250 ml	2
175	Depth gauge	4
176	Digital thermo hygrometer	2
177	Sampling containers 100 gms	200
178	3 Meter straight edge and measuring wedge	1
179	Camber template board	2
180	5 mtr tape	2
181	10 mtr tape	2
182	30 mtr tape	4
183	50 mtr tape	4



## 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 October 2022 are tabulated below:-

**Four Laning of Cholopuram - Thanjavur From km 116.440 to km 164.275 Section of NH-45C in the State of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.**

**Summary of Quality Control Report / Monthly Progress Report (QC) - Month : October 2022**

Sr. No.	Description	IS Specification Clause	Frequency of Tests	Tests conducted upto Previous month				Tests conducted during reporting month October 2022				Tests conducted upto this month			
				No. of test Conducted	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted	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	421	421	0	224	0	0	0	0	421	421	0	224
1.2	Atterberg Limits	IS: 2720 (Part5)	1 test / 250 meters	421	421	0	224	0	0	0	0	421	421	0	224
1.3	Proctor	IS: 2720 (Part8)	1 test / 250 meters	233	233	0	68	0	0	0	0	233	233	0	68
1.4	Free Swell index	IS: 2720 (Part40)	1 test / 250 meters	421	403	18	224	0	0	0	0	421	403	18	224
<b>2.0 Cutting portion &amp; Existing Portion for EMB/SG (MoRT&amp;H 305)</b>															
2.1	Grain size analysis	IS: 2720 (Part4)	1 test /1500 m <sup>3</sup>	114	114	0	42	0	0	0	0	114	114	0	42
2.2	Atterberg Limits	IS: 2720 (Part5)	1 test /1500 m <sup>3</sup>	114	114	0	42	0	0	0	0	114	114	0	42
2.3	Proctor	IS: 2720 (Part8)	1 test /1500 m <sup>3</sup>	114	114	0	42	0	0	0	0	114	114	0	42
2.4	Free Swell index	IS: 2720 (Part40)	1 test /1500 m <sup>3</sup>	114	114	0	42	0	0	0	0	114	114	0	42
2.5	California bearing ratio	IS: 2720 (Part16)	1 test /3000 m <sup>3</sup>	108	108	0	44	0	0	0	0	108	108	0	44
<b>3.0 Borrow Area for EMB/Subgrade (MoRT&amp;H 305)</b>															
3.1	Grain size analysis	IS: 2720 (Part4)	1 test /1500 m <sup>3</sup>	2501	2501	0	555	4	4	0	1	2505	2505	0	556
3.2	Atterberg Limits	IS: 2720 (Part5)	1 test /1500 m <sup>3</sup>	2501	2501	0	555	4	4	0	1	2505	2505	0	556
3.3	Proctor	IS: 2720 (Part8)	1 test /1500 m <sup>3</sup>	2512	2512	0	555	4	4	0	1	2516	2516	0	556
3.4	Free Swell index	IS: 2720 (Part40)	1 test /1500 m <sup>3</sup>	2497	2497	0	555	4	4	0	1	2501	2501	0	556
3.5	California bearing ratio	IS: 2720 (Part16)	1 test /3000 m <sup>3</sup>	291	291	0	125	1	1	0	1	292	292	0	126
3.6	Angle of Internal Friction (ϕ)	IS: 2720 (Part13)	As required	259	259	0	60	2	2	0	1	261	261	0	61
<b>4.0 Field Density Test (MoRT&amp;H 305)</b>															
4.1	Field density (OGL)	IS: 2720 (Part28)	10 test /3000 sqm	6735	6720	15	2253	0	0	0	0	6735	6720	15	2253
4.2	Field density (EMB)	IS: 2720 (Part28)	10 test /3000 sqm	103003	102794	209	18043	156	156	0	54	103159	102950	209	18097
4.3	Field density (SG)	IS: 2720 (Part28)	10 test /2000 sqm	12755	12752	3	2295	110	110	0	30	12865	12862	3	2325
4.4	Field density (Shoulder)	IS: 2720 (Part28)	10 test /2000 sqm	422	422	0	104	0	0	0	0	422	422	0	104
<b>5.0 Safe Bearing capacity of soil (Highway &amp; Structure)</b>															
5.1	Grain size analysis	IS: 2720 (Part40)	As required	169	169	0	41	0	0	0	0	169	169	0	41
5.2	Atterberg Limits	IS: 2720 (Part4)	As required	169	169	0	41	0	0	0	0	169	169	0	41
5.3	Proctor	IS: 2720 (Part5)	As required	169	169	0	40	0	0	0	0	169	169	0	40
5.4	Free Swell index	IS: 2720 (Part8)	As required	169	162	7	41	0	0	0	0	169	162	7	41
5.5	Bearing Capacity	IS: 6403 / IS: 1888	As required	169	18	151	41	0	0	0	0	169	18	151	41
5.6	Plate Load Test	IS: 6403 / IS: 1888	As required	36	36	0	27	0	0	0	0	36	36	0	27
<b>6.0 Filter Media &amp; Back filling (MoRT&amp;H 2500)</b>															
6.1	Gradation		As required	406	406	0	112	3	3	0	1	409	409	0	113
6.2	Backfilling field density		1 test /1000 m <sup>3</sup>	48	48	0	36	0	0	0	0	48	48	0	36
<b>7.0 Granular Bedding Material (For Structures-Ground Improvement)-Stock &amp; Site Testing</b>															
7.1	Gradation	Table 400-1	As required	244	244	0	53	0	0	0	0	244	244	0	53
7.2	Atterberg Limits	IS: 2720 (Part5)	As required	244	244	0	53	0	0	0	0	244	244	0	53
7.3	Proctor	IS: 2720 (Part8)	As required	137	137	0	25	0	0	0	0	137	137	0	25
7.4	CBR Test	IS: 2720 (Part16)	As required	29	29	0	24	0	0	0	0	29	29	0	24
7.5	Aggregate Impact value	IS: 2386 (Part-4)	As required	42	42	0	29	0	0	0	0	42	42	0	29
7.6	Field Density	IS: 2720 (Part28)	As required	2215	2215	0	479	0	0	0	0	2215	2215	0	479
<b>8.0 CTSB</b>															
8.1	Gradation	Table 400-4	1 test/400m <sup>3</sup>	486	486	0	120	4	4	0	1	490	490	0	121
8.2	Atterberg Limits	IS: 2720 (Part5)	1 test/400m <sup>3</sup>	484	484	0	119	4	4	0	1	488	488	0	120
8.3	Proctor	IS: 2720 (Part8)	As required	23	23	0	21	1	1	0	1	24	24	0	22
8.4	Aggregate Impact value	IS: 2386 (Part-4)	As required	127	127	0	74	1	1	0	1	128	128	0	75
8.5	Field Density	IS: 2720 (Part28)	1 set of 2 Test per 500 Sqm	5305	5305	0	1012	16	16	0	3	5321	5321	0	1015
8.6	Specific gravity & Water absorption	IS: 2386 (Part-3)	As required	5	5	0	5	0	0	0	0	5	5	0	5
8.7	Cubes casting & Testing (Sets)	IRC:SP:89 (2010)	A set of 3 specimens	1077	1077	0	227	3	3	0	1	1080	1080	0	228
8.8	CBR Test	IS: 2720 (Part16)	As required	16	16	0	13	0	0	0	0	16	16	0	13

**Four Laning of Cholopuram - Thanjavur From km 116.440 to km 164.275 Section of NH-45C in the State of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.**

**Summary of Quality Control Report / Monthly Progress Report (QC) - Month : October 2022**

Sr. No.	Description	IS Specification Clause	Frequency of Tests	Tests conducted upto Previous month				Tests conducted during reporting month October 2022				Tests conducted upto this month			
				No. of test Conducted	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted	Passed	Failed	Nos. of test witnessed by IE
<b>9.0 WMM</b>															
9.1	Individual / Combined Gradation	Table 400-3	1 test/200m <sup>3</sup>	467	467	0	104	6	6	0	2	473	473	0	106
9.2	Aggregate Impact Value	IS: 2386 (Part-4)	1 test/1000 m <sup>3</sup>	287	287	0	71	4	4	0	1	291	291	0	72
9.3	Flakiness & Elongation index	IS: 2386 (Part-1)	1 test/500 m <sup>3</sup>	280	280	0	75	4	4	0	1	284	284	0	76
9.4	Atterberg Limits	IS: 2720 (Part5)	1 test/200m <sup>3</sup>	433	433	0	98	6	6	0	2	439	439	0	100
9.5	Proctor	IS: 2720 (Part8)	As required	17	17	0	15	1	1	0	0	18	18	0	15
9.6	CBR	IS: 2720 (Part16)	As required	15	15	0	13	0	0	0	0	15	15	0	13
9.7	Field Density	IS: 2720 (Part28)	1 set Test per 1000 Sq.m / 3 pits	1749	1749	0	403	24	24	0	4	1773	1773	0	407
<b>10.0 Dense Bituminous Macadam (Grade - II)</b>															
10.1	Gradation	MoRT&H Section-500/Clause-507 & Table 500-10	One set for individual constituent and mixed aggregate from dryer for each 400 tonnes of mix subject to minimum of two Tests per day per plant	417	417	0	133	3	3	0	1	420	420	0	134
10.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m <sup>3</sup>	139	139	0	53	1	1	0	1	140	140	0	54
10.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m <sup>3</sup>	139	139	0	53	1	1	0	1	140	140	0	54
10.4	Binder content and grading of mix	IRC:SP:11-1988 (APP-5)	One Test for each 400 tonnes of mix produced subject to a minimum of two test per day per plant	151	151	0	61	1	1	0	1	152	152	0	62
10.5	Marshall Stability of mix	ASTM D 2726/1188	3 Tests for stability flow value density and void contents for each 400 tonnes of mix subject to minimum of two Tests per plant per day	245	245	0	76	1	1	0	1	246	246	0	77
10.6	Core Cutting and Density of Compacted Layer	Table 900-4 of MoRT&H	1 set Test per 700 Sq.m / 1 pits	730	730	0	229	3	3	0	1	733	733	0	230
10.7	Sand Equivalent Test	IS: 2720 (Part 37)1963	One Test for each source	16	16	0	15	0	0	0	0	16	16	0	15
10.8	Los Angeles Abrasion Value	IS: 2386 (Part 3)1963	1 Test for 350 m <sup>3</sup>	97	97	0	33	1	1	0	1	98	98	0	34
10.9	Stripping	IS: 6241	One Test for each source	7	7	0	7	0	0	0	0	7	7	0	7
10.10	Retained Tensile Strength	AASHTO 284	One Test for each source	8	8	0	8	0	0	0	0	8	8	0	8
10.11	Water absorption of Aggregates	IS: 2386 (Part3)	One Test for each source	3	3	0	1	0	0	0	0	3	3	0	1
10.12	Plasticity Index	IS: 2720 (Part5)	One Test for each source	6	6	0	5	0	0	0	0	6	6	0	5
<b>11.0 Bituminous Concrete (Grade - II)</b>															
11.1	Gradation	MoRT&H Section-500/Clause-507 & Table 500-10	One set for individual constituent and mixed aggregate from dryer for each 400 tonnes of mix subject to minimum of two Tests per day per plant	222	222	0	52	0	0	0	0	222	222	0	52
11.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m <sup>3</sup>	79	79	0	23	0	0	0	0	79	79	0	23
11.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m <sup>3</sup>	79	79	0	23	0	0	0	0	79	79	0	23
11.4	Binder content and grading of mix	IRC:SP:11-1988 (APP-5)	One Test for each 400 tonnes of mix produced subject to a minimum of two test per day per plant	109	109	0	35	0	0	0	0	109	109	0	35
11.5	Marshall Stability of mix	ASTM D 2726/1188	3 Tests for stability flow value density and void contents for each 400 tonnes of mix subject to minimum of two Tests per plant per day	532	532	0	33	0	0	0	0	532	532	0	33
11.6	Core Cutting and Density of Compacted Layer	Table 900-4 of MoRT&H	1 set Test per 700 Sq.m / 1 pits	764	764	0	201	0	0	0	0	764	764	0	201
11.7	Sand Equivalent Test	IS: 2720 (Part 37)1963	One Test for each source	1	1	0	1	0	0	0	0	1	1	0	1
11.8	Los Angeles Abrasion Value	IS: 2386 (Part 3)1963	1 Test for 350 m <sup>3</sup>	79	79	0	24	0	0	0	0	79	79	0	24
11.9	Stripping	IS: 6241	One Test for each source	2	2	0	2	0	0	0	0	2	2	0	2
11.10	Retained Tensile Strength	AASHTO 284	One Test for each source	2	2	0	2	0	0	0	0	2	2	0	2
11.11	Water absorption of Aggregates	IS: 2386 (Part3)	One Test for each source	2	2	0	2	0	0	0	0	2	2	0	2
11.12	Plasticity Index	IS: 2720 (Part5)	One Test for each source	2	2	0	2	0	0	0	0	2	2	0	2

**Four Laning of Cholopuram - Thanjavur From km 116.440 to km 164.275 Section of NH-45C in the State of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.**

**Summary of Quality Control Report / Monthly Progress Report (QC) - Month : October 2022**

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<b>12.0 Bitumen test</b>															
12.1	Absolute Viscosity at 60° C poise, Minimum	IS: 1206-1978 (Part-2)	As per table 2 of IS: 73-2013	160	160	0	50	0	0	0	0	160	160	0	50
12.2	Penetration Test at 25° C, 100gr, 0.1mm, 5sec	IS: 1203-1978	As per table 2 of IS: 73-2013	231	231	0	50	0	0	0	0	231	231	0	50
12.3	Softening point (R&B) Min	IS: 1205-1978	As per table 2 of IS: 73-2013	273	273	0	69	0	0	0	0	273	273	0	69
12.4	Elastic Recovery of half thread in ductilometer at 15°C, Percent, min	IS: 15462-2019	As per table 2 of IRC:SP:53	113	113	0	33	0	0	0	0	113	113	0	33
12.5	Separation, Difference In Softening Point (R&B)° C	IS: 15462-2019	As per table 2 of IRC:SP:53	113	113	0	33	0	0	0	0	113	113	0	33
12.6	Test on Residue from TFOT														
12.7	Viscosity ratio at 60° C max	IS: 1206-1978 (Part-2)	1 Test per Lot	39	39	0	23	0	0	0	0	39	39	0	23
12.8	Ductility at 25° C, cm, Min	IS: 1208-1978	1 Test per Lot	39	39	0	23	0	0	0	0	39	39	0	23
<b>13.0 EMULSION SS1 &amp; RS1</b>															
13.1	Saybolt fural Viscosity	IS: 13117	1 Test per Lot	30	30	0	19	0	0	0	0	30	30	0	19
13.2	Residue on 600 micron IS Sieve	IS: 8887	1 Test per Lot	30	30	0	19	0	0	0	0	30	30	0	19
13.3	Water Content, Percent by mass	IS: 8887	1 Test per Lot	30	30	0	19	0	0	0	0	30	30	0	19
<b>14.0 EMULSION Prime coat &amp; Tack Coat</b>															
14.1	Rate of Spread of Binder	IRC:SP:16	Three test per Day	696	696	0	168	6	6	0	2	702	702	0	170
<b>15.0 Coarse/Fine Aggregate (MoRT&amp;H 1007 &amp; 1008)</b>															
15.1	Gradation	IS: 2386 (Part2)	As required	1210	1210	0	375	4	4	0	1	1214	1214	0	376
15.2	Specific gravity & Water absorption	IS: 2386 (Part3)	As required	74	74	0	41	0	0	0	0	74	74	0	41
15.3	Aggregate Impact Value	IS: 2386 (Part4)	As required	238	238	0	83	1	1	0	1	239	239	0	84
15.4	Flakiness index	IS: 2386 (Part1)	As required	236	236	0	81	1	1	0	1	237	237	0	82
<b>16.0 Cement (MoRT&amp;H 1006)</b>															
16.1	Fineness	IS: 4031 (Part1)	500MT (or) Every week	284	284	0	109	4	4	0	1	288	288	0	110
16.2	Normal Consistency	IS: 4031 (Part4)	500MT (or) Every week	284	284	0	109	4	4	0	1	288	288	0	110
16.3	Initial & Final setting time	IS: 4031 (Part5)	500MT (or) Every week	284	284	0	109	4	4	0	1	288	288	0	110
16.4	Soundness of Cement	IS: 4031 (Part3)	500MT (or) Every week	163	163	0	72	0	0	0	0	163	163	0	72
16.5	Compressive Strength-set	IS: 4031 (Part6)													
	3 days		500MT (or) Every week	303	303	0	114	5	5	0	2	308	308	0	116
	7 days		500MT (or) Every week	296	296	0	112	4	4	0	1	300	300	0	113
	28 days		500MT (or) Every week	298	298	0	91	4	4	0	1	302	302	0	92
<b>17.0 Concrete Cube Strength of Site Cubes 28 Days</b>															
17.1	M15 PCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	1184	1184	0	447	7	7	0	2	1191	1191	0	449
17.2	M20 PCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	46	46	0	15	0	0	0	0	46	46	0	15
17.3	M20 RCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	428	428	0	49	0	0	0	0	428	428	0	49
17.4	M20 KERB	IS: 516 / IS: 456	MoRT&H Sec. 1700	582	582	0	130	0	0	0	0	582	582	0	130
17.5	M25 RCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	431	431	0	94	2	2	0	2	433	433	0	96
17.6	M30 RCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	2652	2652	0	670	2	2	0	2	2654	2654	0	672
17.7	M30 RCC PUMPABLE	IS: 516 / IS: 456	MoRT&H Sec. 1700	838	838	0	210	0	0	0	0	838	838	0	210
17.8	M35 RCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	1110	1093	17	375	0	0	0	0	1110	1093	17	375
17.9	M35 RCC PILING	IS: 516 / IS: 456	MoRT&H Sec. 1700	2905	2905	0	987	65	65	0	11	2970	2970	0	998
17.10	M35 RCC PUMPABLE	IS: 516 / IS: 456	MoRT&H Sec. 1700	5008	5008	0	1401	26	26	0	4	5034	5034	0	1405
17.11	M35 RE BLOCK	IS: 516 / IS: 456	MoRT&H Sec. 1700	1916	1916	0	613	0	0	0	0	1916	1916	0	613
17.12	M40 RCC	IS: 516 / IS: 456	MoRT&H Sec. 1700	1890	1890	0	365	2	2	0	1	1892	1892	0	366
17.13	M45 PUMP	IS: 516 / IS: 456	MoRT&H Sec. 1700	640	640	0	161	1	1	0	1	641	641	0	162
17.14	Cement Grout	IS: 516 / IS: 456	MoRT&H Sec. 1700	56	56	0	13	0	0	0	0	56	56	0	13

**Four Laning of Cholopuram - Thanjavur From km 116.440 to km 164.275 Section of NH-45C in the State of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.**

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<b>18.0 BENTONITE</b>															
18.1	Density	MoRT&H Sec. 1115.2.3	As required	441	441	0	134	0	0	0	0	441	441	0	134
18.2	Marsh Cone Viscosity			441	441	0	134	0	0	0	0	441	441	0	134
18.3	pH Value			441	441	0	134	0	0	0	0	441	441	0	134
18.4	Silt Content			15	15	0	6	0	0	0	0	15	15	0	6
18.5	Liquid Limit			18	18	0	7	0	0	0	0	18	18	0	7
<b>19.0 Fine Aggregate (MoRT&amp;H 1008)-(RE-Block)</b>															
19.1	Grade / Sieve analysis	IS: 2386 (Part1)	As required	728	728	0	223	0	0	0	0	728	728	0	223
19.2	Fineness Modulus	MoRT&H Sec. 1008 & 383	As required	728	728	0	223	0	0	0	0	728	728	0	223
19.3	Specific gravity & Water absorption	IS: 2386 (Part2)	As required	24	24	0	12	0	0	0	0	24	24	0	12
<b>20.0 Coarse Aggregate (MoRT&amp;H 1007)-(RE-Block)</b>															
20.1	Gradation	IS: 2386 (Part2)	As required	676	676	0	182	0	0	0	0	676	676	0	182
20.2	Specific gravity & Water absorption	IS: 2386 (Part3)	As required	27	27	0	19	0	0	0	0	27	27	0	19
20.3	Aggregate Impact Value	IS: 2386 (Part4)	1 test / each source & monthly	72	72	0	36	0	0	0	0	72	72	0	36
20.4	Flakiness index	IS: 2386 (Part1)	1 test / each source & monthly	52	52	0	23	0	0	0	0	52	52	0	23
<b>21.0 DLC</b>															
21.1	Gradation	MoRT&H Section-601	1 test/400m <sup>3</sup>	11	11	0	5	0	0	0	0	11	11	0	5
21.2	Field Density	MoRT&H Sec 903.5.1	3 Sample for 2000 Sqm	43	43	0	10	0	0	0	0	43	43	0	10
21.3	Cubes casting & Testing (Sets)	IS: 516	1 set for 1000 Sqm	20	20	0	6	0	0	0	0	20	20	0	6
<b>22.0 Pavement Quality Concrete (PQC)</b>															
22.1	Gradation	IS: 2386 (Part-1)	1 Test per day	35	35	0	11	0	0	0	0	35	35	0	11
22.2	Aggregate Impact Value	IS: 2386 (Part 4)1963	As required	16	16	0	7	0	0	0	0	16	16	0	7
22.3	Los Angeles Abrasion Value	IS: 2386 (Part 4)1963	As required	16	16	0	7	0	0	0	0	16	16	0	7
22.4	Compressive Strength	IS: 516	2 Cubes /150 cum (min 6 cubes)	42	42	0	13	0	0	0	0	42	42	0	13
22.5	Flexural Strength	IS: 516	2 Beams /150 cum (min 6 Beams)	42	42	0	14	0	0	0	0	42	42	0	14
22.6	Measurement of Thickness for trial length	IS: 516	3 cores per trial length	16	16	0	7	0	0	0	0	16	16	0	7
<b>23.0 Steel Third Party</b>															
23.1	8 mm Dia	IS: 1786	Physical & Chemical Properties (1) Test on first lot. (2) Further supply will be provided with mtc. (3) As required by engineer.	20	20	0	11	0	0	0	0	20	20	0	11
23.2	10 mm Dia	IS: 1786		23	23	0	15	0	0	0	0	23	23	0	15
23.3	12 mm Dia	IS: 1786		26	26	0	15	0	0	0	0	26	26	0	15
23.4	16 mm Dia	IS: 1786		29	29	0	17	0	0	0	0	29	29	0	17
23.5	20 mm Dia	IS: 1786		22	22	0	10	0	0	0	0	22	22	0	10
23.6	25 mm Dia	IS: 1786		24	24	0	13	0	0	0	0	24	24	0	13
23.7	32 mm Dia	IS: 1786		10	10	0	5	0	0	0	0	10	10	0	5
<b>Remarks:</b>															

## 7. Weather Report

Date	Temperature (Celsius)		Humidity (%)		Rainfall (mm)	Remarks
	Min	Max	Min	Max		
10/1/2022	26.7	37.4	41	84	0.00	Sunny
10/2/2022	27.1	38.3	39	81	0.00	Sunny
10/3/2022	27.4	38.9	46	85	0.00	Sunny
10/4/2022	26.8	37.6	51	81	10.20	Rainy
10/5/2022	27.2	38.4	48	77	0.00	Sunny
10/6/2022	27.6	38.9	51	86	0.00	Sunny
10/7/2022	26.8	37.9	55	81	0.00	Sunny
10/8/2022	27.0	35.3	52	88	4.00	Rainy
10/9/2022	26.6	36.1	48	85	30.40	Rainy
10/10/2022	27.4	37.9	50	87	0.00	Sunny
10/11/2022	26.9	37.6	53	85	15.20	Rainy
10/12/2022	27.4	38.5	56	88	0.00	Sunny
10/13/2022	26.9	39.4	54	81	5.20	Rainy
10/14/2022	27.4	39.1	58	84	0.00	Sunny
10/15/2022	26.8	39.5	51	89	0.00	Sunny
10/16/2022	27.2	38.7	55	82	0.00	Sunny
10/17/2022	26.6	39.1	52	88	13.60	Rainy
10/18/2022	26.9	38.7	58	85	3.40	Rainy
10/19/2022	27.3	37.9	54	82	7.60	Rainy
10/20/2022	26.5	36.9	52	81	33.60	Rainy
10/21/2022	26.8	37.1	49	89	0.00	Sunny
10/22/2022	26.5	36.8	48	88	8.60	Rainy
10/23/2022	28.1	35.6	47	85	0.00	Sunny
10/24/2022	27.8	34.6	49	86	0.00	Sunny
10/25/2022	24.6	34.2	49	91	0.00	Sunny
10/26/2022	25.8	37.5	55	86	0.00	Sunny
10/27/2022	26.1	38.5	53	88	0.00	Sunny
10/28/2022	26.3	38.8	56	90	0.00	Sunny
10/29/2022	24.6	35.6	44	89	10.40	Rainy
10/30/2022	24.7	35.2	46	91	0.00	Sunny
10/31/2022	24.2	34.2	43	88	5.80	Rainy

Various issues related to environment and safety, such as safety signage's, disposal of waste materials and oil spillage, housekeeping, area barricading and traffic management, etc., are being taken care of during the execution of the construction work in 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 given below:-



## 9. Support Required from NHAI

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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. Permission from Local Authorities for procurement of Borrow Earth for Irrigation Tanks.
3. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of project highways in the existing ponds (in a length of 1.667 Kms).
4. Additional land acquisition for Bus bays. Turning radius at Major junctions.
5. Removal of Religious structures of 02 Nos. and Bus stand from the proposed ROW.
6. Required State Support Agreement between NHAI & Govt. of Tamil Nadu as due priority will be given to NH Projects by the State Govt. officials.
7. Estimate for shifting of water supply utilities in Missing locations-Request Authority for earlier Approval.
8. With reference to our several correspondence time to time vide which we intimated the matter of enforced nationwide lockdown as well as its impact on the Project Highway, the World Health Organization (WHO) on 11th March' 2020 had characterized the Novel Coronavirus Disease (COVID-19) outbreak as a global Pandemic. In view of the WHO's announcement and over all prevailing condition of the nation, the Union Government of India (GOI) had invoked section 2 of Epidemic Disease Act 1897 on 12.03.2020 to prevent the spread of novel coronavirus in India. Accordingly, the State Government of Tamilnadu has enforced complete lockdown of the entire state from 24.03.2020 to 31.03.2020 to avoid the spread of COVID-19. Subsequently, The Ministry of Home Affairs (MHA) vide Order No. 40-3/2020-DM-I(A), dated 24.03.2020 directed to enforce complete nationwide lockdown for the period of 21 days from 25.03.2020 to 14.04.2020.

Further, based on the outcome of COVID-19 spread containment during 1st nationwide lockdown till 14<sup>th</sup> April' 2020 & condition of country as a whole, Ministry of Home Affairs (MHA), Govt. of India in exercise of powers conferred under Section 10(2)(l) of Disaster Management Act 2005, has issued an Order bearing no. 40-3/2020-DM-I(A), dated 15.04.2020 that the nationwide lockdown will remain continue till 3rd May' 2020 to contain the spread of COVID-19 in the country. However, to mitigate hardship of the public select additional activities will be allowed with effect from 20th April' 2020 including Road Construction Activities as per sr. no. 16 of Consolidated Revised Guidelines on the measures to be taken by Ministries / Departments of GOI, State/ UT Govt. and State/ UT Authorities incorporating these guidelines are enclosed with the MHA order.

Accordingly, we have submitted the detailed work program during the extended lock down period up to 03.05.2020 along with the list of Manpower & Machineries to be involved in the Construction work to take suitable action for the issuance of necessary permission from District Administration in this regard.

Further, vide our letter no. 12 dated 23.04.2020 we informed that Press released no. 280 dated 20.04.2020 issued by Government of Tamilnadu that Government of Tamilnadu had instructed to continue to enforce all the existing restrictions issued by MHA order dated 24.03.2020 during extended lock down period i.e. up to 03.05.2020.



After that, a notification issued by Revenue and Disaster Management (D-II) Department, Govt. of Tamilnadu bearing no. 203 dated 23.04.2020 vide which it is informed that resumption of construction of road & bridge project can be done with taking all precaution as per Standard Operating Procedure (SOPs) for social distancing and obtain permission from District Administration.

Further, vide our letter no. 16 dated 08.05.2020 & 19 dated 20.05.2020 we informed that Government of Tamilnadu had instructed to continue to enforce all the existing restrictions issued by MHA order dated 24.03.2020 during extended lock down period i.e. up to 31.05.2020.

Furthermore, we also notified in our earlier correspondence that Ministry of Home Affairs, Govt. of India vide their order dated 29.04.2020 allowed the movement of stranded migrant workers to their home town and subsequently, Local officials of District Administration are now approaching to our staff/ labours directly & taking their willingness for movement to their home town; Due to this and havoc of spreading of coronavirus, our workers and labours are putting their voice/desire for roaming to their home town. Based on prevailing situation and circumstances thereto & on human ground we could not restrict them from going to their home town and many migrant labours/ staffs have registered their name for the movement to their home town.

Further, Concessionaire has also reported that order dated 31.05.2020 issued by Health and Family Welfare (P1) Department, Government of Tamilnadu vide which they notified that state of Tamilnadu has been divided into 8 zones and issued additional guidelines for strict adherence on movement of person/ vehicle, testing & quarantine strategies for management of COVID-19 in the state.

After that Government of India has announced "Unlock 1.0" in entire country except containment zones but Government of Tamilnadu has instructed to extended all restrictions issued vide additional guidelines for strict adherence on movement of person/ vehicle, testing & quarantine strategies for management of COVID-19 in the state.

In addition to that due to surge of cases of COVID-19 in State of Tamilndau, Government of these states has given instruction to compulsory quarantine period of 14 days for passenger/ people who are coming in the state from another state.

Thus, Concessionaire started construction activities in Project Highway after getting permission from District Administration as well as tried to get momentum of the Progress of work as like they have on 20.03.2020 but they are facing lots of challenges like non-availability of desired nos. of skilled labours, non-availability of desired staff for operation of our machineries, non-availability of spare parts in local market due to disturbance of supply chain, due to enforcement of 14 days Quarantine as per Govt. norms labours are also not willing to come back to work considering upcoming Monsoon season, etc. which are beyond of control of Concessionaire.

9. The second wave of COVID-19 in India appears to be ascending faster than the first wave that peaked in mid-September last year. Nevertheless, India is already leading the world in terms of average daily cases detected and registers the third-highest average daily deaths. The whole country is facing big difficulties and struggling for the survival of human life. The impact of this event is an extremely painful and great loss to the nation. Looking to such an uncontrolled situation, Supreme Court intervened on 22.04.2021 and asked for the national plan for COVID-19 with the central Government and took own cognizance of what it called a national health emergency situation. The Health System has been collapsed due to the severe scarcity of oxygen. The spread of Coronavirus cases in Tamil Nadu right now is so fast, that it took only half the duration to overtake the daily infection peak number reported in the first wave.

Due to many restrictions in persisting conditions arise due to occurring of 2nd wave of extra ordinary event COVID-19, the supply chain of required material is being disturbed and not in smooth shape

which leads to hampering the work progress during this valuable working season. Due to surge in cases of 2nd wave of COVID-19 drastically day by day and additional lockdown like restriction imposing by State Government, migrants labours are leaving the state and going to their native place under the fear of prevailing situation. Further migrants labours who were gone to their home at Holi Festival are not returning back due to fear and precarious situation of the spike of COVID-19 pandemic. Due to this condition, we are facing acute shortage of labour/operator/driver for the construction activities in Project Highway and work is being affected because of the impediments beyond the control of the Concessionaire. It is also pertaining to mention that despite taking all necessary precaution and follow the safety guidelines of COVID-19, unfortunately, our many manpower including senior-level deployed at Project i.e. have been infected by COVID-19.

10. COVID-19 cases due to 3<sup>rd</sup> wave is being drastically increased and occurring never-seen before spikes in infected cases of COVID-19 day by day. You may also aware that in our country 3.47 Lakh new cases in a day have been recorded on 20.01.2022, which is already bigger than the peak of the first wave of this pandemic in India and continuously increasing day by day.

It clearly shows that the 3<sup>rd</sup> wave of COVID-19 is spreading rapidly. It is also pertinent to mention that in Tamil Nadu 28,561 cases in a day have been recorded on 20.01.2022 (for reference, the highest number of cases per day in Tamil Nadu during the peak of 2<sup>nd</sup> wave was 36,184 cases per day on 21<sup>st</sup> May 2021) and continuously increasing day by day

In view of rising daily cases of the coronavirus disease (Covid-19), the Tamil Nadu government has imposed a complete lockdown in the state on Sunday (January 16, 2022) in view of the rising Covid-19 cases. The state government has been reimposing a Sunday lockdown in the state since January 9. The Tamil Nadu government had also extended the existing Covid-19 lockdown restrictions, including night curfew and imposed fresh restrictions around the Pongal festival till January 31. The city of Thanjavur has been continuing to report majority of cases in Tiruchirapalli region along with Tiruchi. This is the first time such a high number has been reported after the second wave in May 2021.

Table 10.1. Details of Important Events

Sl. No	Date of Events	Description of Events	Remarks
1.	22.10.2022	Site Inspection by Sh. Sheo Shankar Jha, CGM (T)	

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

1. Fig. 4 - Organization Chart - EPC Team

2. Fig. 5 - Organization Chart - SPV Team

Figure - 4 Organization Chart of EPC

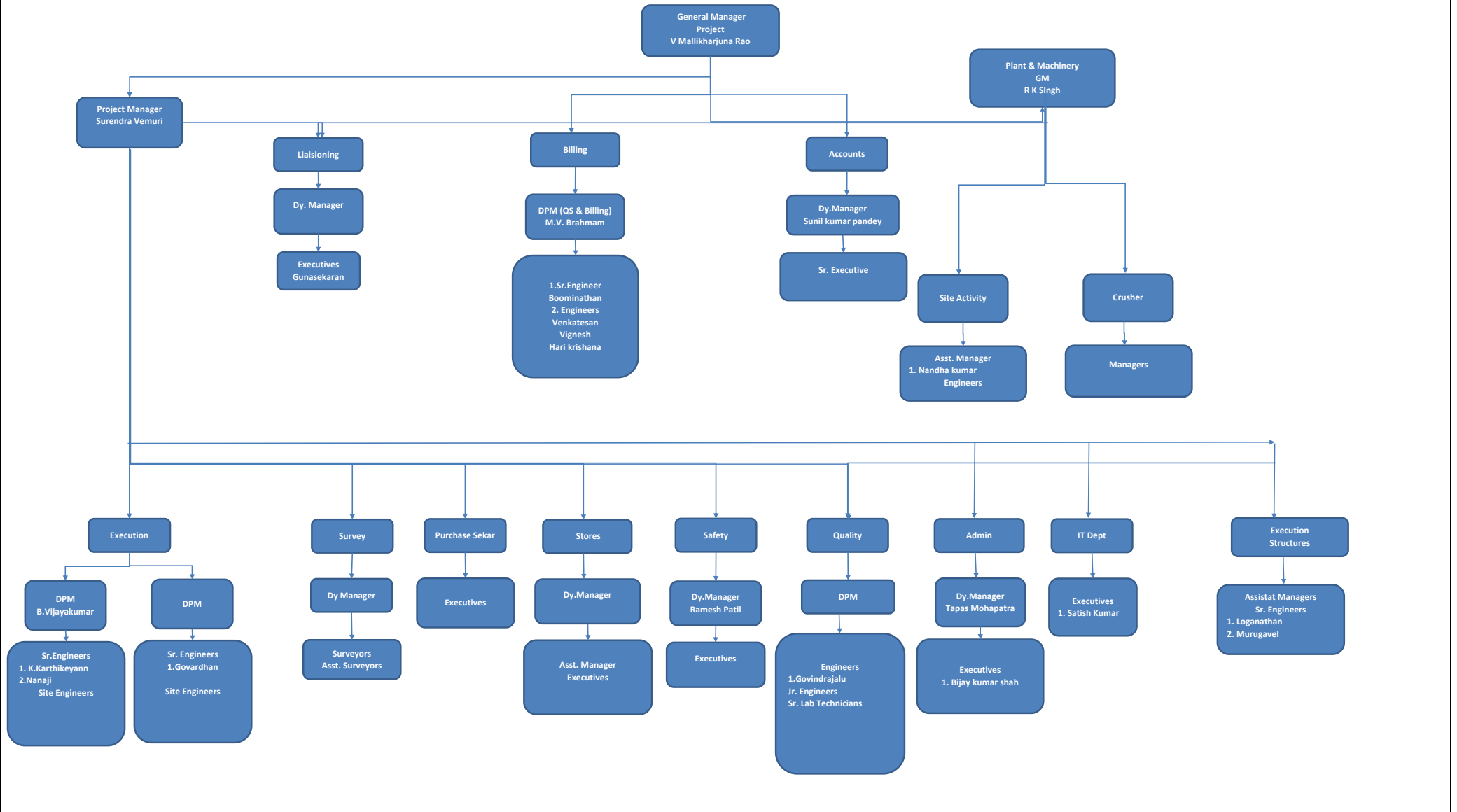
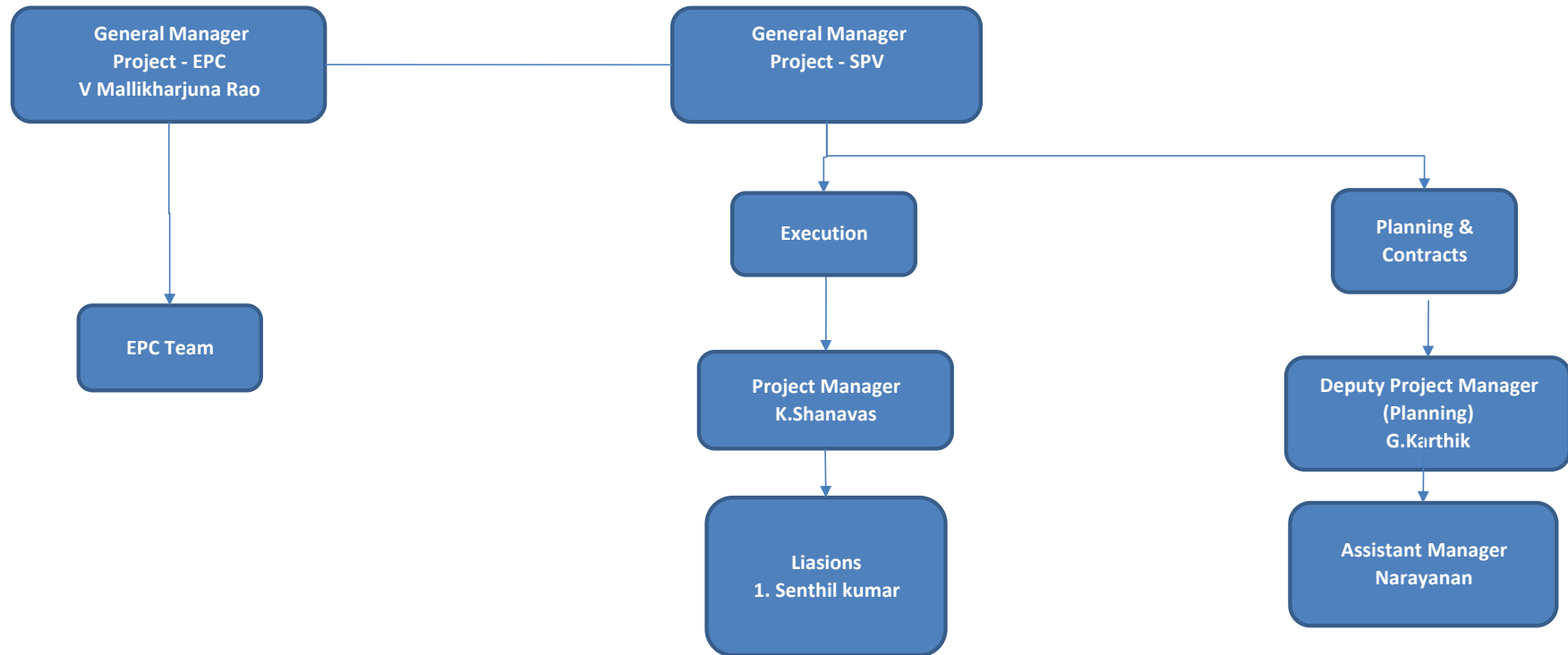


Figure - 5 Organization Chart of Concessionaire



12. List of Plants, Machinery and Equipment's

S.No	Name of the Machinery	Capacity / Model	Mobilized at Site	Remarks
1	Grader	120K2	7	
2	Excavator/JCB	JCB-220	14	
3	Dozer		4	
4	Soil Compactor	HAMM 311	8	
5	Backhoe Loader	JCB 3DX	5	
6	Tipper	Bharat Benz- 3128C	290	
7	Transit Mixer	2523C	11	
8	Loader	455 ZX	6	
9	Trailer		4	
10	Water Tanker		8	
11	Diesel Tanker		3	
12	Boom Placer	S-36	1	
13	Tractor	5036 D V-2	3	
14	Mobile Service Van		1	
15	Tower Light	AJASKY	3	
16	Hydra Crane		4	
17	Asphalt Batch Mix Plant		1	
18	Wet Mix Plant	250 TPH	1	
14	Concrete Batch Mix Plant 45 cum	45 cum	2	
15	Concrete Batch Mix Plant 60 cum	60 cum	1	
16	Crusher Plant (3 Stage)	250 TPH	4	
17	Weigh Bridge for Camp 100MT	100MT	4	
18	Weigh Bridge for Crusher 100MT	100MT	1	
19	Genset Base Camp	25KV	8	
20	Genset (Crusher) 63KVA	63KVA	6	
21	Genset (H.M & B/P)	82.50KV	3	
22	Genset (B/P-CP-45)	125KV	1	
23	Genset 650 KVA	650 KVA	1	
26	Genset (Crusher)	1010KVA	4	
27	Genset 15KVA	15KVA	6	

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	Approval obtained from the Authority.	3.76 Cr.	06.02.2020
2	Upgradation strengthening the Incident Management services.	10.05.2019	IE recommended to Authority vide ref. 148 for issuance under COS and is under scrutiny with Authority	NA	NA
3	Comprehensive Change of Scope proposal	19.03.2019	Approval obtained from the Authority.	9.37 Cr.	23.03.2022
4	Interchanging of Structures	26.09.2020	IE recommended to Authority for approval.	(-) 2.99 Cr.	NA



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

Four laning of Cholapuram to Thanjavur from Km 116+440 to 164+275 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.

**TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI**

Sr. No.	Date	Letter No	Subject	Remarks
1	03.10.2022	PCTHPL/CTP/NHAI/2022/1577	Drainage system adequacy od drain work in ongoing project and finalization of drainage plan for the balance length - reg	
2	10.10.2022	PCTHPL/SCP/NHAI/2022/1589	Drone video for the month of September 2022- Reg.	
3	15.10.2022	PCTHPL/SCP/NHAI/2022/1599	Delay/ non achieving of PCC02 by the concessionaire pursuant to provision of Settlement Agreement -Comments / recommendation of Independent Engineer (IE) as regards damages in pursuant to caluse 12.3.2of concession agreement -Reg.	
4	17.10.2022	PCTHPL/CTP/NHAI/2022/1602	Regarding the comprehensive proposal for deletio of scope / work in 10.531 Km of non workablestretches and extension of time proposal for the captioned proect.	
5	28.10.2022	PCTHPL/CTP/NHAI/2022/1612	Extension of Time to Lift the Pond Ash- Reg	

**Four laning of Cholapuram to Thanjavur from Km 116+440 to 164+275 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.**

**TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE**

Sr. No.	Date	Letter No	Subject	Remarks
1	01.10.2022	NHAI/PIU/Thanj/11026/15/2018/2850	Submission of revised construction programme for balance completion of works-Remark by AE-Report called for reg	
2	06.10.2022	NHAI/PIU/Thanj/11026/15/2018/2862	Slow progress of project highway and also failed to achieve the project target as per settlement agreement-remarks by AE reg	
3	06.10.2022	NHAI/PIU-Thanj/Labour welfare Cess/2022-23/2852	Remittance towards contribution of welfare Cess Tamilnadu workers general Welfare Board for the month of August 2022-reg	
4	07.10.2022	NHAI/PIU/Thanj/11099/05/2009/2878	Information sought for under RTI act 2005-regarding the project works-Details called for-reg	
5	08.10.2022	NHAI/PIU/Thanj/11017/01/2009/2883	Representation from Hon'ble MP Mayiladuthurai Parliament constituency-Request to provide service road and underpass-Report Submitted-Observation of RO, Madurai-Report submitted-reg	
6	10.10.2022	NHAI/PIU/Thanj/11021/31/2009/2893	Request for permission to lay underground OFC on Vikkravandi-Thanjavur section NH45C along the road from Km 108.800 to km 127.300RHS and across at Km 108.800, Km 115.100 and Km 127.300(Total length of 19.380Kms) in the limits of National highways –Remarks called for-reg	
7	11.10.2022	NHAI/PIU/Thanj/11025/24/2019/2909	Thathuvancheri village of Thiruvudaimaruthur taluk in Thanjavur District-Eviction of Encroachments requested-reg	
8	15.10.2022	NHAI/PIU/Thanj/11025/09/2818/2959	EB RA Bill No.22-Payment Intimation-reg	
9	15.10.2022	NHAI/PIU/Thanj/11026/15/2018/2966	Reimbursement of GST for EB RA bill-21-Payment Intimation-reg	
10	18.10.2022	NHAI/PIU/Thanj/11026/32/2019/2982	2nd annuity payment as per clause 23.6.3 of Concession Agreement and provision of Settlement agreement-Payment Intimation-reg	
11	18.10.2022	NHAI/PIU/Thanj/11027/02/2009/2967	Minutes of the review meeting of pending PMG projects held through video conference on 23.09.2022-Communicated-reg	
12	25.10.2022	NHAI/PIU/Thanjavur/11026/15/2019/3022	IE recommendation for concessionaire submission of revised work program for completion of balance work and extension of time thereof-reg	
13	27.10.2022	NHAI/PIU/Thanj/11017/01/2009/3041	Reprsentation from Hon'ble MP Mayiladuthurai Parliament Constituency-Request to provide service road and Underpass-Report Submitted for-reg	
14	27.10.2022	NHAI/PIU/Thanj/11026/06/2018/3034	Removal of speed breakers and sand in both sides of the roads-reg	
15	27.10.2022	NHAI/PIU/Thanj/11023/01/2009/3035	Safety of Road users-Report called for-reg	
16	27.10.2022	NHAI/PIU/Thanj/11026/06/2018/3039	Road damages at Palliyagragam to Kalancheri road-Restoration requested-reg	
17	28.10.2022	NHAI/PIU/Thanj/11026/32/2019/3058	Comprehenive proposal of COS-II-Change of scope as per Article 16 of the Conession Agreement -IPC-01 of COS-2 Payment Intimation-reg	
18	28.10.2022	NHAI/PIU/Thanj/11026/32/2019/3059	Construction of Box culverts in lieu of pipe culverts-Change of scope order pursuant to clause 16.2.3-IPC-01 of COS-1-Payment Intimation-reg	
19	31.10.2022	NHAI/13030/3/18/RO Madurai/2523	Forwarding of posters received from NHAI HQ-reg	

**Four laning of Cholapuram to Thanjavur from Km 116+440 to 164+275 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.**

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

Sr. No.	Date	Letter No	Subject	Remarks
1	03.10.2022	PCTHPL/IE/CTP/2022/1576	Submission of design and drawing for Major bridge at 149+355 - Reg.	
2	04.10.2022	PCTHPL/CTP/IE/2022/1578	Representation from Hon'ble MP Mayiladuthurai Parliament constituency -Request to provide Service Road and Under pass-Reg.	
3	06.10.2022	PCTHPL/CTP/IE/2022/1581	Complaine NCR NO.25 construction of Minor Bridge at Km 149+355Major Bridge - Reg.	
4	06.10.2022	PCTHPL/CTP/IE/2022/1582	Complaine NCR NO.20 construction of Minor Bridge at Km 144+916 Minor Bridge - Reg.	
5	06.10.2022	PCTHPL/CTP/IE/2022/1583	Compliance on BC surface Rectification & Maintenance - Reg.	
6	06.10.2022	PCTHPL/CTP/IE/2022/1584	Submission of Monthly Status and Management (O & M ) report for the month of September-2022-Reg.	
7	07.10.2022	PCTHPL/CTP/IE/2022/1586	Submission of Monthly Progress Report for the Month of September 2022-Reg.	
8	11.10.2022	PCTHPL/CTP/IE/2022/1590	Compliance report-Information sought for under RTI Act 2005 -regarding the project works- details called for - Reg.	
9	12.10.2022	PCTHPL/CTP/IE/2022/1592	Regarding Submission of Revised Programme for balance completion of work and Extension of Time proposal for the captioned project	
10	13.10.2022	PCTHPL/CTP/IE/2022/1593	Soil test report for barrow area of the project (BA No. 67 ) - Reg.	
11	15.10.2022	PCTHPL/CTP/IE/2022/1597	Submission of detail drawings for Over Head Cantiliver signs for Toll Plaza, Advance direction & Information Sign Boards , Over head Gauntry signs & Exepmted dignitories sign bards - reg.	
12	15.10.2022	PCTHPL/CTP/IE/2022/1598	Slow Progress of project highway and also failed to achieve the project target as per settleent agreement	
13	18.10.2022	PCTHPL/CTP/IE/2022/1603	Submission of Third party Testing Certificate - Reg.	
14	18.10.2022	PCTHPL/CTP/IE/2022/1604	NCR No.27 & NCR No.28 Submission of methodology doe RE Block Crack rectification - Reg.	
15	20.10.2022	PCTHPL/CTP/IE/2022/1606	Compliance report-Maintenance of Existing Road of NH 45 C - reg.	
16	25.10.2022	PCTHPL/IE/CTP/2022/1610	Review of Monthly Status &Mnagement Report for (O&M) for the month of August 2022	
17	26.10.2022	PCTHPL/IE/CTP/2022/1611	Complainces report - Inspection report of Independent Engineer for the Month of August-2022-Reg.	
18	31.10.2022	PCTHPL/IE/CTP/2022/1614	Submission of IPC 7th of 4th Payment milestone against monthly executed work as per NHAI policy guidelines dated 22.06.2020	

**Four laning of Cholapuram to Thanjavur from Km 116+440 to 164+275 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.**

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

Sr. No.	Date	Letter No	Subject	Remarks
1	01.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/898	Comments recommendation of IE as regards damages pursuant to clause 12.3.2 of Concession Agreement-reg	
2	01.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1258	Slow progress of Project Highway and also failed to achieve the project target as per settlement agreement-reg	
3	06.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/901	Representation from Hon;ble MP Myladuthurai parliament constituency request to provide service road and underpass compliance from the concessionaire -comments of IE - Reg.	
4	08.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1260	Cracks observed on RE Wall Blocks - Non Confirmation Report -27-Reg.	
5	10.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1261	Compliance on BC surface rectification & Maintenance-reg	
6	10.10.2022	THEME/NHAI/NH-45C/CHO-TJNR/ATH/1022/903	Comments / recommendations of Independent Engineer (IE) for annuity payment for the PCC-1 amount as per stipulationvide settlement agreement dted 04.03.2021 - Reg.	
7	11.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1264	NCR Still not closed for deficiency /cracking in BC surface-request for necessary testing -inspection by third party agency for a way forward - reg.	
8	11.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1265	Tests to be conducted in PCOD stretches by IE internal Audit team - reg.	
9	11.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1266	Complaices- NCR No.25 Construction of Minor bridge -Reg.	
10	11.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1267	Complaices- NCR No.20 Construction of Minor bridge Km 144+916 -Reg.	
11	12.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/905	Information sought for under RTI Act 2005 -regarding Project works- details called for-Reg.	
12	15.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1270	Provisional approval for Soil test Reports for the Barrow area No.67 - reg.	
13	15.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1271	Methodology to be submitted for the Re Wall for VUP at Ch:131+500 - Rg.	
14	15.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1272	Details/Explanation required by financial experts (IE) for detail explanation submitted with regards to our ntice for change in law on accout of implimwntation of GST Act 2017 impact of EPC Part - Reg.	
15	15.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1273	Complainece report called for -cracks observed on the RE Wal Blocks -Non Complainece report No.28 -Reg.	
16	18.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1275	Regarding approved Barrow Area- Reg.	
17	19.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1277	Review of Monthly Status & Management report (O&M) for the month of September 2022-reg	
18	19.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/908	Request for permission to lay underground OFC on Vikkravandi -Thanjavur section NH45C along the road from Km:108+800 to Km:127+300 RHS and across at Km:108+800,Km:115+100 and Km:127+300 (Total length of 19.380Kms) in the limits of National Highways-Remarks called for-Reg	
19	19.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/909	Inspection report for the month of September 2022-reg	
20	19.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/910	O&M Inspection Report for the month of September 2022 for PCC-1-reg	
21	20.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1278	Detiled drawngs for over head cantiliver for toll plaza, advance direction and information sign boards & Exempted Dignataties Sign boards- Reg.	
22	21.10.2022	THEME/NHAI/CHO-TJNR/ATH/1022/4676	Concessionaries submission of revised work programe for completion of balance works an extension of time thereof comments / recommendations of Independent Engineer - reg	
23	27.10.2022	THEME/NHAI/CHO-TJNR/CON/1022/1281	NCR no.27 & NCR no.28-Submission of methodology for RE block crack rectification-reg	

## 15. Progress Photographs

Sr. No	Description	Location	Side	Remarks
1.	Embankment Layer work in Progress	147+450 to 147+550	BHS	Bypass
2.	Embankment Layer work in progress	131+650 to 131+750	BHS	Existing Road



Sr. No	Description	Location	Side	Remarks
3.	Subgrade Layer work in progress	155+650 to 155+900	RHS	Bypass
4.	Subgrade Layer work in progress	154+770 to 155+060	RHS	Bypass



Sr. No	Description	Location	Side	Remarks
5.	CTSB Layer Work in progress	149+780 to 149+955	LHS	Bypass
6.	WMM Layer Work in progress	151+750	RHS	Bypass



Sr. No	Description	Location	Side	Remarks
7.	Piling work in progress	149+355	BHS	Major Bridge
8.	Pile Cap work in progress	149+355	BHS	Major Bridge

