

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



MONTHLY PROGRESS REPORT
NOVEMBER 2021

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Executive Summary

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.

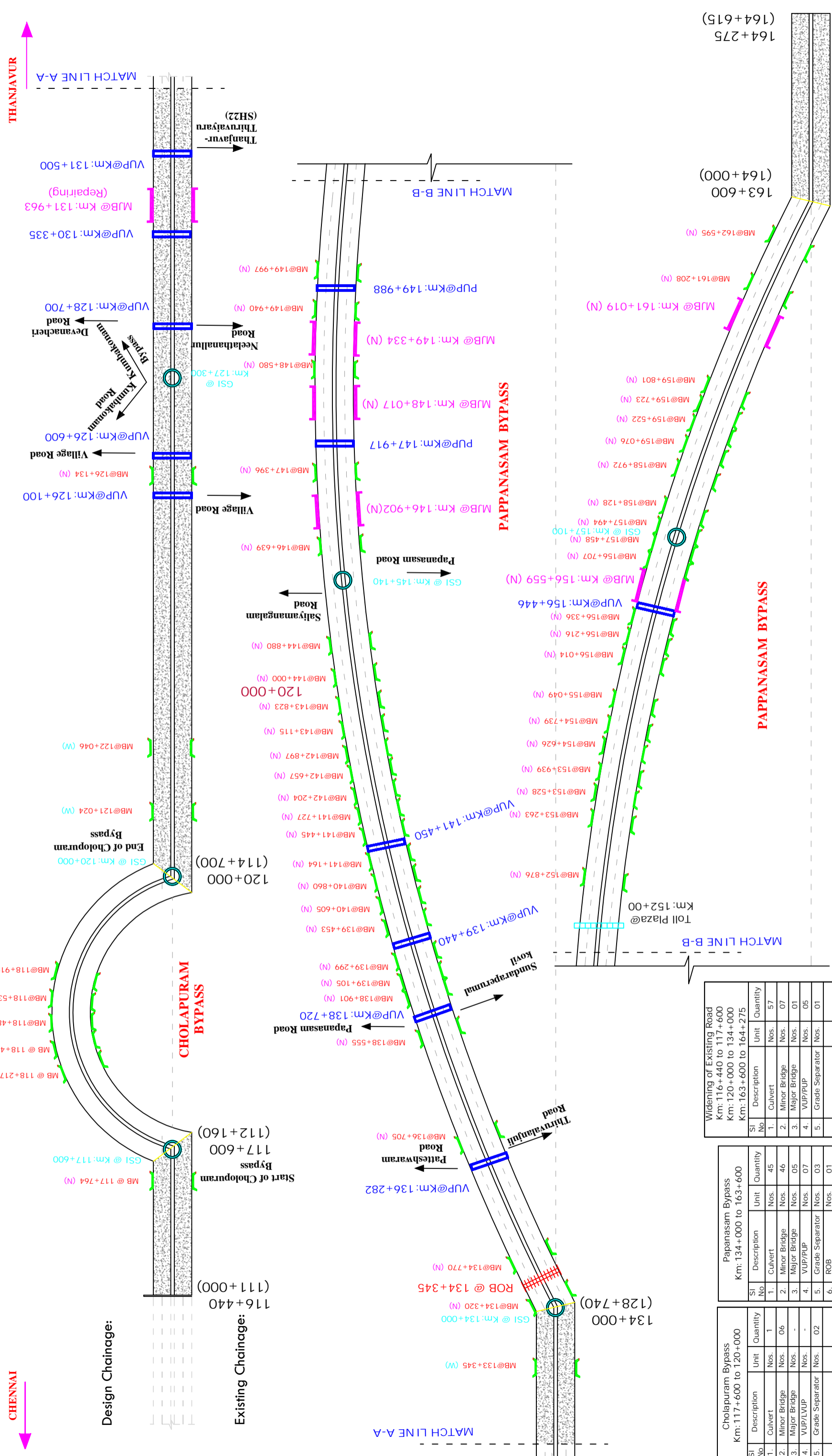
The Cholopuram to Thanjavur section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Kumbakonam, Thanjavur, Tiruchirappalli. The project is also expected to provide improved connectivity to other religious places & other major cities like Thanjavur, 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.	Culvert	Nos.	57
2.	Minor Bridge	Nos.	07
3.	Major Bridge	Nos.	01
4.	VUP/LVUP	Nos.	05
5.	Grade Separator	Nos.	01

Widening of Existing Road
 Km: 116+440 to 117+600
 Km: 120+000 to 134+000
 Km: 163+600 to 164+275

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

Pappanasam Bypass
 Km: 134+000 to 163+600

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

Cholapuram Bypass
 Km: 117+600 to 120+000

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.	Grade Separated Structure	Nos.	06
7.	VUP/PJP	Nos.	12
8.	Major Bridge	Nos.	06
9.	Minor Bridge	Nos.	59
10.	Slab Culvert	Nos.	29
11.	Minor Intersection	Nos.	22
12.	Major Intersection	Nos.	20
13.	Bus Bays and Shelters	Nos.	05
14.	Toll Plaza	Nos.	01
15.	ROB	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

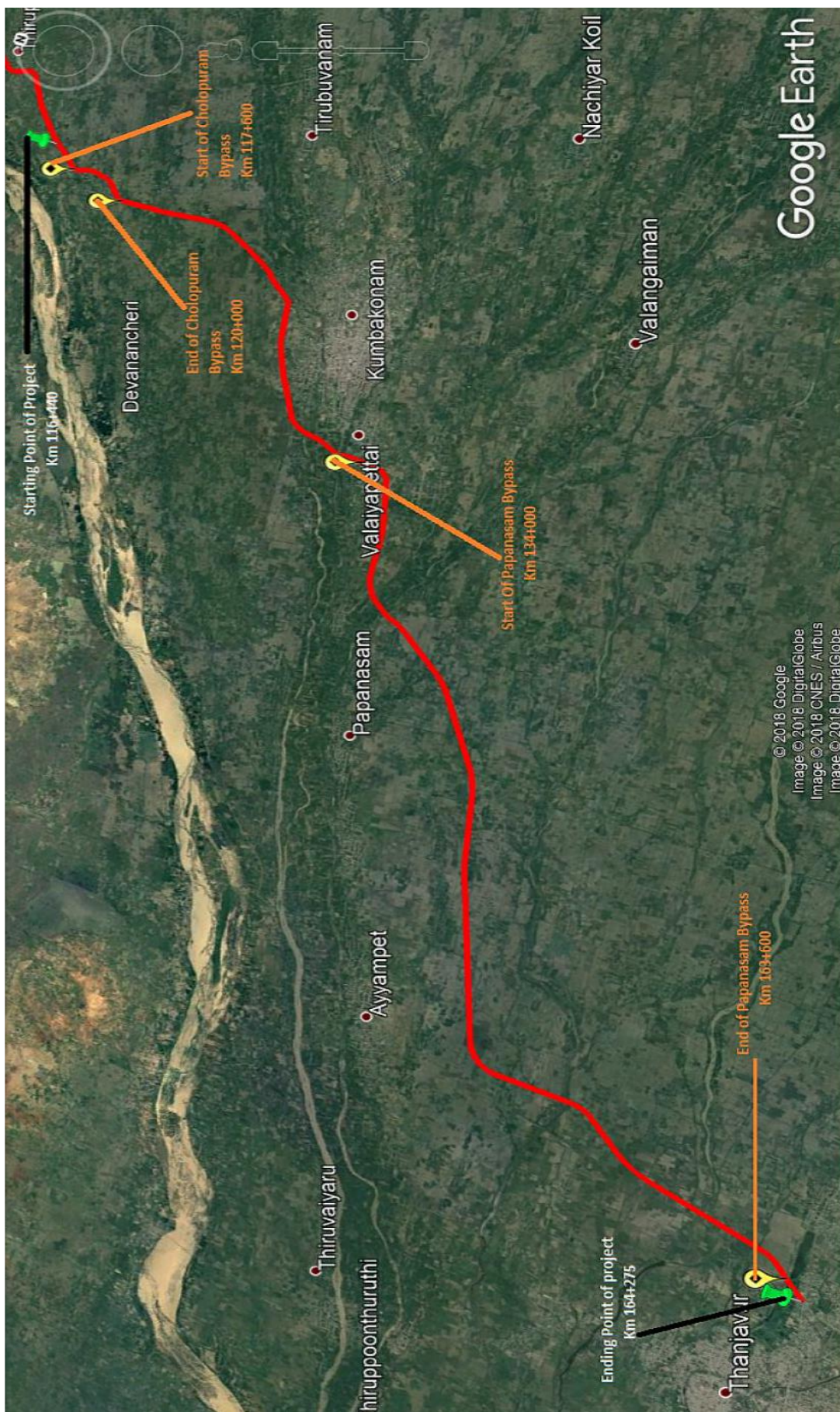


Table- 01 : Details of Project Alignments

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
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	

Sr. no.	Design Chainage (Km)		Length (Km)	TCS Type	Remarks
	From	To			
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
		Total Length	47.835		

1.1. Project Overview

Name of Work	Four Laning of Cholopuram-Thanjavur from km. 116.440 to Km.164.275 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis
Name of Employer	National Highways Authority of India (NHAI) G-5 & 6, Sector-10, Dwarka, New Delhi -110075
Name of Concessionaire	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
Independent Engineer	M/s. Theme Engineering Services Pvt. Ltd, 8, Thomaiyammal Nagar, 6 th Street, R.S College (Post), Thanjavur-613005.
EPC Contractor	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
Design Consultant	CTL Global Services Pvt. Ltd. 101, IST Floor, Krishna Chambers, HAL, Airport Road, Bangalore-560017
Senior Lender	Punjab National Bank, Large Corporate Branch, Neelkamal Building, Opp. Sales India, Ashram Road, Ahmedabad - 380009
Lenders Independent Engineers	Sharul Techno-Financial Consultancy Services Pvt. Ltd., 403, Aspire Tower 5, Amanora Park Town, Hadapsar, Pune - 411028.
Length of Road (Design Length)	47.835 Kms.
Total Bid Cost	Rs. 1345.60 Crores (as per concession agreement)
Date of Concession Agreement	October 12, 2017
Concession Period	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
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	27.100 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
Box Culverts	74 Nos.
Slab Culverts	29 Nos.
Major Intersections	20 Nos.
Minor Intersections	22 Nos.
Bus Bays	05 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 Date
Mile Stone-I	Concessionaire shall expended not less than 20 % of the Total capital cost and shall have commenced construction of the project and achieved 20% of physical progress on 214 th day from the Appointed Date.	07 th April 2019
Mile Stone-II	Concessionaire shall expended not less than 35% of the Total capital cost and shall have commenced construction of the project and achieved 35% of physical progress on 334 th day from the Appointed Date.	05 th August 2019
Mile Stone-III	Concessionaire shall expended not less than 75 % of the Total capital cost and shall have commenced construction of the project and achieved 75% of physical progress on 584 th day from the Appointed Date.	11 th April 2020
Scheduled Completion	Concessionaire shall have completed Project on 730 th day from the Appointed Date	04 th 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 1st 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, both party shall be mutually free to decide and take up this remaining length of 1.170 kms, if the length will be made available.

Status of PCOD Proposal:-

Sr. No.	Description	Target	Achieved as on date	Remarks
1	Completion of 22.846 kms by 31.05.2021	45.01% (605.62 Cr.)	53.142%	
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	-

2.1. Land Acquisition

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

Table 2.1-1: Details of proposed ROW as per Schedule-A				
	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
(i) Full Right of Way (full width)				
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	
Total Length		47.835		

Balance Right of way (width)				
	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	
Total Length		7.250		

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

Table 2.1-2: Status of Land Acquisition as per Site Condition				
Sl. No.	Description	Unit	Present Status	Remarks
A)	Total Length of the Project Highway	Km	47.835	
i)	Use of Existing Road Portion	Km	15.835	
ii)	Proposed Bypass / Realignment portion	Km	32.000	
B)	Hindered Length			
i)	LA Pending/Land under disputes	Km	6.030	
ii)	Existing Buildings	Km	2.480	
iii)	Pending for Disbursement of Payment	Km	4.735	
iv)	Electrical Lines	Km	3.610	
v)	Rural Water Supply lines	Km	10.580	
C)	Net Hindered Length (both Side)	Km	13.160	
D)	Total Project Length (both Side)	Km	47.835	
E)	% Hindered Length	%	27.511%	

There has been increase in the Hindered length due to Diversion not possible at RE Wall stretches as Land not yet made available. 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	
	Total in Nos.	1467	1074	393	
	Total in %		73.21%	26.79%	

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	
	Total in Nos	813	670	143	
	Total in %		82.41%	17.59%	

The details of Chainage 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:-

The 10.29 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.

Four laning of Cholapuram-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.

Table 2.1-5 - Details of Stretches Under Hindrance

Sr. No.	Chainage		Side	Hindrance Length as per settlement agreement (Km)	Reason	Non workable length as on 30.11.2021 (Km)
	From	To				
1	116.440	117.900	BHS	1.460	Removal of structures	1.460
2	119.600	120.720	BHS	1.120	Removal of structures	1.120
3	125.580	126.536	BHS	0.956	Removal of structures	0.956
4	126.536	127.700	BHS	1.164	Removal of structures	1.164
5	128.300	129.100	BHS	0.800	Removal of structures	0.800
6	129.970	130.700	BHS	0.730	Removal of structures	0.730
7	133.580	134.800	BHS	1.220	Removal of structures	1.220
8	138.300	139.750	BHS	1.450	Removal of structures	1.450
9	146.550	147.000	BHS	0.450	PWD Canal for a length of 700m is to be shifted for which NOC to be granted by PWD/WRD. The proposal for the same has been recommended by the Chief Engineer, WRD/PWD, Trichy to the Engineer-in-Chief, WRD, Chennai on 03.11.2020.	0.450
10	147.600	148.320	BHS	0.720		0.720
11	150.530	150.900	BHS	0.370	Issue Cleared.	
12	152.600	153.100	BHS	0.500		
13	154.000	156.000	BHS	2.000	Issue Cleared.	
14	161.000	161.220	BHS	0.220	Involved in Court case, which was disposed in favour of NHAI on 03.11.2020. Award to be passed by CALA, SDRO (LA), NH, Tiruvarur.	0.220
Total Length				13.160		10.290

Hindrance List in the Project

Details of Stretches Under Hindrance with Photographs




S.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+475	116+490	15	LHS	Manambadi	Tiled House	1	Rajangam S/O Ponnusamy	43/1	Not paid		
2	116+480	116+495	15	LHS	Manambadi	Hut	1	Kullammal W/O Annasamy	43/16	Not paid		
3	116+480	116+490	15	LHS	Manambadi	Hut	1	Tamilselvan S/o Annasamy	43/2A	Not paid		
4	116+630	116+650	20	LHS	Manambadi	Sheet House	1	Ethiraj	49/7	Not paid		
5	116+640	116+660	20	LHS	Manambadi	Hut	1	Elangovan Rajathi	49/11A,11B	Not paid		
6	116+660	116+680	20	LHS	Manambadi	Sheet House	1	Sitarasu S/O Thambusamy	49/7C, 2B	Not paid		

S.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+670	116+690	20	LHS	Manambadi	Temple	1	-	-	Not paid		
8	116+880	116+910	30	RHS	Manambadi	Church	1	Edison	127/19	Not paid		
9	116+880	116+900	20	LHS	Manambadi	Mariamman Temple	1	-	129/2B	Not paid		
10	116+860	116+900	30	LHS	Manambadi	Sheet House	1	Sinnayan S/O Kaliyaperumal	129/32	Not paid		
11	116+890	116+910	20	LHS	Manambadi	Hut	1	Chinnadurai S/O Murugesan	129/11, 12	Not paid		
12	116+895	116+905	10	LHS	Manambadi	Sheet House	1	Sellakannu S/O Swaminathan	129/9	Not paid		

S.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										
13	116+890	116+910	20	LHS	Manambadi	RCC House	1	Ganesan S/o lakshmanan	129/8	Not paid		
14	116+905	116+920	15	LHS	Manambadi	RCC House	1	AyiPonnu W/o Chinnaiyan	129/6,7	Not paid		
15	116+950	116+970	20	RHS	Manambadi	Sheet House	1	Shanmugam S/o Subramaniam	117/6A	Not paid		
16	117+030	117+200	20	LHS	Manambadi	Tile House	1	Kulandaisamy+1	121/11B	Not paid		
17	117+060	117+080	20	LHS	Manambadi	RCC House	1	Santhanam S/o Rayappan	121/12A2	Not paid		
18	117+090	117+120	30	LHS	Manambadi	RCC House	1	Vasudevan S/o Paneerselvam	121/6A2	Not paid		

S.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										
19	117+100	117+300	200	RHS	Manambadi	RCC & Tile Houses	3	Periyasamy Ravi Mohan	123/121C	Not paid	  	
20	117+240	117+280	15	RHS	Manambadi	Sheet House	2	Sundarambal W/o Nagarajan	117/10,11	Not paid		
21	117+240	117+280	15	RHS	Manambadi	Sheet House	1	Mullaikodi W/o Shanmugam	117/10,11	Not paid		
22	117+240	117+280	15	RHS	Manambadi	Hut	1	Padmavathy W/o Raja	117/6A	Not paid		

S.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										
23	117+250	117+270	20	RHS	Manambadi	RCC House	1	kannadasan S/o Perumal	117/13A	Not paid		
24	117+250	117+270	20	RHS	Manambadi	Sheet House	1	Joseph S/o Antonysamy	117/6A	Not paid		
25	120+090	120+100	10	LHS	Vilanthakandam	HUT, 3 NOS RCC BUILDING, TILE HOUSE	3	KASINATHAN, RAMALINGAM, RANJITH KUMAR	134/1B , 134/1A	Not Paid	  	
26	120+100	120+115	15	LHS	Vilanthakandam	G+1 RCC WITH SHOP	1	PONNIYIN SELVAN	134/1B2	Not Paid		Court Case-ownership rights problem

S.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										
27	120+150	120+160	10	RHS	Vilanthakandam	WOODSHOP & HOUSE	1	PARAMESWARAN	29/4A1B	Not paid		Bank Issue
28	120+465	120+500	35	RHS	Kovilacheri	RCC BUILDING-1NOS	4	SUBRAMANIYAN PATTA - Thangathammal	32/7A	Paid		
29	120+450	120+490	40	LHS	Kovilacheri	PETROL BUNK	1	EZHILSELVAN		Paid		
30	120+515	120+520	5	LHS	Kovilacheri	HUT HOTEL -1 NOS & HUT- 1 NOS	2	THANGAVEL CHANDRAKASI	48/1B	Not Paid		

S.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										
31	120+560	120+600	40	LHS	Kovilacheri	1 SHEET, 2 MANGALORE TILE, 1- RCC BUILDING	2	KULANCHIAPPAN SUSILA	48/3A2	Paid		
32	120+685	120+695	10	LHS	Kovilacheri	RCC BUILDING	1	SANTHOSH KUMAR	48/7	Paid		
33	120+685	120+710	25	LHS	Kovilacheri	AC SHEET WITH WELDING SHOP	1	SAGUR MAN BOY	48/7A	Paid		
34	121+590	121+600	10	LHS	Kovilacheri	HUT	1	PADMANABAN		Paid		Need Police Support for Dismantling (Partially Dismantled)
35	121+615	121+655	40	LHS	Kovilacheri	DHROUPATHIAMMAN TEMPLE	1	MANOHARAN		Not Paid		Sudhai Estimate Pending- DRO instructed LA unit to prepare the process to deposit amount in court
36	122+080	122+100	20	RHS	Bagavathapuram	BIG BANIYAN TREE WITH VANAKALIAMMAN TEMPLE	1	MANOHARAN		Not Paid		

S.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										
37	125+670	125+680	10	RHS	Koranattukarupur -I	AMMAN TEMPLE	1			PAID		Court Case for enhancement
38	126+790	126+800	10	RHS	Koranattukarupur -II	Temple =1	4			PAID		
39	127+120	127+125	5	RHS	Koranattukarupur -II	Borewell	1	SALEEM		PAID		Waiting for free Current Shifting approval
40	129+030	129+040	10	LHS	Asoor	DEVAR STATUE	1			Paid		
41	138+500	138+540	40	LHS	Pateeswaram	RCC & Tile Roof	1	SHANMUGAM		Not Paid		
42	138+750	138+850	100	LHS	Thiruvalanzuli	Hut	1	RAJINI		Not Paid		
43	138+400	138+480	80	RHS	Pateeswaram		1	DHARMALINGAM	4/4A	Not Paid		
44	138+500	138+540	40	RHS	Pateeswaram		1	SHANMUGAM		Not Paid		
45	138+750	138+850	100	RHS	Thiruvalanzuli		1	RAJINI, Thakshina Murthy, Nagaraj		Not Paid		
46	139+439	139+450	11	LHS	Thiruvalanzuli	LOCAL TEMPLE, RCC GOVT BUILDING WITH TANK	1			Not Paid		

2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Sl. No.	Name of the District	Total No. of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	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.

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

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	

Estimates for shifting of the above Electric lines have been prepared. The estimated cost is approximately Rs. 10.50 crores.

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

Estimates have been done for the shifting of the water supply pipeline & related items mentioned above. The estimated cost is approximately Rs. 6.8 crores.

2.4. Tree felling

Table 2.4-1: Status of Tree felling

Sl. No.	Name of the District	Chainages			Effectuated 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
Total				47.835					

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 (a) Toll Plaza Layout, (b) Toll Building, (c) Toll Booth, (d) Toll Canopy, (e) Toll Tunnel,	No	05	05	05
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 Descoping)
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

4.1. 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 November 2021 is as follows.

CUMMULATIVE 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	Clearing and Grubbing							
	LHS	46.925	42.980	0.000	42.980	0.000	3.945	91.59%
	RHS	46.925	42.910	0.000	42.910	0.000	4.015	91.44%
2	Embankment							
	LHS	46.925	30.530	0.000	30.530	1.540	16.395	65.06%
	RHS	46.925	29.930	0.000	29.930	2.040	16.995	63.78%
3	Subgrade							
	LHS	46.925	27.195	0.000	27.195	3.335	19.730	57.95%
	RHS	46.925	26.325	0.000	26.325	3.605	20.600	56.10%
4	GSB/ Cement Treated Sub-Base							
	LHS	46.925	25.790	0.000	25.790	0.150	21.135	54.96%
	RHS	46.925	25.170	0.000	25.170	0.120	21.755	53.64%
5	Wet Mix Macadam							
	LHS	46.925	25.605	0.000	25.605	0	21.320	54.57%
	RHS	46.925	24.970	0.000	24.970	0	21.955	53.21%
6	Dense Bituminous Macadam							
	LHS	46.925	25.400	0.000	25.400	0	21.525	54.13%
	RHS	46.925	24.715	0.000	24.715	0	22.210	52.67%
7	Bituminous Concrete							
	LHS	46.925	24.180	0.000	24.180	0	22.745	51.53%
	RHS	46.925	23.560	0.000	23.560	0	23.365	50.21%

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	4.930	0.440	5.370	0.150	21.730	19.82%
2	Sub grade	27.1	4.930	0.440	5.370	0	21.730	19.82%
3	GSB/ Cement Treated Base	27.1	4.915	0.440	5.355	0	21.745	19.76%
4	Wet Mix Macadam	27.1	4.835	0.440	5.275	0	21.825	19.46%
5	Dense Bituminous Macadam	27.1	4.835	0.440	5.275	0	21.825	19.46%

6	Bituminous Concrete	27.1	1.960	0.440	2.400	0	24.700	8.86%
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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 Month	In Progress	Balance
1	Culvert	103	77.00	0	77.00	13.00	13.00
2	Light Vehicular Underpass	2	2	0	2	0	0
3	Vehicular Underpass	10	8.00	0	8.00	2.00	0
4	Minor Bridges	56	42.50	1.5	44	6	6.00
5	Major Bridge	5	0	0	0	4	1
6	Flyover	6	4.0	1	5	1	0
7	ROB	1	0	0	0	1	0

Physical Progress of Project up to **November 2021** as per approved Schedule G:-

Table 4.1 : Physical Progress of Works

Item	Stage for Payment	Unit	Qty.	Weightage in % to Contract Price	Completed up to Nov '2021	% Physical Progress
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	A- Widening and strengthening of existing road					
	(1) Earthwork up to top of the sub-grade	Km.	28.70	4.26%	16.890	2.505%
	(2) Granular work (sub-base, base, shoulders)	Km.				
	(a) GSB/ Cement Treated Base	Km.	28.70	1.40%	16.070	0.785%
	(b) WMM/ Cement Treated Base	Km.	28.70	2.10%	15.860	1.160%
	(3) Shoulders	Km.	7.10	0.03%	6.56	0.028%
	(4) Bituminous work					
	(a) DBM	Km.	28.70	1.61%	15.820	0.886%
	(b) BC	Km.	28.70	1.48%	14.870	0.769%
	(5) Rigid Pavement					
	Concrete Work	Km.				
	(6) Widening and Repair of Culverts	Nos.	33	0.57%	26.45	0.458%
	(7) Widening and Repair of Minor Bridges	Nos.	3	0.38%	1.275	0.162%
	B- New realignment/bypass					
	(1) Earthwork up to top of the sub-grade	Km.	63.33	16.30%	36.630	9.430%
	(2) Granular work (sub-base, base, shoulders)	Km.				
	(a) GSB/ Cement Treated Base	Km.	62.13	3.39%	34.890	1.906%
(b) WMM/ Cement Treated Base	Km.	62.13	3.83%	34.715	2.139%	
(3) Shoulders	Km.	48.19	0.10%	30.140	0.063%	
(4) Bituminous work						

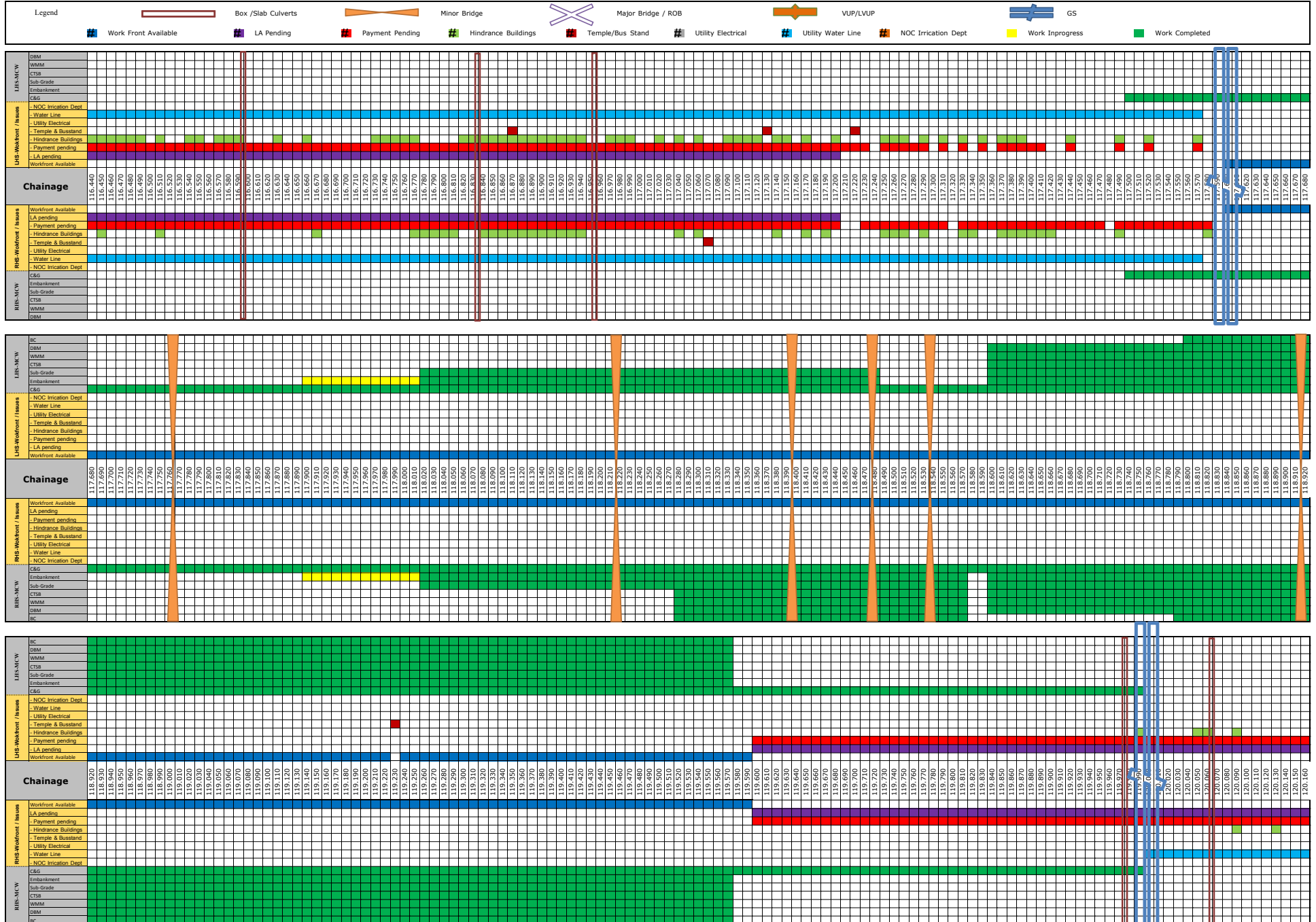
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	(a) DBM	Km.	62.13	3.48%	34.295	1.921%
	(b) BC	Km.	62.13	3.21%	32.870	1.699%
	(5) Rigid Pavement Concrete Work	Km				
	C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:					
	(1) Culverts	Nos.	70	5.95%	50.35	4.276%
	(2) Minor bridges					
	(i) Foundation	Nos.	170	6.71%	93.00	3.672%
	(ii) Substructure	Nos.	270	3.50%	169.10	2.189%
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	142	3.78%	69.40	1.846%
	(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%	13.60	0.772%
	(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%	7.65	0.652%
	Major Bridge works and ROB/RUB					
	A- Widening and Repair of Minor Bridges					
(1) Foundations						
(a) Open Foundation	Nos.					
(b) Pile foundation/ well foundation	Nos.					
(2) Substructure	Nos.					
(3) Superstructure (including crash barrier etc. complete)	Nos.					
C- New Major Bridges						
(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%	27.00	0.438%
	(3) Superstructure (including crash barrier etc. complete)	Nos.	62	1.50%	8.50	0.205%
	D- New rail-road bridges					
	(a) ROB					
	(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%	1.70	0.421%
Structures (elevated sections, reinforced earth)	Structures (elevated sections, reinforced earth)					
	(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%	61,735.94	2.586%
Other Works	Other Works					
	(i) Service roads/ Slip Roads	Km	27.1	3.86%	2.400	0.342%
	(ii) Toll Plaza	Nos.	1	1.38%		
	(iii) Road side drains	Km	12.08	1.64%	1.737	0.235%
	(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%	2.764	0.219%
	(ii) W-Beam Crash Barrier	Km	32.75	0.70%	11.340	0.243%
	(v) Project facilities					
	(a) Bus Bays	No.	20	0.01%	8.00	0.002%
	(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%		
	(b) Toe/Retaining wall	Km				
	(x) Miscellaneous	Ls.	100%	0.150%	51%	0.076%
		Total			100.00%	

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

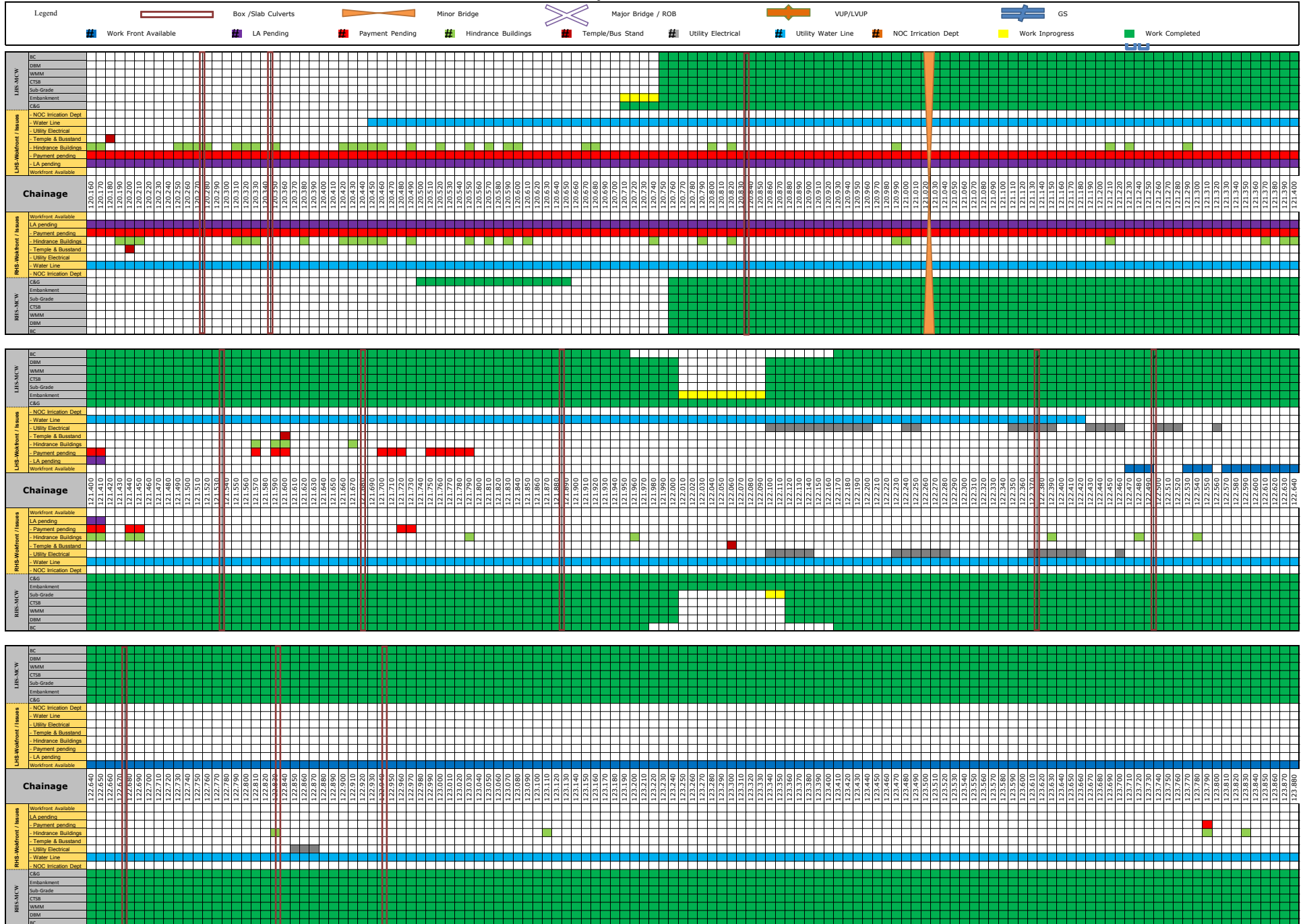
Strip Chart as on 30.11.2021



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

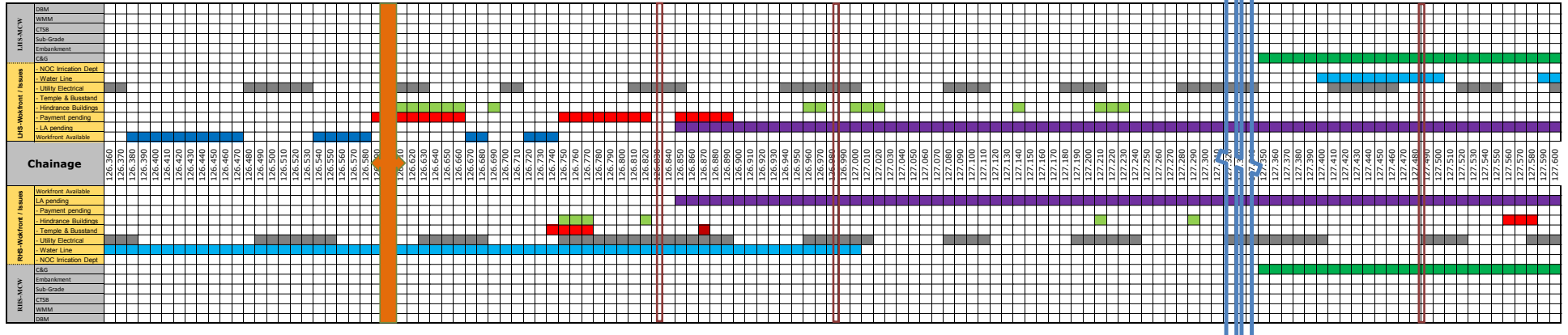
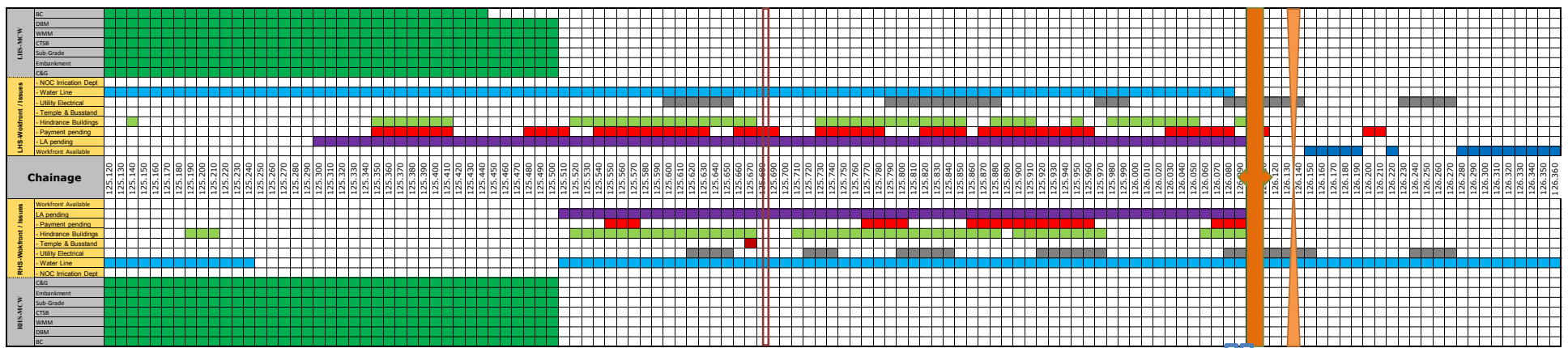
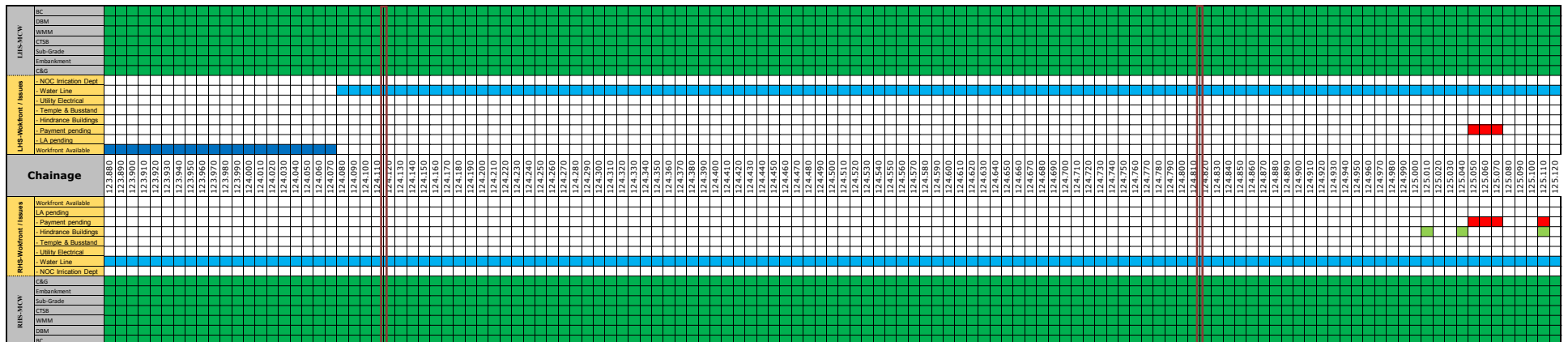
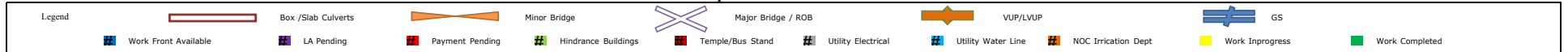
Strip Chart as on 30.11.2021



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

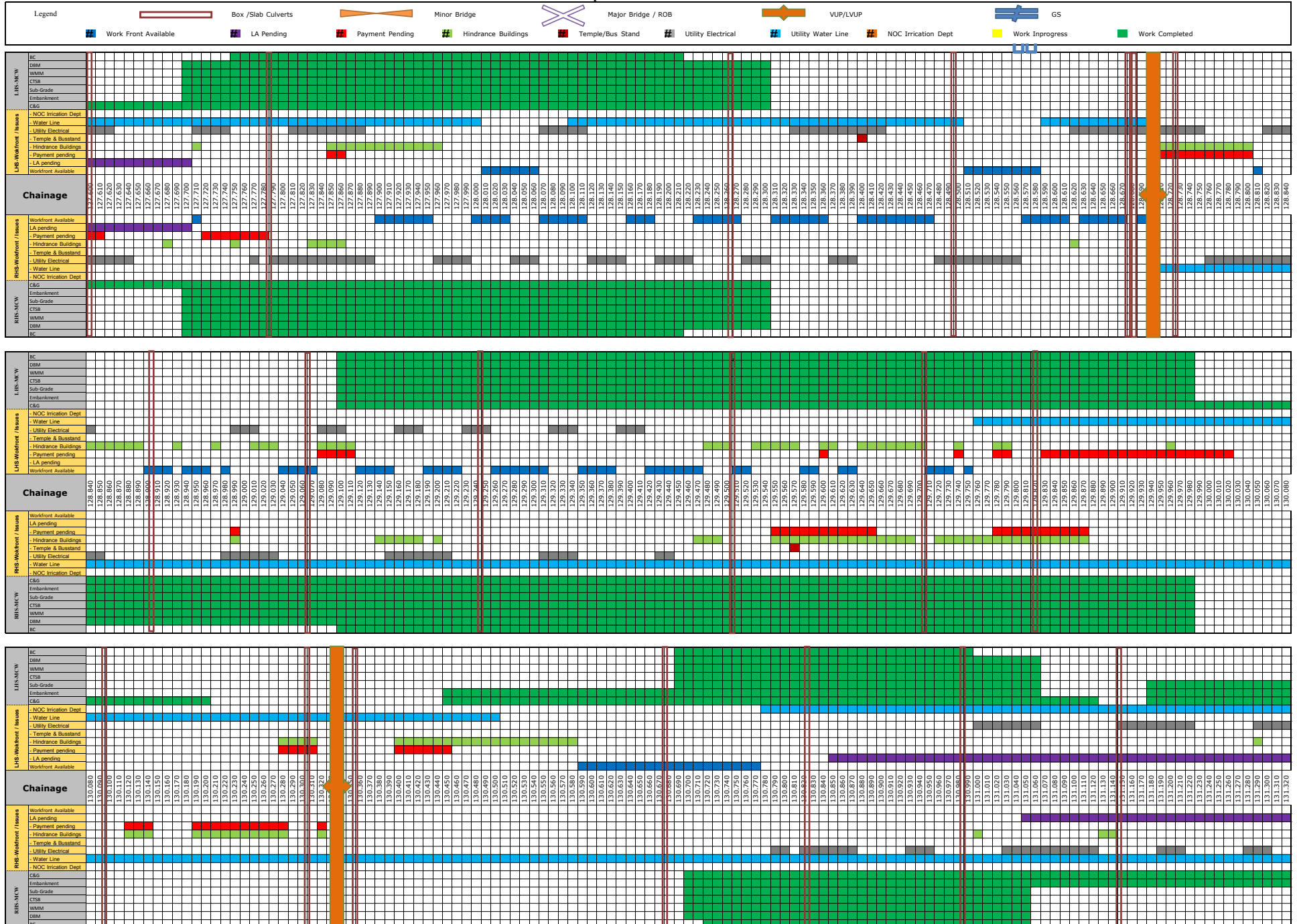
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Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

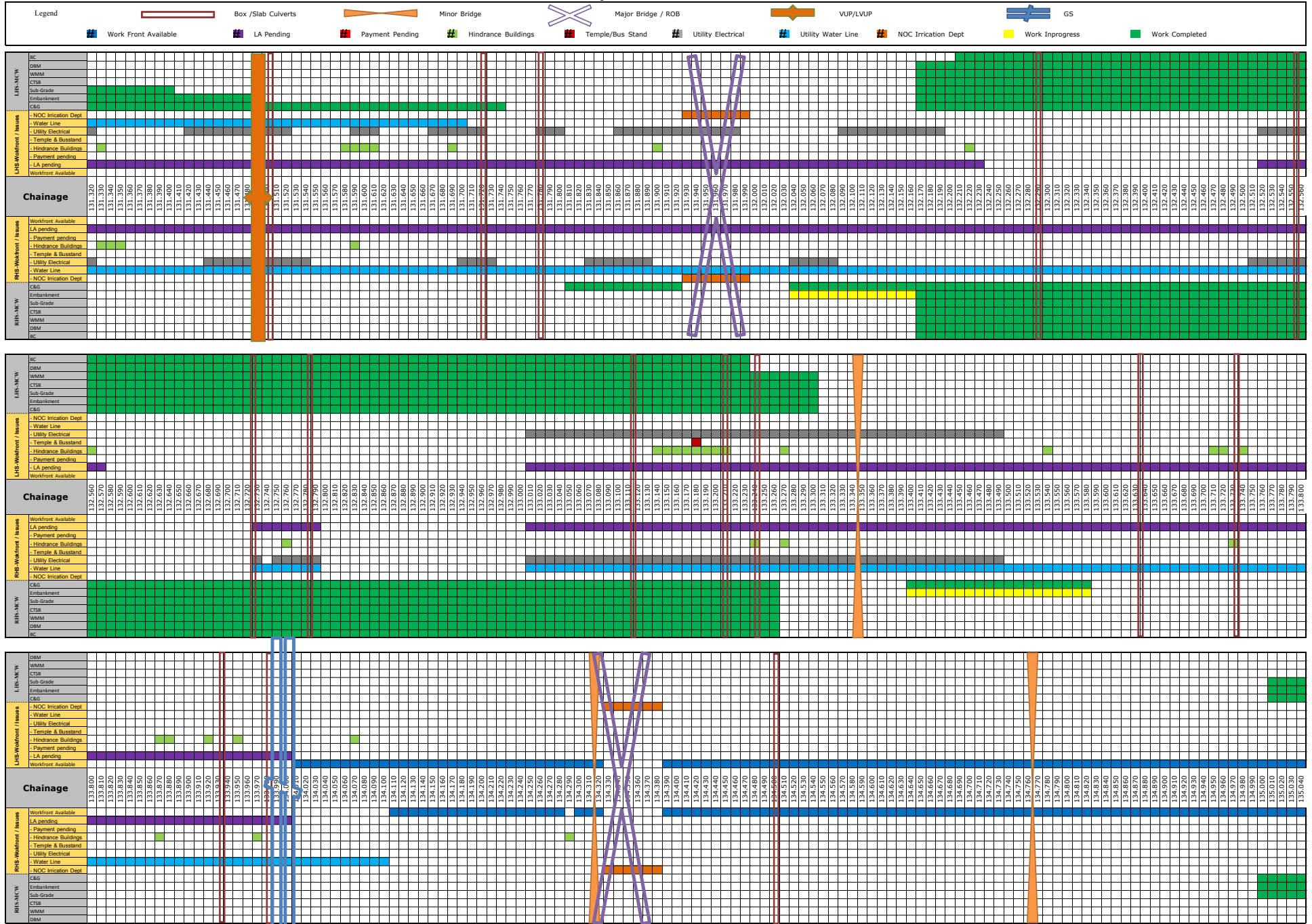
Cholopuram - Thanjavur Project

Strip Chart as on 30.11.2021



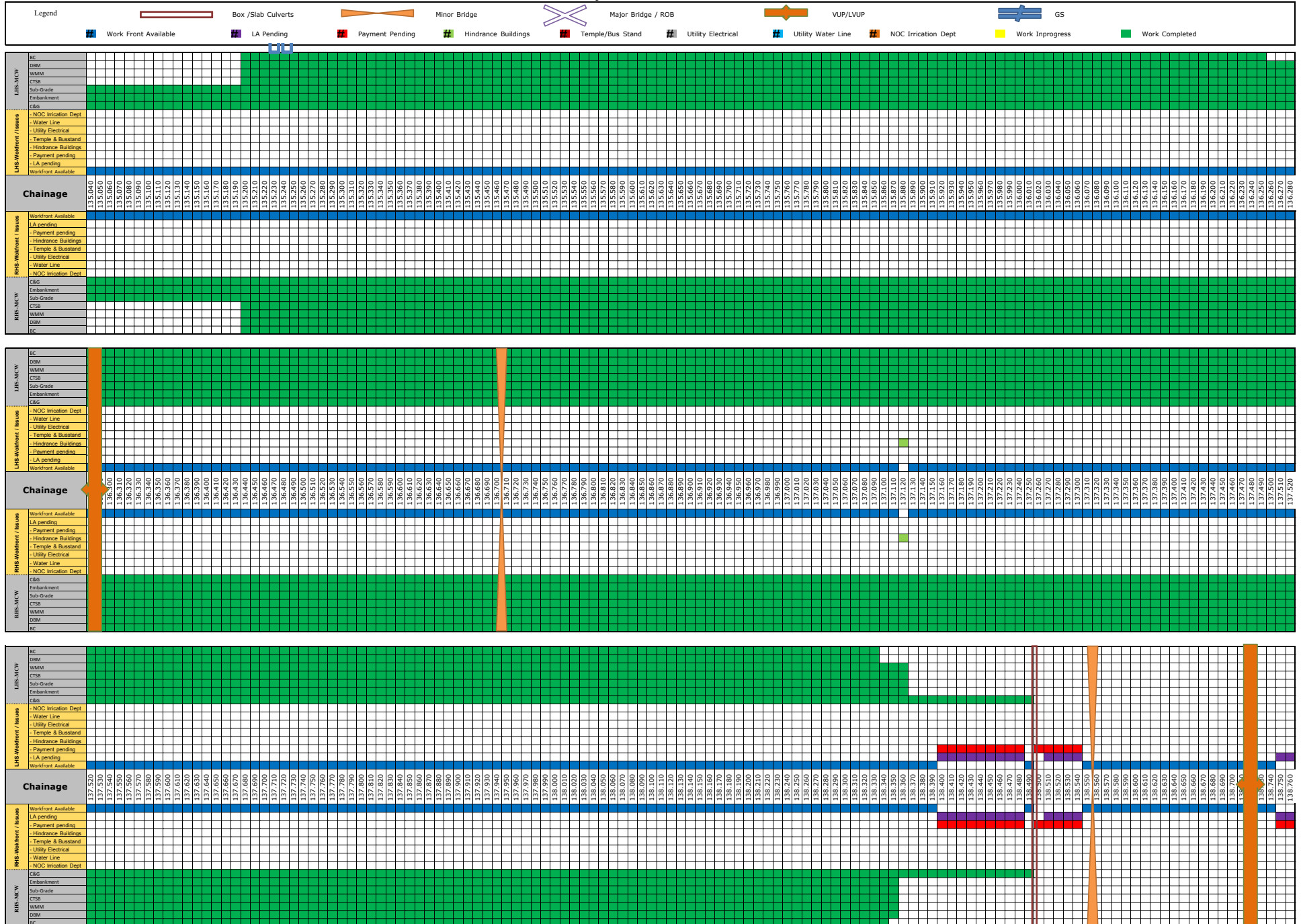
Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode
Cholopuram - Thanjavur Project

Strip Chart as on 30.11.2021



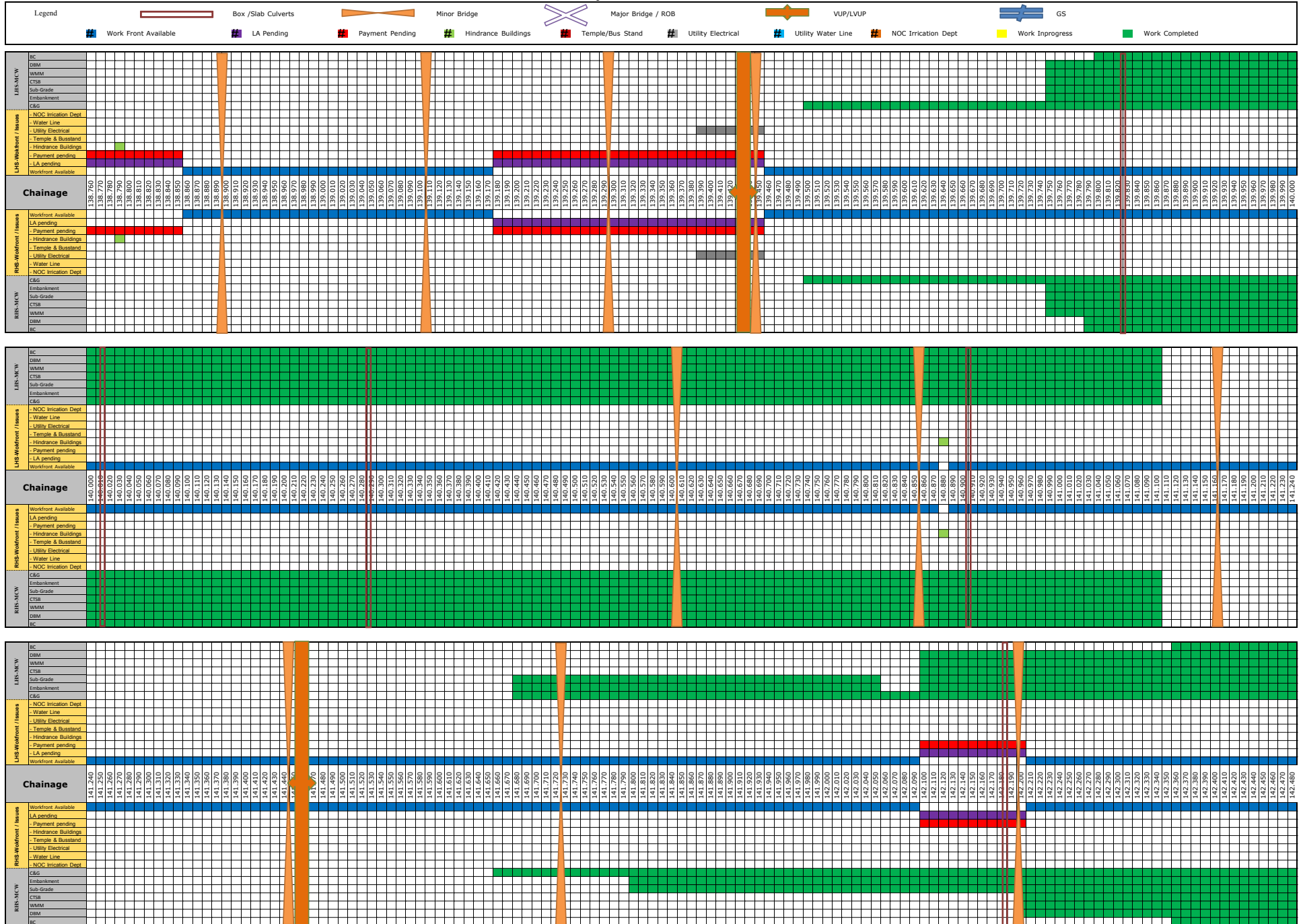
**Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode
Cholopuram - Thanjavur Project**

Strip Chart as on 30.11.2021



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 30.11.2021



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

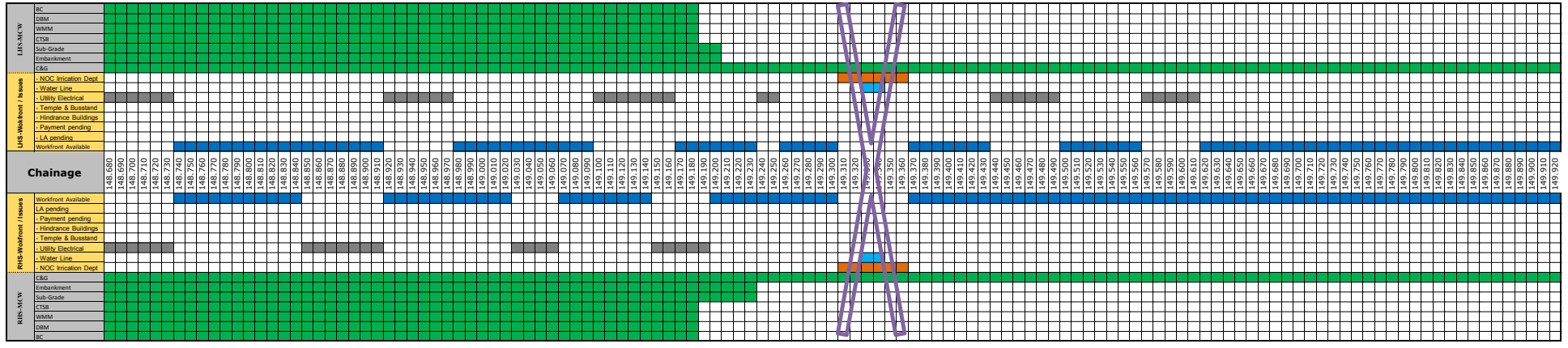
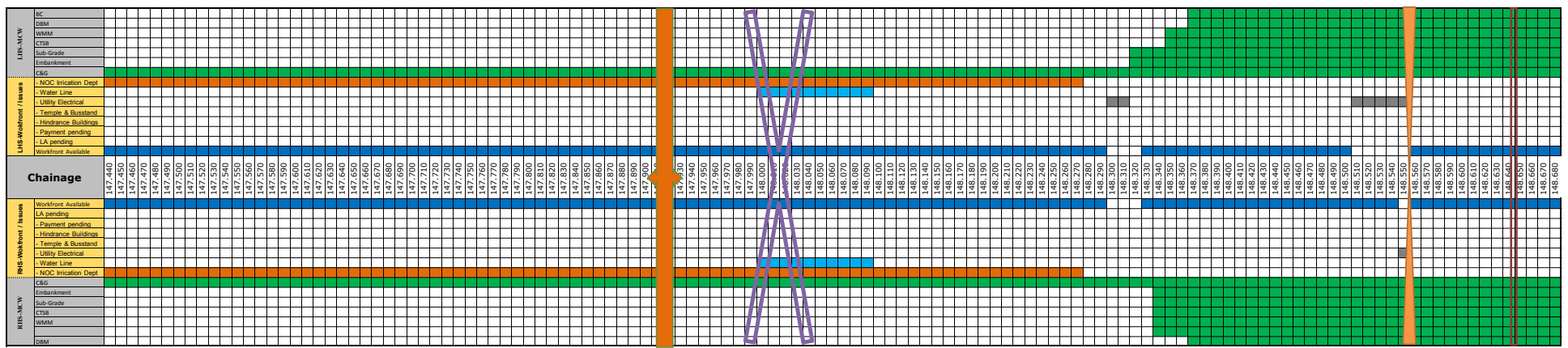
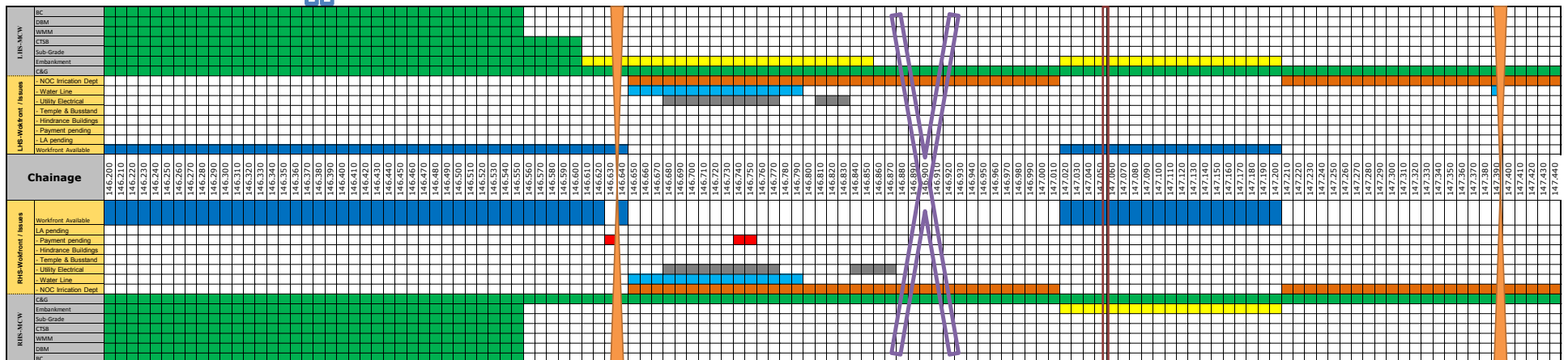
Strip Chart as on 30.11.2021



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

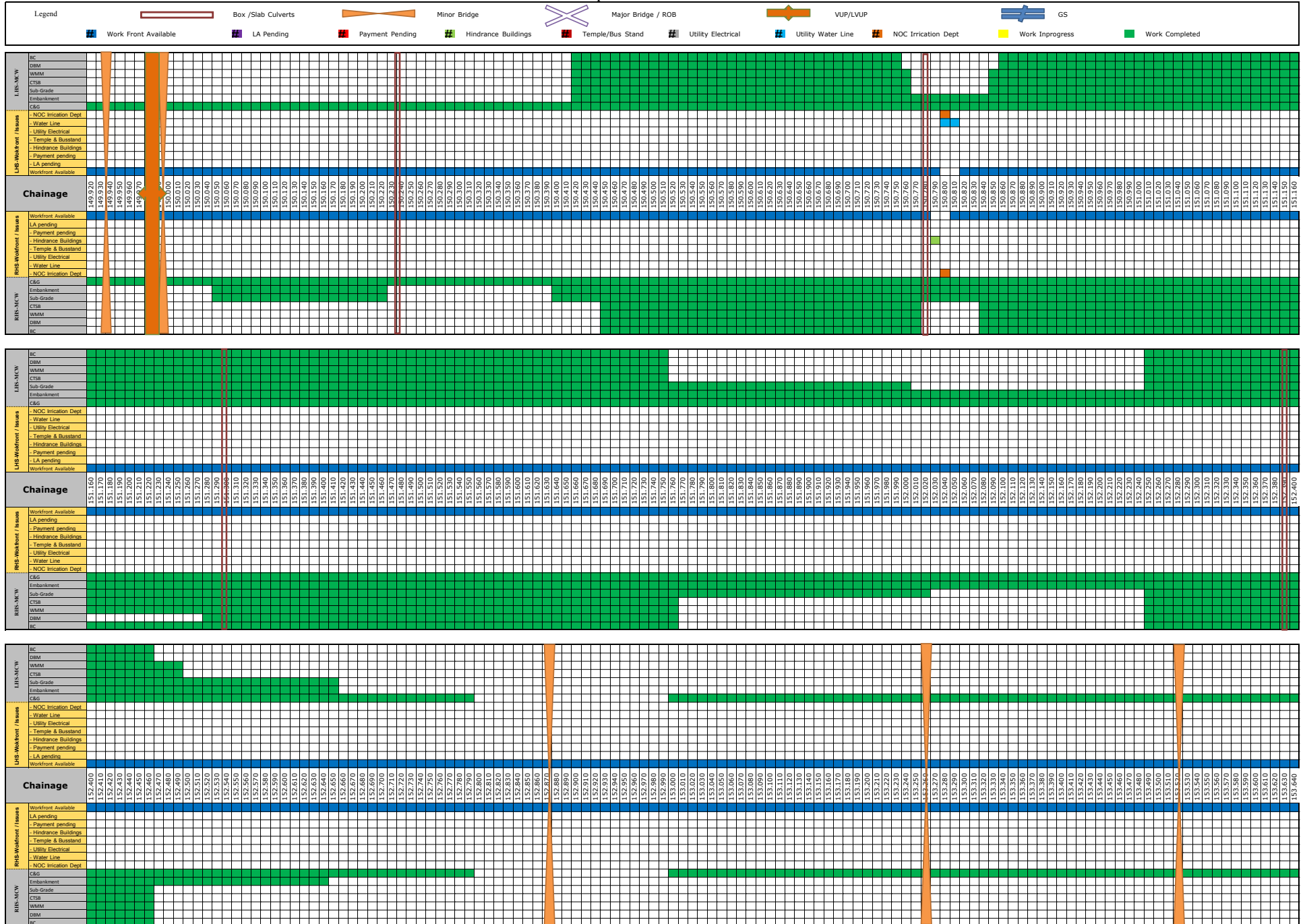
Cholopuram - Thanjavur Project

Strip Chart as on 30.11.2021



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

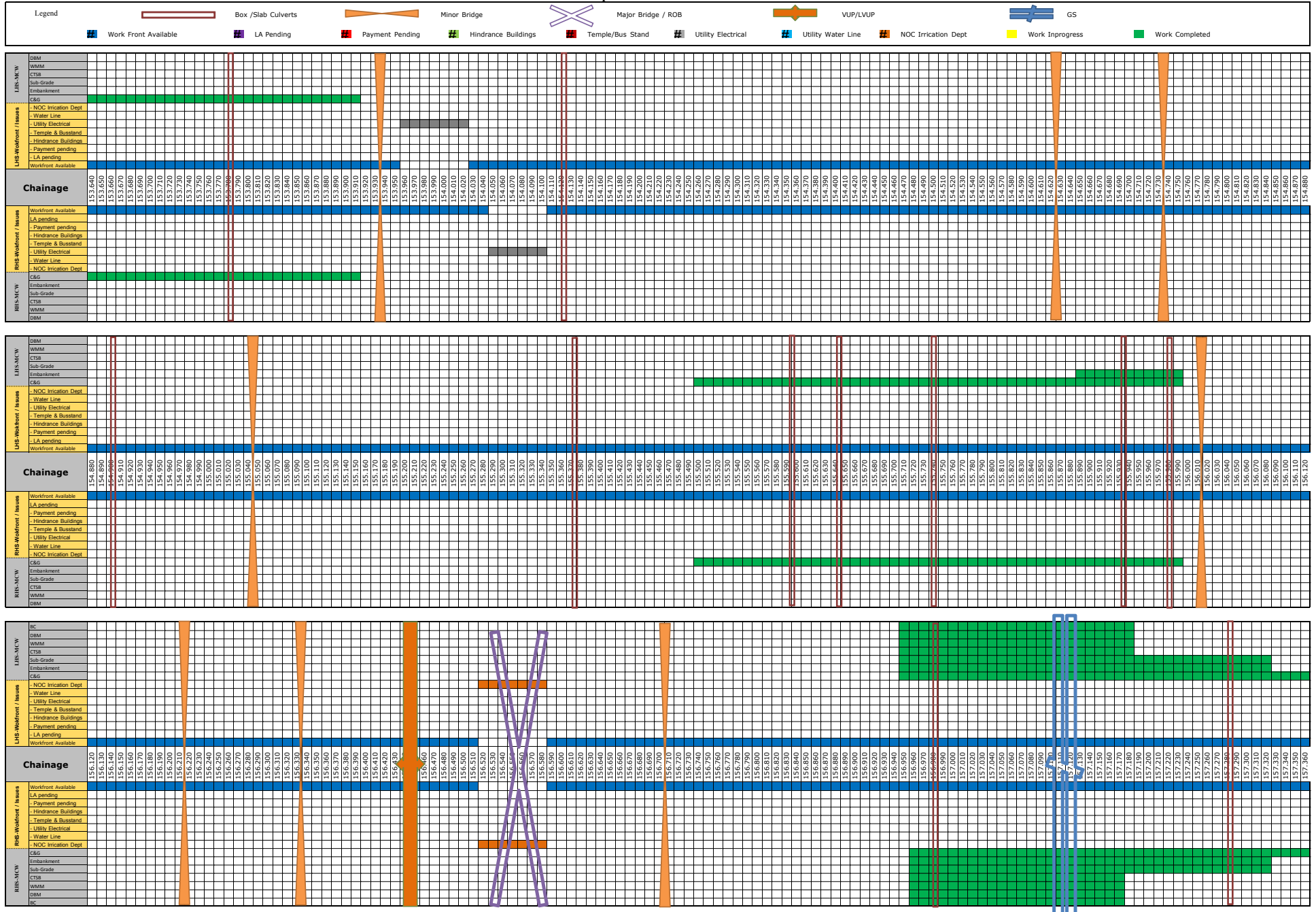
Strip Chart as on 30.11.2021



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

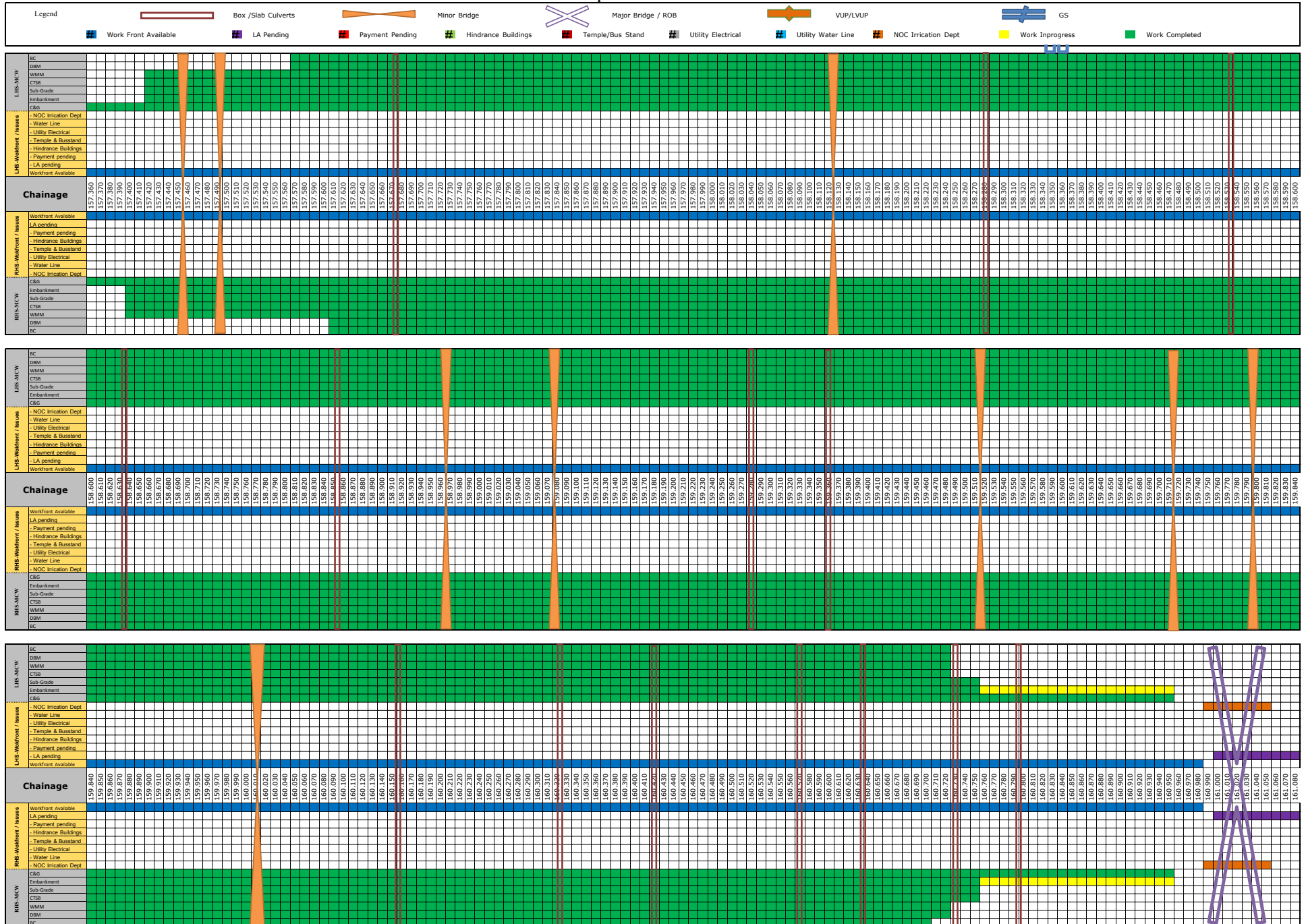
Cholopuram - Thanjavur Project

Strip Chart as on 30.11.2021



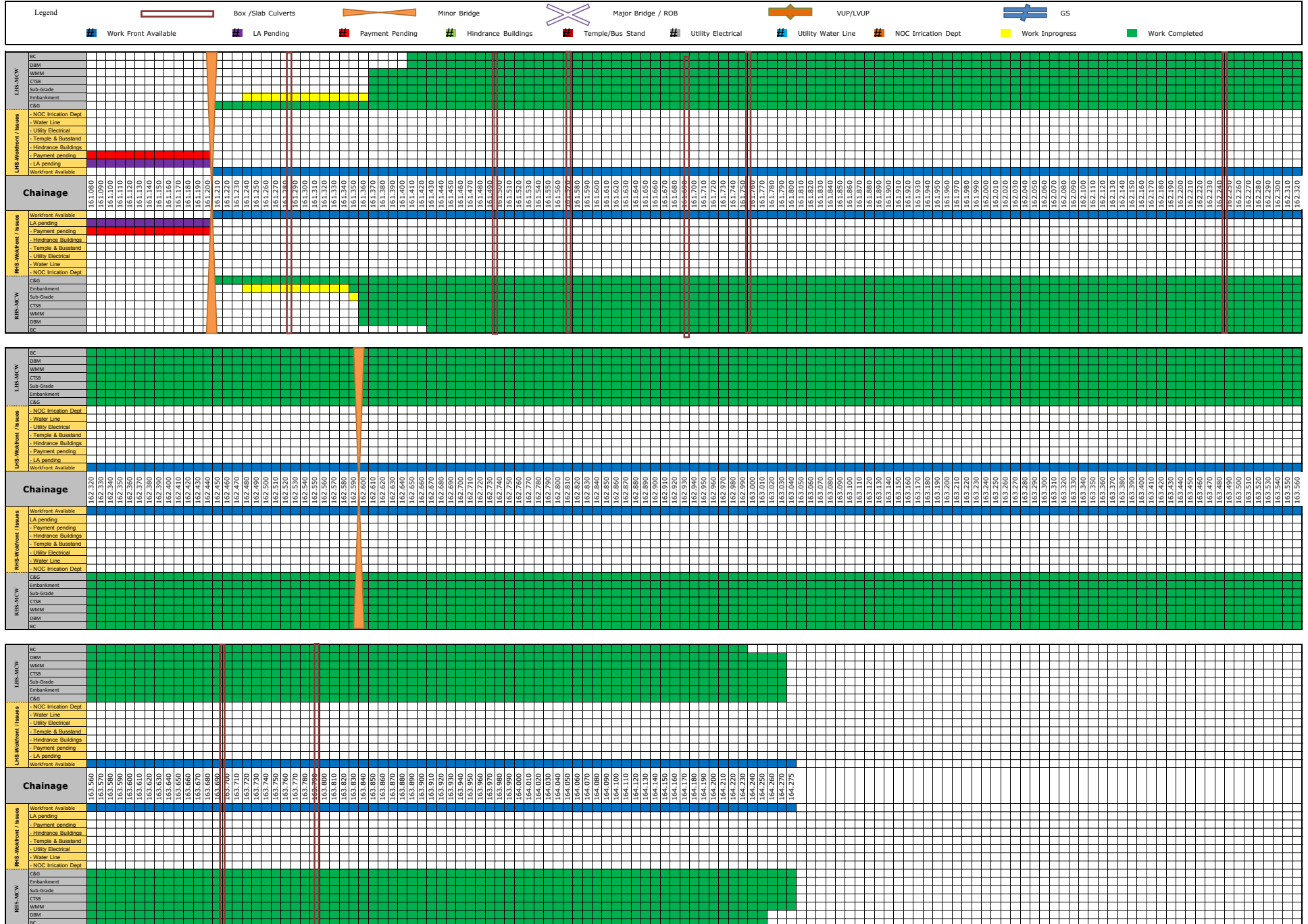
**Four Laning of Cholopuram to Thanjavur from Km. 116.440 to Km. 164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode
Cholopuram - Thanjavur Project**

Strip Chart as on 30.11.2021



Four Laning of Cholapuram 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
Cholapuram - Thanjavur Project

Strip Chart as on 30.11.2021



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 (Main Carriageway)						IN PROGRESS								COMPLETED								
MPR NOVEMBER 2021						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	116.602	116.612	1 x 2.0m	Widening	Slab Culvert																	
2	116.837	116.846	1 x 2.0m	Widening	Slab Culvert																	
3	116.954	116.963	1 x 1.6m	Widening	Slab Culvert																	
4	120.068	120.077	1 x 3.0m	Reconstruction	Slab Culvert																	
5	120.280	120.289	1 x 1.5m	Reconstruction	Slab Culvert																	
6	120.346	120.356	1 x 1.5m	Reconstruction	Box Culvert																	
7	120.836	120.845	1 x 2.0m	Widening	Box Culvert																	
8	121.540	121.550	1 x 3.0m	Widening	Slab Culvert																	
9	121.683	121.693	1 x 1.5m	Widening	Slab Culvert																	
10	121.885	121.895	2 x 1.0m	Widening	Pipe Culvert																	
11	122.375	122.385	1 x 1.0m	Widening	Pipe Culvert																	
12	122.497	122.508	2 x 1.0m	Widening	Pipe Culvert																	
13	122.678	122.688	2 x 1.0m	Widening	Pipe Culvert																	
14	122.835	122.845	1 x 3.0m	Widening	Slab Culvert																	
15	122.943	122.952	2 x 1.0m	Widening	Pipe Culvert																	
16	124.118	124.120	1 x 1.5m	Widening	Slab Culvert																	
17	124.820	124.823	1 x 1.0m	Widening	Pipe Culvert																	
18	125.682	125.685	1 x 1.5m	Widening	Slab Culvert																	
19	126.836	126.854	1 x 3.0m	Reconstruction	Slab Culvert																	
20	126.987	127.007	1 x 2.0m	Reconstruction	Slab Culvert																	
21	127.488	127.498	1 x 1.2m	Reconstruction	Pipe Culvert																	
22	127.600	127.612	3 x 1.2m	Reconstruction	Pipe Culvert																	
23	127.788	127.800	1 x 0.9m	Widening	Pipe Culvert																	
24	128.267	128.279	1 x 0.9m	Widening	Pipe Culvert																	
25	128.494	128.505	1 x 1.2m	Reconstruction	Pipe Culvert																	
26	128.675	128.667	1 x 2.0m	Reconstruction	Box Culvert																	
27	128.682	128.693	1 x 2.0m	Reconstruction	Slab Culvert																	
28	128.727	128.724	3 x 1.2m	Reconstruction	Pipe Culvert																	
29	128.904	128.916	1 x 1.2m	Reconstruction	Pipe Culvert																	
30	129.067	129.079	1 x 1.2m	Reconstruction	Pipe Culvert																	
31	129.246	129.260	1 x 0.9m	Widening	Pipe Culvert																	
32	129.507	129.519	1 x 3.0m	Widening	Slab Culvert																	
33	129.707	129.719	1 x 2.5m	Widening	Slab Culvert																	
34	129.823	129.835	1 x 0.9m	Widening	Pipe Culvert																	
35	130.096	130.109	1 x 1.2m	Reconstruction	Pipe Culvert																	
36	130.307	130.318	1 x 1.5m	Reconstruction	Slab Culvert																	
37	130.357	130.369	1 x 1.5m	Reconstruction	Slab Culvert																	
38	130.680	130.693	2 x 1.2m	Reconstruction	Pipe Culvert																	
39	130.827	130.839	1 x 0.9m	Widening	Pipe Culvert																	
40	130.989	130.999	1 x 3.0m	Widening	Slab Culvert																	
41	131.146	131.159	1 x 0.9m	Widening	Pipe Culvert																	
42	131.505	131.517	1 x 3.0m	Reconstruction	Slab Culvert																	
43	131.722	131.733	1 x 1.2m	Reconstruction	Pipe Culvert																	
44	131.780	131.792	1 x 1.2m	Reconstruction	Pipe Culvert																	
45	132.300	132.319	1 x 3.0m	Widening	Slab Culvert																	
46	132.557	132.571	1 x 3.0m	Widening	Slab Culvert																	
47	132.730	132.742	1 x 3.0m	Widening	Slab Culvert																	
48	132.789	132.803	1 x 2.0m	Widening	Slab Culvert																	
49	133.115	133.128	1 x 5.0m	Widening	Slab Culvert																	
50	133.210	133.222	1 x 2.0m	Widening	Slab Culvert																	
51	133.240	133.268	1 x 0.9m	Widening	Pipe Culvert																	
52	133.635	133.579	1 x 2.0m	Reconstruction	Slab Culvert																	
53	133.734	133.748	1 x 2.0m	Reconstruction	Slab Culvert																	
54	133.935	133.948	1 x 1.2m	Reconstruction	Pipe Culvert																	
55	133.987	133.979	1 x 1.5m	Reconstruction	Slab Culvert																	
56	163.700	163.700	2 x 0.9m	Widening	Pipe Culvert																	
57	163.793	163.828	1 x 0.9m	Widening	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 - 1 : Strip Chart for status of Box Culverts on Existing Road (Service Road)						IN PROGRESS							COMPLETED									
MPR NOVEMBER 2021						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 NOVEMBER 2021						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 NOVEMBER 2021						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 - Box (Main Carriageway)						IN PROGRESS										COMPLETED							
MPR NOVEMBER 2021						LHS										RHS							
Sr. No.	Design Chainage As per CA	Revised Chainage	Number and Length of Spans (m)	Type of Structure	Stretch	Protection Work	Retaining Wall + CB	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Retaining Wall + CB	Protection Work		
MNB IN EXISTING LENGTH																							
1	121.024	121.035	1 x 6.0m	MNBB	Existing																		
2	122.046	122.058	3 x 7.5m	MNBB	Existing																		
MNB IN BYPASS																							
1	117.764	117.779	2 x 10.0m	MNBB	Bypass																		
2	118.217	118.110	1 x 8.0m	MNBB	Bypass																		
3	118.400	119.570	1 x 6.0m	MNBB	Bypass																		
4	118.480	118.480	1 x 6.0m	MNBB	Bypass																		
5	118.539	118.548	1 x 8.0m	MNBB	Bypass																		
6	118.919	119.100	1 x 6.0m	MNBB	Bypass																		
7	126.134	126.134	2 X 10.0m	MNBB	Bypass																		
8	134.320	134.320	2x 10.0m	MNBB	Bypass																		
9	134.770	134.774	1 x 10.0m	MNBB	Bypass																		
10	136.705	136.738	1 x 6.0m	MNBB	Bypass																		
11	138.555	138.585	1 x 6.0m	MNBB	Bypass																		
12	138.901	138.935	6 x 7.5m	MNBB	Bypass																		
13	139.105	139.138	2 x 15m	MNBB	Bypass																		
14	139.299	139.335	4 x 7.5m	MNBB	Bypass																		
15	139.453	139.485	1 x 7.0m	MNBB	Bypass																		
16	140.605	140.637	1 x 6.0m	MNBB	Bypass																		
17	140.860	140.892	1 x 8.0m	MNBB	Bypass																		
18	141.164	141.145	1 x 10.0m	MNBB	Bypass																		
19	141.445	141.466	1 x 8.0m	MNBB	Bypass																		
20	141.727	141.760	1 x 8.0m	MNBB	Bypass																		
21	142.204	142.235	1 x 8.0m	MNBB	Bypass																		
22	142.657	142.687	1 x 6.0m	MNBB	Bypass																		
23	142.897	142.932	2 x 8.0m	MNBB	Bypass																		
24	143.115	143.136	6 x 7.5m	MNBB	Bypass																		
25	143.823	143.852	2 x 8.0m	MNBB	Bypass																		
26	144.000	143.995	2 x 10.0m	MNBB	Bypass																		
27	144.880	144.916	4 x 7.5m	MNBB	Bypass																		
28	146.639	146.671	1 x 10.0m	MNBB	Bypass																		
29	147.396	147.426	1 x 8.0m	MNBB	Bypass																		
30	148.560	148.592	1 x 8.0m	MNBB	Bypass																		
31	149.940	149.962	1 x 10.0m	MNBB	Bypass																		
32	149.997	150.028	1 x 6.0m	MNBB	Bypass																		
33	152.876	152.911	2 x 10.0m	MNBB	Bypass																		
34	153.263	153.287	1 x 10.0m	MNBB	Bypass																		
35	153.528	153.557	1 x 6.0m	MNBB	Bypass																		
36	153.939	153.968	1 x 10.0m	MNBB	Bypass																		
37	154.626	154.659	1 x 6.0m	MNBB	Bypass																		
38	154.739	154.764	1 x 10.0m	MNBB	Bypass																		
39	155.049	155.082	2 x 7.5m	MNBB	Bypass																		
40	156.014	156.040	1 x 8.0m	MNBB	Bypass																		
41	156.216	156.244	1 x 6.0m	MNBB	Bypass																		
42	156.336	156.366	1 x 6.0m	MNBB	Bypass																		
43	156.707	156.734	1 x 10.0m	MNBB	Bypass																		
44	157.458	157.485	1 x 7.0m	MNBB	Bypass																		
45	157.494	157.517	1 x 8.0m	MNBB	Bypass																		
46	158.128	158.155	1 x 7.0m	MNBB	Bypass																		
47	158.972	158.994	1 x 6.0m	MNBB	Bypass																		
48	159.076	159.103	1 x 8.0m	MNBB	Bypass																		
49	159.723	159.742	1 x 6.0m	MNBB	Bypass																		
50	159.801	159.835	1 x 6.0m	MNBB	Bypass																		
51	161.208	161.227	1 x 8.0m	MNBB	Bypass																		
52	162.595	162.618	2 x 15m	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 - 3 : Strip Chart for status of MNB - Deck Type (Main Carriageway)				IN PROGRESS								COMPLETED									
MPR NOVEMBER 2021				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	Open Foundation	Pier/Abt	Piercap/Abt cap	Girder Casting	Girder Launching	Slab	Crash Barrier		
1	133+345	3x12.5m	A1	EXISTING STRUCTURE																	
			P1																		
			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)

MPR NOVEMBER 2021						IN PROGRESS							COMPLETED							
MPR NOVEMBER 2021						LHS							RHS							
Sr. No.	Design Chainage As per CA	Revised Chainage	Number and Length of Spans (m)	Type of Structure	Stretch	Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Protection Work	
MNB SERVICE ROAD IN BYPASS																				
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 NOVEMBER 2021					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 NOVEMBER 2021																	
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									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									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									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 NOVEMBER 2021				LHS										RHS								
Sr. No.	FO at Chainage	Span		Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtcap	Pier/Abt	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Pier/Abt	Piercap/Abtcap	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 NOVEMBER 2021				LHS										RHS								
SR. NO.	VUP at Chainage	Span		Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abt cap	Pier/Abt	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Pier/Abt	Piercap/Abt cap	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
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Table 4.3 - 8 : Strip Chart for status of ROB

IN PROGRESS

COMPLETED

MPR NOVEMBER 2021

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

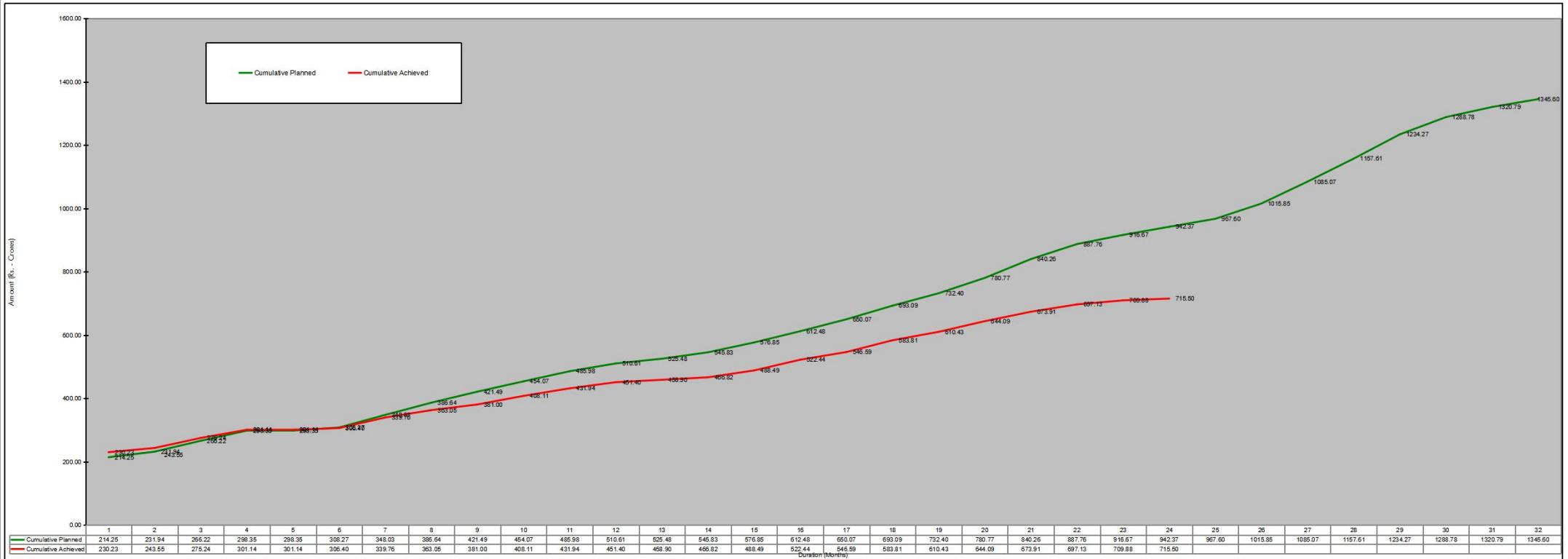
	Crash Barrier	Slab	Steel Girder Launching	Steel Girder Fabrication	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Steel Girder Fabrication	Steel Girder Launching	Slab	Crash Barrier
A1			NA	NA												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

5. Financial & Physical Progress of Work

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

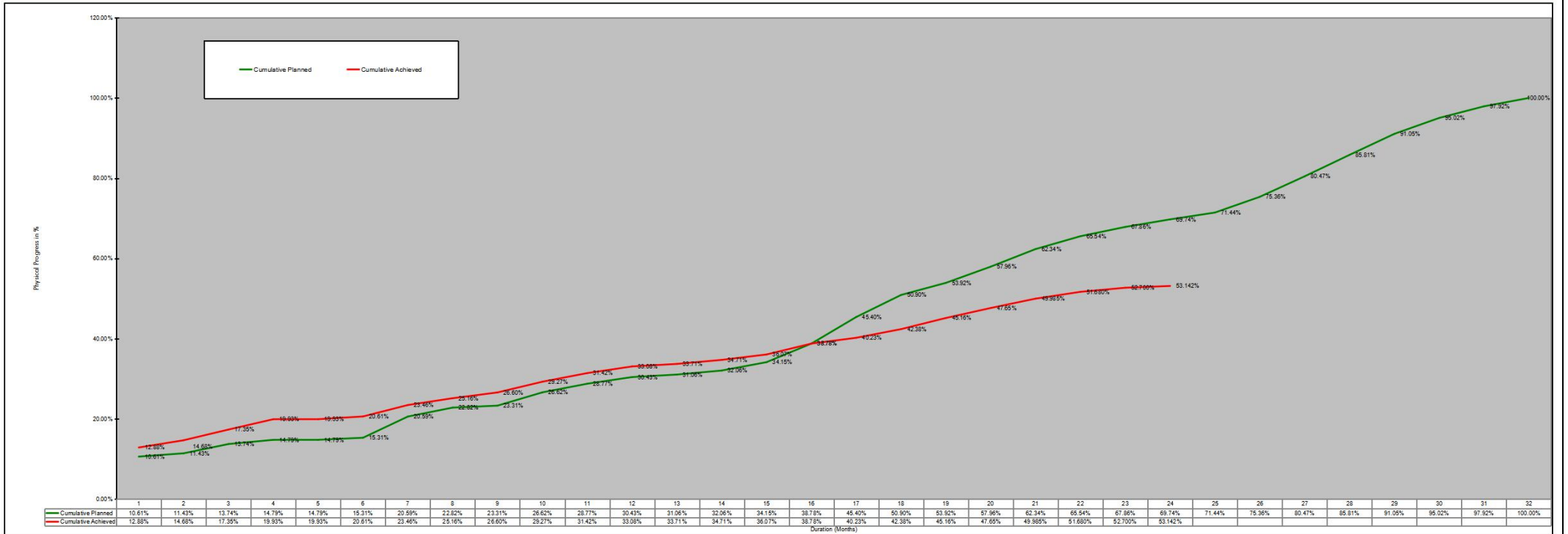
Fig. 03a- Financial Progress (S-Curve) as per revised target



Schedule	2019												2020												2021												2022			
	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	Mar 28	Apr 29	May 30	Jun 31	Jul 32								
Monthly Planned	214.25	17.68	34.28	32.13	0.00	9.92	39.76	38.61	34.85	32.58	31.91	24.64	14.86	20.36	31.02	35.63	37.59	43.02	39.31	48.38	59.49	47.49	28.92	25.70	25.23	48.25	69.22	72.54	76.67	54.51	32.01	24.80								
Monthly Achieved	16.43	13.33	31.69	25.90	0.00	5.26	33.36	23.29	17.95	27.11	23.83	19.46	7.50	7.92	21.67	33.95	24.15	37.21	26.63	33.66	29.81	23.23	12.75	5.61																
Cumulative Planned	214.25	231.94	266.22	298.35	298.35	308.27	348.03	386.64	421.49	454.07	485.98	510.61	525.48	545.83	576.85	612.48	650.07	693.09	732.40	780.77	840.26	887.76	916.67	942.37	967.60	1015.85	1085.07	1167.61	1234.27	1288.78	1320.79	1345.60								
Cumulative Achieved	230.23	243.55	275.24	301.14	301.14	306.40	339.76	363.05	381.00	408.11	431.94	451.40	458.90	466.82	488.49	522.44	546.59	583.81	610.43	644.09	673.91	697.13	709.88	715.50																
Monthly Planned (%)	15.92%	1.31%	2.55%	2.39%	0.00%	0.74%	2.95%	2.87%	2.59%	2.42%	2.37%	1.83%	1.10%	1.51%	2.31%	2.65%	2.79%	3.20%	2.92%	3.60%	4.42%	3.53%	2.15%	1.91%	1.88%	3.59%	5.14%	5.39%	5.70%	4.05%	2.38%	1.84%								
Monthly Achieved (%)	1.22%	0.99%	2.35%	1.92%	0.00%	0.39%	2.48%	1.73%	1.33%	2.01%	1.77%	1.45%	0.56%	0.59%	1.61%	2.52%	1.80%	2.77%	1.98%	2.50%	2.22%	1.73%	0.95%	0.42%																
Cumulative Planned (%)	15.92%	17.24%	19.78%	22.17%	22.17%	22.91%	25.86%	28.73%	31.32%	33.74%	36.12%	37.95%	39.05%	40.56%	42.87%	45.52%	48.31%	51.51%	54.43%	58.02%	62.45%	65.97%	68.12%	70.03%	71.91%	75.49%	80.64%	86.03%	91.73%	95.78%	98.16%	100.00%								
Cumulative Achieved (%)	17.11%	18.10%	20.45%	22.38%	22.38%	22.77%	25.25%	26.98%	28.31%	30.33%	32.10%	33.55%	34.10%	34.69%	36.30%	38.83%	40.62%	43.39%	45.36%	47.87%	50.08%	51.81%	52.76%	53.17%																

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 (S-Curve) as per revised target



Schedule	2019												2020												2021												2022			
	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	Mar	Apr	May	Jun	Jul								
	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	28	29	30	31	32								
Monthly Planned	0.50%	0.82%	2.31%	1.05%	0.00%	0.52%	5.28%	2.23%	0.49%	3.31%	2.15%	1.66%	0.63%	1.00%	2.09%	4.63%	6.62%	5.50%	3.02%	4.04%	4.38%	3.20%	2.32%	1.88%	1.70%	3.92%	5.11%	5.34%	5.24%	3.97%	2.90%	2.08%								
Monthly Achieved	0.73%	1.80%	2.67%	2.58%	0.00%	0.69%	2.85%	1.70%	1.44%	2.67%	2.15%	1.66%	0.63%	1.00%	1.35%	2.71%	1.45%	2.16%	2.78%	2.49%	2.333%	1.695%	1.02%	0.44%																
Cumulative Planned	10.61%	11.43%	13.74%	14.79%	14.79%	15.31%	20.59%	22.82%	23.31%	26.62%	28.77%	30.43%	31.06%	32.06%	34.15%	38.78%	45.40%	50.90%	53.92%	57.96%	62.34%	65.54%	67.86%	69.74%	71.44%	75.36%	80.47%	85.81%	91.05%	95.02%	97.92%	100.00%								
Cumulative Achieved	12.88%	14.68%	17.35%	19.93%	19.93%	20.61%	23.46%	25.16%	26.60%	29.27%	31.42%	33.08%	33.71%	34.71%	36.07%	38.78%	40.23%	42.38%	45.16%	47.65%	49.985%	51.680%	52.700%	53.142%																

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.

Table 6.1 - 2 QA/QC Lab Equipment at Pateeswaram Lab

Sl. No	Equipment List	Quantity
A) SOIL		
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) CONCRETE WORKS		
41	Compressive Testing machine(2000KN)	1
42	Flexural 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 Bottels (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	Sandard Sand Grade-1 bag of 25 kg	2
72	Sandard Sand Grade-2 bag of 25 kg	2
73	Sandard Sand Grade-3 bag of 25 kg	2
C) BITUMINOUS WORKS		
74	Specific Gravity Bottels (50 ml)	2
75	Specific Gravity Bottels (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
FOR I.S SIEVES 450 MM DIA		
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
FOR I.S SIEVES 200 MM DIA		
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
GENERAL & CONTROL OF PROFILE AND SURFACE EVENNESS		
165	Rain Guage	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 November - 2021 are tabulated below:-

Four Lining of Cholapuram - 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 Mode.

Summary of Quality Control Report / Monthly Progress Report (QC) - MONTH : November-2021

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month				Test 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
1.0 Tests on OGL															
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
2.0 Cutting portion & Existing for EMB/SG (MoRT&H 305)															
2.1	Grain size analysis	IS:2720 (Part4)	1 test / 1500 m ³	112	112	0	41	0	0	0	0	112	112	0	41
2.2	Atterberg Limits	IS:2720 (Part5)	1 test / 1500 m ³	112	112	0	41	0	0	0	0	112	112	0	41
2.3	Proctor	IS:2720 (Part8)	1 test / 1500 m ³	112	112	0	41	0	0	0	0	112	112	0	41
2.4	Free Swell index	IS:2720 (Part40)	1 test / 1500 m ³	112	112	0	41	0	0	0	0	112	112	0	41
2.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	107	107	0	43	0	0	0	0	107	107	0	43
3.0 Borrow Area for EMB/Subgrade (MoRT&H 305)															
3.1	Grain size analysis	IS:2720 (Part4)	1 test / 1500 m ³	2039	2039	0	482	0	0	0	0	2039	2039	0	482
3.2	Atterberg Limits	IS:2720 (Part5)	1 test / 1500 m ³	2039	2039	0	482	0	0	0	0	2039	2039	0	482
3.3	Proctor	IS:2720 (Part8)	1 test / 1500 m ³	2039	2039	0	482	0	0	0	0	2039	2039	0	482
3.4	Free Swell index	IS:2720 (Part40)	1 test / 1500 m ³	2039	2039	0	482	0	0	0	0	2039	2039	0	482
3.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	269	269	0	117	0	0	0	0	269	269	0	117
3.7	Angle of Internal Friction(ϕ)	IS:2720 (Part13)	As required	190	190	0	44	0	0	0	0	190	190	0	44
4.0 Field Density Test (MORT&H 305)															
4.1	Field density (OGL)	IS:2720 (Part28)	10 test / 3000 sqm	6655	6640	15	2238	0	0	0	0	6655	6640	15	2238
4.2	Field density (EMB)	IS:2720 (Part28)	10 test / 3000 sqm	79563	79354	209	12905	0	0	0	0	79563	79354	209	12905
4.3	Field density (SG)	IS:2720 (Part28)	10 test / 2000 sqm	11455	11455	3	2035	10	10	0	10	11465	11465	3	2045
4.4	Field density (Shoulder)	IS:2720 (Part28)	10 test / 2000 sqm	412	412	0	94	10	10	0	10	422	422	0	104
5.0 Safe Bearing capacity of soil (Highway & Structure)															
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
6.0 Filter Media & Back filling MoRT&H 2500															
6.1	Gradation		As required	328	328	0	93	0	0	0	0	328	328	0	93
6.2	Backfilling field density		1 test / 1000 m ³	48	48	0	36	0	0	0	0	48	48	0	36
7.0 Granular Bedding Material (For Structures-Ground Improvement) - Stock & Site Testing															
7.1	Gradation	Table 400-1	As required	189	189	0	40	3	3	0	2	192	192	0	42
7.2	Atterberg Limits	IS:2720 (Part5)	As required	189	189	0	40	3	3	0	2	192	192	0	42
7.3	Proctor	IS:2720 (Part8)	As required	131	131	0	19	1	1	0	1	132	132	0	20
7.4	CBR Test	IS:2720 (Part16)	As required	23	23	0	18	1	1	0	1	24	24	0	19
7.5	Aggregate Impact value	IS:2386 Part-4	As required	33	33	0	21	1	1	0	1	34	34	0	22
7.6	Field Density	IS:2720 (Part28)	As required	1963	1963	0	430	39	39	0	10	2002	2002	0	440
8.0 CTSB															
8.1	Gradation	Table 400-4	1 test/400m ³	410	410	0	100	2	2	0	1	412	412	0	101
8.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m ³	408	408	0	98	2	2	0	1	410	410	0	99
8.3	Proctor	IS:2720 (Part8)	As required	17	17	0	15	0	0	0	0	17	17	0	15
8.4	Aggregate Impact value	IS:2386 Part-4	As required	115	115	0	66	0	0	0	0	115	115	0	66
8.5	Field Density	IS:2720 (Part28)	1 set of 2 Test per 500Sqm	4741	4741	0	886	12	12	0	3	4753	4753	0	889
8.6	Specific gravity & Water absorption	IS:2386 (Part3)	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	953	953	0	199	6	6	0	2	959	959	0	201
8.8	CBR Test	IS:2720 (Part16)	As required	15	15	0	12	0	0	0	0	15	15	0	12

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S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month				Test 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
9.0 WMM															
9.1	Individual / Combined Gradation	Table 400-3	1 test/200m ³	434	434	0	91	1	1	0	1	435	435	0	92
9.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m ³	264	264	0	60	1	1	0	1	265	265	0	61
9.3	Flakiness & Elongation index	IS:2386 Part1	1 test/ 500 m ³	256	256	0	65	1	1	0	1	257	257	0	66
9.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m ³	400	400	0	86	1	1	0	1	401	401	0	87
9.5	Proctor	IS:2720 (Part8)	As required	13	13	0	11	0	0	0	0	13	13	0	11
9.6	CBR	IS:2720 (Part16)	As required	11	11	0	9	0	0	0	0	11	11	0	9
9.7	Field Density	IS:2720 (Part28)	1 set Test per 1000 Sq.m / 3 pits	1551	1551	0	359	6	6	0	3	1557	1557	0	362
10.0 Dense Bituminous Macadam (Grade - II)															
10.1	Gradation	MORTH 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	381	381	0	123	3	3	0	2	384	384	0	125
10.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m ³	127	127	0	48	1	1	0	1	128	128	0	49
10.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m ³	127	127	0	48	1	1	0	1	128	128	0	49
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	131	131	0	55	1	1	0	1	132	132	0	56
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	223	223	0	70	1	1	0	1	224	224	0	71
10.6	Core Cutting and Density Of Compacted Layer	Table 900-4 of Morth	1 set Test per 700 Sq.m / 1 pits	691	691	0	219	4	4	0	2	695	695	0	221
10.7	Sand Equivalent Test	IS: 2720 Part 37)1963	One Test for each 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 ³	85	85	0	28	1	1	0	1	86	86	0	29
10.9	Stripping	IS : 6241	One Test for each 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 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 each source	3	3	0	1	0	0	0	0	3	3	0	1
10.12	Plasticity Index	IS: 2720(Part 5)	One Test for each each source	6	6	0	5	0	0	0	0	6	6	0	5
11.0 Bituminous Concrete Grade - (II)															
11.1	Gradation	MORTH 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	192	192	0	43	3	3	0	2	195	195	0	45
11.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m ³	71	71	0	17	1	1	0	1	72	72	0	18
11.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m ³	71	71	0	17	1	1	0	1	72	72	0	18
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	101	101	0	30	1	1	0	1	102	102	0	31
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	521	521	0	26	1	1	0	1	522	522	0	27

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				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
11.6	Core Cutting and Density Of Compacted Layer	Table 900-4 of Morth	1 set Test per 700 Sq.m / 1 pits	728	728	0	191	4	4	0	2	732	732	0	193
11.7	Sand Equivalent Test	IS: 2720 Part 3)1963	One Test for each 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 m³	71	71	0	18	1	1	0	1	72	72	0	19
11.9	Stripping	IS : 6241	One Test for each 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 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 each source	2	2	0	2	0	0	0	0	2	2	0	2
11.12	Plasticity Index	IS: 2720(Part 5)	One Test for each each source	2	2	0	2	0	0	0	0	2	2	0	2
12.0 Bitumen test															
12.1	Absolute Viscosity at 60°C poise, Minimum	IS: 1206-1978 part-2	As per table 2 of IS 73-2013	142	142	0	44	1	1	0	1	143	143	0	45
12.2	Penetration Test at 25°C,100gr,0.1mm,5sec	IS: 1203-1978	As per table 2 of IS 73-2013	207	207	0	53	1	1	0	1	208	208	0	54
12.3	Softening point (R&B) Min	IS: 1205-1978	As per table 2 of IS 73-2013	238	238	0	60	1	1	0	1	239	239	0	61
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	97	97	0	2	0	0	0	0	97	97	0	2
12.5	Separation, Difference In Softening Point (R&B)°C max	IS:15462 -2019	As per table 2 of IRC SP 53	97	97	0	27	0	0	0	0	97	97	0	27
12.6	Test on Residue from TFOT														
12.7	Viscosity ratio at 60°C max	IS: 1206-1978 part-2	1 Test per Lot	33	33	0	19	1	1	0	1	34	34	0	20
12.8	Ductility at 25°C ,cm,Min	IS: 1208-1978	1 Test per Lot	33	33	0	19	1	1	0	1	34	34	0	20
13.0 EMULSION SS1 & RS1															
13.1	Saybolt fural Viscosity	IS: 13117	1 Test per Lot	27	27	0	16	0	0	0	0	27	27	0	16
13.2	Residue on 600 micron is sive	IS: 8887	1 Test per Lot	27	27	0	16	0	0	0	0	27	27	0	16
13.3	Water Content ,Percent by mass	IS: 8887	1 Test per Lot	27	27	0	16	0	0	0	0	27	27	0	16
14.0 EMULSION Prime coat & Tack Coat															
14.1	Rate of Spread of Binder	IRC: SP 16	Three test per Day	614	614	0	144	6	6	0	3	620	620	0	147
15.0 Coarse/Fine Aggregate MoRT&H 1007															
15.1	Gradation	IS:2386 (Part2)	As required	1142	1142	0	354	8	8	0	2	1150	1150	0	356
15.2	Specific gravity& Water absorption	IS:2386 (Part3)	As required	52	52	0	30	1	1	0	1	53	53	0	31
15.3	Aggregate Impact Value	IS:2386 (Part4)	As required	200	200	0	67	3	3	0	1	203	203	0	68
15.4	Flakiness index	IS:2386 (Part1)	As required	198	198	0	65	3	3	0	1	201	201	0	66
16.0 Cement MoRT&H 1006															
16.1	Fineness	IS:4031 (Part1)	500mt (or) Every week	225	225	0	89	4	4	0	2	229	229	0	91
16.2	Normal Consistency	IS:4031 (Part4)	500mt (or) Every week	225	225	0	89	4	4	0	2	229	229	0	91
16.3	Initial,Final setting time	IS:4031 (Part5)	500mt (or) Every week	225	225	0	89	4	4	0	2	229	229	0	91
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	247	247	0	96	5	5	0	2	252	252	0	98
	7 days		500mt (or) Every week	241	241	0	93	5	5	0	2	246	246	0	95
	28 days		500mt (or) Every week	243	243	0	72	4	4	0	2	247	247	0	74

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				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	
17.0 Concrete Cube Strength of Site Cubes 28 Days																
17.1	M15 PCC	IS:516 / IS:456	MORT&H Sec. 1700	1379	1379	0	387	65	65	0	16	1444	1444	0	403	
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	370	370	0	39	10	10	0	2	380	380	0	41	
17.4	M20 KERB	IS:516 / IS:456	MORT&H Sec. 1700	559	559	0	125	0	0	0	0	559	559	0	125	
17.5	M25 RCC	IS:516 / IS:456	MORT&H Sec. 1700	272	272	0	65	0	0	0	0	272	272	0	65	
17.6	M30 RCC	IS:516 / IS:456	MORT&H Sec. 1700	2457	2457	0	633	19	19	0	5	2476	2476	0	638	
17.7	M30 RCC PUMPABLE	IS:516 / IS:456	MORT&H Sec. 1700	521	521	0	149	30	30	0	7	551	551	0	156	
17.8	M35 RCC	IS:516 / IS:456	MORT&H Sec. 1700	1035	1018	17	358	25	25	0	5	1060	1043	17	363	
17.9	M35 RCC PILING	IS:516 / IS:456	MORT&H Sec. 1700	2699	2699	0	949	0	0	0	0	2699	2699	0	949	
17.10	M35 RCC PUMPABLE	IS:516 / IS:456	MORT&H Sec. 1700	3936	3936	0	1206	95	95	0	19	4031	4031	0	1225	
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	1373	1373	0	245	101	101	0	25	1474	1474	0	270	
17.13	M45 PUMP	IS:516 / IS:456	MORT&H Sec. 1700	553	553	0	137	14	14	0	4	567	567	0	141	
17.14	Cement Grout	IS:516 / IS:456	MORT&H Sec. 1700	28	28	0	6	18	18	0	5	46	46	0	11	
18.0 BENTONITE																
18.1	Density	MoRT&H Sec. 1115.2.3	As required	427	427	0	130	0	0	0	0	427	427	0	130	
18.2	Marsh Cone Viscosity			427	427	0	130	0	0	0	0	0	427	427	0	130
18.3	pH Value			427	427	0	130	0	0	0	0	0	427	427	0	130
18.4	Silt Content			15	15	0	6	0	0	0	0	0	15	15	0	6
18.5	Liquid Limit			18	18	0	7	0	0	0	0	0	18	18	0	7
19.0 Fine Aggregate MoRT&H 1008-(RE-Block)																
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	
20.0 Coarse/Fine Aggregate MoRT&H 1007-(RE-Block)																
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	
21. DLC																
21.1	Gradation	MoRT&H Section-601	1 test/400m ³	6	6	0	2	0	0	0	0	6	6	0	2	
21.2	Field Density	MoRT&H Sec. 903.5.1.	3 Sample for 2000 Sqm	9	9	0	3	0	0	0	0	9	9	0	3	
21.3	Cubes casting & Testing(Sets)	IS : 516	1 set for 1000 Sqm	9	9	0	3	0	0	0	0	9	9	0	3	
22.0 Steel Third Party																
22.1	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	
22.2	10 mm Dia	IS 1786		22	22	0	14	1	1	0	1	23	23	0	15	
22.3	12 mm Dia	IS 1786		25	25	0	14	1	1	0	1	26	26	0	15	
22.4	16 mm Dia	IS 1786		28	28	0	16	1	1	0	1	29	29	0	17	
22.5	20 mm Dia	IS 1786		22	22	0	10	0	0	0	0	22	22	0	10	
22.6	25 mm Dia	IS 1786		24	24	0	13	0	0	0	0	24	24	0	13	
22.7	32 mm Dia	IS 1786		10	10	0	5	0	0	0	0	10	10	0	5	

7. Weather Report

Date	Temperature (Celsius)		Humidity (%)		Rainfall (mm)	Remarks
	Min	Max	Min	Max		
01-11-2021	28.9	33.9	77	94	50.00	Rainy
02-11-2021	26.9	30.6	82	90	65.00	Rainy
03-11-2021	28.2	35.8	69	95	54.00	Rainy
04-11-2021	28.6	33.5	65	87	0.00	Cloudy
05-11-2021	28.7	33.9	64	89	0.00	Sunny
06-11-2021	28.9	33.1	68	85	0.00	Cloudy
07-11-2021	27.3	37.5	62	94	23.00	Rainy
08-11-2021	27.2	30.2	87	94	3.20	Rainy
09-11-2021	26.3	30.6	81	96	144.00	Rainy
10-11-2021	27.0	30.3	77	94	0.00	Cloudy
11-11-2021	27.1	31.2	74	94	2.00	Rainy
12-11-2021	28.2	32.8	72	92	0.00	Sunny
13-11-2021	29.0	35.5	67	92	0.00	Sunny
14-11-2021	28.1	35.4	67	91	4.00	Rainy
15-11-2021	28.1	34.5	67	94	3.20	Rainy
16-11-2021	28.9	34.9	69	94	1.00	Rainy
17-11-2021	27.4	34.4	72	94	156.00	Rainy
18-11-2021	27.3	30.1	91	95	8.00	Rainy
19-11-2021	28.7	34.9	68	94	3.00	Rainy
20-11-2021	27.2	37.0	60	94	54.00	Rainy
21-11-2021	28.0	36.3	65	92	0.00	Cloudy
22-11-2021	28.9	35.3	63	94	1.50	Rainy
23-11-2021	28.5	36.1	65	92	0.00	Sunny
24-11-2021	28.8	32.3	79	93	3.00	Rainy
25-11-2021	28.5	34.0	79	93	75.00	Rainy
26-11-2021	27.2	33.2	78	96	48.00	Rainy
27-11-2021	27.6	33.0	79	95	60.60	Rainy
28-11-2021	27.5	29.2	90	97	44.50	Rainy
29-11-2021	28.3	33.8	76	96	1.00	Rainy
30-11-2021	27.2	37.5	58	94	0.00	Sunny

Various issues related to environment and safety, such as traffic management, 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 project.

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

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 Major Bridge (02 Nos)
4. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of project highways in the existing ponds (in a length of 1.667 Kms).
5. Additional land acquisition for Toll plaza location, Bus bays. Turning radius at Major junctions.
6. Removal of Religious structures of 10 Nos. and Bus stand from the proposed ROW.
7. Removal of Government Buildings like VAO office, School, Post Office & Ration Shop etc. in 15 nos. of locations.
8. Removal of unauthorized occupations in 25 nos. of locations in the project highways.
9. Required State Support Agreement between NHAI & Govt. of Tamil Nadu as due priority will be given to NH Projects by the State Govt. officials.
10. Removal of Fuel Stations at Km: 120+400
11. Revised Estimates for Electrical Shifting due to non-available of vertical clearance – Request Authority for earlier Approval.
12. Estimate for shifting of water supply utilities in Missing locations-Request Authority for earlier Approval.
13. Removal of Existing Motor Rooms of 22 nos. from the project highway. – Request Authority to advise/instruct the competent department to take the possession of land.
14. 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 14th 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)(I) 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.

15. Hindrances/Occupations/Land Acquisition issues in the following locations due to various reasons:-

Sl. No	From	To	Effected Length in (M)	Nature of Hindrance	Survey No	Name of Village	Name of Land Owner
1	138+400	138+480	520 m	Court Stay	4/4A	Thiruvanzuli	Mr.Dharmalingam
2	138+500	138+540		Court Stay	-	Thiruvanzuli	Mr.Shanmugam
3	138+750	138+850	500 m	Court Stay		Thiruvanzuli	Mr.Dhahshnamoorthy, Mr.Rajini, Mr.nagaraj
Total Effected Length in Meters			1020				

16. 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.

Table 10.1. Details of Important Events

Sl. No	Date of Events	Description of Events	Remarks
1	24.11.2021	Site Visit of Joint Adviser (Plantation)	

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

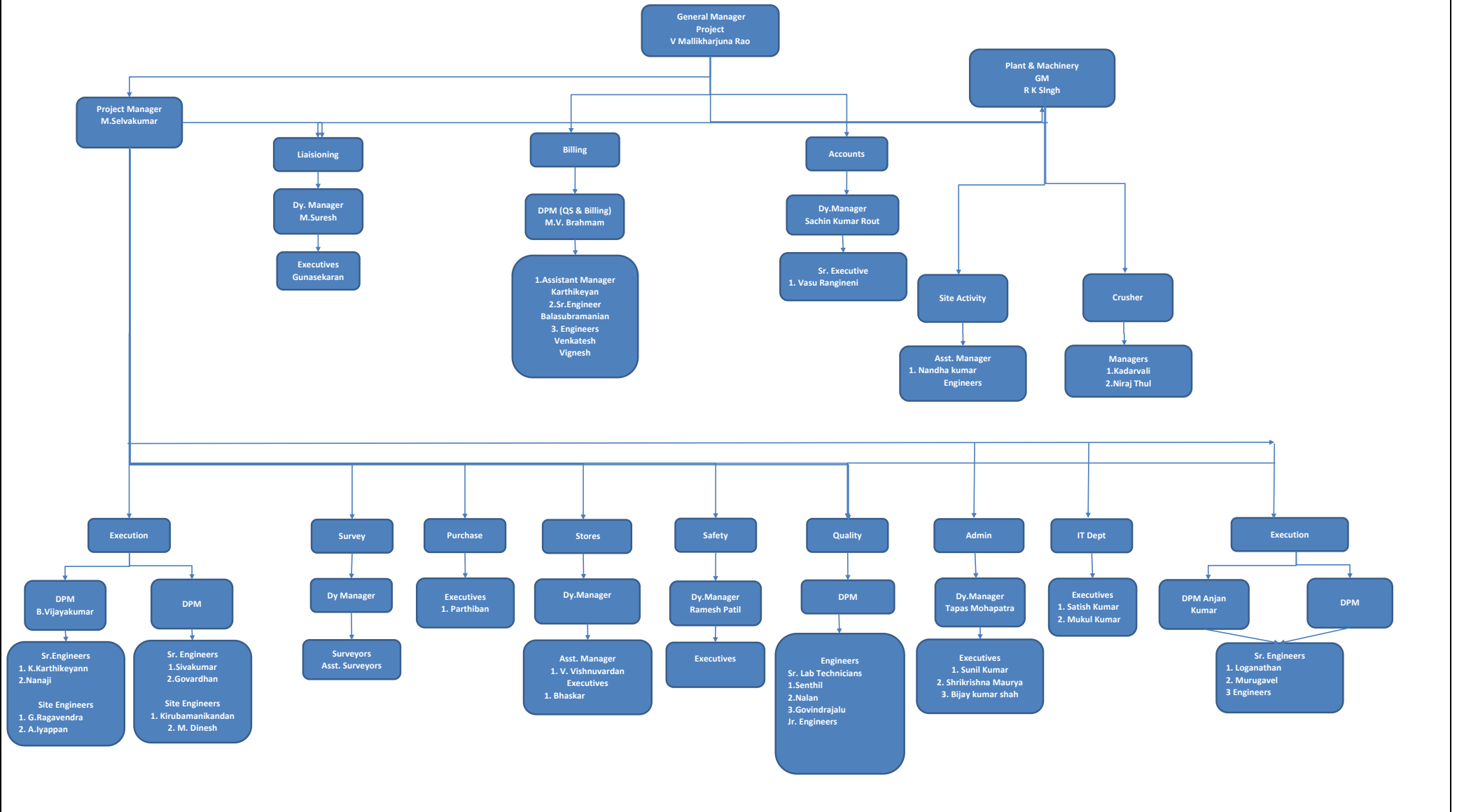
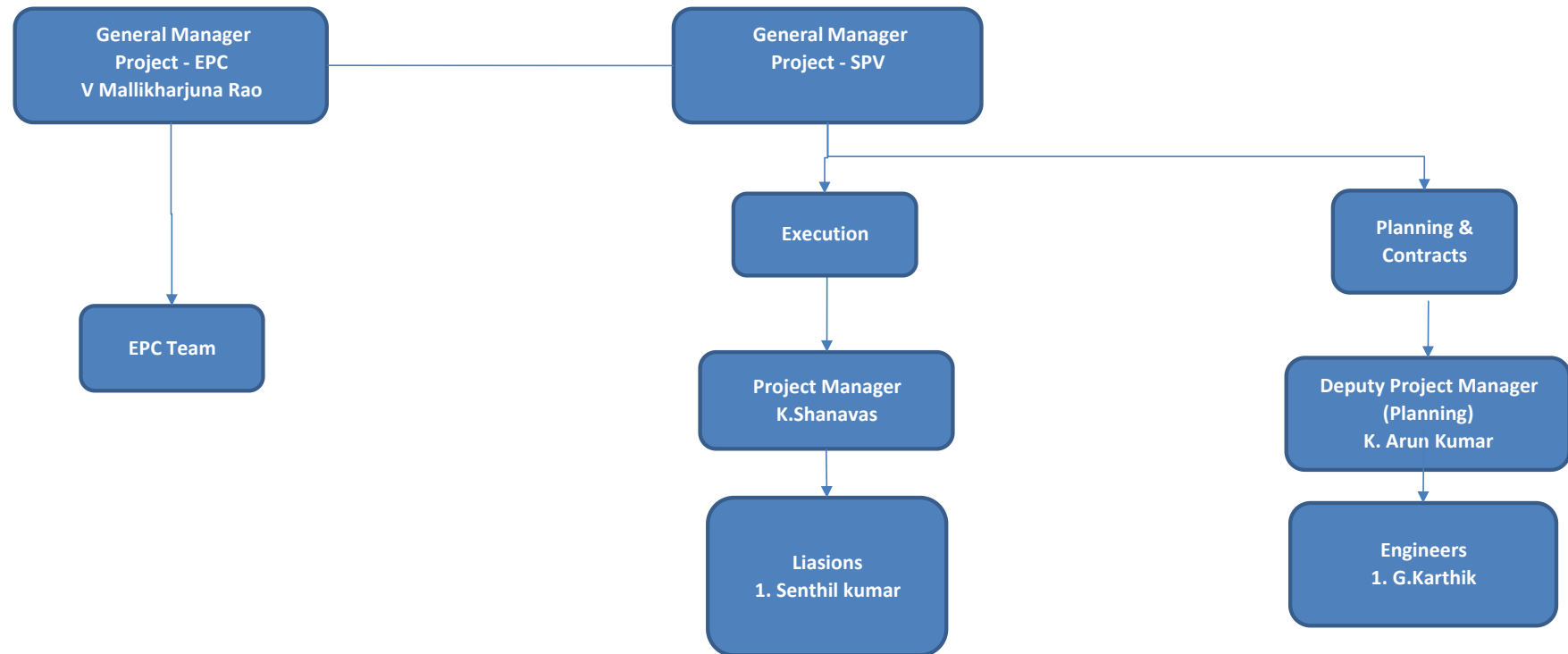


Figure - 5 Organization Chart of Concessionaire



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	

Table 13.1 - Status of Change of Scope Proposals

Sl. No.	Proposal Details	Date of Proposal	Current Status	COS Amount	Actual Date of Approval
1	Replacement of Pipe Culvert with box Culvert	25.04.2018	Approved by 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	In-Principle Approval obtained from the Competent Authority (9.40 Cr)	NA	NA
4	Interchanging of Structures	26.09.2020	In-Principle Approval obtained from the Competent Authority (-6.04 Cr)	NA	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

Project Name:- 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

TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI

S.No	Date	Letter No	Subject	Remarks
1	11.11.2021	PCTHPL/CTP/NHAI/2021/1302	Construction activities hampered due to delay in approval of revised estimates for shifting of Electrical utilities	
2	12.11.2021	PCTHPL/CTP/NHAI/2021/1306	Unauthorized excavation of soil within ROW by local villagers from Km 116+400 to 117+300	
3	13.11.2021	PCTHPL/CTP/NHAI/2021/1307	Construction activities hampered due to delay in remittance of engineering charges for railways	
4	20.11.2021	PCTHPL/CTP/NHAI/2021/1316	Submission of Unaudited Quartely Financial Report	
5	22.11.2021	PCTHPL/CTP/NHAI/2021/1324	Unprecedented Unseasonal Heavy rainfall over the project Alignment-Notice for the occurrence of Force majeure	
6	25.11.2021	PCTHPL/CTP/NHAI/2021/1325	Notice for Change in Law on account of implementation of GST Act 2017	

Project Name:- 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

TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE

S.No	Date	Letter No	Subject	Remarks
1	02.11.2021	NHAI/PIU/Thanj/11026/32/2019/2759	Submission of Comprehensive Change of scope proposal -Observations by RO Madurai -Report submission approval requested	
2	03.11.2021	NHAI/PIU/Thanj/11026/15/2019/2765	Issuance of provisional completion certificate by IE for the completed length of 22.846 Communicated	
3	06.11.2021	NHAI/PIU/Thanj/11026/06/2018/2771	Grievance day Petition present by Sh.M.Ravi, Kadakadappai village-Report called for	
4	06.11.2021	NHAI/PIU/Thanj/11025/03/2018/2772	Thaluthalaimedu Panchayat request to provide culvert for irrigation purpose requested	
5	06.11.2021	NHAI/PIU/Thanj/11026/15/2018/2776	Submission of unaudited quarterly financial report	
6	06.11.2021	NHAI/PIU/Thanj/11099/00/2019/2797	Construction of Road works -Shifting of Utilities Damages to Twad Pipeline instructions issued	
7	08.11.2021	NHAI/PIU/Thanj/11021/23/2019/2781	Existing road at Km 164.275 due to laying of underground water supply and distribution to thanjavur Municipal Corporation under smart city work-Damages to highway appurtenances	
8	09.11.2021	NHAI/PIU/Thanj/11017/02/2007/2812	Acquisition of land in kadakadappai Village Removal of Metal beam crash barrier requested	
9	09.11.2021	NHAI/PIU/Thanj/11015/51/2009/2813	Constitution of Chief Minister's Award Best District Collector and Commissioner of Police -for the best performance on Road safety -Criteria for selection-report requested	
10	09.11.2021	NHAI/PIU/Thanj/11017/03/2009/2817	Request to provide speed breakers-report called for	
11	09.11.2021	NHAI/PIU/Thanj/11026/06/2018/2819	Requesting to provide the waterway to the Pond in Nedunkollai village of manambai Panchayat	
12	10.11.2021	NHAI/PIU/Thanj/11.15/47/2010/2842	Minute of Video conference meeting conducted by the adviser (Plantation), GHD, NHAI-HQ on 02.11.2021 to review the progress of implementation of Annual plantation Action plan	
13	11.11.2021	NHAI/PIU/Thanj/11023/02/2012/2846	Acquisition of land-Pending project finalization-Instructions issued -Communicated	
14	12.11.2021	NHAI/PIU/Thanj/11025/17/2018/2863	Construction activities hampered due to stoppage of Transportation of Pond Ash from Neyveli Lignite Corporation Limited	
15	13.11.2021	NHAI/PIU/Thanj/11026/11/2018/2877	Removal of dried trees at managorai Village-Requested	
16	16.11.2021	NHAI/PIU/Thanj/11019/51/2017/2903	Independent Consultancy Services for the month of Sep'2021-50% Claim	
17	16.11.2021	NHAI/PIU/Thanj/11026/15/2018/2906	Providing rainwater harvesting structures of Completed stretches as per concession agreement	
18	17.11.2022	NHAI/PIU/Thanj/11019/51/2017/2918	Independent Consultancy Services for the month of Aug'2021-50% Claim	
19	20.11.2021	NHAI/PIU/Thanj/11099/36/2020/2947	Estimate for Construction of Oxygen Plant submitted by Concessionaire under COS - Review and recommendation requested-Clarification on Scrunity and observations by IE	
20	24.11.2021	NHAI/PIU/Thanj/11026/06/2018/2976	Damages observed in the approach of minor Bridge at Km 158+155 RHS/A1 side due to continuous heavy rainfall -Rectification requested	
21	24.11.2021	NHAI/PIU/Thanj/11026/15/2018/2981	Twad RA Bill No 09-Payment	

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

TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER

S.No	Date	Letter No	Subject	Remarks
1	02.11.2021	PCTHPL/CTP/IE/2021/1299	Submission of Monthly Progress reprot for the month of October 2021	
2	11.11.2021	PCTHPL/CTP/IE/2021/1301	Submission of revised Construction Programme	
3	11.11.2021	PCTHPL/CTP/IE/2021/1303	Completion of Punch List items- Providing of Pedestrian Guard rail in Build Up sections	
4	11.11.2021	PCTHPL/CTP/IE/2021/1304	Regarding slow progress in achieving the Project targets as per settlement agreement	
5	11.11.2021	PCTHPL/CTP/IE/2021/1305	Construction activities hampered due to heavy monsoon rains -Affected the prprogress completion of punch list items	
6	13.11.2021	PCTHPL/CTP/IE/2021/1308	Submission of detailed drawings for overhead gantry signs	
7	13.11.2021	PCTHPL/CTP/IE/2021/1310	Submission of design and drawing of Overhead gantry signs	
8	16.11.2021	PCTHPL/CTP/IE/2021/1311	Request permission for commencement of foundation works for Overhead gantry signs	
9	17.11.2021	PCTHPL/CTP/IE/2021/1312	Completion of Punch List items – Providing of Avenue Plantation in the Project	
10	17.11.2021	PCTHPL/CTP/IE/2021/1313	Road safety Measures at Palliagraharam Bypass	
11	20.11.2021	PCTHPL/CTP/IE/2021/1315	Submission of Design and drawings of overhead gantry signs	
12	20.11.2021	PCTHPL/CTP/IE/2021/1316	Submission of Unaudited Quartely Financial Report	
13	20.11.2021	PCTHPL/CTP/IE/2021/1317	Completion of Punch List items– Providing of Pedestrain Guard Rail in Build-up sections	
14	20.11.2021	PCTHPL/CTP/IE/2021/1318	Completion of Punch List items– Providing of Rain Water Harvesting structure	
15	22.11.2021	PCTHPL/CTP/IE/2021/1319	Construction of ROB as a bottleneck in completing PCC 2 -Construction activities hampered due to delay in remittance of engineering charges to Railways	
16	22.11.2021	PCTHPL/CTP/IE/2021/1320	Completion of Punchlist items-Placing of boundary pillars in the PCOD completed stretches-Request to depute LS surveyor for demarcation of actual acquired ROW	
17	22.11.2021	PCTHPL/CTP/IE/2021/1321	Submission of Drone video recording of Project highway	
18	22.11.2021	PCTHPL/CTP/IE/2021/1322	Maintenance of Existing road	
19	22.11.2021	PCTHPL/CTP/IE/2021/1323	Completion of Punchlist items-Providing of Avenue plantation in the Project	
20	25.11.2021	PCTHPL/CTP/IE/2021/1326	Submission of revised construction programme	
21	25.11.2021	PCTHPL/CTP/IE/2021/1327	Submission of maintenance manual as pr clause 17.3 of Concession agreement	
22	30.11.2021	PCTHPL/CTP/IE/2021/1330	Submission of rectification of damages observed over the BC surfacesafter heavy moonsoon rains -Non conformance report 22 & 23	
23	30.11.2021	PCTHPL/CTP/IE/2021/131	Research proposal of IIT Hyderabad-Usage of Geogrid & Geocell in Highway pavement	

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

TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI

S.No	Date	Letter No	Subject	Remarks
1	01.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/982	Completion of Punch List items-Providing of rainwater harvesting structure	
2	01.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/983	Completion of Punch List -Providing guard rail in build up sections	
3	01.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/984	Finalization of Location & direction gantry	
4	02.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/629	COS discard confirmation for construction of four lane from Km 120+420 to km 125+000	
5	02.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/986	Slow progress in construction of MJB at Ch 149+355	
6	02.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/987	Issuance of Provisional Completion certificate-1(PCC-1) as per Clause 14.3.1 of CA on completion of 22.846 Km length of Project Highway as per provision of Settlement Agreement Dated 04.03.2021	
7	08.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/994	Review of Method statement for slope protection at quadrant portion of culvert and bridges return wall with concrete & Geocell	
8	09.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/995	Preparedness by the concessionaires/Contractors/O&M Agencies to meet any eventuality and also to ensure Proper Maintenance of the road	
9	09.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/996	NHAI/Policy Guidelines/Misc.Guidelines/2021, Policy No.18.75/2021 dated 3rd November 2021. Drone Video Recording of Project Highway during the development, construction and O&M period	
10	11.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/639	Concessionaire's submission of Cost Estimate for Construction of Oxygen Plant under COS for Review and recommendation of Independent Engineer (IE). -Scrutiny and Observations of IE for details/ report of Concessionaire	
11	15.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/644	Requesting to communicate to the concessionaire for the reduction in scope in construction of RCC drains -part of punchlist B	
12	15.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/645	Status of punchlist items and for necessary action	
13	16.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/1001	Completion of Punch List items- Providing of Pedestrian Guard rail in Build Up sections	
14	17.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/648	Slow progress in achieving the project Targets as per Settlement Agreement	
15	18.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/651	Completion of Punchlist items-Providing of Avenue plantation in the project	
16	18.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/652	Road safety measures at palliagraharam Bypass	
17	18.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/653	Construction of ROB as a bottle neck in Completing PCC-2	
18	18.11.2021	THEME/NHAI/CHO -TNJR/ATH/1121/654	Inspection Report for the month of October 2021	
19	18.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/1003	Submission of Monthly Status Report in operation and maintenance	
20	18.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/1004	Submission of Drone video recording of the Project Highway	
21	18.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/1005	Review of detailed drawings of overhead gantry sign	
22	18.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/1006	Submission of Maintenance Manual and Maintenance program	
23	18.11.2021	THEME/NHAI/CHO -TNJR/CON/1121/1007	Review of Monthly Progress Report for the Month of October 2021	

S.No	Date	Letter No	Subject	Remarks
24	20.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1008	Maintenance of the Existing road of NH45C	
25	20.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1009	Minutes of Video Conference meeting conducted by the Advisor (Plantation & Clearances), GHD, NHAI-HQ on 02.11.2021, to review the progress of implementation of Annual Plantation Action Plan 2021-22	
26	22.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1011	Review of drone video recording of Project Highway	
27	24.11.2021	THEME/NHAI/CHO-TNJR/ATH/1121/658	Cost Estimate for Construction of Oxygen Plant submitted by Concessionaire under COS - Review and Clarifications by PIU. - Submission of reviewed Cost Estimate by Independent Engineer (IE)	
28	24.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1013	Review of design and drawings of overhead gantry signs	
29	25.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1014	Compliance Report called for – Damage observed on the BC surface– Non Conformance Report - 22	
30	25.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1015	Review of Design and drawings of over head gantry signs	
31	25.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1016	Preparedness by the concessionaires/Contractors/O&M Agencies to meet any eventuality and also to ensure Proper Maintenance of the road	
32	25.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1017	Damages observed in the approach of Minor bridge at Km 158+155, RHS/A1 side due to continuous heavy rainfall	
33	29.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1021	Minutes of Project Review Meeting No. 33	
34	29.11.2021	THEME/NHAI/CHO-TNJR/CON/1121/1022	Compliance Report called for – Damage observed on the BC surface– Non Conformance Report - 23	

15. Progress Photographs

Sl. No	Description	Location	Side	Remarks
1.	SR - DBM COMPLETED	156+960 to 157+200	BHS	




Sl. No	Description	Location	Side	Remarks
2.	SR - BC COMPLETED	156+960 to 157+200	LHS	




Sl. No	Description	Location	Side	Remarks
3.	MNB WALL WORK IN PROGRESS	152+911	RHS	
4.	MJB SLAB WORK IN PROGRESS	156+584	LHS	



Sl. No	Description	Location	Side	Remarks
5.	MJB P.S.C. GIRDER CASTING WORK IN PROGRESS	161+030		



Sl. No	Description	Location	Side	Remarks
6.	SLOPE PROTECTION WORK IN PROGRESS	149+060 to 149+180	LHS	
7.	BOUNDARY STONE FIXING IN PROGRESS	121+800	RHS	



Sl. No	Description	Location	Side	Remarks
8.	AVENUE PLANTATION WORK IN PROGRESS	137+150 to 137+530	LHS	
9.		151+120 to 151+400	RHS	



Sl. No	Description	Location	Side	Remarks
10.	OVERHEAD GANTRY FOUNDATION WORK IN PROGRESS	164+209	RHS	
11.	EARTHEN DRAIN WORK IN PROGRESS	148+500 to 148+880	RHS	



Sl. No	Description	Location	Side	Remarks
12.	INFORMATORY SIGN BOARD FIXING WORK IN PROGRESS	148+440	RHS	
13.		148+770	RHS	

