



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

PATEL CHOLOPURAM-THANJAVUR HIGHWAY PRIVATE LIMITED

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 Mode.

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

MONTHLY PROGRESS REPORT
JANUARY 2020

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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.

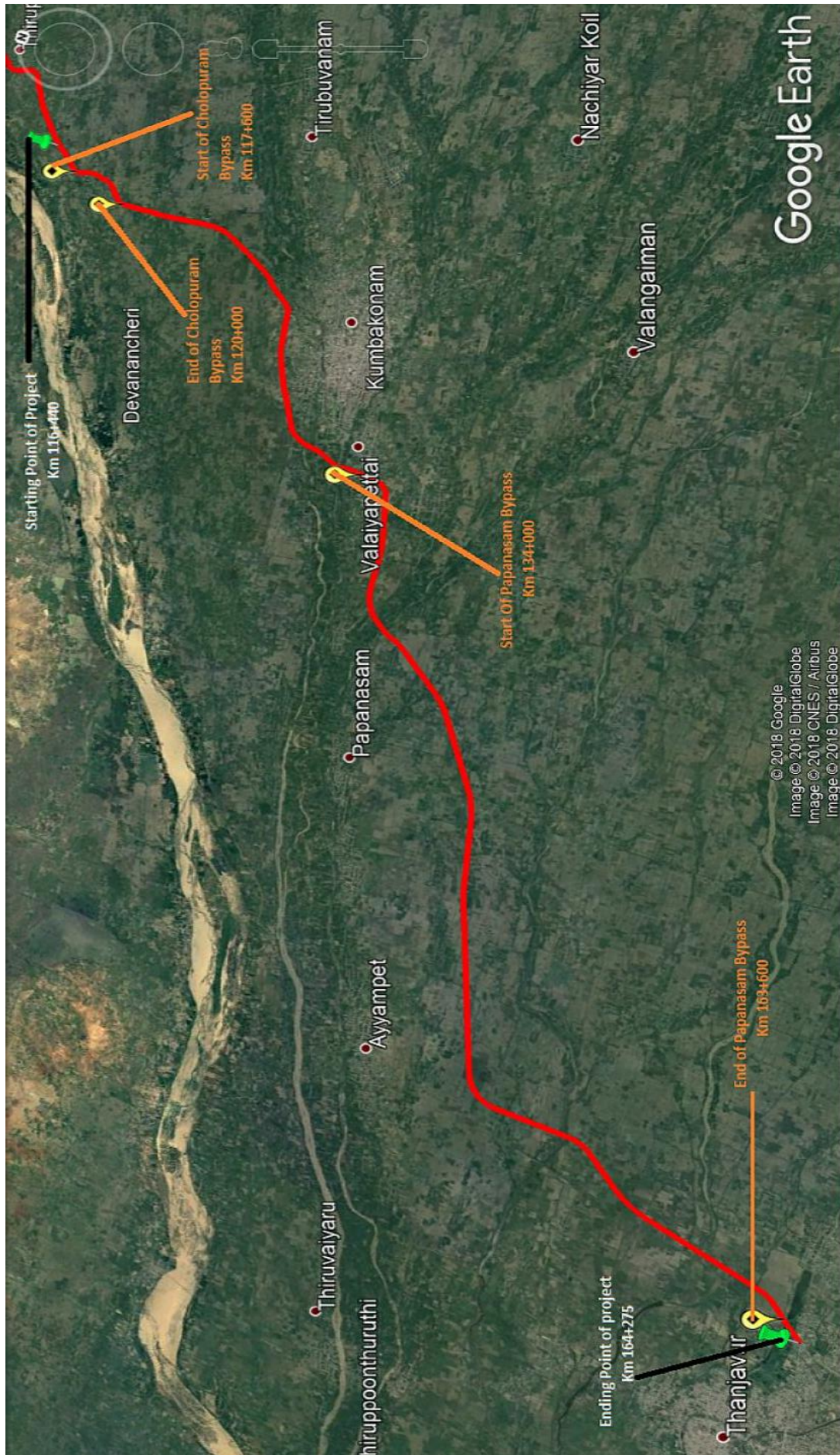
The Cholopuram to Thanjavur section of NH-45C is an important link to connect Metropolitan city of Chennai to religious and tourist places of Kumbakonam, Thanjavur, Tiruchirapalli. The project is also expected to provide improved connectivity to other religious places & other major cities like Thanjavur, Rameswaram, Madurai, Tiruchirappalli, etc.

Project Synopsis

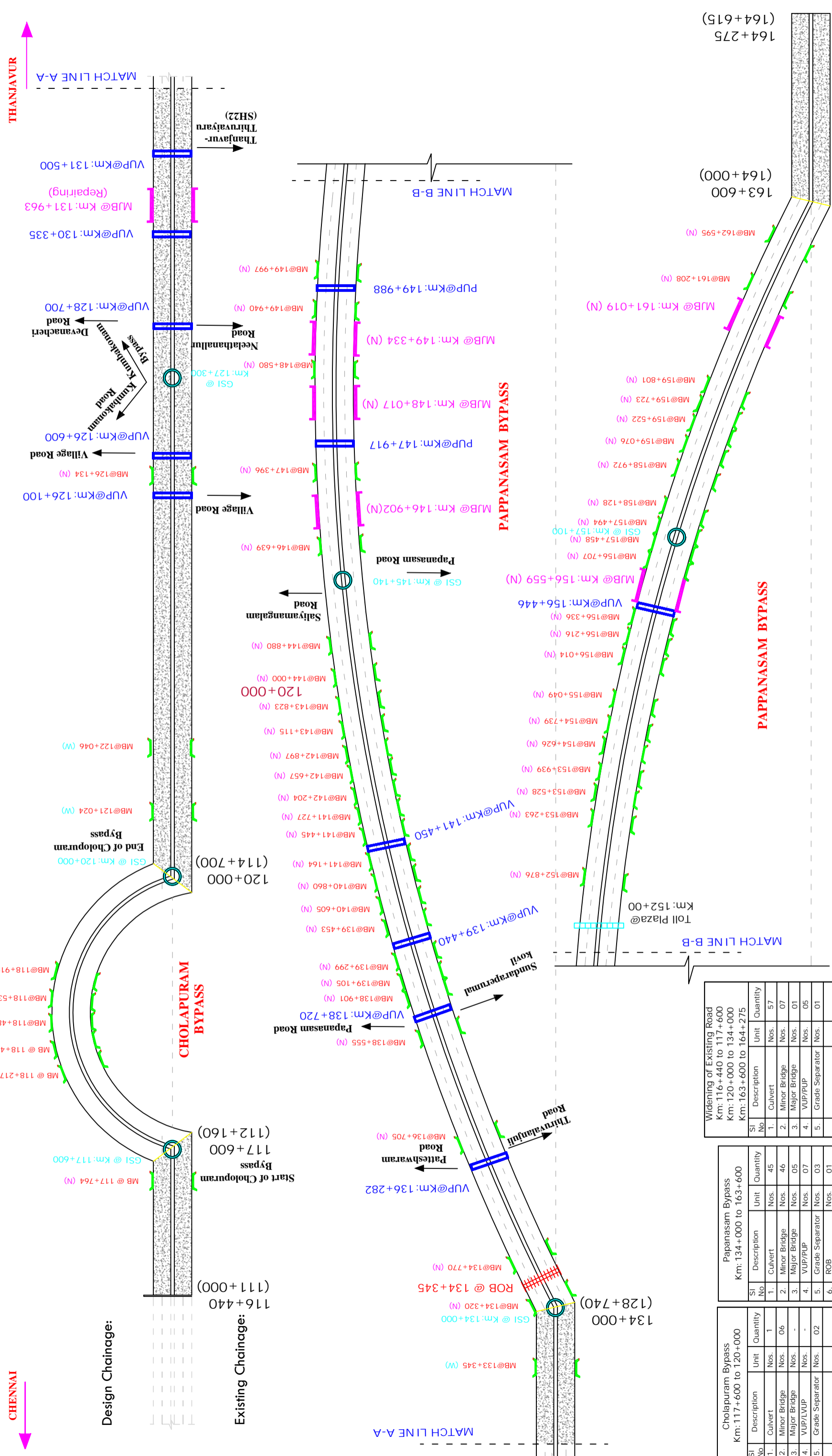
The Government of India had entrusted to the National Highway Authority of India (NHAI) the development, maintenance and management of National Highway No. 45C including the section from km 116.440 to Km 164.275 (approx. 47.835 Km). The Authority had resolved to augment for four Lining of Cholopuram - 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.

Figure 1: Project Location Map



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

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

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

1. Background and Project Details

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
Completion Date as per 1st IEOT	04.04.2021
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	Revised Target date as per recommended IEOT
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	05 th November 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	04 th March 2020
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	09 th November 2020
Scheduled Completion	Concessionaire shall have completed Project on 730 th day from the Appointed Date	04 th September 2020	04 th April 2021

1.4. Payment milestone during Construction Period

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

1.5. Permits & Approvals

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

2. Right of Way Status

2.1. Land Acquisition

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

	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
(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		

	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.

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	7.540	
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	14.605	
D)	Total Project Length (both Side)	Km	47.835	
E)	% Hindered Length	%	30.53%	

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 O4.

The status of compensation disbursed is as below: -

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%	

Sr. No.	Name of the District	Total No. of structures	Amount paid (in Nos)	Balance to be Paid (in Nos)	Remarks
1	Thanjavur	813	662	151	
	Total in Nos	813	662	151	
	Total in %		81.43%	18.57%	

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

1) Details of Stretches Under Hindrance (LHS):-

Sr. No.	From	To	Length	Effective Hindered Length	Side	Remarks
1	116+400	117+230	830	830	LHS	Land not yet handed over compensation yet to be paid
2	117+230	117+870	640	640	LHS	RE Wall Location (i)BHS -Land not yet handed over- (ii)Compensation not yet paid for the structures, (iii)Compensation for 3 Nos of temples on LHS Side are yet to be paid, (iv)NOC for Existing pond at Km 117+742 to Km 117+814 . EB & Water Pipeline
3	119+620	120+390	770	770	LHS	RE Wall Location (i)Compensation not yet Paid for the Lands & Existing Buildings, (ii)NOC pending for existing pond on 120+200 to 120+242 to be cleared, (iii)Temples (Km 120+180)Compensation to be paid
4	120+390	120+800	410	410	LHS	(i)Compensation for Existing Buildings on LHS Side are yet to be paid, (ii) Existing pond on LHS 120+642 to 120+734 to be cleared

5	121+550	121+700	150	150	LHS	Shops & Temple (Km 121+600) Compensations are to be paid, Water Pipeline
6	124+550	124+650	100	100	LHS	Trees with fencing on LHS to be removed, Water Pipeline
7	125+400	125+500	100	100	LHS	Compensation pending for Huts & RCC & tached roof buildings on poramboke land are pending, EB & Water Pipeline
8	125+580	125+730	150	150	LHS	Existing Buidings compenstion not yet paid , EB & Water Pipeline
9	125+730	127+670	1940	1940	LHS	RE Wall Location (i) Compensation pending from Km125+730 to Km 125+950 for the existing buildings, (ii)NOC pending for Existing pond at Km 126+ 090 to Km 126 +163 & Km 126+ 546 to Km 126 +596 & Km 126+675 to Km 126 +772, (iii) Water Pipeline (iv) Religious Structures
10	128+320	129+060	740	740	LHS	RE Wall Location (i) Km 128+400 Temple to be removed, (ii) Km 128+700 to 128 +900 VUP Location Existing Structures, (iii) Petrolbunk Compensation are yet to be paid, (iv) Temple (Km 128+400) compenstion not yet paid, EB & Water Pipeline (v) Religious Structures
11	129+500	129+570	70	70	LHS	Religious Structures
12	129+700	129+800	100	100	LHS	Compensation pending for Land & Structures
13	129+990	130+670	680	270	LHS	RE Wall Location (i) Km 130+200 to 130+ 400 Moopakovil village Compensation pending for Existing Buildings, Poramboke houses , (ii)Existing Pond Km 130 +621 to Km 130+690, Religious structures
14	131+070	131+830	760	760	LHS	RE Wall Location, Compensation not yet paid for Land & Structures, EB & Water Pipeline
15	131+830	133+610	1780	1780	LHS	Comensation Not yet paid for Land & Structures, Temple(Km 133+180) compensation not yet paid
16	133+610	134+770	1160	1160	LHS	RE Wall Location- (i) Comensation Not yet paid for Land & Structures, Existing irrigation Sluices at Km 134+770 to be relocated, (ii) EB & Water Pipeline
17	138+200	138+530	330	330	LHS	Land on dispute - Court Issue (Mr.Dharmalingam & Mr.Shanmugam)
18	138+530	139+720	1190	1190	LHS	RE Wall Location Km 138+750 to Km 138+850 Land on dispute -Court Case- Mr.Dhakshinamoorthy, Mr.Rajini , Mr.Nagaraj) Payment Issue of Land Owner

						Mrs.Valarmathi Kailasam
19	141+900	142+400	500	500	LHS	Payment Issue of Land owners Mr.Pakir Mohammed
20	144+470	145+530	1060	50	LHS	RE Wall Location Km 144+800 to Km 144+850 teak trees to be removed
21	146+600	147+400	800	800	LHS	Km 146+650 to Km 146+800, teak trees to be removed Obstruction of Existing irrigation canal needs to be relocated.
22	147+400	147+450	50	50	LHS	Teak Wood trees to be removed, Obstruction of Existing irrigation canal needs to be relocated.
23	147+450	148+270	820	650	LHS	RE Wall Location Km 148+000 to Km 148+ 100 Teak wood trees to be removed, Obstruction of Existing irrigation canal needs to be relocated.
24	149+330	149+340	10	10	LHS	Teak Wood trees to be removed
25	150+600	150+900	300	300	LHS	Existing irrigation Sluices at Km 150+800 to be relocated, Teak Wood trees to be removed
26	152+800	153+100	300	300	LHS	Existing Irrigation Sluices at Km 152+900 to be relocated,
27	154+500	154+900	400	400	LHS	Vaiyacheri Village land on Dispute, Obstruction of Existing irrigation canal needs to be relocated.
28	156+030	157+360	1330	300	LHS	RE Wall Location Km 156+200 to Km 156+500 Teak wood trees to be removed
29	161+000	161+200	200	200	LHS	Land on dispute - Court Issue Ms Tamilselvi
Total Hindered Length LHS (Km.)				15050		

2) Details of Stretches Under Hindrance (RHS):-

Table 2.1-5 B - Details of Stretches Under Hindrance (RHS)

Sr. No.	From	To	Length	Effective Hindered Length	Side	Remarks
1	116+400	117+230	830	830	RHS	Land not yet handed over compensation yet to be paid
2	117+230	117+870	640	640	RHS	RE Wall Location (i) BHS -Land not yet handed over- Compensation not paid for the structures, (ii) Churuch Compensation to be Paid. (iii) NOC for Existing pond at Km 117+742 to Km 117+814 . (iv)EB & Water Pipeline

3	119+620	120+390	770	770	RHS	RE Wall Location (i) Compensation not yet Paid for the Land & Existing Buildings, (ii) Temple (Km 120+200) Compensation to be paid, (iii) Water Pipeline
4	120+390	120+800	410	410	RHS	(i) Existing Buildings on LHS Side and compensation not yet paid from for land owners (ii) Existing pond on RHS 120+642 to 120+732 to be cleared, Water Pipeline
5	121+400	121+450	50	50	RHS	LA Issue- House under Arbitration, Water Pipeline
6	121+850	121+860	10	10	RHS	Temple-Religious Statue on RHS side and compensation to be done, Water Pipeline
7	122+080	122+120	40	40	RHS	Vana kalamman temple (Km 122+080) on RHS side with banyan tree compensation to be paid, Water Pipeline
8	124+550	124+650	100	100	RHS	Toyoto Showroom yard on RHS Side with fencing compensation to be paid, Water Pipeline
9	125+400	125+500	100	100	RHS	Water Pipeline
10	125+580	125+730	150	150	RHS	Existing Buidings Temple(Km 125+670) compenstion not yet paid , Water Pipeline
11	125+730	127+670	1940	1940	RHS	RE Wall Location (i) 125+730 to 125+950 Existing building to dismantled, (ii) Compensation to be paid (Including Toyoto showroom), (iii) 127+300 Anuj Tiles showroom to be removed, Temple (Km 126+870) compenstion not yet paid , (iii) NOC pending for Existing pond at Km 126+ 546 to Km 126 +596 & Km 126+675 to Km 126 +772, Water Pipeline (iv) Religious Structures
12	128+320	129+060	740	740	RHS	RE Wall Location EB & Water Pipeline Religious Structures
13	129+500	129+570	70	70	RHS	Religious Structures
14	129+570	129+600	30	30	RHS	Existing Temple at Km 129+570 Compensation to be paid , EB Poles, Water Pipeline
15	129+700	129+800	100	100	RHS	Compensation pending for Land & Structures
16	129+990	130+670	680	200	RHS	RE Wall Location 130+200 to 130+ 400 Moopakovil Existing Buildings Compensation to be paid, Religious structures
17	131+070	131+830	760	760	RHS	RE Wall Location Existing Buildings & Shops Compensation not paid, EB & Water Pipeline

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18	131+830	133+610	1780	1780	RHS	Comensation Not yet paid for Land & Structures, EB & Water Pipeline
19	133+610	134+770	1160	1160	RHS	RE Wall Location- (i)Comensation Not yet paid for Land & Structures, (ii) NOC pending for Existing pond at Km 133+756 to Km 133+814 & Km 134+320 to 134+340, EB & Water Pipeline
20	138+200	138+530	330	330	RHS	Land on dispute - Court Issue (Mr.Dharmalingam & Mr.Shanmugam)
21	138+530	139+720	1190	1190	RHS	RE Wall Location Km 138+750 to Km 138+850 Land on dispute -Court Case- Mr.Dhakshinamoorthy, Mr.Rajini , Mr.Nagaraj) Payment Issue of Land Owner Mrs.Valarmathi Kailasam
22	141+900	142+400	500	500	RHS	Payment Issue of Land owners Mr.Pakir Mohammed
23	144+470	145+530	1060	200	RHS	RE Wall Location Km 144+800 to Km 144+850, Km 146+650 to Km 146+800, teak trees to be removed
24	146+600	147+400	800	800	RHS	Km 146+650 to Km 146+800, teak trees to be removed Obstruction of Existing irrigation canal needs to be relocated.
25	147+400	147+450	50	50	RHS	Teak Wood trees to be removed
26	147+630	148+270	640	100	RHS	RE Wall Location Km 148+000 to Km 148+ 100 Teak wood trees to be removed
27	149+330	149+340	10	10	RHS	Teak Wood trees to be removed
28	150+600	150+900	300	300	RHS	Existing irrigation Sluices at Km 150+800 to be relocated, Teak Wood trees to be removed
29	154+500	154+800	300	300	RHS	Vaiyacheri Village land on Dispute
30	156+030	157+360	1330	300	RHS	RE Wall Location Km 156+200 to Km 156+500 Teak wood trees to be removed
31	161+000	161+200	200	200	RHS	Land on dispute - Court Issue Ms Tamilselvi
Total Hindered Length RHS (Km.)			14160			

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	0	13

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

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	47.837	15.310	1461	1448	13	Work in Progress
Total				47.835					

Teak Wood trees are not included in the above table since permissions for removal of teak wood trees is not yet obtained.

Table 2.1.6 - Hindrance Photographs (31.01.2020)

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	30	Houses (2 nos)	116+440	116+470	Houses (6 nos), Mango farm, Cocunut farm	30		
	60	Houses (6 nos), Culvert & Trees	116+520	116+580				
			116+580	116+600	Canal crossing, culvert & Trees	20		
	50	Houses (4 nos), Electrical Pole & Trees	116+600	116+650	Canal crossing & Trees	50		
	50	Houses (2 nos), Electrical Pole & Trees	116+650	116+700	Bore Well, Pump set, Electrical Pole & Trees	50		
	50	Trees	116+700	116+750	Houses (7 nos), Electrical Pole & Trees	50		
	50	Houses (6 nos), Electrical Pole & Trees	116+750	116+800	Houses (4 nos) & Cocunut Trees	50		
	50	Vinayagar Temple, Houses (7 nos) & Electrical Pole (3 nos)	116+800	116+850	Houses (5 nos), & Cocunut Trees	50		
	50	Houses (7 nos), Electrical Poles & Trees	116+850	116+900	Houses (8 nos) & Cocunut Trees	50		
	50	Houses (5 nos), Culvert, Electrical Poles & Cocunut Trees	116+900	116+950	Houses (6 nos) & Cocunut Trees	50		
	30	Houses (2 nos), Electrical Pole (3 nos) & Trees	116+950	117+980	Cocunut Trees & Nala	30		
	20	Houses (2 nos), Electrical Poles & Trees	116+980	117+000	Cocunut Trees, Fencing & Electrical Pole	20		
	50	Houses (7 nos), Electrical Pole (4 nos) & Trees	117+000	117+050	Church & Shops (3 nos)	50		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	50	Houses (5 nos), Electrical Poles & Trees	117+050	117+100	Houses (7 nos), Electrical Poles & Trees	50		
	50	Houses (8 nos), Electrical Poles (3 nos) & Trees	117+150	117+200	Houses (6 nos), Ration Shop, Electrical Poles, Trees & Pond	50		
	50	Temple, Houses (2 nos) & Coconut Trees	117+200	117+250	Houses (9 nos), Electrical Poles & Trees	50		
	50	Houses (3 nos), Electrical Poles & Trees	117+250	117+300	Houses (2 nos), Electrical Poles & Trees	50		
	50	Houses (3 nos), Electrical Poles & Trees	117+300	117+350	Houses (3 nos), Electrical Poles & Trees	50		
	50	Houses (4 nos), Electrical Poles & Trees	117+350	117+400	Houses (4 nos), Electrical Poles & Trees	50		
	50	Houses (5 nos), Electrical Poles & Trees	117+400	117+450	Houses (6 nos), Electrical Poles & Coconut Trees	50		
	50	Houses (4 nos), Bus shelter, Water Tank, Electrical Poles & Trees	117+450	117+500	Houses (5 nos), Electrical Poles & Trees	50		
	50	Houses (4 nos), Electrical Poles & Trees	117+500	117+550	Trees & Electrical Poles	50		
	50	Trees & Electrical Poles	117+550	117+600	Houses (4 nos), Electrical Poles & Trees	50		
	50	Electrical Poles	117+600	117+650	Electrical Poles	50		
	20	House (1 no.) & Coconut Trees	120+000					
	50	House (3 nos), Teak wood Trees	120+050	120+100	Bus shelter, House (3 nos), Electrical Pole (3 nos) & Teak wood Trees	50		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	50	Cocunut farm, Pond & Trees	120+200	120+250	Temple, Houses (2 nos) & Electrical Pole	50		
	30	Houses (2 nos), Electrical Pole, Culvert & Cocunut farm	120+250	120+280	Houses (3 nos), Electrical Poles & Cocunut farm	30		
	20	Houses (1 no.), Electrical Pole, Culvert, Nala & Cocunut farm	120+280	120+300	Houses (2 nos), Electrical Poles & Cocunut farm	20		
	50	Houses (4 nos), Electrical Poles & Cocunut farm	120+300	120+350	Houses (3 nos), Electrical Poles, Culvert & Trees	50		
	50	Shops, Electrical Pole & Cocunut farm	120+350	120+400	House, Electrical Pole & Teak wood Trees	50		
	50	Houses (2 nos), Electrical Poles & Cocunut Trees	120+400	120+450	Houses (4 nos), Petrol Pump, Electrical Poles (2 nos) & Cocunut Trees	50		
	50	Houses (2 nos), Shops, Cocunut & Teak wood Trees	120+450	120+500	Houses (3 nos), Electrical Poles & Trees	50		
	50	Houses (8 nos), Electrical Poles, Cocunut & Teak wood Trees	120+500	120+550	Houses (8 nos), Electrical Poles, Cocunut & Teak wood Trees	50		
	50	Houses (4 nos) & Cocunut farm	120+550	120+600	House (1 no.), Electrical Pole & Cocunut Trees	50		
	50	Houses (6 nos), Fencing, Electrical Pole, Cocunut & Teak wood Trees	120+600	120+650	Houses (5 nos), Fencing, Electrical Pole, Cocunut, Mango Trees & Fish Pond	50		
	30	Houses, Cocunut & Teak wood Trees	120+650	120+680	Pond & Trees	30		
	40	Shops, Cocunut & Teak wood Trees	120+680	120+720	Next crop planted & Fencing	40		
	80	Next crop planted, Electrical Poles & Trees	120+720	120+800	House (1 no.), Transformer, Electrical Poles (4 nos) & Trees	80		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	50	Houses (3 nos), Culvert & Trees	120+800	120+850	Houses (2 nos), Electrical Poles (3 nos) & Trees	50		
	30	Houses (3 nos), Electrical Poles & Trees	120+900	121+930	Houses (1 no.), Fencing, Electrical Pole (4 nos) & Trees	30		
	20	Preparing for next crop, Electrical Pole & Trees	121+930	121+950	Houses (2 nos), Electrical Pole (2 nos) & Trees	20		
	50	Electrical Pole & Trees	121+950	121+000	Houses (2 nos), Electrical Pole (2 nos) & Trees	50		
	10	Electrical Pole & Trees	121+050		Transformer, Electrical Poles (3 nos) & Trees	20		
	-	-	121+100		Electrical Pole	10		
	50	Cocunut Trees, Teak wood Trees & Jungle	121+150		Electrical Pole & Trees	20		
	50	Bus shelter, Houses (3 nos), Electrical Poles (2 nos) & Trees	121+200	121+250	Bus shelter, Trees & Jungle	50		
	50	House (1 no.), Electrical Pole & Trees	121+250	121+300	House (3 no.), Electrical Poles (5 nos) & Trees	50		
	50	Electrical Pole, Trees & Jungle	121+300	121+350	House (2 nos), Electrical Pole & Trees	50		
	80	Electrical Pole, Trees & Jungle	121+350	121+430	Houses (9 nos), Electrical Poles (3 nos) & Trees	80		
	70	Electrical Poles, Trees & Jungle	121+430	121+500	Electrical Poles, Trees & Jungle	70		
	50	House (1 no.), Electrical Poles, Trees & Jungle	121+500	121+550	Electrical Poles, Culvert, Trees & Jungle	50		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	70	Temple, Houses (3 nos) & Coconut Trees	121+550	121+620	Houses (2 nos), Electrical Pole, Mango Trees 7 Jungle	70		
	60	Shops, Houses, Electrical Poles, Coconut Trees, Jungle & Culvert	121+620	121+680	Coconut Trees (12 nos), Trees & Jungle	60		
	40	Pump set, Structure & Coconut Trees (8 nos)	121+680	121+720	Electrical Pole & Trees	40		
	20	Trees & Jungle	121+720	121+800	Electrical Pole	10		
	50	Transformer, Electrical Poles & Trees	121+800	121+850	Church Gate, Boundary Wall	50		
	15	Transformer, Electrical Poles (4 nos)	121+930		Electrical Poles (2 nos)	15		
	20	Electrical Poles, existing bridge structure & Trees	122+020		Electrical Pole & Trees	10		
		River crossing & Trees	122+030		River crossing & Trees			
	-	-	122+080		Temple, Electrical Pole, Canal & Banyan Trees	25		
	20	Electrical Pole & Trees	122+130		Trees (3 nos)	20		
	15	Electrical Poles, Canal, Banana farm & Teak wood Trees	122+200		Pump set & Electrical Poles	15		
	80	Banana farm, Canal, Teak wood Trees, Transformer & Electrical Poles	122+220	122+300	Teak wood Trees, Electrical Pole & Banana farm	80		
	100	Electrical Poles, Teak wood Trees & Canal	122+300	122+400	HP Petrol Bunk & Electrical Poles	100		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
			122+900		Electrical Pole & Jungle	10		
			122+900	123+000	Electrical Pole, Trees & Jungle	100		
			123+000	123+150	Electrical Poles (3 nos)	150		
	70	Canal, Teak wood Trees & Jungle	123+230	123+300	Transformer, Electrical Poles (3 nos) & Trees	70		
	50	Electrical Pole & line crossing	123+300	123+350	Electrical Poles	50		
			123+900		Electrical Poles	15		
	100	Electrical Pole & Trees	125+700	125+800	Compound Wall	100		
	50	Houses (3 nos), Electrical Poles & Trees	125+800	125+850	Houses (4 nos), Electrical Poles & Trees	50		
	50	Houses (4 nos), Electrical Poles & Trees	125+850	125+900	Houses (2 nos), Electrical Poles & Trees	50		
	50	Govt building, House (1 no), Electrical Poles & Trees	125+900	125+950	Houses (3 nos), Electrical Poles & Trees	50		
	100	House (1 no), Water tap & Trees	125+950	126+050	Houses (3 nos) & Trees	100		
	50	Building, Hut (2 nos) & Trees (21 nos)	126+050	126+100	Temple, Houses (5 nos), Electrical Pole (4 nos) & Trees (13 nos)	50		
	100	Pond & Trees	126+400	126+500	Pond & Trees	100		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	100	Bus shelter, Fencing, Houses (4 nos), Electrical Pole & Trees (7 nos)	126+700	126+800	Rice Mill, Houses (4 nos), Hut, Electrical Pole & Trees (13 nos)	100		
	100	Houses (4 nos), Hand pump, Transformer & Electrical Poles	126+800	126+900	Temple, Houses (4 nos), Electrical Pole (2 nos) & Trees (13 nos)	100		
	100	Bus shelter, Pump house, Electrical Pole (4 nos) & Trees (13 nos)	126+900	127+000	Electrical Pole (4 nos), Telephone Pole, Sign board & Trees (14 nos)	100		
	100	Building (4 nos), Electrical Pole (4 nos), Sign boards (4 nos) & Trees (14 nos)	127+100	127+200	Pump house, Electrical Poles (4 nos), Transformer, Sign boards & Trees (10 nos)	100		
	100	Building (2 nos), Electrical Pole (9 nos), Sign boards (4 nos) & Trees (10 nos)	127+200	127+300	Arch, Compound Wall, Electrical Pole (5 nos) & Trees (3 nos)	100		
	30	Commercial building (3 nos), Electrical Pole (6 nos) & Line crossing & Trees (3 nos)	127+650	127+800	Building Compound Wall, Electrical Pole (6 nos) & Trees (2nos)	30		
			128+000	128+120	Pump house, Bore well, Transformer & Electrical Pole (3 nos)	30		
	10	Electrical Pole (1 no.)	128+120	128+200	Electrical Pole (4 nos)	40		
			128+200	128+300	Electrical Pole (2 nos)	20		
	25	Small Temple with Gate	128+300	128+350	Electrical Pole (2 nos)	20		
			128+350	128+400	Electrical Pole (2 nos)	20		
	15	Electrical Pole	128+400	128+500	Electrical Poles (3 nos)	30		
			128+500	128+550	Electrical Poles (2 nos)	20		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	-	-	128+550	128+600	Electrical Poles	10		
			128+600	128+700	Shops (6 nos) & Houses (2 nos), Electrical Poles (5 nos)	40		
	60	Fencing, Trees & Jungle	128+700	128+800	-	-		
	40	Indian Oil Petrol Bunk, Small Temple, steel pole & Trees	128+800	128+900	-	-		
	50	Shops (9 nos), Transformer & Electrical Poles (5 nos)	128+950	129+000	Electrical Pole & Trees	20		
	30	Electrical Pole (3 nos), Street light & Steel arch	129+120	129+200	Under construction house, Trees & Jungle	40		
	30	Electrical Pole	129+200	129+300				
	50	Wooden work factory, Electrical Pole (4 nos)	129+700	129+750	Electrical Pole	50		
	50	Building, Electrical Pole, Trees (4 nos)	129+900	129+950	Compound Wall, Electrical Pole & Trees	50		
			129+950	130+000	Transformer, Electrical Poles (2 nos)	20		
	20	Electrical Pole	130+000	130+120	Electrical Poles (5 nos), Arch	20		
	60	Electrical Pole (3 nos)	130+120	130+200	Houses (3 nos), Electrical Poles (4 nos) & Transformer	60		
	50	Houses (2 nos), Electrical Pole	130+200	130+250	Houses (6 nos), Electrical Poles (2 nos)	50		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	50	Shops, Electrical Pole	130+300	130+350	Compound Wall, Electrical Pole (3 nos)	50		
	50	Houses (3 nos), Electrical Poles (2 nos)	130+350	130+400	Houses (6 nos), Electrical Poles (2 nos)	50		
	50	Houses (7 nos), Electrical Poles (2 nos)	130+400	130+450	Houses (3 nos)	50		
			130+550	130+600	Fencing Pole preparation shop, Trees & Jungle	20		
			130+600	130+700	Shops (6 nos), Electrical Poles (2 nos) & Trees	40		
	30	House with Gate (1 no), Electrical Pole (3 nos),	130+700	130+780	Trees, Electrical Poles & Culvert structure	30		
	10	Electrical Pole & Line crossing	130+780	130+800	Electrical Pole & Line crossing	10		
			130+800	130+900	Electrical Pole	40		
	20	Electrical Pole (3 nos),	130+900	131+000	Arch, Existing culvert, Electrical Pole,	20		
	20	Electrical Pole	131+000	131+100	Building (4 nos), Shop & Electrical Pole	40		
	20	Electrical Pole	131+100	131+200	Temple (1 no.)	25		
			131+200	131+300	Electrical Pole	20		
	30	Carpenter Shop, Electrical Pole (4 nos) & Jungle	131+300	131+400	Under construction building, Electrical Pole, Pump set, Trees & Jungle	30		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	40	Electrical Poles (2 nos)	131+400	131+500	Electrical Pole,	35		
			131+500	131+600	Marble showroom, Electrical Poles & Line crossing (2 nos), Trees & Jungle	40		
	20	Electrical Poles (2 nos)	131+600	131+700	Electrical Pole	20		
	40	High mast light, Sign boards, Houses (4 nos), Electrical Poles (3 nos) & Trees (8 nos)	131+700	131+800	Advertisement board, Fencing, Houses (4 nos), Electrical Poles (2 nos) & Trees	40		
	40	Cocunut farm	132+000	132+100	Trees & Jungle	40		
	60	Banana farm & Trees (10 nos)	132+100	132+200	Trees & Jungle	40		
	50	Houses (3 nos), Shop (1 no. & Electrical Pole	132+200	132+250	Electrical Pole, Trees & Jungle	50		
	60	House, Teak wood Trees, Banana & Cocunut Trees	132+300	132+400	Teak wood Trees, Banana & Cocunut Trees, Electrical Pole & Jungle	60		
	30	Teak wood Trees & Trees (6 nos)	132+500	132+600	Compound wall, Trees (6 nos) & Jungle	30		
	30	Bore well, Pump set, Electrical Poles (9 nos) & Line crossing & Trees	132+600	132+730	Under construction House (1 no.), Electrical Poles (4 nos) & Line crossing & Trees	30		
	50	Electrical Pole	132+800	132+900	Cocunut farm, Electrical Poles (2 nos), Teak wood Trees & Jungle	50		
	100	Banana farm, Pump set & Trees	132+900	133+000	Pump set, Banana farm, Electrical Poles (2 nos) & Line crossing & Cocunut Trees	100		
	100	Motor garage shop, Electrical Pole (2 nos) & Banana farm	133+000	133+100	Cocunut Trees, Existing culvert & Jungle	100		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	45	Temple, Hand pump, 1 no. of buildings, Electrical Poles (2 nos) & Trees	133+100	133+150	Electrical Poles (2 nos) & line crossing & Trees	20		
	50	High mast light, 3 no. of buildings, Electrical Poles (4 nos) & Trees	133+150	133+200	Houses (3 nos), Street lighting pole, Electrical Poles (2 nos) & Trees	50		
	50	Cocunut farm, Pump set & Trees	133+350	133+400	Trees & Jungle	50		
	50	Compound wall, Electrical Pole & Trees (7 nos)	133+400	133+500	Trees, Existing culvert & Jungle	30		
	60	Hotels (2 nos), Electrical Poles (2 nos) & Trees	133+500	133+600				
	30	Houses (2 nos), Electrical Pole (1 no.), School compound wall fencing	133+600	133+700	Compound wall, Transformer, Electrical Poles (2 nos), Arch & Trees (10 nos)	60		
	40	Compound Wall, Electrical Pole, Trees & Jungle	133+700	133+750	House (1 no.), Pond, Compound wall, building & Electrical Poles & Trees	40		
	30	House, Electrical Pole, Trees & Jungle	133+750	133+800	House, Electrical Poles & Trees	30		
	50	Houses (3 nos), Trees & Jungle	133+800	133+900	House (1 no.), Electrical Poles (3 nos), Trees & Jungle	40		
	30	Sign boards, Houses (2 nos), Building, Electrical Poles (2 nos),	133+900	133+950	Shops, Lighting Poles (2 nos) & Electrical Poles (2 nos)	30		
	30	High mast light, Sign boards & Electrical Poles	133+950	134+000	High mast light, Sign boards & Electrical Poles	30		
	30	House & Trees	134+080		House & Trees	30		Encroachment
	-	Railway Crossing	134+380		Railway Crossing	-		ROB @ CH: 134+345

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	20	Regulator & Trees	134+710		-	-	-	water regulator sluice to be relocated
	40	HT Tower	135+400				-	
	10	Electrical Pole & Line Crossing	136+100		Electrical Pole & Line Crossing	10		
	10	Road crossing, Electrical pole & Trees	136+300		Pattaswaram to Swamimalai Road	10		VUP @ CH: 136+282
	10	Electrical Pole & Line crossing	137+040		Electrical Pole & Line crossing	10		
	20	Road crossing & Electrical pole	137+100		House & Trees	20		
	-	-	137+150		Electrical Pole	10		
	70	Standing crop, Transformer, Electrical Pole & Trees	137+550	137+620	Standing crop, Road crossing (Pattaswaram to Sundaraperumalkoil) & Trees	70		
	10	Electrical Pole & Line Crossing	137+850		Electrical Pole & Line Crossing	10		
	10	Electrical Pole	137+900		Electrical Pole	10		
	150	Mango farm & Teak wood Trees	138+300	138+450	Pump set, Mango farm & Teak wood Trees	150		
	100	Pump set, Banana farm, Coconut farm & Canal crossing	138+450	138+550	Pump set, Banana farm, Coconut farm & Canal crossing	100		
	50	Fish pond	138+620	138+670				

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	10	Electrical Pole & Line Crossing & Trees	138+680		Electrical Pole & Line Crossing & Trees	10		
	20	Road Crossing, Trees & EB Pole	138+730					
	20	Cocunut farm, Electrical Pole & Trees	138+730	138+750	Cocunut farm, Electrical Pole & Trees	20		
	50	Houses (7 nos), Trees & Electrical Poles	138+750	138+800	Cocunut farm, Banana farm & Teak wood Trees	50		
	20	Electrical Poles & Line Crossing, Road crossing & Trees	139+450		Electrical Poles & Line Crossing, Road crossing & Trees	20		
	-	-	139+460		Sump, Pump house & Bore Well	30		
	20	Small Temple	140+900		EB Pole & Line Crossing	20		
	15	Road crossing & Trees	141+102		Nallur to Avuru Road	15		
	-	Electrical Pole & Line Crossing & Trees	141+330		Electrical Pole & Line Crossing & Trees	-		
	20	Bore well, Pump house & Trees	142+260		EB Pole & Line Crossing	10		
	20	Bore Well	142+500		Electrical Pole & Line Crossing	10		
	80	Bamboo, Mango trees & Sugarcane farm	142+570	142+650	Bamboo, Mango trees & Sugarcane farm	80		
	20	High Tension Tower	142+850		-	-		
















Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	-	-	143+100		High Tension Tower	20		
	20	EB Pole	143+600		EB Pole	20		
			143+850		Electrical Pole & Line Crossing & Trees	15		
	50	Teak wood trees	144+750		Teak wood trees	50		
	20	Temple	145+500		-	-		
	-	-	145+520		Pump Set & Electrical Pole	20		
	10	Electrical Pole & Line Crossing	146+000		Electrical Pole & Line Crossing	10		
	20	Pump set	146+050		Electrical Pole & Line Crossing	10		
	10	Electrical Pole & Line Crossing	146+070					
	20	Pump set & Trees	146+130		Electrical Pole & Line Crossing	10		
	10	Electrical Pole	146+200		-	-		
	20	Electrical Pole	146+300		Electrical Pole	20		
	20	Electrical Pole & Line Crossing	146+700	146+720	Electrical Pole & Line Crossing & Trees	20		



















Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	1500	Existing Canal	146+600	148+100	Existing Canal	1500		
	10	Nala Crossing, Trees & Electrical Pole	146+780		Nala Crossing, Trees & Electrical Pole	10		
	20	Pump set, River Crossing, Trees & Electrical Pole	146+830		River Crossing, Trees & Electrical Pole	20		
	20	Pump set	146+900		Trees & EB Pole	20		
	30	Nala Crossing & Trees	146+900		Nala Crossing & Trees	30		
	15	Pump set	147+050		-	-		
			147+100		High Tension Tower	40		
	20	High Tension Tower	147+330		-	-		
	20	Bore well & Pump house	147+380		-	-		
	30	Nala Crossing & Trees	147+370	147+400	House	30		
	-	-	147+410	147+450	Houses, Trees & Electrical Line	40		
	20	Teak wood trees	147+520		Teak wood trees	20		
	30	Electrical Pole & Line Crossing	147+880		Electrical Pole & Line Crossing	30		





































Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	20	Road Crossing, Trees & EB Pole	147+900		Road Crossing, Trees & EB Pole	20		
			147+900	148+020	EB Pole	50		
	250	Pump set & EB Pole	148+300	148+550	Pump set & EB Pole	250		
	10	EB Pole & trees (5 nos)	149+100		Pump set & EB Pole	20		
	10	EB Electrical Pole	149+150		EB Electrical Pole	10		
	20	Pump set	149+900		Pump set & Electrical Pole	20		
	20	Pump house	150+610		EB Pole & Line crossing & Trees (2 nos)	10		
	70	River Crossing, Trees & EB Pole	150+780		Regulator & trees	70		
		Existing Sluice	150+800		Existing Sluice			
			151+500	151+630	Electrical Pole	50		
	20	Pump set & Electrical Pole & line crossing	151+650		Electrical Pole	20		
	-	Road Crossing, Trees & EB Pole	152+350		Sulamangalam to Palasakudi Road existing culvert	-		
		Existing Sluice	152+900		Existing Sluice			

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	20	Canal Crossing & Trees	152+900		Canal Crossing & Trees	20		
	10	EB Pole & Trees	153+500		EB Pole & Trees	10		
	15	Electrical Tower	153+720		Electrical Pole & Trees	15		
	40	Houses (6 nos), Electrical pole & Trees	154+590	154+630	Houses (6 nos), Electrical pole & Trees	40		
	120	Bamboo trees & trees & Canal crossing	154+630	154+750	Bamboo trees & trees & Canal crossing	120		
	10	Electrical Pole	154+650		Electrical Pole & Trees	15		
	90	Houses (4 nos) & Trees	154+680	154+770	Bamboo trees	90		
	50	Electrical poles	155+950	155+080	Electrical poles	50		
	10	Pump set & Electrical poles	155+760	155+770	Road crossing	10		
	20	Water tank & Trees	155+780					
	10	Canal crossing & Electrical Pole & Line crossing	156+000		Canal crossing & Electrical Pole & Line crossing	10		
	20	Electrical Pole	156+420	156+440	Teak wood trees	20		
	10	Road Crossing, Trees & EB Pole	156+470	156+480	Kondavattanthidal & Perunakkanallur	10		

Photo	Obstruction Length (m)	LHS - Type of Hindrance	Chainage		RHS - Type of Hindrance	Obstruction Length (m)	Photo	Remarks
			From	To				
	70	Road Crossing, Trees & EB Pole	156+480	156+550	Kondavattanhidal & Perunakkanallur	70		
	60	River crossing & Trees	156+700		River crossing & Trees	60		
	50	Electrical pole	157+150		Electrical pole	50		
	20	Canal crossing, Jungle & Trees	159+510		Canal crossing, Jungle & Trees	10		
	150	Agricultural Land (Court case)	161+050	161+200	Agricultural Land (Court case)	150		
			162+150	162+250	House, Trees (5 nos), Bore well & Pump Set	100		
	-	-	163+620	163+650	Houses (2 nos), Electrical pole, Road Crossing & Trees	30		
	400	River crossing, Jungle & Trees	163+700	164+100	River crossing, Jungle & Trees	400		
	25	Shops (6 nos)	164+250	164+275	Trees (7 nos)	25		

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	-	-
5	Minor Intersections	No	22	-	-
6	Toll Plaza (a) Toll Plaza Layout, (b) Toll Building, (c) Toll Booth, (d) Toll Canopy, (e) Toll Tunnel,	No	05	03	-
7	Rest Area	No	01	-	
8	Bus Bay	No	05	-	
9	Service Roads	No	27.10	27.10	23.680

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	01
2	Minor Bridges	No	56	56	44
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	GAD approved

4. Physical Progress of Work

4.1. Physical Progress of Work

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

The Progress of the Major Works carried out at the Site in the Month of January 2020 is as follows.

CUMMULATIVE STATEMENT**For Main Carriageway**

Sr. No.	Description	Total Length of Highway Excluding Toll Plaza (in. Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Clearing and Grubbing							
	LHS	46.925	34.13	0.65	34.78	0	12.145	74.12%
	RHS	46.925	32.68	0.38	33.06	0	14.245	70.45%
2	Embankment							
	LHS	46.925	4.91	0.645	5.555	15.305	41.370	11.84%
	RHS	46.925	4.34	1.060	5.400	14.170	41.525	11.50%
3	Sub grade							
	LHS	46.925	1.92	0.06	1.98	0	44.945	4.22%
	RHS	46.925	2.08	0.39	2.47	0	44.455	5.26%
4	GSB/ Cement Treated Sub-Base							
	LHS	46.925	0.89	0.63	1.52	0.08	45.405	3.24%
	RHS	46.925	0	0.88	0.88	0.10	46.045	1.88%
5	Wet Mix Macadam							
	LHS	46.925	0	1.51	1.51	0	45.415	3.22%
	RHS	46.925	0	0	0	0	46.925	0.00%
6	Dense Bitumen Macadam							
	LHS	46.925	0	1.07	1.07	0	45.855	2.28%
	RHS	46.925	0	0	0	0	46.925	0.00%
7	Bituminous Concrete							
	LHS	46.925	0	0	0	0	46.925	0.00%
	RHS	46.925	0	0	0	0	46.925	0.00%

For Service Road

Sr. No.	Description	Total Length of Service Road (Km.)	Progress up to Previous Month (in Km)	Progress during this Month (In Km.)	Cumulative Progress Achieved up to this Month (In Km)	In Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Embankment	27.1	0	0	0	0	27.1	0.00%
2	Sub grade	27.1	0	0	0	0	27.1	0.00%
3	GSB/ Cement Treated Base	27.1	0	0	0	0	27.1	0.00%
4	Wet Mix Macadam	27.1	0	0	0	0	27.1	0.00%
5	Dense Bitumen Macadam	27.1	0	0	0	0	27.1	0.00%
6	Bituminous Concrete	27.1	0	0	0	0	27.1	0.00%

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Structure Work

Sr. No.	Type of Structure	Total No. of Structures	No. of Structures		
			Completed	In Progress	Balance
1	Culvert	103	41.5	25	36.5
2	Light Vehicular Underpass	2	1	1	0
3	Vehicular Underpass	10	0	10	0
4	Minor Bridges	56	17.5	21.5	17
5	Major Bridge	5	0	2	3
6	Flyover	6	0	6	0
7	ROB	1	0	1	0

Physical Progress of Project up to January 2020 as per approved Schedule G:

Item	Stage for Payment	Unit	Qty.	Weightage in % to Contract Price	Completed up to Jan'2020	% 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%	2.00	0.297%
	(2) Granular work (sub-base, base, shoulders)	Km.				
	(a) GSB/ Cement Treated Base	Km.	28.70	1.40%		0.000%
	(b) WMM/ Cement Treated Base	Km.	28.70	2.10%		0.000%
	(3) Shoulders	Km.	7.10	0.03%		0.000%
	(4) Bituminous work					
	(a) DBM	Km.	28.70	1.61%		0.000%
	(b) BC	Km.	28.70	1.48%		0.000%
	(5) Rigid Pavement					
	Concrete Work	Km.				
	(6) Widening and Repair of Culverts	Nos.	33	0.57%	12.50	0.217%
	(7) Widening and Repair of Minor Bridges	Nos.	3	0.38%		0.000%
	B- New realignment/bypass					
	(1) Earthwork up to top of the sub-grade	Km.	63.33	16.30%	2.45	0.631%
	(2) Granular work (sub-base, base, shoulders)	Km.				
	(a) GSB/ Cement Treated Base	Km.	62.13	3.39%	2.40	0.131%
	(b) WMM/ Cement Treated Base	Km.	62.13	3.83%	1.51	0.093%
	(3) Shoulders	Km.	48.19	0.10%		0.000%
	(4) Bituminous work					
(a) DBM	Km.	62.13	3.39%	1.07	0.060%	
(b) BC	Km.	62.13	3.83%		0.000%	
(5) Rigid Pavement						
Concrete Work	Km					

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	C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:					
Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	(1) Culverts	Nos.	70	5.95%	23.90	2.030%
	(2) Minor bridges					
	(i) Foundation	Nos.	170	6.71%	64.00	2.527%
	(ii) Substructure	Nos.	270	3.50%	87.50	1.133%
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	142	3.78%	29.90	0.795%
	(3) Cattle/Pedestrian underpasses					
	(i) Foundation	Nos.	4	0.15%	4.00	0.150%
	(ii) Substructure	Nos.	8	0.08%	4.00	0.042%
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	4	0.06%	2.00	0.028%
	(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.				
	(i) Piles	Nos.	240	1.46%	227.00	1.378%
	(i) Pile Cap	Nos.	40	1.04%	30.00	0.781%
	(ii) Substructure	Nos.	40	0.91%	11.00	0.250%
	(iii) Girder Casting	Nos.	100	0.45%	43.00	0.195%
	(iv) Girder Launching	Nos.	100	0.19%		
	(v) Superstructure (including crash barrier etc. complete)	Nos.	20	1.14%		
	(c) Vehicular Overpass (VOP)					
	(i) Foundation	Nos.				
	(ii) Substructure	Nos.				
	(iii) Superstructure (including crash barrier etc. complete)	Nos.				
	(c) Flyover					
	(i) Foundation	Nos.	24			
	(i) Piles	Nos.	144	1.36%	120.00	1.134%
	(i) Pile Cap	Nos.	24	0.89%	20.00	0.741%
	(ii) Substructure	Nos.	24	0.82%	0.00	0.000%
	(ii) Girder Casting	Nos.	60	0.43%	3.00	0.021%
(iv) Girder Launching	Nos.	60	0.18%			
(v) Superstructure (including crash barrier etc. complete)	Nos.	12	1.02%			
Major Bridge works and ROB/RUB	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.					

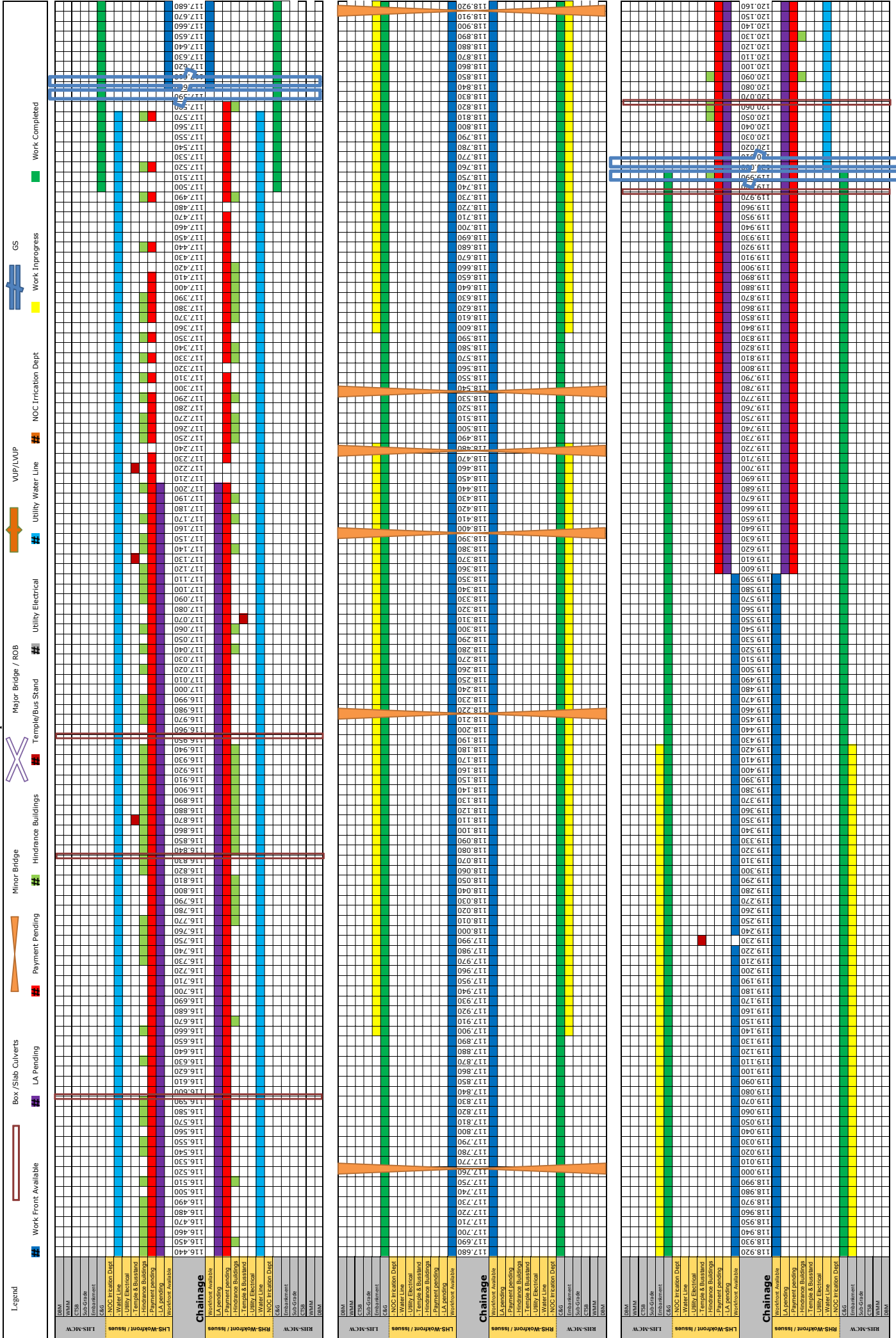
	(3) Superstructure (including crash barrier etc. complete)	Nos.				
	C- New Major Bridges					
	(1) Foundations					
	(a) Open Foundation	Nos.				
	(b) Pile foundation/ well foundation	Nos.				
	(i) Piles	Nos.	468	1.47%	52.00	0.163%
	(ii) Pile Cap	Nos.	76	0.71%		
	(2) Substructure	Nos.	76	1.23%		
	(3) Superstructure (including crash barrier etc. complete)	Nos.	62	1.49%		
	D- New rail-road bridges					
	(a) ROB					
	(i) Foundation	Nos.				
	(i) Piles	Nos.	40	0.71%	24.00	0.423%
	(i) Pile Cap	Nos.	8	0.79%		
	(ii) Substructure	Nos.	8	0.80%		
	(iii) Superstructure (including crash barrier etc. complete)	Nos.	6	1.49%		
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.)		179469	7.52%	116,330.91	1.462%
Other Works	Other Works					
	(i) Service roads/ Slip Roads	Km	27.10	3.86%		0.000%
	(ii) Toll Plaza	Nos.	1	1.38%		0.000%
	(iii) Road side drains	Km	12.08	1.64%		0.000%
	(iv) Road signs, markings, km stones, safety devices,					
	(a) Road signs, markings, km stones, ...	Km	95.67	2.02%		0.000%
	(b) Concrete Crash Barrier/ W-Beam Crash Barrier in Road work	Km				
	(i) Concrete Crash Barrier	Km	25.42	2.01%		0.000%
	(ii) W-Beam Crash Barrier	Km	32.75	0.70%		0.000%
	(v) Project facilities					
	(a) Bus Bays	No.	20	0.01%		0.000%
	(b) Truck Lay-byes	No.				
	(b) Rest areas	No.	2	0.22%		0.000%
	(vi) Repairs to bridges/structures	Nos.	4	0.01%		
	(vii) Road side plantation	Km	22.54	0.61%		0.000%
	(viii) Protection works					
	(a) Boulder pitching on slopes	Km	32.75	0.19%		0.000%
	(b) Toe/Retaining wall	Km				
	(x) Miscellaneous	Ls.	100%	0.150%		0.000%
	Total			100.00%		14.682%

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

Cholopuram - Thanjavur Project

Strip Chart as on 31-01-2020

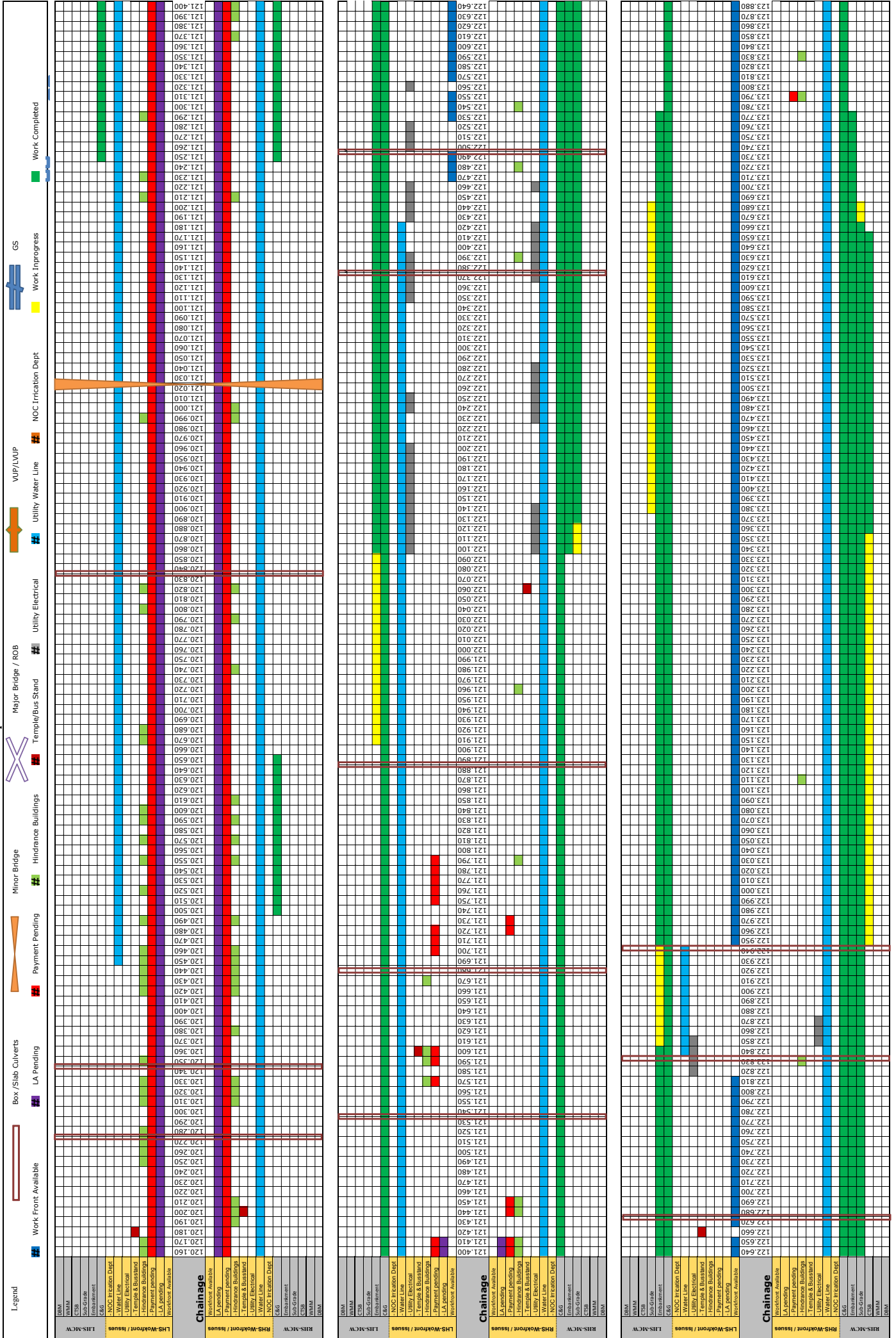


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Four Lining of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Cholopuram - Thanjavur Project

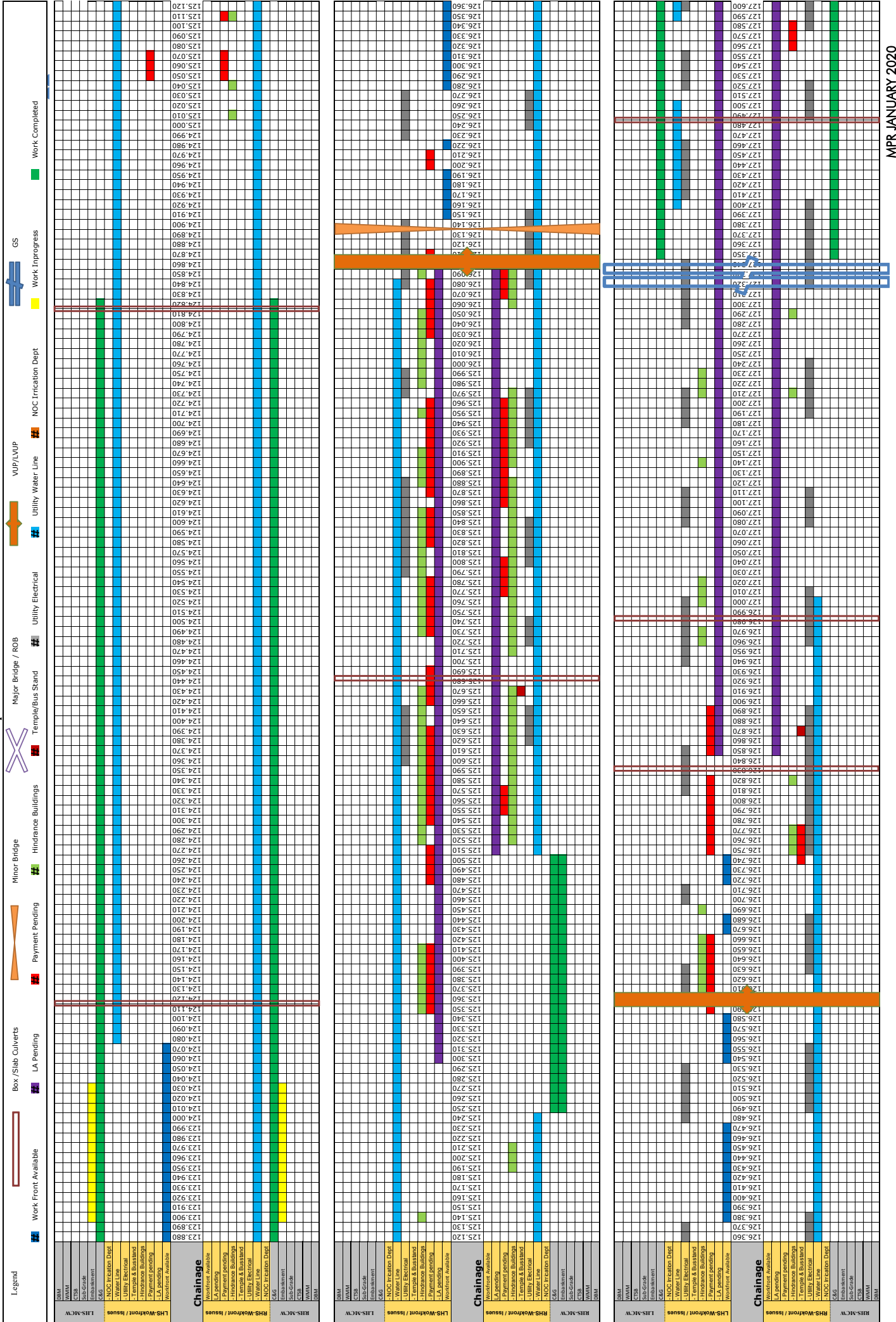
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

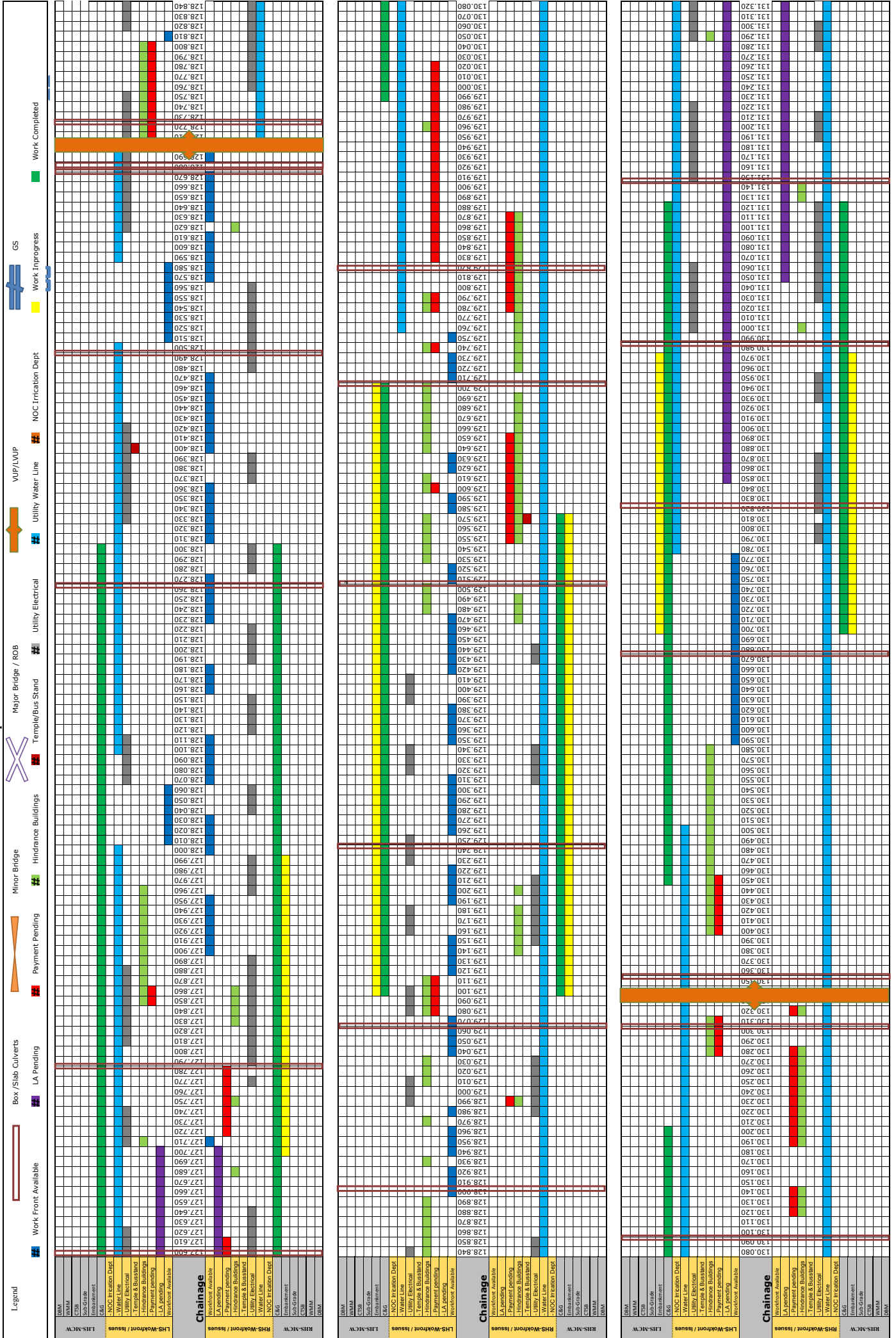
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

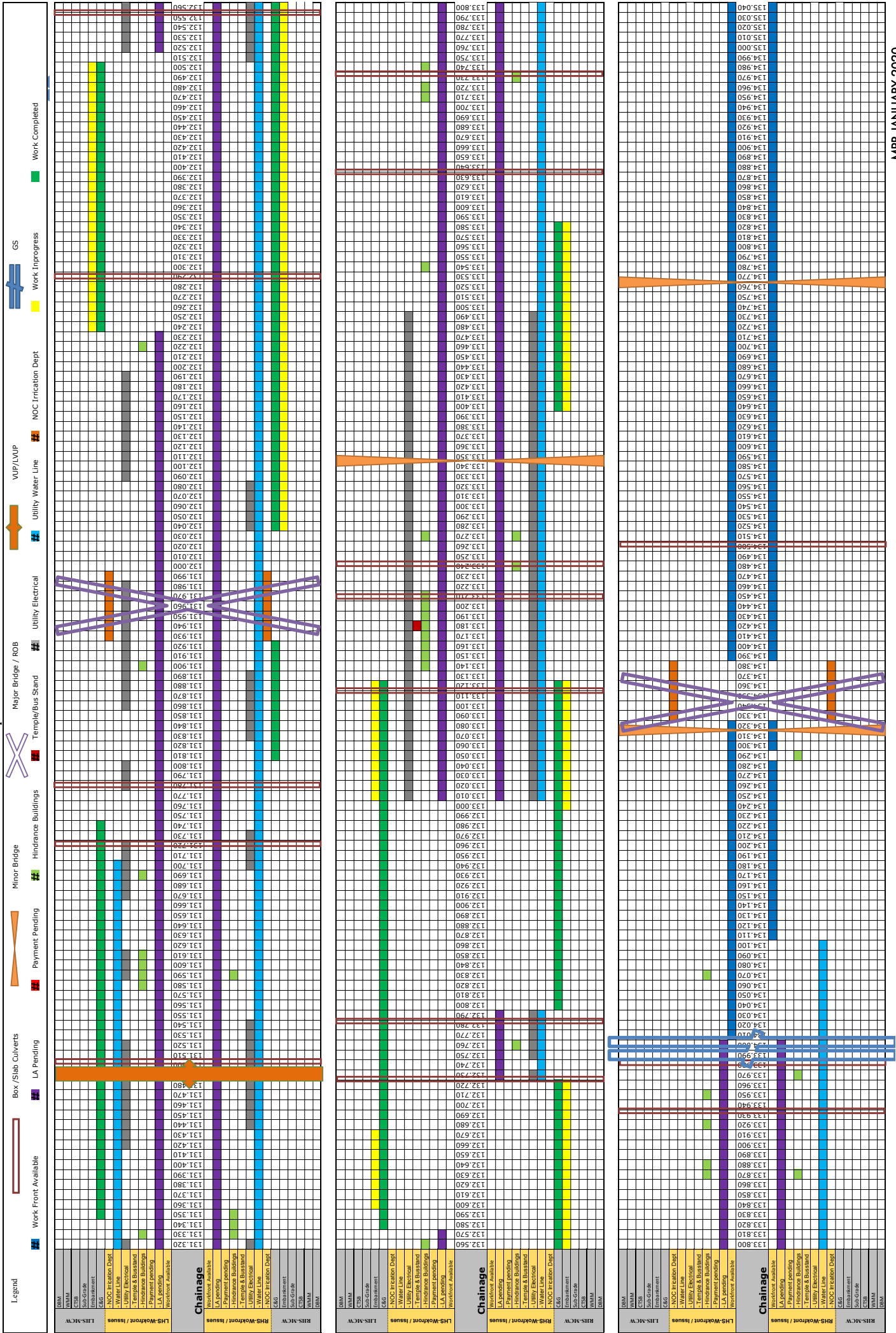
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

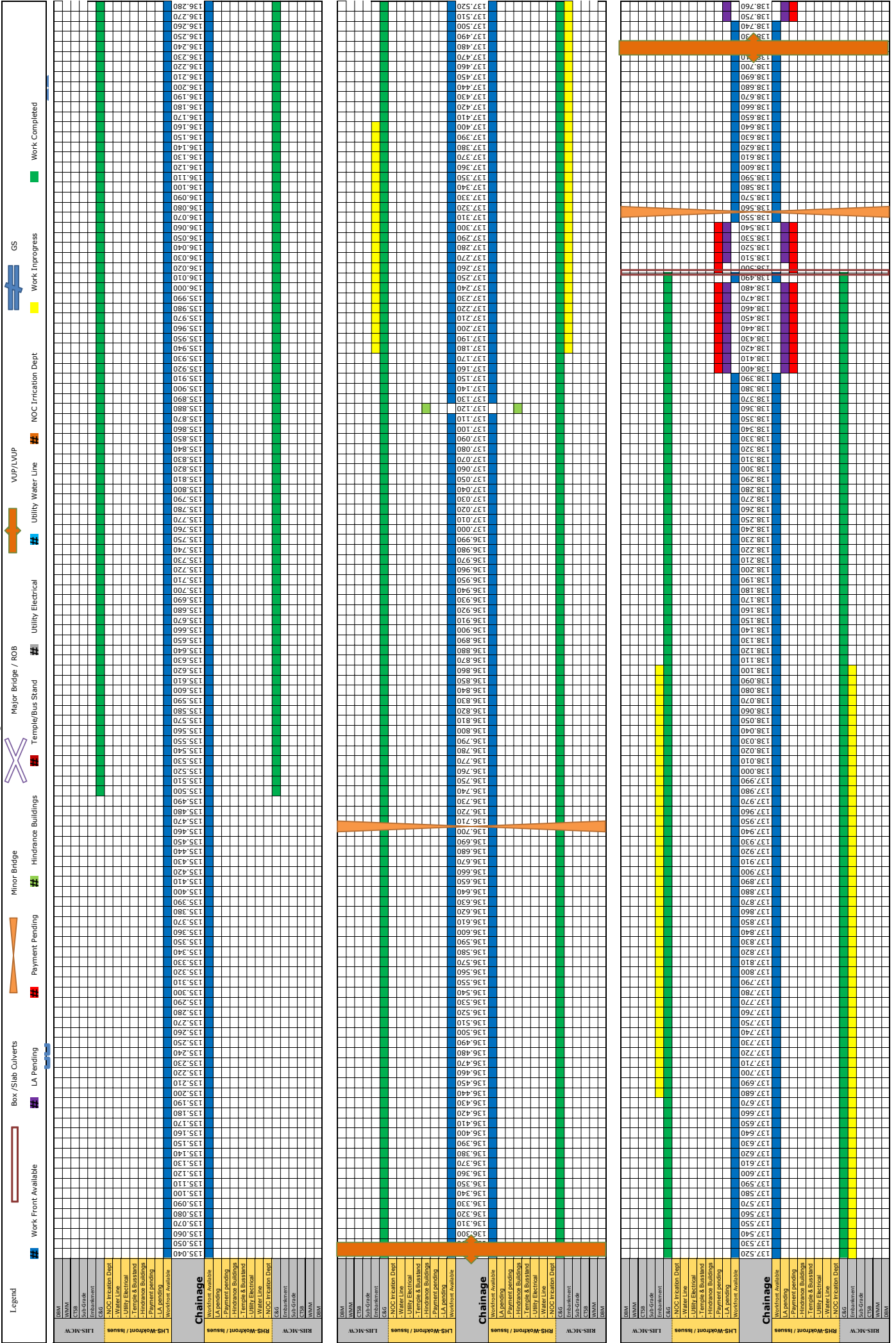
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

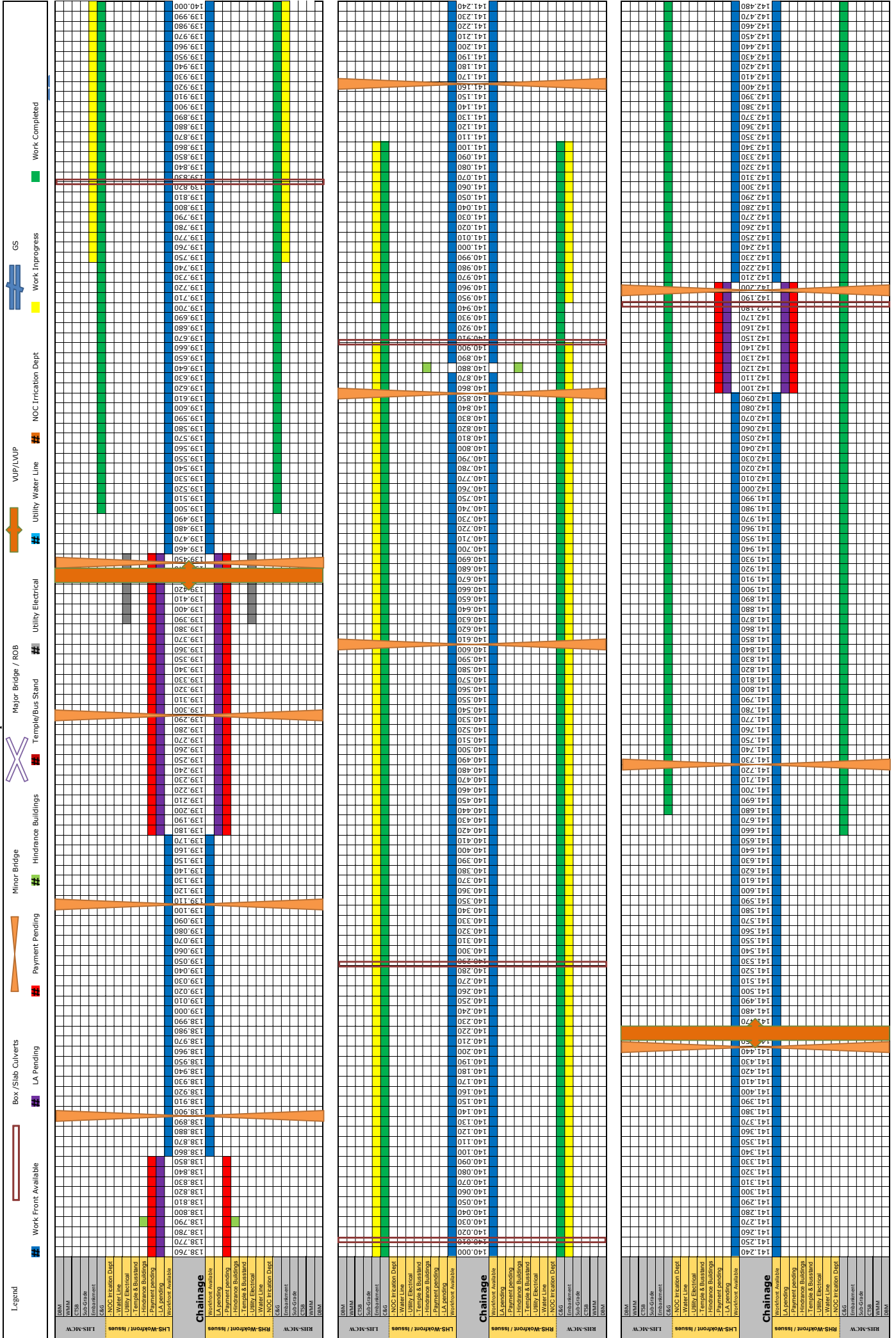
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

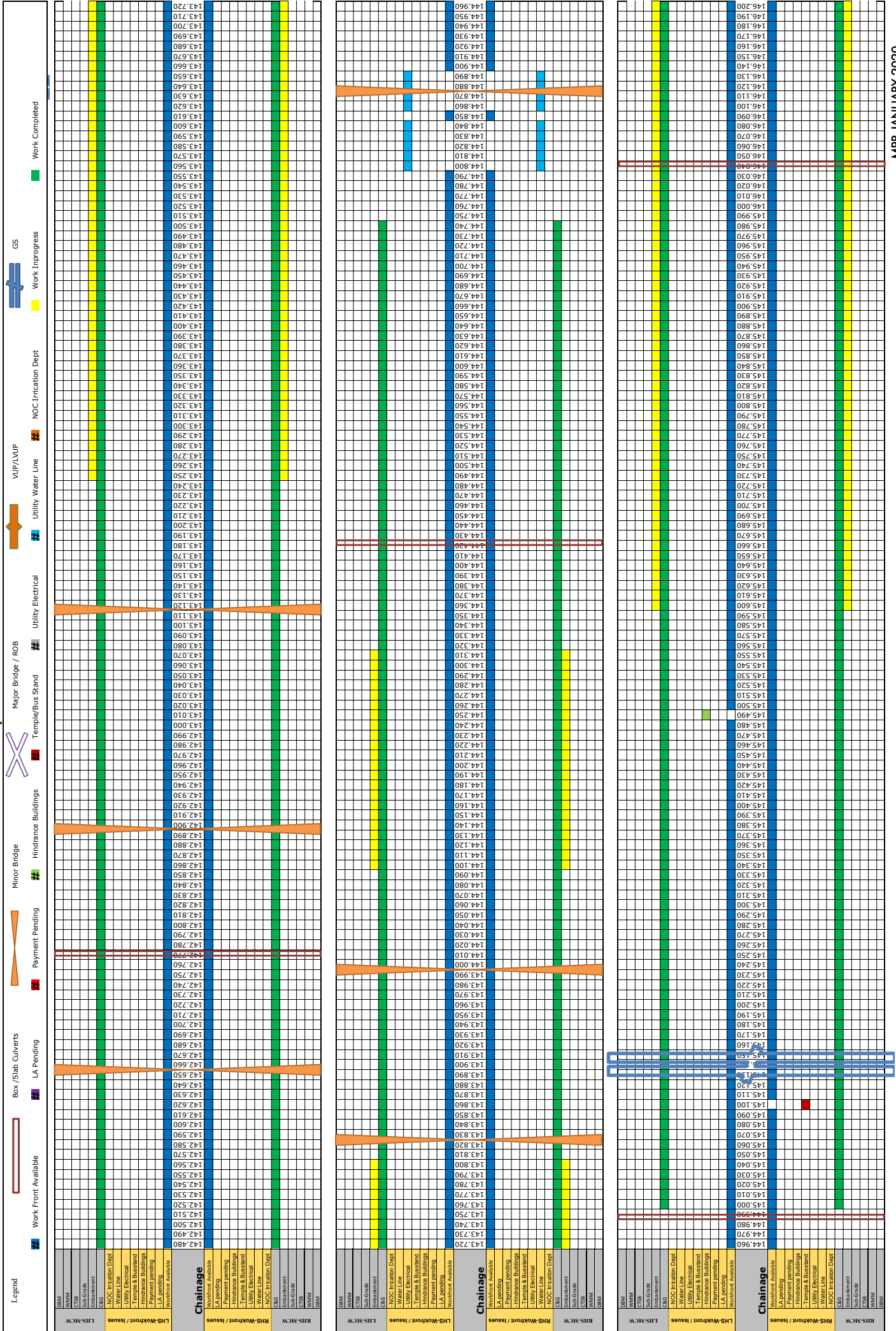
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

Strip Chart as on 31-01-2020

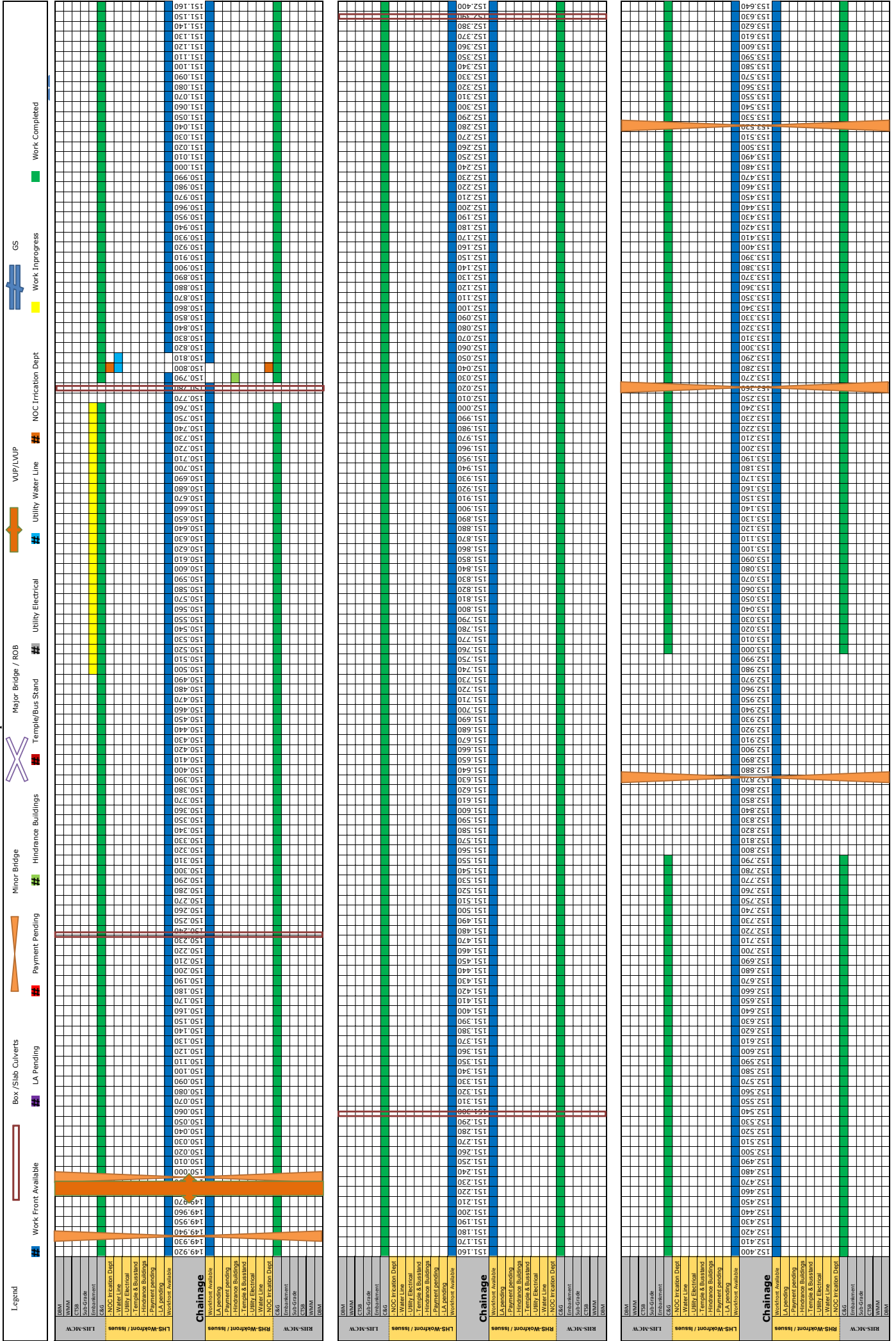


MPR JANUARY 2020

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

Cholopuram - Thanjavur Project

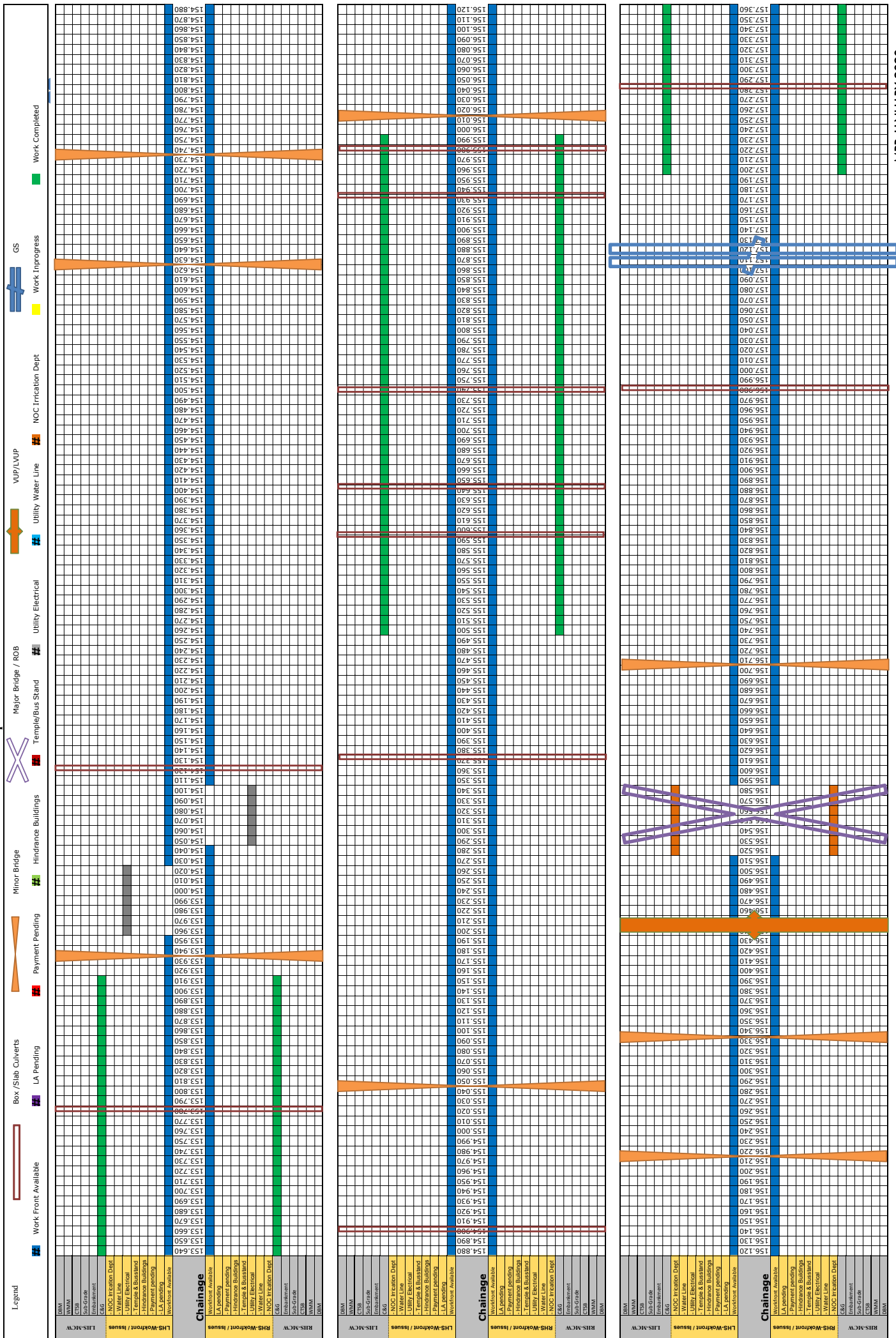
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

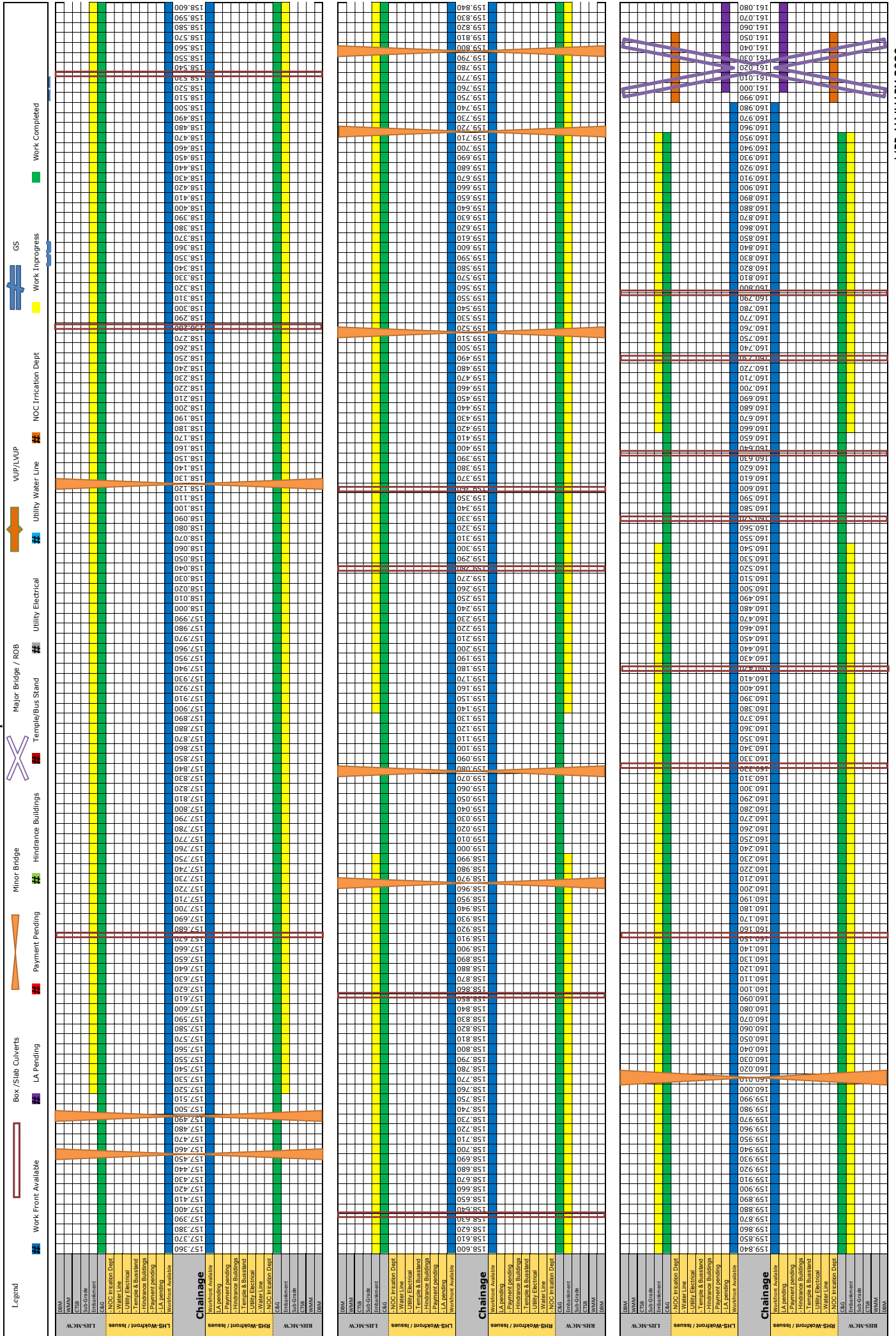
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

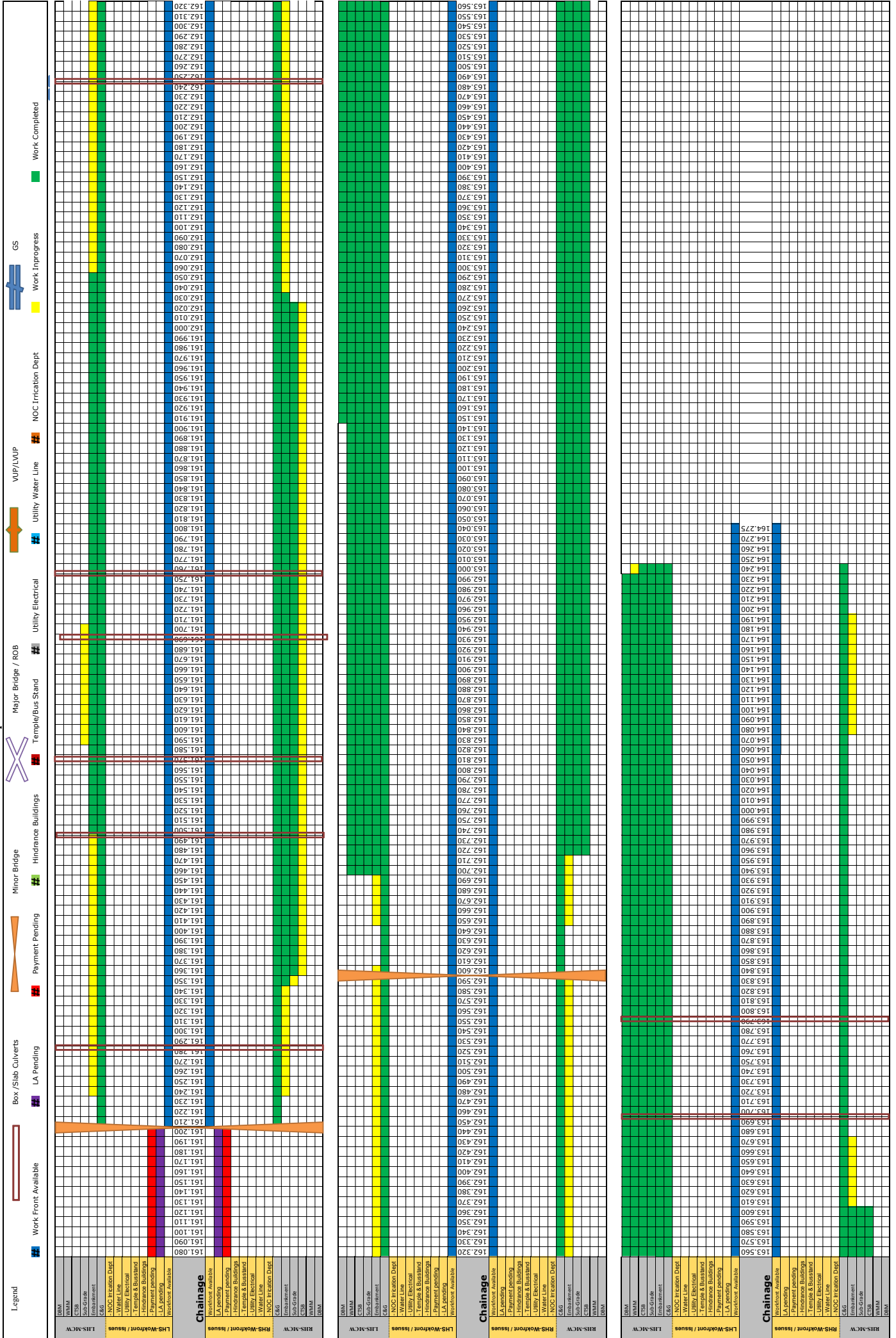
Strip Chart as on 31-01-2020



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

Cholopuram - Thanjavur Project

Strip Chart as on 31-01-2020



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 4.2 - 1 : Strip Chart for status of Box Culverts on Existing Road (Main Carriageway)

Sr. No.	MPR	JANUARY 2020		Type of Existing Structure	IN PROGRESS						COMPLETED																		
		Design Changeage As per CA	Revised Design Changeage		Number and Length of Spans (m)	Remarks (As per Schd B)	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			Slab Culvert																									
2	116.837			Slab Culvert				Widening	1 x 2.0m	1 x 2.0m																			
3	116.954			Slab Culvert				Widening	1 x 1.6m	1 x 1.6m																			
4	120.068			Slab Culvert				Reconstruction	1 x 3.0	1 x 3.0																			
5	120.280			Slab Culvert				Reconstruction	1 x 1.5	1 x 1.5																			
6	120.346			Box Culvert				Reconstruction	1 x 1.5	1 x 1.5																			
7	120.836			Box Culvert				Widening	1 x 2.0m	1 x 2.0m																			
8	121.540			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
9	121.683			Slab Culvert				Widening	1 x 1.5m	1 x 1.5m																			
10	121.885			Slab Culvert				Widening	2 x 1.0m	2 x 1.0m																			
11	122.375			Slab Culvert				Widening	1 x 1.0m	1 x 1.0m																			
12	122.497			Slab Culvert				Widening	2 x 1.0m	2 x 1.0m																			
13	122.678			Slab Culvert				Widening	2 x 1.0m	2 x 1.0m																			
14	122.835			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
15	122.943			Slab Culvert				Widening	2 x 1.0m	2 x 1.0m																			
16	124.118			Slab Culvert				Widening	1 x 1.5m	1 x 1.5m																			
17	124.820			Slab Culvert				Widening	1 x 1.0m	1 x 1.0m																			
18	125.682			Slab Culvert				Widening	1 x 1.5m	1 x 1.5m																			
19	126.836			Slab Culvert				Reconstruction	1 x 3.0	1 x 3.0																			
20	126.987			Slab Culvert				Reconstruction	1 x 2.0	1 x 2.0																			
21	127.488			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
22	127.600			Slab Culvert				Reconstruction	3 x 1.2	3 x 1.2																			
23	127.788			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
24	128.267			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
25	128.494			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
26	128.675			Box Culvert				Reconstruction	1 x 2.0	1 x 2.0																			
27	128.682			Slab Culvert				Reconstruction	1 x 2.0	1 x 2.0																			
28	128.727			Slab Culvert				Reconstruction	3 x 1.2	3 x 1.2																			
29	128.904			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
30	129.067			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
31	129.246			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
32	129.507			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
33	129.707			Slab Culvert				Widening	1x2.8m	1x2.8m																			
34	129.823			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
35	130.096			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
36	130.307			Slab Culvert				Reconstruction	1 x 1.5	1 x 1.5																			
37	130.357			Slab Culvert				Reconstruction	1 x 3.68	1 x 3.68																			
38	130.680			Slab Culvert				Reconstruction	2 x 1.2	2 x 1.2																			
39	130.827			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
40	130.989			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
41	131.146			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
42	131.505			Slab Culvert				Reconstruction	1 x 3.0	1 x 3.0																			
43	131.722			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
44	131.780			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
45	132.300			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
46	132.557			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
47	132.730			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
48	132.789			Slab Culvert				Widening	1 x 2.0m	1 x 2.0m																			
49	133.115			Slab Culvert				Widening	1 x 3.0m	1 x 3.0m																			
50	133.210			Slab Culvert				Widening	1 x 2.0m	1 x 2.0m																			
51	133.240			Slab Culvert				Widening	1 x 0.9m	1 x 0.9m																			
52	133.635			Slab Culvert				Reconstruction	1 x 2.0	1 x 2.0																			
53	133.734			Slab Culvert				Reconstruction	1 x 2.0	1 x 2.0																			
54	133.935			Slab Culvert				Reconstruction	1 x 1.2	1 x 1.2																			
55	133.987			Slab Culvert				Reconstruction	1 x 1.5	1 x 1.5																			
56	163.700			Pipe Culvert				Widening	163.700	2 x 0.9m																			
57	163.793			Pipe Culvert				Widening	163.794	1 x 0.9m																			

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 4.2 - 1 : Strip Chart for status of Box Culverts on Existing Road (Service Road)										COMPLETED													
IN PROGRESS										RHS													
LHS										RHS													
Sr. No.	MPR	JANUARY	2019	Revised Design Chaiange	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	Return Wall & Parapet	Slab	Wall	Raft	PCC	Granular Filling	Excavation	
1	120.068	120.068	1 x 3.0	120.068	1 x 3.0	Reconstruction	Slab Culvert																
2	120.280	120.288	1 x 1.5	120.288	1 x 1.5	Reconstruction	Slab Culvert																
3	120.346	120.356	1 x 1.5	120.356	1 x 1.5	Reconstruction	Box Culvert																
4	126.836	126.829	1 x 3.0	126.829	1 x 3.0	Reconstruction	Slab Culvert																
5	126.987	127.007	1 x 2.0	127.007	1 x 2.0	Reconstruction	Slab Culvert																
6	127.488	127.433	1 x 1.2	127.433	1 x 1.2	Reconstruction	Pipe Culvert																
7	127.600	127.612	3 x 1.2	127.612	3 x 1.2	Reconstruction	Pipe Culvert																
8	128.494	128.504	1 x 1.2	128.504	1 x 1.2	Reconstruction	Pipe Culvert																
9	128.675	128.667	1 x 2.0	128.667	1 x 2.0	Reconstruction	Box Culvert																
10	128.682	128.674	1 x 2.0	128.674	1 x 2.0	Reconstruction	Slab Culvert																
11	128.727	128.738	3 x 1.2	128.738	3 x 1.2	Reconstruction	Pipe Culvert																
12	128.904	128.916	1 x 1.2	128.916	1 x 1.2	Reconstruction	Pipe Culvert																
13	129.067	129.079	1 x 1.2	129.079	1 x 1.2	Reconstruction	Pipe Culvert																
14	130.096	130.109	1 x 1.2	130.109	1 x 1.2	Reconstruction	Pipe Culvert																
15	130.307	130.318	1 x 1.5	130.318	1 x 1.5	Reconstruction	Slab Culvert																
16	130.357	130.369	1 x 1.5	130.369	1 x 1.5	Reconstruction	Slab Culvert																
17	130.680	130.692	2 x 1.2	130.692	2 x 1.2	Reconstruction	Pipe Culvert																
18	131.146	131.159	1 X 0.9	131.159	1 X 0.9	Widening	Pipe Culvert																
19	131.505	131.516	1 x 3.0	131.516	1 x 3.0	Reconstruction	Slab Culvert																
20	131.722	131.732	1 x 1.2	131.732	1 x 1.2	Reconstruction	Pipe Culvert																
21	131.780	131.791	1 x 1.2	131.791	1 x 1.2	Reconstruction	Pipe Culvert																
22	133.635	133.579	1 x 2.0	133.579	1 x 2.0	Reconstruction	Slab Culvert																
23	133.734	133.747	1 x 2.0	133.747	1 x 2.0	Reconstruction	Slab Culvert																
24	133.935	133.938	1 x 1.2	133.938	1 x 1.2	Reconstruction	Pipe Culvert																
25	133.987	133.979	1 x 1.2	133.979	1 x 1.2	Reconstruction	Pipe Culvert																

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Table 4.2 - 2 : Strip Chart for status of Box Culverts on Bypass (Service Road)																				
Sr. No.	MPR	JANUARY	Revised Design Chainage	2020	Number and Length of Spans (m)	Remarks	Type of Structure	IN PROGRESS					COMPLETED							
								Protection Work	Return Wall & Parapet	Slab	Wall	Raft	Excavation	Granular Filling	PCC	Wall	Slab	Return Wall & Parapet	Protection Work	
								LHS					RHS							
1	119.971	119.978	1 x 1.5	Reconstruction	Slab Culvert															
2	134.500	134.515	1 x 2.0m x 2.0m	New Construction	Box Culvert															
3	138.492	138.503	1 x 4.0m x 2.0m	New Construction	Box Culvert															
4	144.426	144.500	1 x 4.0m x 2.0m	New Construction	Box Culvert															
5	150.237	150.268	1 x 4.0m x 2.0m	New Construction	Box Culvert															
6	156.984	156.991	1 x 3.0m x 2.0m	New Construction	Box Culvert															
7	157.283	157.289	1 x 4.0m x 2.0m	New Construction	Box Culvert															

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Table 4.2 - 3 : Strip Chart for status of MNB - Box
(Main Cartageway)

Sr. No.	Design Chainage As per CA	MPR	JANUARY 2020		Type of Structure	Stretch	IN PROGRESS							COMPLETED						
			Revised Chainage	Number and Length of Spans (m)			Protection Work	Retaining Wall + CB	Slab	Wall	Raft	Wall	PCC	Raft	Wall	Slab	Retaining Wall + CB	Protection Work		
MNB IN EXISTING LENGTH																				
1	121.024			1 x 6.0m	MNBB	Existing														
2	122.046			3 x 7.5m	MNBB	Existing														
MNB IN BYPASS																				
1	117.764		117.764	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			2 x 10.0m	MNBB	Bypass														
8	134.320			2 x 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			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			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	146.639			1 x 10.0m	MNBB	Bypass														
28	147.396		147.426	1 x 8.0m	MNBB	Bypass														
29	148.560		148.592	1 x 8.0m	MNBB	Bypass														
30	144.880		144.916	4 x 7.5m	MNBB	Bypass														
31	149.940		149.962	1 x 10.0m	MNBB	Bypass														
32	149.997			1 x 6.0m	MNBB	Bypass														
33	152.876			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			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		159.742	1 x 8.0m	MNBB	Bypass														
49	159.723		159.742	1 x 6.0m	MNBB	Bypass														
50	159.801			1 x 6.0m	MNBB	Bypass														
51	161.208		161.227	1 x 8.0m	MNBB	Bypass														
52	162.595		162.595	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 4.2 - 3 : Strip Chart for status of MNB - Deck Type (Main Carriageway)		Mode																				
SR.NO.	MNB at Chainage	MPR	JANUARY	2020	Span	Pier/ Abutment	IN PROGRESS				COMPLETED											
							Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtc op	Pier/Abt	Pile Cap	Pier/Abt	Piercap/Abtc op	Girder Casting	Girder Launching	Slab	Crash Barrier			
							LHS				RHS											
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 4.2 - 3 : Strip Chart for status of MNB - Box (Service Road)																		
Sr. No.	Design Chainage As per CA	JANUARY 2020	Revised Chainage	Number and Length of Spans (m)	Type of Structure	Stretch	IN PROGRESS						COMPLETED					
							Protection Work	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Protection Work	Slab	Wall	Raft	PCC
MNB SERVICE ROAD IN BYPASS																		
1	117.764	117.764	117.764	2 x 10.0m	MNBB	Bypass												
2	126.134	126.134	126.134	2 X 10.0m	MNBB	Realign												
3	134.320	134.320	134.320	2x 10.0m	MNBB	Bypass												
4	134.770	134.774	134.774	1 x 10.0m	MNBB	Bypass												
5	138.555	138.585	138.585	1 x 6.0m	MNBB	Bypass												
6	138.901	138.935	138.935	6 x 7.5m	MNBB	Bypass												
7	139.453	139.485	139.485	1 x 7.0m	MNBB	Bypass												
8	139.105	139.138	139.138	2 x 15m	MNBB	Bypass												
9	139.299	139.335	139.335	4 x 7.5m	MNBB	Bypass												
10	139.453	139.485	139.485	1 x 7.0m	MNBB	Bypass												
11	141.164	141.145	141.145	1 x 10.0m	MNBB	Bypass												
12	141.445	141.466	141.466	1 x 8.0m	MNBB	Bypass												
13	141.727	141.760	141.760	1 x 8.0m	MNBB	Bypass												
14	144.880	144.916	144.916	4 x 7.5m	MNBB	Bypass												
15	149.940	149.962	149.962	1 x 10.0m	MNBB	Bypass												
16	149.997	150.028	150.028	1 x 6.0m	MNBB	Bypass												
17	156.014	156.040	156.040	1 x 8.0m	MNBB	Bypass												
18	156.216	156.244	156.244	1 x 6.0m	MNBB	Bypass												
19	156.336	156.366	156.366	1 x 6.0m	MNBB	Bypass												
20	156.707	156.734	156.734	1 x 10.0m	MNBB	Bypass												

Four Lining of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode																						
Table 4.2 - 4 : Strip Chart for status of PUP																						
Sr. No.	Design Chainage As per CA	MPR	JANUARY	2020	Chainage as Per Site	Number and Length of Spans (m)	BYPASS	IN PROGRESS			COMPLETED											
								Protection Work	Slab	Wall	Raft	PCC	Excavation	Excavation	Raft	Wall	Slab	Protection Work				
							LHS			RHS												
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 4.2 - 5 : Strip Chart for status of MJB (Main Carriageway)										COMPLETED		
MPR JANUARY 2020										IN PROGRESS		
MJB at Chainage 146+902 (4x20) -BYPASS										RHS/LSR		
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1												
P1												
P2												
P3												
A2												
MJB at Chainage 148+017 (3x20) - BYPASS										RHS/LSR		
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1												
P1												
P2												
A2												
MJB at Chainage 149+334 (3x20) - BYPASS										RHS/LSR		
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1												
P1												
P2												
A2												
MJB at Chainage 156+559 (6x20) - BYPASS										RHS/LSR		
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	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/LSR		
Crash Barrier	Slab	Girder Launching	Girder Casting	Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pier Cap/Abt Cap	Girder Casting	Girder Launching	Slab	Crash Barrier
A1												
P1												
P2												
P3												
P4												
P5												
A2												

Four Lining of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode																							
Table 4.2 - 6 : Strip Chart for status of FLYOVER										IN PROGRESS						COMPLETED							
Sr.No.	FO at Chainage	Span	MPR JANUARY 2020	LHS								RHS											
				Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtcop	Pier/Abt	Pile Cap	PCC	Pile	Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtcop	Pier/Abt	Pile Cap	PCC	Pile		
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																			

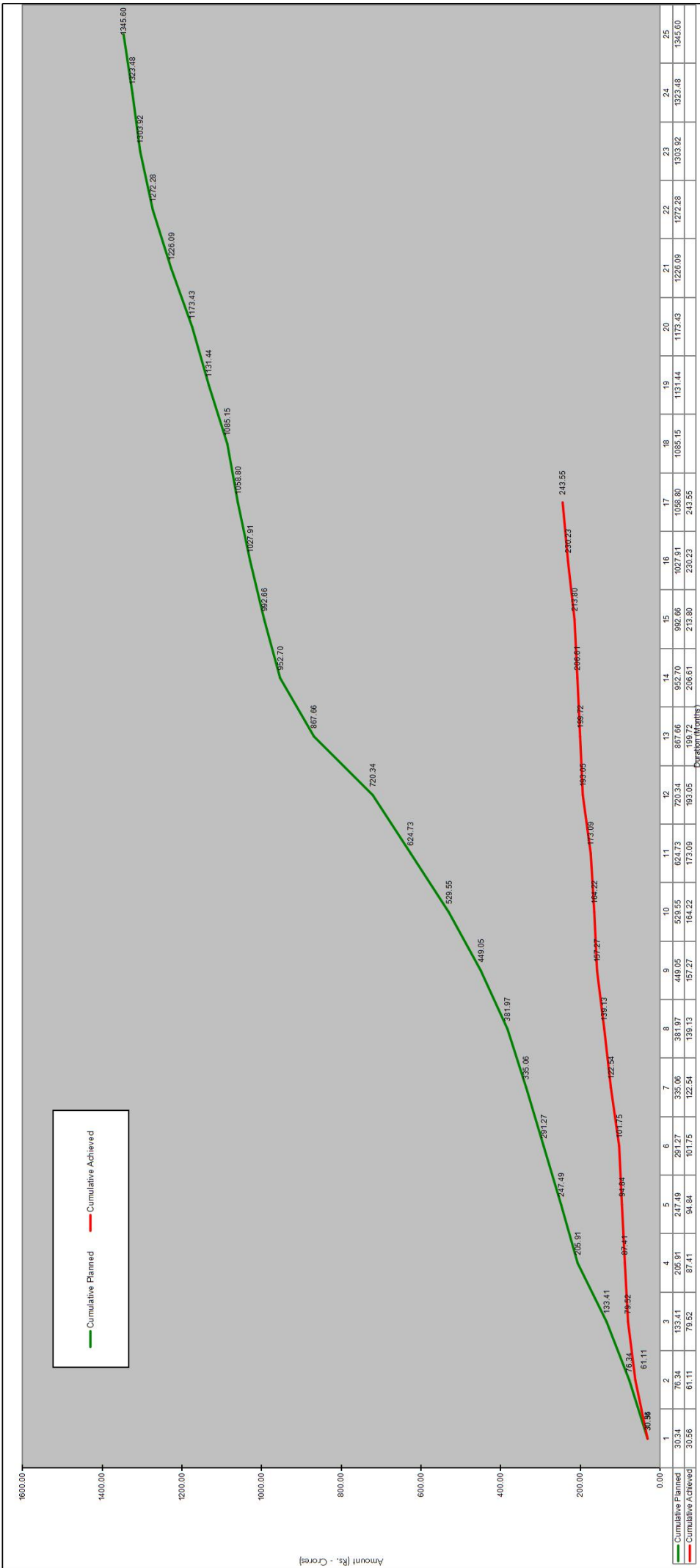
Four Laning of Cholopuram to Thanjavur from Km.116.440 to Km.164.275 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode													
Table 4.2 - 7 : Strip Chart for status of VUP		COMPLETED											
MPR JANUARY 2020		LHS						RHS					
SR.NO.	VUP at Chaiage	Span	EXISTING	Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap/Abtc op	Pier/Abt	Pile Cap	PCC	Pile	Pile
1	126+100	1x25	EXISTING										
2	126+600	1x25	EXISTING										
3	128+700	1x25	EXISTING										
4	130+335	1x25	EXISTING										
5	131+500	1x25	EXISTING										
6	136+282	1x25	BYPASS										
7	138+720	1x25	BYPASS										
8	139+440	1x25	BYPASS										
9	141+450	1x25	BYPASS										
10	156+446	1x25	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 4.2 - 8 : Strip Chart for status of ROB										IN PROGRESS		COMPLETED									
MPR JANUARY 2020	ROB at Chainage 134+345 (1 x 20.285m+1 x 30.426m+1 x 20.285m+1 x 20.285m (Skew 9.6 °))- EXISTING																				
	LHS/LSR						RHS/LSR														
	Crash Barrier	Slab	Steel Girder Launching	Steel Girder Erection	Girder Launching	Girder Casting	Pier Cap/Abt	Pier/Abt	Pier Cap	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt	Girder Casting	Girder Launching	Steel Girder Erection	Steel Girder Launching	Slab	Crash Barrier		
A1																					
P1																					
P2																					
A2																					

5. Financial & Physical Progress of Work

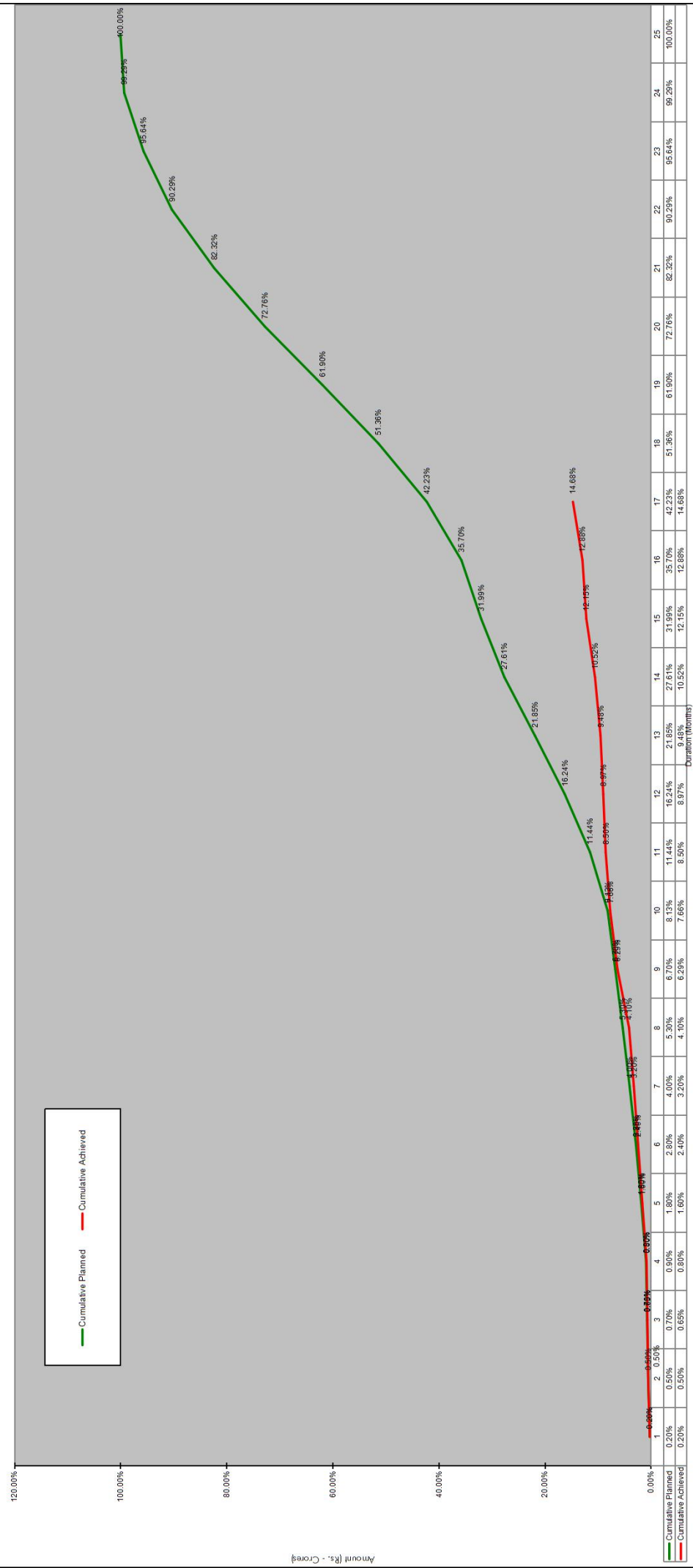
Figure 3a : Financial Progress - Planned vs Achieved - S Curve
Figure 3b : Physical Progress - Planned vs Achieved - S Curve

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)



Schedule	2019												2020											
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Monthly Planned	30.34	46.00	57.07	72.50	41.58	43.78	46.91	67.08	80.50	95.17	95.61	147.32	85.04	39.97	35.24	30.90	26.34	46.29	41.99	52.67	46.19	31.64	19.56	22.12
Monthly Achieved	30.56	30.56	18.41	7.89	7.43	6.90	16.59	18.14	6.95	8.87	19.96	6.67	6.89	7.18	16.43	13.33								
Cumulative Planned	30.34	76.34	133.41	205.91	247.49	291.27	335.06	381.97	449.05	529.55	624.73	720.34	867.66	992.66	1027.91	1058.80	1058.80	1131.44	1173.43	1226.09	1272.28	1303.92	1323.48	1345.60
Cumulative Achieved	30.56	61.11	79.52	87.41	94.84	101.75	122.54	138.13	164.22	173.09	193.05	199.72	206.61	213.80	230.23	243.55								
Monthly Planned (%)	2.3%	3.4%	4.2%	5.4%	3.1%	3.3%	3.3%	5.0%	6.0%	7.1%	7.1%	10.9%	6.3%	3.0%	2.6%	2.3%	2.0%	3.4%	3.1%	3.9%	3.4%	2.4%	1.5%	1.6%
Monthly Achieved (%)	2.3%	2.3%	1.4%	0.6%	0.6%	0.5%	1.5%	1.2%	0.5%	0.7%	1.5%	0.5%	0.5%	0.5%	1.2%	1.0%								
Cumulative Planned (%)	2.3%	5.7%	9.9%	15.3%	18.4%	21.6%	24.9%	28.4%	33.4%	39.4%	46.4%	53.5%	64.5%	70.8%	76.4%	78.7%	80.6%	84.1%	87.2%	91.1%	94.6%	96.9%	98.4%	100.0%
Cumulative Achieved (%)	2.3%	4.5%	5.91%	6.50%	7.05%	7.56%	9.11%	10.3%	11.7%	12.2%	12.9%	14.3%	14.8%	15.4%	17.1%	18.1%								

Four Lining 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)



Schedule	2019												2020												
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Monthly Planned	0.20%	0.30%	0.20%	0.20%	0.90%	1.00%	1.20%	1.30%	1.40%	1.43%	3.31%	4.80%	5.61%	5.76%	4.38%	3.71%	6.53%	9.13%	10.54%	10.86%	9.56%	7.97%	5.35%	3.65%	0.71%
Monthly Achieved	0.20%	0.30%	0.15%	0.15%	0.80%	0.80%	0.90%	0.90%	1.37%	0.85%	0.85%	0.46%	0.51%	1.04%	1.63%	0.73%	1.80%								
Cumulative Planned	0.20%	0.50%	0.70%	0.90%	1.80%	2.80%	4.00%	5.30%	6.70%	8.13%	11.44%	16.24%	21.85%	27.61%	31.99%	35.70%	42.23%	51.36%	61.90%	72.76%	82.32%	90.29%	95.64%	100.00%	
Cumulative Achieved	0.20%	0.50%	0.65%	0.80%	1.60%	2.40%	3.20%	4.10%	6.29%	7.66%	8.50%	8.97%	9.48%	10.52%	12.15%	12.88%	14.68%								

6.1. List of Lab Equipment's

A site laboratory has been set up with all equipment required for testing soil, GSB, WMM, Bitumen, aggregate and concrete. Following tables represents the list of QA/QC equipment's available at 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	Flextural strength testing machine digital	1
43	Concrete Cube Moulds With Base Plate(15cm)	200
44	Concrete Cube Moulds With Base Plate(10cm)	18
45	Motor Cube Moulds (7.06cm) with Base Plate	12
46	Motor Cube Vibrating Machine(12000 Rmp)	1
47	Concrete Mixer Electrically Operated	1
48	Cube Vibrating Machine (Big)	1
49	Slump Cone Testing Apparatus	10
50	Vicat Needle Apparatus , with dash pot complete with set of needles and brass mould	2
51	Soundness Testing Apparatus	2
52	Trowels With Wodden Handles	4
53	A I V Testing Machine	1
54	Loss Angels abrasion Testing Machine	1
55	Sand Equivalant Testing Apparatus	1
56	Flakiness Index Test Guage	1
57	Elongation Index Test Guage	1
58	Density Basket	2
59	Bulk Density Cylinder (5lt)	1
60	Bulk Density Cylinder (15lt)	1
61	Bulk Density Cylinder (30lt)	1
62	Gi trays -450x600x50mm	9
63	Enamel trays -300x250x40 mm	9
64	Trays for Samples Collections	12
65	Riffle Box (40 MM)	1
66	Riffle Box (20 MM)	1
67	PYcnometer Bottels (1000 ml)	4
68	Specific Gravity & water absorotion 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 January - 2020 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 : January-2020														
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month			Tests conducted during reporting month upto 25 th JANUARY-2020			Test conducted upto this month				
				No. of test Conducted (1 Test = 35sqm)	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
1.0 Tests on OGL														
1.1	Grain size analysis	IS:2720 (Part4)	1 test / 250 meters	421	421	0	224	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	421	421	0	224
1.3	Proctor	IS:2720 (Part8)	1 test / 250 meters	233	233	0	68	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	421	403	18	224
1.5	California bearing ratio	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0
2.0 Cutting portion & Existing for EMB/SG (MoRT&H 305)														
2.1	Grain size analysis	IS:2720 (Part4)	1 test / 1500 m ³	32	32	0	12	24	24	0	15	56	0	27
2.2	Atterberg Limits	IS:2720 (Part5)	1 test / 1500 m ³	32	32	0	12	24	24	0	15	56	0	27
2.3	Proctor	IS:2720 (Part8)	1 test / 1500 m ³	32	32	0	12	24	24	0	15	56	0	27
2.4	Free Swell Index	IS:2720 (Part40)	1 test / 1500 m ³	32	32	0	12	24	24	0	15	56	0	27
2.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	26	26	0	10	12	12	0	10	38	0	20
3.0 Borrow Area for EMB/Subgrade (MoRT&H 305)														
3.1	Grain size analysis	IS:2720 (Part4)	1 test / 1500 m ³	645	645	0	171	40	40	0	20	685	0	191
3.2	Atterberg Limits	IS:2720 (Part5)	1 test / 1500 m ³	645	645	0	171	40	40	0	20	685	0	191
3.3	Proctor	IS:2720 (Part8)	1 test / 1500 m ³	645	645	0	171	40	40	0	20	685	0	191
3.4	Free Swell Index	IS:2720 (Part40)	1 test / 1500 m ³	645	645	0	171	40	40	0	20	685	0	191
3.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	102	102	0	39	40	40	1	20	142	1	59
3.6	Water Soluble Sulphate	IS:2720 (Part27)	As required	2	2	0	0	0	0	0	0	2	0	0
3.7	Angle of Internal Friction(φ)	IS:2720 (Part13)	As required	5	5	0	5	5	0	5	5	5	0	10
4.0 Field Density Test MoRT&H 305														
4.1	Field density (OGL)	IS:2720 (Part28)	1 test / 3000 sqm	4377	4377	15	1754	70	70	0	0	4447	15	1754
4.2	Field density (EMB)	IS:2720 (Part28)	1 test / 3000 sqm	10406	10370	36	2656	250	250	0	0	10656	36	2656
4.3	Field density (SG)	IS:2720 (Part28)	1 test / 2000 sqm	839	836	3	65	110	110	0	0	949	3	65
4.4	Field density (Shoulder)	IS:2720 (Part28)	1 test / 2000 sqm	0	0	0	0	0	0	0	0	0	0	0
5.0 Safe Bearing capacity of soil														
5.1	Grain size analysis	IS:2720 (Part40)	As required	151	151	0	39	0	0	0	0	151	0	39
5.2	Atterberg Limits	IS:2720 (Part4)	As required	151	151	0	39	0	0	0	0	151	0	39
5.3	Proctor	IS:2720 (Part5)	As required	151	151	0	38	0	0	0	0	151	0	38
5.4	Free Swell Index	IS:2720 (Part8)	As required	151	151	1	39	0	0	0	0	151	1	39
5.5	Bearing Capacity	IS:6403 / IS 1888	As required	151	151	150	40	0	0	0	0	151	150	40
5.6	Plate Load Test	IS:6403 / IS 1888	As required	27	27	0	22	0	0	0	0	27	0	22
6.0 Filter Media & Back filling MoRT&H 2500(Design)														
6.1	Gradation		As required	69	69	0	44	0	0	0	0	69	0	44
6.2	Backfilling field density		1 test / 1000 m ³	20	20	0	20	0	0	0	0	20	0	20
7.0 Granular Bedding Material (For Structures-Ground Improvement)-Design Approval														
7.1	Gradation	Table 400-1	As required	15	15	0	15	0	0	0	0	15	0	15
7.2	Atterberg Limits	IS:2720 (Part5)	As required	13	13	0	7	0	0	0	0	13	0	7
7.3	Proctor	IS:2720 (Part8)	As required	9	9	0	9	0	0	0	0	9	0	9
7.4	CBR Test	IS:2720 (Part16)	As required	3	3	0	3	0	0	0	0	3	0	3
7.5	Aggregate Impact value	IS:2386 Part-4	As required	9	9	0	9	0	0	0	0	9	0	9

Four Laning 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 : January-2020															
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month			Tests conducted during reporting month upto 25 th JANUARY-2020			Test conducted upto this month					
				No. of test Conducted (1 Test = 35%)	Passed	Failed	No. of test witnessed by IE	No. of test Conducted	Passed	Failed	No. of test witnessed by IE	No. of test Conducted	Passed	Failed	No. of test witnessed by IE
8.0 Granular Bedding Material (For Structures-Ground Improvement)- Stock & Site Testing															
8.1	Gradation	Table 400-1	As required	75	75	39	35	27	27	0	10	102	102	39	45
8.2	Afterberg Limits	IS:2720 (Part5)	As required	75	75	39	35	27	27	0	10	102	102	39	45
8.3	Proctor	IS:2720 (Part8)	As required	11	11	10	9	1	1	0	1	12	12	10	10
8.4	CBR Test	IS:2720 (Part16)	As required	11	11	10	9	1	1	0	1	12	12	10	10
8.5	Aggregate Impact value	IS:2386 Part-4	As required	8	8	8	7	3	3	0	0	11	11	8	7
8.6	Field Density	IS:2720 (Part28)	As required	1153	1153	295	253	81	81	0	15	1234	1234	295	268
9.0 CTSB Mix Design MoRT&H 403															
9.1	Gradation	Table 400-4	1 test/400m ³	63	63	0	52	0	0	0	0	63	63	0	52
9.2	Afterberg Limits	IS:2720 (Part5)	1 test/400m ³	24	24	0	15	0	0	0	0	24	24	0	15
9.3	Proctor	IS:2720 (Part8)	As required	29	29	0	21	0	0	0	0	29	29	0	21
9.4	Aggregate Impact value	IS:2386 Part-4	As required	24	24	0	14	0	0	0	0	24	24	0	14
9.5	Field Density	IS:2720 (Part28)	1 set of 2 Test per 500Sq.m	0	0	0	0	0	0	0	0	0	0	0	0
9.6	Specific gravity & Water absorption	IS:2386 (Part2)	As required	14	14	0	5	0	0	0	0	14	14	0	5
9.7	Cubes casting & Testing(Sets)	IRC SP 89 (2010)	Minimum 5 Cubes	42	42	0	32	0	0	0	0	42	42	0	32
9.8	CBR Test(Set)	IS:2720 (Part16)	As required	6	6	0	6	0	0	0	0	6	6	0	6
9.9	Organic Content	IRC SP 89 (2010)	As required	2	2	0	0	0	0	0	0	2	2	0	0
9.10	Total SO4 Content	IRC SP 89 (2010)	As required	2	2	0	0	0	0	0	0	2	2	0	0
9.11	Chloride Content	IRC SP 89 (2010)	As required	1	1	0	0	0	0	0	0	1	1	0	0
9.12	10% Fines Value	BS:812 (111)	As required	2	2	0	0	0	0	0	0	2	2	0	0
9.13	Durability Test	IRC SP 89 (2010)	As required	6	6	0	6	0	0	0	0	6	6	0	6
9.14	Permeability Test	IS 2720 (Part 36)	As required	1	1	0	0	0	0	0	0	1	1	0	0
10.0 CTSB Site Frequency															
10.1	Gradation	Table 400-4	1 test/400m ³	7	7	0	7	15	15	0	10	22	22	0	17
10.2	Afterberg Limits	IS:2720 (Part5)	1 test/400m ³	5	5	0	5	15	15	0	10	20	20	0	15
10.3	Proctor	IS:2720 (Part8)	As required	2	2	0	2	1	1	0	1	3	3	0	3
10.4	Aggregate Impact value	IS:2386 Part-4	As required	4	4	0	4	15	15	0	10	19	19	0	14
10.5	Field Density	IS:2720 (Part28)	1 set of 2 Test per 500Sq.m	33	33	12	14	205	205	0	100	238	238	12	114
10.6	Specific gravity & Water absorption	IS:2386 (Part2)	As required	1	1	0	1	1	1	0	1	2	2	0	2
10.7	Cubes casting & Testing(Sets)	IRC SP 89 (2010)	Minimum 5 Cubes	3	3	0	3	27	27	0	15	30	30	0	18
10.8	CBR Test	IS:2720 (Part16)	As required	2	2	0	2	1	1	0	1	3	3	0	3
11.0 WMM Mix (Design)															
11.1	Individual / Combined Gradation	Table 400-3	1 test/200m ³	88	88	0	67	0	0	0	0	88	88	0	67
11.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m ³	13	13	0	11	0	0	0	0	13	13	0	11
11.3	Flakiness & Elagation index	IS:2386 Part1	1 test/ 500 m ³	13	13	0	11	0	0	0	0	13	13	0	11
11.4	Afterberg Limits	IS:2720 (Part5)	1 test/200m ³	11	11	0	9	0	0	0	0	11	11	0	9
11.5	Water absorption	IS:2386 Part2	As required	8	8	0	8	0	0	0	0	8	8	0	8
11.6	Proctor	IS:2720 (Part8)	As required	6	6	0	6	0	0	0	0	6	6	0	6
11.7	CBR	IS:2720 (Part16)	As required	6	6	0	6	0	0	0	0	6	6	0	6
11.8	Field Density(Trial stretch)	IS:2720 (Part28)	1 set Test per 1000Sq.m / 3	0	0	0	0	0	0	0	0	0	0	0	0

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 Mode.

Summary of Quality Control Report / Monthly Progress Report (QC) - MONTH : January-2020															
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month			Tests conducted during reporting month upto 25 th JANUARY-2020			Test conducted upto this month					
				No. of test Conducted (1 Test = 35sq)	Passed	Failed	No. of test witnessed by IE	No. of test Conducted	Passed	Failed	No. of test witnessed by IE	Passed	Failed	No. of test witnessed by IE	
12.0 WMM Site Frequency MoRT&H 406															
12.1	Individual / Combined Gradation	Table 400-3	1 test/200m ³	3	3	0	3	8	8	0	4	11	11	0	7
12.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m ³	1	1	0	1	8	8	0	4	9	9	0	5
12.3	Flakiness & Elongation index	IS:2386 Part1	1 test/ 500 m ³	1	1	0	1	8	8	0	4	9	9	0	5
12.4	Alterberg Limits	IS:2720 (Part5)	1 test/200m ³	3	0	0	3	8	8	0	4	11	0	0	7
12.5	Proctor	IS:2720 (Part8)	As required	1	1	0	1	1	1	0	1	2	2	0	2
12.6	CBR	IS:2720 (Part16)	As required	1	1	0	1	1	1	0	1	2	2	0	2
12.7	Field Density(Trial stretch)	IS:2720 (Part28)	1 set Test per 1000Sq.m / 3 pits	6	3	0	6	51	51	0	25	57	54	0	31
13.0 Dense Bituminous Macadam (Grade - II) (Design)															
13.1	Gradation	MORTH Section-500/Clause-507 & Table 500-10	One set for individual constituent and mixed aggregate from dryer for each	50	50	0	50	0	0	0	0	50	50	0	50
13.2	Flakiness & Elongation Index	IS: 2386 (Part 1)1963	1 Test for 350 m ³	9	9	0	9	0	0	0	0	9	9	0	9
13.3	Aggregate Impact Value Test	IS: 2386 (Part 4)1963	1 Test for 350 m ³	9	9	0	9	0	0	0	0	9	9	0	9
13.4	Binder content and grading of mix	IRC: SP 11-1988(APP-5)	One Test for each 400 tonnes of mix produced subject to a	9	9	0	9	0	0	0	0	9	9	0	9
13.5	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	10	10	0	10	0	0	0	0	10	10	0	10
13.6	Sand Equivalent Test	IS: 2720 Part 37)1963	One Test for each each source	12	12	0	12	0	0	0	0	12	12	0	12
13.7	Los Angeles Abrasion Value	IS: 2386 (Part 3)1963	1 Test for 350 m ³	9	9	0	9	0	0	0	0	9	9	0	9
13.8	Stripping	IS : 6241	One Test for each each source	3	3	0	3	0	0	0	0	3	3	0	3
13.9	Retained Satflaility	AASHTO 283	One Test for each each source	8	8	0	8	0	0	0	0	8	8	0	8
14.0	Retained Tensile Strength	AASHTO 284	One Test for each each source	8	8	0	8	0	0	0	0	8	8	0	8
14.1	Refusal	AASHTO 285	One Test for each each source	5	5	0	5	5	5	0	0	10	5	0	5
14.2	Plasticity Index	IS: 2720(Part 5)	One Test for each each source	3	3	0	3	0	0	0	0	3	3	0	3
14.3	Cleanliness (Dust)	IS: 2386 (Part 1)	One Test for each each source	3	3	0	3	0	0	0	0	3	3	0	3
15.0 Bitumen test															
15.1	Absolute Viscosity at 60° C poise,Minimum	IS: 1206-1978 part-2	As per table 2 of IS 73-2013	3	3	0	3	2	2	0	2	5	5	0	5
15.2	Penetration Test at 25° C, 100gr/0.1mm,5sec	IS: 1203-1978	As per table 2 of IS 73-2013	3	3	0	3	2	2	0	2	5	5	0	5

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 : January-2020															
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month			Tests conducted during reporting month upto 25 th JANUARY-2020			Test conducted upto this month					
				No. of test Conducted (1 Test = 350g)	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted	Passed	Failed	No. of test Conducted	Passed	Failed	Nos. of test witnessed by IE	
15.3	Softening point(R&B) Min	IS: 1205-1978	As per table 2 of IS 73-2013	3	3	0	3	2	2	0	2	5	5	0	5
15.4	Flash point(Cleveland open cup) C,Min	IS: 1209-1978	1 Test per Lot	3	3	0	3	0	0	0	0	3	3	0	3
15.5	Test on Residue from TFOT														
15.6	Viscosity ratio at 60° C max	IS: 1206-1978 part-2	1 Test per Lot	3	3	0	3	1	1	0	1	4	4	0	4
15.7	Ductility at 25° C ,cm,Min	IS: 1208-1978	1 Test per Lot	3	3	0	3	1	1	0	1	4	4	0	4
16.0 EMULSION SS1&RS1															
16.1	Saybolt furol Viscosity	IS: 13117	1 Test per Lot	0	0	0	0	3	3	0	3	3	3	0	3
16.2	Residue on 600 micron is sieve	IS: 8887	1 Test per Lot	0	0	0	0	3	3	0	3	3	3	0	3
16.3	Water Content ,Percent by mass	IS: 8887	1 Test per Lot	0	0	0	0	3	3	0	3	3	3	0	3
17.0 EMULSION Prime coat &Tack Coat															
17.1	Rate of Spread of Binder	IRC: SP 16	Three test per Day	0	0	0	0	15	15	0	15	15	15	0	15
18.0 Coarse Aggregate MoRT&H 1007															
18.1	Gradation	IS:2386 (Part2)	As required	625	625	0	216	37	37	0	15	662	662	0	231
18.2	Specific gravity& Water absorption	IS:2386 (Part3)	As required	26	26	0	13	2	2	0	1	28	28	0	14
18.3	Aggregate Impact Value	IS:2386 (Part4)	As required	82	82	0	28	4	4	0	2	86	86	0	30
18.4	Flakiness index	IS:2386 (Part1)	As required	82	82	0	28	4	4	0	2	86	86	0	30
18.5	Soundness	IS:2386 (Part5)	As required	1	1	0	1	0	0	0	0	1	1	0	1
18.6	Alkali aggregate reactivity test	IS:2386 (Part-7)IS : 456	1 test per source	1	1	0	1	0	0	0	0	1	1	0	1
18.7	Deleterious constituents	IS:2386 (Part2)	1 test per source	1	1	0	1	0	0	0	0	1	1	0	1
18.8	Petrographic Examination	IS:2386 (Part8)	1 test per source	1	1	0	1	0	0	0	0	1	1	0	1
19.0 Cement MoRT&H 1006															
19.1	Chemical test	IS:4031,4032	1 test per source	12	12	0	7	0	0	0	0	12	12	0	7
19.2	Fineness	IS:4031 (Part1)	500mt (or) Every week	97	97	0	44	6	6	0	4	103	103	0	48
19.3	Normal Consistency	IS:4031 (Part4)	500mt (or) Every week	97	97	0	44	6	6	0	4	103	103	0	48
19.4	Initial,Final setting time	IS:4031 (Part5)	500mt (or) Every week	97	97	0	44	6	6	0	4	103	103	0	48
19.5	Soundness of Cement	IS:4031 (Part3)	500mt (or) Every week	97	97	0	44	6	6	0	4	103	103	0	48
19.6	Compressive Strength-set	IS:4031 (Part6)													
	3 days		500mt (or) Every week	115	115	0	57	6	6	0	3	121	121	0	60
	7 days		500mt (or) Every week	113	113	0	57	6	6	0	3	119	119	0	60
	28 days		500mt (or) Every week	111	111	0	31	8	8	0	5	119	119	0	36
20	Chemical test	IS 2386	1 test per source	7	7	0	3	0	0	0	0	7	7	0	3
21.0 Admixture															
21.1	Chemical Test	IS 9103	1 test per source	3	3	0	1	1	1	0	1	4	4	0	2

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 : January-2020															
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month			Tests conducted during reporting month upto 25 th JANUARY-2020			Test conducted upto this month					
				No. of test Conducted (1 Test = 350k)	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
22.0 Steel															
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.	15	15	0	7	0	0	0	0	15	15	0	7
22.2	10 mm Dia	IS 1786		15	15	0	8	0	0	0	0	15	15	0	8
22.3	12 mm Dia	IS 1786		19	19	0	9	1	0	1	0	20	20	0	10
22.4	16 mm Dia	IS 1786		20	20	0	9	1	0	1	0	21	21	0	10
22.5	20 mm Dia	IS 1786		20	20	0	8	1	0	1	0	21	21	0	9
22.6	25 mm Dia	IS 1786		22	22	0	12	1	0	1	0	23	23	0	13
22.7	32 mm Dia	IS 1786		8	8	0	5	0	0	0	0	8	8	0	5
23.(A) Concrete Cube Strength of Design Mix															
M15 PCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	69	69	0	58	0	0	0	0	69	69	0	58
	28Days Compressive Strength			62	63	0	55	0	0	0	0	0	62	63	0
M20 PCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	66	66	0	53	0	0	0	0	66	66	0	53
	28Days Compressive Strength			59	59	0	55	0	0	0	0	0	59	59	0
M20 DRAIN															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	0	0	0	0	3	3	0	3	3	3	0	3
	28Days Compressive Strength			0	0	0	0	0	0	0	0	0	0	0	0
M20 KERB															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	8	8	0	8	0	0	0	0	8	8	0	8
	28Days Compressive Strength			8	8	0	8	0	0	0	0	0	8	8	0
M25 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	66	66	0	6	0	0	0	0	66	66	0	6
	28Days Compressive Strength			59	56	0	55	0	0	0	0	0	59	56	0
M30 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	60	60	0	56	0	0	0	0	60	60	0	56
	28Days Compressive Strength			63	59	0	59	0	0	0	0	0	63	59	0
M30 RCC PUMPABLE															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	38	38	0	34	9	9	0	9	47	47	0	43
	28Days Compressive Strength			37	35	0	33	0	0	0	0	0	37	35	0
M35 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	56	56	0	52	0	0	0	0	56	56	0	52
	28Days Compressive Strength			58	56	0	54	0	0	0	0	0	58	56	0
M35 RCC PILING															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	65	65	0	61	0	0	0	0	65	65	0	61
	28Days Compressive Strength			58	58	0	54	0	0	0	0	0	58	58	0
M35 RCC PUMPABLE															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	47	47	0	43	0	0	0	0	47	47	0	43
	28Days Compressive Strength			37	35	0	33	0	0	0	0	0	37	35	0

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 : January-2020															
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month upto 25 th JANUARY-2020				Test conducted upto this month			
				No. of test Conducted (1 Test = 35cm)	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
M35 RE BLOCK															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	60	60	0	54	0	0	0	0	60	60	0	54
	28Days Compressive Strength			55	55	0	55	0	0	0	0	0	55	55	0
M40 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	35	35	0	26	0	0	0	0	35	35	0	26
	28Days Compressive Strength			22	18	0	22	0	0	0	0	0	22	18	0
M45 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	36	36	0	37	0	0	0	0	36	36	0	37
	28Days Compressive Strength			43	43	0	40	0	0	0	0	0	43	43	0
M45 RCC PUMPABLE															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	23	15	0	20	0	0	0	0	23	15	0	20
	28Days Compressive Strength			26	22	0	23	0	0	0	0	0	26	22	0
23.(B) Concrete Cube Strength of Site Cubes															
M15 PCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	220	220	0	113	12	12	0	5	232	232	0	118
	28Days Compressive Strength			427	427	0	219	6	6	0	0	6	433	433	0
M20 PCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	3	3	0	2	0	0	0	0	3	3	0	2
	28Days Compressive Strength			8	8	0	4	0	0	0	0	0	8	8	0
M20 KERB															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	2	2	0	2	1	1	0	1	3	3	0	3
	28Days Compressive Strength			2	2	0	2	0	0	0	0	0	2	2	0
M25 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	11	11	0	6	0	0	0	0	11	11	0	6
	28Days Compressive Strength			15	15	0	9	2	2	0	0	2	17	17	0
M30 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	400	400	0	162	22	22	0	10	422	422	0	172
	28Days Compressive Strength			806	806	0	301	20	20	0	0	20	826	826	0
M30 RCC PUMPABLE															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	11	11	0	8	0	0	0	0	11	11	0	8
	28Days Compressive Strength			19	19	0	19	4	4	0	0	4	23	23	0
M35 RCC															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	277	277	0	117	3	3	0	3	280	280	0	120
	28Days Compressive Strength			602	602	0	253	9	9	0	0	9	611	611	0
M35 RCC PILING															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	471	471	0	153	14	14	0	12	485	485	0	165
	28Days Compressive Strength			1490	1490	0	651	72	72	0	0	50	1562	1562	0
M35 RCC PUMPABLE															
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	281	281	0	148	28	28	0	20	309	309	0	168
	28Days Compressive Strength			716	716	0	341	140	140	0	0	120	856	856	0

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 : January-2020																
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month			Tests conducted during reporting month upto 25 th JANUARY-2020			Test conducted upto this month						
				No. of test Conducted (1 Test = 350g)	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	
M35 RE BLOCK																
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	777	777	0	269	2	2	0	2	779	779	0	271	
	28Days Compressive Strength			1414	1414	0	459	0	0	0	0	0	1414	1414	0	459
M40 RCC																
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	3	3	0	3	2	2	0	2	5	5	0	5	
	28Days Compressive Strength			0	0	0	0	5	5	0	0	5	5	0	5	
M45 RCC																
	7Days Compressive Strength	IS:516 / IS:456	MORT&H Sec. 1700	4	4	0	4	2	2	0	2	6	6	0	6	
	28Days Compressive Strength			4	4	0	2	0	0	0	0	4	4	0	2	
24.0 BENTONITE																
20.1	Density	MORT&H Sec. 1115.2.3	As required	244	244	0	79	17	17	0	17	261	261	0	96	
20.2	Marsh Cone Viscosity			244	244	0	79	17	17	0	0	17	261	261	0	96
20.3	pH Value			244	244	0	79	17	17	0	0	17	261	261	0	96
20.4	Silt Content			15	15	0	6	0	0	0	0	0	15	15	0	6
20.5	Liquid Limit			18	18	0	7	0	0	0	0	0	18	18	0	7
25.0 Fine Aggregate MoRT&H 1008-(RE-Block)																
21.1	Grade / Sieve analysis	IS:2386 (Part1)	As required	460	460	0	134	8	8	0	8	468	468	0	142	
21.2	Fineness Modulus	MORT&H Sec. 1008&383	As required	460	460	0	134	8	0	0	8	468	460	0	142	
21.3	Specific gravity & Water absorption	IS:2386 (Part2)	As required	11	11	0	4	1	1	0	1	12	12	0	5	
26.0 Coarse Aggregate MoRT&H 1007-(RE-Block)																
22.1	Gradation	IS:2386 (Part2)	As required	416	416	0	113	8	8	0	8	424	424	0	121	
22.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	9	9	0	3	8	8	0	8	17	17	0	11	
22.3	Aggregate Impact Value	IS:2386 (Part4)	1 test / each source &	16	16	0	5	1	1	0	1	17	17	0	6	

7. Weather Report

Date	Temperature (Celsius)		Humidity (%)		Rainfall (mm)	Remarks
	Min	Max	Min	Max		
01-01-2020	24.9	29.5	68	94	0.00	SUNNY
02-01-2020	26.2	32.5	57	90	0.00	SUNNY
03-01-2020	26.5	32.5	57	90	0.00	SUNNY
04-01-2020	25.4	32.9	55	95	0.00	SUNNY
05-01-2020	26.1	32.4	56	89	0.00	SUNNY
06-01-2020	25.5	32.0	60	91	3.30	RAINY/SUNNY
07-01-2020	25.1	32.0	60	91	12.00	RAINY/SUNNY
08-01-2020	25.7	32.0	59	91	0.00	SUNNY
09-01-2020	25.0	31.3	69	82	0.00	SUNNY
10-01-2020	23.0	31.3	50	83	0.00	SUNNY
11-01-2020	24.8	31.3	62	87	0.00	SUNNY
12-01-2020	23.0	31.3	50	87	0.00	SUNNY
13-01-2020	23.8	31.5	56	85	0.00	SUNNY
14-01-2020	25.8	32.0	60	92	0.00	SUNNY
15-01-2020	26.1	33.1	58	91	0.00	SUNNY
16-01-2020	25.5	31.4	59	90	0.00	SUNNY
17-01-2020	26.1	32.4	56	85	0.00	SUNNY
18-01-2020	25.2	28.9	76	92	31.00	SUNNY
19-01-2020	24.5	31.2	52	92	0.00	CLOUDY/SUNNY
20-01-2020	24.3	32.0	49	92	0.00	SUNNY
21-01-2020	24.5	30.6	59	87	0.00	SUNNY
22-01-2020	24.4	30.4	60	83	0.00	SUNNY
23-01-2020	23.9	31.1	59	85	0.00	SUNNY
24-01-2020	24.3	31.8	58	85	0.00	SUNNY
25-01-2020	26.5	30.5	70	91	0.00	SUNNY
26-01-2020	24.9	29.5	68	94	0.00	SUNNY
27-01-2020	26.2	32.5	57	90	0.00	SUNNY
28-01-2020	26.5	32.5	57	90	0.00	SUNNY
29-01-2020	25.4	32.9	55	95	0.00	SUNNY
30-01-2020	26.1	32.4	56	89	0.00	SUNNY
31-01-2020	25.5	32.0	60	91	3.30	RAINY/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.

1. Safety Tool Box Meeting conducted for Sub Contractors at Ch. 120+000.



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. Rerouting of existing canal between Km.146+600 to 148+100
4. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of Minor Bridge (07 Nos) and Major Bridge (04 Nos)
5. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of project highways in the existing ponds (in a length of 1.667 Kms).
6. Removal/relocation of existing irrigation sluice and regulator in the locations of Km: 150+800, Km: 152+900 & Km: 134+770.
7. Additional land acquisition for Toll plaza location, Bus bays. Turning radius at Major junctions.
8. Permission for Removal of Teak wood trees from the Project Highway in length of 680m.
9. Removal of Religious structures of 13 Nos. and Bus stand from the proposed ROW.
10. Removal of Government Buildings like VAO office, School, Post Office & Ration Shop etc. in 15 nos. of locations.
11. Removal of unauthorized occupations in 25 nos. of locations in the project highways.
12. Required State Support Agreement between NHAI & Govt. of Tamil Nadu as due priority will be given to NH Projects by the State Govt. officials.
13. Removal of Fuel Stations at Km: 120+400, Km: 128+850 and Km: 122+450.
14. Revised Estimates for Electrical Shifting due to non-available of vertical clearance – Request Authority for earlier Approval.
15. 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.

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

Sl. No	From	To	Effectuated 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	Thiruvalanzuli	Mr.Dharmalingam
2	138+500	138+540		Court Stay	-	Thiruvalanzuli	Mr.Shanmugam
3	138+750	138+850	500 m	Court Stay		Thiruvalanzuli	Mr.Dhahshnamoorthy , Mr.Rajini, Mr.nagaraj
4	142+100	142+200	500 m	Payment Issue	326/1, 326/2, 326/3, 326/4, 326/5, 326/ 6	Gopurajapuram	Mr.Pakir Mohammed 9566541123
5	161+100	161+200	1000 m	LA issues	3/1A,3/1B	Kadkadapai	Ms Tamilselvi
Total Effectuated Length in Meters			2520				

Table 10.1. Details of Important Events

Sl. No	Date of Events	Description of Events	Remarks
1)	11.01.2020	Progress Review Meeting conducted by TL at IE office, Thanjavur	

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 - EPC TEAM

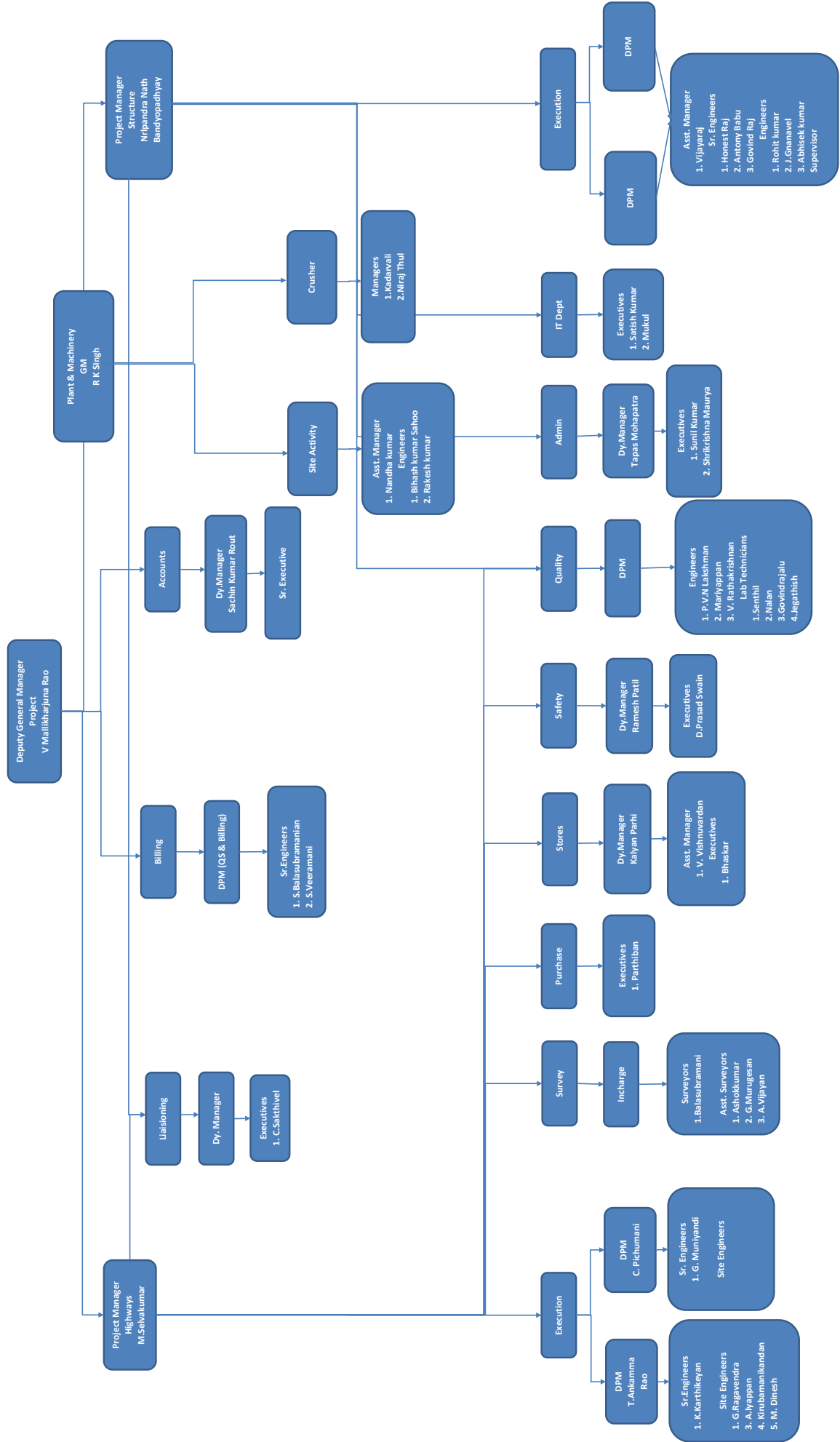
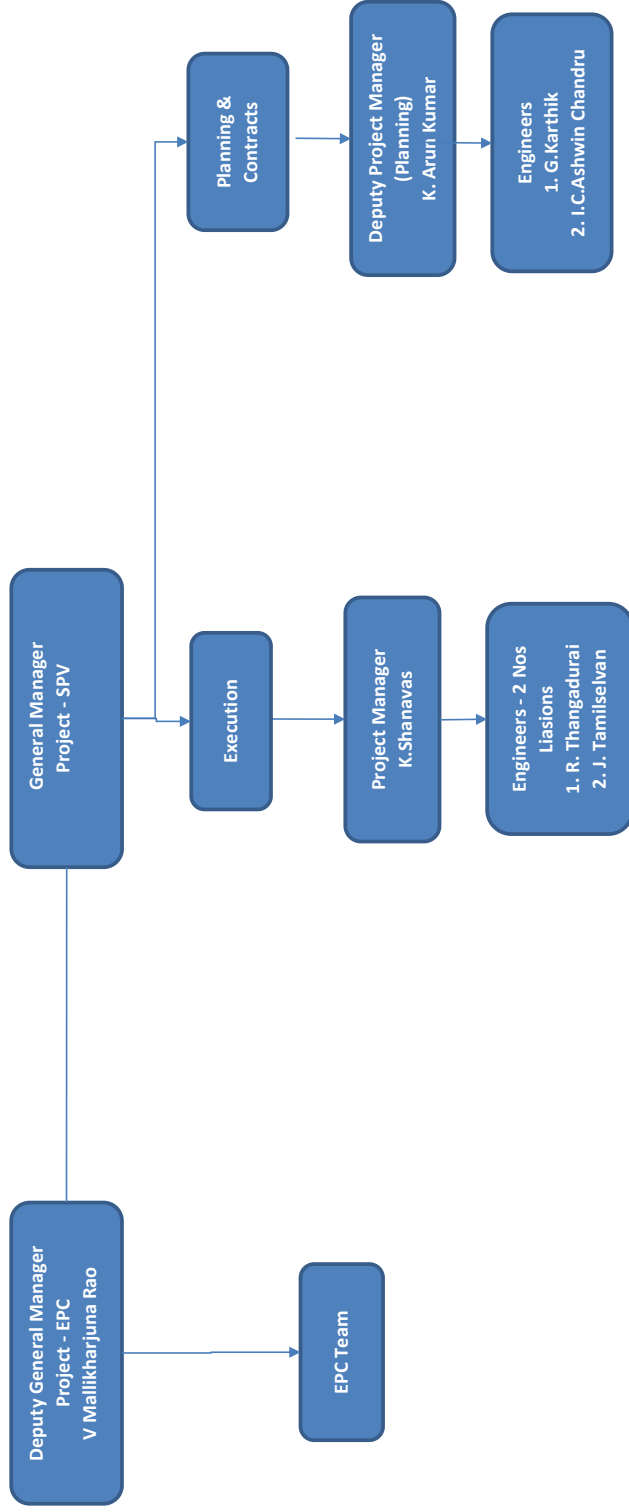


Figure 5 - ORGANIZATION CHART - SPV TEAM



12. List of Plants, Machinery and Equipment's

S.No	Name of the Machinery	Capacity / Model	Mobilized at Site	Remarks
1	Grader	120K2	5	
2	Excavator/JCB	JCB-220	6	
3	Dozer		1	
4	Soil Compactor	HAMM 311	4	
5	Backhoe Loader	JCB 3DX	5	
6	Tipper	Bharat Benz- 3128C	16	
7	Transit Mixer	2523C	11	
8	Loader	455 ZX	6	
9	Trailer		3	
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	3	
17	Weigh Bridge for Camp 100MT	100MT	2	
18	Weigh Bridge for Crusher 100MT	100MT	1	
19	Genset Base Camp	25KV	2	
20	Genset (Crusher) 63KVA	63KVA	3	
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	3	
27	Genset 15KVA	15KVA	1	

Table 13.1 - Status of Change of Scope Proposals

Sl. No.	Proposal Details	Date of Proposal	Current Status	COS Amount	Actual Date of Approval
1	Replacement of Pipe Culvert with box Culvert	25.04.2018	Approved in-principle by Authority. Preparation of Details Quantities in proper order is in Progress	3.78 Cr.	NA
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	Construction of Major Bridge at Km 131+963- under Change of Scope	01.06.2019	IE recommended to Authority vide ref.141 for issuance under COS.	NA	NA

14. Details of Correspondences

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

TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI

S.No	Date	Letter No	Subject	Remarks
1	08-01-2020	PCTHPL/CTP/NHAI/2019/625	Submission of revised plan and profile from km 131+700 to km 132+400 for the main carriage way portion of project highway	
2	09-01-2020	PCTHPL/CTP/NHAI/2019/626	Submission of Compliance for estimated cost for bridge proper for ROB	
3	21-01-2020	PCTHPL/CTP/NHAI/2019/633	R.A.Bill No.04 – Shifting of Water Supply as per Cl.11.2.1 of Concession Agreement	
4	22-01-2020	PCTHPL/CTP/NHAI/2019/634	Compliance of Observations raised on design & drawings of A1-P1 span in Major Bridge at Ch. 161+030	
5	23-01-2020	PCTHPL/CTP/NHAI/2019/635	In sufficient Right of Way with respect to the land handed over as per Clause 10.3.1 of Concession Agreement	
6	31-01-2020	PCTHPL/CTP/NHAI/2019/644	Recovery under Revenue Act, Stop Payments of NL Traders and NL Transport-Reg.	

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				
TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE				
S.No	Date	Letter No	Subject	Remarks
1	02-01-2020	NHAI/PIU/Thanji/11015/51/2011/012	"Sadak Suraksha – Jeevan Raksha"- Observance of 31st "National Road Safety Week 2020" from 11th to 17th January 2020.	
2	04-01-2020	NHAI/PIU/Thanji/11026/15/2018/022	Remittance towards contribution of Welfare Cess Tamil Nadu Workers General Welfare Board.	
3	04-01-2020	NHAI/PIU/Thanji/11015/10/2007/030	Failure of BOT concessionaire to carry out the maintenance obligations as per provisions of CA - carrying out maintenance at risk and cost of the concessionaire - Standard Operating Procedure.	
4	07-01-2020	NHAI/PIU/Thanji/11019/05/2009/032	Application under Right to information Act 2005 by Sh.Kumar-Report called for	
5	08-01-2020	NHAI/PIU/Thanji/11026/22/2018/035	Submission of GAD for 2 no of Proposed Minor Bridges for the concurrence of Tamilnadu PWD WRO - NOC requested	
6	08-01-2020	NHAI/PIU/Thanji/11026/13/2018/037	Shifting of waterpipeline -Report called	
7	10-01-2020	NHAI/PIU/Thanji/11026/12/2018/048	Details of payment made for GST Reimbursement	
8	14-01-2020	NHAI/PIU/Thanji/11026/06/2018/066	Enroachment of water bodies and blocking the water way of samudram NH-45C near Puliyanthopu Village	
9	16-01-2020	NHAI/PIU/Thanji/11021/31/2009/071	Alignment along the road and across NHAI -Remarks called for	
10	17-01-2020	NHAI/PIU/Thanji/11021/96/2018/074	Bank Guarantee submitted towards Security Deposit - Work Completed - Release of BG	
11	20-01-2020	NHAI/PIU/Thanji/11026/12/2018/089	Details of payment made for electrical utility shifting RA Bill.14	
12	24-01-2020	NHAI/PIU/Thanji/11026/13/2018/106	Shifting of Water Supply Utilities	
13	25-01-2020	NHAI/PIU/Thanji/11023/13/2009/122	Recovery under Revenue Act - Action Intimated – Stop Payments of NL Traders and NL Transport - Report called for	
14	27-01-2020	NHAI/PIU/Thanji/11026/24/2018/146	Estimated cost for bridge proper for ROB - Submission of Cost Estimate requested	
15	29-01-2020	NHAI/PIU/Thanji/11026/24/2018/164	Proposal for Retrouting of Existing Canal between Km 146+600 to 147+050 and Km 147+900 to Km 148+150	
16	29-01-2020	NHAI/PIU/Thanji/11099/24/2009/173	Information sought for under Right to Information Act '2005 by Sh. Akhilesh Parihar - Report called for	
17	29-01-2020	NHAI/PIU/Thanji/11026/13/2018/174	Shifting of Water Pipe line	
18	28-01-2020	NHAI/PIU/Thanji/11021/96/2018/2616	Release of bank guarantee-report called for	

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

TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER

S.No	Date	Letter No	Subject	Remarks
1	30-12-2019	PCTHPL/CTP/IE/2019/613	Maintenance of Existing Road – Compliance Report	
2	02-01-2020	PCTHPL/CTP/DC/2019/614	Formation of temporary access over the existing canal for construction purpose	
3	02-01-2020	PCTHPL/CTP/SE/2019/615	Formation of temporary access over the existing canal for construction purpose	
4	03-01-2020	PCTHPL/CTP/SE/2019/616	Submission of Credentials for NP4 Pipes from Ms P.K RCC Pipes	
5	03-01-2020	PCTHPL/CTP/SE/2019/617	Submission of Soil Test Report for the Borrow Area No.30	
6	03-01-2020	PCTHPL/CTP/SE/2019/618	Submission of Soil Test Report for the Borrow Area No.33	
7	03-01-2020	PCTHPL/CTP/SE/2019/619	Submission of Soil Test Report for the Borrow Area No.35	
8	06-01-2020	PCTHPL/CTP/SE/2019/620	Design and drawings along with Plan and profile of Drain Coppliance report (1)	
9	06-01-2020	PCTHPL/CTP/IE/2019/621	Submission of MPR for the month of Dec-2019	
10	06-01-2020	PCTHPL/CTP/IE/2019/622	Submission of kerb trail stretch report for the project highway	
11	07-01-2020	PCTHPL/CTP/IE/2019/623	Video recording as per the clause 13.6 of concession agreement for the quarterly period of october to December 2019	
12	08-01-2020	PCTHPL/CTP/IE/2019/624	Disruption of construction activities between km 128+900 to km 128+940	
13	10-01-2020	PCTHPL/CTP/IE/2019/627	Submission of Finalised locations for providing utility ducts in the Project Highway	
14	13-01-2020	PCTHPL/CTP/IE/2019/629	Submission of SBC Test Reports	
15	14-01-2020	PCTHPL/CTP/IE/2019/630	Construction of Major Bridge cum VUP at km 156+584	
16	14-01-2020	PCTHPL/CTP/IE/2019/631	Removal of earth from puiyakudi tank	
17	18-01-2020	PCTHPL/HO/CTP/IE/2019/003	Submission of Compliance report with Revised Design and Drawings of proposed Major Bridge 161+030	
18	18-01-2020	PCTHPL/HO/CTP/IE/2019/004	regarding conducting test pile and initial Pile load test for proposed Major Bridge 131+980	
19	18-01-2020	PCTHPL/HO/CTP/IE/2019/005	Compliance report - Submission of Design and drawings of proposed Major Bridge cum VUP at Km. 156 + 584 - Reg	
20	18-01-2020	PCTHPL/HO/CTP/IE/2019/007	Submission of Design & Drawings of 04 Nos. Box Culverts (MCW + SR) - Reg	
21	20-01-2020	PCTHPL/CTP/IE/2019/632	Submission of Elastomeric Bearings Credential from Ms Polymer Products	
22	24-01-2020	PCTHPL/HO/CTP/IE/2019/008	Compliance to observations on 11 Nos. MNBs in service Road portion	
23	25-01-2020	PCTHPL/CTP/IE/2019/636	Submission of Design & Drawings for 05 Nos. of Minor Bridges in service road portion	
24	25-01-2020	PCTHPL/CTP/IE/2019/637	Submission of Revised Plan & Profile Drawings from Km. 116+440 to 118+000 for Main Carriageway portion of the Project Highway (R3)	
25	25-01-2020	PCTHPL/CTP/IE/2019/639	Submission of Grout Admixture Credential from Ms Fosroc Chemicals (India) Pvt Ltd.	
26	25-01-2020	PCTHPL/CTP/IE/2019/640	Submission of Existing Shoulder Soil Test Reports from Km 122 +000 to 128+000	
27	25-01-2020	PCTHPL/CTP/IE/2019/641	Submission of Factory Inspection Report - Ms BBR (India) Pvt. Ltd	
28	29-01-2020	PCTHPL/CTP/IE/2019/642	Review of design & drawing for MNBs at Ch. 134+320, 152+911, 133+345 and 159+541	
29	29-01-2020	PCTHPL/CTP/IE/2019/643	Submission of Revised Design & Drawings of Major Bridge at Km 149+355	
30	31-01-2020	PCTHPL/CTP/IE/2019/644	Recovery under Revenue Act, Stop Payments of NL Traders and NL Transport	
31	31-01-2020	PCTHPL/CTP/IE/2019/645	Submission of Revised Plan & Profile Drawings from Km. 123+860 to 124+380 for Main Carriageway portion of the Project Highway (R3)	

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TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI

S.No	Date	Letter No	Subject	Remarks
1	27-12-2019	THEME/NHAI/CHO-TNJR/CON/1219/492	Job Mix Formula for DBM (Grading-II)	
2	27-12-2019	THEME/NHAI/CHO-TNJR/CON/1219/493	Review of Soil Test Reports for the Borrow Area No. 32	
3	27-12-2019	THEME/NHAI/CHO-TNJR/CON/1219/494	Review of Soil Test Reports for the Borrow Area No. 36	
4	27-12-2019	THEME/NHAI/CHO-TNJR/CON/1219/495	Compliance report - Change of Scope Order for replacement of Pipe Culverts with Box Culverts as per Clause 16.2.3 of CA - Observations	
5	28-12-2019	THEME/NHAI/CHO-TNJR/CON/1219/496	Change of Scope notice for construction of Major Bridge at Km 131 + 963 as per Clause 16.2.1 of Concession Agreement	
6	03-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/497	Review of Design and Drawings for Toll Plaza Building, Toll Well and Toll Tunnel for the proposed Toll Plaza at Ch. 152+000 of the Project Highway	
7	03-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/498	Compliance report – Design and Drawings of proposed Major Bridge cum VUP at Km 156+584	
8	05-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/499	Compliance report – RE Wall drawings for VUP at Km 136+307	
9	07-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/500	Review of design and Drawing for Crash barrier with friction slab of the project highway.	
10	07-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/501	Compliance report – Design and Drawings along with Plan & Profile for Drains in the Project Highway.	
11	09-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/502	Review of Soil Test Reports for the Borrow Area No. 3	
12	09-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/503	Review of Soil Test Reports for the Borrow Area No. 3	
13	09-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/504	Review of Soil Test Reports for the Borrow Area No. 35	
14	11-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/505	Minutes of Project Meeting No.15 - Reg	
15	13-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/506	Review of Revised Plan and Profile Drawings from Km. 131 + 700 to Km. 132 + 400 for Main Carriageway portion of the Project Highway	
16	13-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/507	regarding matter related to additional land required to accommodate bulb portion in Service Road near VUPGSI Structure in Project Highway	
17	13-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/508	Credentials for NP4 Pipes from Ms P.K RCC Pipes - Review	
18	21-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/509	Review of RE Wall drawings for GSI at Ch 157+188	
19	25-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/511	Credentials for Elastomeric Bearings from Ms Polymer Products - Review.	
20	31-01-2020	THEME/NHAI/CHO-TNJR/CON/0120/517	Repair and Calibration of Compression Testing Machine (CTM) - Reg.	

15. Progress Photographs

Sl. No	Description	Location	Side	Remarks
1.	DISMANTLING OF EXISTING STRUCTURES IS IN PROGRESS	129+200	LHS	
2.	DISMANTLING OF EXISTING STRUCTURES IS IN PROGRESS	125+910	LHS	



Sl. No	Description	Location	Side	Remarks
3.	DISMANTLING OF EXISTING STRUCTURES IS IN PROGRESS	117+420	LHS	
4.	DISMANTLING OF EXISTING STRUCTURES IS IN PROGRESS	117+400	LHS	



Sl. No	Description	Location	Side	Remarks
5.	MAINTAINENCE OF EXISTING ROAD IS IN PROGRESS			
6.	MAINTAINENCE OF EXISTING ROAD IS IN PROGRESS			




Sl. No	Description	Location	Side	Remarks
7.	EMBANKMENT IS IN PROGRESS	124+005	BHS	
8.	EMBANKMENT IS IN PROGRESS	123+890	BHS	



Sl. No	Description	Location	Side	Remarks
9.	CTSB 2 nd LAYER CURING IS IN PROGRESS	163+880	LHS	
10.	DBM LAYING COMPLETED	164+120	LHS	



Sl. No	Description	Location	Side	Remarks
11.	EMBANKMENT 4 TH LAYER IS IN PROGRESS	160+300	RHS	
12.	SUBGRADE TOP COMPACTION IS IN PROGRESS	161+110	RHS	



Sl. No	Description	Location	Side	Remarks
13.	BOX CULVERT – SLAB REINFORCEMENT IS IN PROGRESS	157+701	RHS	
14.	BOX CULVERT – RETURN WALL SHUTTERING COMPLETED	160+658	LHS	



Sl. No	Description	Location	Side	Remarks
15.	BOX CULVERT – WALL 1 ST LIFT CONCRETING IS IN PROGRESS	133+268	RHS	
16.	BOX CULVERT – SLAB CONCRETING COMPLETED	121+895	LHS	



Sl. No	Description	Location	Side	Remarks
17.	MNB – RAFT SHUTTERING IN PROGRESS	158+994	RHS	
18.	MNB – SLAB CURING IN PROGRESS	141+760	LHS	



Sl. No	Description	Location	Side	Remarks
19.	PUP – BRACKET DESHUTTERING IN PROGRESS	147+951	BHS	
20.	PUP – SLAB REINFORCEMENT IN PROGRESS	147+951	RHS	



Sl. No	Description	Location	Side	Remarks
21.	GSI- PSC GIRDER SHUTTERING IN PROGRESS	134+028		
22.	GSI- PSC GIRDER CASTING IN PROGRESS	134+028		



Sl. No	Description	Location	Side	Remarks
23.	VUP- A1 SIDE ABUTMENT CAP & PEDESTAL CURING IN PROGRESS	136+307	RHS	
24.	VUP- PIER CAP STAGING IN PROGRESS	138+761	LHS	



Sl. No	Description	Location	Side	Remarks
25.	VUP – PILE CAP REINFORCEMENT IS IN PROGRESS	130+342	RHS	
26.	VUP – PILE CAP CONCRETING IS IN PROGRESS	131+492		



Sl. No	Description	Location	Side	Remarks
27.	VUP – PILE CAP SHUTTERING IN PROGRESS	139+477		
28.	VUP – PILE CAP CONCRETING IN PROGRESS	139+477		

