

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

Four Laning of Sethiyahopu-Cholapuram from Km. 65.960 to Km. 116.440 of NH-45C under NHDP-IV on Hybrid Annuity Mode Basis.

PATEL SETHIYAHOPU-CHOLOPURAM HIGHWAY PRIVATE LIMITED



MONTHLY PROGRESS REPORT
MARCH 2022

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Executive Summary

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

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

Project Synopsis

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

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

Figure 2: Project Alignment Map

SETHIYAHOPU TO CHOLOPURAM HIGHWAY PROJECT OF NH45 C

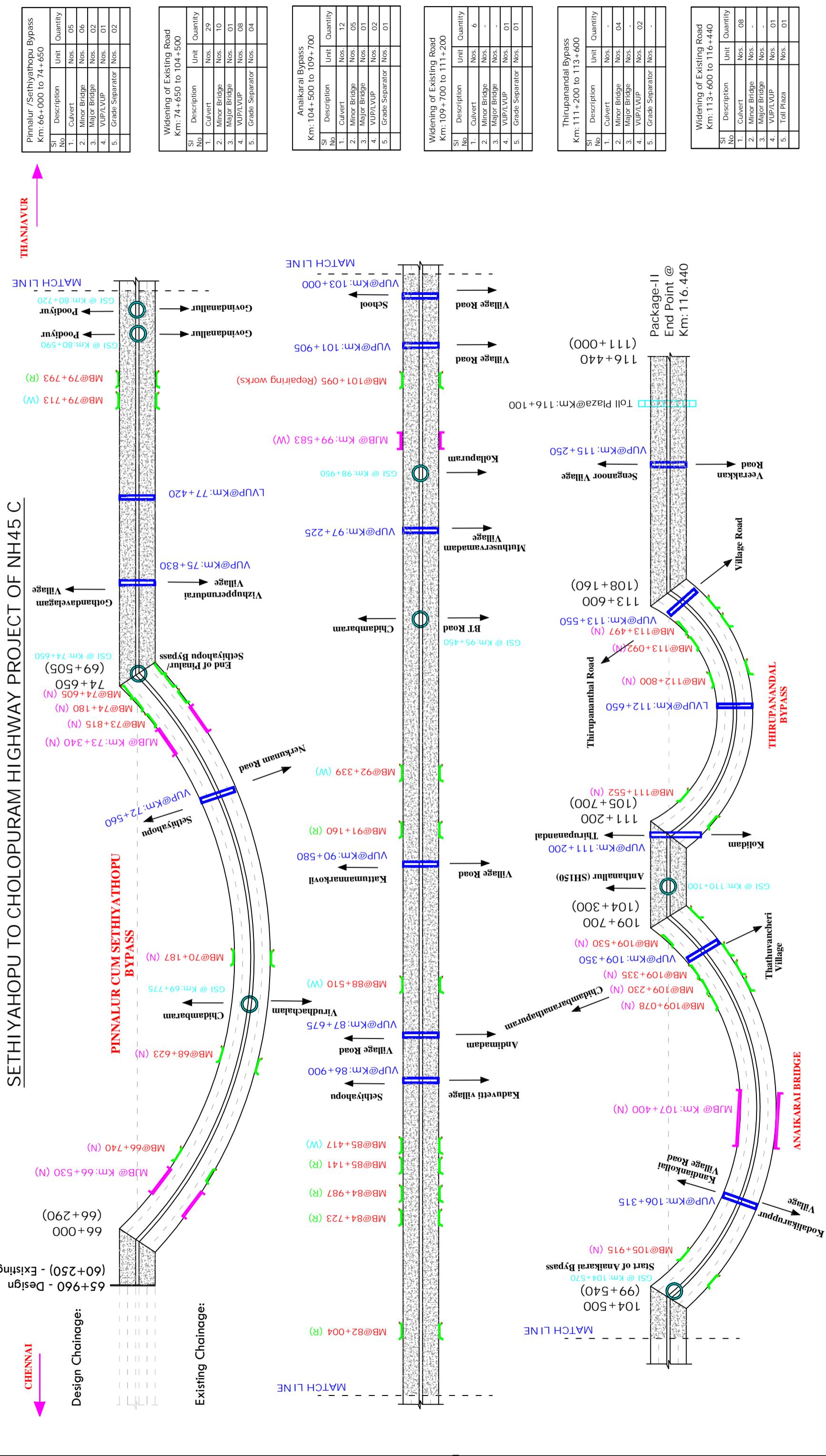


Figure 1: Project Location Map

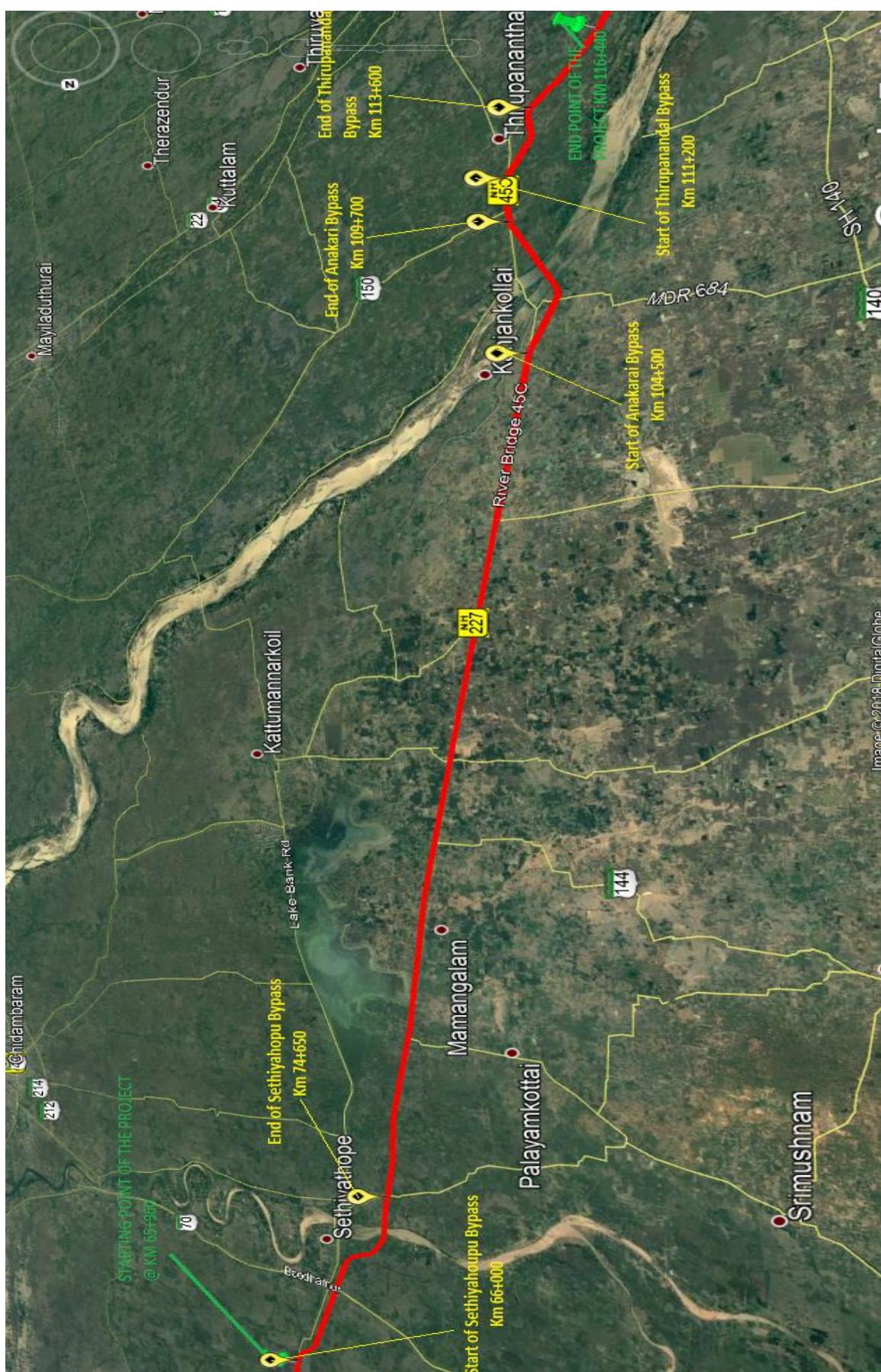


Table - 1.1: Details of Project Alignments

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

17	76.460	77.000	81.500	82.240	0.740	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
18	77.000	78.115	82.240	83.150	0.910	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
19	78.115	79.110	83.150	84.150	1.000	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
20	79.110	79.510	84.150	84.550	0.400	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
21	79.510	80.610	84.550	85.650	1.100	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
22	80.610	81.555	85.650	86.580	0.930	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
23	81.555	82.170	86.580	87.210	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
24	82.170	82.320	87.210	87.360	0.150	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
25	82.320	82.910	87.360	87.990	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
26	82.910	83.180	87.990	88.265	0.275	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
27	83.180	83.660	88.265	88.745	0.480	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
28	83.660	85.220	88.745	90.265	1.520	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
29	85.220	85.850	90.265	90.895	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
30	85.850	86.555	90.895	91.600	0.705	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
31	86.555	87.015	91.600	92.050	0.450	TCS-1	Concentric Widening
32	87.015	87.525	92.050	92.560	0.510	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
33	87.525	90.000	92.560	95.035	2.475	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening
34	90.000	90.830	95.035	95.865	0.830	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
35	90.830	91.350	95.865	96.400	0.535	Type-B (Fig 2.6 of the manual) with both side service road	Concentric Widening

36	91.350	91.970	96.400	96.910	0.510	TCS-1	Concentric Widening
37	91.970	92.460	96.910	97.535	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
38	92.460	93.550	97.535	98.535	1.000	TCS-1	Concentric Widening
39	93.550	94.370	98.535	99.335	0.800	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
39A	94.370	94.875	99.335	99.840	0.505	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
40	94.875	95.350	99.840	100.300	0.460	Type-B (Fig 2.6 of the manual) with both side service road	
41	95.350	96.630	100.300	101.590	1.290	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
42	96.630	97.260	101.590	102.225	0.635	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
43	97.260	97.720	102.225	102.685	0.460	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
44	97.720	98.360	102.685	103.315	0.630	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
45	98.360	99.190	103.315	104.160	0.845	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening
46	99.190	Bypass	104.160	104.990	0.830	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
47	Bypass	Bypass	104.990	106.000	1.010	Type-A-3 (Fig 2.4 of the manual)	Bypass
48	Bypass	Bypass	106.000	106.625	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
49	Bypass	Bypass	106.625	109.035	2.410	Type-A-3 (Fig 2.4 of the manual)	Bypass
50	Bypass	104.260	109.035	109.660	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
51	104.260	105.015	109.660	110.515	0.855	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
52	105.015	105.390	110.515	110.890	0.375	Type-B (Fig 2.6 of the manual) with both side service road	Eccentric Widening

53	105.390	Bypass	110.890	111.515	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
54	Bypass	Bypass	111.515	112.430	0.915	Type-A-3 (Fig 2.4 of the manual)	Bypass
55	Bypass	Bypass	112.430	112.840	0.410	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
56	Bypass	Bypass	112.840	113.225	0.385	Type-A-3 (Fig 2.4 of the manual)	Bypass
57	Bypass	108.410	113.225	113.850	0.625	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
58	108.410	109.395	113.850	114.835	0.985	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening
59	109.395	110.220	114.835	115.660	0.825	Figure 7.8- Grade separator and its approaches with RE wall and both side 5.5 m wide Slip road	
60	110.220	111.000	115.660	116.440	0.780	Type-A-3 (Fig 2.4 of the manual)	Eccentric Widening

1. Background and Project Details

1.1. Project Overview

Name of Work	Four Laning of Sethiyahopu-Cholopuram from Km. 65.960 to Km. 116.440 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 Sethiyahopu – Cholopuram Highway Pvt Ltd, Patel House, Beside Prakruti Resorts, Channi Road, Vadodara. Gujarat– 391740 Tel: +91-265 277 6678 Fax: +91-265 277 7878
Independent Engineer	M/s. Theme Engineering Services Pvt. Ltd, Plot No. 2, Annai Anjugam Nagar, Ullur, Chettimandapam, Kumbakonam – 612001.
EPC Contractor	M/s. Patel Infrastructure Limited, Patel House, Beside Prakruti Resorts, Channi Road, Vadodara Gujarat– 391740, Tel: +91-265 277 6678 Fax: +91-265 277 7878
Design Consultant	CTL Global Services Pvt. Ltd. 101, 1st 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)	50.480 Kms
Total Bid Cost	Rs. 1461.00 Crores (as per concession agreement)
Date of Concession Agreement	November 9, 2017
Concession Period	17 Years (Construction Period 2 Years from Appointed date, Operation period 15 years from COD)
Appointed Date	16.08.2018
Construction Period	2 years from Appointed date
Completion Date	15.08.2020
Maintenance Period	15 years from COD

1.2. Salient Project Features

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

4 - Lane Divided Carriage Way	50.48 Km.
Service Road/ Slip Road	26.595 Km (Slip Road = 14.510 Kms & Service Road = 12.085 Kms)
Major Bridge	04 Nos.
Minor Bridge	25 Nos.
Grade Separate Intersection	08 Nos.
Vehicular Underpass	13 Nos.
Light Vehicular Underpass	2 Nos.
Culverts	60 Nos.
Major Intersections	07 Nos.
Minor Intersections	100 Nos.
Bus Bays	09 Nos.
Toll Plaza	01 Nos.

1.3. Contractual Project Milestones

Following is a listing of the Key Project Milestones:

Mile Stone	Description	Target Dates as per CA	Revised Target Dates as per Settlement Agreement
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.	18 th March 2019	➤ 31 st May'2021- Total 28.345 Km. four lane to be completed for PCOD-I.
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.	16 th July 2019	➤ 30 th Nov'2021- Total 35.940 Km. four lane to be completed for PCOD-II.
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.	22 nd March 2020	➤ Balance 14.540 Km. four lane shall be handed over to the Concessionaire by 31 st May'2021 and shall be completed by 31 st July'2022.
Scheduled Completion	Concessionaire shall have completed Project on 730 th day from the Appointed Date.	15 th August 2020	

Note: The Settlement Agreement has been signed between Concessionaire and Authority on 04.03.2021 with the target of completion of 28.345 Kms length by 31.05.2021, and further completion of additional 7.595 Kms length by 30.11.2021 i.e. up to Payment Date of 1st Annuity. The non-workable length/non-handed over length is 14.54 Km as per joint site verification by Concessionaire, IE and NHAI. This 14.54 Km length shall be handed over to the Concessionaire by 31.05.2021 and shall be completed by 31.07.2022.

The Competent Authority has communicated extension of time approval for 105 days due to occurrence of Force Majeure event on account of 2nd wave of COVID-19.

The revised Target Dates mentioned above as per Settlement Agreement are subjected to extension of time approval for 105 days due to occurrence of Force Majeure event on account of 2nd wave of COVID-19.

Status of PCOD Proposal:-

Sr. No.	Description	Target	Achieved as on date	Remarks
1	Completion of 28.345 Kms by 31.05.2021	55.00% (803.60 Cr.)		
2	Completion of 35.940 Kms (i.e. 28.345 Kms + 7.595 Kms) by 30.11.2021	72.25% (1055.57 Crore)	60.914%	
3	Completion of balance 14.540 Kms by 31.07.2022	27.75% (405.43 crore)		

1.4. Payment milestone during Construction Period

Payment Mile Stone	Eligibility Criteria	Payment Amount (Rs.)	Claimed Amount (Rs.)	Date of release of payment
Mile Stone-I	On Achievement of 10% of Physical Progress	116.88 Crs.	109.8672 Crs.	04.10.2019
Mile Stone-II	On Achievement of 30% of Physical Progress	116.88 Crs.	109.8672 Crs.	25.09.2020
IPC No. 01 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 31.856% of Physical Progress	10.85 Crs.	10.20 Crs.	29.09.2020
IPC No. 02 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 32.758% of Physical Progress	5.27 Crs.	4.96 Crs.	10.11.2020
IPC No. 03 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 34.484% of Physical Progress	10.09 Crs.	9.48 Crs.	10.11.2020
IPC No. 04 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 35.144% of Physical Progress	3.86 Crs.	3.63 Crs.	10.12.2020
IPC No. 05 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 36.052% of Physical Progress	5.31 Crs.	4.99 Crs.	12.02.2021
IPC No. 06 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 37.886% of Physical Progress	10.72 Crs.	10.07 Crs.	18.03.2021
IPC No. 07 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 39.452% of Physical Progress	9.15 Crs.	8.60 Crs.	31.03.2021
IPC No. 08 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 40.979% of Physical Progress	8.92 Crs.	8.39 Crs.	10.05.2021
IPC No. 09 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 41.432% of Physical Progress	2.65 Crs.	2.49 Crs.	09.06.2021
IPC No. 10 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 43.429% of Physical Progress	11.67 Crs.	10.97 Crs.	16.07.2021
IPC No. 11 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 46.976% of Physical Progress	20.73 Crs.	19.48 Crs.	27.08.2021
IPC No. 12 of Mile Stone-III (as per NHAI Policy Guidelines/Atmnirbhar Bharat)	On Achievement of 49.966% of Physical Progress	17.47 Crs	16.43 Crs.	20.09.2021
Mile Stone-III	On Achievement of 50% of Physical Progress	0.20 Crs.		
Mile Stone-IV	On Achievement of 75% of Physical Progress	116.88 Crs.		
Mile Stone-V	On Achievement of 90% of Physical Progress	116.88 Crs.		

The Claimed amount mentioned above in the table for each milestone payment and IPC payment is considered after duly incorporating the 6% rebate in GST

1.5. Permits & Approvals

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

2. Right of Way Status

2.1. Land Acquisition

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

Table 2.1-1: Details of proposed ROW as per Schedule-A				
	Design Chainage (Km)	Design Length (Km)	Width (m)	Remarks
Full Right of Way (full width)				
Stretch	65.960 to 75.150	9.190	60.00	Within 15 days of date of Agreement.
Stretch	75.150 to 82.380	7.230	45.00	
Stretch	82.380 to 83.080	0.700	60.00	
Stretch	83.080 to 84.050	0.970	45.00	
Stretch	84.050 to 86.440	2.390	60.00	
Stretch	86.440 to 87.660	1.220	52.50	
Stretch	87.660 to 91.730	4.070	45.00	
Stretch	91.730 to 93.730	2.000	52.50	
Stretch	93.730 to 95.900	2.170	45.00	
Stretch	95.900 to 99.700	3.800	60.00	
Stretch	99.700 to 104.500	4.800	30.00	
Stretch	104.500 to 109.700	5.200	60.00	
Stretch	109.700 to 110.980	1.280	30.00	
Stretch	110.980 to 113.700	2.720	60.00	
Stretch	113.700 to 116.440	2.740	30.00	
Total Length		50.480		

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

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

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

Sl. No.	Description	Unit	Present Status	Remarks
A)	Total Length of the Project Highway	Km	50.48	
1	Use of Existing Road Portion	Km	34.23	
2	Proposed Bypass / Realignment portion	Km	16.25	
B)	Hindered Length			
1.	Hindrance towards existing building, payment pending, NOC from PWD/WRO, teak trees etc.,	Km	6.130	
2.	Hindrance due to Electrical Lines	Km		
3.	Hindrance due to Rural Water Supply lines	Km		
4.	Net Hindered Length (both Side)	Km	6.130	
C)	Total Project Length (both Side)	Km	50.480	
D)	% Hindered Length	%	12.14%	

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

The status of compensation disbursed is as below: -

Table 2.1-3: Compensation disbursement for land

SL. No.	Name of the District	Total No. of Land cases	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Cuddalore	710	613	97	
2	Ariyalur	355	310	45	
3	Thanjavur	102	98	4	
Total in Nos.		1167	1021	146	
		Total in %	87.49%	12.51%	

Table 2.1-4 - Compensation disbursement for Structures

Sl. No.	Name of the District	Total No. of structures	Amount paid (in Nos.)	Balance to be Paid (in Nos.)	Remarks
1	Cuddalore	383	333	50	
2	Ariyalur	461	433	28	
3	Thanjavur	148	96	52	
Total in Nos.		992	862	130	
		Total in %	86.89%	13.11%	

- Details of Stretches under Hindrance towards existing building, payment pending, NOC from PWD/WRO, teak trees etc.:

Sr. No	Chainage		Length (km)	Non workable length as on 31.03.2022 (km)	Side	Reason	Remarks
	From	To					
1	72.350	73.180	0.830	0.830	BHS	Removal of Structures	
2	75.520	76.150	0.630	0.630	BHS	Removal of Structures	
3	80.100	81.150	1.050	1.050	BHS	Removal of Structures	
4	87.360	87.990	0.630	0.630	BHS	Removal of Structures	
5	95.035	95.865	0.830	0.830	BHS	Removal of Structures	
6	98.500	99.400	0.900	0.900	BHS	Removal of Structures	
7	101.590	102.225	0.635	0.635	BHS	Removal of Structures	
8	113.225	113.850	0.625	0.625	BHS	Pending Disbursement of Compensation	
Total in Kms				6.130			

The 6.130 Km. length is still under non-workable length out of 14.54 km. non-workable length as per Settlement Agreement executed on dated 04.03.2021.

2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Table 2.2-1: Status of Removal of Religious structures				
SI No.	Name of the District	Total No. of structures	Removed as on Date (in Nos.)	Balance (in Nos.)
1	Cuddalore	10	3	7
2	Ariyalur	10	1	9
3	Thanjavur	2	2	0
	Total in Nos.	22	6	16

2.3. Shifting of Utilities and Electrical HT/LT Lines

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

Table 2.3-1: Status of sanction of Estimates - Relocation of RWS Pipe line						
Sr. No.	Name of the District	Chainages			Total Number of Estimates	Remarks
		From	To	Length in Km		
1	Cuddalore	65+960	86+440	20.48	25	Work in Progress
2	Ariyalur	86+440	106+860	20.42	46	
3	Thanjavur	106+860	116+440	9.58	4	

Table 2.3-2: Status of sanction of Estimates - Electrical Lines Relocation							
Sr. No	Name of the District	Chainages			Number of Estimates	Present Status	Remarks
		From	To	Length in Km			
1	Cuddalore	65+960	86+440	20.48	10	Estimate Approved	Supervision charges are paid and work in progress
2	Ariyalur	86+440	106+860	20.42	5	Estimate Approved	
3	Thanjavur	106+860	116+440	9.58	5	Estimate Approved	
4	Cuddalore& Thanjavur	Km:70+020, Km:73+470 and Km:113+720			3	Estimate Approved	Supervision Charges paid

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

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

Table 2.3-3: Status of Utility Relocation

Sl. No.	Authority	Description	Unit	Total Length/ Nos.	Work done	Balance	Remarks
1	BDO & EE,TWAD	Water Supply Pipe Line	Kms.	72.695	25.679	47.016	Work in progress
2	BDO of Concern Union	Hand Pump/Pump Room with Bore well	Nos.	24	16	8	
3	BDO of Concern Union	Over Head Tank	Nos.	15	13 Nos Completed	2	
4	TNEB	Electrical Lines	Kms.	6.83	5.78	1.05	

2.4. Tree felling

Table 2.4-1: Status of Tree felling

Sl.N o.	Name of the District	Chainages			Effected Length in Kms.	Completed as on Date	Balance as on Date	Balance no. of Trees	Remarks
		From	To	Length in Km					
1	Cuddalore	65+960	86+440	20.48	6.535	6.535	0	0	In addition of 123 nos of teak wood trees to be removed and Permission of the same is awaited from DFO, Cuddalore.
2	Ariyalur	86+440	106+860	20.42	8.385	8.385	0	0	
3	Thanjavur	106+860	116+440	9.58	2.515	2.515	0	0	
Total				50.48	17.435	17.435	0	0	

3. Progress Briefing – Contractor Activities

3.1. Pre-construction Activities

Detailed Design & Drawings

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

Table 3.1-1: Status of Design and Drawings-Highway

SI No.	Description	Unit	Total Scope As per Sch. B	Design Submitted	Drawing Approved
1	Pavement Design	Km	50.48	50.48	50.48
2	Plan & Profile	Km	50.48	50.48	50.48
3	Typical Cross Sections	Type	7	7	7
4	Major Intersections	No	07	05	-
5	Minor Intersections	No	100	14	-
6	Toll Plaza (Typical Details)	No	01	01	-
7	Service Roads	No	26.595	26.595	26.595

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

Sr. No	Description	Unit	Total Scope As per Sch. B	Design Submitted	Drawing Approved
1	Major Bridges	No	04	04	04
2	Minor Bridges	No	25	25	25
3	Grade Separated Intersection	No	08	08	08
4	VUP/LVUP	No	15	15	15
5	Box /Slab Culvert	No	60	60	60

4. Physical Progress of Work

4.1. Physical Progress of Work:

The Progress of the Major works carried out at the Site in the Month of March 2022 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.)	Work in Progress (In Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Clearing and Grubbing							
	LHS	47.28	40.620	0.000	40.620	0	6.660	85.91%
	RHS	47.28	39.530	0.000	39.530	0	7.750	83.61%
2	Embankment							
	LHS	47.28	32.130	0.420	32.550	0.680	14.730	68.85%
	RHS	47.28	31.680	0.030	31.710	1.170	15.570	67.07%
3	Subgrade							
	LHS	47.28	31.955	0.355	32.310	0.240	14.970	68.34%
	RHS	47.28	31.435	0.030	31.465	0.245	15.815	66.55%
4	GSB/ Cement Treated Base							
	LHS	47.28	30.265	0.420	30.685	0.100	16.595	64.90%
	RHS	47.28	30.365	0.000	30.365	0.100	16.915	64.22%
5	Wet Mix Macadam							
	LHS	47.28	29.965	0.390	30.355	0	16.925	64.20%
	RHS	47.28	29.745	0.130	29.875	0	17.405	63.19%
6	Dense Bitumen Macadam							
	LHS	47.28	29.055	0.950	30.005	0	17.275	63.46%
	RHS	47.28	29.345	0.410	29.755	0	17.525	62.93%
7	Bituminous Concrete							
	LHS	47.28	28.525	0.550	29.075	0	18.205	61.50%
	RHS	47.28	28.955	0.410	29.365	0	17.915	62.11%

For Service Road

Sr. No.	Description	Total Length of Service Road (in Km.)	Progress up to Previous Month (in Km.)	Progress during this Month (in Km.)	Cumulative Progress Achieved up to this Month (in Km.)	Work in Progress (in Km.)	Balance Length to be Completed	Cumulative % of Progress Achieved
1	Embankment	53.19	28.920	0.000	28.920	2.970	24.270	54.37%
2	Sub grade	53.19	26.350	0.820	27.170	1.750	26.020	51.08%
3	GSB/Cement Treated Base	53.19	25.130	1.070	26.200	0.100	26.990	49.26%
4	Wet Mix Macadam	53.19	24.120	0.240	24.360	0	28.830	45.80%
5	Dense Bitumen Macadam	53.19	23.500	0.530	24.030	0	29.160	45.18%
6	Bituminous Concrete	53.19	18.940	1.350	20.290	0	32.900	38.15%

Structure Work

Sr. No.	Type of Structure	Total No. of Structures	Nos. of Structures		
			Completed	Work in Progress	Balance to be taken up
1	Culvert	60	45.75	9.25	5
2	Light Vehicular Underpass	2	1	0	1
3	Vehicular Underpass	13	8.00	5.00	0
4	Minor Bridges	25	21.50	3.50	0
5	Major Bridge	4	0	4	0
6	Flyover	8	5.50	1.50	1

The Physical Progress of the Project up to March 2022 as per Approved Schedule G is as follows:-

Component	Item Description	Unit	Planned in Scope (As per Scope of Work)	Cost Weightage in Component (%)	Progress till Date	% Physical Progress	Remarks
1	2	3	4	5	6	7	
Road works including culverts, minor bridges, underpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads)	A- Widening and strengthening of existing road						
	(1) Earthwork up to top of the sub-grade	Km	66.96	9.517%	45.335	6.443%	
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB/ Cement Treated Base	Km	65.52	3.373%	45.230	2.328%	
	(b) WMM/ Cement Treated Base	Km	65.52	4.046%	44.760	2.764%	
	(3) Shoulders	Km	17.65	0.112%	16.625	0.106%	
	(4) Bituminous work						
	(a) DBM	Km	65.52	3.344%	44.600	2.276%	
	(b) BC	Km	65.52	3.023%	43.340	2.000%	
	(5) Rigid Pavement						
	(6) Widening and repair of culverts	Nos	16	0.440%	11.650	0.320%	
	(7) Widening and repair of minor bridges	Nos	4	0.959%	3.700	0.887%	
	B- New realignment/bypass						
	(1) Earthwork up to top of the sub-grade	Km	28.68	6.437%	18.440	4.139%	
	(2) Granular work (sub-base, base, shoulders)						
	(a) GSB/ Cement Treated Base	Km	28.68	1.615%	15.820	0.891%	
	(b) WMM/ Cement Treated Base	Km	28.68	1.436%	15.470	0.775%	
	(3) Shoulders	Km	24.63	0.112%	11.210	0.051%	
	(4) Bituminous work						
	(a) DBM	Km	28.68	1.279%	15.160	0.676%	
	(b) BC	Km	28.68	1.158%	15.100	0.610%	
	(5) Rigid Pavement						

C- New culverts, minor bridges, underpasses, overpasses on existing road, realignments, bypasses:						
(1) Culverts	Nos	44	2.070%	34.10	1.604%	
(2) Minor bridges						
(a) Foundation	Nos	58	3.953%	54.00	3.680%	
(b) Substructure	Nos	134	2.623%	106.00	2.075%	
(c) Superstructure (including crash barrier etc. complete)	Nos	50	1.559%	35.60	1.110%	
(3) Cattle/Pedestrian underpasses						
(a) Foundation	Nos					
(b) Substructure	Nos					
(c) Superstructure (including crash barrier etc. complete)	Nos					
(4) Pedestrian overpasses						
(a) Foundation	Nos					
(b) Substructure	Nos					
(c) Superstructure (including crash barrier etc. complete)	Nos					
(5) Grade separated structures						
(a) Underpass (13 VUP, 2 LVUP)						
(i) Foundation	Nos	56	2.574%	50.00	2.298%	
(ii) Substructure	Nos	60	0.751%	50.00	0.626%	
(iii) Superstructure (including crash barrier etc. complete)	Nos	30	1.289%	18.00	0.773%	
(b) Overpass						
(i) Foundation						
(ii) Substructure						
(iii) Superstructure (including crash barrier etc. complete)						
(c) Flyover						
(i) Foundation	Nos	36	2.426%	30.00	2.021%	
(ii) Substructure	Nos	36	0.470%	30.00	0.392%	
(iii) Superstructure (including crash barrier etc. complete)	Nos	20	1.244%	14.00	0.871%	

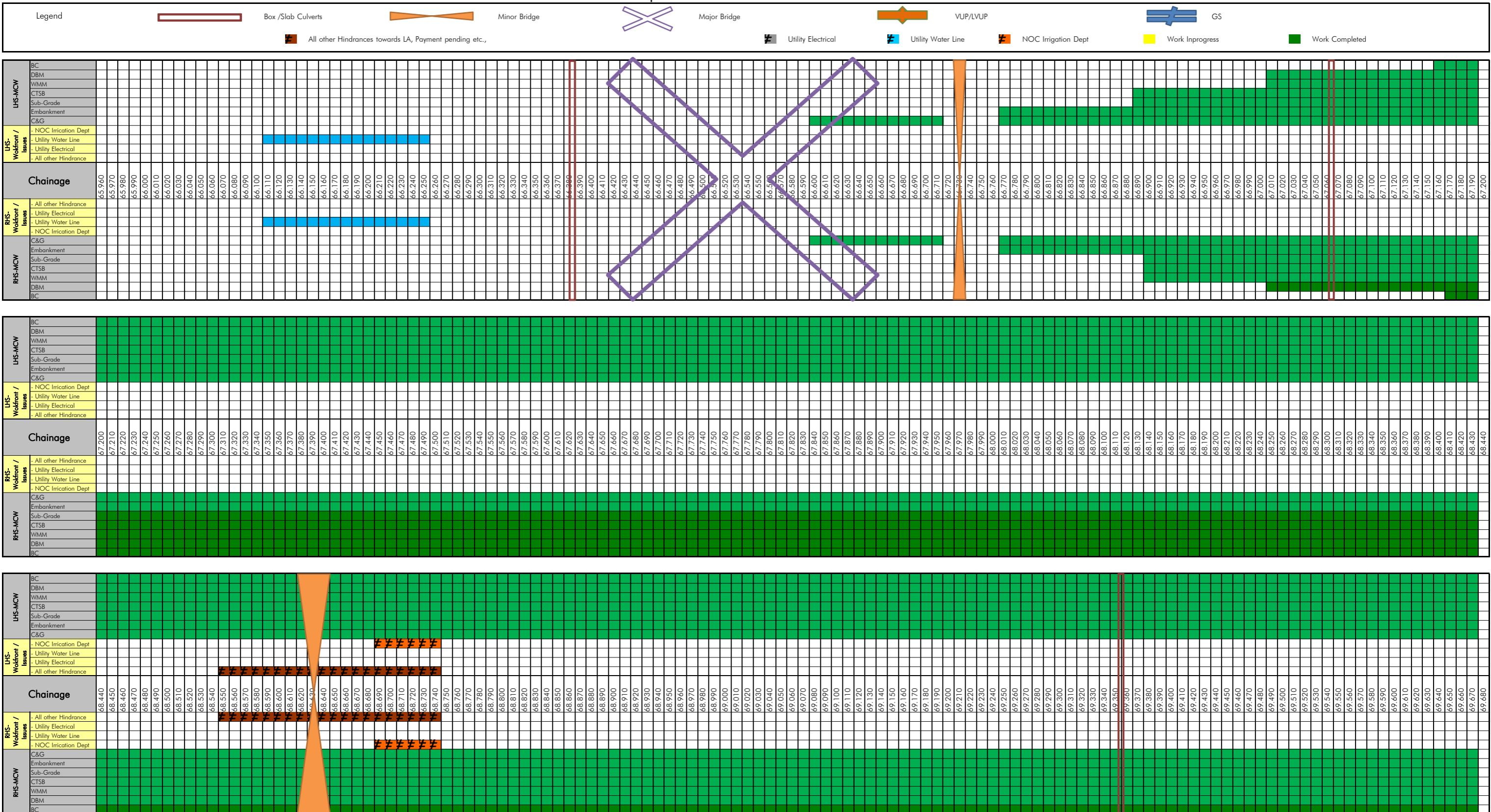
	(d) Foot over Bridge					
Major Bridge works and ROB/RUB	A- Widening and repairs of Major Bridges					
	(1) Foundation					
	(a) Open Foundation					
	(b) Pile Foundation/ Well Foundation					
	(2) Sub-structure					
	(3) Super-structure (including crash barriers etc. complete)					
	C- New Major Bridges					
	(1) Foundation					
	(a) Open Foundation					
	(b) Pile Foundation/ Well Foundation					
	(i) Foundation	Nos	84	9.699%	77.00	8.891%
	(2) Sub-structure	Nos	84	4.576%	64.00	3.486%
	(3) Super-structure (including crash barriers etc. complete)					
	(i) For MJB at Km. 107+400					
	(a) Casting of Superstructure (Box Segment)	Nos	666	1.450%	624.00	1.359%
	(b) Erection of Superstructure (Box Segment)	Nos	666	1.050%	163.00	0.257%
	(i) For other Major Bridges					
	(a) Super-structure (including crash barriers etc. complete)	Nos	37	2.500%	13.60	0.919%
	D- New rail-road bridges					
	(a) ROB					
	(1) Foundation	Nos				
	(2) Sub-structure	Nos				
	(3) Super-structure (including crash barriers etc. complete)	Nos				
	(b) RUB					
	(1) Foundation	Nos				
	(2) Sub-structure	Nos				
	(3) Super-structure (including crash barriers etc. complete)	Nos				

Structures (elevated sections, reinforced earth)	A- Elevated Structures						
	(1) Foundation	Nos					
	(2) Sub-structure	Nos					
	(3) Super-structure (including crash barriers etc.)	Nos					
Other Works	B- Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses,Flyover etc)	Sqm	196027	7.604%	39,571	1.535%	Only RE Block Erection Quantity is considered
	(i) Service roads/ Slip Roads	Km	53.19	4.690%	20.290	1.789%	
	(ii) Toll Plaza	Nos	1	1.821%			
	(iii) Road side drains	Km	28.85	5.429%	6.455	1.215%	
	(iv) Road signs, markings, km stones, safety devices,						
	(a) Road signs, markings, km stones, ...	Km	100.96	2.558%	56.690	1.437%	
	(b) Concrete Crash Barrier/ W- Beam Crash Barrier in Road work						
	(i) Concrete Crash Barrier	Km	26.5	1.179%	4.680	0.208%	
	(ii) W-Beam Crash Barrier	Km	10.03	0.788%			
	(v) Project facilities						
	(a) Bus Bays	No.	18	0.009%	4.000	0.002%	
	(b) Truck Lay-byes	No.					
	(c) Rest areas	No.					
	(vi) Repairs to bridges/structures	Nos					
	(vii) Road side plantation	Km	23.66	0.451%			
	(viii) Protection works						
	(a) Boulder pitching on slopes	Km	10.03	0.218%			
	(b) Toe/Retaining wall	Km	10.03				
	(x) Miscellaneous	Ls.	100%	0.164%	0.098%	0.098%	
	Total			100.00%		60.914%	

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

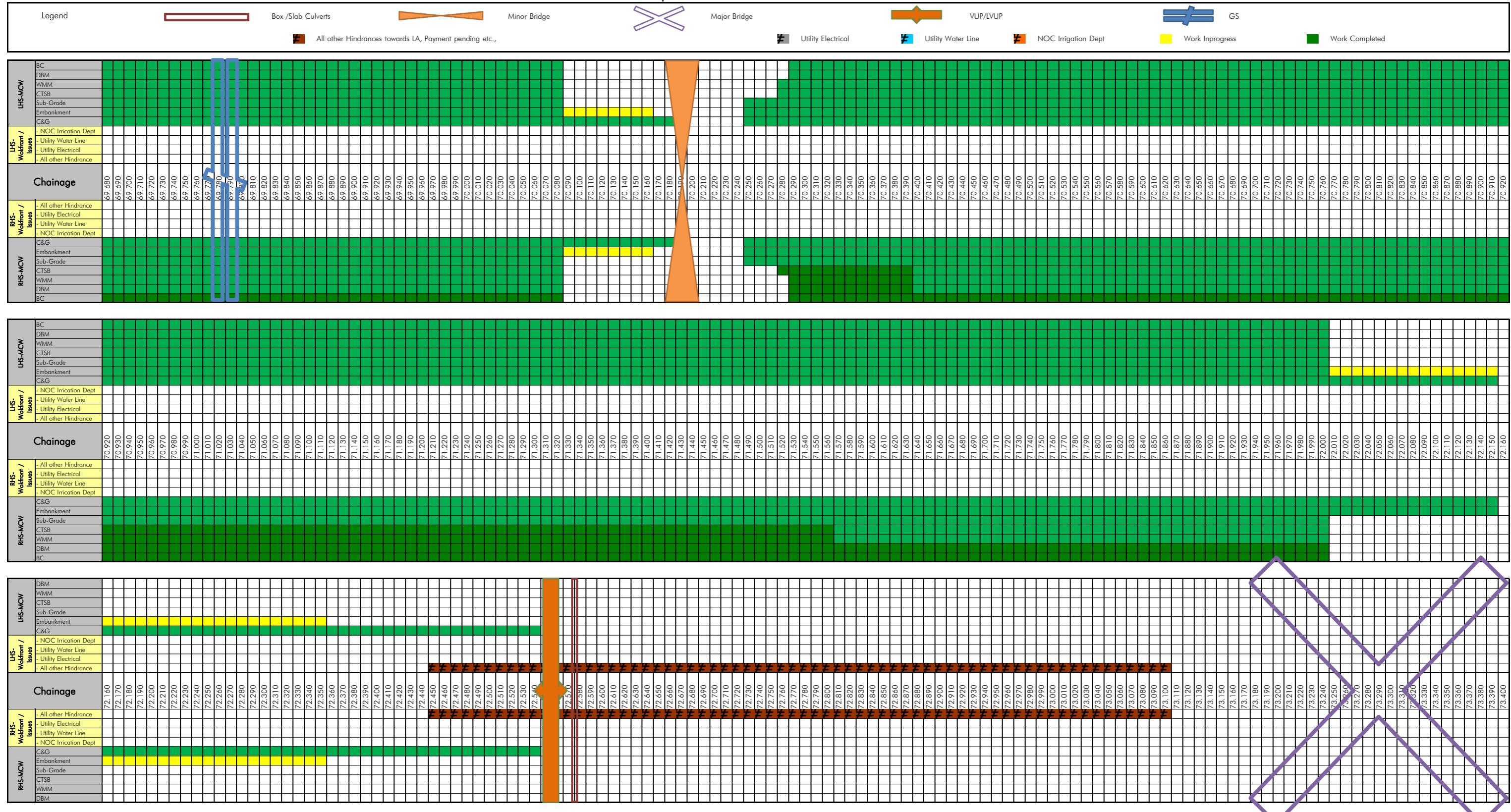
Sethiyahopu - Cholapuram Road Projects

Strip Plan for MCW as on 31.03.2022



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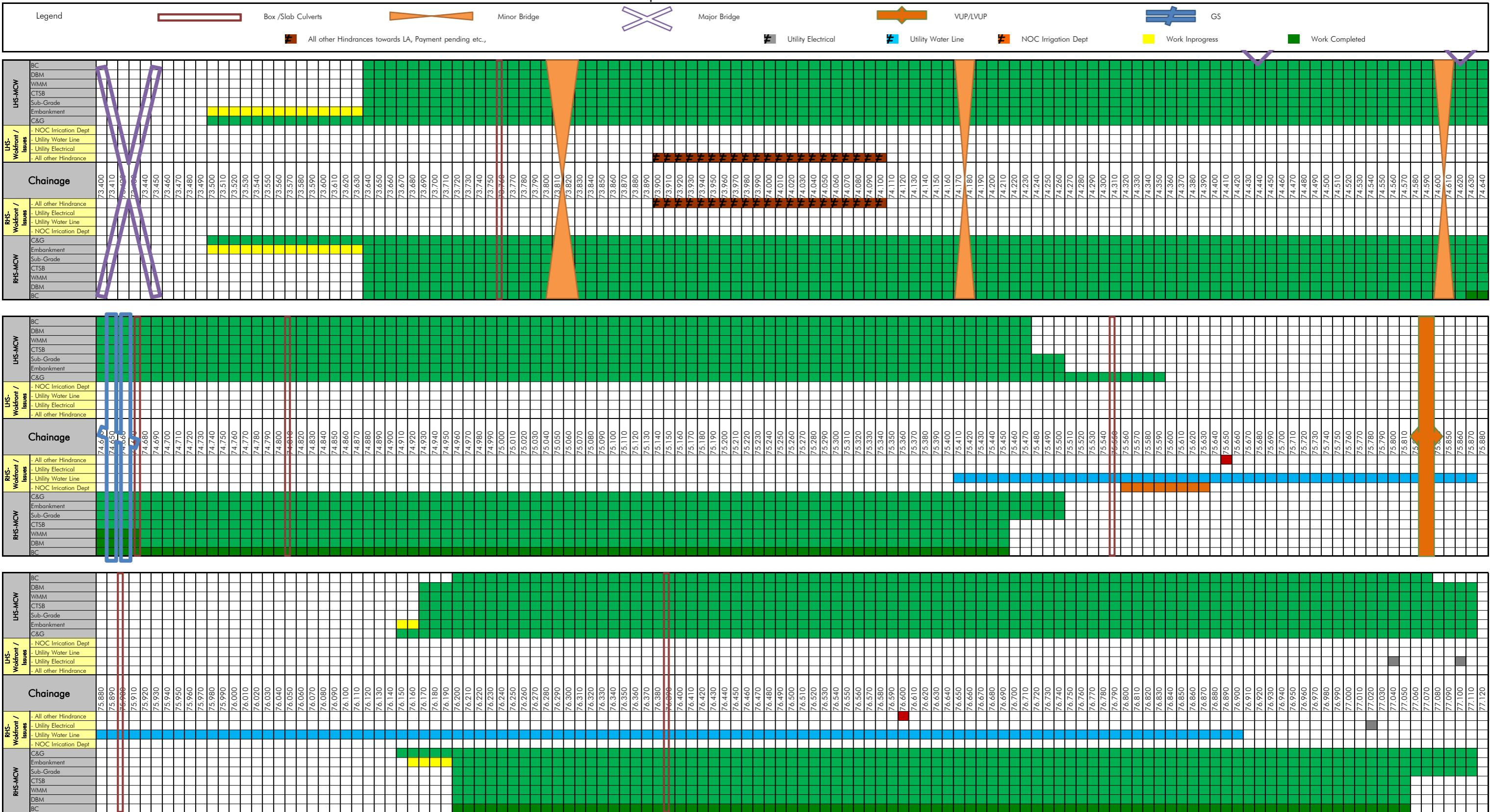
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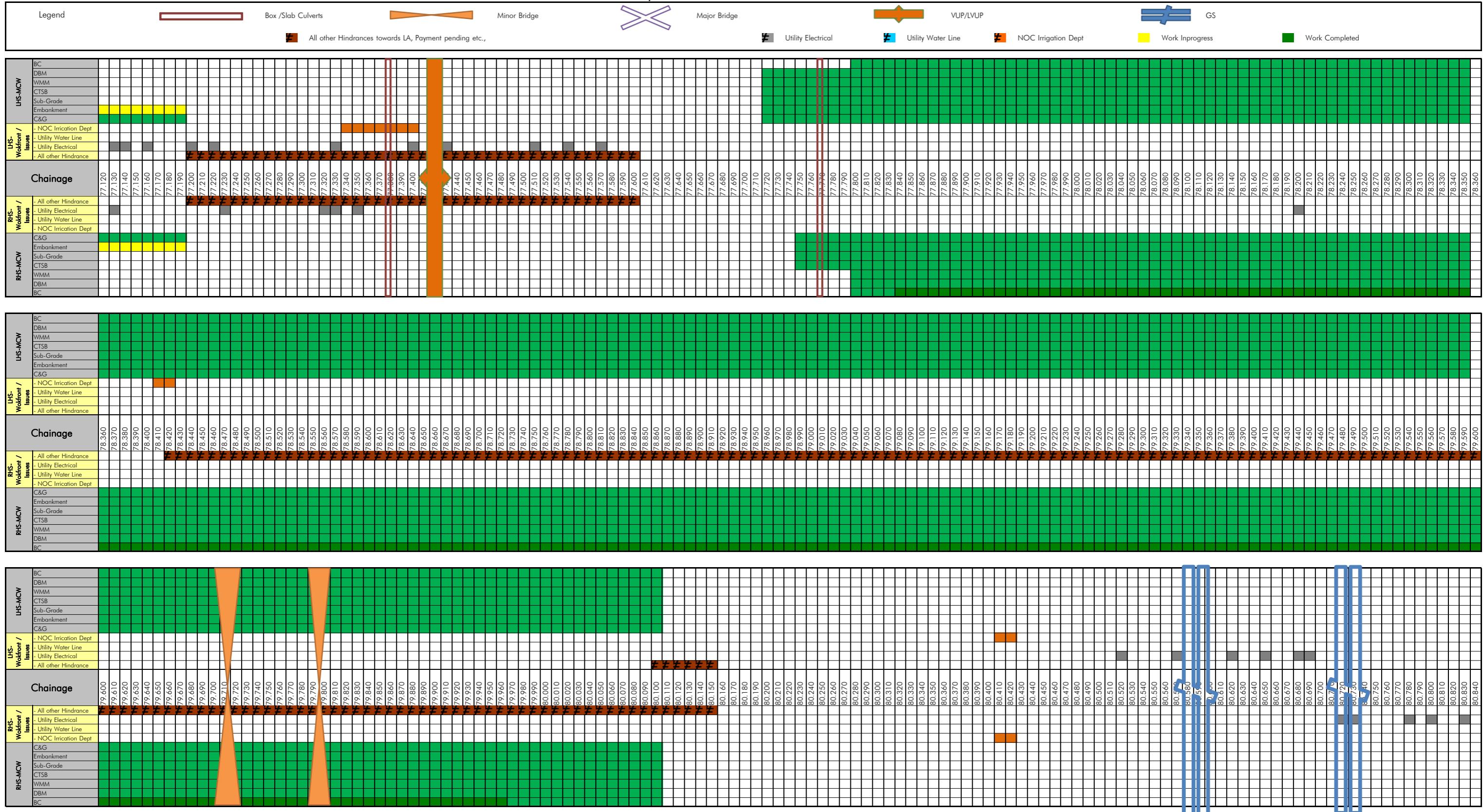
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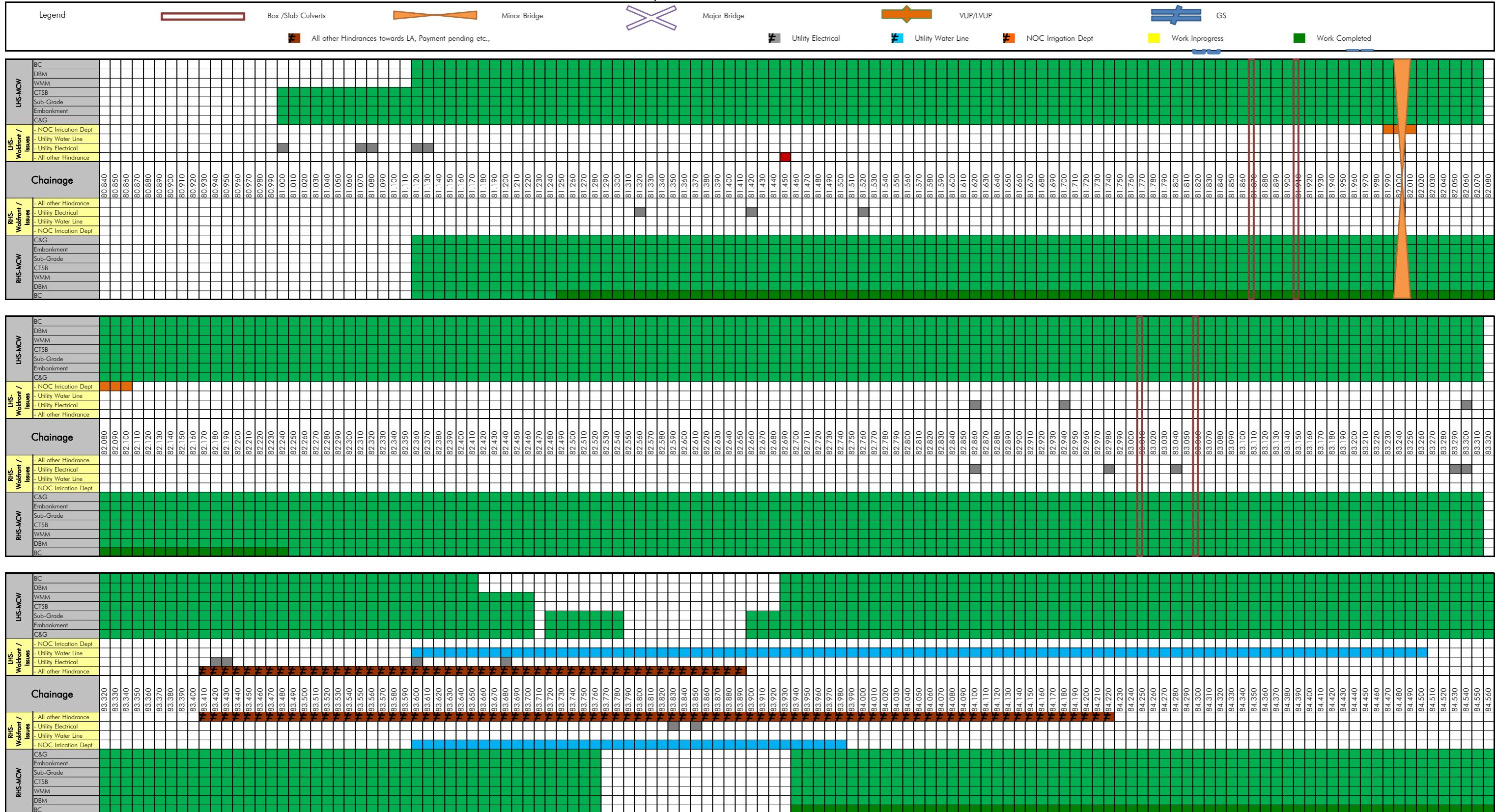
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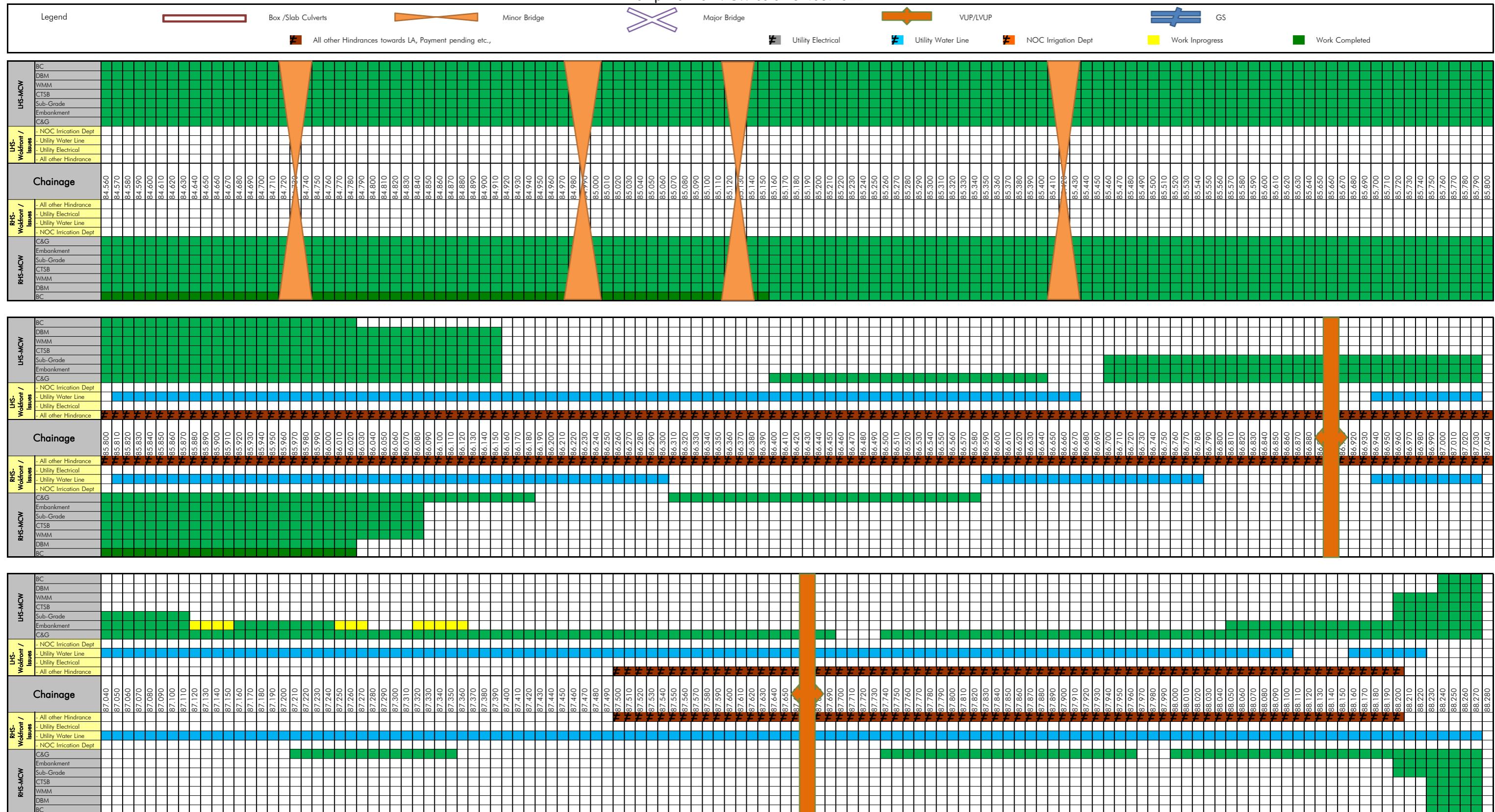
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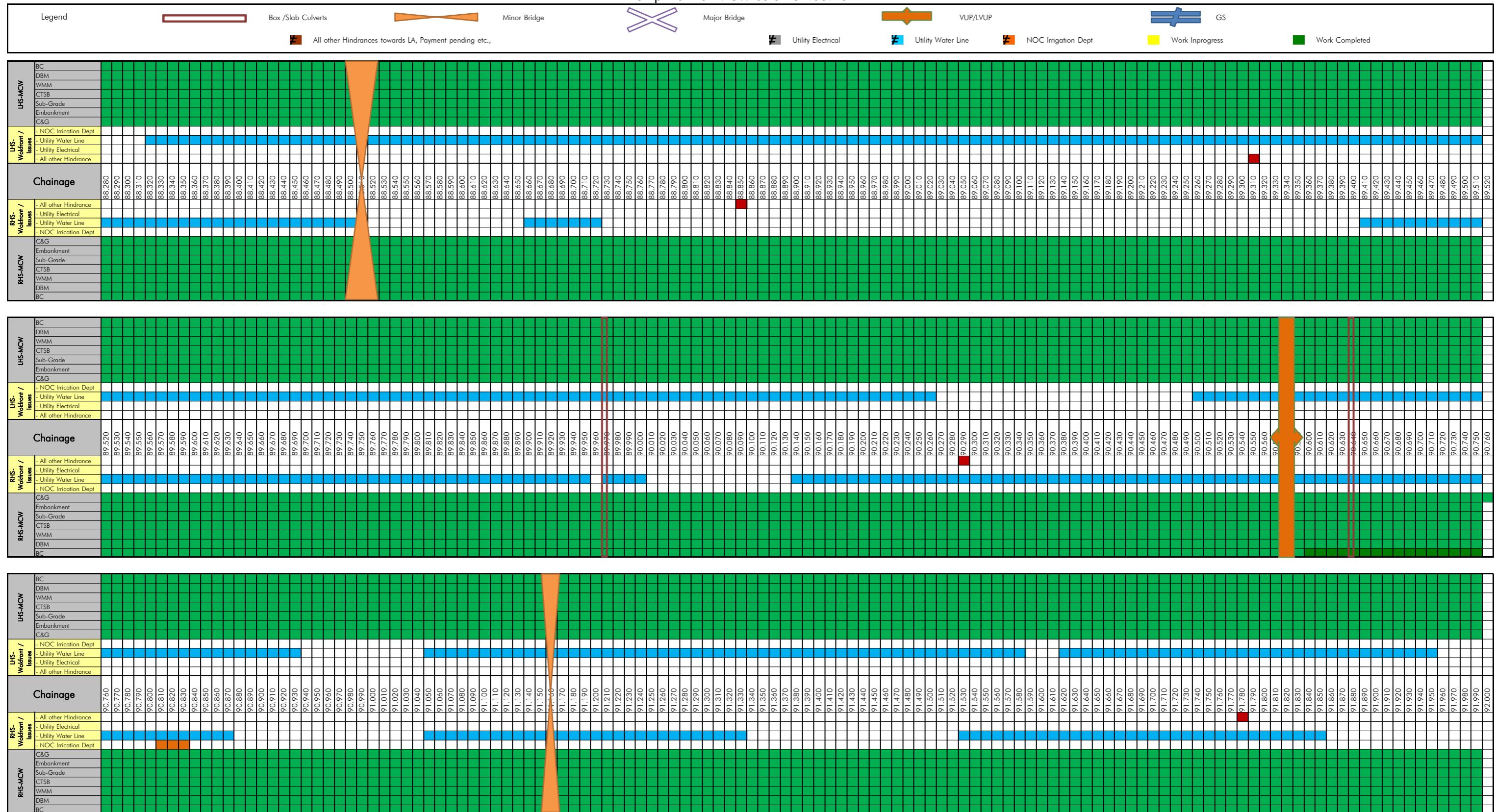
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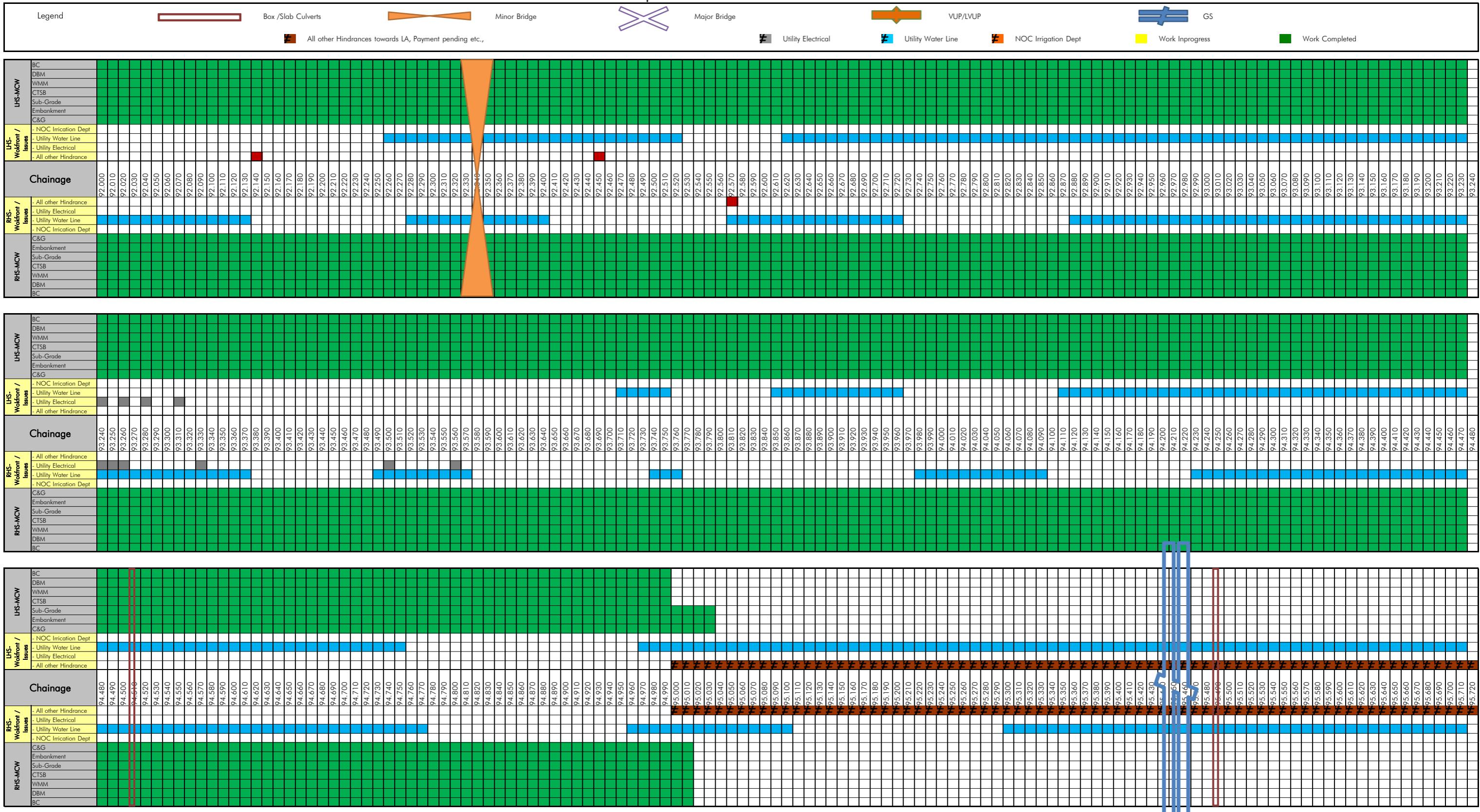
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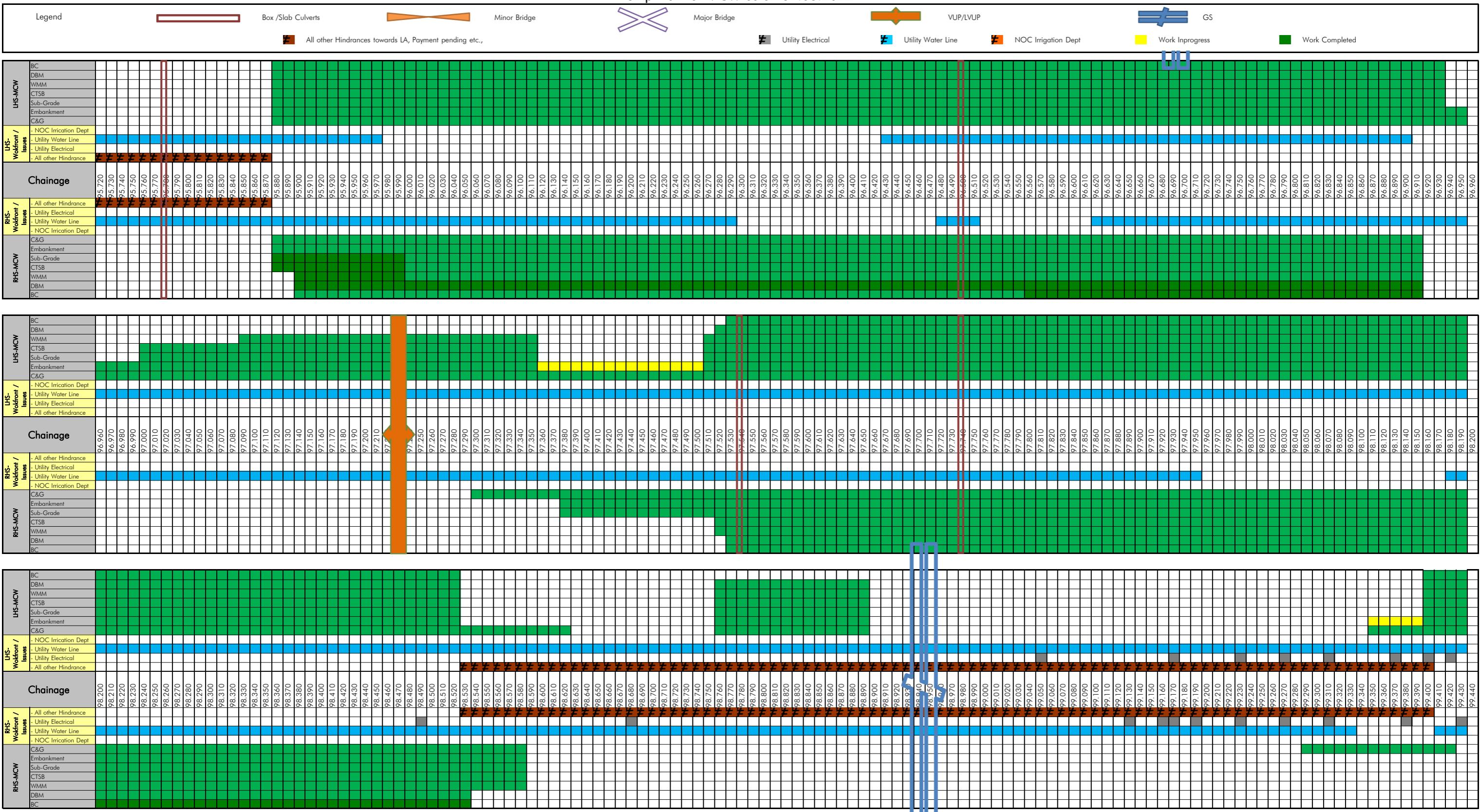
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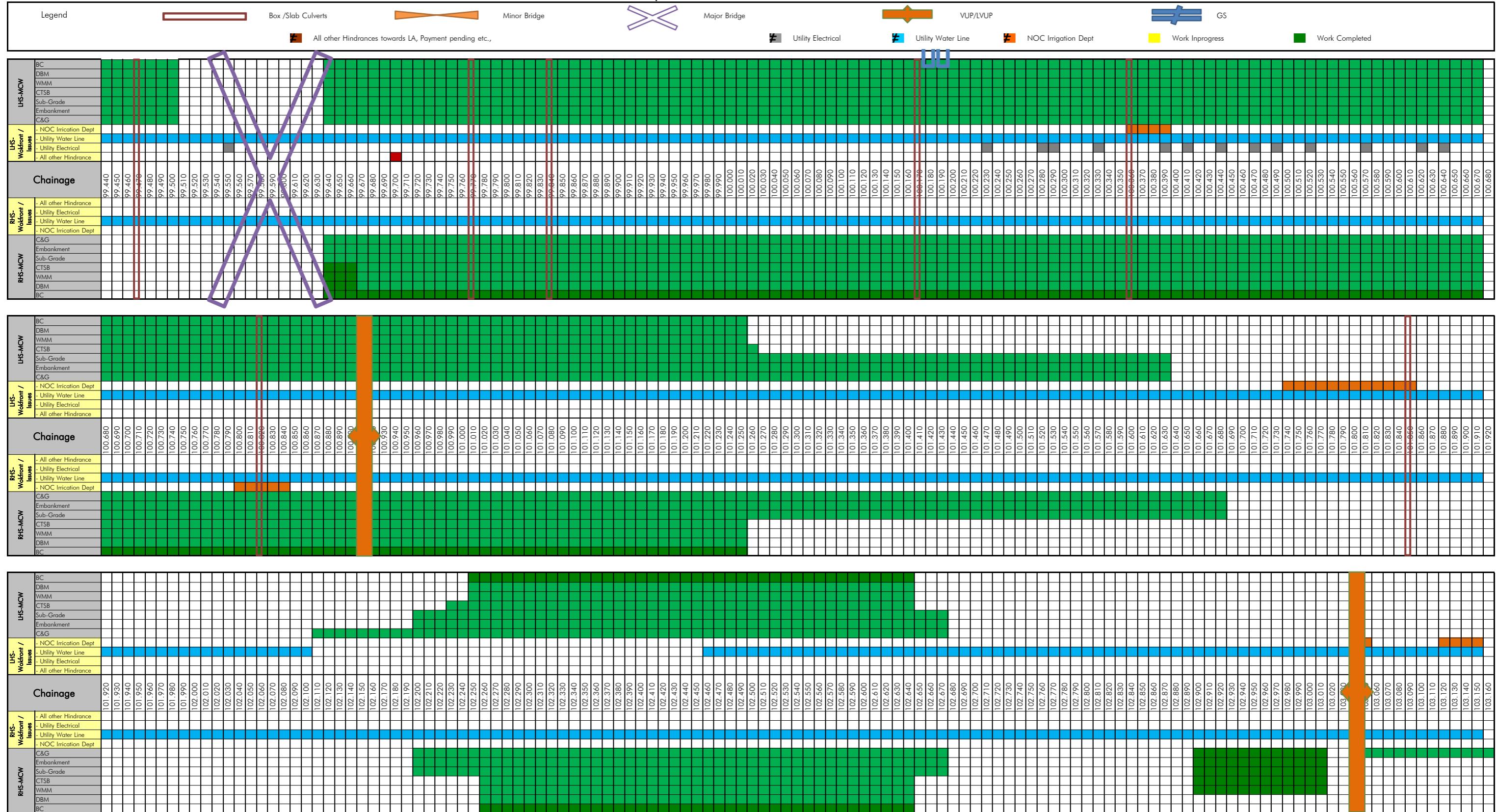
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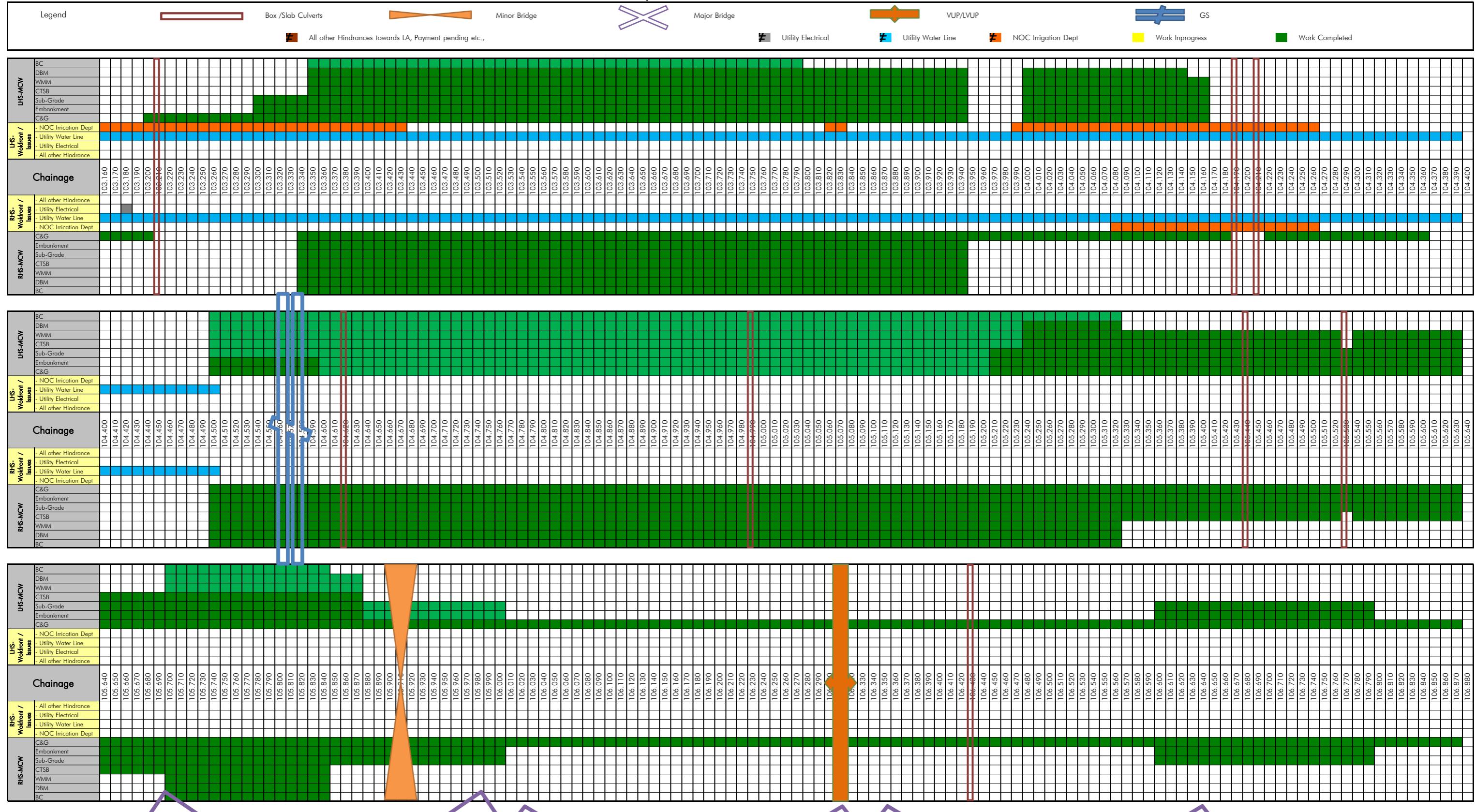
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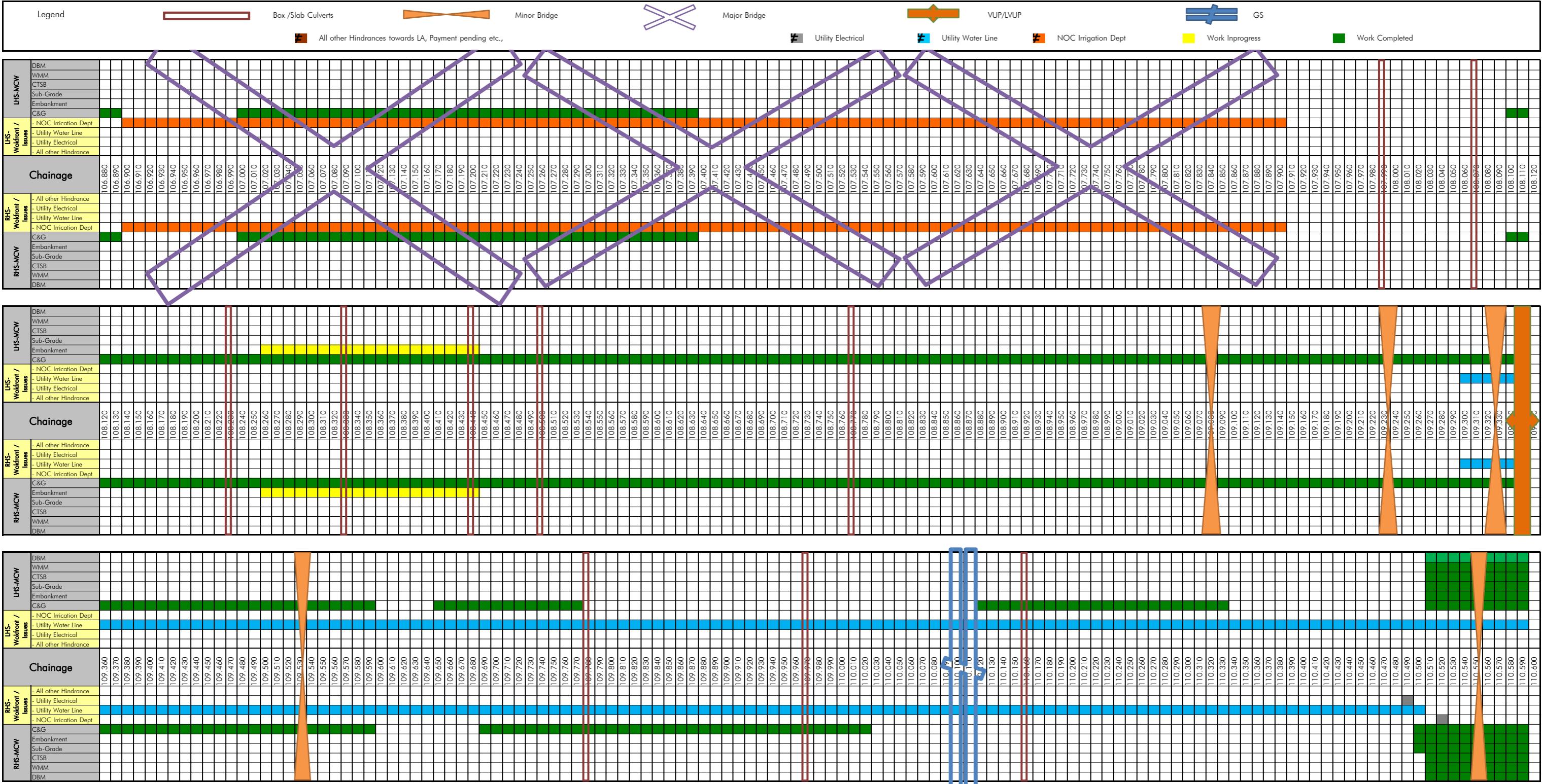
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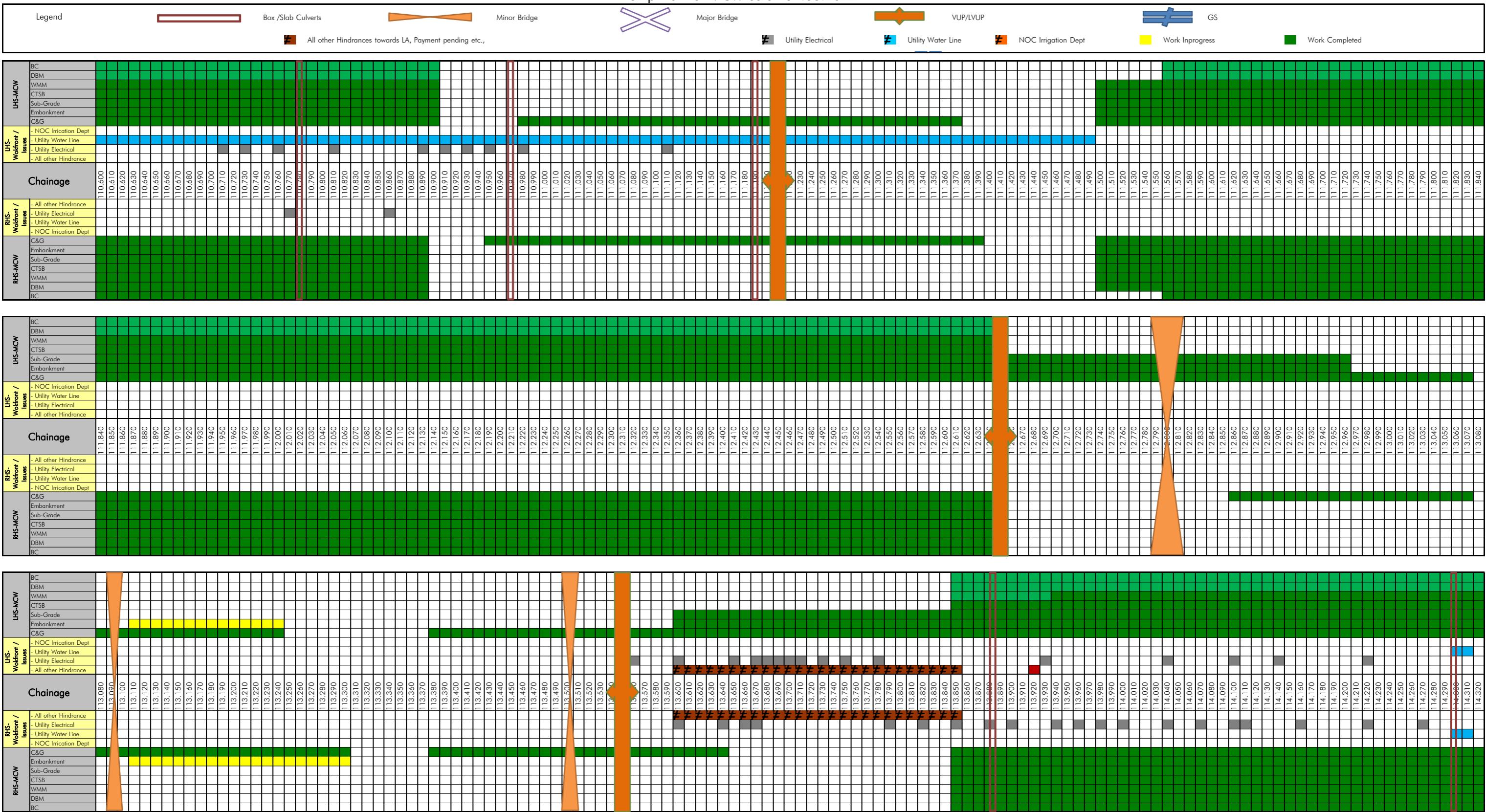
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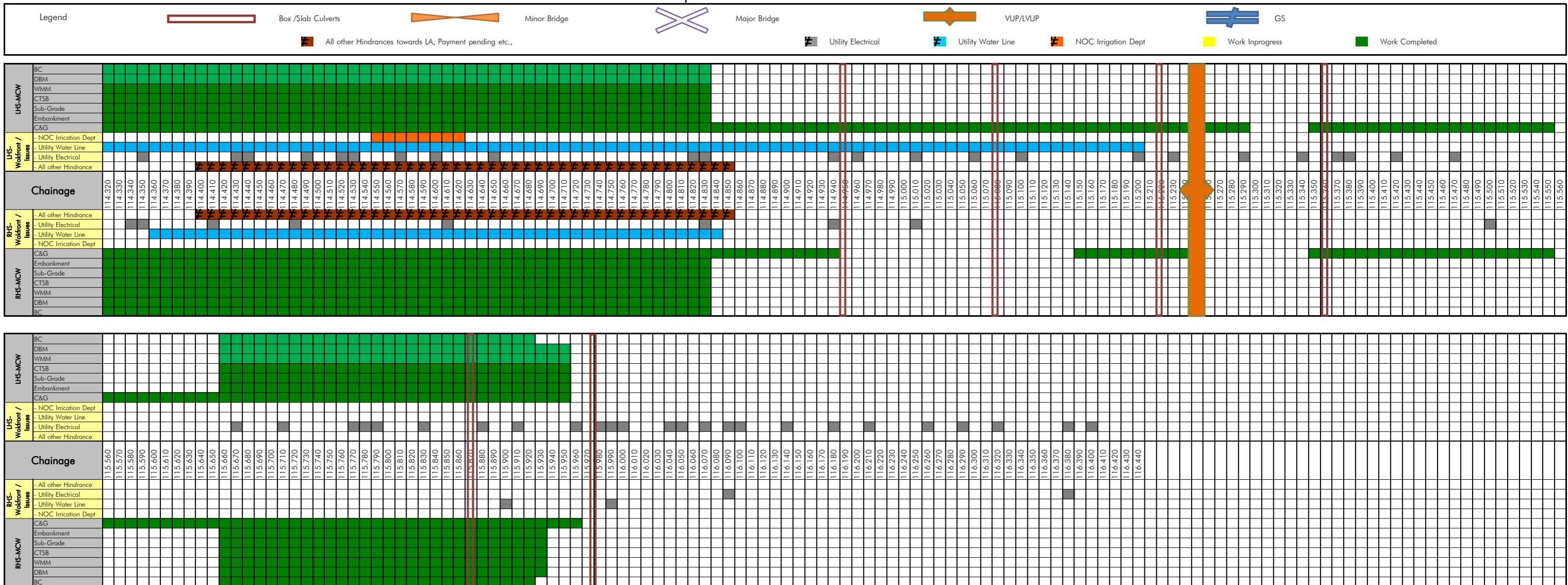
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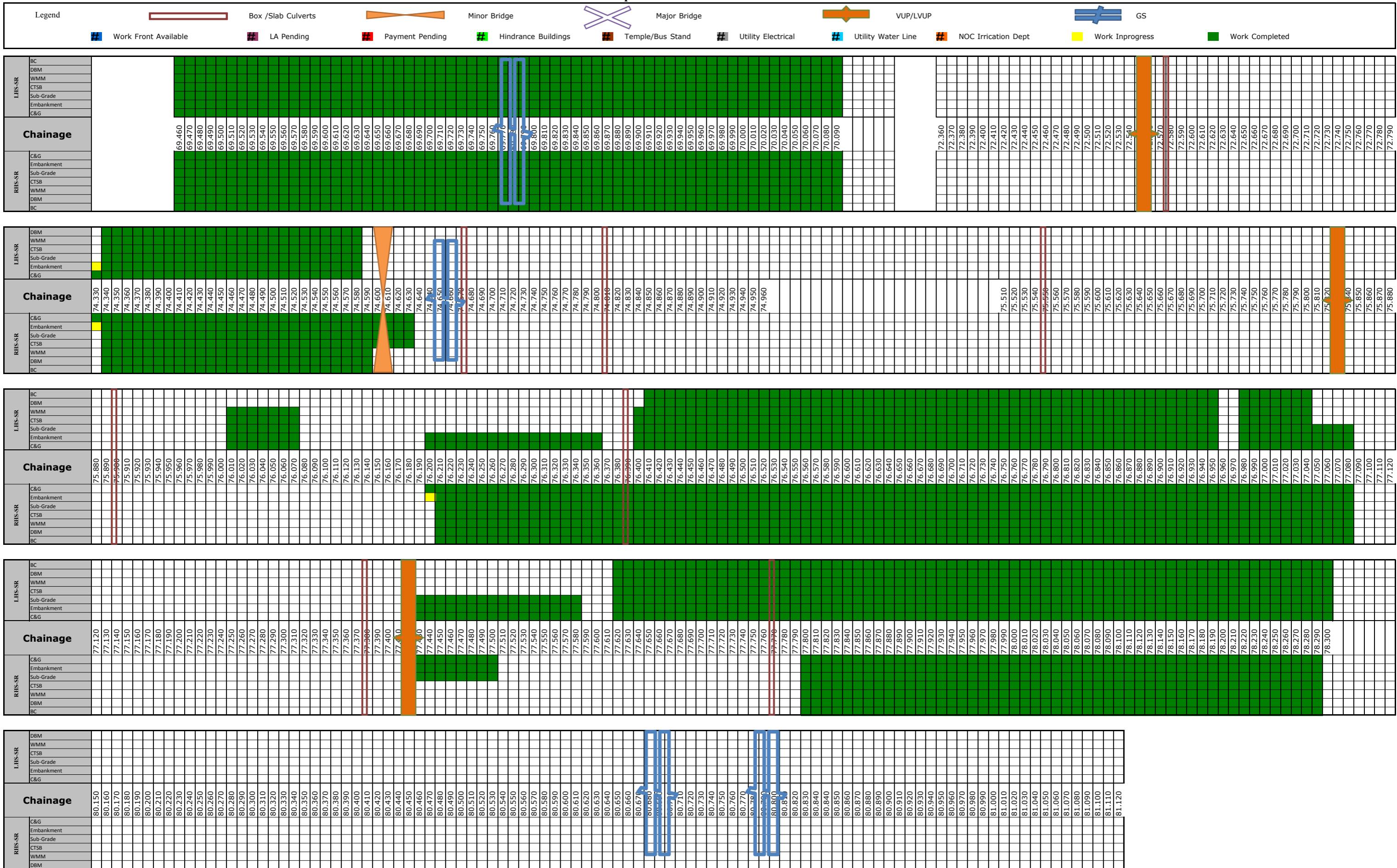
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Sethiyahopu - Cholapuram Road Projects

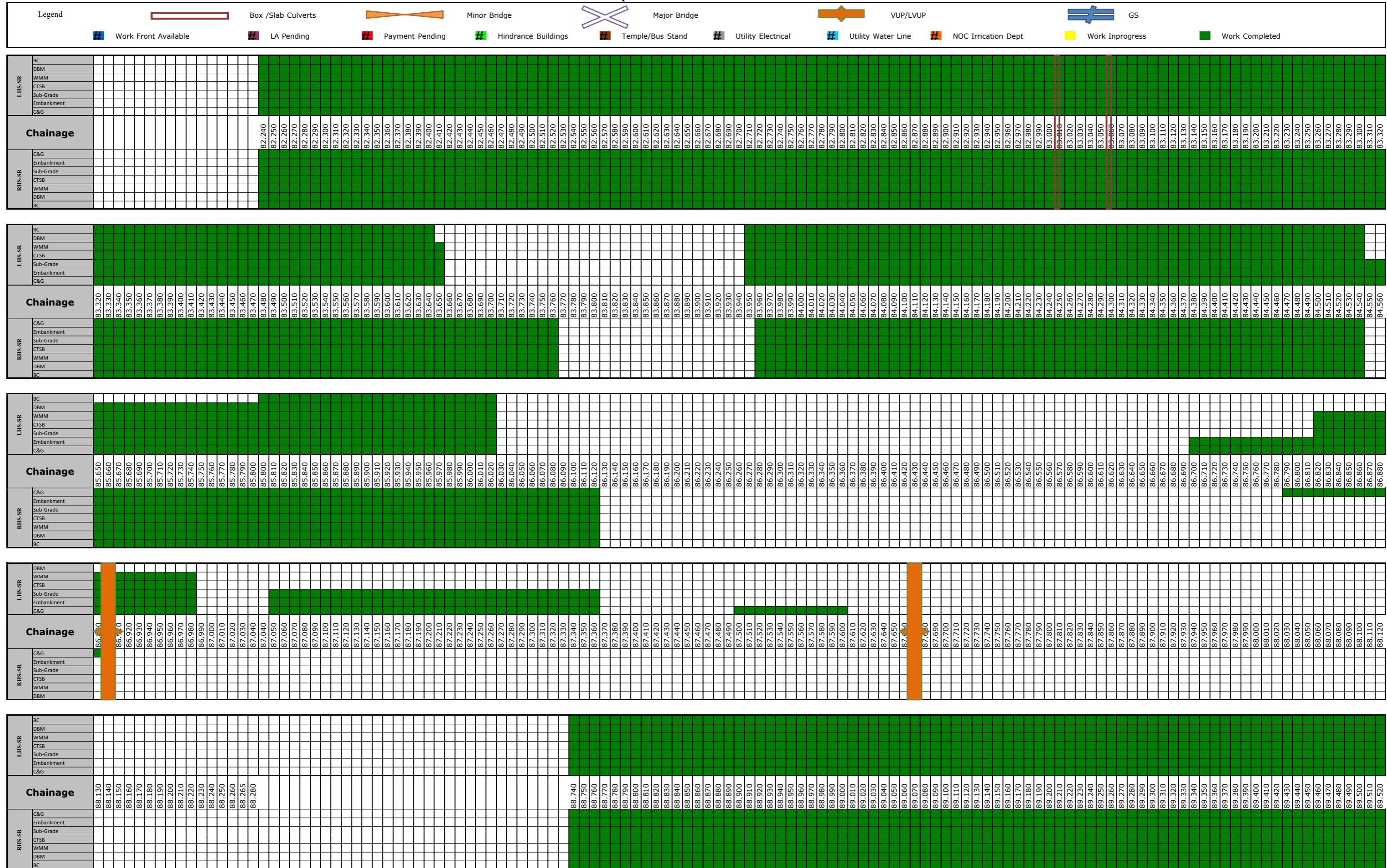
Strip Plan for SR as on 31.03.2022



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

Sethiyahopu - Cholopuram Road Projects

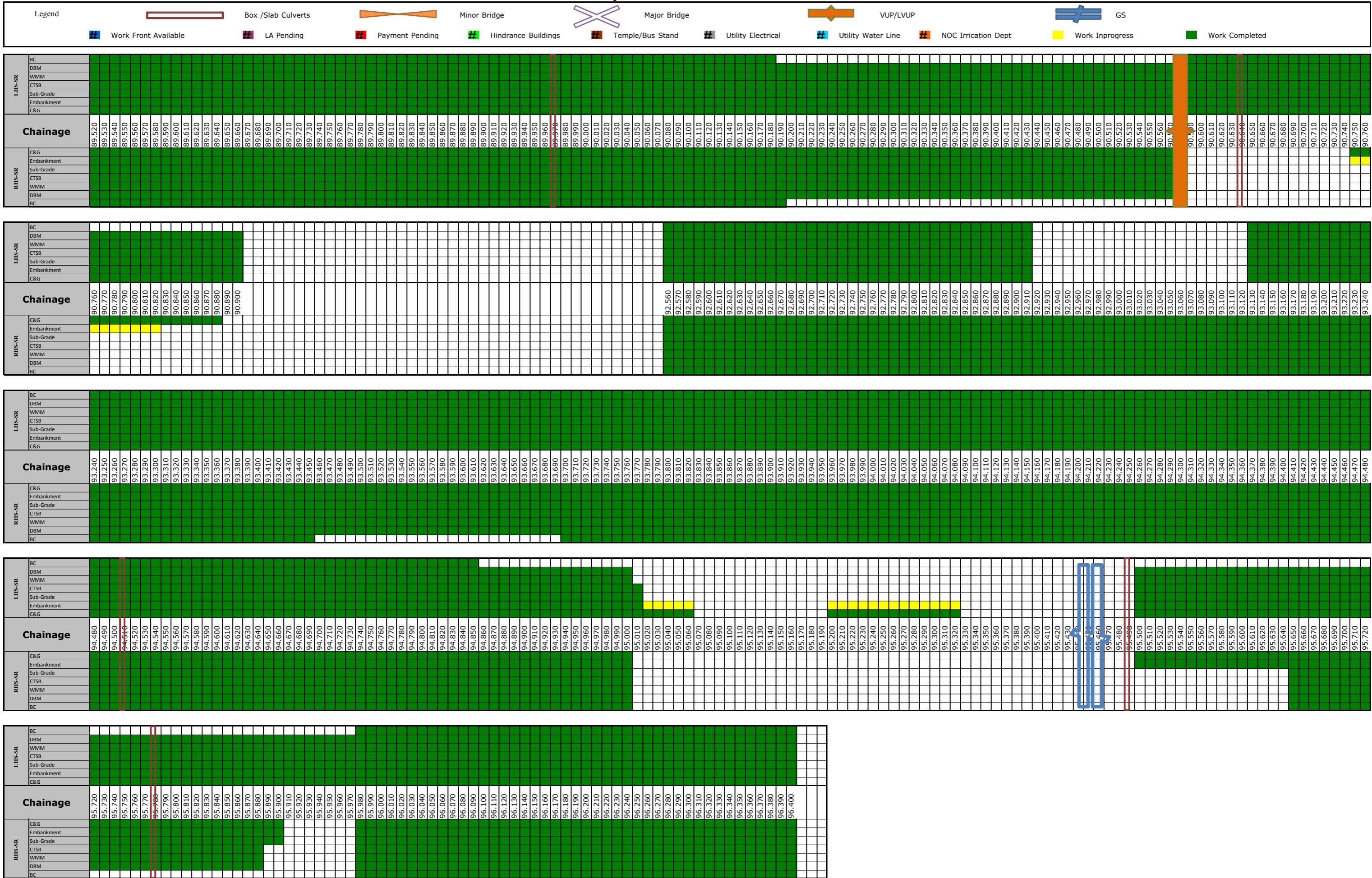
Strip Plan for SR as on 31.03.2022



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

Sethiyahopu - Cholapuram Road Projects

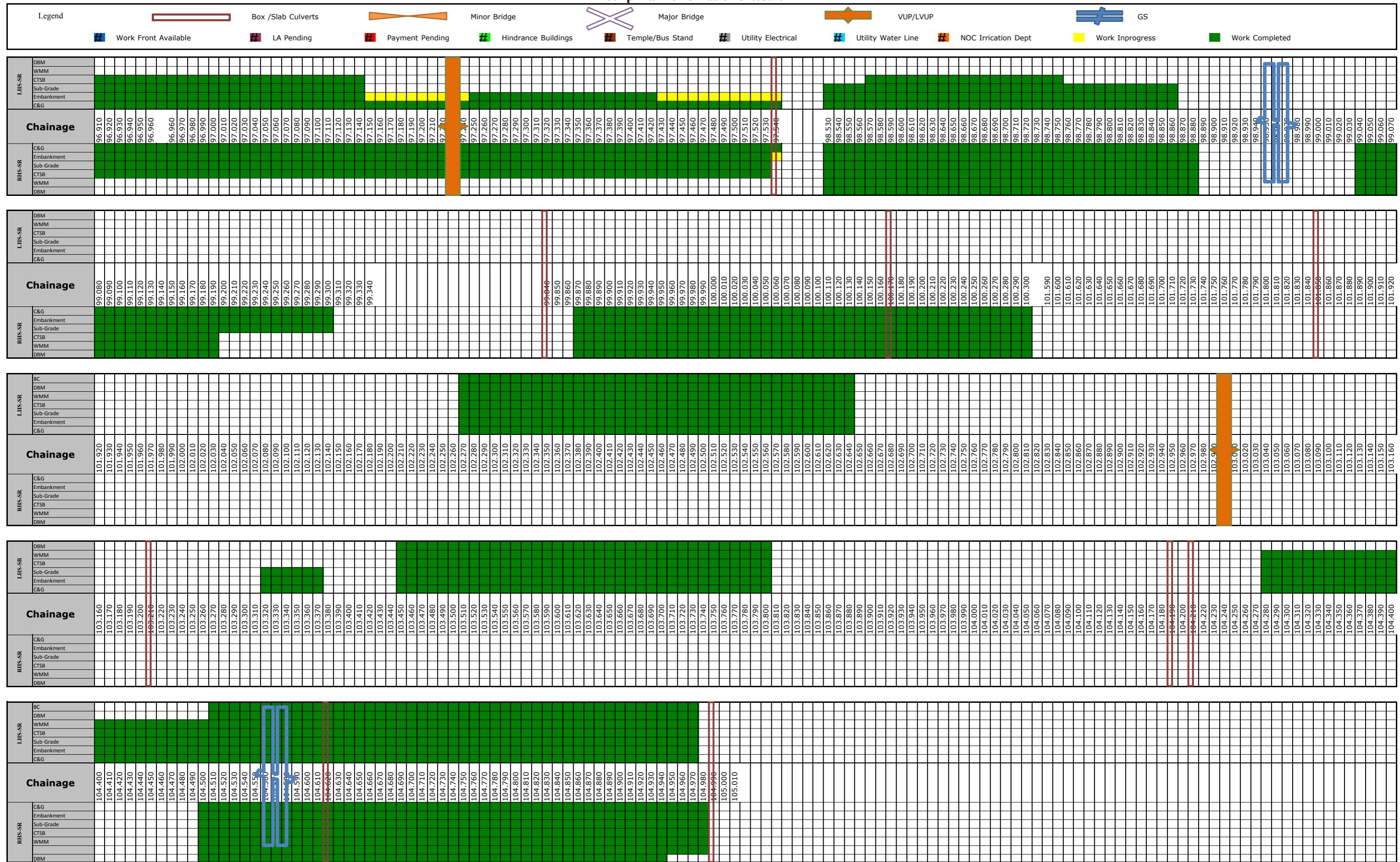
Strip Plan for SR as on 31.03.2022



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

Sethiyahopu - Cholapuram Road Projects

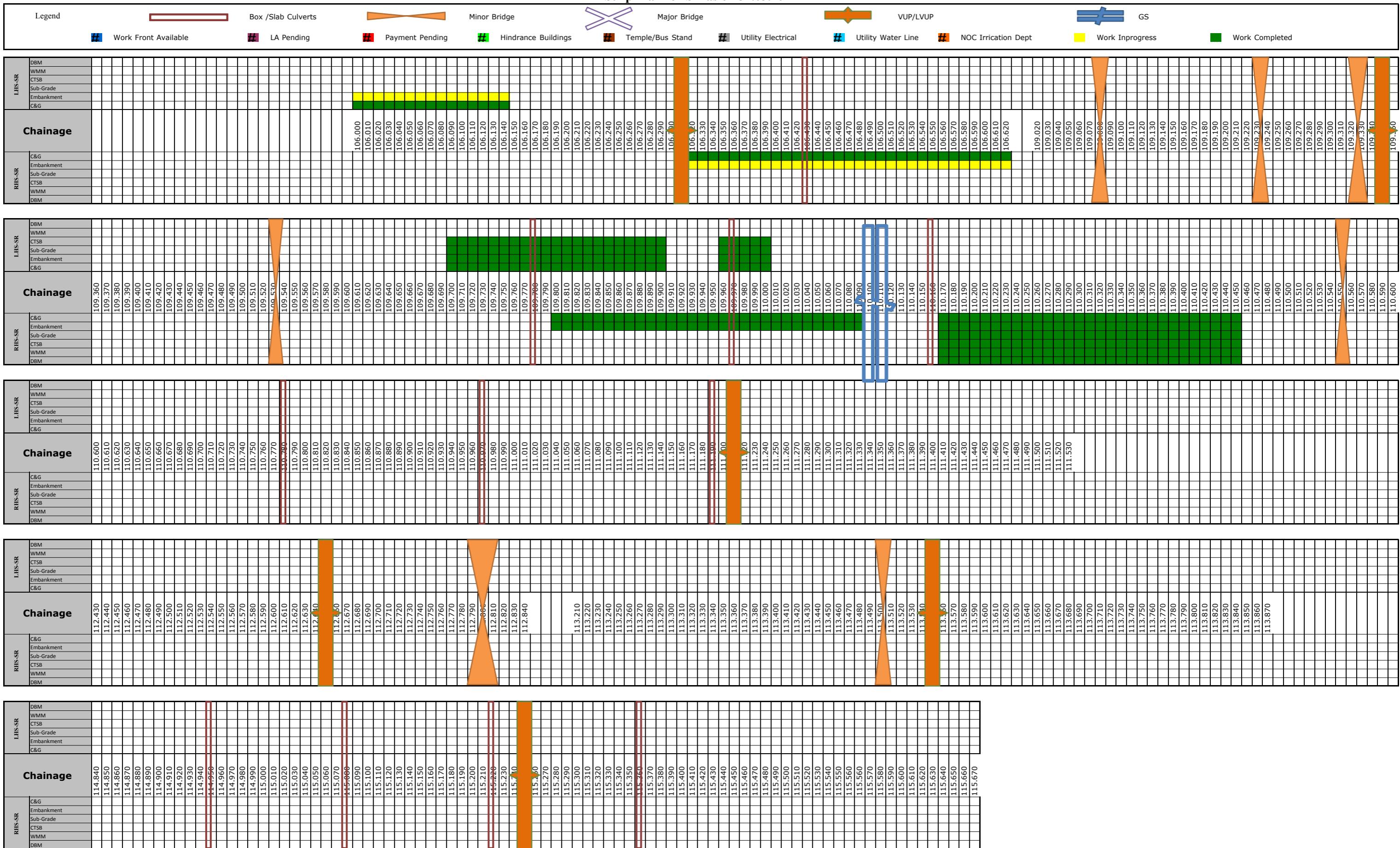
Strip Plan for SR as on 31.03.2022



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

Sethiyahopu - Cholapuram Road Projects

Strip Plan for SR as on 31.03.2022



SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - MCW							Completed					In Progress										
Status Upto	31.03.2022						LHS					RHS										
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work
1	74+675	74.670	EXISTING	1 x 3.0m x 2.0m	New Construction	BOX CULVERT																
2	74+800	74.808	EXISTING	1 x 1.20m	Reconstruction	BOX CULVERT																
3	75+558	75.555	EXISTING	1x3.0m	Reconstruction	BOX CULVERT																
4	75+902	75.897	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
5	76+390	76.387	EXISTING	1 x 3.0m	Reconstruction	BOX CULVERT																
6	77+382	77.379	EXISTING	1 x 4.0m	Reconstruction	BOX CULVERT																
7	77+767	77.764	EXISTING	1 x 2.0m	Widening	BOX CULVERT																
8	81+868	81.867	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
9	81+913	81.910	EXISTING	1 x 1.95m x 1.0m	Widening	BOX CULVERT																
10	83+012	83.007	EXISTING	2 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
11	83+065	83.062	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
12	89+973	89.969	EXISTING	4 x 0.75m	Widening	BOX CULVERT																
13	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	BOX CULVERT																
14	94+509	94.509	EXISTING	1 x 3.6m x 1.6m	Widening	BOX CULVERT																
15	95+495	95.490	EXISTING	1 x 1.2m x 0.9m	Reconstruction	BOX CULVERT																
16	95+794	95.787	EXISTING	1 x 1.20m	Reconstruction	BOX CULVERT																
17	96+511	96.505	EXISTING	1 x 5.0m	Reconstruction	BOX CULVERT																
18	97+530	97.534	EXISTING	1x2.0m	Reconstruction	BOX CULVERT																
19	97+742	97.738	EXISTING	1 x 3.0m x 1.0m	Widening	BOX CULVERT																
20	99+471	99.467	EXISTING	1 x 3.0m x 4.0m	Repair & Widening	BOX CULVERT																
21	99+776	99.769	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																
22	99+840	99.838	EXISTING	1 x 1.5m x 1.5m	Repair & Widening	BOX CULVERT																
23	100+177	100.173	EXISTING	1 x 1m	Repair & Widening	BOX CULVERT																
24	100+364	100.358	EXISTING	1 x 10m	Repair & Widening	BOX CULVERT																
25	100+823	100.817	EXISTING	1 x 3.5m x 2.5m	Repair & Widening	BOX CULVERT																
26	101+851	101.851	EXISTING	1 x 1.5m x 1.5m	Repair & Reconstruction	BOX CULVERT																
27	103+220	103.214	EXISTING	1 x 4.0m x 2.5m	Repair & Reconstruction	BOX CULVERT																
28	104+197	104.190	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT																
29	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	BOX CULVERT																
30	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT																
31	109+975	109.967	EXISTING	1 x 2.0m x 1.7m	Repair & Reconstruction	BOX CULVERT																
32	110+167	110.160	EXISTING	2 x 1.0m	Repair & Reconstruction	BOX CULVERT																
33	110+402		EXISTING	1 x 1.5m		BOX CULVERT																
34	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT																
35	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT																
36	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	BOX CULVERT																
37	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	BOX CULVERT																
38	114+703	114.703	EXISTING			BOX CULVERT																
39	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	BOX CULVERT																
40	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	BOX CULVERT																
41	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT																
42	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT																
43	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	BOX CULVERT																
44	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - SERVICE ROAD						Completed		In Progress														
Status Upto	31.03.2022					LHS						RHS										
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Remarks	Type of Structure	Protection Work	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work
1	74+675	74.670	EXISTING	1 x 3.0m x 2.0m	New Construction	BOX CULVERT																
2	74+800	74.808	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT																
3	75+558	75.555	EXISTING	1x3.0m	Reconstruction	BOX CULVERT																
4	75+902	75.897	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
5	76+390	76.387	EXISTING	1 x 3.0m	Reconstruction	BOX CULVERT																
6	77+382	77.379	EXISTING	1 x 4.0m	Reconstruction	BOX CULVERT																
7	77+767	77.764	EXISTING	1 x 2.0m	Widening	BOX CULVERT																
8	83+012	83.007	EXISTING	2 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
9	83+065	83.062	EXISTING	1 x 2.0m x 2.0m	Reconstruction	BOX CULVERT																
10	89+973	89.969	EXISTING	4 x 0.75m	Widening	PIPE CULVERT																
11	90+640	90.637	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT																
12	94+509	94.509	EXISTING	1 x 3.6m x 1.6m	Widening	BOX CULVERT																
13	95+495	95.490	EXISTING	1 x 1.2m x 0.9m	Reconstruction	BOX CULVERT																
14	95+794	95.787	EXISTING	1 x 1.20m	Reconstruction	PIPE CULVERT																
15	96+511	96.505	EXISTING	1 x 5.0m	Reconstruction	BOX CULVERT																
16	97+530	97.534	EXISTING	1x2.0m	Reconstruction	BOX CULVERT																
17	99+776	99.769	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																
18	99+840	99.838	EXISTING	1 x 1.5m x 1.5m	Repair & Widening	BOX CULVERT																
19	100+177	100.173	EXISTING	1 x 1m	Repair & Widening	PIPE CULVERT																
20	100+364	100.358	EXISTING	1 x 10m	Repair & Widening	BOX CULVERT																
21	101+851	101.851	EXISTING	1 x 1.5m x 1.5m	Repair & Reconstruction	BOX CULVERT																
22	103+220	103.214	EXISTING	1 x 4.0m x 2.5m	Repair & Reconstruction	BOX CULVERT																
23	104+197	104.190	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT																
24	104+215	104.208	EXISTING	1 x 1.0m	Reconstruction	PIPE CULVERT																
25	109+786	109.779	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT																
26	109+975	109.967	EXISTING	1 x 2.0m x 1.7m	Repair & Reconstruction	BOX CULVERT																
27	110+167	110.160	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT																
28	110+402		EXISTING	1 x 1.5m		BOX CULVERT																
29	110+795	110.785	EXISTING	1 x 1.2m x 2.0m	Repair & Widening	BOX CULVERT																
30	110+980	110.971	EXISTING	1 x 1.5m x 2.0m	Repair & Reconstruction	BOX CULVERT																
31	113+897	113.885	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT																
32	114+313	114.300	EXISTING	1 x 1.0m	Repair & Widening	PIPE CULVERT																
33	114+954	114.952	EXISTING	1 x 1.0m	Repair & Reconstruction	PIPE CULVERT																
34	115+097	115.087	EXISTING	2 x 1.0m	Repair & Reconstruction	PIPE CULVERT																
35	115+232	115.221	EXISTING	1 x 2.0m x 2.0m	Repair & Reconstruction	BOX CULVERT																
36	115+381	115.368	EXISTING	1 x 2.0m	Repair & Reconstruction	BOX CULVERT																
37	115+884	115.872	EXISTING	2 x 1.0m	Repair & Widening	PIPE CULVERT																
38	115+978	115.978	EXISTING	1 x 2.0m x 2.0m	Repair & Widening	BOX CULVERT																

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - MCW						Completed						In Progress									
Status Upto	31.03.2022					LHS						RHS									
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Type of Structure	Protection Work	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work
1	66+357	66.383	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
2	67+068	67.068	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
3	69+357	69.357	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
4	72+570	72.578	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
5	73+755	73.755	BYPASS	1x1.2.0mx2.0m	PIPE CULVERT																
6	104+622	104.618	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
7	104+998	104.992	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT																
8	105+440	105.440	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
9	105+536	105.525	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
10	106+442	106.432	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
11	108+002	107.994	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
12	108+080	108.070	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT																
13	108+225	108.225	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
14	108+345	108.334	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
15	108+441	108.441	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
16	108+540	108.500	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
17	108+767	108.767	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT																
18	111+205	111.196	BYPASS	1 x 1.0m	PIPE CULVERT																
19	113+372	113.372	BYPASS		BOX CULVERT																

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON BYPASS - SERVICE ROAD					Completed						In Progress										
Status Upto	31.03.2022				LHS						RHS										
Sr. No.	As Approved by IE	Design Chainage As per CA		Number and Length of Spans (m)	Type of Structure	Protection Work	Fly wing wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Fly wing wall	Protection Work
1	72+570	72.578	BYPASS	1 x 3.0m x 2.0m	BOX CULVERT																
2	104+622	104.618	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
3	104+998	104.992	BYPASS	1 x 4.0m x 2.0m	BOX CULVERT																
4	106+442	106.432	BYPASS	1 x 2.0m x 2.0m	BOX CULVERT																
5	111+205	111.196	BYPASS	1 x 1.0m	PIPE CULVERT																
6	113+372	113.372	BYPASS		BOX CULVERT																

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - MCW						Completed						In Progress									
Status Upto	31.03.2022					LHS						RHS									
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure		Protection Work	Retaining wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Retaining wall	Protection Work
1	79+716	79.715	1 x 12.50m	MNBB	Widening																
2	79+795	79.795	2 x 12.50m	MNBB	Re-Const.																
3	82+007	82.006	2 x 12.50m	MNBB	Widening																
4	85+144	85.144	2 x 12.50m	MNBB	Re-Const.																
5	85+435	85.432	1 x 12.50m	MNBB	Widening																
6	88+513	88.513	1 x 12.50m	MNBB	Widening																
7	91+164	91.165	2 x 12.50m	MNBB	Re-Const.																
8	92+343	92.342	1 x 12.50m	MNBB	Widening																
9	101+101	101.100		MNBB	EXISTING																
10	66+757	66.730	2 x 12.5m	MNBB	BYPASS																
11	68+644	68.650	2 x 12.5m	MNBB	BYPASS																
12	74+173	74.175	2 x 12.5m	MNBB	BYPASS																
13	74+605	74.600	2 x 12.5m	MNBB	BYPASS																
14	105+915	105.915	2 x 12.5m	MNBB	BYPASS																
15	109+090	109.088	2 x 12.5m	MNBB	BYPASS																
16	109+195	109.208	2 x 12.5m	MNBB	BYPASS																
17	109+365	109.365	2 x 12.5m	MNBB	BYPASS																
18	109+540	109.540	2 x 12.5m	MNBB	BYPASS																
19	111+563	111.565	2 x 12.5m	MNBB	BYPASS																
20	112+807	112.807	1 x 25m	MNBB	BYPASS																
21	113+100	113.100	2 x 12.5m	MNBB	BYPASS																
22	113+505	113.505	2 x 12.5m	MNBB	BYPASS																

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB-BOX - SERVICE ROAD						Completed					In Progress									
Status Upto	31.03.2022						LHS					RHS								
Sr. No.	As Approved by IE	Design Chainage As per CA	Number and Length of Spans (m)	Type of Structure	Protection Work	Retaining wall	Slab	Wall	Raft	PCC	Granular Filling	Excavation	Excavation	Granular Filling	PCC	Raft	Wall	Slab	Retaining wall	Protection Work
1	74+605	74.600	2 x 12.5m	MNBB	BYPASS															
2	105+915	105.915	2 x 12.5m	MNBB	BYPASS															
3	109+090	109.088	2 x 12.5m	MNBB	BYPASS															
4	109+195	109.208	2 x 12.5m	MNBB	BYPASS															
5	109+365	109.365	2 x 12.5m	MNBB	BYPASS															
6	109+540	109.540	2 x 12.5m	MNBB	BYPASS															
7	111+563	111.565	2 x 12.5m	MNBB	BYPASS															
8	112+807	112.807	1 x 25m	MNBB	BYPASS															
9	113+100	113.100	2 x 12.5m	MNBB	BYPASS															
10	113+505	113.505	2 x 12.5m	MNBB	BYPASS															

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF LVUP					Completed				In Progress							
Status Upto	31.03.2022				LHS				RHS							
Sr. No.	As Approved by IE	Number and Length of Spans (m)	Type of Structure		Protection Work	Slab	Wall	Raft	PCC	Excavation	Excavation	PCC	Raft	Wall	Slab	Protection Work
1	77+420	1X10.5	LVUP	EXISTING												
2	112+643	1X10.5	LVUP	BYPASS	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB (>15m Span)					Completed						In Progress											
Status upto	31.03.2022					LHS						RHS										
Sr. No.	MNB at Chainage	Span			Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap /Abicap	Pier/Abt	Open Foundation	PCC	Excavation	Excavation	PCC	Open Foundation	Pier/Abt	Piercap /Abicap	Girder Casting	Girder Launching	Slab	Crash Barrier
1	70+185	2 x 20	BYPASS	A1																		
				P1																		
				A2																		
2	73+815	1 x 15	BYPASS	A1																		
				A2																		
3	84+725	1 x 15	EXISTING	A1																		
				A2																		
4	84+987	2 x 15	EXISTING	A1																		
				P1																		
				A2																		

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MJB								Completed	
MJB at Chainage 66+530 (8x30) - BYPASS								In Progress	
Status Upto 31.03.2022		LHS/LSR				RHS/RSR			
		Crash Barrier	Slab	Girder Launching	Girder Casting Pier	Pier/Abt Cap	Pile Cap	Pile	
A1									
P1									
P2									
P3									
P4									
P5									
P6									
P7									
A2									
MJB at Chainage 73+340 (9x30) - BYPASS						Completed			
Status Upto 31.03.2022		LHS/LSR				RHS/RSR			
		Crash Barrier	Slab	Girder Launching	Girder Casting Pier	Pier/Abt Cap	Pile Cap	Pile	
A1									
P1									
P2									
P3									
P4									
P5									
P6									
P7									
P8									
A2									

MJB at Chainage 99+583 (3x25) - EXISTING ROAD														
Status Upto 31.03.2022	LHS/LSR					RHS/RSR								
	Crash Barrier	Slab	Girder Launching	Girder Casting Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting Girder Launching	Slab	Crash Barrier
A1														
P1														
P2														
A2														
MJB at Chainage 107+400 - BYPASS														
Status Upto 31.03.2022	LHS/LSR					RHS/RSR								
	Crash Barrier	Slab	Girder Launching	Girder Casting Pier Cap/Abt Cap	Pier/Abt	Pile Cap	Pile	Pile	Pile Cap	Pier/Abt	Pier Cap/Abt Cap	Girder Casting Girder Launching	Slab	Crash Barrier
A1														
P1														
P2														
P3														
P4														
P5														
P6														
P7														
P8														
P9														
P10														
P11														
P12														
P13														
P14														
P15														
P16														
P17														
P18														
P19														
A2														

SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF FLYOVER					Completed							In Progress										
Status upto	31.03.2022				LHS							RHS										
Sr.No.	FO at Chainage	Span			Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Abt Shaft	Piercap /Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier
1	69+785	1x30	BYPASS	A1																		
				A2																		
2	74+655	1x30	BYPASS+EXISTING	A1																		
				A2																		
3	80+556	1x30	EXISTING	A1																		
				A2																		
4	80+720	1x30	EXISTING	A1																		
				A2																		
5	95+455	2x30	EXISTING	A1																		
				P1																		
				A2																		
6	98+950	2x30	EXISTING	A1																		
				P1																		
				A2																		
7	104+570	1x30	BYPASS	A1																		
				A2																		
8	110+110	1x30	EXISTING	A1																		
				A2																		

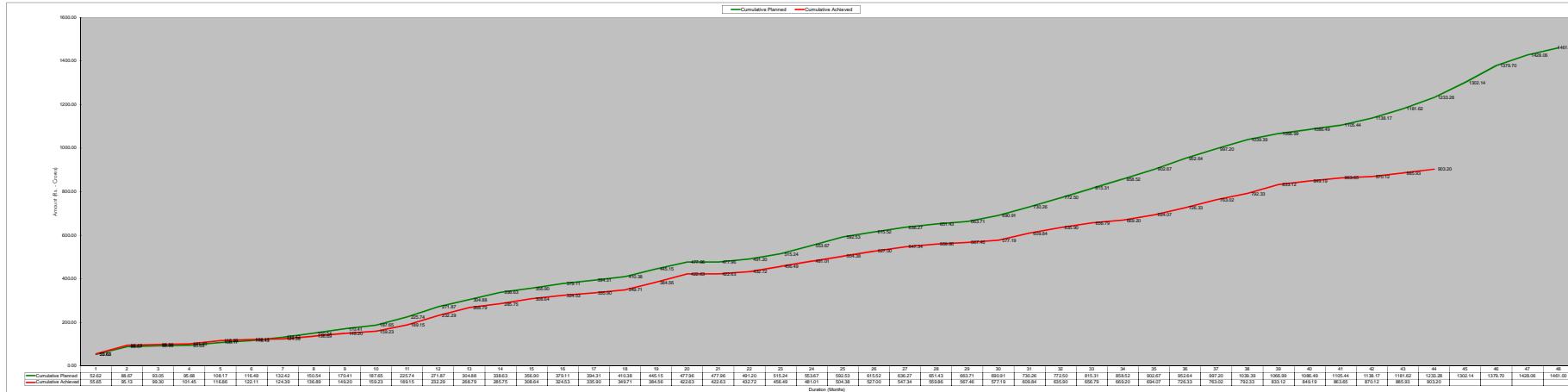
SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF VUP				Completed							In Progress																		
Status upto	31.03.2022	LHS														RHS													
SR.NO.	VUP at Chainage	Span		Crash Barrier	Slab	Girder Launching	Girder Casting	Piercap /Abtcap	Abt Shaft	Pile Cap	PCC	Pile	Pile	PCC	Pile Cap	Abt Shaft	Piercap /Abtcap	Girder Casting	Girder Launching	Slab	Crash Barrier								
1	72+545	1x25	BYPASS	A1																									
				A2																									
2	75+830	1x25	EXISTING	A1																									
				A2																									
3	86+900	1x25	EXISTING	A1																									
				A2																									
4	87+670	1x25	EXISTING	A1																									
				A2																									
5	90+580	1x25	EXISTING	A1																									
				A2																									
6	97+225	1x25	EXISTING	A1																									
				A2																									
7	101+910	1x25	EXISTING	A1																									
				A2																									
8	102+975	1x25	EXISTING	A1																									
				A2																									
9	106+318	1x25	BYPASS	A1																									
				A2																									
10	109+350	1x25	BYPASS	A1																									
				A2																									
11	111+235	1x25	BYPASS+EXISTING	A1																									
				A2																									
12	113+550	1x25	BYPASS+EXISTING	A1																									
				A2																									
13	115+258	1x25	EXISTING	A1																									
				A2																									

5. Financial & Physical Progress of Work

[Figure 3a: Financial Progress - Planned vs Achieved - S Curve](#)

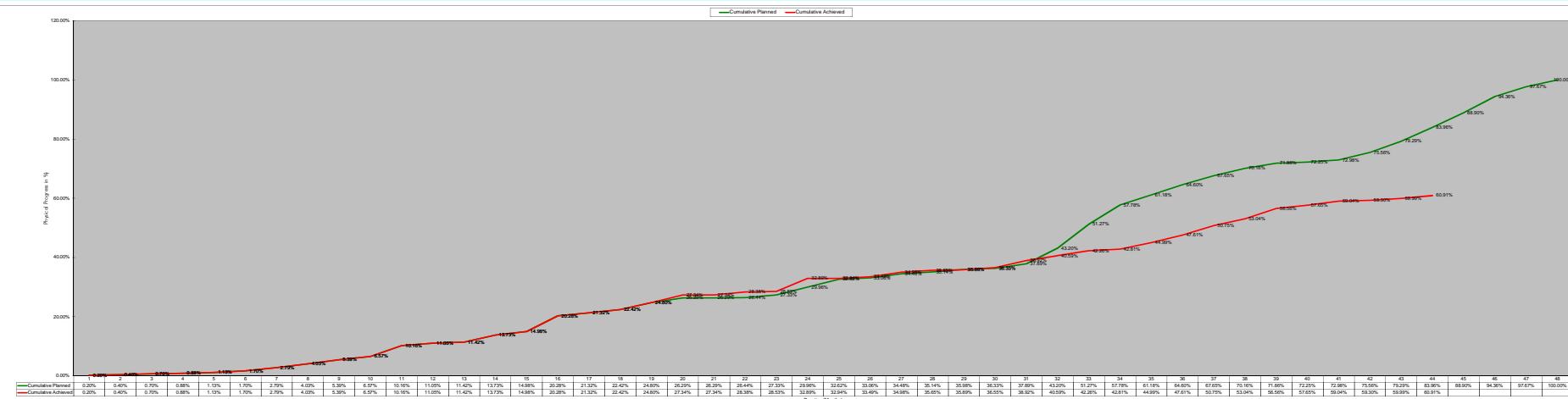
[Figure 3b: Physical Progress - Planned vs Achieved - S Curve](#)

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



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

Fig. 03b- Physical Progress (S-Curve) as per revised Target



6. Quality Control and Quality Assurance

6.1. List of Lab Equipment's

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

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

SI. NO	EQUIPMENT LISTS	QUANTITY
1	compression testing machine 2000 kN	1
2	cement mortar vibrating machine	1
3	AlV Apparatus	1
4	electronic weighing balance (50 kg)	1
5	electronic weighing balance (600 gm)	1
6	Hot Air Oven(250° c)	1
7	Hot plate	1
8	Rain Gauge	1
9	Sieve: as per IS 460 -1962 200 dia Brass frame	
10	4.75 mm	1
11	1.18 mm	1
12	600 mic	1
13	300 mic	1
14	90 mic	1
15	75 mic	1
16	Pan with Lid	1
17	Sieve: as per IS 460 -1962 200 dia GI frame	
18	40 mm	1
19	20 mm	1
20	12.5 mm	1
21	10 mm	1
22	4.75 mm	1
23	2.36 mm	1
24	Pan with Lid	1

25	Thickness Gauge	1
26	Glass Rain measuring jar (200CM ²)	2
27	GI Tray (18 x24 x50)	5
28	Enamel Tray (medium)	4
29	Enamel Tray (small)	6
30	spectula wooden handle	8
31	GI Tray ()	1
32	Iron tray	1
33	slump cone apparatus with tamping rod	2

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

Sl. NO	EQUIPMENT LIST'S	QUANTITY
1	Test Sieves Set 450mm internal diameter as per IS complete with lid & pan of hole sizes	
a	100mm	2 Nos
b	75mm	2 Nos
c	90mm	2 Nos
d	63mm	2 Nos
e	53mm	2 Nos
f	50mm	2 Nos
g	45mm	2 Nos
h	40mm	2 Nos
i	37.5mm	2 Nos
j	31.5mm	2 Nos
k	26.5mm	2 Nos
l	25mm	2 Nos
m	22.4mm	2 Nos
n	20.0mm	2 Nos
o	19.0mm	2 Nos
p	18mm	2 Nos
q	16mm	2 Nos
r	14mm	2 Nos
s	13.2mm	2 Nos

t	12.5mm	2 Nos
v	11.2mm	2 Nos
u	10mm	2 Nos
w	9.5mm	2 Nos
x	6.3mm	2 Nos
y	5.6mm	2 Nos
z	4.75mm	2 Nos
2	Test Sieves Set 200mm internal diameter (Brass frame & steel or brass wire cloth mesh) as per IS complete with lid & pan of sieve	
a	37.5mm	2 Nos
b	26.5mm	2 Nos
c	22.4mm	2 Nos
d	19mm	2 Nos
e	16mm	2 Nos
f	14mm	2 Nos
g	13.2mm	2 Nos
h	12.5	2 Nos
i	11.2mm	2 Nos
j	10mm	2 Nos
k	9.5mm	2 Nos
l	4.75mm	2 Nos
m	2.8mm	2 Nos
n	2.36mm	2 Nos
o	2.0mm	2 Nos
Sl. NO	EQUIPMENT LIST'S	QUANTITY
p	1.80mm	2 Nos
q	1.7mm	2 Nos
r	1.4mm	2 Nos
s	1.18mm	2 Nos
t	1.0mm	3 Nos
v	0.600mm	2 Nos
u	0.425mm	2 Nos

w	0.355mm	2 Nos
x	0.300mm	2 Nos
y	0.180	2 Nos
z	0.090mm	2 Nos
aa	0.075mm	6 Nos
3	Measuring cylinder - Borosilicate glass - 100ML	40 Nos
4	Glass Thermometer 00c to 3000c	10 Nos
5	Flash filtering borosil glass - 2000ML	1 No
6	Flash filtering borosil glass - 5000ML	1 No
7	Round hot Plate	2 Nos
8	Measuring cylinder - Borosilicate glass - 1000ML	4 Nos
9	Measuring cylinder - Borosilicate glass - 250ML	4 Nos
10	Measuring cylinder- Borosilicate glass - 500ML	4 Nos
11	Beakers - glass borosil - low from cap 600ML	4 Nos
12	Compaction pedestal - 4"	4 Nos
13	Extractor plate - 6" dia for marshal test	1 No
14	Rammer marshal - 4"	4 Nos
15	Thermometer Infra red - MTX - 2	2 Nos
16	LE - Chatlier mould one set of six	2 Nos
17	Cone penetrometer	1 No
18	Los angeles abrasion testing machine	1 No
19	Marshal Mould - 4" dia	51 nos
20	G.I Tray - 1500*1500*100MM	4 Nos
21	Compaction pedestal - 6"	1 No
22	Marshal stability apparatus	1 No
23	Measuring cylinder- Plastic - 50ML	4 Nos
24	Measuring cylinder- Plastic - 250ML	2 Nos
25	Measuring cylinder- Plastic - 500ML	2 Nos
26	Measuring cylinder- Plastic - 1000ML	2 Nos
27	Vibrating machine with digital timer	1 No
28	Hot Air Oven - Thermostatic - NoN Digital - 45*45*45 CM	1 No
29	Hot Air Oven - Thermostatic - NoN Digital - 90*60*60 CM	1 No

Sl. NO	EQUIPMENT LISTS	QUANTITY
30	Penetration cup - 55*70 MM	2 Nos
31	Penetration cup - 55*35MM	6 Nos
32	Standard Penetrometer - Automatic with digital timer	1 No
33	proctor compaction mould 100mm dia with 2.69kg Rammer mid steel	4 Nos
34	proctor compaction mould 150mm dia with 4.89kg Rammer mid steel	6 Nos
35	proving ring compression type 10kn	1 Nos
36	proving ring compression type 2.5kn	1 Nos
37	proving ring compression type 25kn	1 Nos
38	proving ring compression type 50kn	1 Nos
39	pycnometter bottle	4 Nos
40	Rapid moisture meter-0-25%	4 Nos
41	Riffle sample divider -G.I-20mm , no of slot ;16	1 nos
42	Riffle sample divider -G.I-40mm , no of slot ;12	1 Nos
43	Pipette borosilicate glass - 10 ml	4 Nos
44	Sant equivalent value test apparaus with accessories	1 Nos
45	fileld density test app - sand replacement method small	2 Set
46	shrinkage limit set W/O mercury	1 Nos
47	Mercury 250 Gm	1 Nos
48	Buoyancy balance	1 Nos
49	Spatula 8"	10 Nos
50	Spatula 4"	10 Nos
51	Standard sand - grade III - Bag of 25 kg	2 Nos
52	Standard sand - grade I - Bag of 25 kg	2 Bag
53	Standard sand - grade II - Bag of 25 kg	2 Bag
54	stanard penetrometer - automatic with digital timer	1 Nos
55	Beaking head assembly - 6'	1 Nos
56	Bulk density cylindrical metal measure - 15 LTR	1 Nos
57	Bulk density cylindrical metal measure - 5 LTR	1 Nos
58	Bulk density cylindrical metal measure - 30 LTR	1 Nos
59	Calcium carbide - 500 GM for rapid moisture meter	10 Nos

60	Liquid limits device - hand operated	1 Nos
61	CBR mould mild steel 150mm dia eith coller and base plate	60 Nos
62	Perforated plate - for CBR test AS per 1377	57 Nos
63	Spacer disc - for CBR test	4 nos
64	surcharge weight 2.5kg annular for cbr test	120 nos
65	cbr load frame electrical single speed	1 nos
66	chiesel 25mm wide *300mm long	20 nos
67	compression testing machine 2000kn digital manual pace	1 nos
68	cube moulds 7.06cm isi marked for cement	12
69	Concrete mixer - Tilting drum type	1 No
70	Constant temperature waterbath for marshal test with digital	2 Nos
71	Core drilling machine with disel engine	1 No
72	Electronic weighing balance - 10KG	1 No
73	Cube moulds - 10CM	18 Nos
74	Cube moulds - 5CM	12 Nos
75	Electronic weighing balance - 600Gms	2 Nos
76	Dial gauge 0.01*30mm	4 Nos
77	Electronic platform balance - 100KG	1 Nos
78	Electronic weighing balance - 30KG	2 Nos
79	Electronic weighing balance - 50KG	2 Nos
80	Electronic weighing balance - 5KG	1 No
81	Stop watch - digital	4 Nos
SI. NO	EQUIPEMENT LISTS	QUANTITY
82	Direct shear apparatus	1 No
83	Bottle wash plastic - 1000ML	4 Nos
84	Length gauge	1 No
85	Tray - G.I 300*300MM (12"*12")	6 Nos
86	Enamel tray -300*250*40 mm (10"*12")	9 Nos
87	Tray G.I -300*250*40 mm (10"*12")	9 Nos
88	Enamel tray -450*600*40 mm (18"*12")	12 Nos
89	Field density test app -sand replacement method medium	2 Set
90	Field density test app -sand replacement method Large	2 Set

91	Filter paper for marshal test 100mm dia	10 PKT
92	Filter paper for CBR test 15cm dia PKT of 100 circles	10 PKT
93	Flakiness gauge - M.S .Chrome / powder coated	1 Nos
94	Pensky marten flash piot apparatus	1 Nos
95	Flexural strength testing machine curve	1 Nos
96	French curve	2 Nos
97	Slump test appratus with tamping rod 16mm dia *600mm long	9 Nos
98	Thermometer dial 100mm dia * 300mm long 00 - 3000c	10 Nos
99	Tripod stand for CBR test	4 Nos
100	Gauging trowel 6" (150mm)	4 Nos
101	U tube glass viscometer	1 Nos
102	Saybolt viscometer with energy regulator	1 Nos
103	Vacuum pump -Singal Stage	1 Nos
104	Vibrating table -60*60 CM	1 Nos
105	Needle final setting time for vicat needle appratus	1 Nos
106	Needle Intial setting time for vicat needle appratus	1 Nos
107	Vicat Needle apparatus	2 Nos
108	Hammer with Handle - 1000 GM	4 Nos
109	Aggregate Impact testing machine	1 Nos
110	Beakers - glass borosil - low form cap ; 600ML	2 Nos
111	Beam mould -15*15*70 CM - Mild steel	17 Nos

6.2. Quality Control Test Summary

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

The detailed list of quality control test conducted up to the month of March - 2022 are tabulated below:-

Four Laning of Sethiyahopu - Cholapuram From km 65.960 to km 116.440 Section of NH-45C in the State of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode.																PATEL® Every Milestone is Our Value			
Monthly Progress Report : Summary of Quality Control Report : Month of March - 2022																			
S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month March 2022						Test conducted upto this month					
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Concessio narie	IE	Concessio narie	IE	Concessio narie	IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE		
1.0 Tests on OGL																			
1.1	Grain size analysis	IS:2720 (Part4)	1 test / 250 meters	345	345	0	97	0	0	0	0	0	0	345	345	0	97		
1.2	Atterberg Limits	IS:2720 (Part5)	1 test / 250 meters	345	345	0	97	0	0	0	0	0	0	345	345	0	97		
1.3	Proctor	IS:2720 (Part8)	1 test / 250 meters	345	345	0	97	0	0	0	0	0	0	345	345	0	97		
1.4	Free Swell index	IS:2720 (Part40)	1 test / 250 meters	345	338	7	97	0	0	0	0	0	0	345	338	7	97		
1.5	California bearing ratio	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2.0 Borrow Area for EMB/Subgrade (MoRT&H 305)																			
2.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m ³	1344	1344	0	739	20	10	20	10	0	0	1364	1364	0	749		
2.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m ³	1344	1344	0	739	20	10	20	10	0	0	1364	1364	0	749		
2.3	Proctor	IS:2720 (Part8)	1 test /1500 m ³	1344	1344	0	739	20	10	20	10	0	0	1364	1364	0	749		
2.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m ³	1344	1344	0	739	20	10	20	10	0	0	1364	1364	0	749		
2.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	380	372	8	193	10	5	10	5	0	0	390	382	8	198		
2.6	Direct shear Test	IS:2720 (Part13)	1 test /3000 m ³	233	230	3	119	0	0	0	0	0	0	233	230	3	119		
3.0 Cutting portion & Existing for EMB/SG site sampling (MoRT&H 305)																			
3.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m ³	82	80	2	42	2	2	2	2	0	0	84	82	2	44		
3.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m ³	82	80	2	42	2	2	2	2	0	0	84	82	2	44		
3.3	Proctor	IS:2720 (Part8)	1 test /1500 m ³	82	80	2	42	2	2	2	2	0	0	84	82	2	44		
3.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m ³	82	80	2	42	2	2	2	2	0	0	84	82	2	44		
3.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	41	39	2	23	1	1	1	1	0	0	42	40	2	24		
3.6	Direct shear Test	IS:2720 (Part13)	1 test /3000 m ³	1	1	0	1	0	0	0	0	0	0	1	1	0	1		
4.0 Service Road																			
4.1	Grain size analysis	IS:2720 (Part4)	1 test /1500 m ³	27	27	0	20	0	0	0	0	0	0	27	27	0	20		
4.2	Atterberg Limits	IS:2720 (Part5)	1 test /1500 m ³	27	27	0	20	0	0	0	0	0	0	27	27	0	20		
4.3	Proctor	IS:2720 (Part8)	1 test /1500 m ³	27	27	0	20	0	0	0	0	0	0	27	27	0	20		
4.4	Free Swell index	IS:2720 (Part40)	1 test /1500 m ³	27	27	0	20	0	0	0	0	0	0	27	27	0	20		
4.5	California bearing ratio	IS:2720 (Part16)	1 test / 3000 m ³	8	8	0	8	0	0	0	0	0	0	8	8	0	8		
4.6	Direct shear Test	IS:2720 (Part13)	1 test /3000 m ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5.0 FLYASH For Embankment																			
5.1	Liquid Limit & Plastic limit	TABLE-1	1 test /1500 m ³	417	417	0	241	0	0	0	0	0	0	417	417	0	241		
5.2	Maximum Dry Density	Clause 5.2	1 test /1500 m ³	417	417	0	253	0	0	0	0	0	0	417	417	0	253		
5.3	Grain size analysis	IS:2720 (Part4)	1 test /3000 m ³	277	277	0	165	0	0	0	0	0	0	277	277	0	165		
5.4	Direct shear Test	IS:2720 (Part13)	1 test /3000 m ³	187	187	0	107	0	0	0	0	0	0	187	187	0	107		

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month					Tests conducted during reporting month March 2022						Test conducted upto this month				
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested	Passed	Failed	Concessi onarie	IE	Concessio narie	IE	Concessi onarie	IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed
6.0 Field Density Test MoRT&H 305																			
6.1	Field density (OGI)	IS:2720 (Part28)	1 test /3000 sqm	3999	3879	120	998	10	10	10	10	0	0	4009	3889	120	1008		
6.2	EMB field density	IS:2720 (Part28)	1 test /3000 sqm	75421	72985	2436	15380	2139	125	2040	110	99	15	77560	75025	2535	15505		
6.3	SG field density	IS:2720 (Part28)	1 test / 2000 sqm	14699	14360	339	5878	308	50	305	50	3	0	15007	14665	342	5928		
6.4	Shoulder field density	IS:2720 (Part28)	1 test / 2000 sqm	1013	970	43	125	0	0	0	0	0	0	1013	970	43	125		
6.5	Ground improvement (Soil)	IS:2720 (Part28)	1 test / 2000 sqm	3035	2958	77	421	0	0	0	0	0	0	3035	2958	77	421		
6.6	Ground improvement & Median filling (Flyash)	IS:2720 (Part28)	1 test / 2000 sqm	24465	23779	686	3658	0	0	0	0	0	0	24465	23779	686	3658		
7.0 Filter Media & Back filling MoRT&H 2500																			
7.1	Gradation		As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.2	Backfilling field density		1 test /1000 m ³	840	840	0	48	0	0	0	0	0	0	840	840	0	48		
7.3	RE Wall field density		As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0 Safe Bearing capacity of soil																			
8.1	Free Swell index	IS:2720 (Part40)	As required	112	99	13	96	0	0	0	0	0	0	112	99	13	96		
8.2	Grain size analysis	IS:2720 (Part4)	As required	112	105	7	96	0	0	0	0	0	0	112	105	7	96		
8.3	Proctor	IS:2720 (Part8)	As required	112	105	7	96	0	0	0	0	0	0	112	105	7	96		
8.4	Direct shear Test	IS:2720 (Part13)	As required	112	93	19	96	0	0	0	0	0	0	112	93	19	96		
8.5	Bearing Capacity / Plate Load Test	IS:6403 / IS 1888	As required	110	56	54	66	0	0	0	0	0	0	110	56	54	66		
9.0 CTSB Mix Design/Site Frequency MoRT&H 403																			
9.1	Gradation	Table 400-4	1 test/400m ³	900	900	0	359	12	4	12	4	0	0	912	912	0	363		
9.2	Atterberg Limits	IS:2720 (Part5)	1 test/400m ³	779	779	0	282	12	4	12	4	0	0	791	791	0	286		
9.3	Proctor	IS:2720 (Part8)	As required	38	38	0	36	2	2	2	2	0	0	40	40	0	38		
9.4	CBR Test or unconfined compressive strength test	IS:2720 (Part16)	As required	1	1	0	1	0	0	0	0	0	0	1	1	0	1		
9.5	Quality of cement		Minimum 1 test/5 tons	2	2	0	2	0	0	0	0	0	0	2	2	0	2		
9.6	Aggregate Impact value	IS:2386 Part-4	As required	28	28	0	17	0	0	0	0	0	0	28	28	0	17		
9.7	Field Density	IS:2720 (Part28)	1 set of 2 Test per 500 Sqm	4971	4971	0	3245	103	55	103	55	0	0	5074	5074	0	3300		
9.8	Specific gravity& Water absorption	IS:2386 (Part2)	As required	2	2	0	2	0	0	0	0	0	0	2	2	0	2		
9.9	Cubes	IRC SP 89 (2010)	1 set 400MT	1858	1858	0	659	15	7	15	7	0	0	1873	1873	0	666		
10.0 Granular Bedding Material (For Structures-Ground Improvement) - Mix Design																			
10.1	Gradation	Table 400-1	1 test/400m ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10.2	Atterberg Limits	IS:2720 (Part5)	1 test/400 m ³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10.4	CBR Test	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10.5	Aggregate Impact value	IS:2386 Part-4	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10.6	Field Density	IS:2720 (Part28)	1 Test per 1000 Sq.m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month March 2022						Test conducted upto this month				
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested	Passed	Failed	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE
11.0 Granular Bedding Material (For Structures-Ground Improvement) - Site Frequency																		
11.1	Gradation	Table 400-1	1 test/400m ³	3	3	0	3	0	0	0	0	0	0	0	3	3	0	3
11.2	Atterberg Limits	IS:2720 (Part5)	1 test/400 m ³	3	3	0	3	0	0	0	0	0	0	0	3	3	0	3
11.3	Proctor	IS:2720 (Part8)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.4	CBR Test	IS:2720 (Part16)	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.5	Aggregate Impact value	IS:2386 Part-4	As required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.6	Field Density	IS:2720 (Part28)	1 Test per 1000 Sq.m	90	90	0	21	0	0	0	0	0	0	90	90	0	21	
12.0 WMM Mix Design																		
12.1	Gradation	Table 400-3	1 test/200m ³	61	61	0	61	0	0	0	0	0	0	61	61	0	61	
12.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m ³	13	13	0	13	0	0	0	0	0	0	0	13	13	0	13
12.3	Flakiness & Elongation index	IS:2386 Part1	1 test/ 500 m ³	12	12	0	12	0	0	0	0	0	0	12	12	0	12	
12.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m ³	12	12	0	12	0	0	0	0	0	0	12	12	0	12	
12.5	Water absorption& Sp.Gravity	IS:2386 Part2	As required	8	8	0	8	0	0	0	0	0	0	8	8	0	8	
12.6	Proctor	IS:2720 (Part8)	As required	4	4	0	4	0	0	0	0	0	0	4	4	0	4	
12.7	CBR	IS:2720 (Part16)	As required	2	2	0	2	0	0	0	0	0	0	2	2	0	2	
13.0 WMM Site Frequency MoRT&H 406																		
13.1	Gradation	Table 400-3	1 test/200m ³	619	619	0	231	9	2	9	2	0	0	628	628	0	233	
13.2	Aggregate Impact Value	IS:2386 Part-4	1 test/ 1000 m ³	345	345	0	127	6	2	6	2	0	0	351	351	0	129	
13.3	Flakiness & Elongation index	IS:2386 Part1	1 test/ 500 m ³	360	360	0	113	6	2	6	2	0	0	366	366	0	115	
13.4	Atterberg Limits	IS:2720 (Part5)	1 test/200m ³	582	582	0	197	9	2	9	2	0	0	591	591	0	199	
13.5	Water absorption	IS:2386 Part2	As required	4	4	0	4	0	0	0	0	0	0	4	4	0	4	
13.6	Proctor	IS:2720 (Part8)	As required	17	17	0	15	1	1	1	1	0	0	18	18	0	16	
13.7	CBR	IS:2720 (Part16)	As required	1	1	0	1	0	0	0	0	0	0	1	1	0	1	
13.8	Field Density	IS:2720 (Part28)	1 set Test per 1000 Sq.m / 3 pits	1231	1231	0	815	20	12	20	12	0	0	1251	1251	0	827	
14.0 Dense Bituminous Macadam (Grade - II)																		
14.1	Bitumen Extraction & Gradation		1 Test/400MT	370	370	0	159	12	12	12	12	0	0	382	382	0	171	
14.2	Combined Gradation	Table 500 - 18, Grad.II	1 Test/400MT	369	369	0	148	5	5	5	5	0	0	374	374	0	153	
14.3	Individual Gradation Sets	Table 500 - 18, Grad.II	1 Test/400MT	369	369	0	148	5	5	5	5	0	0	374	374	0	153	
14.4	Flakiness & Elongation index	MORTH Table 900 - 4	1 test/ 350 m ³	240	240	0	97	5	5	5	5	0	0	245	245	0	102	
14.5	Aggregate Impact Value	MORTH Table 900 - 4	1 test/350m ³	282	282	0	117	5	5	5	5	0	0	287	287	0	122	
14.6	Marshall Density	ASTM D 2726	1 Set/400MT	399	399	0	170	5	5	5	5	0	0	404	404	0	175	
14.7	GMM	MORTH Table 900 - 4	1 Test/400MT	368	347	0	154	5	5	5	5	0	0	373	352	0	159	
14.8	DBM Core Cutting	MORTH Table 900 - 4	1 Test/700M ²	1112	1112	0	496	30	30	30	30	0	0	1142	1142	0	526	
Bitumen test (VG -40)																		
14.9	Softening Point	IS:1205 - 1978	1 Test/ 1 lot	191	191	0	81	3	1	3	1	0	0	194	194	0	82	
14.10	Penetration	IS:1205 - 1978	1 Test/ 1 lot	191	191	0	81	3	1	3	1	0	0	194	194	0	82	
14.11	Viscosity	IS:1205 - 1978	1 Test/ 1 lot	191	191	0	81	3	1	3	1	0	0	194	194	0	82	

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month					Tests conducted during reporting month March 2022						Test conducted upto this month				
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested	Passed	Failed	Concessi onarie	IE	Concessio narie	IE	Concessi onarie	IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed
15.0 Bituminous Concrete (Grade - II) PMB MCW																			
15.1	Bitumen Extraction & Gradation	IRC SP 11	1 Test/400MT	208	208	0	103	9	9	9	9	0	0	217	217	0	112		
15.2	Combined Gradation	Table 500 - 17, Grad.II	1 Test/400MT	220	220	0	129	3	3	3	3	0	0	223	223	0	132		
15.3	Individual Gradation Sets	Table 500 - 17, Grad.II	1 Test/400MT	220	220	0	129	3	3	3	3	0	0	223	223	0	132		
15.4	Flakiness & Elongation index	MORTH Table 900 - 4	1 test/ 350 m ³	107	107	0	50	3	3	3	3	0	0	110	110	0	53		
15.5	Aggregate Impact Value	MORTH Table 900 - 4	1 test/350m ³	109	109	0	52	3	3	3	3	0	0	112	112	0	55		
15.6	Marshall Density	ASTM D 2726	1 Set/400MT	216	216	0	104	3	3	3	3	0	0	219	219	0	107		
15.7	GMM	MORTH Table 900 - 4	1 Test/400MT	216	216	0	104	3	3	3	3	0	0	219	219	0	107		
15.8	BC Core Cutting	MORTH Table 900 - 4	1 Test/700M ²	858	858	0	331	28	28	28	28	0	0	886	886	0	359		
16.0 Bituminous Concrete (Grade - II) VG-40 S/R																			
16.1	Bitumen Extraction & Gradation	IRC SP 11	1 Test/400MT	41	41	0	17	1	1	1	1	0	0	42	42	0	18		
16.2	Combined Gradation	Table 500 - 17, Grad.II	1 Test/400MT	41	41	0	17	0	0	0	0	0	0	41	41	0	17		
16.3	Individual Gradation Sets	Table 500 - 17, Grad.II	1 Test/400MT	41	41	0	17	0	0	0	0	0	0	41	41	0	17		
16.4	Flakiness & Elongation index	MORTH Table 900 - 4	1 test/ 350 m ³	25	25	0	11	0	0	0	0	0	0	25	25	0	11		
16.5	Aggregate Impact Value	MORTH Table 900 - 4	1 test/350m ³	25	25	0	11	0	0	0	0	0	0	25	25	0	11		
16.6	Marshall Density	ASTM D 2726	1 Set/400MT	41	41	0	17	0	0	0	0	0	0	41	41	0	17		
16.7	GMM	MORTH Table 900 - 4	1 Test/400MT	41	41	0	17	0	0	0	0	0	0	41	41	0	17		
16.8	BC Core Cutting	MORTH Table 900 - 4	1 Test/700M ²	174	174	0	74	1	1	1	1	0	0	175	175	0	75		
Bitumen test (PMB)																			
16.9	Softening Point	IS:1205 - 1978	1 Test/ 1 lot	133	133	0	58	2	1	2	1	0	0	135	135	0	59		
16.10	Elastic recovery	IS:15462 - 2019	1 Test/ 1 lot	133	133	0	58	2	1	2	1	0	0	135	135	0	59		
17.0 Prime Coat																			
17.0	Rate of Spread of Binder		Three tests per day	864	864	0	415	18	3	18	3	0	0	882	882	0	418		
17.1 Emulsion Test (SS-1)																			
17.1	Say bolt Viscometer	IS:8887-2004	1 Test/ 1 lot	2	2	0	1	0	0	0	0	0	0	2	2	0	1		
17.2 Tack Coat																			
17.2	Rate of Spread of Binder		Three tests per day	996	996	0	393	15	6	15	6	0	0	1011	1011	0	399		
17.3 Emulsion Test (RS-1)																			
17.3	Say bolt Viscometer	IS:8887-2004	1 Test/ 1 lot	5	5	0	4	1	0	1	0	0	0	6	6	0	4		
18.0 Fine Aggregate MoRT&H 1008																			
18.1	Gradation/ Sieve analysis	IS:2386 (Part1)	1 test per day	1876	1876	0	641	48	18	48	18	0	0	1924	1924	0	659		
18.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	16	16	0	15	0	0	0	0	0	0	16	16	0	15		
18.3	Fineness Modulus	MoRT&H Sec. 1008 & 383	1 test per day	1734	1734	0	569	48	18	48	18	0	0	1782	1782	0	587		
18.4	Alkali aggregate reactivity test	IS:2386 (Part-7) IS : 456	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18.5	Deleterious material/silt	IS:2386 (Part2)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month				Tests conducted during reporting month March 2022						Test conducted upto this month			
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested	Passed	Failed	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed
19.0 Coarse Aggregate MoRT&H 1007																	
19.1	Gradation	IS:2386 (Part1)	1 test per day	1774	1774	0	633	48	18	48	18	0	0	1822	1822	0	651
19.2	Specific gravity & Water absorption	IS:2386 (Part3)	As required	18	18	0	15	0	0	0	0	0	0	18	18	0	15
19.3	Aggregate Impact Value	IS:2386 (Part4)	1 test / each source & monthly	473	473	0	214	10	6	10	6	0	0	483	483	0	220
19.4	Flakiness index	IS:2386 (Part1)	1 test / each source & monthly	443	443	0	201	10	6	10	6	0	0	453	453	0	207
19.5	Soundness	IS:2386 (Part5)	As required	2	2	0	2	0	0	0	0	0	0	2	2	0	2
19.6	Alkali aggregate reactivity test	IS:2386 (Part-7) IS : 456	1 test per source	2	2	0	2	0	0	0	0	0	0	2	2	0	2
19.7	Deleterious constituents	IS:2386 (Part2)	1 test per source	2	2	0	2	0	0	0	0	0	0	2	2	0	2
19.8	Petrographic Examination	IS:2386 (Part8)	1 test per source	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.0 Cement MoRT&H 1006																	
20.1	Chemical test / Physical test	IS:4031, 4032	1 test per source	14	14	0	9	0	0	0	0	0	0	14	14	0	9
20.2	Fineness	IS:4031 (Part1)	Every batch	534	534	0	248	7	3	7	3	0	0	541	541	0	251
20.3	Normal Consistency	IS:4031 (Part4)	Every batch	506	506	0	248	7	3	7	3	0	0	513	513	0	251
20.4	Initial & Final setting time	IS:4031 (Part5)	Every batch	506	506	0	248	7	3	7	3	0	0	513	513	0	251
20.5	Soundness of Cement	IS:4031 (Part3)	Every batch	450	450	0	214	7	3	7	3	0	0	457	457	0	217
20.6	Compressive Strength-set	IS:4031 (Part6)															
	3 days		1 test per Lot	460	460	0	204	9	2	9	2	0	0	469	469	0	206
	7 days		1 test per Lot	450	450	0	198	8	2	4	2	0	0	458	454	0	200
	28 days		1 test per Lot	446	446	0	190	9	3	9	3	0	0	455	455	0	193
21.0 Concrete Cube Strength																	
	M15 PCC																
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	716	716	0	259	3	0	3	0	0	0	719	719	0	259
	28Days Compressive Strength			1226	1226	0	490	5	1	5	1	0	0	1231	1231	0	491
	M20 KERB																
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	267	297	0	73	0	0	0	0	0	0	267	297	0	73
	28Days Compressive Strength			749	719	0	190	0	0	0	0	0	0	749	719	0	190
	M20 RCC																
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	378	378	0	109	0	0	0	0	0	0	378	378	0	109
	28Days Compressive Strength			751	751	0	248	0	0	0	0	0	0	751	751	0	248
	M20PCC																
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	35	35	0	16	0	0	0	0	0	0	35	35	0	16
	28Days Compressive Strength			37	37	0	15	0	0	0	0	0	0	37	37	0	15
	M25 RCC																
	7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	44	44	0	12	0	0	0	0	0	0	44	44	0	12
	28Days Compressive Strength			78	78	0	48	1	1	1	1	0	0	79	79	0	49

S. No.	Description	IS Specification Clause	Frequency of Tests	Test conducted upto Previous month					Tests conducted during reporting month March 2022						Test conducted upto this month				
				No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	Tested	Passed	Failed	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	No. of test Conducted EPC/ Concessionaire	Passed	Failed	Nos. of test witnessed by IE	
M30 RCC																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	815	815	0	274	8	0	8	0	0	0	823	823	0	274			
28Days Compressive Strength			1336	1336	0	500	17	4	17	4	0	0	1353	1353	0	504			
M30 RCC PUMPABLE																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	125	125	0	53	4	1	4	1	0	0	129	129	0	54			
28Days Compressive Strength			291	291	0	147	26	8	26	8	0	0	317	317	0	155			
M35 RCC																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	392	392	0	191	0	0	0	0	0	0	392	392	0	191			
28Days Compressive Strength			807	807	0	412	0	0	0	0	0	0	807	807	0	412			
M35 PILING																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	981	981	0	514	0	0	0	0	0	0	981	981	0	514			
28Days Compressive Strength			2909	2909	0	1555	0	0	0	0	0	0	2909	2909	0	1555			
M35 RCC PUMPABLE																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	995	995	0	406	38	11	38	11	0	0	1033	1033	0	417			
28Days Compressive Strength			2992	2992	0	1247	61	24	61	24	0	0	3053	3053	0	1271			
M35 RE BLOCK																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	792	792	0	228	0	0	0	0	0	0	792	792	0	228			
28Days Compressive Strength			2270	2270	0	728	0	0	0	0	0	0	2270	2270	0	728			
M40 PUMP & M40 RCC																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	886	886	0	335	19	11	19	11	0	0	905	905	0	346			
28Days Compressive Strength			1934	1934	0	742	43	8	43	8	0	0	1977	1977	0	750			
M40 PQC																			
7 Days Flexural Strength	As Per IS:516	As Per IS:516	12	12	0	12	0	0	0	0	0	0	12	12	0	12			
28 Days Flexural Strength			30	30	0	30	0	0	0	0	0	0	30	30	0	30			
7Days Compressive Strength	As Per IS:516	As Per IS:516	12	12	0	12	0	0	0	0	0	0	12	12	0	12			
28Days Compressive Strength			30	30	0	30	0	0	0	0	0	0	30	30	0	30			
M40 PILING																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	306	306	0	92	0	0	0	0	0	0	306	306	0	92			
28Days Compressive Strength			997	997	0	271	0	0	0	0	0	0	997	997	0	271			
M45 PUMP																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	382	382	0	156	15	7	15	7	0	0	397	397	0	163			
28Days Compressive Strength			1022	1022	0	387	17	13	17	13	0	0	1039	1039	0	400			
M50 RCC PUMP																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	19	19	0	12	0	0	0	0	0	0	19	19	0	12			
28Days Compressive Strength			29	29	0	23	0	0	0	0	0	0	29	29	0	23			
M60 PUMP																			
7Days Compressive Strength	MoRT&H Sec. 1700	MoRT&H Sec. 1700 No of sets	595	595	0	196	21	6	21	6	0	0	616	616	0	202			
28Days Compressive Strength			2015	2015	0	606	73	18	73	18	0	0	2088	2088	0	624			

PATEL SETHIYAHOPU CHOLOPURAM HIGHWAY PVT. LTD.

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

STATUS OF NCR

SI No	NCR NO	Date	Location		Description of NCR	NCR Issued reference	Concessionaire Reply Reference	NCR Closed Reference	Remarks
			From	To					
1	NCR - 01	30.01.2019	Box Culver at Km:76+390 (LHS)		Improper Ground Improvement for Box culver at Km:76+390	Lr.No.221_30.01.2019	Lr.No.280_14.02.2019	Lr.No.258_20.03.2019	Closed
2	NCR - 02	23.05.2019	Minor Bridge at Km:79+795 (LHS)		a) Improper compaction/vibration f Abtment -1 wall 2nd lift lead to honey combs. b) No cover to the reinforcement in Abutment -1 wall 2nd lift	Lr.No.304_23.05.2019	Lr.No.956_13.08.2021	Lr.No.630A_13.08.2021	Closed
3	NCR - 03	23.05.2019	Abutment A2 of Minor Bridge at Km:85+435 (LHS)		Improper alignment (plumb) of Abutment-2 wall 2nd lift	Lr.No.305_23.05.2019	Lr.No.958_15.08.2021	Lr.No.631A_21.08.2021	Closed
4	NCR - 04	23.05.2019	Pile cap for Abutment A2 of VUP at Km.102+975 LHS		Honey combs in Pile cap for Abutment A2 of VUP at Km.102+975 LHS	Lr.No.306_23.05.2019	Lr.No.959_15.08.2021	Lr.No.632A_31.08.2021	Closed
5	NCR - 05	15.11.2019	HW between Km:93+900 to Km.94+200 (RHS)		Rectification required in Median kerb	Lr.No.403_15.11.2019 Lr.No.478_09.07.2020	Lr.No.1008_22.11.2021	Lr.No.646_26.11.2021	Closed
6	NCR - 06	13.12.2019	HW between Km:82+850 to Km.82+970 (RHS)		WMM segregation	Lr.No.429_13.12.2019	Lr.No.786_23.12.2020	Lr.No.551_29.01.2021	Closed
7	NCR - 07	09.07.2020	Diversion road damaged at Km:97+300 to Km:97+600		Diversion road damaged	Lr.No.476_09.07.2020	Lr.No.727_02.10.2020	Lr.No.509_14.10.2020	Closed
8	NCR - 08	23.07.2020	95+990 to 96+100(RHS) 96+230 to Km:96+300(RHS)		Improper laying of Kerb and not as per approved drawings	Lr.No.482_23.07.2020	Lr.No.1009_22.11.2021	Lr.No.647_26.11.2021	Closed
9	NCR - 09	31.07.2020	96+300 to 96+400(RHS)		Kerb mould is not as per the approved drawings	Lr.No.484_31.07.2020	Lr.No.1010_22.11.2021	Lr.No.648_27.11.2021	Closed
10	NCR - 10	18.08.2020	96+100 to 96+220(RHS)		Kerb mould is not as per the approved drawings	Lr.No.489_18.08.2020	Lr.No.1011_22.11.2021	Lr.No.649_29.11.2021	Closed
11	NCR - 11	12.11.2020	Km.83+950 to Km.84+100		Excavated Embankment fill and used in Subgrade layer	Lr.No.523_12.11.2020	Lr.No.774_02.12.2020	Lr.No.552_29.01.2021	Closed
12	NCR - 12	02.12.2021	Km.83+940 to Km.84+080 (LHS)		Median kerb laying is not in line and level	Lr.No.531_02.12.2021	Lr.No.1012_22.11.2021	Lr.No.650_29.11.2021	Closed
13	NCR - 13	03.04.2021	Box Culvert at Km:77+766 (LHS)		Box Culvert without proper shuttering and reinforcement exposed.	Lr.No.587_03.04.2021	Lr.No.888_12.05.2021	Lr.No.597A_12.05.2021	Closed
14	NCR - 14	05.05.2021	RE wall of VUP at Km:90+580		Unsuitable soil is used in RE wall embankment filling at Km:90+580 (VUP)	Lr.No.596_05.05.2021	Lr.No.892_18.05.2021	Lr.No.603_22.06.2021	Closed

7. Weather Report -Meensuritti

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Max	Min		Max	Min	
01.03.2022	31.7	25.1	0.00	84	50	Sunny
02.03.2022	31.9	23.4	0.00	88	52	Sunny
03.03.2022	31.2	24.8	0.00	83	51	Sunny
04.03.2022	30.9	26.1	0.00	78	52	Sunny
05.03.2022	31.2	25.0	0.00	80	53	Sunny
06.03.2022	28.4	26.1	0.00	79	61	Sunny
07.03.2022	28.2	23.9	0.00	92	65	Sunny
08.03.2022	29.7	25.0	0.00	91	60	Sunny
09.03.2022	30.4	25.1	0.00	92	62	Sunny
10.03.2022	31.4	24.9	0.00	88	60	Sunny
11.03.2022	31.7	25.1	0.00	86	62	Sunny
12.03.2022	32.0	25.2	0.00	87	64	Sunny
13.03.2022	32.6	24.9	0.00	84	65	Sunny
14.03.2022	31.9	25.1	0.00	74	62	Sunny
15.03.2022	31.6	25.8	0.00	75	63	Sunny
16.03.2022	31.9	25.5	0.00	79	62	Sunny
17.03.2022	31.7	25.5	0.00	76	60	Sunny
18.03.2022	32.0	24.9	0.00	80	54	Sunny
19.03.2022	31.8	26.4	0.00	82	54	Sunny
20.03.2022	32.4	25.8	0.00	80	52	Sunny
21.03.2022	31.9	26.1	0.00	81	50	Sunny
22.03.2022	32.8	25.9	0.00	80	52	Sunny
23.03.2022	32.9	27.2	0.00	77	50	Sunny
24.03.2022	32.8	26.8	0.00	80	52	Sunny
25.03.2022	32.9	27.9	0.00	78	50	Sunny
26.03.2022	30.4	26.8	0.00	77	52	Sunny
27.03.2022	31.8	27.6	0.00	78	51	Sunny
28.03.2022	32.0	28.7	0.00	79	50	Sunny
29.03.2022	32.8	28.6	0.00	81	51	Sunny
30.03.2022	33.4	28.9	0.00	80	48	Sunny
31.03.2022	33.8	30.2	0.00	78	46	Sunny

Weather Report Anakarai

DATE	Temperature (°C)		Rainfall in mm	Humidity in %		Remarks
	Max	Min		Max	Min	
01.03.2022	31.9	25.6	0.00	86	51	Sunny
02.03.2022	31.7	23.9	0.00	85	56	Sunny
03.03.2022	32.0	24.7	0.00	84	49	Sunny
04.03.2022	32.3	24.8	0.00	88	51	Sunny
05.03.2022	32.5	24.3	0.00	89	47	Sunny
06.03.2022	31.9	23.8	0.00	88	50	Sunny
07.03.2022	32.4	24.0	0.00	90	49	Sunny
08.03.2022	32.0	23.5	0.00	92	51	Sunny
09.03.2022	33.7	24.1	0.00	89	48	Sunny
10.03.2022	34.0	24.3	0.00	91	51	Sunny
11.03.2022	34.2	24.5	0.00	90	49	Sunny
12.03.2022	33.9	25.0	0.00	88	52	Sunny
13.03.2022	34.1	24.8	0.00	91	50	Sunny
14.03.2022	34.7	24.6	0.00	89	49	Sunny
15.03.2022	32.8	24.3	0.00	88	47	Sunny
16.03.2022	33.4	23.6	0.00	84	50	Sunny
17.03.2022	33.9	24.3	0.00	89	49	Sunny
18.03.2022	32.1	24.0	0.00	86	44	Sunny
19.03.2022	34.3	23.9	0.00	90	51	Sunny
20.03.2022	32.5	23.2	0.00	88	47	Sunny
21.03.2022	34.1	24.8	0.00	91	51	Sunny
22.03.2022	34.0	24.3	0.00	90	50	Sunny
23.03.2022	34.2	23.9	0.00	88	52	Sunny
24.03.2022	33.9	24.1	0.00	89	48	Sunny
25.03.2022	32.3	23.8	0.00	88	50	Sunny
26.03.2022	33.2	24.0	0.00	87	53	Sunny
27.03.2022	32.6	24.8	0.00	85	51	Sunny
28.03.2022	33.0	24.7	0.00	88	55	Sunny
29.03.2022	33.4	23.9	0.00	90	50	Sunny
30.03.2022	33.1	24.0	0.00	87	54	Sunny
31.03.2022	34.0	24.2	0.00	92	56	Sunny

8. Safety

- Various issues related to environment and safety, such as traffic management, safety signage, disposal of waste materials and oil spillage, housekeeping, area barricading and traffic management, etc, are being taken care of during the execution of the project.
- Periodic Safety meetings being conducted on a regular basis and the details of the photographs for the same along with action taken are as below.

9. Support required from NHAI

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

1. Pending Disbursement of Payment to the beneficiaries from CALA towards Land and Buildings in Cuddalore, Ariyalur & Thanjavur District. – Request Authority to advise/instruct the Competent Authority of Land Acquisition to speed up the process of disbursement of pending payment.
2. Additional land acquisition for toll plaza, bus bays, turning radius of major junctions along the project highways.
3. Finalization of Toll plaza location.
4. Change of Scope notice required for relocation of VUP @ Km 113+500 due to existence of electrical substation of TANGENDCO at Km:113+700 to 113+800(RHS).
5. Change of Scope notice required for widening of Existing Minor Bridge @ Km 101+095 from two lane to four-lane carriageway.
6. Change of Scope notice required for reconstruction of Existing Box Culvert @ Km 110+785 because the existing structure of said location at site is a Pipe Culvert, which has been mentioned as Box type in the concession agreement.
7. Removal of Electrical substation 85+300 to 85+400, which is obstructing the project highways.
8. NOC from PWD/WRO, Govt of Tamil Nadu for construction of Minor Bridge (13 Nos) and Major Bridge (3 Nos) as per below

SI No	Description	Total scope (Nos.)	Submitted as on date (Nos.)	Approved as on date (Nos.)	Balance (Nos.)	Present Status
1	MNB	26	26	13	13	Under Processing with Engineer In Chief, Chennai
2	MJB	4	4	2	2	
	Total	30	30	15	15	

9. In sufficient Right of Way with respect to the land handed over as per Clause 10.3.1 of Concession Agreement at the time of Signing of Joint Memorandum.
10. Payment disbursement and necessary clearances required for removal of religious and Govt. buildings.
11. NOC from PWD/WRO, Govt. of Tamil Nadu for construction of project highways in the existing ponds (in a length of 1.702 Kms).

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

4	80+396	80+415	19.00	LHS	27.00	7.00
5	80+400	80+423	23.00	RHS	24.00	6.50
6	81+356	81+416	60.30	LHS	18.00	9.00
7	81+760	81+835	75.00	LHS	14.30	2.00
8	90+804	90+837	32.77	RHS	32.00	12.80
9	97+376	97+551	175.00	RHS	32.67	11.00
10	97+822	97+845	23.00	RHS	27.50	7.80
11	99+961	100+020	59.70	RHS	25.00	17.28
12	100+350	100+389	39.00	LHS	22.70	4.00
13	100+800	100+845	44.70	RHS	23.00	12.25
14	100+731	100+854	123.75	LHS	23.00	5.00
15	103+039	103+056	17.60	LHS	23.00	6.60
16	103+125	103+435	310.10	LHS	23.00	6.00
17	103+822	103+846	24.00	LHS	23.20	5.20
18	104+091	104+262	171.00	RHS	23.00	16.80
19	103+992	104+264	271.50	LHS	23.00	10.90
20	114+547	114+617	70.00	LHS	20.62	0.00
Total Length affected (in M)			1702.1			

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

Sl. No.	Chainage	Distance from PCL	Remarks/Action to be taken	Present Status
1	81+850	9.3m	To be shifted to edge of PROW	Deposit Amount remitted to PWD/WRO. Work yet to be commenced.
2	81+870	1.8m	To be shifted to edge of PROW	
3	81+910	1.8m	To be shifted to edge of PROW	
4	82+010	1.8m	To be shifted to edge of PROW	
5	82+100	7.4m	To be shifted to edge of PROW	
6	103+990	5.97m	To be shifted to edge of PROW	Estimate received from BDO. Approval pending with Authority

13. Removal of Religious structures of 16 Nos. and Bus stand from the proposed ROW.

SL No	Chainage	Type of Structure	Side	Distance from PCL (M)	TCS Type	Formation Width Required from PCL	ROW From PCL	Remarks
Priority I – Obstruction of Main Carriage way & Service Road :-								
1.	86+350	Temple	LHS	7	Type - B with SR 7.5	21.25	26.10	
2.	92+455	Temple	LHS	14	Type - A3	18.80	23.70	
Priority II – Obstruction of Service Road :-								
1.	75+650	Temple	RHS	15	Fig -7.8 with SR 5.5	22.75	25.50	
2.	80+125	Temple	RHS	16	Type -A3	20.80	23.50	
3.	83+615	Temple	RHS	16	Type - B with SR 7.5	21.25	21.25	
4.	84+070	Temple	LHS	16	Type - B with SR 7.5	21.25	29.00	
5.	86+280	Temple	RHS	23	Type - B with SR 7.5	21.25	30.00	
6.	86+390	Temple	LHS	18	Type - B with SR 7.5	21.25	26.10	
Priority III – Falling Within ROW and effecting the Utility shifting works:-								
1.	76+600	Temple	RHS	24.5	Type - B with SR 7.5	21.25	31.10	
2.	99+710	Temple	LHS	20	Type - A3	17.95	25.00	

14. Removal of Government Buildings

15. Removal of unauthorized occupations in 38 nos. in Cuddalore dist. & 32 nos. in Ariyalur dist. in the project highways.

16. Removal/relocation of Veeranam Pipes between Km: 65+960 to 66+200 causing material adverse effect on construction, Authority requested to take up the matter with Concern Department for early removal of the same.

17. Revised Estimates for Electrical Shifting due to non-available of vertical clearance – Request Authority for earlier Approval.

18. Estimate for shifting of water supply utilities in Missing locations-Request Authority for earlier Approval.

19. With reference to our several correspondence time to time vide which we intimated the matter of enforced nationwide lockdown as well as its impact on the Project Highway, the World Health Organization (WHO) on 11th March' 2020 had characterized the Novel Coronavirus Disease (COVID-19) outbreak as a global Pandemic. In view of the WHO's announcement and over all prevailing condition of the nation, the Union Government of India (GOI) had invoked section 2 of Epidemic Disease Act 1897 on 12.03.2020 to prevent the spread of novel coronavirus in India. Accordingly, the State Government of Tamilnadu has enforced complete lockdown of the entire state from 24.03.2020 to 31.03.2020 to avoid the spread of COVID-19. Subsequently, The Ministry of Home Affairs (MHA) vide Order No. 40-3/2020-DM-I(A), dated 24.03.2020 directed to enforce complete nationwide lockdown for the period of 21 days from 25.03.2020 to 14.04.2020.

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

Accordingly, we have submitted the detailed work program during the extended lock down period up to 03.05.2020 along with the list of Manpower & Machineries to be involved in the Construction work to take suitable action for the issuance of necessary permission from District Administration in this regard. Further, vide our letter no. 12 dated 23.04.2020 we informed that Press released no. 280 dated 20.04.2020 issued by Government of Tamilnadu that Government of Tamilnadu had instructed to continue to enforce all the existing restrictions issued by MHA order dated 24.03.2020 during extended lock down period i.e. up to 03.05.2020.

Further, vide our letter no. 16 dated 08.05.2020 & 19 dated 20.05.2020 we informed that Government of Tamilnadu had instructed to continue to enforce all the existing restrictions issued by MHA order dated 24.03.2020 during extended lock down period i.e. up to 31.05.2020. After that, a notification issued by Revenue and Disaster Management (D-II) Department, Govt. of Tamilnadu bearing no. 203 dated 23.04.2020 vide which it is informed that resumption of construction of road & bridge project can be done with taking all precaution as per Standard Operating Procedure (SOPs) for social distancing and obtain permission from District Administration.

But so far we have not received the requisite permission from the District Administration for commencement of works and the entire construction activities are standstill since 21.03.2020 and the mobilised manpower and machineries are in idle conditions which the Concessionaire facing the huge losses of valuable time and cost due to occurrence of this Force Majeure under the Article-28 of Concession Agreement. Furthermore, we also notified in our earlier correspondence that Ministry of Home Affairs, Govt. of India vide their order dated 29.04.2020 allowed the movement of stranded migrant workers to their home town and subsequently, Local officials of District Administration are now approaching to our staff/ labours directly & taking their willingness for movement to their home town. Due to this and havoc of spreading of coronavirus, our workers and labours are putting their voice/desire for roaming to their home town. Based on prevailing situation and circumstances thereto & on human ground we could not restrict them from going to their home town and many migrant labours/ staffs have registered their name for the movement to their home town.

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

After that Government of India has announced "Unlock 1.0" in entire country except containment zones but Government of Tamilnadu has instructed to extended all restrictions

issued vide additional guidelines for strict adherence on movement of person/ vehicle, testing & quarantine strategies for management of COVID-19 in the state.

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

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

20. Unprecedented heavy rain affected the construction activities in the project highway due to the occurrence & effect of severe cyclonic storm NIVAR on 25.11.2020.

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

Due to many restrictions in persisting conditions arise due to occurring of 2nd wave of Extra ordinary event COVID-19, the supply chain of required material is being disturbed and not in smooth shape which leads to hampering the work progress during this valuable working season. Due to surge in cases of 2nd wave of COVID-19 drastically day by day and additional lockdown like restriction imposing by State Government, migrants labours are leaving the state and going to their native place under the fear of prevailing situation. Further migrants labours who were gone their home at Holi Festival are not returning back due to fear and precarious situation of the spike of COVID-19 pandemic. Due to this condition, we are facing acute shortage of labour/operator/driver for the construction activities in Project Highway and work is being affected because of the impediments beyond the control of the Concessionaire. It is also pertaining to mention that despite taking all necessary precaution and follow the safety guidelines of COVID-19, unfortunately, our many manpower including senior-level deployed at in Project i.e. Sethiyahopu- Cholapruram Section have been infected by COVID-19 and our both base camp (i.e. Meensuruti Base Camp & Anakarai Base Camp) have been sealed by the Block Medical officer, Govt. Community Health Center, Ariyalur despite that incident was beyond our control.

22. COVID-19 cases due to 3rd wave is being drastically increased and occurring never-seen before spikes in infected cases of COVID-19 day by day. You may also aware that in our country 3.47 Lakh new cases in a day have been recorded on 20.01.2022, which is already

bigger than the peak of the first wave of this pandemic in India and continuously increasing day by day.

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

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

10. Important Events**Table 10.1. Details of Important Events**

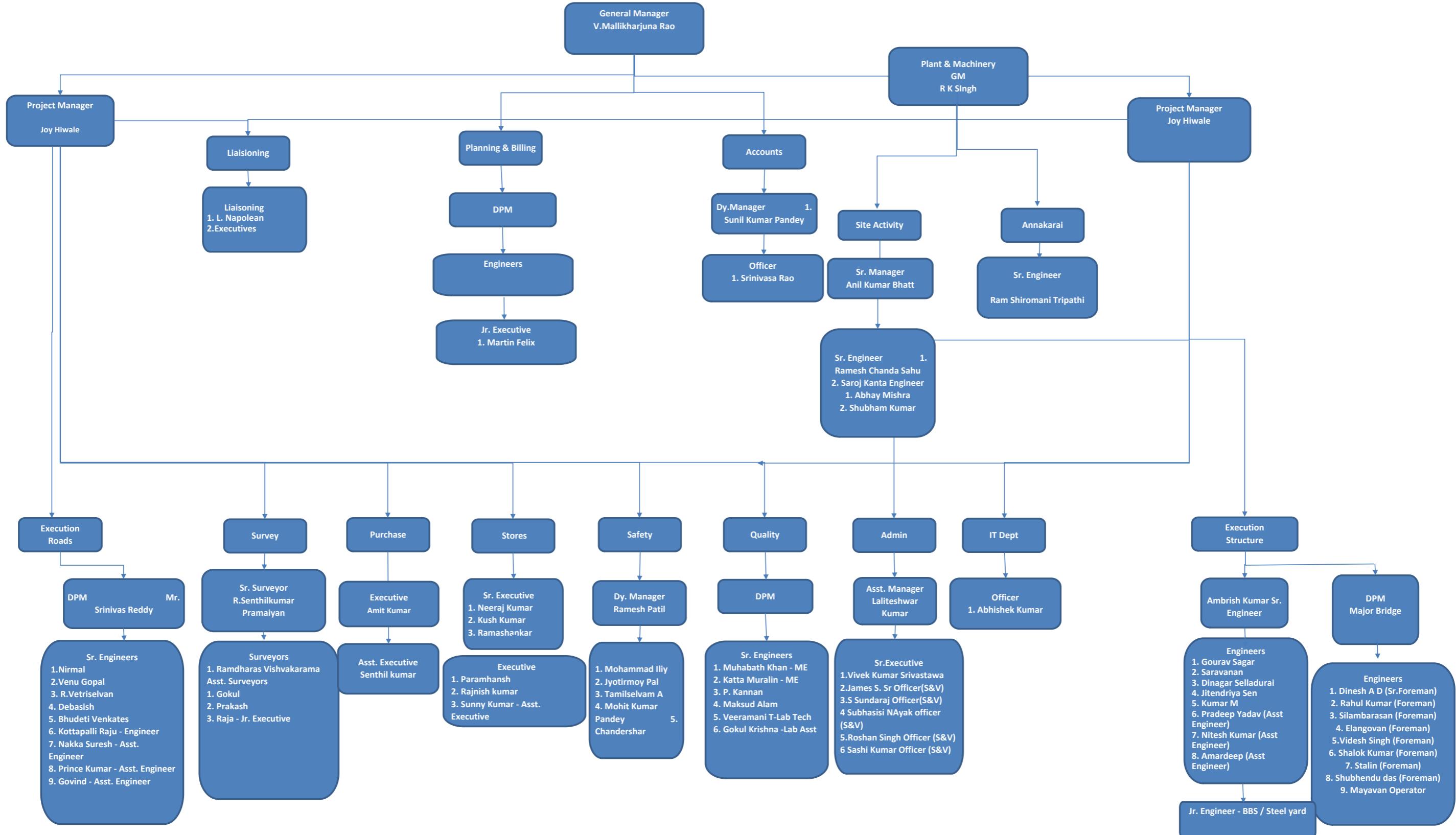
Sl. No	Date of Events	Description of Events	Remarks
1.	11.03.2022	RO Madurai Site Inspection	
2.	17.03.2022	RO Madurai Site Inspection	
3.	22.03.2022	RO Madurai Site Inspection	

11. Organization Chart

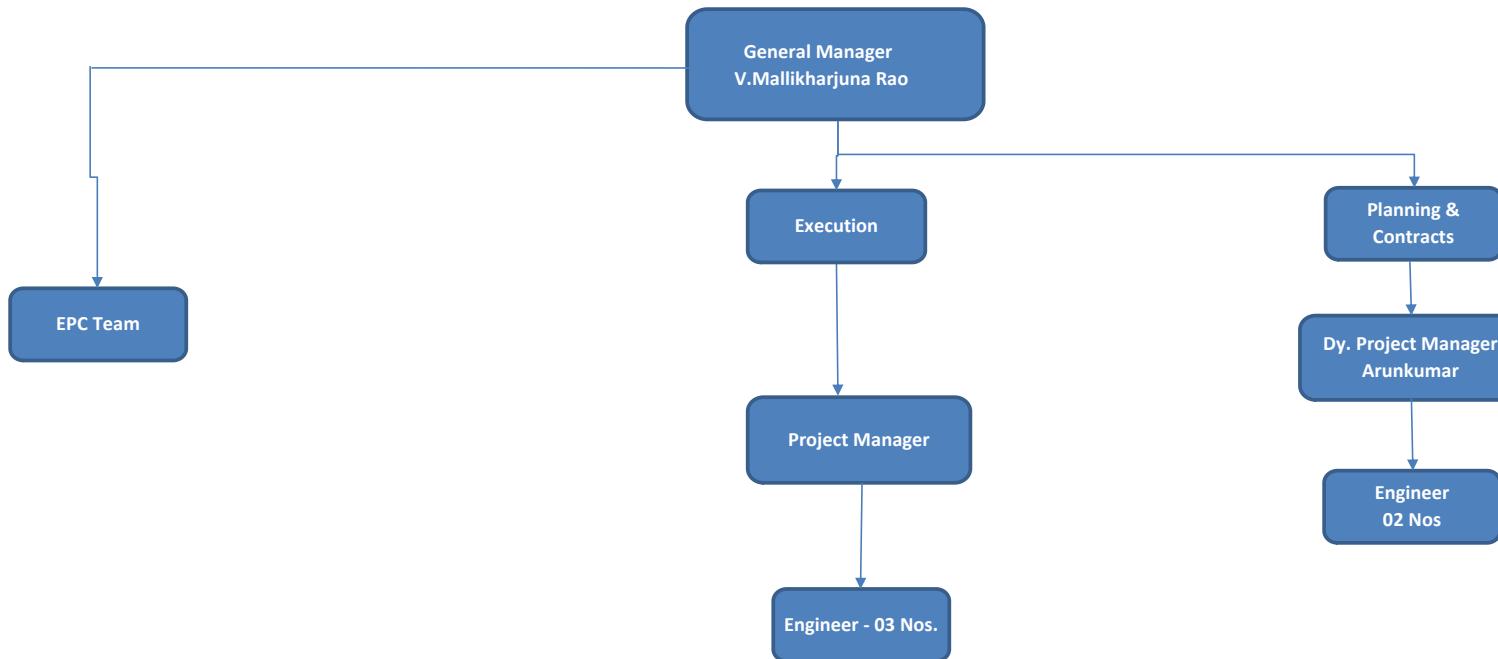
The following figures represents the organization structure of the EPC and SPV Team.

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

ORGANIZATION CHART - EPC TEAM



ORGANIZATION CHART - SPV TEAM



12. List of Plants, Machinery and Equipment's

Table 12.1 - List of Plants, Machinery and Equipment's

S.No.	Name of the Machinery	Capacity / Model	Mobilized in Nos.	Remarks
1	Grader	120K2	9	
2	Excavator	JCB-220	13	
3	Dozer		4	
4	Soil Compactor	HAMM 311	8	
5	Backhoe Loader	JCB 3DX	8	
6	Tipper	Bharat Benz- 3128C	310	
7	Transit Mixture	2523C	12	
8	Loader	455 ZX	4	
9	Trailer		2	
10	Water Tanker		5	
11	Boom Placer	S-36	1	
12	Tractor	5036 D V-2	2	
13	Mobile Service Van		1	
14	Tower Light	AJASKY	3	
11	Hydra Crane		2	
12	Asphalt Batch Mix Plant		1	
13	Wet Mix Plant	250 TPH	1	
14	Concrete Batch Mix Plant	45 cum	2	
15	Concrete Batch Mix Plant	60 cum	2	
16	Crusher Plant (3 Stage)	250 TPH	2	
17	Weigh Bridge for Camp 100MT	100MT	3	
18	Weigh Bridge for Crusher 100MT	100MT	2	
19	Genset Base Camp	25KV	2	
20	Genset 63KVA Boiler	63KVA Boiler	1	
21	Genset (H.M & B/P)	82.50KV	3	
22	Genset (B/P-CP-45)	125KV	2	
23	Genset Concrete Plant-180 KVA	180 KVA	1	
24	Genset (Crusher)	1010KVA	3	
25	Gantry at Box Segment Casting Yard	100 MT	2	Both are in operation.
26	Launching Girder		2	Both are in operation.

13. Change of Scope Proposals

Table 13.1 - Status of Change of Scope Proposals

Sl. No	Proposal Details	Date of Proposal	Current Status	COS Amount	Actual Date of Approval
1	Replacement of Pipe Culverts with Box Culverts	23.03.2018	Approved	3.21 Cr	21.02.2020
2	Strengthening/upgrade the incident Management Service	10.05.2019	Required COS notice for Strengthening/upgrade the incident Management Service.	NA	NA
3	Comprehensive –COS 02	20.08.2018	Approved	(-) 4.69 Cr	23.06.2021

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

Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.

TABLE 14.1 - CORRESPONDANCE - CONCESSIONAIRE TO NHAI

S.No	Date	Letter No	Subject	Remarks
1	05.03.2022	PSCHPL/SCP/NHAI/2022/1069	Submission of detailed report of bridge Span Slide/Collapse-Proposed Major bridge at Km 107+400	
2	05.03.2022	PSCHPL/SCP/NHAI/2022/1070	RA Bill No 20-Shifting of Electrical Utilities as per clause 11.2.1 of Concession Agreement	
3	09.03.2022	PSCHPL/SCP/NHAI/2022/1073	Agaraputhur Village of Kattumannarkoil Taluk in Cuddalore District-Sh. Kolanji-NOC requested	
4	09.03.2022	PSCHPL/SCP/NHAI/2022/1074	Request to progress the issuance of Provisional Completion Certificate as per clause 14.3.1 of Concession Agreement-Conducting of Network Survey Vehicle	
5	09.03.2022	PSCHPL/NHAI/SCP/002/2022	Compliance of comments given by Committee on the failure of span P16-P17 (RHS)	
6	11.03.2022	PSCHPL/HO/NHAI/SCP/003/2022	Response on the Findings of expert committee.	
7	11.03.2022	PSCHPL/NHAI/SCP/004/2022	Request for removal of unwarranted interim Action Against Concessionaire for Sethiyahopu - Cholapuram Section of NH-45C in the state of Tamilnadu	
8	15.03.2022	PSCHPL/SCP/NHAI/2022/1075	Compliance report - Quality Inspection Team visit from 25.10.2021 to 29.10.2021	
9	15.03.2022	PSCHPL/NHAI/SCP/005/2022	Request for removal of unwarranted interim Action Against Concessionaire	

Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.				
<u>TABLE 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE</u>				
S.No	Date	Letter No	Subject	Remarks
1	02.03.2022	NHAI/PIU/Thanj/11025/03/2018/556	Request received from kundaveli (East) majra Meensurity village people for drainage facilities and pathway into over bridge -Construction of drain along service road	
2	03.03.2022	NHAI/PIU/Thanj/11025/11/2019/563	Comprehensive proposal submitted by Concessionaire for extension of Time (EOT), revised BPC and Descoping of 6.130 Km of non workable stretches in the Project	
3	08.03.2022	NHAI/PIU/Thanj/11025/18/2018/631	Accident occurred on account of Collapse Girders (Span P16 & P17 on RHS Carriage way) between in Kollidam river bridge at Km 107+400-Interim report called for	
4	10.03.2022	NHAI/14013/24/2022/RO Madurai/729	Minutes of meeting -Communicated	
5	10.03.2022	NHAI/PIU/Thanj/11025/2018/661	Shifting of electrical utilities	
6	11.03.2022	NHAI/PIU/Thanj/11025/09/2018/671	Reimbursement of GST	
7	15.03.2022	NHAI/PIU/Thanj/11026/15/2018/695	Villagers representation	
8	23.03.2022	NHAI/PIU/Thanj/11025/04/2018/788	Request received from Kundaveli (east) majra Meensurity village people for drainage facilities and path way into over bridge	
9	23.03.2022	NHAI/15011/32/2022/RO Madurai/E:129348/866	Collapse of span P16-17 of Major Bridge -Compliance report submitted by IE & Concessionaire-Observations	

Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.

TABLE 14.3 - CORRESPONDANCE - CONCESSIONAIRE TO INDEPENDENT ENGINEER

S.No	Date	Letter No	Subject	Remarks
1	05.03.2022	PSCHPL/SCP/IE/2022/1071	Request to progress the issuance of Provisional Completion Certificate as per clause 14.3.1 of Concession Agreement	
2	07.03.2022	PSCHPL/SCP/IE/2022/1072	Submission of Monthly Progress report for the month of February 2022	
3	29.03.2022	PSCHPL/HO/SCP/IE/006/2022	Regarding Issuance of 1st PCC and subsequently submission of IPC for the achievement of 3rd Payment Milestone in pursuant to Article-23, Sub-clause 23.4 of CA and clause 3.1 (iii) of Settlement Agreement	

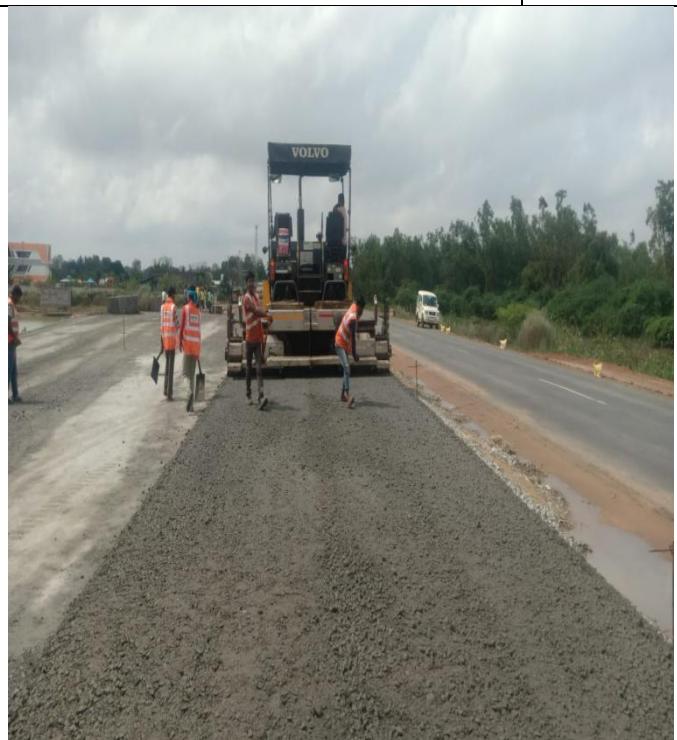
Four laning of Sethiyahopu to Cholapuram from Km 65+960 to 116+440 section of NH-45C in the state of Tamilnadu under NHDP-IV on Hybrid Annuity Mode.				
<u>TABLE 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI</u>				
S.No	Date	Letter No	Subject	Remarks
1	01.03.2022	TES/IE/SCP/NHAI/2022/333	Cholatharam village of Srimushnam Taluk in Cuddalore district – Public representation for providing drainage facilities – Report requested – Reply submitted	
2	02.03.2022	TES/IE/SCP/NHAI/2022/334	Pappakudi Village of Ariyalur District-Request for Median Opening– Remarks	
3	03.03.2022	TES/IE/SCP/NHAI/2022/335	Cholatharam village of Srimushnam Taluk in Cuddalore district –VIP & public representation for providing various facilities– Report requested – Reply submitted	
4	05.03.2022	TES/IE/SCP/PIL/2022/671	Submission of Third party test reports on HT strands from Ms Usha Martin Limited – Approval and comments	
5	07.03.2022	TES/IE/SCP/NHAI/2022/336	Shifting of water pipeline – Estimate Submission – Remarks Called for- Reply- .	
6	07.03.2022	TES/IE/SCP/PIL/2022/672	Submission of Design Mix report for Granular Sub Base (GSB)	
7	07.03.2022	TES/IE/SCP/PIL/2022/673	Additional documents required by Expert Committee for the collapse of PSC Segmental Box Girder	
8	14.03.2022	TES/IE/SCP/PIL/2022/675	Raising of RFI for shifting and erection of PSC Girder @ CH 66+530 & Submission of Methodology	
9	16.03.2022	TES/IE/SCP/NHAI/2022/338	Madurai –Tuticorin R-LNG Pipeline along with optical Fiber cable (OFC) on (Sethiyathope-Cholapuram section) NH-45C across at Km 103.425 (HDD) method in the limits of National Highways-Remarks called	
10	16.03.2022	TES/IE/SCP/PIL/2022/676	Cholatharam Village of Srimushnam Taluk in Cuddalore District - VIP & Public representation for providing various Facilities - Report requested	
11	17.03.2022	TES/IE/SCP/NHAI/2021-22/6134	Regarding Interim report of Expert Committee.	
12	19.03.2022	TES/IE/SCP/NHAI/2022/339	R.A.Bill No. 20 - Shifting of Electrical utilities like HTLT Lines & Structures in Cholatharam section of Chidambaram Division	
13	22.03.2022	TES/IE/SCP/NHAI/2022/340	IE Inspection Report for the month of February 2022	
14	22.03.2022	TES/IE/SCP/NHAI/2022/341	Shifting of water pipeline – Estimate Submission – Remarks Called for- Reply	
15	24.03.2022	TES/IE/SCP/NHAI/2022/342	Rectification of Blackspots under innuyir kappom scheme, Go TN-Requested to furnish estimate- reply called for	
16	30.03.2022	TES/IE/SCP/NHAI/2022/343	Drainage System Adequacy of drain work in the ongoing project and finalization of drainage plan for the balance length – Detailed Report Submitted	

15. Progress Photographs

Sl.No	Description	Location	Side
1.	RE Wall Filling work in Progress	106+200	BHS
2.	RE Wall Filling work in Progress	97+250	BHS



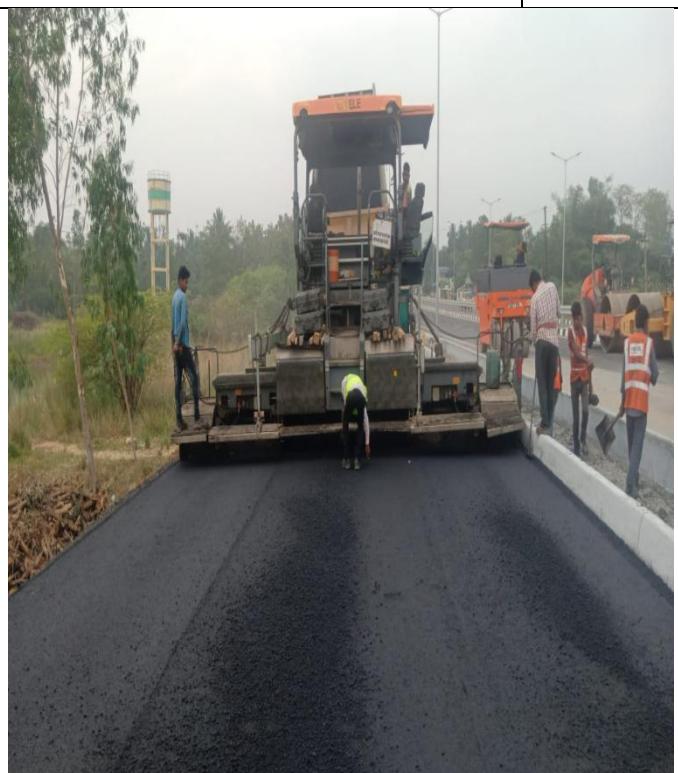
Sl.No	Description	Location	Side
3.	CTSB Laying work in Progress	75+500	RHS
4.	WMM Laying work in Progress	104+140	LHS



Sl.No	Description	Location	Side
5.	WMM Laying work in Progress	94+900	LSR
6.	Slip Road DBM Laying work in Progress	104+280	LSR



Sl.No	Description	Location	Side
7.	BC Laying work in Progress	83+000	LSR
8.	BC Laying work in Progress	103+340	LSR



Sl.No	Description	Location	Side
9.	MJB- Deck Slab Concreting work in Progress	66+491	LHS
10.	MNB- Substructure work in Progress	70+190	RHS
			
Sl.No	Description	Location	Side
11.	VUP- Abutment Cap Staging work in Progress	72+545	RHS
12.	PGR Frame Foundation Concrete work in Progress	82+720	LHS
			