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

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

Four Laning of Sethiyahopu-Cholopuram 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

# NOVEMBER 2022

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

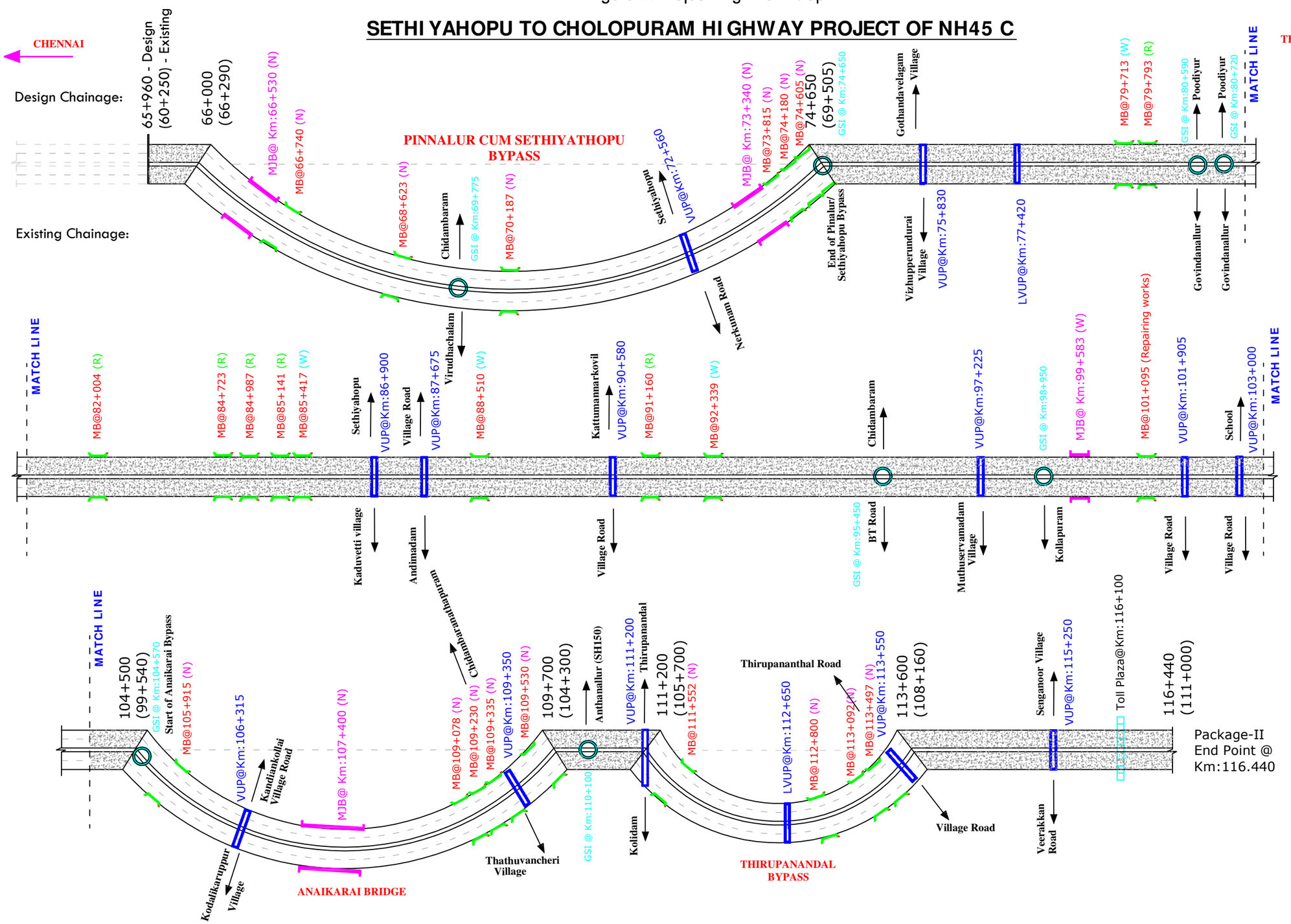
## Project Synopsis

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 - Cholopuram from Km 65.960 to Km 116.440 section of NH - 45C in the State of Tamil Nadu under NHDP Phase-IV on design, build, operate and transfer (the "DBOT Annuity" or "Hybrid Annuity") basis.

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

Figure 2: Project Alignment Map

# SETHI YAHOPU TO CHOLOPURAM HI GHWAY PROJECT OF NH45 C




| Pinnalur /Sethiyathopu Bypass Km:66+000 to 74+650 | | | |
|---|---|---|---|
| Sl No | Description | Unit | Quantity |
| 1. | Culvert | Nos. | 05 |
| 2. | Minor Bridge | Nos. | 06 |
| 3. | Major Bridge | Nos. | 02 |
| 4. | VUP/LVUP | Nos. | 01 |
| 5. | Grade Separator | Nos. | 02 |
| | | | |

| Widening of Existing Road Km:74+650 to 104+500 | | | |
|---|---|---|---|
| Sl No | Description | Unit | Quantity |
| 1. | Culvert | Nos. | 29 |
| 2. | Minor Bridge | Nos. | 10 |
| 3. | Major Bridge | Nos. | 01 |
| 4. | VUP/LVUP | Nos. | 08 |
| 5. | Grade Separator | Nos. | 04 |
| | | | |

| Anaikarai Bypass Km:104+500 to 109+700 | | | |
|---|---|---|---|
| Sl No | Description | Unit | Quantity |
| 1. | Culvert | Nos. | 12 |
| 2. | Minor Bridge | Nos. | 05 |
| 3. | Major Bridge | Nos. | 01 |
| 4. | VUP/LVUP | Nos. | 02 |
| 5. | Grade Separator | Nos. | 01 |
| | | | |

| Widening of Existing Road Km:109+700 to 111+200 | | | |
|---|---|---|---|
| Sl No | Description | Unit | Quantity |
| 1. | Culvert | Nos. | 6 |
| 2. | Minor Bridge | Nos. | - |
| 3. | Major Bridge | Nos. | - |
| 4. | VUP/LVUP | Nos. | 01 |
| 5. | Grade Separator | Nos. | 01 |
| | | | |

| Thirupanandal Bypass Km:111+200 to 113+600 | | | |
|---|---|---|---|
| Sl No | Description | Unit | Quantity |
| 1. | Culvert | Nos. | - |
| 2. | Minor Bridge | Nos. | 04 |
| 3. | Major Bridge | Nos. | - |
| 4. | VUP/LVUP | Nos. | 02 |
| 5. | Grade Separator | Nos. | - |
| | | | |

| Widening of Existing Road Km:113+600 to 116+440 | | | |
|---|---|---|---|
| Sl No | Description | Unit | Quantity |
| 1. | Culvert | Nos. | 08 |
| 2. | Minor Bridge | Nos. | - |
| 3. | Major Bridge | Nos. | - |
| 4. | VUP/LVUP | Nos. | 01 |
| 5. | Toll Plaza | Nos. | 01 |
| | | | |

## LEGENT:

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

## Salient Features of Project:

| Sl No | Description | Unit | Scope |
|---|---|---|---|
| 1. | Total Length of Project | Km | 50.480 |
| 2. | Length of Widening Portion | Km | 34.230 |
| 3. | Length of Bypass | Km | 16.250 |
| 4. | Length of service/Slip Road | Km | 27.100 |
| 5. | Culverts | | |
| | Box Culvert | Nos. | 53 |

| Sl No | Description | Unit | Scope |
|---|---|---|---|
| | Slab Culvert | Nos. | 07 |
| 6. | Minor Bridge | Nos. | 25 |
| 7. | Major Bridge | Nos. | 04 |
| 8. | VUP/LVUP | Nos. | 15 |
| 9. | Grade Separated Structure | Nos. | 08 |
| 10. | Toll Plaza | Nos. | 01 |

| Sl No | Description | Unit | Scope |
|---|---|---|---|
| 11. | Minor Intersection | Nos. | 100 |
| 12. | Major Intersection | Nos. | 07 |
| 13. | Bus Bays and Shelters | Nos. | 09 |
| | | | |
| | | | |

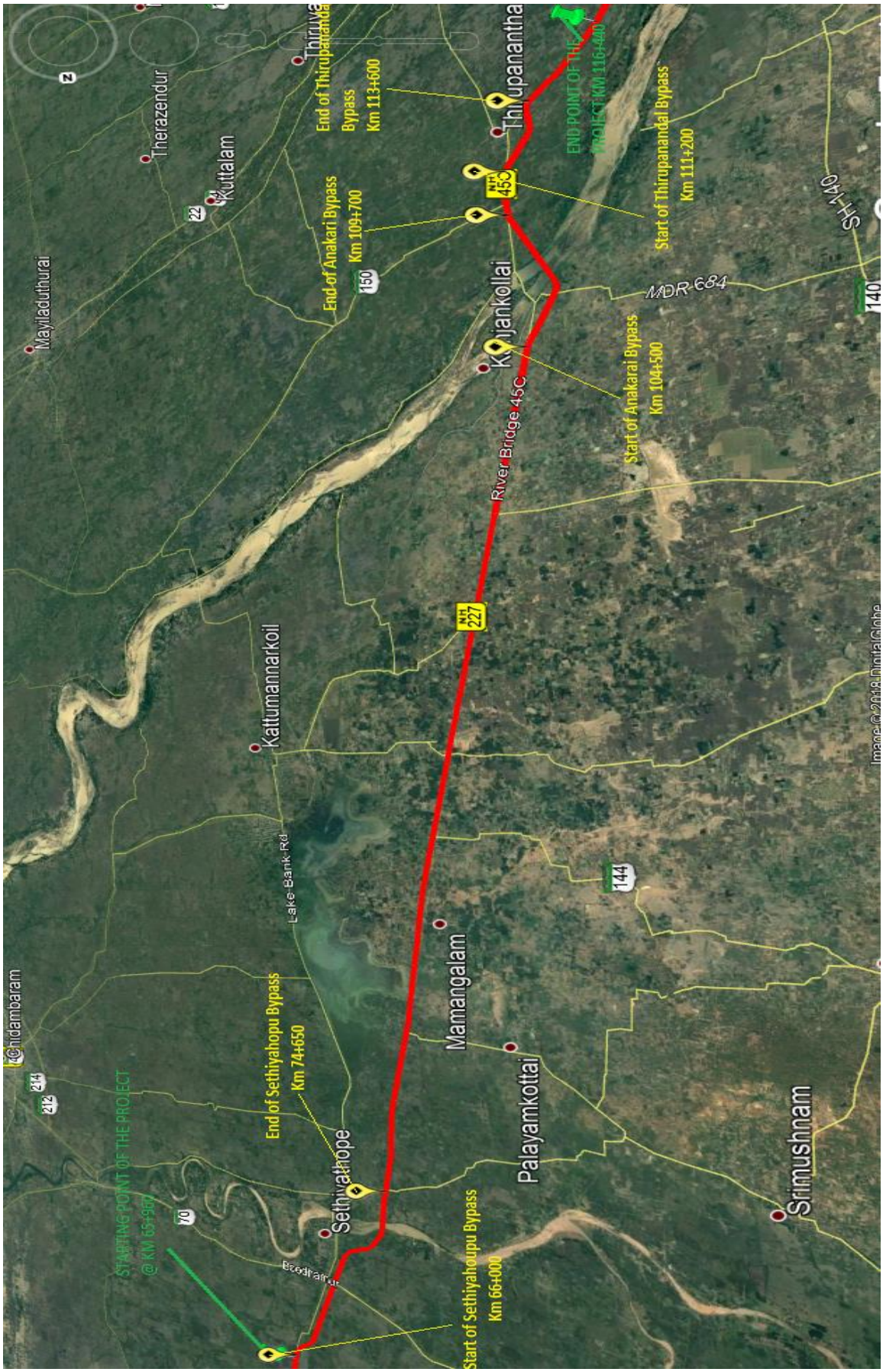
Drawing Title

Strip Plan - Sethiyahopu to Cholopuram Highway Project

| Date. | Project No. |
|---|---|
| 31-08-2018 | PSCHP/NHAI/TN/001 |

9

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)<br>G-5 & 6, Sector-10, Dwarka,<br>New Delhi -110075 |
| Name of Concessionaire | Patel Sethiyahopu – Cholopuram Highway Pvt Ltd,<br>Patel House, Beside Prakruti Resorts,<br>Channi Road, Vadodara.<br>Gujarat– 391740<br>Tel: +91-265 277 6678<br>Fax: +91-265 277 7878 |
| Independent Engineer | M/s. Theme Engineering Services Pvt. Ltd,<br>Plot No. 2, Annai Anjugam Nagar, Ullur,<br>Chettimandapam, Kumbakonam – 612001. |
| EPC Contractor | M/s. Patel Infrastructure Limited,<br>Patel House, Beside Prakruti Resorts,<br>Channi Road,Vadodara<br>Gujarat– 391740,<br>Tel: +91-265 277 6678<br>Fax: +91-265 277 7878 |
| Design Consultant | CTL Global Services Pvt. Ltd.<br>101, Ist Floor, Krishna Chambers, HAL, Airport Road,<br>Bangalore-560017 |
| Senior Lender | Punjab National Bank, Large Corporate Branch,<br>Neelkamal Building, Opp. Sales India, Ashram Road,<br>Ahmedabad - 380009 |
| Lenders Independent Engineers | Sharul Techno-Financial Consultancy Services Pvt. Ltd.,<br>403, Aspire Tower 5, Amanora Park Town, Hadapsar,<br>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 | Revised Target Dates recommended by PIU, NHAI considering EOT of 105 + 270 Days |
|---|---|---|---|---|
| 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 214th day from the Appointed Date. | 18th March 2019 | ➢ 31st May'2021- Total 28.345 Km. four lane to be completed for PCOD-I.<br>➢ 30th Nov'2021- Total 35.940 Km. four lane to be completed for PCOD-II.<br>➢ Balance 14.540 Km. four lane shall be handed over to the Concessionaire by 31st May'2021 and shall be completed by 31st July'2022. | ➢ 13th Sep'2021- Total 28.345 Km. four lane to be completed for PCOD-I (EOT of 105 days considered).<br>➢ 28th Feb'2023- Total 35.940 Km. four lane to be completed for PCOD-II (EOT of 105 + 270 days considered).<br>➢ 10th Aug'2023- Total 40.840 Km. four lane to be completed for PCOD-III (EOT of 105 + 270 days along with descope proposal in 9.640 Km length considered). |
| Mile Stone -II | Concessionaire shall expended not less than 35% of the Total capital cost and shall have commenced construction of the project and achieved 35% of physical progress on 334th day from the Appointed Date. | 16th July 2019 | | |
| Mile Stone -III | Concessionaire shall expended not less than 75 % of the Total capital cost and shall have commenced construction of the project and achieved 75% of physical progress on 584th day from the Appointed Date. | 22nd March 2020 | | |
| Scheduled Completion | Concessionaire shall have completed Project on 730th day from the Appointed Date. | 15th 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.

However, out of 14.540 Kms, only 4.180 Kms was handed over to the Concessionaire by 31.05.2021. Out of the balance length equal to 10.360 Kms (i.e. 14.540 kms - 4.180 kms), Concessionaire considered 4.230 Kms length as workable length and remaining length equal to 6.130 Kms (i.e. 10.360 kms - 4.230 kms) was under approval of descope proposal at NHAI, HQ from the scope of work of Concessionaire.

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 Concessionaire had also requested to Authority/IE for the extension of time for PCOD-2 up to 28.02.2023 and PCOD-3 upto 10.08.2023 due to constraints of issue in obtaining permission for extracting soils from borrow area and also due to interruption in the availability of pond ash.

The Concessionaire had also submitted the proposal for additional descope to Authority / IE in 3.51 Km length in addition to the already proposed descoping of 6.13 Km length due to interruption in the availability of pond ash required for the construction of RE Wall stretches and also due to local villagers were not allowing the concessionaire to continue the construction activities in some stretches. Hence, the concessionaire was not able to execute any construction activity in 3.51 Km length up to 31.05.2021 and submitted the proposal of additional de scope to Authority/IE.

In line of the submission done by the concessionaire, Independent Engineer has examined both the proposals submitted by the concessionaire and Independent Engineer vide IE letter no. 4906 & 4897 Dt. 04.11.2022 has recommended both the proposals to PIU, NHAI (i.e. total comprehensive descope proposal in 9.640 Km length (6.13Km+3.51Km) and extension of time proposal for PCOD-02 (completion of 35.940 Km) up to 28.02.2023 and extension of time proposal for PCOD-03 (completion of 40.840 Km duly considering the descope proposal of 9.640 Km length) up to 10.08.2023 for the approval of competent authority.

In line of the recommendation done by IE, PIU NHAI vide letter no. 3153 Dt. 04.11.2022 has also recommended both the proposals to RO, NHAI (i.e. total comprehensive descope proposal in 9.640 Km length (6.13Km+3.51Km) and extension of time proposal for PCOD-02 (completion of 35.940 Km) up to 28.02.2023 and extension of time proposal for PCOD-03 (completion of 40.840 Km duly considering the descope proposal of 9.640 Km length) up to 10.08.2023) for getting the approval from the competent authority.

Both the proposals recommended by PIU, NHAI (i.e. total comprehensive descope proposal in 9.640 Km length (6.13Km+3.51Km) and extension of time proposal for PCOD-02 (completion of 35.940 Km) up to 28.02.2023 and extension of time proposal for PCOD-03 (completion of 40.840 Km duly considering the descope proposal of 9.640 Km length) up to 10.08.2023) are under review of competent authority.

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

| Sr. No. | Description | Target | Achieved as on date | Remarks |
|---|---|---|---|---|
| 1 | Completion of 28.345 Kms by 31.05.2021 | 55.00% (803.60 Cr.) | 68.28% | IE vide letter no. 1144 dated 02.06.2022 has issued the Provisional Completion Certificate-1 (PCC-1) for the completion of 28.345 Kms w.e.f. 10.12.2021. |
| 2 | Completion of 35.940 Kms (i.e. 28.345 Kms + 7.595 Kms) by 30.11.2021 | 72.25% (1055.57 Crore) | | |
| 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 |
| Payment Mile Stone-III & IPC No. 01 of Mile Stone-IV (as per NHAI Policy Guidelines/Atmnirbhar Bharat) | On achievement of 63.787% of physical progress | 22.32 Crs. | 24.39 Crs. | 30.06.2022 |
| IPC No. 02 of Mile Stone-IV (as per NHAI Policy Guidelines/Atmnirbhar Bharat) | On Achievement of 66.181% of physical progress | 13.99 Crs. | 9.78 Crs. | 22.08.2022 |

## 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 Completed |
| 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 | |

## 2.1. 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) | Within 90(Ninety) days of the Appointed date |
| Stretch | 099.700 to 104.500 | 4.800 | 15.00 | |
| 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 30.11.2022 (km) | Side | Reason | Remarks |
|---|---|---|---|---|---|---|---|
| | From | To | | | | | |
| 1 | 72.350 | 73.180 | 0.830 | 0.830 | BHS | Local Villager's Problem | |
| 2 | 75.520 | 76.150 | 0.630 | 0.630 | BHS | Local Villager's Problem | |
| 3 | 80.100 | 81.150 | 1.050 | 1.050 | BHS | Local Villager's Problem | |
| 4 | 87.360 | 87.990 | 0.630 | 0.630 | BHS | Local Villager's Problem | |
| 5 | 95.035 | 95.865 | 0.830 | 0.830 | BHS | Local Villager's Problem | |
| 6 | 98.500 | 99.400 | 0.900 | 0.900 | BHS | Local Villager's Problem | |
| 7 | 101.590 | 102.225 | 0.635 | 0.635 | BHS | Local Villager's Problem | |
| 8 | 113.225 | 113.850 | 0.625 | 0.625 | BHS | Local Villager's Problem | |
| Total in Kms | | | | 6.130 Km | | | |

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

In addition to above 6.130 Km non-workable length, following are the details of Stretches under Hindrance due to practical constraints available at site:-

| Sr. No | Chainage | | Length (km) | Length cannot be taken up due to practical constraints | Side | Reason | Remarks |
|---|---|---|---|---|---|---|---|
| | From | To | | | | | |
| 1 | 77.220 | 77.800 | 0.580 | 0.580 | BHS | Local Villager's Problem | |
| 2 | 86.580 | 87.360 | 0.780 | 0.780 | BHS | Local Villager's Problem | |
| 3 | 109.035 | 109.700 | 0.665 | 0.665 | BHS | Pond Ash Issue | |
| 4 | 110.900 | 111.560 | 0.660 | 0.660 | BHS | Pond Ash Issue | |
| 5 | 114.835 | 115.660 | 0.825 | 0.825 | BHS | Pond Ash Issue | |
| Total in Kms | | | | 3.510 Km | | | |

## 2.2. Removal of Religious Structures

The following structures coming within the ROW are to be demolished

Table 2.2-1: Status of Removal of Religious structures

| Sl No. | Name of the District | Total No. of structures | Removed as on Date (in Nos.) | Balance (in Nos.) |
|---|---|---|---|---|
| 1 | 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.No. | Name of the District | Chainages | | | Effected Length in Kms. | Completed as on Date | Balance as on Date | Balance no. of Trees | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| | | From | To | Length in Km | | | | | |
| 1 | Cuddalore | 65+960 | 86+440 | 20.48 | 6.535 | 6.535 | 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 | |

## 3.1. 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

| Sl 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 | 02 | - |
| 5 | Minor Intersections | No | 100 | 65 | - |
| 6 | Toll Plaza (Typical Details) | No | 01 | 01 | - |
| 7 | Service Roads | Km | 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 |

## 4.1. Physical Progress of Work:

The Progress of the Major works carried out at the Site in the Month of November 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 | 35.155 | 0.000 | 35.155 | 0.600 | 12.125 | 74.35% |
| | RHS | 47.28 | 34.245 | 0.000 | 34.245 | 0.600 | 13.035 | 72.43% |
| 3 | Subgrade | | | | | | | |
| | LHS | 47.28 | 34.593 | 0.007 | 34.600 | 0.555 | 12.680 | 73.18% |
| | RHS | 47.28 | 33.827 | 0.000 | 33.827 | 0.418 | 13.453 | 71.55% |
| 4 | GSB/ Cement Treated Base | | | | | | | |
| | LHS | 47.28 | 34.160 | 0.121 | 34.281 | 0 | 12.999 | 72.51% |
| | RHS | 47.28 | 33.507 | 0.319 | 33.826 | 0 | 13.454 | 71.54% |
| 5 | Wet Mix Macadam | | | | | | | |
| | LHS | 47.28 | 33.818 | 0.453 | 34.271 | 0 | 13.009 | 72.49% |
| | RHS | 47.28 | 33.477 | 0.299 | 33.776 | 0 | 13.504 | 71.44% |
| 6 | Dense Bitumen Macadam | | | | | | | |
| | LHS | 47.28 | 33.728 | 0.543 | 34.271 | 0 | 13.009 | 72.49% |
| | RHS | 47.28 | 33.367 | 0.409 | 33.776 | 0 | 13.504 | 71.44% |
| 7 | Bituminous Concrete | | | | | | | |
| | LHS | 47.28 | 32.065 | 0.958 | 33.023 | 0 | 14.257 | 69.85% |
| | RHS | 47.28 | 32.810 | 0.808 | 33.618 | 0 | 13.662 | 71.10% |

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 | 31.290 | 0.300 | 31.590 | 0 | 21.600 | 59.39% |
| 2 | Sub grade | 53.19 | 31.290 | 0.300 | 31.590 | 0 | 21.600 | 59.39% |
| 3 | GSB/ Cement Treated Base | 53.19 | 30.520 | 0.030 | 30.550 | 0 | 22.640 | 57.44% |
| 4 | Wet Mix Macadam | 53.19 | 30.095 | 0.425 | 30.520 | 0 | 22.670 | 57.38% |
| 5 | Dense Bitumen Macadam | 53.19 | 29.325 | 0.785 | 30.110 | 0 | 23.080 | 56.61% |
| 6 | Bituminous Concrete | 53.19 | 21.940 | 3.040 | 24.980 | 0 | 28.210 | 46.96% |

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 | 47.675 | 4.325 | 8 |
| 2 | Light Vehicular Underpass | 2 | 1 | 1 | 0 |
| 3 | Vehicular Underpass | 13 | 10.00 | 3.00 | 0 |
| 4 | Minor Bridges | 25 | 24.50 | 0.50 | 0 |
| 5 | Major Bridge | 4 | 2.00 | 2.00 | 0 |
| 6 | Flyover | 8 | 5.50 | 1.50 | 1 |

The Physical Progress of the Project up to November 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 Nov'2022 | % Physical Progress | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Road works including culverts, minor bridges, underpasses, overpasses, approaches to ROB/RUB/ Major Bridges/ Structures (but excluding service roads) | A- Widening and strengthening of existing road | | | | | | |
| | (1) Earthwork up to top of the sub-grade | Km | 66.96 | 9.517% | 49.177 | 6.989% | |
| | (2) Granular work (sub-base, base, shoulders) | | | | | | |
| | (a) GSB/ Cement Treated Base | Km | 65.52 | 3.373% | 49.137 | 2.530% | |
| | (b) WMM/ Cement Treated Base | Km | 65.52 | 4.046% | 49.077 | 3.030% | |
| | (3) Shoulders | Km | 17.65 | 0.112% | 16.720 | 0.106% | |
| | (4) Bituminous work | | | | | | |
| | (a) DBM | Km | 65.52 | 3.344% | 49.077 | 2.505% | |
| | (b) BC | Km | 65.52 | 3.023% | 48.327 | 2.230% | |
| | (5) Rigid Pavement | | | | | | |
| | (6) Widening and repair of culverts | Nos | 16 | 0.440% | 13.575 | 0.373% | |
| | (7) Widening and repair of minor bridges | Nos | 4 | 0.959% | 4.00 | 0.959% | |
| | B- New realignment/bypass | | | | | | |
| | (1) Earthwork up to top of the sub-grade | Km | 28.68 | 6.437% | 19.250 | 4.321% | |
| | (2) Granular work (sub-base, base, shoulders) | | | | | | |
| | (a) GSB/ Cement Treated Base | Km | 28.68 | 1.615% | 18.970 | 1.068% | |
| | (b) WMM/ Cement Treated Base | Km | 28.68 | 1.436% | 18.970 | 0.950% | |
| | (3) Shoulders | Km | 24.63 | 0.112% | 12.540 | 0.057% | |
| | (4) Bituminous work | | | | | | |
| | (a) DBM | Km | 28.68 | 1.279% | 18.970 | 0.846% | |
| | (b) BC | Km | 28.68 | 1.158% | 18.314 | 0.740% | |
| | (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% | 57.00 | 3.885% | |
| (b) Substructure | Nos | 134 | 2.623% | 131.00 | 2.564% | |
| (c) Superstructure (including crash barrier etc. complete) | Nos | 50 | 1.559% | 45.40 | 1.416% | |
| (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% | 51.00 | 2.344% | |
| (ii) Substructure | Nos | 60 | 0.751% | 51.00 | 0.639% | |
| (iii) Superstructure (including crash barrier etc. complete) | Nos | 30 | 1.289% | 20.95 | 0.900% | |
| (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% | 29.00 | 0.379% | |
| (iii) Superstructure (including crash barrier etc. complete) | Nos | 20 | 1.244% | 14.00 | 0.871% | |
| (d) Foot over Bridge | | | | | | | |

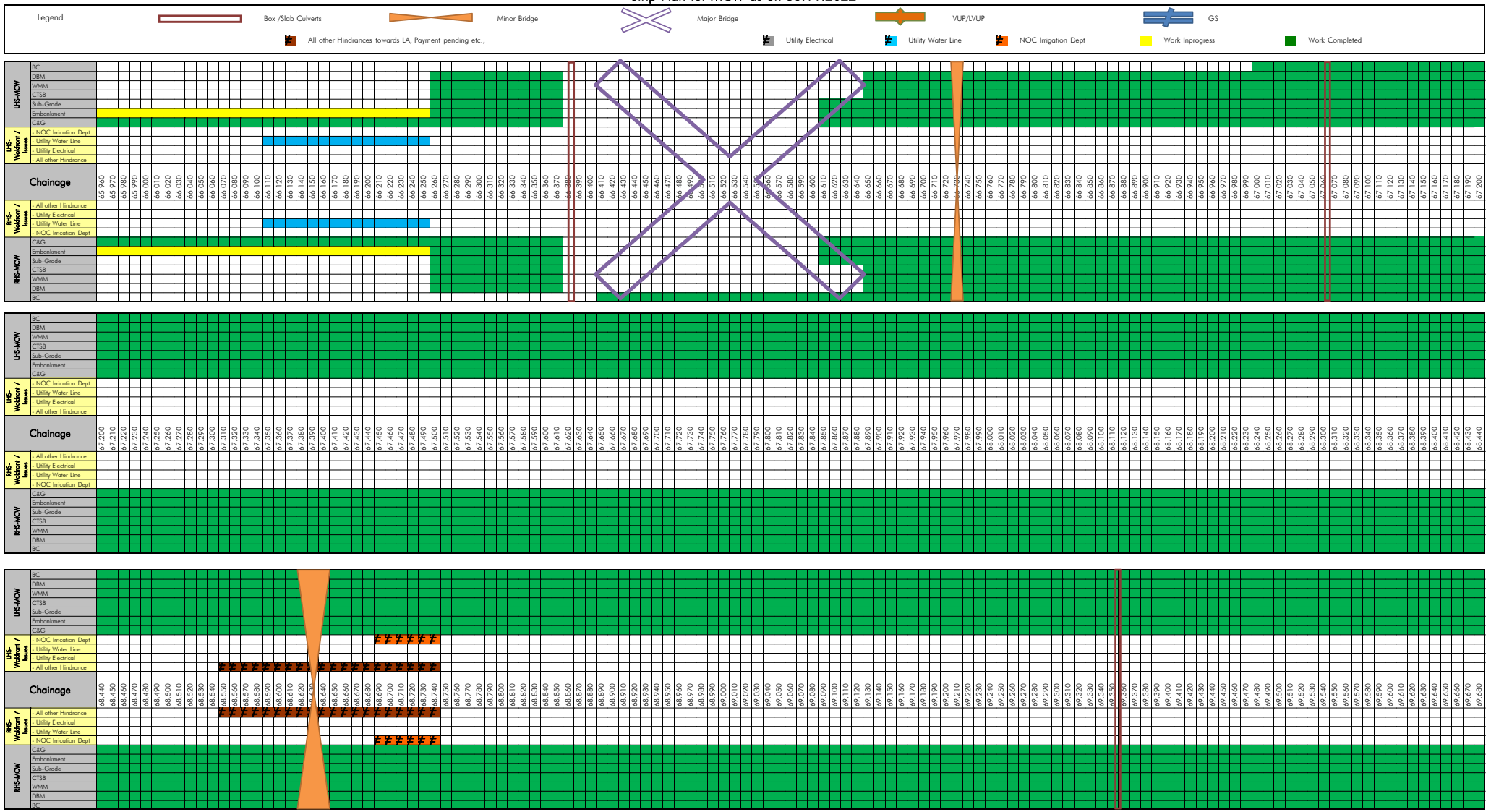
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | A- Widening and repairs of Major Bridges | | | | | | |
| | (1) Foundation | | | | | | |
| | (a) Open Foundation | | | | | | |
| | (b) Pile Foundation/ Well Foundation | | | | | | |
| | (2) Sub-structure | | | | | | |
| | (3) Super-structure (including crash barriers etc. complete) | | | | | | |
| | C- New Major Bridges | | | | | | |
| | (1) Foundation | | | | | | |
| | (a) Open Foundation | | | | | | |
| | (b) Pile Foundation/ Well Foundation | | | | | | |
| | (i) Foundation | Nos | 84 | 9.699% | 82.00 | 9.468% | |
| | (2) Sub-structure | Nos | 84 | 4.576% | 82.00 | 4.467% | |
| Major Bridge works and ROB/RUB | (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% | 666.00 | 1.450% | |
| | (b) Erection of Superstructure (Box Segment) | Nos | 666 | 1.050% | 231.00 | 0.364% | |
| | (i) For other Major Bridges | | | | | | |
| | (a) Super-structure (including crash barriers etc. complete) | Nos | 37 | 2.500% | 25.80 | 1.743% | |
| | 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 | | | | | |
| | A- Elevated Structures | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Structures (elevated sections, reinforced earth) | (1) Foundation | Nos | | | | | |
| | (2) Sub-structure | Nos | | | | | |
| | (3) Super-structure (including crash barriers etc. | Nos | | | | | |
| | **B- Reinforced earth Wall (includes Approaches of ROB, Underpasses, Overpasses,Flyover etc)** | Sqm | 196027 | 7.604% | 49,530 | 1.921% | |
| Other Works | **(i) Service roads/ Slip Roads** | Km | 53.19 | 4.690% | 24.980 | 2.202% | |
| | **(ii) Toll Plaza** | Nos | 1 | 1.821% | | | |
| | **(iii) Road side drains** | Km | 28.85 | 5.429% | 7.110 | 1.338% | |
| | **(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% | 7.345 | 0.327% | |
| | (ii) W-Beam Crash Barrier | Km | 10.03 | 0.788% | 2.040 | 0.160% | |
| | **(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% | 1.607 | 0.031% | |
| | **(viii) Protection works** | | | | | | |
| | (a) Boulder pitching on slopes | Km | 10.03 | 0.218% | 2.040 | 0.044% | |
| | (b) Toe/Retaining wall | Km | 10.03 | | | | |
| | **(x) Miscellaneous** | Ls. | 100% | 0.164% | | | |
| | **Total** | | | **100.00%** | | **68.28%** | |

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 MCW as on 30.11.2022



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

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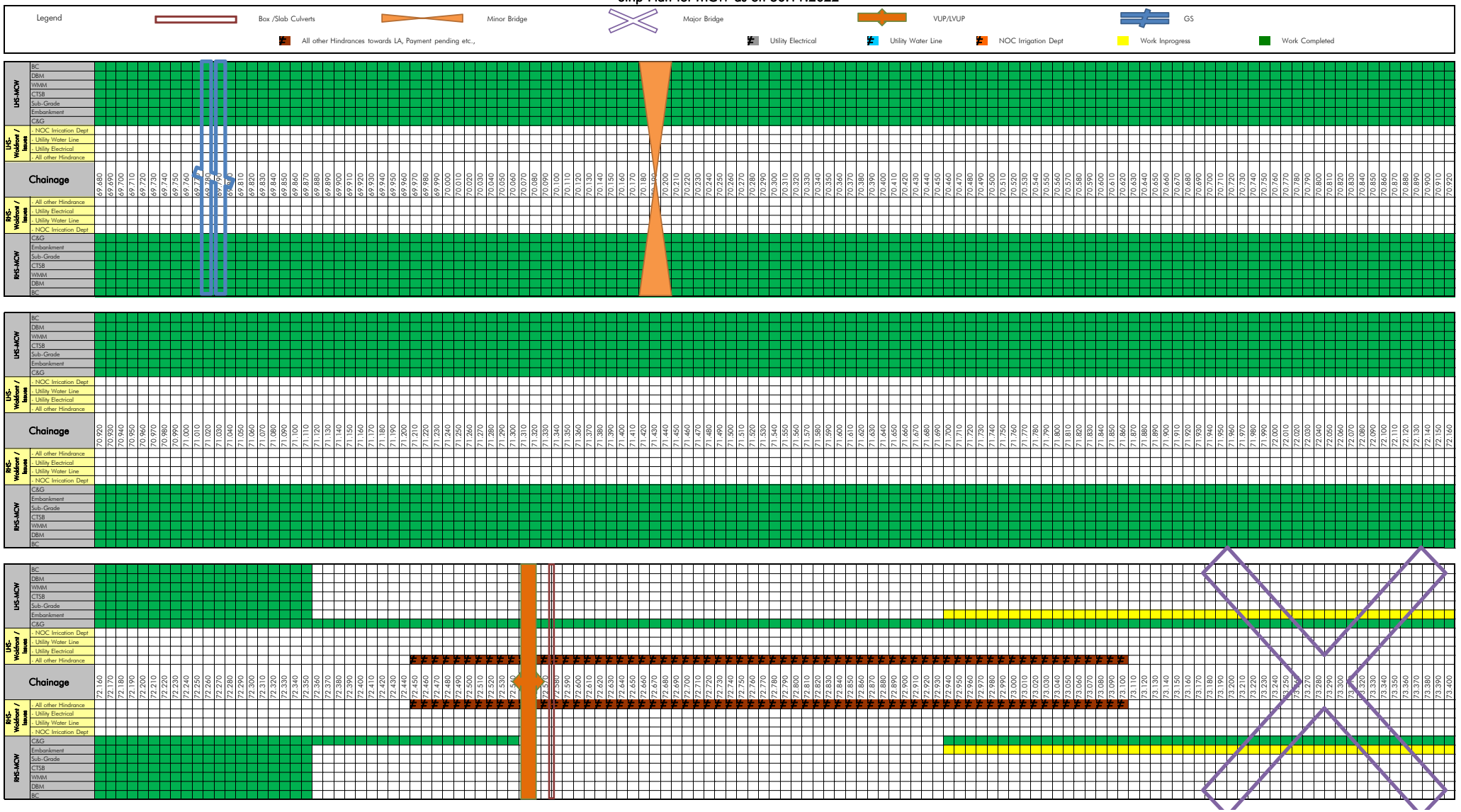

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

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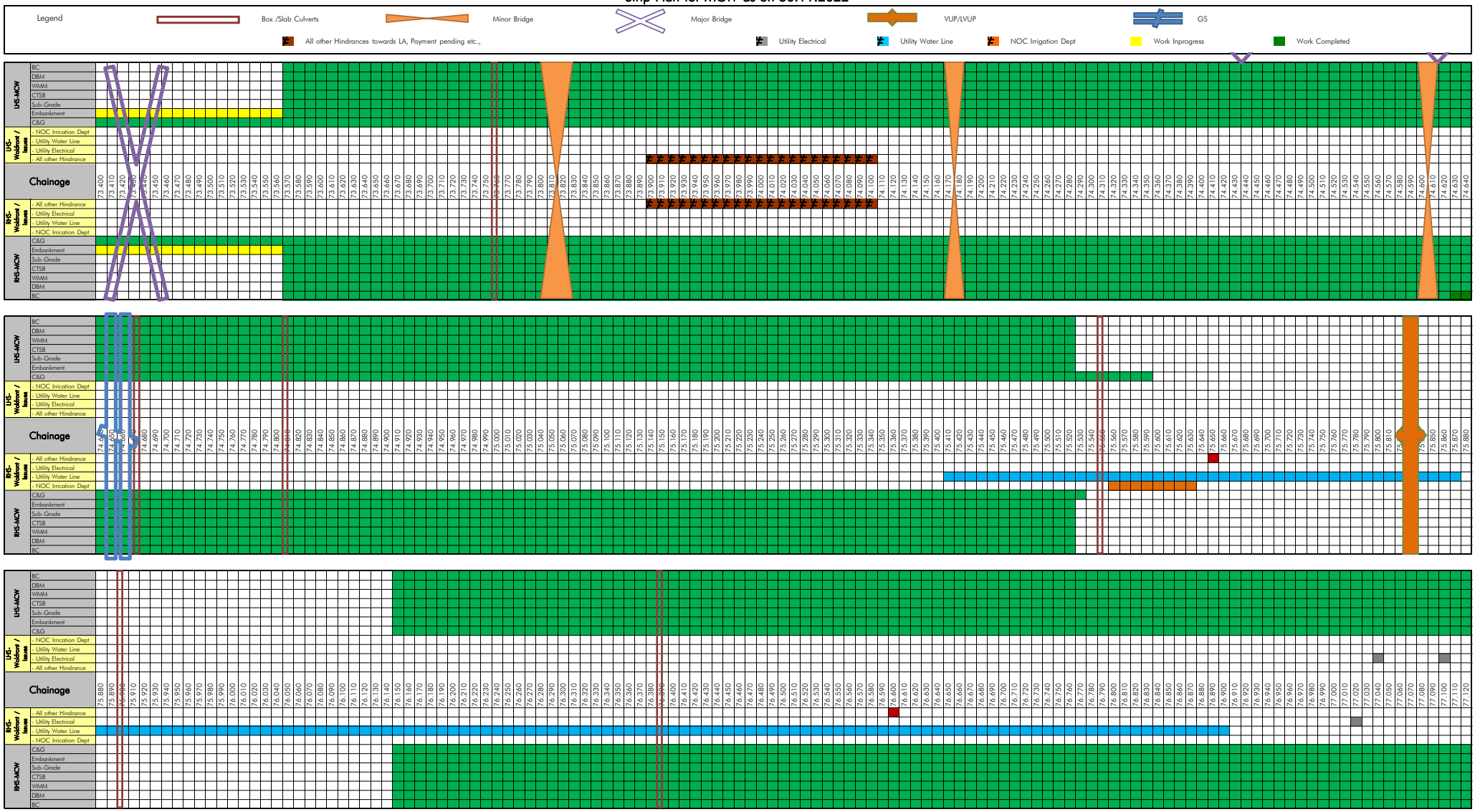

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

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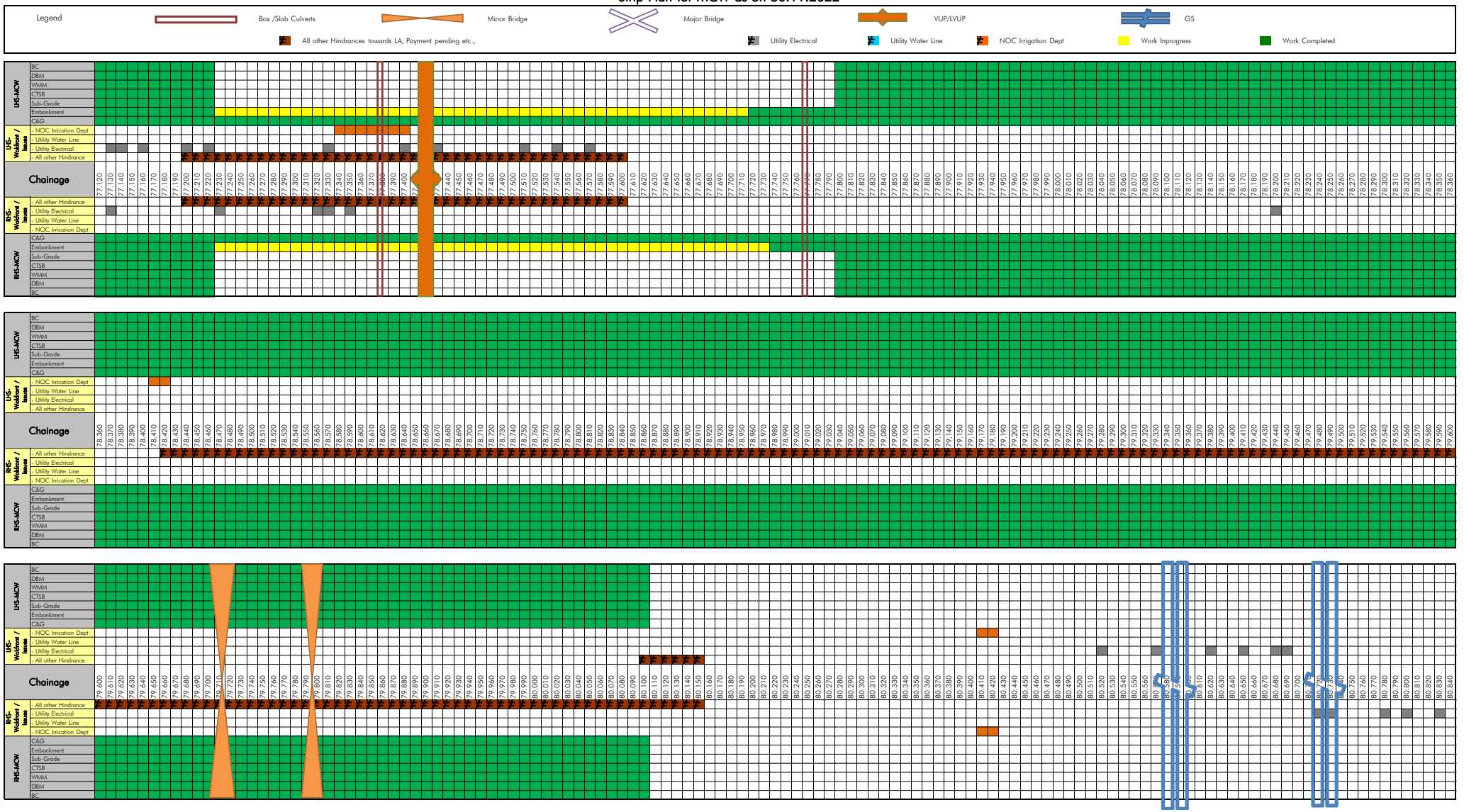

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

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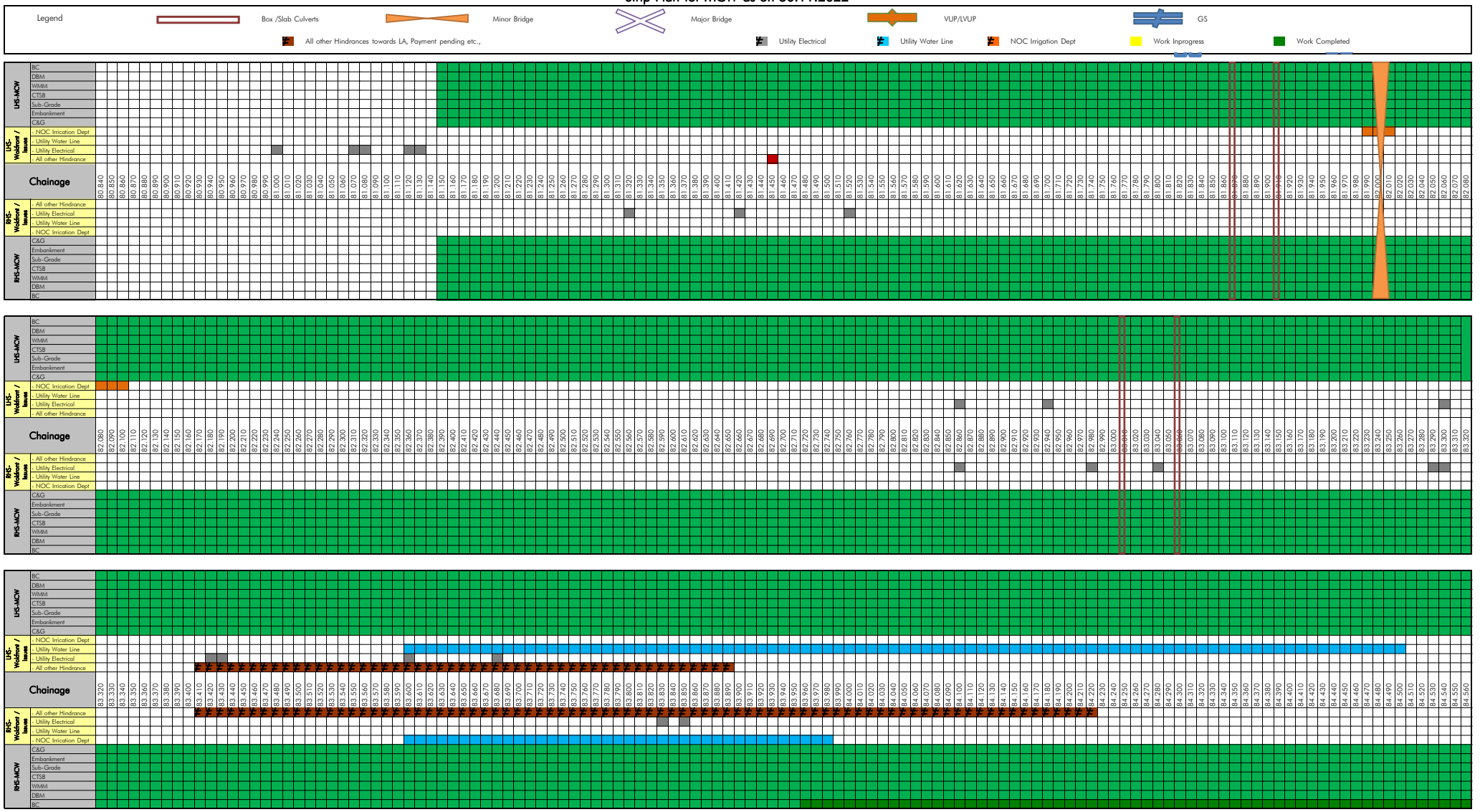

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

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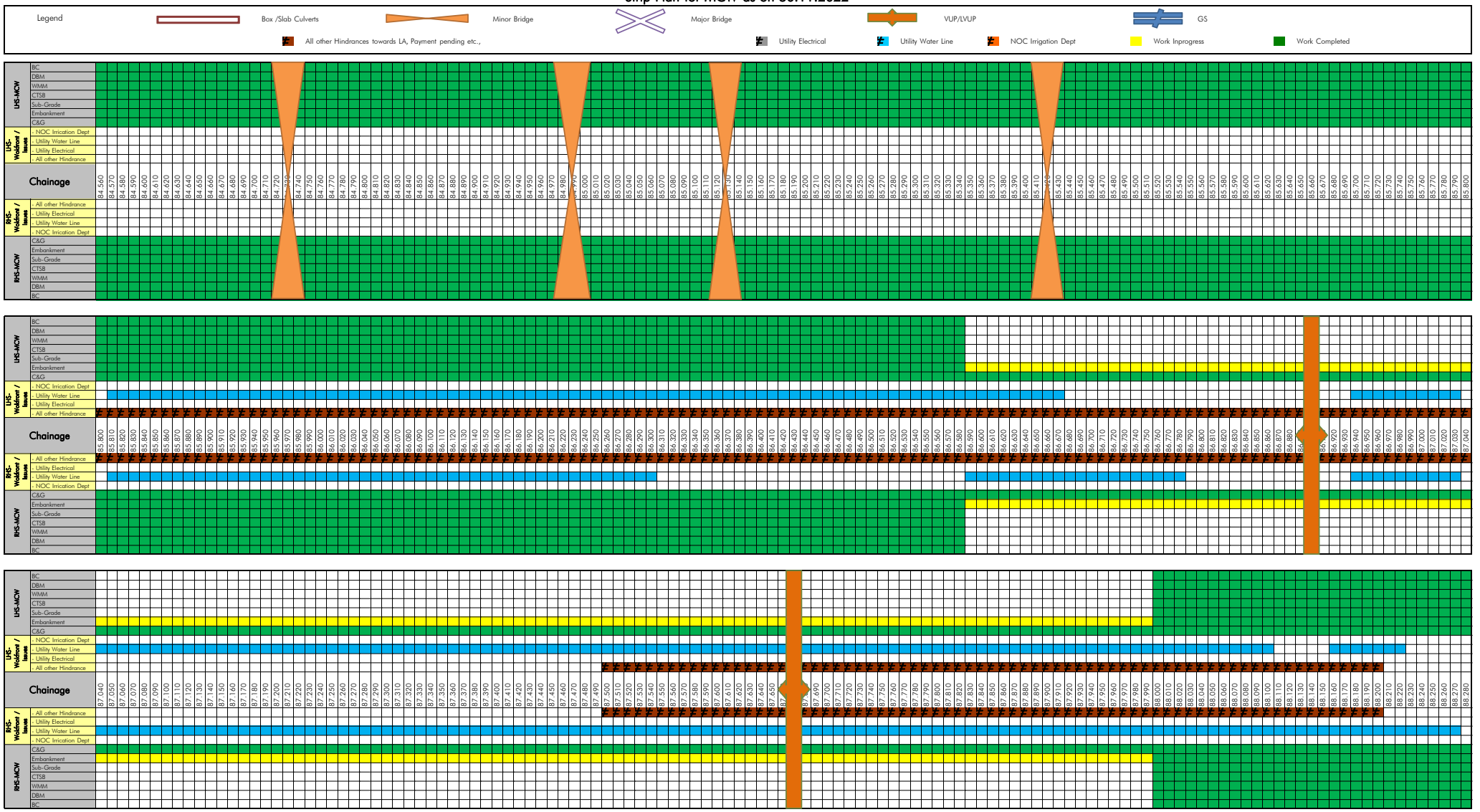

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

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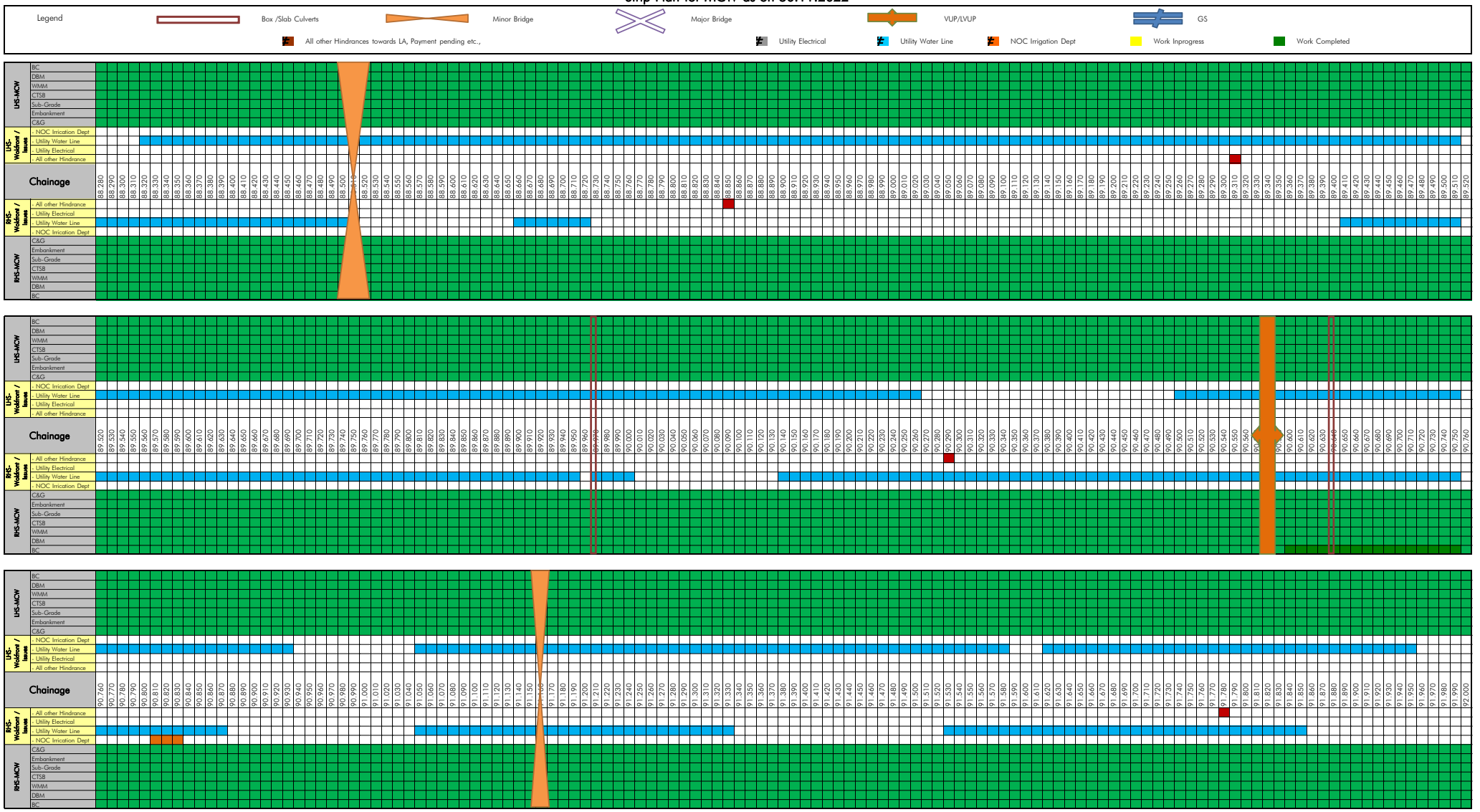

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

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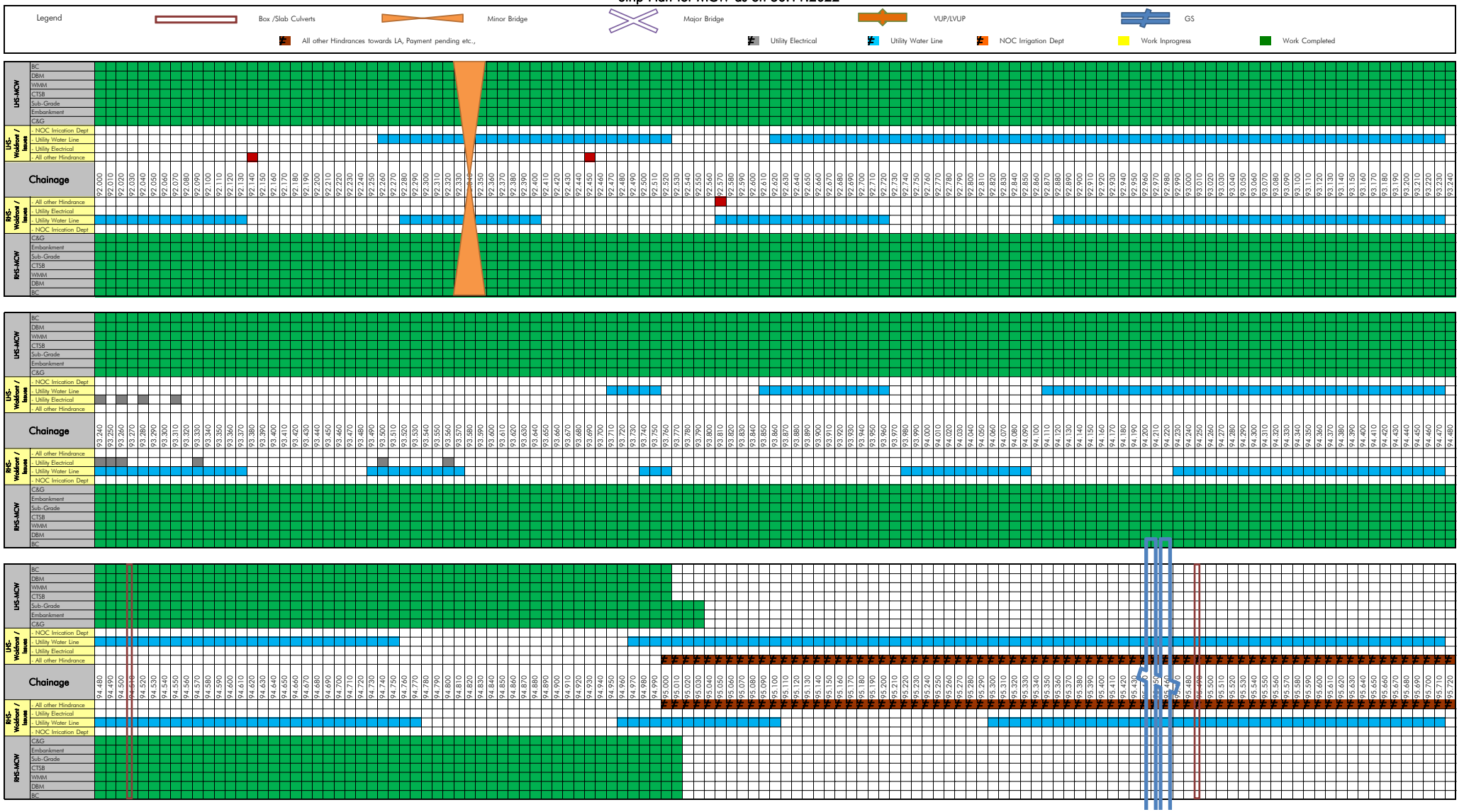

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Sethiyahopu - Cholopuram Road Projects

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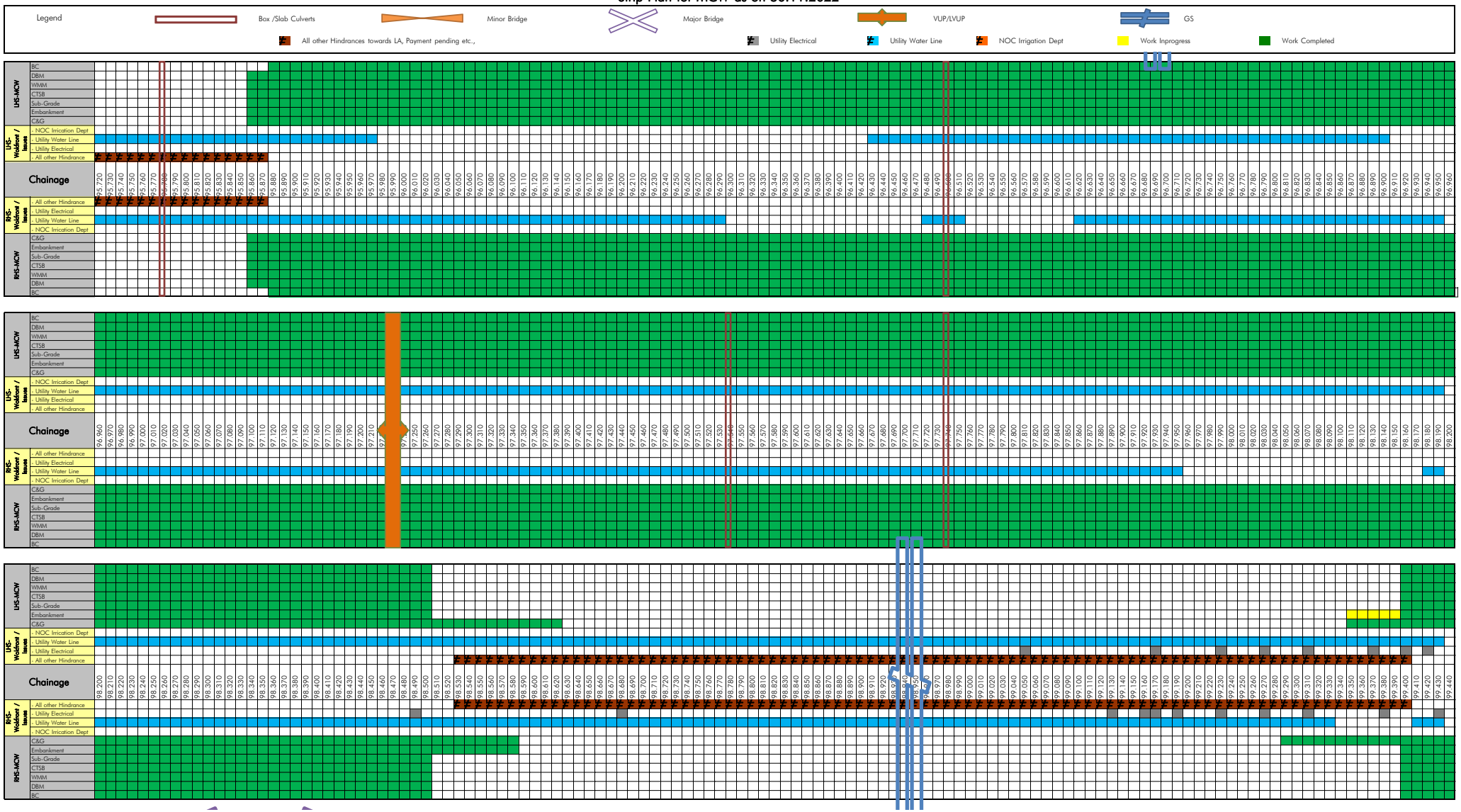

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Sethiyahopu - Cholopuram Road Projects

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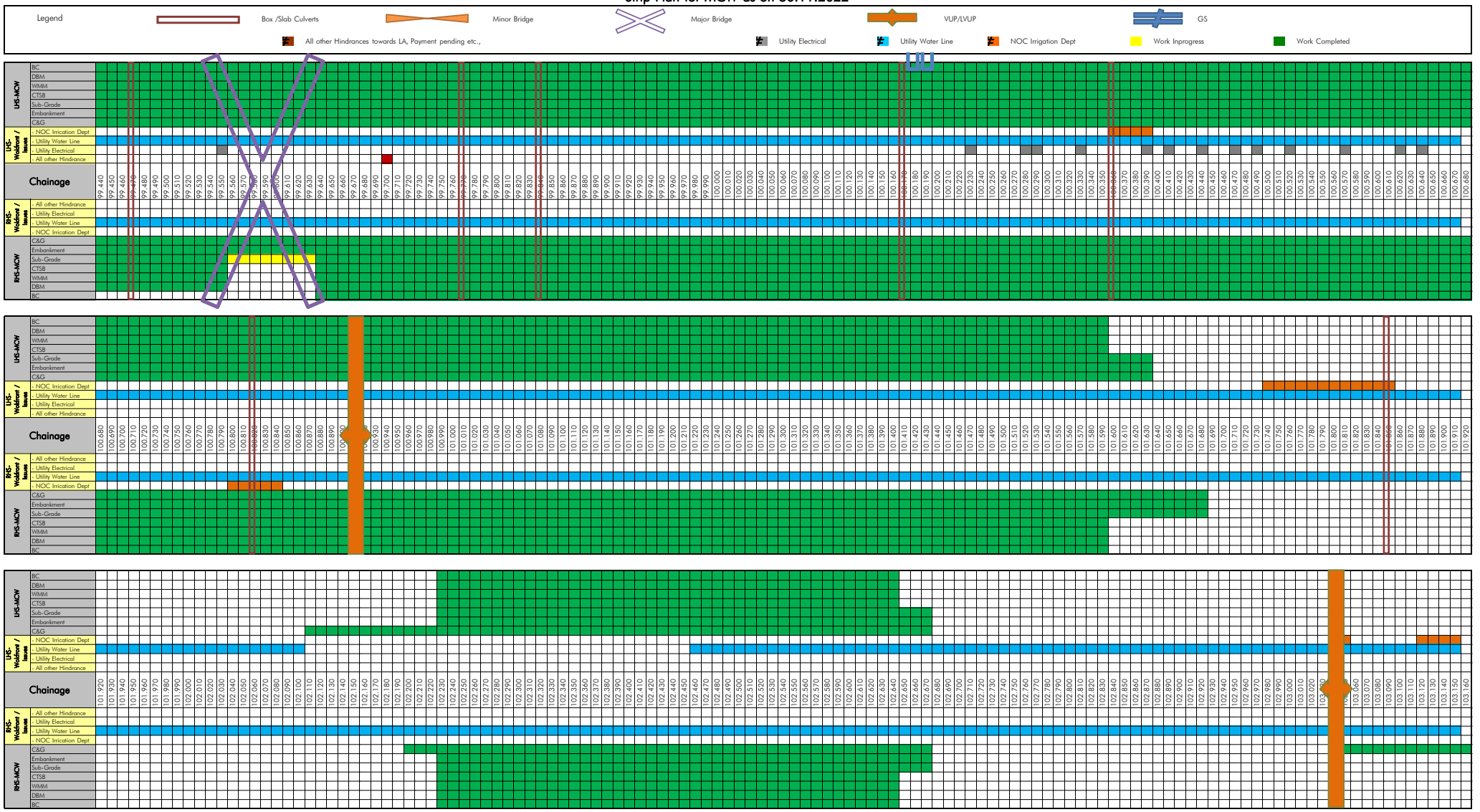

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Sethiyahopu - Cholopuram Road Projects

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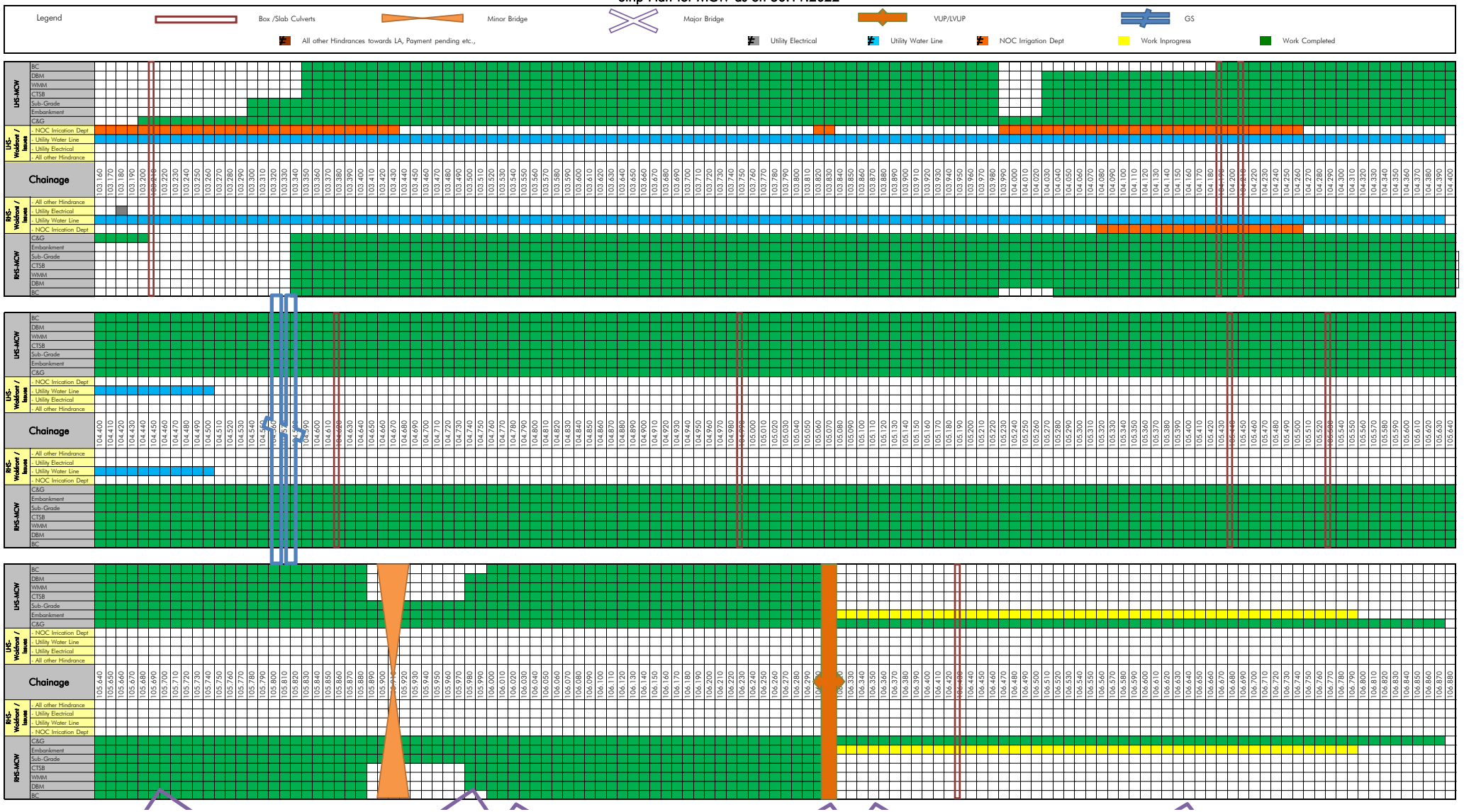

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Sethiyahopu - Cholopuram Road Projects

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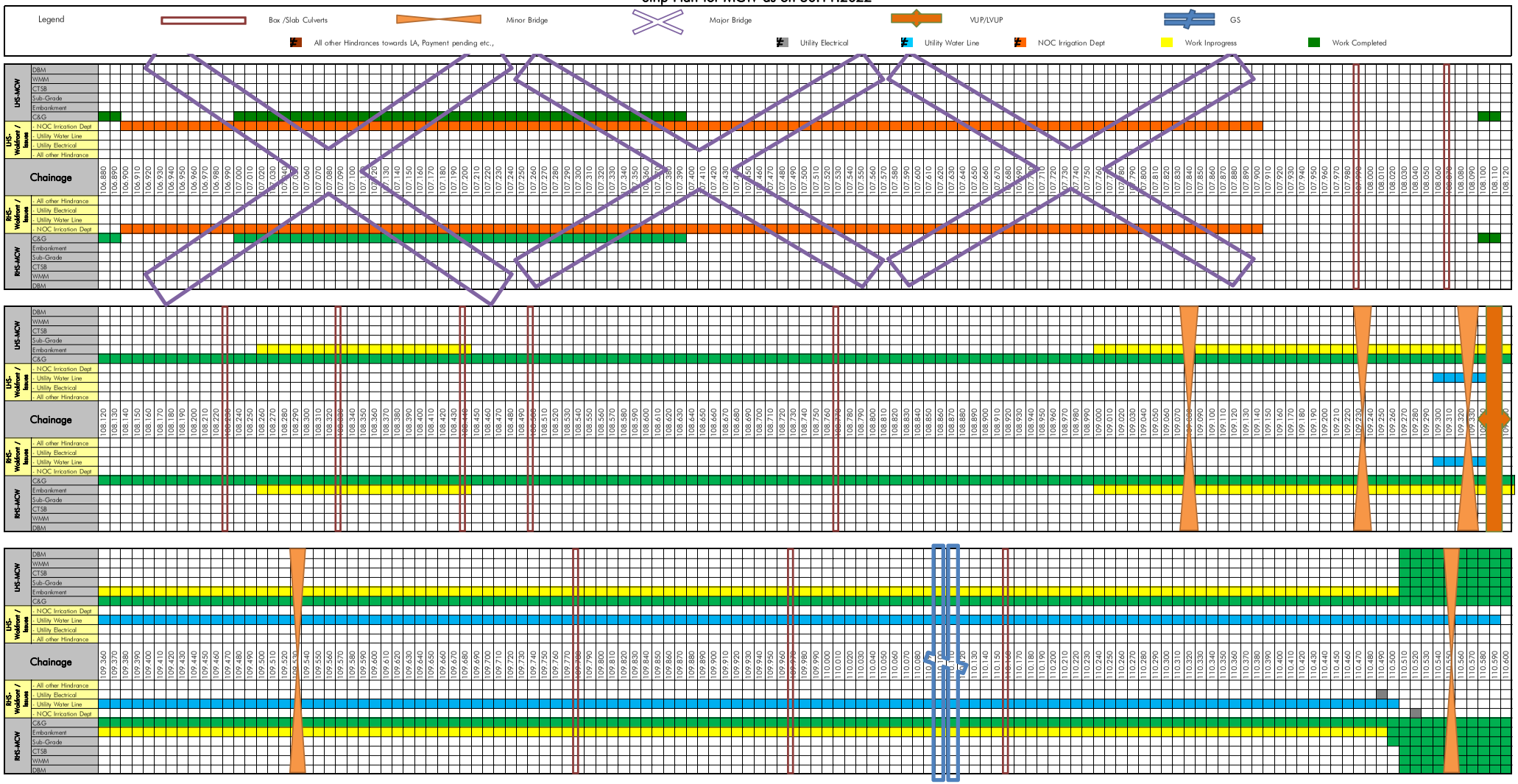

Four Laning of Sethiyahopu - Cholopuram from Km. 65.960 to Km. 116.440 Section of NH45C in the state of Tamil Nadu Under NHDP Phase-IV on Hybrid Annuity Mode

Sethiyahopu - Cholopuram Road Projects

## Strip Plan for MCW as on 30.11.2022

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

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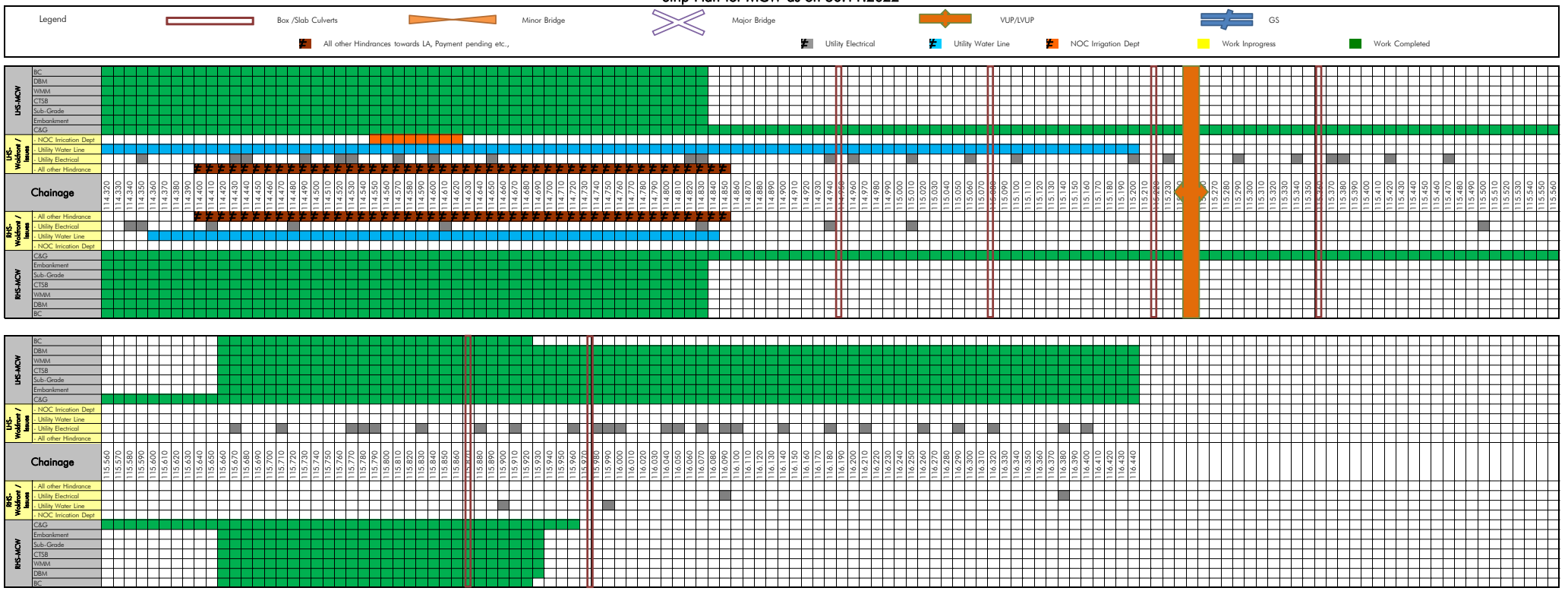
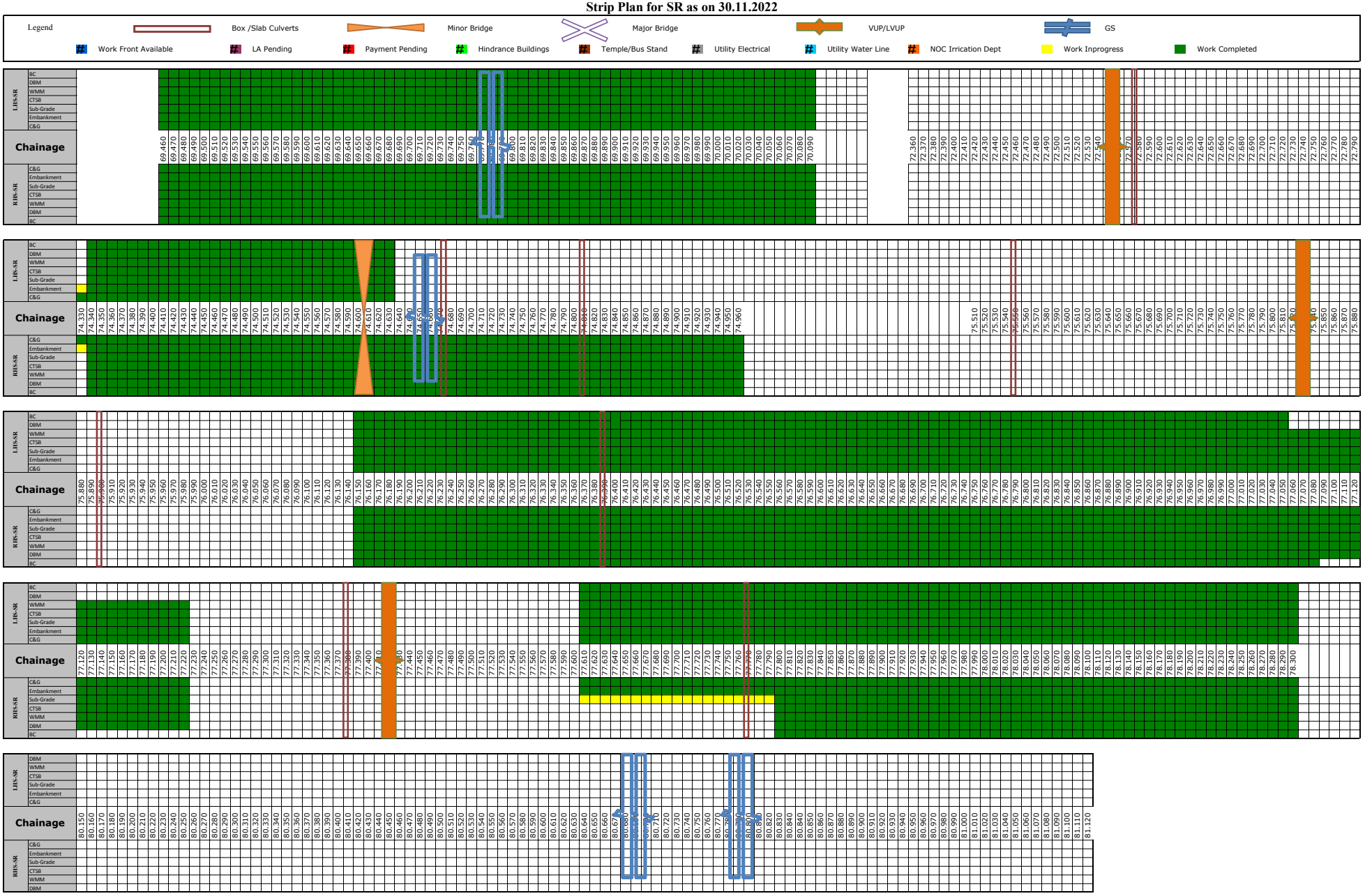


Sethiyahopu - Cholopuram Road Projects

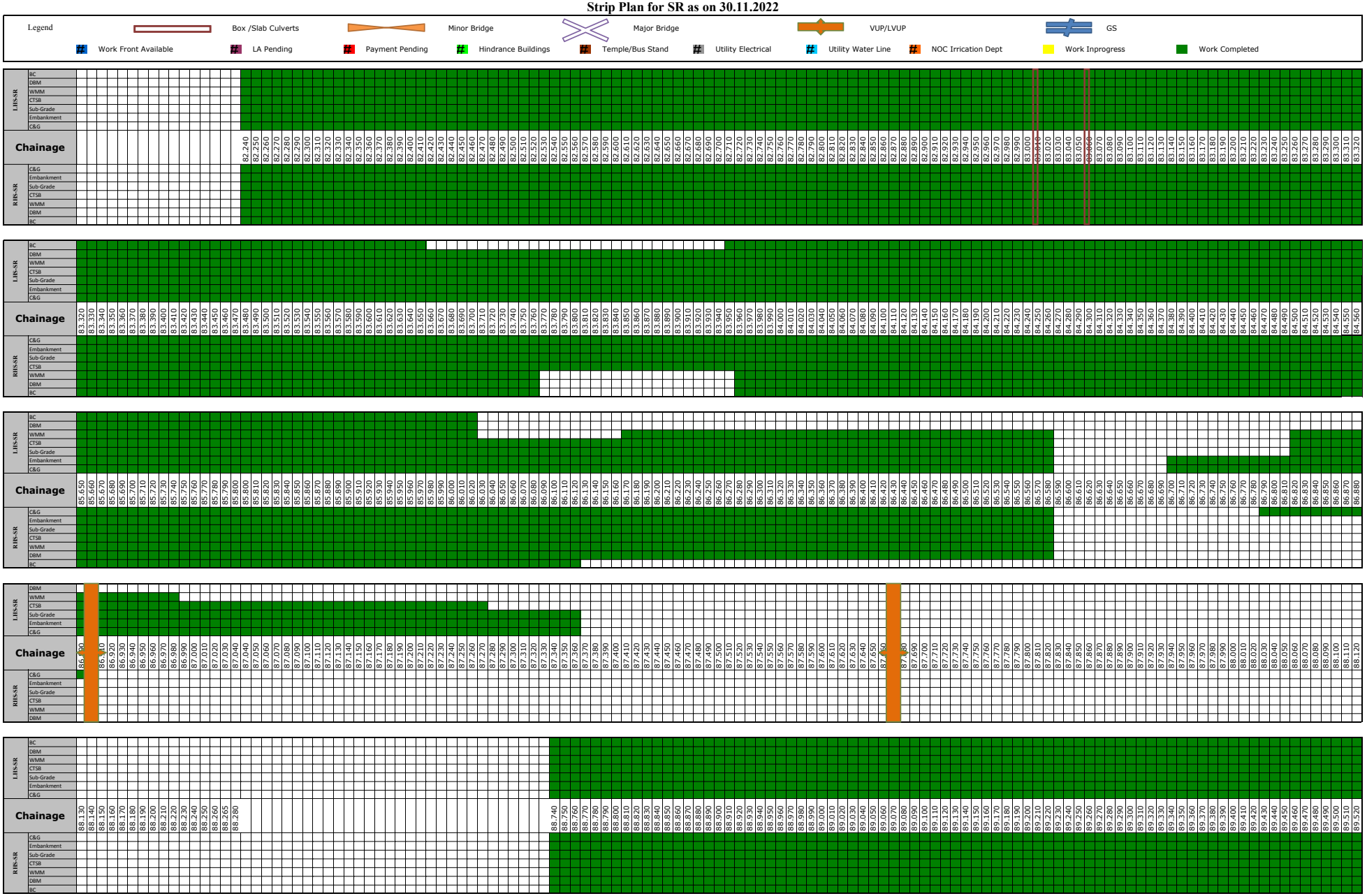
## Strip Plan for SR as on 30.11.2022



## 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**

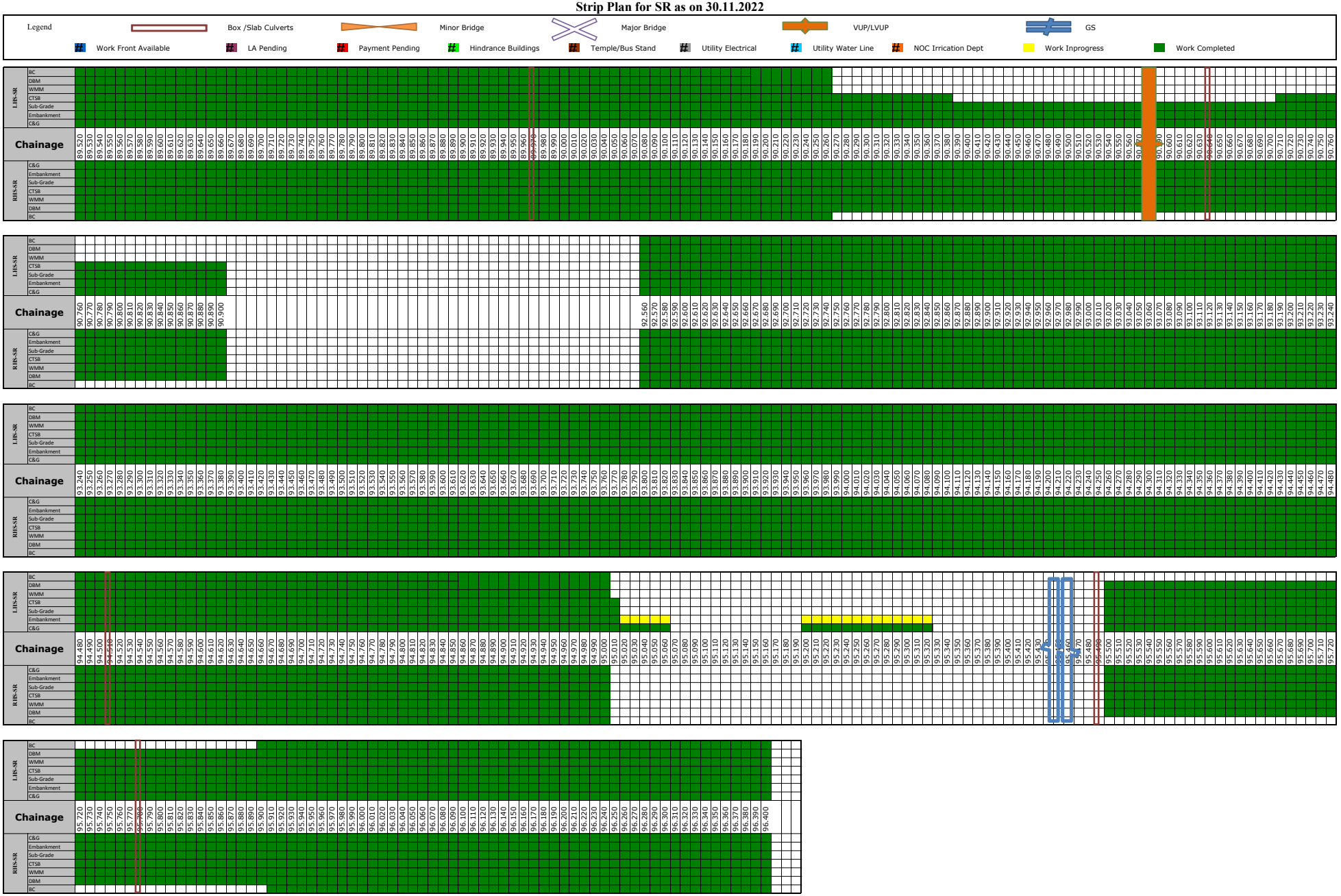
**Strip Plan for SR as on 30.11.2022**



**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 30.11.2022**



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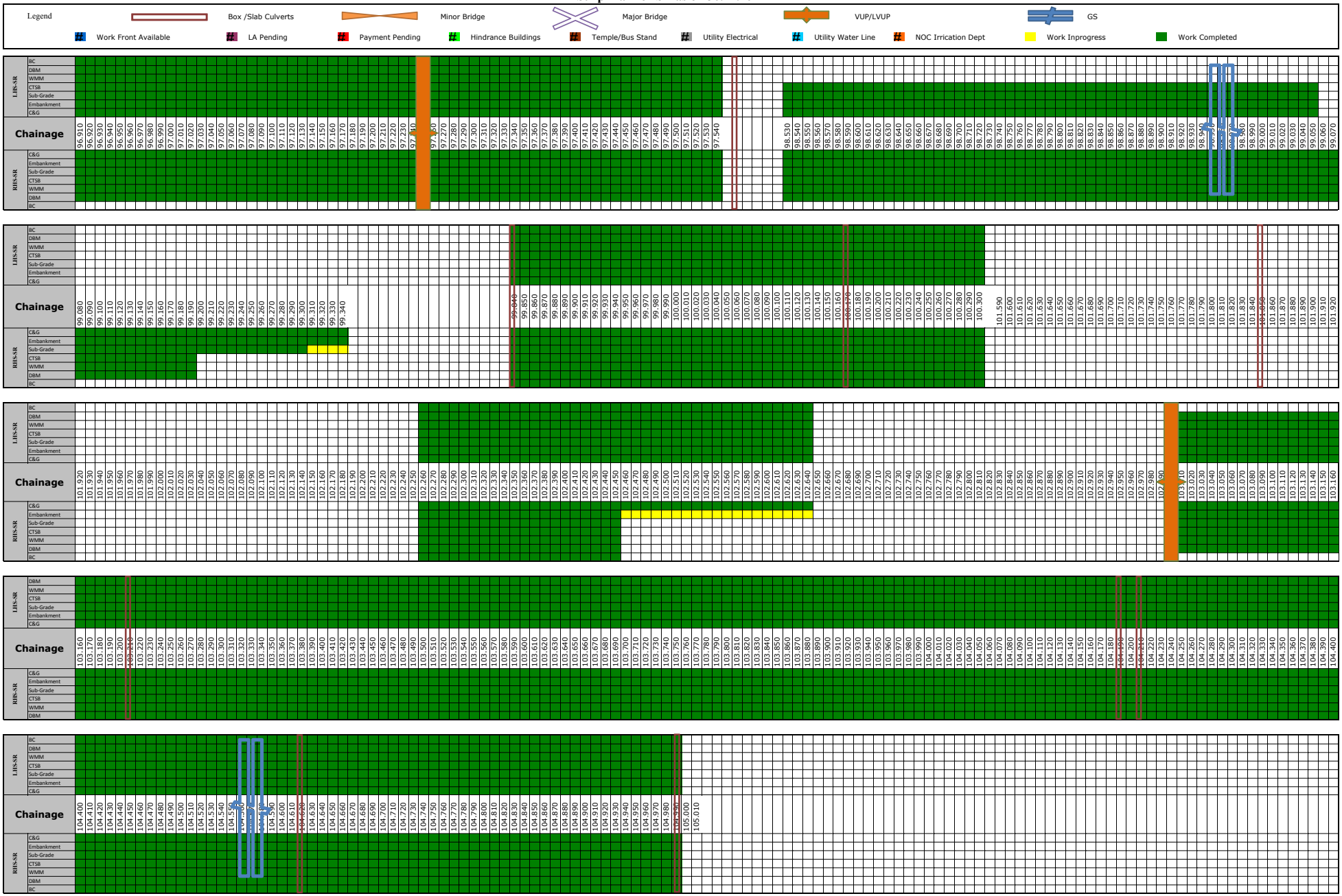
**Sethiyahopu - Cholopuram Road Projects**

**Strip Plan for SR as on 30.11.2022**



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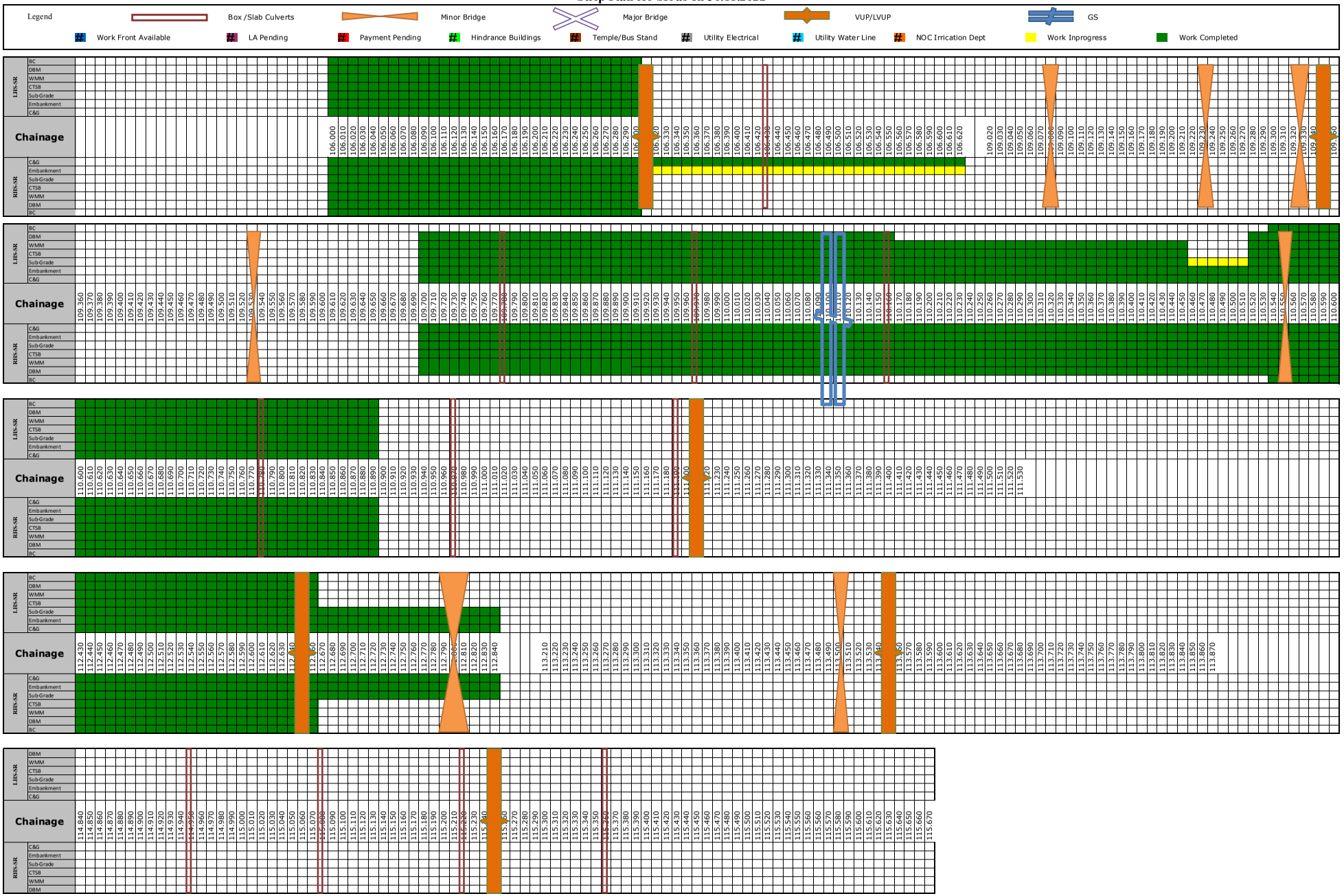


## SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF BOX CULVERTS ON EXISTING ROAD - MCW

Completed | In Progress

| Status Upto | 30.11.2022 | | | | | | 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+251 | | EXISTING | 1 x 2.0m x 2.0m | New Construction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 27 | 101+851 | 101.851 | EXISTING | 1 x 1.5m x 1.5m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 28 | 103+220 | 103.214 | EXISTING | 1 x 4.0m x 2.5m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 29 | 104+197 | 104.190 | EXISTING | 1 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 30 | 104+215 | 104.208 | EXISTING | 1 x 1.0m | Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 31 | 109+786 | 109.779 | EXISTING | 1 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 32 | 109+975 | 109.967 | EXISTING | 1 x 2.0m x 1.7m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 33 | 110+167 | 110.160 | EXISTING | 2 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 34 | 110+402 | | EXISTING | 1 x 1.5m | | BOX CULVERT | | | | | | | | | | | | | | | | |
| 35 | 110+795 | 110.785 | EXISTING | 1 x 1.2m x 2.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 36 | 110+980 | 110.971 | EXISTING | 1 x 1.5m x 2.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 37 | 113+897 | 113.885 | EXISTING | 1 x 1.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 38 | 114+313 | 114.300 | EXISTING | 1 x 1.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 39 | 114+703 | 114.703 | EXISTING | | | BOX CULVERT | | | | | | | | | | | | | | | | |
| 40 | 114+954 | 114.952 | EXISTING | 1 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 41 | 115+097 | 115.087 | EXISTING | 2 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 42 | 115+232 | 115.221 | EXISTING | 1 x 2.0m x 2.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 43 | 115+381 | 115.368 | EXISTING | 1 x 2.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 44 | 115+884 | 115.872 | EXISTING | 2 x 1.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 45 | 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 - MCW

Completed | In Progress

| Status Upto | 30.11.2022 | | | | | | 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+251 | | EXISTING | 1 x 2.0m x 2.0m | New Construction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 27 | 101+851 | 101.851 | EXISTING | 1 x 1.5m x 1.5m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 28 | 103+220 | 103.214 | EXISTING | 1 x 4.0m x 2.5m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 29 | 104+197 | 104.190 | EXISTING | 1 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 30 | 104+215 | 104.208 | EXISTING | 1 x 1.0m | Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 31 | 109+786 | 109.779 | EXISTING | 1 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 32 | 109+975 | 109.967 | EXISTING | 1 x 2.0m x 1.7m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 33 | 110+167 | 110.160 | EXISTING | 2 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 34 | 110+402 | | EXISTING | 1 x 1.5m | | BOX CULVERT | | | | | | | | | | | | | | | | |
| 35 | 110+795 | 110.785 | EXISTING | 1 x 1.2m x 2.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 36 | 110+980 | 110.971 | EXISTING | 1 x 1.5m x 2.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 37 | 113+897 | 113.885 | EXISTING | 1 x 1.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 38 | 114+313 | 114.300 | EXISTING | 1 x 1.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 39 | 114+703 | 114.703 | EXISTING | | | BOX CULVERT | | | | | | | | | | | | | | | | |
| 40 | 114+954 | 114.952 | EXISTING | 1 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 41 | 115+097 | 115.087 | EXISTING | 2 x 1.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 42 | 115+232 | 115.221 | EXISTING | 1 x 2.0m x 2.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 43 | 115+381 | 115.368 | EXISTING | 1 x 2.0m | Repair & Reconstruction | BOX CULVERT | | | | | | | | | | | | | | | | |
| 44 | 115+884 | 115.872 | EXISTING | 2 x 1.0m | Repair & Widening | BOX CULVERT | | | | | | | | | | | | | | | | |
| 45 | 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 | 30.11.2022 | | | | | 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 | 30.11.2022 | | | | | 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 | 30.11.2022 | | | | | 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 | | | | | | | | | NA | NA | NA | NA | NA | NA | NA | |
| 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 | 30.11.2022 | | | | | 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 | 30.11.2022 | | | | 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 | | | | | | | | | | | | |

| SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF MNB (>15m Span) | | | | | Completed | | | | | | | | | In Progress | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Status upto | 30.11.2022 | | | | LHS | | | | | | | | | RHS | | | | | | | | |
| Sr. No. | MNB at Chainage | Span | | | Crash Barrier | Slab | Girder Launching | Girder Casting | Piercap /Abtcap | Pier/Abt | Open Foundation | PCC | Excavation | Excavation | PCC | Open Foundation | Pier/Abt | Piercap /Abtcap | 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

In Progress

### MJB at Chainage 66+530 (8x30) - BYPASS

| Status Upto 30.11.2022 | 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 | | | | | | | | | | | | | | | | |
| A2 | | | | | | | | | | | | | | | | |

### MJB at Chainage 73+340 (9x30) - BYPASS

| Status Upto 30.11.2022 | 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 | | | | | | | | | | | | | | | | |
| A2 | | | | | | | | | | | | | | | | |

MJB at Chainage 99+583 (3x25) - EXISTING ROAD

Completed

In Progress

| Status Upto 30.11.2022 | 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 | | | | | | | | | Existing Major Bridge need to be retained. | | | | | | | |
| P1 | | | | | | | | | | | | | | | | |
| P2 | | | | | | | | | | | | | | | | |
| A2 | | | | | | | | | | | | | | | | |

MJB at Chainage 107+400 - BYPASS

Completed

In Progress

| Status Upto 30.11.2022 | 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 | 30.11.2022 | | | | 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 | | | | | | | | | | | | | | | | | | |

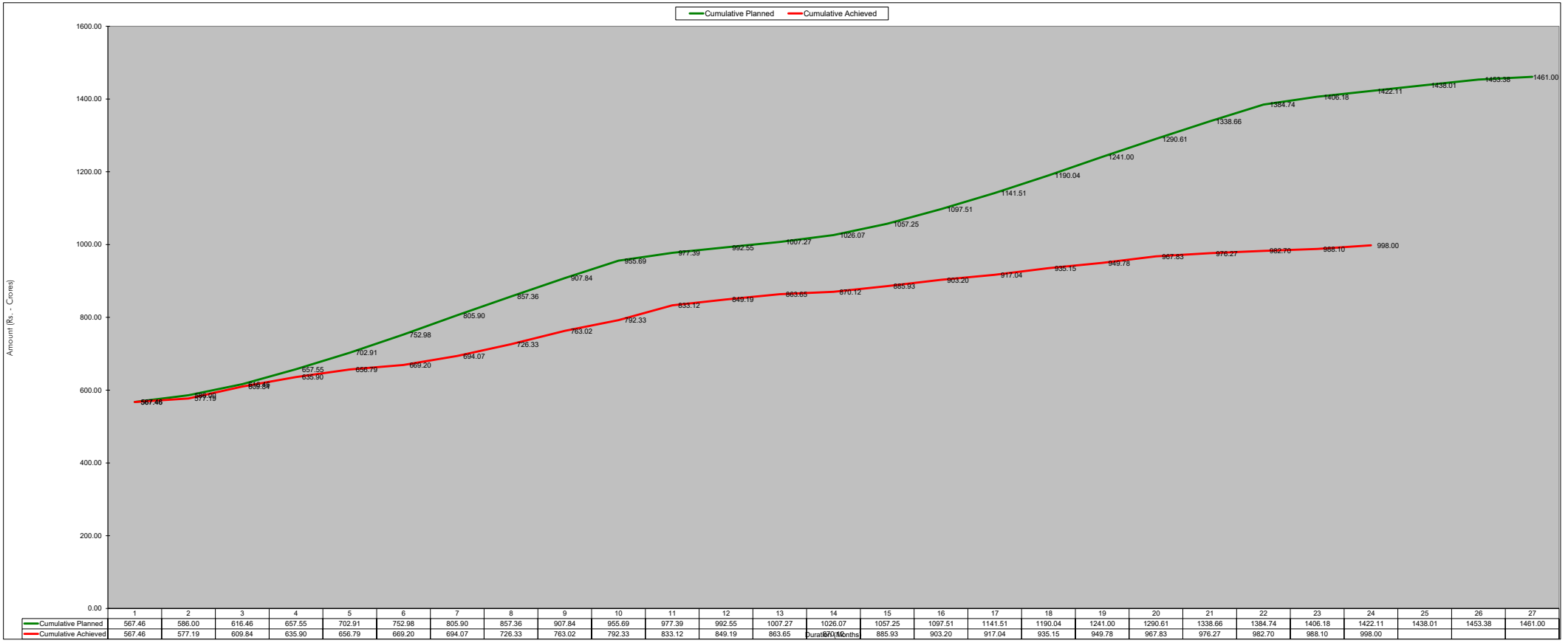
| SETHIYAHOPU CHOLOPURAM PROJECT - STATUS OF VUP | | | | | Completed | | | | | | | | | In Progress | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Status upto | 30.11.2022 | | | | LHS | | | | | | | | | RHS | | | | | | | | |
| SR.NO. | 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 | | | | | | | | | | | | | | | | | | |

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

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

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

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



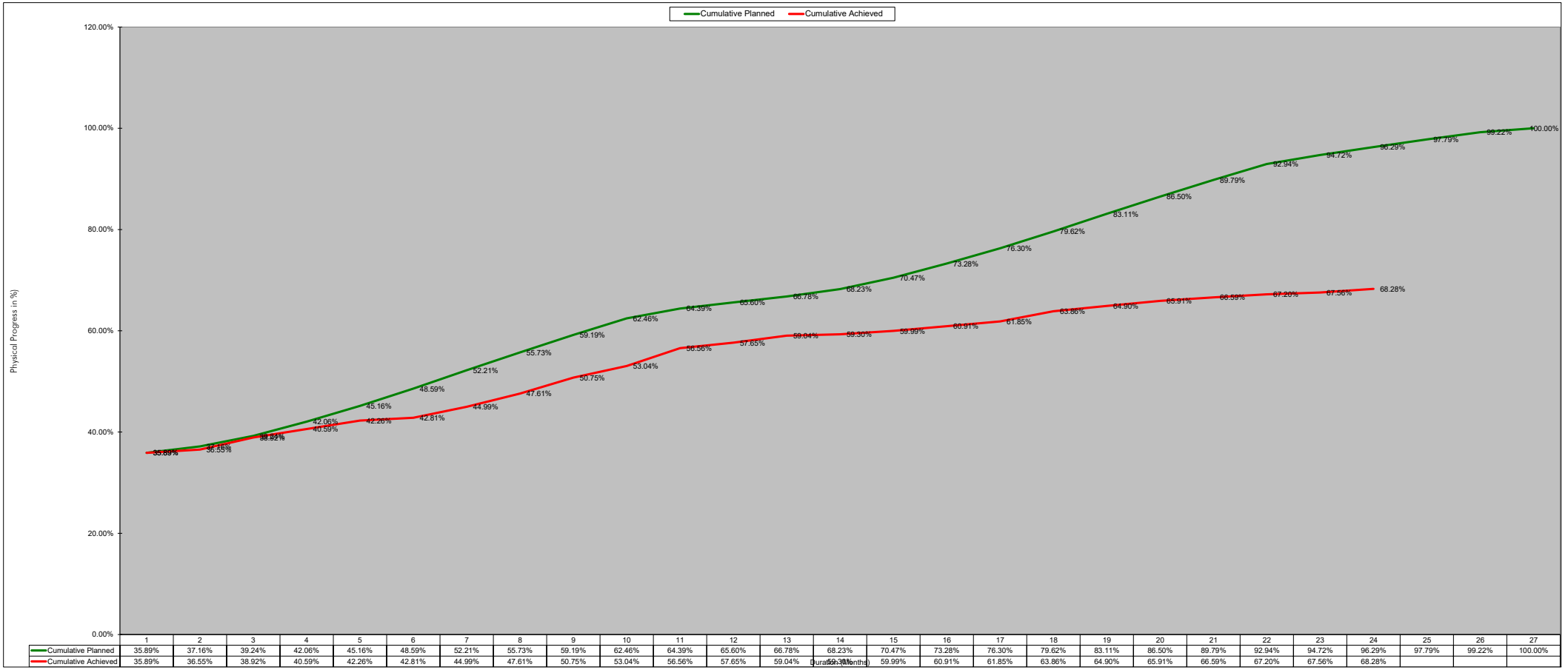

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cumulative Planned | 567.46 | 586.00 | 616.46 | 657.55 | 702.91 | 752.98 | 805.90 | 857.36 | 907.84 | 955.69 | 977.39 | 992.55 | 1007.27 | 1026.07 | 1057.25 | 1097.51 | 1141.51 | 1190.04 | 1241.00 | 1290.61 | 1338.66 | 1384.74 | 1406.18 | 1422.11 | 1438.01 | 1453.38 | 1461.00 |
| Cumulative Achieved | 567.46 | 577.19 | 609.84 | 635.90 | 656.79 | 669.20 | 694.07 | 726.33 | 763.02 | 792.33 | 833.12 | 849.19 | 863.65 | 870.12 | 885.93 | 903.20 | 917.04 | 935.15 | 949.78 | 967.83 | 976.27 | 982.70 | 988.10 | 998.00 | | | |

| | Schedule | 2020 | 2021 | | | | | | | | | | | | | 2022 | | | | | | | | | | | | 2023 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Upto Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | Jan | Feb |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| Revised Target vs Achieved as per Revised Target | Monthly Planned | 567.46 | 18.54 | 30.46 | 41.09 | 45.36 | 50.07 | 52.92 | 51.46 | 50.48 | 47.85 | 21.70 | 15.16 | 14.72 | 18.80 | 31.19 | 40.25 | 44.01 | 48.52 | 50.96 | 49.61 | 48.06 | 46.07 | 21.45 | 15.92 | 15.90 | 15.37 | 7.62 |
| | MonthlyAchieved | 567.46 | 9.73 | 32.65 | 26.06 | 20.88 | 12.41 | 24.87 | 32.26 | 36.70 | 29.31 | 40.79 | 16.07 | 14.46 | 6.47 | 15.81 | 17.27 | 13.84 | 18.11 | 14.63 | 18.04 | 8.45 | 6.43 | 5.40 | 9.89 | | | |
| | Cumulative Planned | 567.46 | 586.00 | 616.46 | 657.55 | 702.91 | 752.98 | 805.90 | 857.36 | 907.84 | 955.69 | 977.39 | 992.55 | 1007.27 | 1026.07 | 1057.25 | 1097.51 | 1141.51 | 1190.04 | 1241.00 | 1290.61 | 1338.66 | 1384.74 | 1406.18 | 1422.11 | 1438.01 | 1453.38 | 1461.00 |
| | Cumulative Achieved | 567.46 | 577.19 | 609.84 | 635.90 | 656.79 | 669.20 | 694.07 | 726.33 | 763.02 | 792.33 | 833.12 | 849.19 | 863.65 | 870.12 | 885.93 | 903.20 | 917.04 | 935.15 | 949.78 | 967.83 | 976.27 | 982.70 | 988.10 | 998.00 | | | |
| | Monthly Planned (%) | 38.8% | 1.3% | 2.1% | 2.8% | 3.1% | 3.4% | 3.6% | 3.5% | 3.5% | 3.3% | 1.5% | 1.0% | 1.0% | 1.3% | 2.1% | 2.8% | 3.0% | 3.3% | 3.5% | 3.4% | 3.3% | 3.2% | 1.5% | 1.1% | 1.1% | 1.1% | 0.5% |
| | Monthly Achieved (%) | 38.8% | 0.7% | 2.2% | 1.8% | 1.4% | 0.8% | 1.7% | 2.2% | 2.5% | 2.0% | 2.8% | 1.1% | 1.0% | 0.4% | 1.1% | 1.2% | 0.9% | 1.2% | 1.0% | 1.2% | 0.6% | 0.4% | 0.4% | 0.7% | | | |
| | Cumulative Planned (%) | 38.8% | 40.1% | 42.2% | 45.0% | 48.1% | 51.5% | 55.2% | 58.7% | 62.1% | 65.4% | 66.9% | 67.9% | 68.9% | 70.2% | 72.4% | 75.1% | 78.1% | 81.5% | 84.9% | 88.3% | 91.6% | 94.8% | 96.2% | 97.3% | 98.4% | 99.5% | 100.0% |
| | Cumulative Achieved (%) | 38.8% | 39.5% | 41.7% | 43.5% | 44.95% | 45.80% | 47.51% | 49.71% | 52.23% | 54.23% | 57.02% | 58.12% | 59.11% | 59.56% | 60.64% | 61.82% | 62.77% | 64.01% | 65.01% | 66.24% | 66.82% | 67.26% | 67.63% | 68.31% | | | |

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

## Four Laning of Sethiyahopu - Cholopuram 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 (Revised S-Curve) as per revised Target mentioned in the Settlement Agreement including EOT of 105 days + 90 days grace period




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cumulative Planned | 35.89% | 37.16% | 39.24% | 42.06% | 45.16% | 48.59% | 52.21% | 55.73% | 59.19% | 62.46% | 64.39% | 65.60% | 66.78% | 68.23% | 70.47% | 73.28% | 76.30% | 79.62% | 83.11% | 86.50% | 89.79% | 92.94% | 94.72% | 96.29% | 97.79% | 99.22% | 100.00% |
| Cumulative Achieved | 35.89% | 36.55% | 38.92% | 40.59% | 42.26% | 42.81% | 44.99% | 47.61% | 50.75% | 53.04% | 56.56% | 57.65% | 59.04% | 59.30% | 59.99% | 60.91% | 61.85% | 63.86% | 64.90% | 65.91% | 66.59% | 67.20% | 67.56% | 68.28% | | | |

| | Schedule | 2020 | 2021 | | | | | | | | | | | | 2022 | | | | | | | | | | | | 2023 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | Jan | Feb |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| Revised Target vs Achieved as per Revised Target | Monthly Planned | 35.89% | 1.27% | 2.08% | 2.81% | 3.11% | 3.43% | 3.62% | 3.52% | 3.46% | 3.28% | 1.93% | 1.21% | 1.18% | 1.45% | 2.24% | 2.81% | 3.01% | 3.32% | 3.49% | 3.40% | 3.29% | 3.15% | 1.78% | 1.57% | 1.50% | 1.43% | 0.78% |
| | Monthly Achieved | 35.89% | 0.66% | 2.38% | 1.66% | 1.68% | 0.55% | 2.18% | 2.62% | 3.14% | 2.29% | 3.52% | 1.08% | 1.39% | 0.27% | 0.69% | 0.92% | 0.94% | 2.01% | 1.04% | 1.01% | 0.68% | 0.61% | 0.36% | 0.72% | | | |
| | Cumulative Planned | 35.89% | 37.16% | 39.24% | 42.06% | 45.16% | 48.59% | 52.21% | 55.73% | 59.19% | 62.46% | 64.39% | 65.60% | 66.78% | 68.23% | 70.47% | 73.28% | 76.30% | 79.62% | 83.11% | 86.50% | 89.79% | 92.94% | 94.72% | 96.29% | 97.79% | 99.22% | 100.00% |
| | Cumulative Achieved | 35.89% | 36.55% | 38.92% | 40.59% | 42.26% | 42.81% | 44.99% | 47.61% | 50.75% | 53.04% | 56.56% | 57.65% | 59.04% | 59.30% | 59.99% | 60.91% | 61.85% | 63.86% | 64.90% | 65.91% | 66.59% | 67.20% | 67.56% | 68.28% | | | |

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

## 6.1. List of Lab Equipment's

A site laboratory has been set up with all 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's at Annaikarai Lab

| SI. NO | EQUIPMENT LIST'S | QUANTITY |
|---|---|---|
| 1 | compression testing machine 2000 kN | 1 |
| 2 | cement mortar vibrating machine | 1 |
| 3 | AIV 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 | spactula wooden handle | 8 |
| 31 | GI Tray () | 1 |
| 32 | Iron tray | 1 |
| 33 | slump cone apparatus with tamping rod | 2 |

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

| SI. 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 |
| p | 1.80mm | 2 Nos |
| q | 1.7mm | 2 Nos |
| r | 1.4mm | 2 Nos |
| s | 1.18mm | 2 Nos |
| t | 1.0mm | 3 Nos |
| v | 0.600mm | 2 Nos |
| u | 0.425mm | 2 Nos |
| w | 0.355mm | 2 Nos |
| x | 0.300mm | 2 Nos |

| | | |
|---|---|---|
| y | 0.180 | 2 Nos |
| z | 0.090mm | 2 Nos |
| aa | 0.075mm | 6 Nos |
| 3 | Measuring cylinder - Borosilicate glass - 100ML | 40 Nos |
| 4 | Glass Thermometer 00c to 3000c | 10 Nos |
| 5 | Flash filtering borosil glass - 2000ML | 1 No |
| 6 | Flash filtering borosil glass - 5000ML | 1 No |
| 7 | Round hot Plate | 2 Nos |
| 8 | Measuring cylinder - Borosilicate glass - 1000ML | 4 Nos |
| 9 | Measuring cylinder - Borosilicate glass - 250ML | 4 Nos |
| 10 | Measuring cylinder- Borosilicate glass - 500ML | 4 Nos |
| 11 | Beakers - glass borosil - low from cap 600ML | 4 Nos |
| 12 | Compaction pedestal - 4" | 4 Nos |
| 13 | Extractor plate - 6" dia for marshal test | 1 No |
| 14 | Rammer marshal - 4" | 4 Nos |
| 15 | Thermometer Infra red - MTX - 2 | 2 Nos |
| 16 | LE - Chatlier mould one set of six | 2 Nos |
| 17 | Cone penetrometer | 1 No |
| 18 | Los angeles abrasion testing machine | 1 No |
| 19 | Marshal Mould - 4" dia | 51 nos |
| 20 | G.I Tray - 1500*1500*100MM | 4 Nos |
| 21 | Compaction pedestal - 6" | 1 No |
| 22 | Marshal stability apparatus | 1 No |
| 23 | Measuring cylinder- Plastic - 50ML | 4 Nos |
| 24 | Measuring cylinder- Plastic - 250ML | 2 Nos |
| 25 | Measuring cylinder- Plastic - 500ML | 2 Nos |
| 26 | Measuring cylinder- Plastic - 1000ML | 2 Nos |
| 27 | Vibrating machine with digital timer | 1 No |
| 28 | Hot Air Oven - Thermostatic - NoN Digital - 45*45*45 CM | 1 No |
| 29 | Hot Air Oven - Thermostatic - NoN Digital - 90*60*60 CM | 1 No |
| 30 | Penetration cup - 55*70 MM | 2 Nos |
| 31 | Penetration cup - 55*35MM | 6 Nos |

| | | |
|---|---|---|
| 32 | Standard Penetrometer - Automatic with digital timer | 1 No |
| 33 | proctor compaction mould 100mm dia with 2.69kg Rammer mid steel | 4 Nos |
| 34 | proctor compaction mould 150mm dia with 4.89kg Rammer mid steel | 6 Nos |
| 35 | proving ring compression type 10kn | 1 Nos |
| 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 | Sand 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 cylinderical metal measure - 15 LTR | 1 Nos |
| 57 | Bulk density cylinderical metal measure - 5 LTR | 1 Nos |
| 58 | Bulk density cylinderical 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 | Perforrated 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 |
| 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 November - 2022 are tabulated below:-

Monthly Progress Report : Summary of Quality Control Report : Month of November-2022

| Sr. No. | Item Description | IS Specification Clause | Frequency of Tests | *Test conducted upto Previous month* | | | | *Tests conducted during reporting month November 2022* | | | | | | *Test conducted upto this month* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Tested | | Passed | | Failed | | | | | |
| | | | | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE | Concessionarie | IE | Concessionarie | IE | Concessionarie | 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 |
| *2.0 Borrow Area for EMB/Subgrade (MoRT&H 305)* | | | | | | | | | | | | | | | | | |
| 2.1 | Grain size analysis | IS: 2720 (Part4) | 1 test /1500 $m^3$ | 1596 | 1596 | 0 | 865 | 20 | 10 | 20 | 10 | 0 | 0 | 1616 | 1616 | 0 | 875 |
| 2.2 | Atterberg Limits | IS: 2720 (Part5) | 1 test /1500 $m^3$ | 1596 | 1596 | 0 | 865 | 20 | 10 | 20 | 10 | 0 | 0 | 1616 | 1616 | 0 | 875 |
| 2.3 | Proctor | IS: 2720 (Part8) | 1 test /1500 $m^3$ | 1596 | 1596 | 0 | 865 | 20 | 10 | 20 | 10 | 0 | 0 | 1616 | 1616 | 0 | 875 |
| 2.4 | Free Swell index | IS: 2720 (Part40) | 1 test /1500 $m^3$ | 1596 | 1596 | 0 | 865 | 20 | 10 | 20 | 10 | 0 | 0 | 1616 | 1616 | 0 | 875 |
| 2.5 | California bearing ratio | IS: 2720 (Part16) | 1 test /3000 $m^3$ | 490 | 482 | 8 | 259 | 0 | 0 | 0 | 0 | 0 | 0 | 490 | 482 | 8 | 259 |
| 2.6 | Direct shear Test | IS: 2720 (Part13) | 1 test /3000 $m^3$ | 303 | 300 | 3 | 156 | 10 | 5 | 10 | 5 | 0 | 0 | 313 | 310 | 3 | 161 |
| *3.0 Cutting Portion & Existing Portion for EMB/SG site sampling (MoRT&H 305)* | | | | | | | | | | | | | | | | | |
| 3.1 | Grain size analysis | IS: 2720 (Part4) | 1 test /1500 $m^3$ | 88 | 86 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 86 | 2 | 46 |
| 3.2 | Atterberg Limits | IS: 2720 (Part5) | 1 test /1500 $m^3$ | 88 | 86 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 86 | 2 | 46 |
| 3.3 | Proctor | IS: 2720 (Part8) | 1 test /1500 $m^3$ | 88 | 86 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 86 | 2 | 46 |
| 3.4 | Free Swell index | IS: 2720 (Part40) | 1 test /1500 $m^3$ | 88 | 86 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 88 | 86 | 2 | 46 |
| 3.5 | California bearing ratio | IS: 2720 (Part16) | 1 test /3000 $m^3$ | 45 | 43 | 2 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 43 | 2 | 25 |
| 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 $m^3$ | 447 | 447 | 0 | 256 | 0 | 0 | 0 | 0 | 0 | 0 | 447 | 447 | 0 | 256 |
| 5.2 | Maximum Dry Density | Clause 5.2 | 1 test /1500 $m^3$ | 447 | 447 | 0 | 268 | 0 | 0 | 0 | 0 | 0 | 0 | 447 | 447 | 0 | 268 |
| 5.3 | Grain size analysis | IS: 2720 (Part4) | 1 test /3000 $m^3$ | 307 | 307 | 0 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 307 | 307 | 0 | 180 |
| 5.4 | Direct shear Test | IS: 2720 (Part13) | 1 test /3000 $m^3$ | 202 | 202 | 0 | 113 | 0 | 0 | 0 | 0 | 0 | 0 | 202 | 202 | 0 | 113 |

| Sr. No. | Item Description | IS Specification Clause | Frequency of Tests | *Test conducted upto Previous month* | | | | *Tests conducted during reporting month November 2022* | | | | | | *Test conducted upto this month* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Tested | | Passed | | Failed | | | | | |
| | | | | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE | Concessionarie | IE | Concessionarie | IE | Concessionarie | IE | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE |
| *6.0 Field Density Test (MoRT&H 305)* | | | | | | | | | | | | | | | | | |
| 6.1 | Field density (OGL) | IS: 2720 (Part28) | 1 test /3000 sqm | 4069 | 3949 | 120 | 1008 | 0 | 0 | 0 | 0 | 0 | 0 | 4069 | 3949 | 120 | 1008 |
| 6.2 | EMB field density | IS: 2720 (Part28) | 1 test /3000 sqm | 91209 | 88323 | 2886 | 16983 | 279 | 56 | 270 | 50 | 9 | 6 | 91488 | 88593 | 2895 | 17039 |
| 6.3 | SG field density | IS: 2720 (Part28) | 1 test /2000 sqm | 18674 | 18215 | 459 | 6336 | 70 | 20 | 70 | 20 | 0 | 0 | 18744 | 18285 | 459 | 6356 |
| 6.4 | Shoulder field density | IS: 2720 (Part28) | 1 test /2000 sqm | 1073 | 1030 | 43 | 135 | 10 | 0 | 10 | 0 | 0 | 0 | 1083 | 1040 | 43 | 135 |
| 6.5 | Ground improvement (Soil) | IS: 2720 (Part28) | 1 test /2000 sqm | 5031 | 4948 | 83 | 611 | 0 | 0 | 0 | 0 | 0 | 0 | 5031 | 4948 | 83 | 611 |
| 6.6 | Ground improvement & Median filling (Flyash) | IS: 2720 (Part28) | 1 test /2000 sqm | 31018 | 30209 | 809 | 4276 | 276 | 40 | 270 | 40 | 6 | 0 | 31294 | 30479 | 815 | 4316 |
| *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 |
| 7.2 | Backfilling field density | | 1 test /1000 $m^3$ | 993 | 990 | 3 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 993 | 990 | 3 | 58 |
| 7.3 | RE Wall field density | | As required | 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 | 113 | 100 | 13 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 100 | 13 | 97 |
| 8.2 | Grain size analysis | IS: 2720 (Part4) | As required | 113 | 106 | 7 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 106 | 7 | 97 |
| 8.3 | Proctor | IS: 2720 (Part8) | As required | 113 | 106 | 7 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 106 | 7 | 97 |
| 8.4 | Direct shear Test | IS: 2720 (Part13) | As required | 113 | 94 | 19 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 113 | 94 | 19 | 97 |
| 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/400$m^3$ | 1123 | 1123 | 0 | 435 | 6 | 3 | 6 | 3 | 0 | 0 | 1129 | 1129 | 0 | 438 |
| 9.2 | Atterberg Limits | IS: 2720 (Part5) | 1 test/400$m^3$ | 1002 | 1002 | 0 | 358 | 6 | 3 | 6 | 3 | 0 | 0 | 1008 | 1008 | 0 | 361 |
| 9.3 | Proctor | IS: 2720 (Part8) | As required | 54 | 54 | 0 | 52 | 2 | 2 | 2 | 2 | 0 | 0 | 56 | 56 | 0 | 54 |
| 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 (Part4) | 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 | 6249 | 6249 | 0 | 3715 | 22 | 22 | 22 | 22 | 0 | 0 | 6271 | 6271 | 0 | 3737 |
| 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 | 2146 | 2146 | 0 | 779 | 3 | 3 | 3 | 3 | 0 | 0 | 2149 | 2149 | 0 | 782 |
| *10.0 Granular Bedding Material (For Structures-Ground Improvement)- Mix Design* | | | | | | | | | | | | | | | | | |
| 10.1 | Gradation | Table 400-1 | 1 test/400$m^3$ | 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 |
| 10.3 | Proctor | IS: 2720 (Part8) | As required | 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 |
| 10.5 | Aggregate Impact value | IS: 2386 (Part4) | As required | 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 |

| Sr. No. | Item Description | IS Specification Clause | Frequency of Tests | *Test conducted upto Previous month* | | | | *Tests conducted during reporting month November 2022* | | | | | | *Test conducted upto this month* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Tested | | Passed | | Failed | | | | | |
| | | | | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE | Concessionarie | IE | Concessionarie | IE | Concessionarie | 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 | 3 | 3 | 0 | 3 |
| 11.2 | Atterberg Limits | IS: 2720 (Part5) | 1 test/400m$^3$ | 3 | 3 | 0 | 3 | 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 |
| 11.4 | CBR Test | IS: 2720 (Part16) | As required | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11.5 | Aggregate Impact value | IS: 2386 (Part4) | As required | 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 (MoRT&H 406)* | | | | | | | | | | | | | | | | | |
| 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 (Part4) | 1 test/ 1000m$^3$ | 13 | 13 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 13 | 0 | 13 |
| 12.3 | Flakiness & Elongation index | IS: 2386 (Part1) | 1 test/ 500m$^3$ | 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$^3$ | 768 | 768 | 0 | 299 | 15 | 9 | 15 | 9 | 0 | 0 | 783 | 783 | 0 | 308 |
| 13.2 | Aggregate Impact Value | IS: 2386 (Part4) | 1 test/1000m$^3$ | 446 | 446 | 0 | 169 | 8 | 5 | 8 | 5 | 0 | 0 | 454 | 454 | 0 | 174 |
| 13.3 | Flakiness & Elongation index | IS: 2386 (Part1) | 1 test/500m$^3$ | 462 | 462 | 0 | 155 | 8 | 5 | 8 | 5 | 0 | 0 | 470 | 470 | 0 | 160 |
| 13.4 | Atterberg Limits | IS: 2720 (Part5) | 1 test/200m$^3$ | 731 | 731 | 0 | 265 | 15 | 9 | 15 | 9 | 0 | 0 | 746 | 746 | 0 | 274 |
| 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 | 25 | 25 | 0 | 23 | 1 | 1 | 1 | 1 | 0 | 0 | 26 | 26 | 0 | 24 |
| 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 | 1641 | 1641 | 0 | 982 | 28 | 7 | 28 | 7 | 0 | 0 | 1669 | 1669 | 0 | 989 |
| *14.0 Dense Bituminous Macadam (Grade - II)* | | | | | | | | | | | | | | | | | |
| 14.1 | Bitumen Extraction & Gradation | | 1 Test/400MT | 455 | 455 | 0 | 206 | 12 | 4 | 12 | 4 | 0 | 0 | 467 | 467 | 0 | 210 |
| 14.2 | Combined Gradation | Table 500 - 18, Grad.II | 1 Test/400MT | 445 | 445 | 0 | 186 | 12 | 4 | 12 | 4 | 0 | 0 | 457 | 457 | 0 | 190 |
| 14.3 | Individual Gradation Sets | Table 500 - 18, Grad.II | 1 Test/400MT | 444 | 444 | 0 | 189 | 12 | 4 | 12 | 4 | 0 | 0 | 456 | 456 | 0 | 193 |
| 14.4 | Flakiness & Elongation index | MoRT&H Table 900 - 4 | 1 test/ 350m$^3$ | 292 | 292 | 0 | 128 | 6 | 2 | 6 | 2 | 0 | 0 | 298 | 298 | 0 | 130 |
| 14.5 | Aggregate Impact Value | MoRT&H Table 900 - 4 | 1 test/350m$^3$ | 339 | 339 | 0 | 148 | 6 | 2 | 6 | 2 | 0 | 0 | 345 | 345 | 0 | 150 |
| 14.6 | Marshall Density | ASTM D 2726 | 1 Set/400MT | 479 | 479 | 0 | 212 | 12 | 4 | 12 | 4 | 0 | 0 | 491 | 491 | 0 | 216 |
| 14.7 | GMM | MoRT&H Table 900 - 4 | 1 Test/400MT | 448 | 448 | 0 | 196 | 12 | 4 | 12 | 4 | 0 | 0 | 460 | 460 | 0 | 200 |
| 14.8 | DBM Core Cutting | MoRT&H Table 900 - 4 | 1 Test/700M$^2$ | 1335 | 1335 | 0 | 715 | 35 | 28 | 35 | 28 | 0 | 0 | 1370 | 1370 | 0 | 743 |
| *Bitumen test (VG -40)* | | | | | | | | | | | | | | | | | |
| 14.9 | Softening Point | IS: 1205 - 1978 | 1 Test/ 1 lot | 229 | 229 | 0 | 100 | 4 | 1 | 4 | 1 | 0 | 0 | 233 | 233 | 0 | 101 |
| 14.10 | Penetration | IS: 1205 - 1978 | 1 Test/ 1 lot | 229 | 229 | 0 | 100 | 4 | 1 | 4 | 1 | 0 | 0 | 233 | 233 | 0 | 101 |
| 14.11 | Viscosity | IS: 1205 - 1978 | 1 Test/ 1 lot | 229 | 229 | 0 | 100 | 4 | 1 | 4 | 1 | 0 | 0 | 233 | 233 | 0 | 101 |

| Sr. No. | Item Description | IS Specification Clause | Frequency of Tests | *Test conducted upto Previous month* | | | | *Tests conducted during reporting month November 2022* | | | | | | *Test conducted upto this month* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Tested | | Passed | | Failed | | | | | |
| | | | | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE | Concessionarie | IE | Concessionarie | IE | Concessionarie | IE | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE |
| *15.0 Bituminous Concrete (Grade - II) PMB MCW* | | | | | | | | | | | | | | | | | |
| 15.1 | Bitumen Extraction & Gradation | IRC:SP:11 | 1 Test/400MT | 256 | 256 | 0 | 135 | 10 | 10 | 10 | 10 | 0 | 0 | 266 | 266 | 0 | 145 |
| 15.2 | Combined Gradation | Table 500 - 17, Grad.II | 1 Test/400MT | 259 | 259 | 0 | 152 | 10 | 10 | 10 | 10 | 0 | 0 | 269 | 269 | 0 | 162 |
| 15.3 | Individual Gradation Sets | Table 500 - 17, Grad.II | 1 Test/400MT | 259 | 259 | 0 | 152 | 10 | 10 | 10 | 10 | 0 | 0 | 269 | 269 | 0 | 162 |
| 15.4 | Flakiness & Elongation index | MoRT&H Table 900 - 4 | 1 test/ 350$m^3$ | 129 | 129 | 0 | 68 | 5 | 5 | 5 | 5 | 0 | 0 | 134 | 134 | 0 | 73 |
| 15.5 | Aggregate Impact Value | MoRT&H Table 900 - 4 | 1 test/350$m^3$ | 131 | 131 | 0 | 70 | 5 | 5 | 5 | 5 | 0 | 0 | 136 | 136 | 0 | 75 |
| 15.6 | Marshall Density | ASTM D 2726 | 1 Set/400MT | 255 | 255 | 0 | 127 | 10 | 10 | 10 | 10 | 0 | 0 | 265 | 265 | 0 | 137 |
| 15.7 | GMM | MoRT&H Table 900 - 4 | 1 Test/400MT | 255 | 255 | 0 | 127 | 10 | 10 | 10 | 10 | 0 | 0 | 265 | 265 | 0 | 137 |
| 15.8 | BC Core Cutting | MoRT&H Table 900 - 4 | 1 Test/700$M^2$ | 1002 | 1002 | 0 | 467 | 36 | 36 | 36 | 36 | 0 | 0 | 1038 | 1038 | 0 | 503 |
| *16.0 Bituminous Concrete (Grade - II) VG-40 S/R* | | | | | | | | | | | | | | | | | |
| 16.1 | Bitumen Extraction & Gradation | IRC:SP:11 | 1 Test/400MT | 54 | 54 | 0 | 24 | 4 | 2 | 4 | 2 | 0 | 0 | 58 | 58 | 0 | 26 |
| 16.2 | Combined Gradation | Table 500 - 17, Grad.II | 1 Test/400MT | 51 | 51 | 0 | 23 | 4 | 2 | 4 | 2 | 0 | 0 | 55 | 55 | 0 | 25 |
| 16.3 | Individual Gradation Sets | Table 500 - 17, Grad.II | 1 Test/400MT | 51 | 51 | 0 | 23 | 4 | 2 | 4 | 2 | 0 | 0 | 55 | 55 | 0 | 25 |
| 16.4 | Flakiness & Elongation index | MoRT&H Table 900 - 4 | 1 test/ 350$m^3$ | 31 | 31 | 0 | 15 | 2 | 1 | 2 | 1 | 0 | 0 | 33 | 33 | 0 | 16 |
| 16.5 | Aggregate Impact Value | MoRT&H Table 900 - 4 | 1 test/350$m^3$ | 31 | 31 | 0 | 15 | 2 | 1 | 2 | 1 | 0 | 0 | 33 | 33 | 0 | 16 |
| 16.6 | Marshall Density | ASTM D 2726 | 1 Set/400MT | 51 | 51 | 0 | 23 | 4 | 2 | 4 | 2 | 0 | 0 | 55 | 55 | 0 | 25 |
| 16.7 | GMM | MoRT&H Table 900 - 4 | 1 Test/400MT | 51 | 51 | 0 | 23 | 4 | 2 | 4 | 2 | 0 | 0 | 55 | 55 | 0 | 25 |
| 16.8 | BC Core Cutting | MoRT&H Table 900 - 4 | 1 Test/700$M^2$ | 204 | 204 | 0 | 104 | 15 | 15 | 15 | 15 | 0 | 0 | 219 | 219 | 0 | 119 |
| *Bitumen test (PMB)* | | | | | | | | | | | | | | | | | |
| 16.9 | Softening Point | IS: 1205 - 1978 | 1 Test/ 1 lot | 157 | 157 | 0 | 66 | 5 | 1 | 5 | 1 | 0 | 0 | 162 | 162 | 0 | 67 |
| 16.10 | Elastic recovery | IS: 15462 - 2019 | 1 Test/ 1 lot | 157 | 157 | 0 | 66 | 5 | 1 | 5 | 1 | 0 | 0 | 162 | 162 | 0 | 67 |
| *17.0 Prime Coat* | | | | | | | | | | | | | | | | | |
| 17.0 | Rate of Spread of Binder | | Three tests per day | 997 | 997 | 0 | 459 | 9 | 0 | 9 | 0 | 0 | 0 | 1006 | 1006 | 0 | 459 |
| *17.1 Emulsion Test (SS-1)* | | | | | | | | | | | | | | | | | |
| 17.1 | Say bolt Viscometer | IS: 8887-2004 | 1 Test/ 1 lot | 23 | 23 | 0 | 17 | 1 | 0 | 1 | 0 | 0 | 0 | 24 | 24 | 0 | 17 |
| *17.2 Tack Coat* | | | | | | | | | | | | | | | | | |
| 17.2 | Rate of Spread of Binder | | Three tests per day | 1247 | 1247 | 0 | 473 | 57 | 3 | 57 | 3 | 0 | 0 | 1304 | 1304 | 0 | 476 |
| *17.3 Emulsion Test (RS-1)* | | | | | | | | | | | | | | | | | |
| 17.3 | Say bolt Viscometer | IS: 8887-2004 | 1 Test/ 1 lot | 14 | 14 | 0 | 11 | 1 | 1 | 1 | 1 | 0 | 0 | 15 | 15 | 0 | 12 |
| *18.0 Fine Aggregate (MoRT&H 1008)* | | | | | | | | | | | | | | | | | |
| 18.1 | Gradation/ Sieve analysis | IS: 2386 (Part1) | 1 test per day | 2205 | 2205 | 0 | 745 | 36 | 21 | 36 | 21 | 0 | 0 | 2241 | 2241 | 0 | 766 |
| 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 | 2063 | 2063 | 0 | 673 | 36 | 21 | 36 | 21 | 0 | 0 | 2099 | 2099 | 0 | 694 |
| 18.4 | Alkali aggregate reactivity test | IS: 2386 (Part7) 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 |

| Sr. No. | Item Description | IS Specification Clause | Frequency of Tests | *Test conducted upto Previous month* | | | | *Tests conducted during reporting month November 2022* | | | | | | *Test conducted upto this month* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Tested | | Passed | | Failed | | | | | |
| | | | | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE | Concessionarie | IE | Concessionarie | IE | Concessionarie | IE | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE |
| *19.0 Coarse Aggregate (MoRT&H 1007)* | | | | | | | | | | | | | | | | | |
| 19.1 | Gradation | IS: 2386 (Part1) | 1 test per day | 2119 | 2119 | 0 | 745 | 36 | 21 | 36 | 21 | 0 | 0 | 2155 | 2155 | 0 | 766 |
| 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 | 556 | 556 | 0 | 261 | 10 | 6 | 10 | 6 | 0 | 0 | 566 | 566 | 0 | 267 |
| 19.4 | Flakiness index | IS: 2386 (Part1) | 1 test / each source & monthly | 521 | 521 | 0 | 244 | 10 | 6 | 10 | 6 | 0 | 0 | 531 | 531 | 0 | 250 |
| 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 (Part7) 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 | Petrograhic 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 | 601 | 601 | 0 | 276 | 6 | 4 | 6 | 4 | 0 | 0 | 607 | 607 | 0 | 280 |
| 20.3 | Normal Consistency | IS: 4031 (Part4) | Every batch | 573 | 573 | 0 | 276 | 6 | 4 | 6 | 4 | 0 | 0 | 579 | 579 | 0 | 280 |
| 20.4 | Initial & Final setting time | IS: 4031 (Part5) | Every batch | 573 | 573 | 0 | 276 | 6 | 4 | 6 | 4 | 0 | 0 | 579 | 579 | 0 | 280 |
| 20.5 | Soundness of Cement | IS: 4031 (Part3) | Every batch | 517 | 517 | 0 | 242 | 6 | 4 | 6 | 4 | 0 | 0 | 523 | 523 | 0 | 246 |
| 20.6 | Compressive Strength-set | IS: 4031 (Part6) | | | | | | | | | | | | | | | |
| | 3 days | | 1 test per Lot | 533 | 533 | 0 | 232 | 6 | 3 | 6 | 3 | 0 | 0 | 539 | 539 | 0 | 235 |
| | 7 days | | 1 test per Lot | 523 | 523 | 0 | 224 | 8 | 5 | 8 | 5 | 0 | 0 | 531 | 531 | 0 | 229 |
| | 28 days | | 1 test per Lot | 518 | 518 | 0 | 214 | 9 | 5 | 9 | 5 | 0 | 0 | 527 | 527 | 0 | 219 |
| *21.0 Concrete Cube Strength* | | | | | | | | | | | | | | | | | |
| | **M15 PCC** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 780 | 780 | 0 | 285 | 2 | 1 | 2 | 1 | 0 | 0 | 782 | 782 | 0 | 286 |
| | 28Days Compressive Strength | | | 1338 | 1338 | 0 | 559 | 11 | 7 | 11 | 7 | 0 | 0 | 1349 | 1349 | 0 | 566 |
| | **M20 KERB** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 339 | 339 | 0 | 81 | 3 | 0 | 3 | 0 | 0 | 0 | 342 | 342 | 0 | 81 |
| | 28Days Compressive Strength | | | 888 | 888 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 888 | 888 | 0 | 213 |
| | **M20 RCC** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 386 | 386 | 0 | 110 | 0 | 0 | 0 | 0 | 0 | 0 | 386 | 386 | 0 | 110 |
| | 28Days Compressive Strength | | | 767 | 767 | 0 | 250 | 0 | 0 | 0 | 0 | 0 | 0 | 767 | 767 | 0 | 250 |
| | **M20 PCC** | | | | | | | | | | | | | | | | |
| | 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 | 73 | 73 | 0 | 19 | 2 | 1 | 2 | 1 | 0 | 0 | 75 | 75 | 0 | 20 |
| | 28Days Compressive Strength | | | 123 | 123 | 0 | 74 | 1 | 0 | 1 | 0 | 0 | 0 | 124 | 124 | 0 | 74 |

| Sr. No. | Item Description | IS Specification Clause | Frequency of Tests | *Test conducted upto Previous month* | | | | *Tests conducted during reporting month November 2022* | | | | | | *Test conducted upto this month* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Tested | | Passed | | Failed | | | | | |
| | | | | No. of test Conducted EPC/ Concessionaire | Passed | Failed | Nos. of test witnessed by IE | Concessionarie | IE | Concessionarie | IE | Concessionarie | 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 | 868 | 868 | 0 | 300 | 3 | 0 | 3 | 0 | 0 | 0 | 871 | 871 | 0 | 300 |
| | 28Days Compressive Strength | | | 1420 | 1420 | 0 | 549 | 20 | 12 | 20 | 12 | 0 | 0 | 1440 | 1440 | 0 | 561 |
| | **M30 RCC PUMPABLE** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 167 | 167 | 0 | 66 | 9 | 2 | 9 | 2 | 0 | 0 | 176 | 176 | 0 | 68 |
| | 28Days Compressive Strength | | | 410 | 410 | 0 | 199 | 21 | 14 | 21 | 14 | 0 | 0 | 431 | 431 | 0 | 213 |
| | **M35 RCC** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 398 | 398 | 0 | 194 | 0 | 0 | 0 | 0 | 0 | 0 | 398 | 398 | 0 | 194 |
| | 28Days Compressive Strength | | | 821 | 821 | 0 | 420 | 0 | 0 | 0 | 0 | 0 | 0 | 821 | 821 | 0 | 420 |
| | **M35 PILING** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 987 | 987 | 0 | 518 | 0 | 0 | 0 | 0 | 0 | 0 | 987 | 987 | 0 | 518 |
| | 28Days Compressive Strength | | | 2924 | 2924 | 0 | 1565 | 0 | 0 | 0 | 0 | 0 | 0 | 2924 | 2924 | 0 | 1565 |
| | **M35 RCC PUMPABLE** | | | | | | | | | | | | | | | | |
| | 7Days Compressive Strength | MoRT&H Sec. 1700 | MoRT&H Sec. 1700 No of sets | 1336 | 1336 | 0 | 554 | 9 | 4 | 9 | 4 | 0 | 0 | 1345 | 1345 | 0 | 558 |
| | 28Days Compressive Strength | | | 4036 | 4036 | 0 | 1954 | 49 | 43 | 49 | 43 | 0 | 0 | 4085 | 4085 | 0 | 1997 |
| | **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 | 992 | 992 | 0 | 374 | 7 | 2 | 7 | 2 | 0 | 0 | 999 | 999 | 0 | 376 |
| | 28Days Compressive Strength | | | 2172 | 2172 | 0 | 881 | 16 | 9 | 16 | 9 | 0 | 0 | 2188 | 2188 | 0 | 890 |
| | **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 | 435 | 435 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 0 | 435 | 435 | 0 | 188 |
| | 28Days Compressive Strength | | | 1114 | 1114 | 0 | 442 | 0 | 0 | 0 | 0 | 0 | 0 | 1114 | 1114 | 0 | 442 |
| | **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 | 659 | 659 | 0 | 218 | 0 | 0 | 0 | 0 | 0 | 0 | 659 | 659 | 0 | 218 |
| | 28Days Compressive Strength | | | 2232 | 2232 | 0 | 721 | 34 | 22 | 34 | 22 | 0 | 0 | 2266 | 2266 | 0 | 743 |

## 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

| Sl 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.<br>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<br>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)<br>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 |
| 15 | NCR - 15 | 20.09.2022 | Km 70+160 to 70+200 | | Mismatching of FRL with approved Plan & Profile | Lr.No.788_20.09.2022 | | | Open |

## 7. Weather Report -Meensurutti

| DATE | Temperature (°C) | | Rainfall in mm | Humidity in % | | Remarks |
|---|---|---|---|---|---|---|
| | Max | Min | | Max | Min | |
| 1-Nov-22 | 35.1 | 26.1 | 5.00 | 87 | 70 | Rainy |
| 2-Nov-22 | 36.2 | 26.4 | 77.00 | 86 | 69 | Rainy |
| 3-Nov-22 | 35.2 | 25.1 | 3.00 | 89 | 72 | Rainy |
| 4-Nov-22 | 33.1 | 25.2 | 9.00 | 87 | 66 | Rainy |
| 5-Nov-22 | 33.8 | 26.1 | 13.00 | 84 | 62 | Rainy |
| 6-Nov-22 | 34.2 | 26.4 | 7.00 | 86 | 66 | Rainy |
| 7-Nov-22 | 35.3 | 27.3 | 0.00 | 85 | 64 | Drizzling |
| 8-Nov-22 | 33.1 | 26.9 | 5.00 | 86 | 70 | Rainy |
| 9-Nov-22 | 33.9 | 25.8 | 3.00 | 85 | 68 | Rainy |
| 10-Nov-22 | 32.8 | 26.3 | 55.00 | 80 | 70 | Rainy |
| 11-Nov-22 | 32.2 | 26.2 | 82.00 | 74 | 78 | Rainy |
| 12-Nov-22 | 34.2 | 27.3 | 0.00 | 85 | 64 | Drizzling |
| 13-Nov-22 | 33.7 | 26.1 | 0.00 | 90 | 66 | Drizzling |
| 14-Nov-22 | 34.2 | 26.2 | 8.00 | 91 | 62 | Rainy |
| 15-Nov-22 | 32.9 | 26.8 | 0.00 | 85 | 60 | Drizzling |
| 16-Nov-22 | 33.1 | 25.8 | 0.00 | 90 | 52 | Sunny |
| 17-Nov-22 | 34.8 | 25.1 | 0.00 | 87 | 50 | Sunny |
| 18-Nov-22 | 33.9 | 24.5 | 0.00 | 76 | 52 | Sunny |
| 19-Nov-22 | 34.2 | 23.7 | 0.00 | 77 | 50 | Sunny |
| 20-Nov-22 | 34.8 | 24.1 | 0.00 | 73 | 51 | Sunny |
| 21-Nov-22 | 34.7 | 24.6 | 0.00 | 71 | 52 | Sunny |
| 22-Nov-22 | 34.3 | 25.4 | 0.00 | 76 | 53 | Sunny |
| 23-Nov-22 | 34.9 | 27.1 | 0.00 | 72 | 51 | Sunny |
| 24-Nov-22 | 34.7 | 28.1 | 0.00 | 81 | 50 | Sunny |
| 25-Nov-22 | 35.1 | 26.9 | 0.00 | 85 | 48 | Sunny |
| 26-Nov-22 | 35.3 | 26.7 | 0.00 | 86 | 48 | Sunny |
| 27-Nov-22 | 35.4 | 27.0 | 0.00 | 86 | 50 | Sunny |
| 28-Nov-22 | 34.9 | 26.1 | 0.00 | 85 | 52 | Sunny |
| 29-Nov-22 | 35.3 | 26.5 | 0.00 | 84 | 48 | Sunny |
| 30-Nov-22 | 35.7 | 24.4 | 6.00 | 81 | 49 | Rainy |

| Date | Temperature (⁰C) | | Rainfall in mm | Humidity in % | | Remarks |
|---|---|---|---|---|---|---|
| | Max | Min | | Max | Min | |
| 1-Nov-22 | 37.1 | 26.7 | 5.00 | 84 | 53 | Rainy |
| 2-Nov-22 | 37.7 | 25.9 | 35.00 | 88 | 57 | Rainy |
| 3-Nov-22 | 36.1 | 26.3 | 3.00 | 82 | 54 | Rainy |
| 4-Nov-22 | 35.8 | 25.4 | 10.00 | 87 | 56 | Rainy |
| 5-Nov-22 | 35.1 | 25.9 | 20.00 | 80 | 59 | Rainy |
| 6-Nov-22 | 34.7 | 24.9 | 14.00 | 89 | 61 | Rainy |
| 7-Nov-22 | 33.2 | 25.1 | 0.00 | 90 | 58 | Drizzling |
| 8-Nov-22 | 34.1 | 24.8 | 7.00 | 87 | 64 | Rainy |
| 9-Nov-22 | 32.7 | 25.1 | 0.00 | 91 | 60 | Drizzling |
| 10-Nov-22 | 32.2 | 25.5 | 62.00 | 89 | 58 | Rainy |
| 11-Nov-22 | 31.7 | 24.9 | 60.00 | 86 | 62 | Rainy |
| 12-Nov-22 | 31.1 | 24.6 | 0.00 | 84 | 60 | Drizzling |
| 13-Nov-22 | 30.7 | 25.1 | 10.00 | 81 | 62 | Rainy |
| 14-Nov-22 | 30.2 | 25.7 | 8.00 | 86 | 59 | Rainy |
| 15-Nov-22 | 31.1 | 24.9 | 0.00 | 84 | 61 | Drizzling |
| 16-Nov-22 | 30.8 | 25.1 | 0.00 | 88 | 59 | Sunny |
| 17-Nov-22 | 31.4 | 25.6 | 0.00 | 86 | 54 | Sunny |
| 18-Nov-22 | 33.1 | 24.2 | 0.00 | 79 | 56 | Sunny |
| 19-Nov-22 | 32.7 | 23.5 | 0.00 | 78 | 51 | Sunny |
| 20-Nov-22 | 32.4 | 24.8 | 0.00 | 80 | 56 | Sunny |
| 21-Nov-22 | 31.9 | 24.1 | 0.00 | 77 | 54 | Sunny |
| 22-Nov-22 | 30.7 | 24.7 | 0.00 | 80 | 60 | Sunny |
| 23-Nov-22 | 32.1 | 25.1 | 0.00 | 79 | 62 | Sunny |
| 24-Nov-22 | 31.6 | 25.4 | 0.00 | 77 | 59 | Sunny |
| 25-Nov-22 | 31.3 | 24.9 | 0.00 | 78 | 61 | Sunny |
| 26-Nov-22 | 32.4 | 25.3 | 0.00 | 81 | 54 | Sunny |
| 27-Nov-22 | 32.9 | 25.7 | 0.00 | 84 | 51 | Sunny |
| 28-Nov-22 | 32.1 | 24.7 | 0.00 | 82 | 53 | Sunny |
| 29-Nov-22 | 31.9 | 25.1 | 0.00 | 85 | 58 | Sunny |
| 30-Nov-22 | 32.2 | 24.6 | 5.00 | 83 | 61 | Rainy |

- 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, bus bays, turning radius of major junctions along the project highways.

3. NOC from PWD/WRO, Govt of Tamil Nadu for construction of Minor Bridge and Major Bridge as per below:-

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

4. 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.

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

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

| Sl 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 | | | |

7. 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 |

8. Removal of Religious structures 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 | |

9. Removal of Government Buildings.

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

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

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

13. 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 & letter no. 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 mobilized 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 hometown. Based on prevailing situation and circumstances thereto & on human ground we could not restrict them from going to their hometown and many migrant labours / staffs have registered their name for the movement to their hometown.

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 Tamilnadu, 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.

14. 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.

15. 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 migrant's labours who were gone their home at Holi Festival are not returning 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.

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

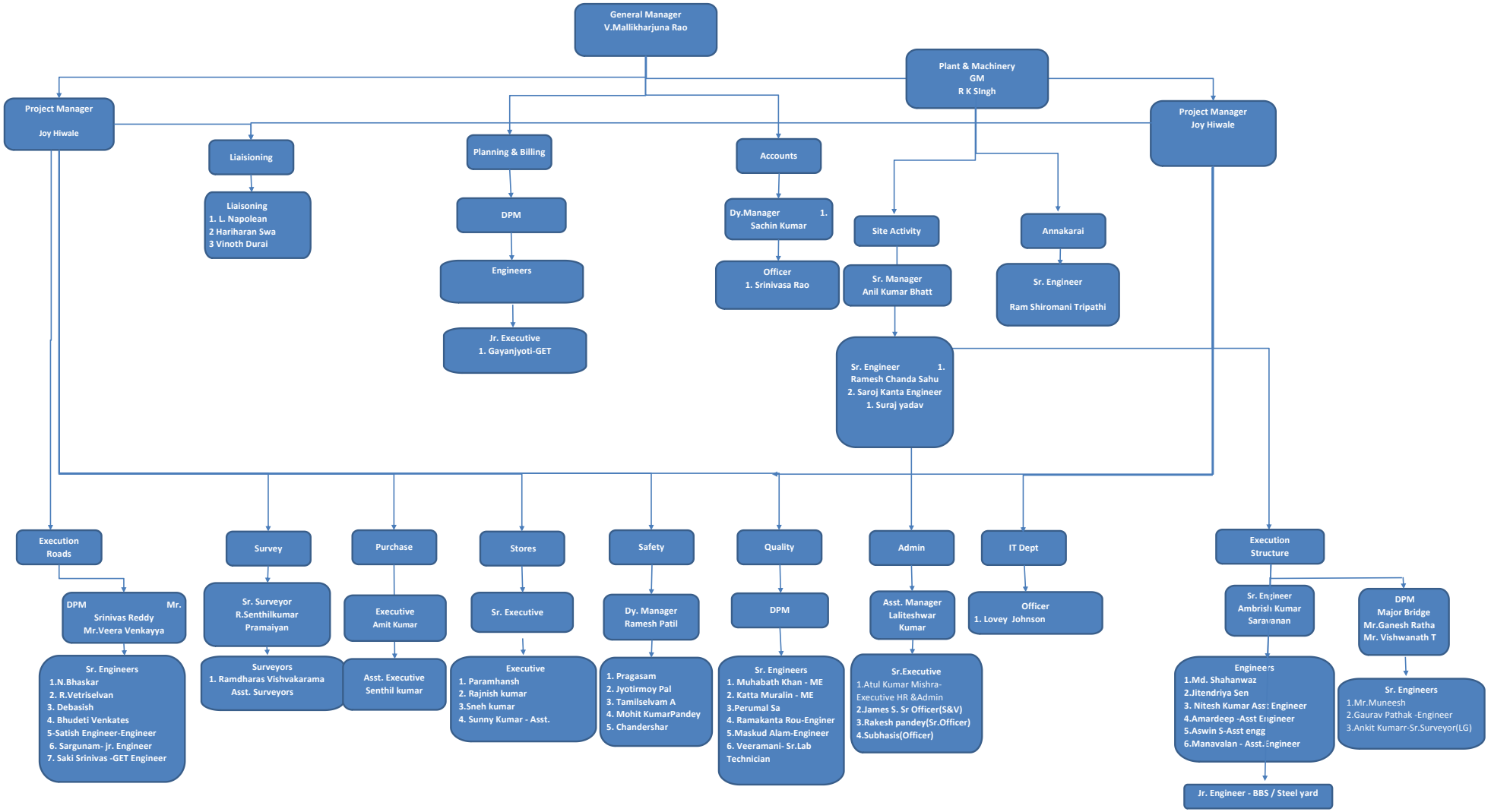
Table 10.1. Details of Important Events

| Sl. No | Date of Events | Description of Events | Remarks |
|---|---|---|---|
| | | | |

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



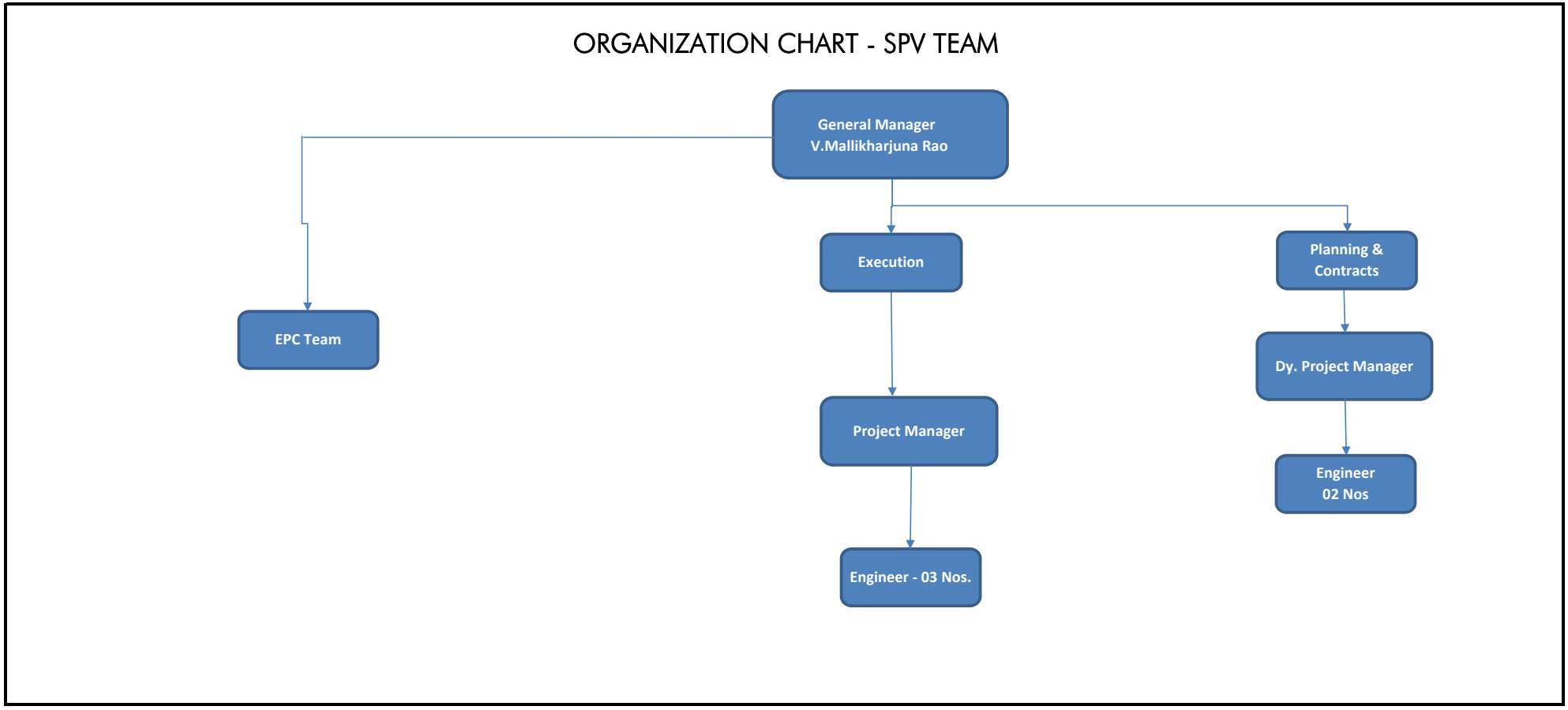

ORGANIZATION CHART - SPV TEAM
General Manager
V.Mallikharjuna Rao
EPC Team
Execution
Project Manager
Engineer - 03 Nos.
Planning &
Contracts
Dy. Project Manager
Engineer
02 Nos

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

| Sr. 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 | 1 | |
| 15 | Crusher Plant (3 Stage) | 250 TPH | 2 | |
| 16 | Weigh Bridge for Camp 100MT | 100MT | 3 | |
| 17 | Weigh Bridge for Crusher 100MT | 100MT | 2 | |
| 18 | Genset Base Camp | 25KV | 2 | |
| 19 | Genset 63KVA Boiler | 63KVA Boiler | 1 | |
| 20 | Genset (H.M & B/P) | 82.50KV | 3 | |
| 21 | Genset (B/P-CP-45) | 125KV | 2 | |
| 22 | Genset Concrete Plant-180 KVA | 180 KVA | 1 | |
| 23 | Genset (Crusher) | 1010KVA | 3 | |
| 24 | Gantry at Box Segment Casting Yard | 100 MT | 2 | Both are in operation. |
| 25 | Launching Girder | | 2 | Both are in operation. |

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 |

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 | | | | |
| Sr. No. | Date | Letter No | Subject | Remarks |
| 1 | 01.11.2022 | PSCHPL/SCP/NHAI/2022/1243 | Submission of SOP of transportation of Pond Ash-Reg | |
| 2 | 10.11.2022 | PSCHPL/SCP/NHAI/2022/1250 | Recording of drone video for the month of October-2022-Reg | |
| 3 | 12.11.2022 | PSCHPL/HO/SCP/PIU/022/2022 | Submission of extension of Bank Guarantee Bond to 2nd Mobilization Advanced Bank Guarantee-Reg | |
| 4 | 21.11.2022 | PSCHPL/SCP/NHAI/2022/1261 | RA Bill No.21-Shifting of electrical utilities as per clause 11.2.1 of CA | |
| 5 | 21.11.2022 | PSCHPL/SCP/NHAI/2022/1262 | RA Bill No.13- Shifting of water pipeline utilities as per cl.11.2.1 of Concession Agreement-Reg | |
| 6 | 29.11.2022 | PSCHPL/SCP/NHAI/2022/1268 | Report on RTI Petition by K.K. Aravazhi-Reg | |

| 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 14.2 - CORRESPONDANCE - NHAI TO CONCESSIONAIRE | | | | |
| Sr. No. | Date | Letter No | Subject | Remarks |
| 1 | 01.11.2022 | NHAI/PIU/Thanjavur/11025/09/2018/3104 | Lumpsum provision revised estimates prepared by AEE, TWAD board, Mayiladuthurai-requested to submit fresh bill-reg | |
| 2 | 03.11.2022 | NHAI/SRD&Q/Bridge-Cell/Peer-Review/2020-Part (2)/228 | Thorough inspection of existing structures, bridges on highways | |
| 3 | 03.11.2022 | NHAI/11015/149(B)/2018/RO Madurai/2551 | Extension of time for lifting the balance quantity of 18,29,538 Cum out of total 31,00,000 cum permitted by NLCIL-Requested-reg | |
| 4 | 03.11.2022 | NHAI/PIU/Thanj/11025/11/2018/3136 | Extension of bank guarantee for mobilisation advance 2nd installment-reg | |
| 5 | 03.11.2022 | NHAI/PIU/Thanj/11099/05/2009/3143 | NHAI-PIU-Thanjavur-Information sought for under Right to Information Act 2005 by Smt. S.Sheela-report called for-reg | |
| 6 | 04.11.2022 | NHAI/PIU/Thanj/11025/11/2018/3153 | Submission of comprehensive proposal-Requested for approval of competent authority-reg | |
| 7 | 04.11.2022 | NHAI/PIU/Thanj/11025/08/2018/3156 | Shifting of the exisiting 110 KV MRK sugar mills - Sethiyathopu SC line DC tower Loc 6 & 8 towards NH 45C at Km 73+470 - LC Requested in 110 KV MRK Sugar mills - Sethiyathopu-Reg | |
| 8 | 04.11.2022 | NHAI/PIU/Thanj/11025/03/2018/3158 | Request to provide service roads & Drainage facilities requested-reg | |
| 9 | 14.11.2022 | NHAI/PIU/Thanj/11025/09/2018/3219 | Construction of weir at Kuzhavadaiyan Periya Eri in Vembukudi Panchayat-Remarks called for-reg | |
| 10 | 18.11.2022 | NHAI/PIU/Thanjavur/11025/11/2018/3263 | Proposal submitted by IE for completion of PCOD-2 by 28.02.2023 and final completion of PCOD-3 by 10.08.2023-Requested for Approval of Competent Authority-reg | |
| 11 | 22.11.2022 | NHAI/PIU/Thanj/11025/09/2018/3315 | Shifting of infringement of veeranam pipeline pertaining to CMWSSB -RA Bill No.1-reg | |
| 12 | 22.11.2022 | NHAI/14013/30/2022/RO Madurai/2675 | Detailed reasons for non-achievement and furnishing of revised construction Target-reg | |
| 13 | 24.11.2022 | NHAI/PIU/Thanj/11025/08/2018/3333 | Shifting of electrical utilities like HT-LT lines & structures in chidambaram division-Sethiyathope south-2, Vanamadevi 1&2 section-reg | |
| 14 | 25.11.2022 | NHAI/14013/19/2022/RO Madurai/2704 | Expedition of plantation activities during the month of november & December-reg | |
| 15 | 25.11.2022 | NHAI/PIU/Thanj/11025/09/2018/3341 | Shifting of water supply utilities -reg | |
| 16 | 29.11.2022 | NHAI/PIU/Thanj/11025/11/2018/3400 | Sh. Jothikumar Advocate-Reg | |
| 17 | 29.11.2022 | NHAI/PIU/Thanj/11025/03/2018/3399 | Acquisition of Additional lands-Service road-reg | |
| 18 | 29.11.2022 | NHAI/PIU/Thanj/11025/03/2018/3385 | Consumer council quarterly meeting conducted by the District collector, Cuddalore-action requested-reg | |
| 19 | 29.11.2022 | NHAI/PIU/Thanj/11025/03/2018/3407 | Acquisition of Additional lands-Service road-reg | |
| 20 | 30.11.2022 | NHAI/SRD&Q/190/2020/249 | Compliance to Quality Inspection Reports-reg | |

| 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 | | | | |
| Sr. No. | Date | Letter No | Subject | Remarks |
| 1 | 05.11.2022 | PSCHPL/SCP/IE/2022/1246 | Submission of Monthly Status & Management (O&M) Report for the month of October 2022-reg | |
| 2 | 05.11.2022 | PSCHPL/SCP/IE/2022/1247 | Submission of Monthly Progress Report for the month of October-2022-reg | |
| 3 | 11.11.2022 | PSCHPL/SCP/IE/2022/1251 | Submission of design and drawings for bridge load test for superstructure at MJB located at Ch. 66+491-reg | |
| 4 | 11.11.2022 | PSCHPL/SCP/IE/2022/1252 | Submission of methodology for structural concrete repair for anakarai bridge at Ch.107+400 RHS-reg | |
| 5 | 16.11.2022 | PSCHPL/SCP/IE/2022/1256 | Submission of design & drawing for bridge load test for superstructure at MJB located at Ch. 99+583-reg | |
| 6 | 17.11.2022 | PSCHPL/SCP/IE/2022/1257 | Submission of Design & Drawing for Bridge load test for superstructure at MNB located at Ch. 70+190-reg | |
| 7 | 22.11.2022 | PSCHPL/SCP/IE/2022/1263 | Shifting of infringement of veeranam pipeline pertaining to CMWSSB-RA Bill 01-reg | |
| 8 | 23.11.2022 | PSCHPL/HO/SCP/IE/024/2022 | Methodology for Structural concrete repair of MJB at Km 107+400 RHS- reg | |
| 9 | 28.11.2022 | PSCHPL/SCP/IE/2022/1267 | Design & Drawing for Bridge load test of major bridge at Km 66+491, 99+583 and Minor bridge at Km 70+190-Reply-reg | |

| 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 14.4 - CORRESPONDANCE - INDEPENDENT ENGINEER TO CONCESSIONAIRE / NHAI | | | | |
| Sr. No. | Date | Letter No | Subject | Remarks |
| 1 | 02.11.2022 | TES/IE/SCP/PIL/2022/803 | Proposal of Borrow area no-41 (Ex No 04)-reg | |
| 2 | 09.11.2022 | TES/IE/SCP/NHAI/2022/460 | Demobilization of Sub-professional-reg | |
| 3 | 09.11.2022 | TES/IE/SCP/NHAI/2022/461 | IE Monthly Progress Report (MPR) for the month of October 2022-reg | |
| 4 | 09.11.2022 | TES/IE/SCP/NHAI/2022/462 | Thorough Inspection of Existing Structure Bridge on NH-45C Highway-REG | |
| 5 | 10.11.2022 | TES/IE/SCP/NHAI/2022/464 | Report on RTI petition-reg | |
| 6 | 12.11.2022 | TES/IE/SCP/NHAI/2022/465 | Representation received in request for drawing at Km.65.830 to 65.870 RHS to make feasibility report to build IOCL outlet-reg | |
| 7 | 15.11.2022 | TES/IE/SCP/NHAI/2022/466 | IE O&M Monthly Status report for the month of October 2022 | |
| 8 | 15.11.2022 | TES/IE/SCP/NHAI/2022/467 | Review and comments of IE on concessionaire monthly progress report for the month of October-2022-reg | |
| 9 | 15.11.2022 | TES/IE/SCP/NHAI/2022/468 | Writ petition No. 28523 of 2022-filed by Sh.Velmurugan So Periyasamy of Vattathur Village-IE remarks-reg | |
| 10 | 15.11.2022 | TES/IE/SCP/NHAI/2022/470 | Quality inspection from 25.10.2021 to 29.10.2021 Compliance Report-reg | |
| 11 | 15.11.2022 | TES/IE/SCP/PIL/2022/804 | Monthly Site Inspection-reg | |
| 12 | 15.11.2022 | TES/IE/SCP/PIL/2022/805 | Site Review Meeting-reg | |
| 13 | 17.11.2022 | TES/IE/SCP/NHAI/2022/471 | Request for extension of time for PCOD-2 and PCOD-3 IE comments on quantification for EPT-reg | |
| 14 | 17.11.2022 | TES/IE/SCP/NHAI/2022/472 | CPGRAM No. MORTHE202215873 dated 15.10.2022 report on safety of road users-reg | |
| 15 | 17.11.2022 | TES/IE/SCP/PIL/2022/807 | Methodology for Structural concrete repair of Anakarai Major Bridge at km 107+400 RHS-reg | |
| 16 | 21.11.2022 | TES/IE/SCP/PIL/2022/801 | Job mix design formula for DBM (Grading-II) (BITCOL)-reg | |
| 17 | 21.11.2022 | TES/IE/SCP/PIL/2022/809 | Construction defects and Quality issues in Slope protection-reg | |
| 18 | 22.11.2022 | TES/IE/SCP/NHAI/2022/477 | Shifting of infringement of veeranam pipeline pertaining to CMWSSB-RA Bill No.1-reg | |
| 19 | 22.11.2022 | TES/IE/SCP/NHAI/2022/476 | Public representation on the shifting of water pipeline-Estimate submission-reg | |
| 20 | 23.11.2022 | TES/IE/SCP/NHAI/2022/478 | IE Inspection Report for the month of October-2022-reg | |
| 21 | 24.11.2022 | TES/IE/SCP/NHAI/2022/480 | Press paper cutting on 20-11-2022-Reg | |
| 22 | 24.11.2022 | TES/IE/SCP/PIL/2022/810 | Design & Drawing for bridge load test of Major bridge at Km 66+491, 99+583 and minor bridge at Km 70+190-reg | |
| 23 | 29.11.2022 | TES/IE/SCP/PIL/2022/811 | Site Inspection Report-reg | |
| 24 | 29.11.2022 | TES/IE/SCP/PIL/2022/812 | Minutes of meeting dated 23.11.2022-Reg | |
| 25 | 30.11.2022 | TES/IE/SCP/NHAI/2022/482 | RA Bill. No.21-Shifting of Electrical utilities like HT-LT Lines & Structures | |
| 26 | 30.11.2022 | TES/IE/SCP/NHAI/2022/483 | Shifting of water supply Utilities (RA Bill No.13)-Reg | |

| Sl. No | Description | Location | Side | Remarks |
|---|---|---|---|---|
| 1. | RE Wall Filling work in progress | 110+110 | BHS | Existing Road |
| 2. | Subgrade Layer work in Progress | 99+470 | RHS | Existing Road |

| Sl. No | Description | Location | Side | Remarks |
|---|---|---|---|---|
| 3. | CTSB Laying work in progress | 104+400 | RHS | Existing Road |
| 4. | CTSB Laying work in progress | 104+450 | RHS | Existing Road |


| Sl. No | Description | Location | Side | Remarks |
|---|---|---|---|---|
| 5. | WMM Laying Work in progress | 115+920 | LHS | Existing Road |
| 6. | WMM Laying Work in progress | 116+000 | LHS | Existing Road |


| Sl. No | Description | Location | Side | Remarks |
|---|---|---|---|---|
| 7. | DBM Laying Work in progress | 83+650 | LSR | Existing road |
| 8. | BC Laying work in progress | 106+000 | LSR | Bypass |

| Sl. No | Description | Location | Side | Remarks |
|---|---|---|---|---|
| 9. | Box Segment launching Work in Progress between Span P11 - P12 | 107+400 | LHS | Major Bridge |
| 10. | Super structure Work in progress | 109+365 | RHS | Minor Bridge |

| Sl. No | Description | Location | Side | Remarks |
|---|---|---|---|---|
| 11. | Super structure Work in progress | 72+545 | BHS | VUP |