# TOWER ERECTION ("N") / CABLE SAG SETTING

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|---|---|
| Bridge No. & Name :Kaula Ghat Jho. Pu. | Date of Visit:_2079/02/29 |
| Date of UC Agreement: 2078/07/28 | Targeted Bridge Completion Date: _____ |

## Quality :

| ***Description*** | ***Conforming to the drawing/ specification and Instruction given herein*** | | ***Remarks if "No" explain*** |
|---|---|---|---|
| | ***Yes*** | ***No*** | |
| **Materials** : | ***Yes*** | | |
| Sand | ***Yes*** | | |
| Aggregates | ***Yes*** | | |
| Chisel dressed stone blocks | ***Yes*** | | |
| Hammer dressed stone blocks | ***Yes*** | | |
| Broken stones | ***Yes*** | | |
| Cement | ***Yes*** | | |
| **Masonry works** : | ***Yes*** | | |
| Mortar mix | ***Yes*** | | |
| Bond / joints | ***Yes*** | | |
| Plumb vertical / horizontal | ***Yes*** | | |
| Chisel dressed stone masonry | ***Yes*** | | |
| Hammer dressed stone masonry | ***Yes*** | | |
| Dry Broken stone masonry for dead | ***Yes*** | | |
| Curing | ***Yes*** | | |
| **Concrete works** : | ***Yes*** | | |
| Laying of Reinforcement Bars | ***Yes*** | | |
| Laying of Anchorage steel parts | ***Yes*** | | |
| Laying of Anchor bars | ***Yes*** | | |
| Laying of HDP pipes on Deadman | ***Yes*** | | |
| Concrete mix | ***Yes*** | | |
| Water cement ratio | ***Yes*** | | |
| Compaction | ***Yes*** | | |
| Curing | ***Yes*** | | |
| **Dimension of Anchorage/Foundation** | ***Yes*** | | |
| Deadman Beams | ***Yes*** | | |
| Drums | ***Yes*** | | |
| Main Anchorage/Foundation Blocks | ***Yes*** | | |
| Tower Foundation Blocks | ***Yes*** | | |
| Windguy Foundation Blocks | | | |
| **Steel Towers ('N' types only)** | | ***No*** | |
| Vertical | | | |
| No missing parts | | | |
| No missing nuts/bolts/washers | | | |
| Temporary struts are in place | | | |

Continues …

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| ***Description*** | ***Conforming to the design drawing/ specification and Instruction given herein*** | | ***Remarks if "No" explain*** |
|---|---|---|---|
| **Cable terminals** | ***Yes*** | ***No*** | |
| Number/ Size and spacing of Buldog grips | | | |
| at Main / Handrail Cable Anchorages | | | |
| at Walkway / Spanning Cable Anchorages | | | |
| | ***Cables have no kinks, broken strands, any other damage and*** | | |
| | **Yes** | **No** | |
| **Quality of Cables** | | | |
| | ***Hoisting level of sag/camber as per design, GA and Instruction given herein*** | | |
| **Cable Sag setting** | **Yes** | **No** | |
| Main / Handrail Cables | | | |
| Walkway / Spanning Cables | | | |
| | **Equal Sag of all cables** | | |
| **Relative Sag** | **Yes** | **No** | |
| Main / Handrail Cables | | | |
| Walkway / Spanning Cables | | | |

**Progress**:

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Target Completion Date as per schedule :..... Actual Completion Date :
……

Reason for delay (if any):.....

***Note:***

1. *Refer instruction at the back side.*
2. *Attach also copy of any instruction given to UC. Instruction must be written in the Project Book.*
3. ***This report must include photographic evidence as per prescribed captions to conform the above statements.***
   ***<u>The Progress Report without these photos will not be accepted</u>***.

| | |
|---|---|
| Name/Organization : | Punaram B.K./BYC-Baglung |
| Signature: | |
| Date: | 2079/03/08 |

**Tower Erection / Cable Sag Setting**
(Refer DMBT Manual, Chapter 7, 8 and Form No 2: Bridge Design, Chapter1.D)

**Follow instruction given in MS 8 and below:**

**In case of 'D' type bridge**

- Measure actual bridge span and elevations of the cable saddles. Permissible tolerance is 2 Mtrs. in designed and actual span and 5% for relative elevation difference.
- Calculate hoisting sags and its hoisting cable elevations as per actual span and elevation.
- Due to possible relaxation, re-checking and final adjustment of sag should be made after 24 hrs.
- Ensure proper cable terminals, i.e. thimbles / bulldog-grips number, size, spacing and appropriate fitting (grip towards the tension side of the cable), and the overlapping length at cable ends etc.

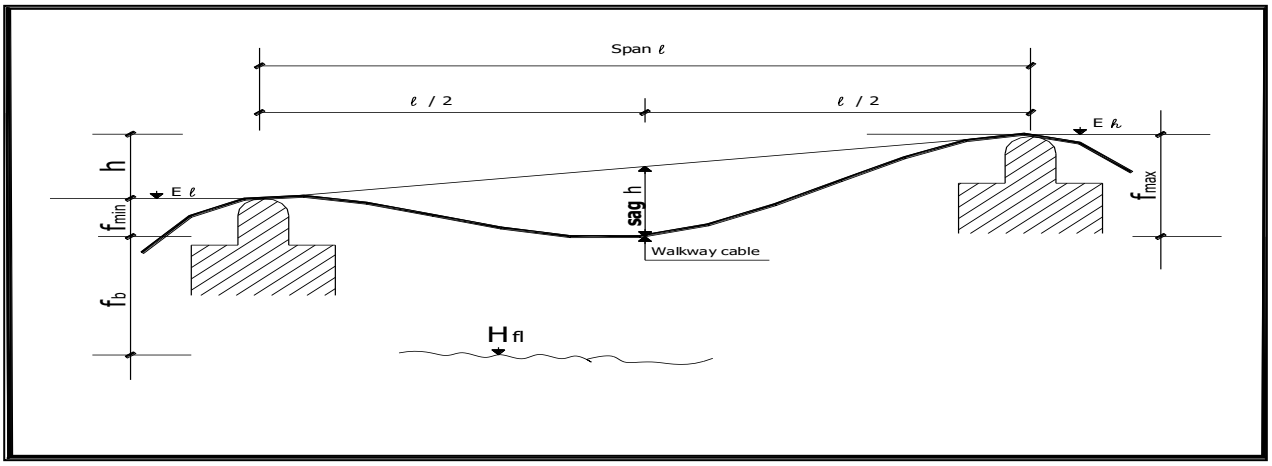
**In case of 'N' type bridge**

- Assist for erection of Towers with the help of experienced bridge fitter.
- Check the verticality of the towers. Ensure that the temporary fixation struts of the towers are in place and in proper position.
- Measure actual bridge span and elevations of the tower bases. Permissible tolerance is 0.3% for designed and actual span and 0.05 % for relative elevation difference.
- Assist for cable hoisting sag/camber as per design cable hoisting elevations (ref.GA).
- Due to possible relaxation, re-check and make final adjustment of sag and relative sags after 24 hrs.
- Ensure proper cable terminals, i.e. thimbles / bulldog-grips number, size, spacing and appropriate fitting (grip towards the tension side of the cable), and the overlapping length at cable ends etc.

## D. Calculation of ( $f_{min}$ & $f_{max}$ ) Hoisting Sag

This calculation has to be made after tower and foundation work is completed.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. Actual Span measured in the field | | | $\ell$ | = | 99.7 | m |
| 2. Saddle Elevation of the Walkway Cable on the **higher** side | | | $E_h$ | = | 100 | m |
| 3. Saddle Elevation of the Walkway Cable on the **lower** side | | | $E_\ell$ | = | 96.77 | m |
| 4. Difference in Elevaion | $h = E_h - E_\ell$ | = | h | = | 3.23 | m |
| 5. Dead Load Sag : for span upto 80.0 m | $b_d = \ell / 20$ | = | $b_d$ | = | | m |
| Dead Load Sag : for span over 80.0 m | $b_d = \ell / 22$ | = | $b_d$ | = | 4.53 | m |
| 6. Hoisting Sag | $b_h$ | $= 0.95 \times b_d$ | $b_h$ | = | 4.30 | m |
| 7. $f_{min}$ (in hoisting case) | $f_{min}$ | $= ( 4x\ b_h - h)2/16xb_h$ | $f_{min}$ | = | 2.84 | m |
| 8. $f_{max}$ (in hoisting case) | $f_{max}$ | $= f_{min} + h$ | $f_{max}$ | = | 6.10 | m |
| 9. Elevation of Cable low point ( in hoisting case ) | | $= E_\ell - f_{min}$ | | = | 93.93 | m |



**Take the relevant photographs as per caption below:**

१. दायां किनाराको मेन केवुल ड्रम वा Deadman Beam मा बेरी फिक्स गरीसकेपछि कंक्रिटिङ गरेपछी लिइएको फाटो ।

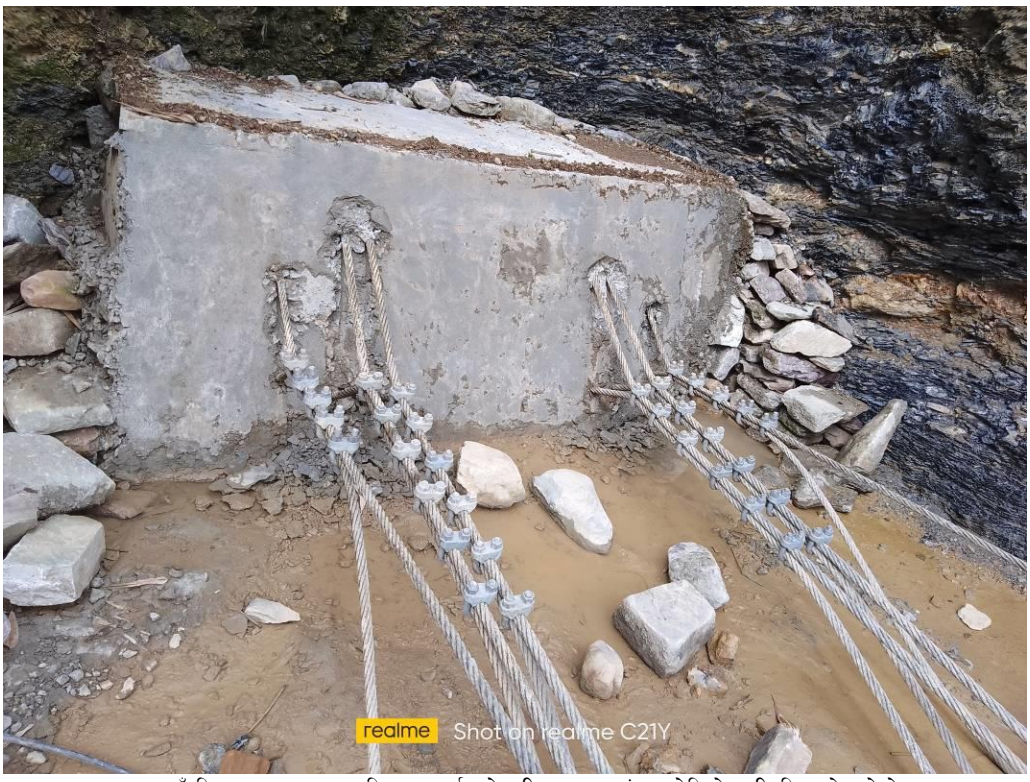
२. बायां किनाराको मेन केवुल ड्रम वा Deadman Beam मा बेरी फिक्स गरीसकेपछि कंक्रिटिङ गरेपछी लिइएको फाटो ।


३. अप स्ट्रिम साइडवाट होइस्टिङ लेबलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो


४. डाउन स्ट्रिम साइडवाट होइस्टिङ लेबलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो ।


५. दायां किनाराबाट होइस्टिङ लेवलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो ।


६. बायां किनाराबाट होइस्टिङ लेवलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो ।




७. दायाँ किनारामा बुलडग ग्रिप लगाईसकेपछी नाप र संख्या देखिने गरी लिएको फोटो ।


८. वायाँ किनारामा बुलडग ग्रिप लगाईसकेपछी नाप र संख्या देखिने गरी लिएको फोटो ।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Shot on realme C21Y


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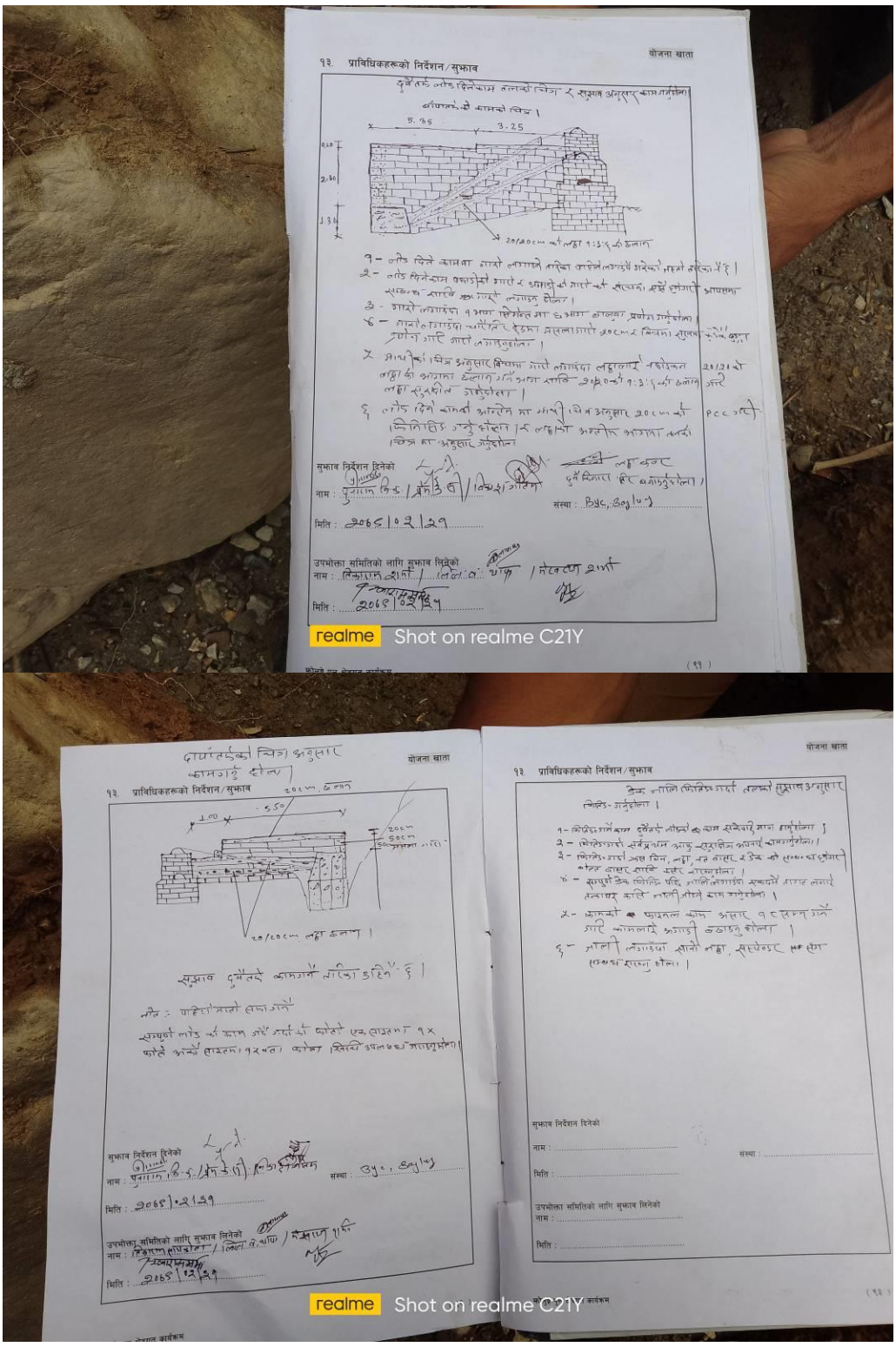
Shot on realme C21Y




Instructions For Uc

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