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

Bridge No. & Name :Jhudi Ghat Jho. Pu.	Date of Visit:_2079/03/01
Date of UC Agreement: 2078/07/28	Targeted Bridge Completion Date:

## Quality:

Description	Conforming to specification a given	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				

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Description	drawing/ sp	to the design ecification and given herein	Remarks if "No" explain
Cable terminals	Yes	No	
Number/ Size and spacing of Buldog grips			
at Malin / Handrail Cable Anchorages			
at Walkway / Spanning Cable Anchorages	Cables have a	o kinka byokan	
	Cables have no strands, any or		
	Yes	No	
Quality of Cables			
	Hoisting level as per des Instruction		
Cable Sag setting	Yes	No	
Main / Handrail Cables			
Walkway / Spanning Cables			
, , ,	Equal Sag		
Relative Sag	Yes	No	
Main / Handrail Cables			
Walkway / Spanning Cables			

riogiess.	
Target Completion Date as per schedule :	
Reason for delay (if any):	

### Note:

- 1. Refer instruction at the back side.
- Attach also copy of any instruction given to UC. Instruction must be written in the Project Book.
  This report must include photographic evidence as per prescribed captions to conform the above statements.

The Progress Report without these photos will not be accepted.

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

#### **Tower Erection / Cable Sag Setting**

(Refer DMBT Manual, Chapter 7, 8 and Form No 2: Bridge Design, Chapter 1.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.

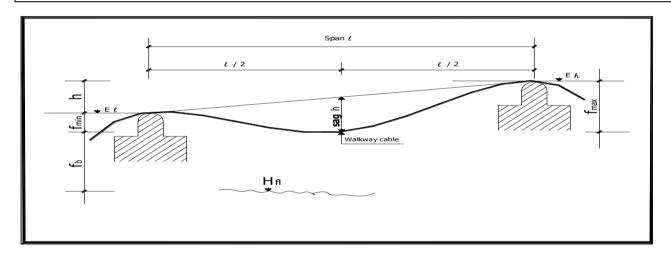
#### In case of 'N' type bridge

- 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			l	=	63.078	m
2. Saddle Elevation of the Walkway Cable on the <b>higher</b> side			Eh	=	100	m
3. Saddle Elevation of the Walkway Cable on the <b>lower</b> side			$E_{\ell}$	=	98.4	m
4. Difference in Elevaion	h= Eh - Eℓ	=	h	=	1.6	m
5. Dead Load Sag : for span upto 80.0 m	$b_d = \ell / 20$	=	b <sub>d</sub>	=	3.15	m
Dead Load Sag: for span over 80.0 m	$b_d = \ell / 22$	=	$b_d$	=		m
6. Hoisting Sag	$b_h$	$= 0.95 \text{ x } b_d$	$b_h$	=	2.99	m
7. f <sub>min</sub> (in hoisting case)	$f_{\min}$	$= (4x b_h-h)2/16xb_h$	$f_{min}$	=	2.24	m
8. f <sub>max</sub> (in hoisting case)	$f_{max}$	$= f_{min} + h$	$f_{\text{max}}$	=	3.84	m
9. Elevation of Cable low point ( in ho	oisting case )	$= E_\ell - f_{min}$		=	96.16	m



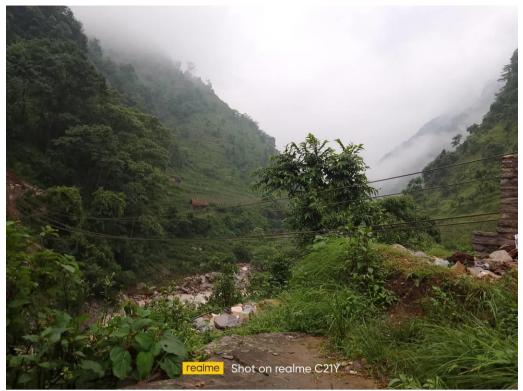
Take the relevant photographs as per caption below:



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



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



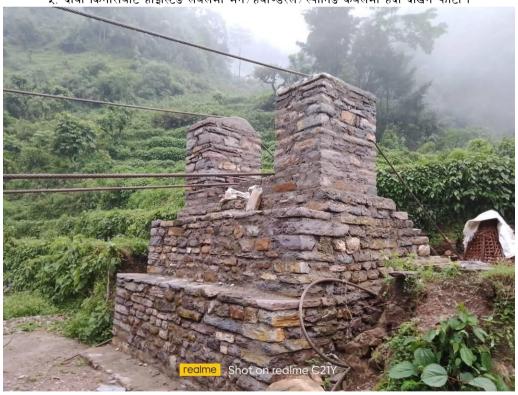
३. अप स्ट्रिम साइडबाट होइस्टिङ लेबलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो



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



दायां किनाराबाट होइस्टिङ लेबलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो ।



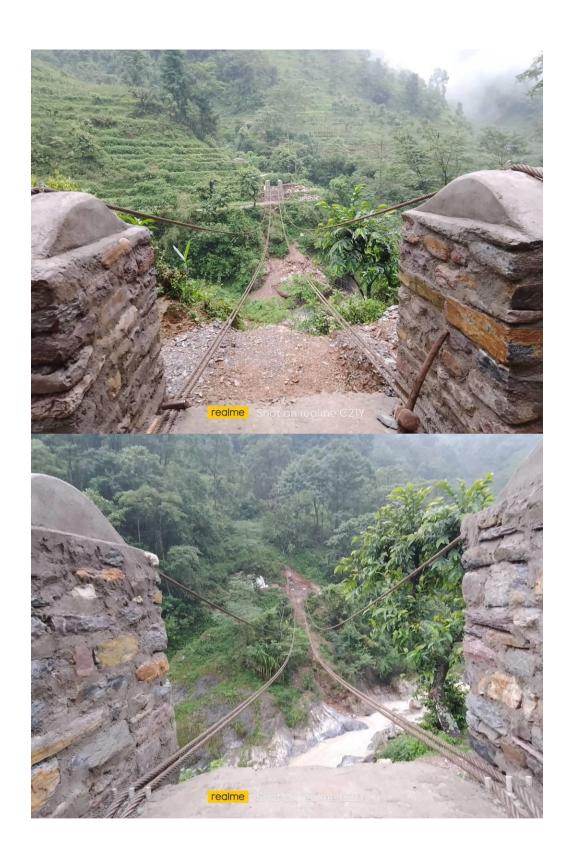
६. बायां किनाराबाट होइस्टिङ लेबलमा मेन/हयाण्डरेल/स्पानिङ केबलमा हेर्दा देखिने फोटो।

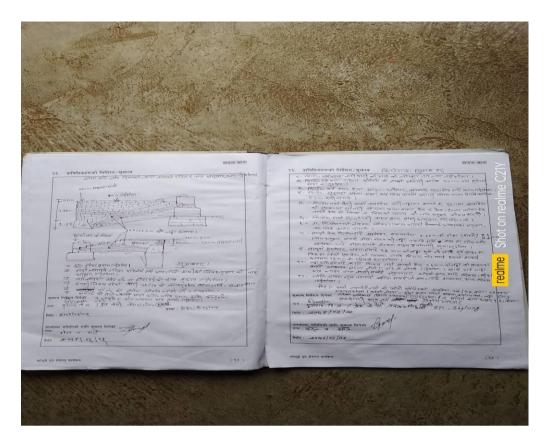


७. दायाँ किनारामा बुलडग ग्रिप लगाईसकेपछी नाप र संख्या देखिने गरी लिएको फोटो ।



८. वायाँ किनारामा बुलडग ग्रिप लगाईसकेपछी नाप र संख्या देखिने गरी लिएको फोटो।





# Instructions For Uc

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