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Government of Bihar
Water Resources Department



SCHEDULE OF RATE-2022
(Thirteenth Edition)

EFFECTIVE FROM - 01/07/2022

कमला वीयर (जयनगर)



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बिहार सरकार

GOVERNMENT OF BIHAR

जल संसाधन विभाग

Water Resources Department

अनुसूचित दर (दर विश्लेषण सहित)

Schedule of Rates With Analysis

(Thirteen Edition)

Effective from: 01.07.2022

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प्रस्तावना

बिहार लोक निर्माण संहिता की कंडिका: 103 के संशोधन के आलाोक में बिहार सरकार, पथ निर्माण विभाग द्वारा निर्गत संकल्प-सह-पठित झापांक-01/बी0-12-2003-5762 (एस10) डब्लू0ई0, पटना दिनांक 05-06-2006 की कंडिका 2 (iii) में यह प्रावधान किया गया है कि अनुसूचित दर के निर्धारण के लिये दर विश्लेषण तथा सामग्रियों का दर निर्धारण पथ निर्माण विभाग के संयोजन में गठित राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा किया जायेगा।

जल संसाधन विभाग के पत्रांक-1/पी0 एग0 सी0/विविध/27/2007-91 पटना, दिनांक 09.02.2017 के द्वारा विभागीय अनुसूचित दर निर्धारण समिति का गठन किया गया है, जिसके वर्तमान सदस्य निम्नवत् हैं:

1. ई0 रवीन्द्र कुमार शंकर
अभियंता प्रमुख, मुख्यालय-सह-अध्यक्ष, विभागीय अनुसूचित दर निर्धारण समिति।
2. ई0 ईश्वर चन्द्र ठाकुर
- अभियंता प्रमुख (सिंचाई सृजन)-सह-सदस्य विभागीय अनुसूचित दर निर्धारण समिति।
3. ई0 शैलेन्द्र
अभियंता प्रमुख (वाढ नियंत्रण एवं जल निस्सरण)-सह-सदस्य, विभागीय अनुसूचित दर निर्धारण समिति।
4. ई0 कुमार जयंत प्रसाद
मुख्य अभियंता (यांत्रिक)-सह-सदस्य-विभागीय अनुसूचित दर निर्धारण समिति।
5. ई0 सुजीत कुमार
निदेशक, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय-सह-सदस्य सचिव, विभागीय अनुसूचित दर निर्धारण समिति।

राज्य स्तरीय अनुसूचित दर निर्धारण समिति, पथ निर्माण विभाग द्वारा अनुमोदित श्रमदर, मशीन दर, सामग्रियों का दर तथा कार्य मदों के दर विश्लेषण के आधार पर जल संसाधन विभाग के अनुसूचित दर पुस्तिका का तेरहवां संस्करण तैयार किया गया है, जिसमें निम्नलिखित प्रावधान किये गये हैं:-

1. अनुसूचित दर पुस्तिका-2022 को तैयार करने में अपनायी गयी प्रक्रिया एवं इसमें प्रयुक्त सभी सामग्रियों, श्रम दर, प्लान्ट्स एवं मशीनरी का Usages Charge तथा Carriage दर एवं कार्य मदों का दर (विश्लेषण सहित) संयोजक, राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख (मुख्यालय), पथ निर्माण विभाग, बिहार, पटना के पत्रांक-मु0नि0 (पथ) 22/2007- 31(अनु0) पटना, दिनांक-08.07.2022 द्वारा अनुमोदित है।
2. राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा प्रदत्त उपर्युक्त अनुमोदन संबंधी पत्र एवं लिये गए निर्णय, अनुसूचित दर पुस्तिका-2022 में संलग्न किया गया है। अनुमोदित सभी निर्णय यथामान्य है।

3. जल संसाधन विभाग के River Valley/ Irrigation & Flood Control से संबंधित कार्य मदों के दर विश्लेषण में Prime Cost के लिये तकनीकी परीक्षण कोपांग के Chapter 8, 9 & 10 के Format को आधार माना गया है।
4. रॉयल्टी एवं मालिकाना फीस (Segniorage Fee) का प्रावधान एवं कटौती खान एवं भूतत्व विभाग की अधिसूचना सं0-3387 दिनांक-27.09.2019, अधिसूचना सं0-3174 दिनांक-17.09.2019 तथा अधिसूचना सं0-3947 दिनांक-15.11.2019 एवं इस संबंध में राज्य स्तरीय अनुसूचित दर निर्धारण समिति के पत्रांक-51 दिनांक-02.12.2019 द्वारा दिये गए निदेश के आलोक में किया गया है। इसे विभागीय पत्रांक-599 दिनांक-06.12.2019 द्वारा भी संसूचित किया गया है। इस क्रम में खान एवं भूतत्व विभाग की रॉयल्टी/Segniorage Fee से संबंधित अद्यतन अधिसूचना तथा समय-समय पर प्राप्त होने वाले निदेशों के अनुरूप कार्रवाई सुनिश्चित करने की जिम्मेवारी क्षेत्रीय पदाधिकारियों की होगी।
5. इस अनुसूचित दर पुस्तिका के दर विश्लेषण में Goods & Service Tax (G.S.T) एवं Labour Cess (1%) शामिल नहीं हैं, परन्तु रॉयल्टी शामिल है। G.S.T एवं Labour Cess सम्मिलित करने की जिम्मेवारी क्षेत्रीय पदाधिकारियों की होगी।
6. यदि परिस्थितिवश Finished Rate की निविदा के विरुद्ध संवेदक को विभाग द्वारा निर्माण सामग्री निर्गत किया जाता है तो वैसी परिस्थिति में सामग्री के दर पर तेरह प्रतिशत (13%) जोड़कर वसूली (Recovery) का प्रावधान किया जाय, ताकि विभागीय सामग्री पर इसकी सुरक्षा के विरुद्ध संवेदक को मात्र दो प्रतिशत (2%) का ही संवेदक लाभ (C.P) प्राप्त हो सके। श्रम दर की निविदा में निर्माण में लगे संवेदक को विभागीय सामग्री पर कोई संवेदक लाभ (C.P) देय नहीं होगा। यदि परिस्थितिवश निर्माण सामग्री की आपूर्ति ली जाती है तो निर्माण सामग्री की निविदा में सामग्री के दर पर मात्र दस प्रतिशत (10%) संवेदक लाभ (C.P) का प्रावधान किया जाय।
7. दिनांक-19.06.2007 को सम्पन्न विभागीय अनुसूचित दर की बैठक में लिए गए निर्णयानुसार जल संसाधन विभाग के अन्तर्गत यांत्रिक साधन से मिट्टी कार्य में ट्रक से ढुलाई के दर का प्रावधान नहीं किया जाय। चूँकि यांत्रिक साधन से मिट्टी ढुलाई कर कार्य कराने में ट्रक द्वारा ढुलाई कर कार्य कराना सर्वाधिक मंहगा पड़ता है।
8. यदि जल संसाधन विभाग द्वारा पथ, भवन, लोक स्वास्थ्य इत्यादि से संबंधित कार्य कराया जाता है तो उस कार्य से संबंधित विभाग के अद्यतन अनुसूचित दर को जल संसाधन विभाग के अनुमोदित अनुसूचित दर पुस्तिका-2022 में वर्णित प्रावधानों के अनुरूप व्यवहार में लाया जायेगा।
9. मुख्य अभियंता (यांत्रिक), जल संसाधन विभाग, विहार से प्राप्त भवन निर्माण विभाग एवं भवन निर्माण विभाग (विद्युत) विहार के अनुमोदित अनुसूचित दर पुस्तिका 2022 के आधार पर तैयार किये गये यांत्रिक एवं विद्युत से संबंधित सामग्रियों एवं कार्य मदों के दरों (दर विश्लेषण सहित) को विभागीय अनुसूचित दर पुस्तिका 2022 में सम्मिलित किया गया है। यांत्रिक एवं विद्युत से संबंधित कार्य मदों के दर विश्लेषण में Contractor Profit (C.P) & Overhead शामिल है। परन्तु Goods & Service Tax (GST) एवं Labour Cess (1%) शामिल नहीं है।
10. अनुसूचित दर पुस्तिका-2022 विभागीय वेबसाइट www.wrd.bih.nic.in पर भी उपलब्ध है।

11. अनुसूचित दर पुस्तिका-2022 के संबंध में सभी (विशेषकर विभागीय क्षेत्रीय अधीक्षण अभियंताओं) से अनुरोध है कि कार्य मर्दों के दर विश्लेषण एवं विशिष्टियों का गहन अध्ययन किया जाय एवं आवश्यक सुधार हेतु कोई सुझाव हो तो इसे जल संसाधन विभाग के विभागीय अनुसूचित दर निर्धारण समिति को उपलब्ध कराना सुनिश्चित की जाय।

12. अनुसूचित दर पुस्तिका-2022 के पुनरीक्षण एवं वर्तमान संस्करण को तैयार करने में यथा संभव सावधानी बरती गई है। फिर भी ऐसी संभावना है कि इस अनुसूचित दर पुस्तिका को तैयार करने में कुछ त्रुटियाँ रह गई हो और व्यवहार में लाने के क्रम कुछ त्रुटियाँ दृष्टिगोचर हो सकती है, ऐसी स्थिति में अनुरोध है कि उन त्रुटियों को विभागीय अनुसूचित दर निर्धारण समिति को जानकारी अविलम्ब दी जाय ताकि सम्यक विचारोपरांत उन त्रुटियों का समुचित निराकरण किया जा सके।

वर्तमान अनुसूचित दर पुस्तिका को तैयार कर प्रकाशित करने में विभागीय अनुसूचित दर निर्धारण समिति के सभी सदस्यों के साथ-साथ क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय में पदस्थापित सभी पदाधिकारियों एवं कर्मचारियों का विशेष योगदान रहा है। समिति उन सभी के प्रति आभार व्यक्त करती है।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति के अध्यक्ष एवं सभी सदस्यों को भी अनुसूचित दर पुस्तिका-2022 के पुनरीक्षण, सहयोग एवं सुझावों के लिए उनके प्रति समिति आभार व्यक्त करती है।

यह अनुसूचित दर पुस्तिका दिनांक-01.07.2022 से प्रभावी है।

R. Shankar

19/9/2022

(रवीन्द्र कुमार शंकर)

अभियंता प्रमुख (मुख्यालय)-सह-अध्यक्ष
विभागीय अनुसूचित दर निर्धारण समिति
जल संसाधन विभाग, बिहार, पटना

12
19/9/2022

बिहार सरकार
जल संसाधन विभाग

दिनांक-15.07.2022 को अभियंता प्रमुख (मुख्यालय) सह-अध्यक्ष विभागीय अनुसूचित दर निर्धारण समिति, जल संसाधन विभाग, बिहार, पटना के कार्यालय कक्ष में आहूत बैठक की कार्यवाही।


उपस्थिति:-

1. ई0 रवीन्द्र कुमार शंकर
अभियंता प्रमुख, मुख्यालय-सह-अध्यक्ष, विभागीय अनुसूचित दर निर्धारण समिति।
2. ई0 शैलेन्द्र,
अभियंता प्रमुख (बाढ़ नियंत्रण एवं जल निस्सरण)-सह-सदस्य, विभागीय अनुसूचित दर निर्धारण समिति।
3. ई0 ईश्वर चन्द्र ठाकुर,
अभियंता प्रमुख (सिंचाई सृजन)-सह-सदस्य विभागीय अनुसूचित दर निर्धारण समिति।
4. ई0 कुमार जयंत प्रसाद,
मुख्य अभियंता (यांत्रिक)-सह-सदस्य-विभागीय अनुसूचित दर निर्धारण समिति।
5. ई0 सुजीत कुमार,
निदेशक, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय-सह-सदस्य सचिव, विभागीय अनुसूचित दर निर्धारण समिति।

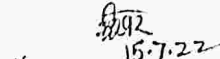
समीक्षा:-

राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित जल संसाधन विभाग, बिहार, का अनुसूचित दर पुस्तिका-2022 संयोजक, राज्य स्तरीय अनुसूचित दर निर्धारण समिति -सह-अभियंता प्रमुख (मुख्यालय) पथ निर्माण विभाग, बिहार, पटना के पत्रांक- मु0नि0 (पथ)22/2007- 31 (अनु0) पटना, दिनांक-08.07.2022 से प्राप्त हुआ है, जिसे दिनांक-01.07.2022 से लागू करने का निर्णय लिया गया है।

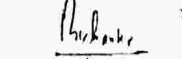
समिति का निर्णय:- विभागीय अनुसूचित दर निर्धारण समिति द्वारा विमर्शोपरान्त जल संसाधन विभाग का राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित अनुसूचित दर पुस्तिका- 2022 (जो दिनांक-01.07.2022 से लागू है) का प्रकाशन करने एवं विभागीय वेबसाइट- <https://wrd.fmiscwrdbihar.gov.in> पर अपलोड करने का निर्णय लिया गया।


(सुजीत कुमार)
सदस्य सचिव

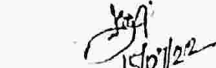
विभागीय अनुसूचित दर निर्धारण
समिति-सह-निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, बिहार, पटना


(ईश्वर चन्द्र ठाकुर)
सदस्य

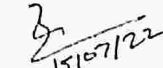
विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख (सिंचाई सृजन)
जल संसाधन विभाग, बिहार, पटना।


(रवीन्द्र कुमार शंकर)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, बिहार, पटना।


(कुमार जयंत प्रसाद)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह- मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, बिहार, पटना


(शैलेन्द्र)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(बाढ़ नियंत्रण एवं जल निस्सरण)
जल संसाधन विभाग, बिहार, पटना।

बिहार सरकार
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
पथ निर्माण विभाग, बिहार, पटना।
E-mail: 11-sorred2012@gmail.com

पत्रांक :- गु0नि0(पथ)-22/2007 31 (अनु) पटना, दिनांक :- 08.07.2022

प्रेषक,

हनुमान प्रसाद चौधरी,
संयोजक,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-राह-अभियंता प्रमुख (मुख्यालय),
पथ निर्माण विभाग, बिहार, पटना।

अभियंता प्रमुख (मुख्यालय)-राह-अध्यक्ष,
विभागीय अनुसूचित दर निर्धारण समिति,
जल संसाधन विभाग, बिहार, पटना।

विषय :- जल संसाधन विभाग, बिहार, पटना का अनुसूचित दर पुरितका-2022 के प्रेषण के
संबंध में।

महाशय,

उपर्युक्त विषय के संदर्भ में कहना है कि राज्य स्तरीय अनुसूचित दर निर्धारण समिति की
दिनांक 27.06.2022 को आहूत बैठक में जल संसाधन विभाग, बिहार, पटना के अनुमोदित अनुसूचित दर
पुरितका-2022 की प्रति भेजी जा रही है। यदि नई स्वीकृत दरों में कोई त्रुटि या विसंगति परिलक्षित हो तो
इसकी सूचना अद्योहस्ताक्षरी को अविलम्ब देने की कृपा की जाय।

- अनु0 - 1. निर्णय (कार्यवाही) की प्रति।
2. अनुमोदित अनुसूचित दर पुरितका-2022
की छाया प्रति (266 पृष्ठों में)

विश्वासभाजन,

(हनुमान प्रसाद चौधरी)
08/07/2022

570(अनु)
11-07-2022

दिनांक-- 27.06.2022 को आहूत राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार की बैठक की कार्यवाही में लिये गये निर्णय :-

1. जल संसाधन विभाग, बिहार, पटना का अनुसूचित दर पुस्त-2022 के अनुमोदन के संबंध में-- जल संसाधन विभाग, बिहार, पटना के अनुसूचित दर पुस्त-2022 को दिनांक 01.04.2022 को प्रभावी अद्यतन क्रम दर, निर्माण सामग्रियों के दर एवं Plant & Machinery के दर के आधार पर पुनरीक्षित करने के उपरान्त प्राप्त प्रस्ताव पर समिति के सदस्यों द्वारा महान विचार-निर्णय किया गया। वर्तमान अनुसूचित दर पुस्त-2022 का दर विश्लेषण दिनांक 23.09.2020 को आहूत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक में जल संसाधन विभाग के अनुमोदित अनुसूचित दर प्रपत्र के आधार पर तैयार किया गया है।

समिति के सदस्यों द्वारा सम्यक विचारोपरान्त सर्वसम्मति से जल संसाधन विभाग के अनुसूचित दर पुस्त-2022 में प्रयुक्त की जानेवाली निर्माण सामग्रियों, Carriage दर एवं कार्य मदों के दर (दर-विश्लेषण सहित) को अनुमोदित करने का निर्णय लिया गया।

समिति द्वारा सर्वसम्मति से जल संसाधन विभाग, बिहार के अनुसूचित दर पुस्त-2022 को दिनांक 01.07.2022 से लागू करने का निर्णय लिया गया।

2. अन्य-य

- (1) भवन निर्माण विभाग, बिहार अंतर्गत विद्युत अनुसूचित दर-2022 के निर्माण हेतु विद्युत सामग्री Code संख्या--2012 से संबंधित संशोधन के संबंध में :- भवन निर्माण विभाग, बिहार के पत्रांक--प्र01/गंवि०वि०-82/19-498(वि) दिनांक 21.06.2022 के द्वारा संसूचित है कि विद्युत सामग्री Code संख्या-2012 (Recess mounted 18 watt LED downlighter with pressure die-cast aluminium housing and integrated electronic driver, Minimum efficacy 100 lm/w) का अनुमोदित दर (Rs. 746.90/each) बाजार दर से काफी कम है, जिसमें संशोधन की आवश्यकता है। विद्युत सामग्री Code संख्या-2011 (Recess mounted 15 watt LED downlighter) का अनुमोदित दर Rs. 775.18/each है। समिति द्वारा यह अवलोकन किया गया कि Code संख्या 2012 (Recess mounted 18 watt LED downlighter) का दर Code संख्या 2011 (Recess mounted 15 watt LED downlighter) से कम नहीं होना चाहिए।

समिति द्वारा सम्यक विचारोपरान्त सर्वसम्मति से विद्युत सामग्री Code संख्या-2012 (Recess mounted 18 watt LED downlighter) का दर Code संख्या-2011

[Handwritten signatures and initials]

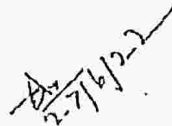
(Recess mounted 15 watt LED downlighter) के समेत रखते हुए संबंधित शुद्ध मात्र (Corrigendum-I) को अनुमोदित करने का निर्णय लिया गया।

(II) भवन निर्माण विभाग, बिहार अंतर्गत विद्युत अनुसूचित दर पुस्त-2022 के अनुमोदन के संबंध में :- अभियंता प्रमुख, भवन निर्माण विभाग, बिहार द्वारा भवन निर्माण विभाग, बिहार, पटना अंतर्गत विद्युत अनुसूचित दर पुस्त-2022 की स्वीकृति हेतु प्रस्ताव दिया गया है। समिति द्वारा रायक विचारेपरंतु सर्वसम्मति से भवन निर्माण विभाग, बिहार से प्राप्त प्रस्ताव के अनुसार विद्युत अनुसूचित दर पुस्त-2022 (दर विश्लेषण सहित) को अनुमोदित करने का निर्णय लिया गया।

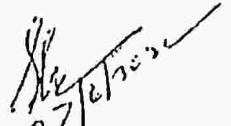
बैठक समाप्त।


सदस्य

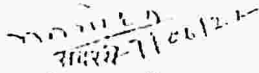
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लघु जल संसाधन विभाग, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता (असेनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि०, बिहार, पटना।


सदस्य

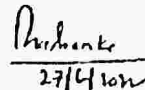
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता, (विद्युत) भवन निर्माण विभाग, बिहार, पटना


सदस्य

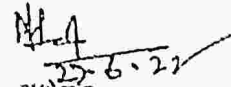
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, तकनीकी परीक्षक कोषांग, नियंत्रण विभाग, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह अभियंता प्रमुख, लोक संसाधन अभियंता विभाग, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह अभियंता प्रमुख, मुख्य जल संसाधन विभाग, बिहार, पटना।


सामयिक

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह अभियंता प्रमुख (मुख्यालय) पथ निर्माण विभाग, बिहार, पटना।


जल संसाधन विभाग, विहार, पटना के लिये अनुसूचित दर पुस्त-2022 के प्रारूप का राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदन :-

जल संसाधन विभाग का वर्तमान अनुसूचित दर पुस्त 2022 का दर-विश्लेषण दिनांक-07.12.2007 एवं दिनांक-23.09.2020 को आहत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक में जल संसाधन विभाग के अनुमोदित अनुसूचित दर प्रपत्र के आधार पर तैयार किया गया है।

अनुसूचित दर तैयार करने में निम्नलिखित प्रक्रिया अपनायी गयी है :-

- (1) निर्माण कार्य के विभिन्न मदों में उपयोग की जाने वाली निर्माण सामग्रियों का दर दिनांक-01.04.2022 को लागू राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा स्वीकृत दरों के अनुरूप है।
- (2) विभिन्न श्रेणी के गजदूरी का दैनिक गजदूरी की दर श्रम संसाधन विभाग, विहार की श्रम संख्या-992 दिनांक-30.03.2022 के अनुरूप है। इसे दिनांक-19.04.2022 को आहत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक में अनुमोदित किया गया है।
- (3) निर्माण में प्रयुक्त होने वाले Plant एवं Machinerics की दर राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा निर्गत दर के अनुरूप है।
- (4) Carriage of Material के Calculation में सर्वसम्मति से यह निर्णय लिया गया है कि वैसे स्थल जहाँ पर Railway के द्वारा निर्माण सामग्रियों की ढुलाई संभव हो वहाँ पर Road एवं Railway दोनों के द्वारा carriage of Materials का दर प्राप्त किया जाय तथा दोनों में से निम्नतम दर को ही प्रयोग में लाया जाए।
- (5) The maximum lead to be considered as per T.E.C. Norms is as follows-
 - (i) For local Sand 3 Km with 1 km kuchcha road.
 - (ii) For brick 8 km with 1 km kuchcha road.
 - (iii) For Coarse Sand, Stone Metal, Stone chips, Moorum, Stone Boulder, Bitumen as per actual lead with Provision of kuchcha lead as per requirement of site condition.
- (6) Contractor's Profit एवं overhead मद में एकमुश्त 15% (10%+5%) का प्रावधान रखा गया है।
- (7) सीमेंट के दर में पटना के लिए लागू OPC-grade-43 के दर को व्यवहार में लाया गया है। निरूपण एवं संरचना की आवश्यकतानुसार संबंधित सक्षम पदाधिकारी अन्य प्रकार के सीमेंट का व्यवहार कर सकते हैं।
- (8) स्टील के दर में TMT Bar के लिए Fe 500 D HYSD के दर को दर-विश्लेषण के लिए व्यवहार में लाया गया है।
- (9) Brick 100 "A" का दर के लिए Patna Urban के लिए लागू दर को व्यवहार में लाया गया है।

है:



VIII.

- (10) संबंधित सक्षम पदाधिकारी निर्माण कार्यक्षेत्र के-जोन के अनुसार ही Bitumen/Cement/Brick/ Coarse sand के निर्धारित दर का प्रयोग करेंगे और इसके अनुसार दर में अंतर राशि का प्राक्कलन में जोड़ेंगे या घटावेंगे।
- (11) चार स्टील कम्पनियों यथा TATA, SAIL, RINL एवं SHYAM STEEL INDUSTRIES LTD, KOLKATTA के स्टील का प्रयोग निर्माण कार्यों में किया जाना है।
- (12) दर विश्लेषण में Goods & Services tax (GST) शामिल नहीं है, परन्तु संयुक्ती शामिल है।
- (13) दर-विश्लेषण में लेबर सेस (1%) की राशि सम्मिलित नहीं है। इसे सम्मिलित करमें की जिम्मेवारी क्षेत्रीय पदाधिकारियों की होगी।
- (14) GST से संबंधित निर्णय- दिनांक-26.02.2019 को आहूत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक में लिये गये निर्णय के आलोक में Goods & Service tax (GST) की प्रक्रिया निम्न प्रकार से अपनाने का निर्णय लिया गया है :-

- (i) दर-विश्लेषण में प्रयुक्त प्रत्येक सामग्री की दर में GST नहीं जोड़ा जाए,
- (ii) Carriage, overhead charge, Contractor profit, Royalty को जोड़कर प्रत्येक कार्य मद का दर निर्धारित किया जाए तथा इस निर्धारित दर के आधार पर परियोजना की प्राक्कलित राशि निर्धारित की जाए।
- (iii) Work-Contracts के लिए उपरोक्त कडिका-(ii) में निर्धारित प्राक्कलित राशि/कुल लागत (Labour Cess रहित) पर Contractor Service tax/work contract G.S.T. का प्राक्कलन वित्त मंत्रालय, भारत सरकार की अधिसूचना संख्या-20/2017-Central Tax (Rate), नई दिल्ली दिनांक-22-08-17 में निर्मित तालिका के कॉलम-4 में निर्धारित G.S.T. (C.G.S.T.& S.G.S.T. मिलाकर जो वर्तमान में 12% है) तथा समय-समय पर भारत सरकार एवं राज्य सरकार द्वारा अधिसूचित कर की दर के अनुसार किया जाए।

परन्तु "For composite supply of work contract as defined in clause (119) of section 2 of the Central Goods & Services Tax Act 2017, involving predominantly earth work (That is, constituting more than 75% of the value of work contract) provided to the central Government, Union Territory, State Government, local Authority, a Government Authority or a Government Entity, the Goods & Services Tax (GST) for contract is 5% (CGST=2.5%, SGST=2.5%) only and as per revised GST Rates by the respective Government Authority time to time".

(Handwritten signatures and initials)

IX

(iv) उपरोक्त कंडिशन-(ii) में निर्धारित प्राक्कलित राशि (G.S.T रहित) पर 1% Labour Cess का प्राक्कलन निर्धारित मापदण्डों के अनुसार किया जाए।

(v) Bill of Quantity (B.O.Q.) में work value, labour less value एवं G.S.T. value का अलग-अलग उल्लेख किया जाए।

तत्संबंधी उदाहरण तालिका (Model Calculation Sheet) निम्न प्रकार है :-

(a) Estimated Amount (प्राक्कलित राशि) including carriage, overhead charge, Contractor profit, Royalty but excluding GST & Labour Cess="A"

(b) Contractor Service Tax/Work Contract GST in percentage="Y"%

(c) Contract Service tax/contract GST Amount

$$= "B" = \frac{AY}{100}$$

(d) Labour Cess Amount@1% = "C" = $A \times 0.01$

(e) Bill of Quantity (B.O.Q.)


Work Value = A

GST Value = B

Labour Cess = C

(15) लघु खनिजों के उपयोग हेतु मालिकाना फीस (Segniorage Fee) लागू करने से संबंधित निर्णय:- इस संबंध में दिनांक-22.11.2019 को आहूत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक में कार्य विभागों द्वारा सरकारी योजनाओं के लिए लघु खनिजों के उपयोग हेतु मालिकाना फीस (Segniorage Fee) लागू करने से संबंधित लिया गया निर्णय मान्य होगा। साथ ही खान एवं भूतत्व विभाग, बिहार की संयुक्ती एवं Segniorage Fee से संबंधित अद्यतन अधिसूचना तथा समय-समय पर प्राप्त निर्देश के अनुरूप कार्रवाई सुनिश्चित करने की जिम्मेवारी क्षेत्रीय पदाधिकारियों की होगी।

जल संसाधन विभाग, बिहार के प्रस्ताव पर वर्ष 2022 के लिए विभिन्न निर्माण सामग्रियों, Camage दर एवं कार्य मर्दों का दर (दर-विश्लेषण सहित) संलग्न विवरणों के अनुसार समिति द्वारा सर्वसम्मति से साम्यक विचारोपरांत अनुमोदित करने का निर्णय लिया गया।

 12/11/20



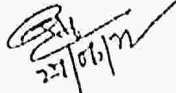




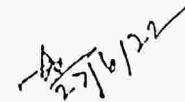
X

(16) नई अनुसूचित दर पुस्त का प्रकाशन:-

राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा जल संसाधन विभाग, विहार, पटना के अनुसूचित दर पुस्त को दिनांक-01.07.2022 से लागू किये जाने को सर्वसम्मति से निर्णय लिया गया ।


सदस्य

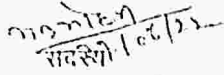
राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, भवन निर्माण विभाग
विहार, पटना


सदस्य

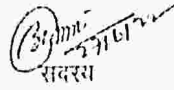
राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, ग्रामीण कार्य विभाग
विहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, लघु जल संसाधन विभाग,
विहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-मुख्य
अभियंता (असेनिक), विहार स्टेट
पावर होल्डिंग कंपनी लि०,
विहार, पटना


सदस्य

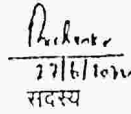
राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-मुख्य
अभियंता (विद्युत), भवन निर्माण
विभाग, विहार, पटना


सदस्य

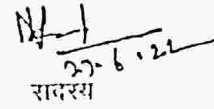
राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, तकनीकी परीक्षण, कोषांग,
निगरानी विभाग, विहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, लोक स्वास्थ्य अभियंत्रण
विभाग, विहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, मुख्यालय, जल संसाधन
विभाग, विहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित
निर्धारण समिति-सह-अभियंता
प्रमुख, (मुख्यालय) पथ, निर्माण
विभाग, विहार, पटना

संचिका सं०-02/क्रय-08-01/2012--(खंड-VI) 599

बिहार सरकार
जल संसाधन विभाग

प्रति,

अंजनी कुमार सिंह
अध्यक्ष
विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख (मुख्यालय)
जल संसाधन विभाग, बिहार, पटना

सेवा में,

सभी मुख्य अभियंता,
जल संसाधन विभाग, बिहार, पटना

पटना/दिनांक-6-12-19

विषय- कार्य विभागों द्वारा सरकारी योजनाओं के लिए लघु खनिजों के उपयोग हेतु मालिकाना फीस (Seigniorage Fee) लागू करने के संबंध में।

संदर्भ- संयोजक, राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना का पत्रांक-51 (अनु०) दिनांक-02.12.2019, खान एवं भूतत्व, बिहार, पटना के पत्रांक-3174 दिनांक-17.09.2019 एवं 3947 दिनांक-15.11.2019

व्याज्य,

उपर्युक्त विषय के संबंध में कहना है कि खान एवं भूतत्व, बिहार, पटना के प्रारंभिक पत्रों द्वारा कार्य विभागों में सरकारी परियोजनाओं के लघु खनिजों (थंड-वाल, पत्थर, मिट्टी इत्यादि) के उपयोग हेतु मालिकाना फीस (Seigniorage Fee) लागू करने से संबंधित विदेशों के अलावा 22.11.2019 को प्राप्त राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक में लिये गए निर्णय को कार्यवाही के अभाव में अज्ञान करते हुए अनुरोध है कि उक्त निर्णय के अनुरूप प्राक्कलन में मालिकाना फीस (Seigniorage Fee) का प्रकलन एवं विपत्र से कटौती करने की कार्यवाही की जाय।

सह-वधोक्त।

विरासभाजन

(अंजनी कुमार सिंह)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख (मुख्यालय)
जल संसाधन विभाग, बिहार, पटना
दिनांक-6-12-19

संक्र- 599

प्रतिनिधि- कार्टफलक अभियंता, योजना एवं मॉनिटरिंग प्रमंडल संख्या-2 सह प्रभारी वास्तुकार विभाग, जल संसाधन विभाग, बिहार, पटना को संयोजक, राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना का पत्रांक-51 (अनु०) दिनांक-02.12.2019 की धारणाप्रति संकलन करते निर्देशित किया जाता है कि इसे विभागीय वेबसाइट पर अपलोड किया जाय।

सह-वधोक्त।

(अंजनी कुमार सिंह)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख (मुख्यालय)
जल संसाधन विभाग, बिहार, पटना

5
02/12/2019

31/12

बिहार सरकार
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
मार्ग निर्माण विभाग, बिहार, पटना।
E-mail ID: sorrcd2012@gmail.com

पत्रांक :- गु0नि0(मथ)- 02/2000 अंश-II 51 (31.12) पटना दिनांक :- 02/12/2019

CE (P&T)/
Dir. DPT
H. S. Jha
02/12/19

भवानी नन्दन,
संयोजक
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख,
मार्ग निर्माण विभाग, बिहार, पटना।

सेवा में,

1. अभियंता प्रमुख, ग्रामीण कार्य विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
2. अभियंता प्रमुख (मुख्यालय), जल संसाधन विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
3. अभियंता प्रमुख, लोक स्वस्थ अभियंत्रण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
4. अभियंता प्रमुख, तकनीकी परीक्षण कोषांग, निगरानी विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
5. अभियंता प्रमुख, भवन निर्माण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
6. अभियंता प्रमुख, जल संसाधन विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
7. मुख्य अभियंता (अभियंता), बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
8. मुख्य अभियंता (विद्युत), भवन निर्माण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।

CS. Director

02/12/2019

S.O.

विषय :-

महाराज,
02-12-19

राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा दिनांक-22.11.2019 को बैठक में लिये गये निर्णय से संबंधित कार्यवाही की प्रति के प्रेषण के संबंध में।

उपर्युक्त विषय के संबंध में कहना है कि दिनांक-22.11.2019 की बैठक में राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा लिये गये निर्णय की कार्यवाही की प्रति आवश्यक कार्यवाई हेतु समर्पित की जाती है।

अनु0-सशुभ।

अभियंता प्रमुख (मुख्यालय)
जल संसाधन विभाग, बिहार, पटना।
दिनांक 02/12/19

661
02-12-2019

विरासतमाजन,

(समाप्त/संयोजक)
संयोजक,

राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख,
मार्ग निर्माण विभाग, बिहार, पटना।

31/12

दिनांक-22-11-2019 को आहुत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक की कार्यवाही में लिये गये निर्णय :-

1. कार्य विभागों द्वारा सरकारी योजनाओं के लिए लघु खनिजों के उपयोग हेतु मालिकाना फीस (Seigniorage Fee) लागू करने के संबंध में-खान एवं भूतत्व विभाग, बिहार, पटना के पत्रांक-कार्य विभाग/Seigniorage-11/19-3947/एम०, पटना दिनांक-15.11.2018 के द्वारा कार्य विभागों में सरकारी परियोजनाओं के लिए लघु खनिजों (यथा-बालू, पत्थर, मिट्टी इत्यादि) के उपयोग हेतु मालिकाना फीस (Seigniorage Fee) लागू करने से संबंधित मार्गदर्शिका प्राप्त हुई है, जिसे पर राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार के सदस्यों द्वारा गहन विचार-विमर्श किया गया। खान एवं भूतत्व विभाग के उक्त पत्र (मार्गदर्शिका) एवं बिहार खनिज नियमावली, 2018 (खान एवं भूतत्व विभाग की अधिसूचना-3174/एम०, दिनांक-17.09.2018) के आलोक में समिति के सदस्यों द्वारा सम्यक विचारोपरांत सर्वसम्मति से निम्नवत् निर्णय लिया गया है :-
- (क) निर्माण कार्यों में व्यवहृत लघु खनिजों पर देय मालिकाना फीस उक्त खनिज के निर्धारित रयामित्व (रॉयल्टी) दर के अतिरिक्त देय है।
- (ख) कार्य विभागों द्वारा प्राक्कलन में लघु खनिज का मूल्य वैध खदान पर वर्तमान में प्रचलित खनिज मूल्य को रॉयल्टी सहित रखा जाय।
- (ग) सभी सरकारी विभाग अपनी स्वीम या परियोजनाओं के लिए किसी लघु खनिज का उपयोग करने हेतु मालिकाना फीस की कटौती अपने आपूर्तिकर्ता या संवेदक से करेंगे।
- (घ) मालिकाना फीस की कटौती प्राक्कलन में लगे वैध खदान पर रॉयल्टी सहित वर्तमान में प्रचलित खनिज मूल्य पर 10 प्रतिशत की दर से की जाय। इसमें अन्य मद यथा दुलाई आदि को शामिल नहीं किया जाय।
- (ङ) प्राक्कलन में मालिकाना फीस (Seigniorage Fee) का प्रावधान वैध खदान पर रॉयल्टी सहित वर्तमान में खनिज के मूल्य पर 10 (दस) प्रतिशत की दर से किया जाय। इसमें अन्य मद यथा दुलाई आदि को शामिल नहीं किया जाय।
समिति द्वारा सम्यक विचारोपरांत सर्वसम्मति से प्राक्कलन में मालिकाना फीस का प्रावधान करने की प्रक्रिया निम्न प्रकार से अपनाये का निर्णय लिया गया :-
- (i) दर-विरलेपण में 10 (दस) प्रतिशत मालिकाना फीस (Seigniorage Fee) नहीं जोड़ा जाय।
- (ii) Carriage, overhead charge (excluding VAT/GST), Contractor Profit, Royalty को जोड़कर प्रत्येक कार्य मद का दर निर्धारित किया जाय तथा इस निर्धारित दर के आधार पर परियोजना की प्राक्कलित राशि निर्धारित की जाय।
- (iii) Work-Contracts के लिए उपरोक्त कंडिका-(ii) में निर्धारित प्राक्कलित राशि/कुल लागत (Labour Cess रहित) पर Contract Service tax/work contract G.S.T. का प्रावधान अधिसूचित/निर्धारित दर के अनुसार किया जाय।
- (iv) उपरोक्त कंडिका (ii) में निर्धारित प्राक्कलित राशि (G.S.T. रहित) पर 1 प्रतिशत Labour Cess का प्रावधान निर्धारित मापदंडों के अनुसार किया जाय।
- (v) उपरोक्त कंडिका (ii) में निर्धारित प्राक्कलित राशि (G.S.T. रहित एवं Labour Cess रहित) में सम्मिलित रॉयल्टी सहित Basic खनिज मूल्य (दुलाई सहित) पर 10 (दस) प्रतिशत की दर से मालिकाना फीस (Seigniorage Fee) का प्रावधान अलग से किया जाय।

:: 2 ::

(vi) Bill of Quantity (B.O.Q.) में Work Value, GST Value, Labour Cess Value एवं मालिकाना फीस (Seigniorage Fee) Value का अलग-अलग उल्लेख किया जाय।

तत्संबंधी उदाहरण मालिका (Model Calculation Sheet) निम्न प्रकार है :-

(a) Estimated Amount (प्रायकलित राशि) including Carriage, overhead charge (excluding VAT/GST), Contractor Profit, Royalty but excluding GST, Labour Cess & Seigniorage Fee

= "A"

(b) Work Contract GST in Percentage

= "Y" %

(c) Contract GST Amount

= "B" = $\frac{\Delta Y}{100}$

(d) Labour Cess @ 1%

= "C" = $A \times 0.01$

(e) प्रायकलन में सम्मिलित रॉयल्टी सहित लघु खनिज का Basic मूल्य (बुलाई सहित)

= "D"

(f) मालिकाना फीस (Seigniorage Fee)

सौपल्यी चर्चा Basic लघु खनिज मूल्य पर 10 प्रतिशत की दर से

= "E" = $D \times 0.10$

(g) Bill of Quantity (B.O.Q.)

Work Value = A

GST Value = B

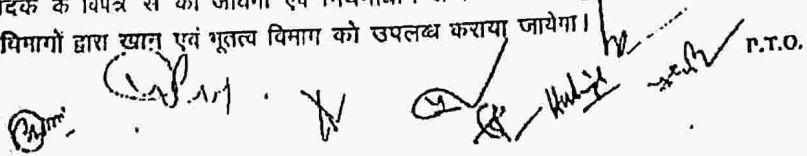
Labour Cess = C

Seigniorage Fee = E

(च) पैघ खदान से खनिज क्रय के समर्थन में संवेदक अपने विपत्रों के साथ खनन विभाग द्वारा निर्गत ई0 चालान की प्रति संलग्न करेंगे, जिसकी जाँच संबंधित कार्य विभागों द्वारा ही की जायेगी। विपत्रों के साथ खनिज क्रय के साक्ष्य स्वरूप ई0 चालान संलग्न नहीं किये जाने की स्थिति में संवेदकों के विपत्र से मालिकाना फीस के अतिरिक्त निर्धारित दर पर रॉयल्टी की वसूली भी कार्य विभागों द्वारा की जायेगी। साथ ही नियमाधीन अन्य कार्रवाई हेतु ऐसे संवेदकों की पूर्ण सूची कार्य विभागों द्वारा खान एवं भूतत्व विभाग को उपलब्ध कराया जायेगा।

(छ) साधारण मिट्टी निजी स्वामी अथवा सरकारी भूमि से प्राप्त करने की स्थिति में विहार खनिज (समानुदान अवैध खनन, परिवहन एवं भंडारण नियंत्रण) नियमावली, 2019 के सारे प्रावधान लागू होंगे।

(ज) निजी/सरकारी भूमि से नियमानुसार साधारण मिट्टी प्राप्त करने की स्थिति में व्यवहृत मिट्टी के संबंध में संवेदक द्वारा समर्पित विपत्र के साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट साक्ष्य स्वरूप संलग्न रहने की स्थिति में सत्यापनोपरांत सिर्फ स्वाभिम्य की 10 प्रतिशत मालिकाना फीस के रूप में वसूली की जायेगी। जिन विपत्रों के साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट संवेदक साक्ष्य स्वरूप विपत्रों के साथ संलग्न नहीं किये होंगे या सत्यापनोपरांत गलत पाये जायेंगे तो वैसी स्थिति में प्रतिघनमीटर वर्तमान स्वाभिम्य दर 33/रु0 के अलावे 10 प्रतिशत मालिकाना फीस 3.30/- रु0 की कटौती संवेदक के विपत्र से की जायेगी एवं नियमाधीन अन्य कार्रवाई हेतु ऐसे संवेदकों की पूर्ण सूची कार्य विभागों द्वारा खान एवं भूतत्व विभाग को उपलब्ध कराया जायेगा।

 P.T.O.


XV

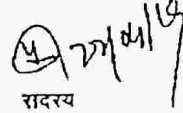
:: 3 ::


(झ) बिहार खनिज नियमावली, 2019 के नियम 37 (2) में सिंचाई विभाग द्वारा नहर तथा जल निकास प्रणाली के संधारण की प्रक्रिया में निष्कारित खनिजों के लिए खनिज निपटाय परमिट, लघु खनिजों के विनिर्दिष्ट दरों पर शंगल्टी के पूर्व भुगतान पर दिये जाने का प्रावधान है। साथ ही उक्त नियमावली के नियम 37 (3) में विनिर्दिष्ट आपात स्थितियों के लिए समाहर्ता द्वारा लघु खनिजों के विनिर्दिष्ट दरों पर शंगल्टी के पूर्व भुगतान पर परमिट दिये जाने का प्रावधान है। ऐसी स्थिति में संवेदक द्वारा समर्पित विपन्न के साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट साक्ष्य स्वरूप संलग्न रहने की स्थिति में सत्यापनोपरांत सिर्फ स्वामित्व की 10 प्रतिशत मालिकाना फीस के रूप में वसूली की जायेगी। जिन विपन्नों के साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट संवेदक द्वारा साक्ष्य स्वरूप विपन्नों के साथ संलग्न नहीं किये होंगे या सत्यापनोपरांत गलत पाये जायेगे तो वैसी स्थिति में स्वामित्व एवं मालिकाना फीस की वसूली की जायेगी।


2. अन्तान्य :-


(n) माननीय उच्च न्यायालय, पटना के CWJC No.-12823 of 2019 SRMB Srijan Pvt. Ltd. V/s The state of Bihar & Others से संबंधित Supplementary Affidavit हेतु Statement of Fact के संबंध में :- समिति के सदस्यों द्वारा सम्यक् विचारोपरांत सर्वसम्मति से CWJC No.-12823 of 2019 SRMB Srijan Pvt. Ltd. V/s The state of Bihar & Others में Supplementary Affidavit हेतु Statement of Fact को अनुमोदित करने का निर्णय लिया गया।

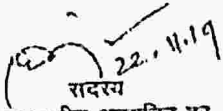

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।



सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, प्राचीन कार्य विभाग, बिहार, पटना।



सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लघु जल संसाधन विभाग, बिहार, पटना।



सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता (असैनिक) बिहार स्टेट पावर इंजिनियरिंग कंपनी लि०, बिहार, पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता, (विद्युत) भवन निर्माण विभाग, बिहार, पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, तकनीकी परीक्षण कोषांग, निगरानी विभाग, बिहार, पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लघु स्वातंत्र्य अभियंत्रण विभाग, बिहार, पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, मुख्यालय जल संसाधन विभाग, बिहार, पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

XVI

नियंदा संख्या पी0डी0-40



बिहार गजट

असाधारण अंक

बिहार सरकार द्वारा प्रकाशित

26 भाद्र 1941 (२१०)
 (सं० पटना 1068) पटना, मंगलवार, 17 सितम्बर 2019

खान एवं भूतत्व विभाग

अधिसूचना

17 सितम्बर 2019

सं० 4/सी0गु0-20-93/18-3174/एग0-खान एवं भूतत्व (विकास एवं विनियमन) अधिनियम, 1957 (1957 का अधिनियम 67) की धारा 15 सहभाषित भाग 23ग तथा धारा 26 के अधीन प्रदत्त कृतियों का प्रयोग करते हुए बिहार के राज्यपाल नियुक्ति विनियमवली कातो है-

बिहार खनिज (सामानुदान, अवैध खनन, परिवहन एवं मंडारण निवारण) नियमवली, 2018

अध्याय-1
 प्रारंभिक

1. संक्षिप्त नाम, विस्तार एवं आरंभ-
 - (1) यह नियमवली बिहार खनिज (सामानुदान अवैध खनन, परिवहन एवं मंडारण निवारण) नियमवली, 2018 कही जा सकेगी।
 - (2) इसका विस्तार संपूर्ण बिहार राज्य में होगा।
 - (3) यह इसके राजपत्र में प्रकाशन की तिथि से प्रवृत्त होगी।
2. परिभाषाएँ- इस नियमवली, जब तक संदर्भ अन्यथा अपेक्षित न हो -
 - (i) "अधिनियम" से अभिप्रेत है खान और खनिज (विकास एवं विनियमन) अधिनियम, 1957 (1957 का अधिनियम 67) ;
 - (ii) "समाहर्ता" से अभिप्रेत है किसी जिले का समाहर्ता-सह-जिला दण्डाधिकारी अथवा समाहर्ता-सह-जिला दण्डाधिकारी की शक्तियों का प्रयोग तथा कृत्यों का अनुपालन करने हेतु सरकार द्वारा नियुक्त कोई व्यक्ति ;
 - (iii) "सहाय पदाधिकारी" से अभिप्रेत है-
 - (क) भारतीय वन अधिनियम 1927 (केन्द्रीय अधिनियम XVI 1927) के अधीन सुरक्षित और संरक्षित वन के रूप में अधिसूचित भूमि में उत्खनन अनुज्ञापत्र की दशा में जहाँ भारतीय वन अधिनियम 1927 के अध्याय पाँच फीट से अनाधिक गहवाई से कुछ हटाना मात्र हो, तथा केवल 10000 घन फीट की सीमा तक हो संबंधित सुरक्षित और संरक्षित क्षेत्र का प्रकृतिय वन पदाधिकारी;

XVII

अधिसूचना-11 में दिए गए नियमों के अन्तर्गत में विना खनिज के परिष्करण की दशा में खनिज के शुद्ध मूल्य और जुगुनी, जिसे दत्त दत्तार इनमें एक पद्यथा का रहेगा, धाटन के प्रकृति प्रकृति से प्राप्त आरणा और सारकारी भी में एक किया जा रहेगा। खनिजों के संशुद्ध और जग की रीति एवं अधिकारिताएँ किमान द्वारा, समय-समय पर विनिश्चित की जाएगी।

परन्तु जब धाटन में तदा हुआ खनिज की पत्रा धाटन में उत्पन्नित मात्रा से निम्न हो तो प्राधिकृत अधिकारी उस जुगुनी के साथ, जिसे दत्त दत्तार तदर्थ एक बंधन का रहेगा केवल अंतर की मात्रा के लिए खनिज के मूल्य की गणना कर रहेगा। मूल्यमान को यदि मात्रा का निर्धारण केवल अनुमान से न कर भीकटा से किया जायेगा।

अधिकारिता दत्त की रीति के संशुद्ध/जग करने हेतु विभाग द्वारा मनी रसीद संबंधित सहायक निदेशक/खनिज विकास परदाधिकारी/खान निरीक्षक को निर्गत किया जायेगा जो दत्त की रीति में रसीद के माध्यम से प्राप्त कर सारकारी कोष में जमा करने।

- (3) जो कोई भी वेप रोज/परिष्कृत के बिना तत्पु खनिज/दत्तवा है अथवा जिसकी ओर से दत्त नियमावली के विरुद्ध ऐसा दत्तवा जाता है वह ऐजेंट, प्रबंधक, अधिकारी, उपसहायक तत्पु खनिज का अधिकारिता दत्त करने का अधिकार होगा और उसका मूल्य बुझने का दावा होगा और तत्पु उक्त व्यक्तियों से उक्त अधिकार के लिए जिसके दौरान भी दत्त व्यक्तियों के अधिकारों में कोई विधिपूर्वक प्राधिकार के बिना दत्त नियमावली या तत्समय प्रवृत्त किसी विधि के अधीन जो विरुद्ध की जाती है अथवा कार्यवाई के प्रतिफल के बिना तथा विधि, तत्पु, खनिज अथवा कर की गणना कर रहेगी।

51 सारकारी परियोजनाओं के अन्तर्गत खनिज-परीक्षा

- (1) सारकारी विभाग, निरीक्षण अपनी इच्छा या परियोजनाओं के लिए किसी तत्पु खनिज का उपयोग करने हेतु, अन्तर्गत खनिजों की खोजी अपने आपूर्तिकर्ता या संपर्क से करेगा।
- (2) ऐसी अन्तर्गत खनिजों की खोजी प्रकृतितन में तत्पु खनिज मूल्य के (दत्त) प्रतिशत पर दत्त पर कार्य विभागों द्वारा अपने संपूर्तिकर्ता/ कार्य दिग्दर्शकों से की जाएगी और जिसे के खनिज अधिकारी के पास जमा की जाएगी।

उक्त सारकारी, समय-समय पर अन्तर्गत खनिजों में बदलाव या कर कर रहेगी।

52. तत्पु खनिजों का मूल्य- अन्तर्गत खनिजों का खनिज के लिए खनिजों का मूल्य मूल्य सन्दर्भ तत्पु विनिश्चित किया जाएगा।

अधिसूचना-12

अधिसूचना की महत्व, अनुमान तथा विचारण।

53. प्रेषित निरीक्षण सारकारी तत्पु सारकारी खनिजों की खनिज-

- (1) किसी खदान अथवा परियोजना खदान के संबंधित विधि का पता लगाने के उद्देश्य से अधिसूचना द्वारा नियमावली से संबंधित अन्य उद्देश्य से लागू करने की विधि निम्नलिखित अधिकारियों में से कोई एक-

- (क) खान आयुक्त, खान निरीक्षक; या
- (ख) सारकारी या सारकारी द्वारा प्राधिकृत कोई अन्य परदाधिकारी
- (ग) अन्य निरीक्षक, उप निरीक्षक, सहायक निरीक्षक, खनिज विकास परदाधिकारी और खान निरीक्षक नियमितित कर रहेगा :-

- (i) किसी खदान में प्रवेश और निरीक्षण;
- (ii) किसी ऐसी खदान का सर्वेक्षण और गणना करना ;
- (iii) किसी खदान में उपसमा खनिज सटीक का खनिज मध्य करना या मध्य लेना;
- (iv) किसी खदान एवं सारकारी परियोजना विन्द से संबंधित या के नियंत्रण करने किसी व्यक्तियों के कर्मों यत्ने किसी दत्तार्थक, पुरात या खनिज या अतिरिक्त की खनिज सारकारी तथा सारकारी, पुरात, सारकारी या अतिरिक्त से उद्घरण लेना एवं सारकारी प्रतिक्रिया तैयार करना;
- (v) खनिज (iv) में सारकारी प्रतिक्रिया ऐसी दत्तार्थक, पुरात या सारकारी के उपाधरण या आदेश देना ;

XV.III

बिहार गजट (असाधारण), 17 सितम्बर 2019

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अनुसूची-I
[नियम 2(x) देखें]

1	खनन लीज के लिए आवेदन	प्रपत्र-ग
2	खनन लीज के विस्तार	प्रपत्र-घ
3	खनन क्रिया परमिट के लिए आवेदन	प्रपत्र-ग
4	खनन क्रिया परमिट	प्रपत्र-घ
5	स्वभिन्न निपटान परमिट देने हेतु आवेदन	प्रपत्र-ख
6	स्वभिन्न निपटान परमिट के लिए फारम	प्रपत्र-घ
7	ईंधनगतान का प्रपत्र	प्रपत्र-घ
8	लीजधारी/परमिट धारक द्वारा साधारण क्रिया जाने वाला रजिस्टर	प्रपत्र-ज
9	मासिक रिटर्न	प्रपत्र-प्र
10	वार्षिक रिटर्न	प्रपत्र-प्र
11	स्टॉकिंग ताइरोन्ता	प्रपत्र-ट
12	अपील के लिए फारम	प्रपत्र-ट

अनुसूची-II
[नियम 51(1)(क) देखें]
अनिवार्य लगान

अवधि	अनिवार्य लगान की दर (रुपये में)
1	2
घरों की सम्पूर्ण अवधि के लिए जो वर्ष की दर	50,000.00 ₹ प्रति एकड़ प्रति वर्ष

अनुसूची-III क
[नियम 51(1)(ख) देखें]

क्र.मांक	सॉप्लिटी खनिजों का नाम	प्रतिघनमीटर दर, रुपये में।
1	2	3
1	(क) केंद्र, ग्रैवेल अथवा पत्थर चाहे जिस नाम से परिभाषित हो (ख) नीलापी की रीति से बरोबरता पत्थर	150.00 नीलापी की दर में नीलापी की राशि।
2	(क) निर्माण प्रयोजन के लिए उपयोग में लाया गया साधारण बालू (ख) नीलापी छाटों का साधारण बालू	75.00 नीलापी की दर में नीलापी की राशि।
3	इट मिट्टी (400 मानक इटों में बराबर)	18.00
4	साधारण मिट्टी/बले जिसका उपयोग सड़क, रेतब, भवन, आदि के निर्माण के प्रयोजन में भरने तथा लेवल करने आदि तथा अन्य वाणिज्यिक कार्य हेतु जिसका उपयोग किया जाता हो।	33.00
5	लाईम रेत, लाईम स्टोन तथा कंकड़ जिसका उपयोग निर्माण सामग्री के रूप में क्लिन् हेतु पूरा के विनिर्माण के लिए किया जाता हो तथा पूरा का उपयोग बटन के विनिर्माण के लिए किया जाता हो।	165.00
6	मारम	83.00
7	केंलरीडोनी कंकड़ जिसका उपयोग केवल बॉल मिल के प्रयोजनार्थ होता है।	95.00
8	ग्रेडुअल मिट्टी	83.00
9	बगार्टाइज जिसका उपयोग भवन निर्माण के प्रयोजनार्थ या सड़क बनाने के लिए किया जाता है।	150.00

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क्रमांक	सौयलिट्टी खनिजो का नाम	प्रतिघनमीटर दर, रूपये मे।
1	2	3
10	रेह मिट्टी	34.00
11	सॉल्ट पीटर	38.00
12	रॉल्ट तथा रॉल्ट लर उरसका उपयोग भवन निर्माण सामग्री के रूप मे किया जाता है।	110.00
13	फुलर्स मिट्टी (अर्ग)	124.00
14	स्टोन जिमाका उपयोग प्रिन्सिपल स्टोन साहित्य घरेलू बनाने के लिए होता है।	85.00
15	स्टोन सॉट तथा स्टोन ब्रिक प्रति सेंकडा	85.00
16	स्टोन डस्ट	30.00
17	स्टेनडर्ट डिक्कोरिटेड स्टोन के लिए उपयोग की दरा मे प्रति सेंकडा— (I) 60से0मी0 से अधिक ब्लॉक (II) 60 से0मी0 से कम ब्लॉक	709.00 355.00
18	गुवाटज	73.00
19	गालु (अन्य)	75.00
20	सिलिका बालु	75.00
21	स्टेनडर्ट अथवा टास्क या सॉप स्टोन	
22	अंग्रे	मूल्यानुसार आधार पर विषय मूल्य का तीस प्रतिशत।
23	घातवले	
24	घातवले	
25	काल्सीरिगस बालु	
26	काल्सीरिगस	
27	घातवले	
28	घातवले	
29	घातवले (अन्य)	
30	कोरकम	
31	डिअवराधोर	
32	डोल्माइट	
33	डोल्माइट अथवा हाइड्रोमोनाइट	मूल्यानुसार आधार पर विषय मूल्य का तीस प्रतिशत।
34	काल्सीरिगस	
35	काल्सीरिगस	
36	काल्सीरिगस	
37	काल्सीरिगस	
38	काल्सीरिगस	
39	काल्सीरिगस	
40	काल्सीरिगस	
41	काल्सीरिगस	
42	काल्सीरिगस	
43	काल्सीरिगस	
44	काल्सीरिगस	
45	सभी अन्य खनिज	

- नोट:- (I) बिहार खनिज संपत्तियुक्त (असिद्ध खनन, परिवहन एवं वितरण विभाग) नियमावली, 2019 या अन्यथा मे प्रतिकूल किसी बात के अतिरिक्त होने पर भी, बंदोबस्तकारी नीतानी सति के समझ से अधिक उरखनित तथा प्रेषित पत्थर की मात्रा के लिए अतिरिक्त सौयलिट्टी का भुगतान करेगा।
- नोट:- (II) बंदोबस्तकारी नीतानी सति के समझ से अधिक उरखनित तथा प्रेषित बालु की मात्रा के लिए अतिरिक्त सौयलिट्टी का भुगतान करेगा।
- नोट:- (III) संपादन मिट्टी के गैर वाणिज्यिक उपयोग के लिए कोई सौयलिट्टी उगाही नही जाएगी।

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बिहार सरकार

खान एवं भूतल विभाग

सं०सं०-कार्य विभाग / Seigniorage-11 / 19-...../रन०, पटना, दिनांक-
प्रेषक,E-mail
sachअरुण प्रकाश, म०००००
अपर सचिव-सह-निदेशक।

सेवा में,

संयोजक,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख, पथ निर्माण विभाग,
बिहार, पटना।विषय:- कार्य विभागों द्वारा सरकारी परियोजनाओं के लिए लघु खनिजों के उपयोग
हेतु मालिकाना फीस (Seigniorage Fee) लागू करने के संबंध में।प्रसंग:- आपका पत्रांक-42, दिनांक-25.10.2019
महाशय,उपर्युक्त विषयक संबंध में निदेशानुसार कहना है कि कोई भी व्यक्ति किसी
उद्देश्य से लघु खनिजों (यथा-बालू, पत्थर, मिट्टी इत्यादि) का व्यवसायिक प्रयोग खनन
पट्टा को अपने पक्ष में स्वीकृत कराये बिना नहीं कर सकता है। बिना खनन पट्टा की
स्वीकृति के लघु खनिजों का निष्कासन अवैध की श्रेणी में आता है।पूर्व में निर्माण कार्य में प्रयुक्त सभी लघु खनिजों पर देय स्वामिस्व एवं इसकी
वसूली सुनिश्चित करने तथा अवैध खनन से प्राप्त खनिजों पर स्वामिस्व की करवचना
संकेत के लिये बिहार लघु खनिज समानुदान नियमावली, 1972 के नियम-40(10) के
प्रावधानों के तहत कार्रवाई की जाती थी। इसके तहत कार्य विभाग संवेदकों से प्रपत्र
'एन' एवं 'एन' में व्यवहृत खनिज का ब्यौरा प्राप्त कर उसका सत्यापन संबंधित जिला
खनन कार्यालय से कराने के पश्चात् संवेदकों के विपत्रों का भुगतान करते थे। यह
प्रक्रिया काफी जटिल थी एवं इसमें काफी विलंब होता था, जिससे राजस्व का ह्रास होता
था।कार्य विभागों के स्तर से वैसे संवेदक जिनके विपत्र के साथ प्रपत्र 'एन' एवं
'एन' में वांछित ब्यौरा संलग्न नहीं किया जाता था, उन मामलों में सिर्फ खनिजदार देय
स्वामिस्व की राशि की कटौती कर खनन विभाग के सुसंगत शीर्ष में जमा की जाती थी।
इस व्यवस्था में महालेखाकार के अंकेक्षण दल द्वारा प्रत्येक वर्ष कटौती की गई स्वामिस्व
राशि के आधार पर व्यवहृत लघु खनिजों को अवैध स्रोत से प्राप्त मानकर दंड स्वरूप
खनिज मूल्य के बराबर राशि की क्षति दर्शाते हुए आपति दर्ज की जाती थी।विभागीय स्तर से पूर्व प्रेषित पत्रों द्वारा ऐसे संवेदक, जिनके द्वारा विपत्रों के
साथ प्रपत्र 'एन' एवं 'एन' में वांछित ब्यौरा समर्पित नहीं किया जाता था उनकी पूर्ण
विवरणी (नाम, पते सहित) भेजने का आग्रह किया जाता रहा है तथा इससे संबंधित एक
प्रपत्र भी संलग्न कर भेजा गया था। लेकिन कार्य विभागों से ऐसे संवेदकों की पूर्ण सूची
उपलब्ध नहीं होने के कारण नियमाधीन अन्य आवश्यक कार्रवाई नहीं की जा सकी।

(XVIII)

X XI'

उपरोक्त के आलोक में मालिकाना फीस की वसूली के संबंध में विभिन्न कार्य विभागों से प्राप्त पृच्छाओं के निराकरण हेतु मार्गदर्शिका निम्नवत है :-

1. (क) कार्य विभागों द्वारा प्राक्कलन में लघु खनिज का मूल्य वैध खदान पर वर्तमान में प्रचलित खनिज मूल्य को रॉयल्टी सहित रखा जाय।
- (ख) प्राक्कलन में मालिकाना फीस की कटौती वैध खदान पर रॉयल्टी सहित वर्तमान में प्रचलित मूल्य पर 10 प्रतिशत की दर से की जाए। इसमें अन्य मद यथा दुलाई आदि को शामिल नहीं किया जाए।
- (ग) प्राक्कलन में मालिकाना फीस के प्रावधान के संबंध में कार्य विभागों को स्वयं के स्तर से ही निर्णय लेना है।
- (घ) वैध खदान से खनिज क्रय के समर्थन में संवेदक अपने विपत्रों के साथ खनन विभाग द्वारा निर्गत ई0चालान की प्रति संलग्न करेंगे, जिसकी जाँच संबंधित कार्य विभागों द्वारा ही की जाएगी; विपत्रों के साथ खनिज क्रय के साक्ष्य स्वरूप ई0चालान संलग्न नहीं किये जाने की स्थिति में संवेदकों के विपत्र से मालिकाना फीस के अतिरिक्त निर्धारित दर पर रॉयल्टी की वसूली भी कार्य विभागों द्वारा की जाएगी। साथ ही नियमाधीन अन्य कार्रवाई हेतु ऐसे संवेदकों की पूर्ण सूची कार्य विभागों द्वारा खान एवं भूतत्व विभाग को उपलब्ध कराया जाएगा।
- (ङ) साधारण मिट्टी निजी जमीन अथवा सरकारी भूमि से प्राप्त करने की स्थिति में विहार खनिज (समानुदान अवैध खनन, परिवहन एवं भंडारण नियंत्रण) नियमावली, 2019 के तहत प्रावधान लागू होंगे।
- (च) निजी/सरकारी भूमि से नियमानुसार साधारण मिट्टी प्राप्त करने की स्थिति में व्यवहृत मिट्टी के संबंध में संवेदक द्वारा समर्पित विपत्र के साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट साक्ष्य स्वरूप संलग्न रहने की स्थिति में सत्यापनोपरांत सिर्फ स्वामित्व की 10 प्रतिशत मालिकाना फीस के रूप में वसूली की जाएगी। जिन विपत्रों के साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट संवेदक साक्ष्य स्वरूप विपत्रों के साथ संलग्न नहीं किये होंगे या सत्यापनोपरांत गलत पाये जायेंगे तो वैसी स्थिति में प्रतिघनमीटर स्वामित्व दर 33/-रु0 के अलावे 10 प्रतिशत मालिकाना फीस 330/-रु0 की कटौती संवेदक के विपत्र से की जायेगी एवं नियमाधीन अन्य कार्रवाई हेतु ऐसे संवेदकों की पूर्ण सूची कार्य विभागों द्वारा खान एवं भूतत्व विभाग को उपलब्ध कराया जाएगा।

2. निम्नवली के नियम 37(2) में लिखाई विभाग द्वारा नगर नक्ष जल निगम
 प्रकृति के संरक्षण को जिक्र में निम्नलिखित खनिजों के लिए खनिज नियंत्रण परमिट,
 लघु खनिजों के विनिर्दिष्ट दरों पर रॉयल्टी के पूर्व भुगतान पर दिये जाने का प्रावधान है।
 साथ ही उक्त नियमावली के नियम 37(3) में विनिर्दिष्ट आपात स्थितियों के लिए समाहर्ता
 द्वारा लघु खनिजों के विनिर्दिष्ट दरों पर रॉयल्टी के पूर्व भुगतान पर परमिट दिये जाने
 का प्रावधान है। ऐसी स्थिति में संवेदक द्वारा समर्पित विपत्र के साथ खान एवं भूतत्व
 विभाग द्वारा निर्गत परमिट साक्ष्य स्वरूप संलग्न रहने की स्थिति में सत्यापनोपरांत सिर्फ
 स्वाभिस्व की 10 प्रतिशत मालिकाना फीस के रूप में वसूली की जायेगी। जिन विपत्रों के
 साथ खान एवं भूतत्व विभाग द्वारा निर्गत परमिट संवेदक द्वारा साक्ष्य स्वरूप विपत्रों के
 साथ संलग्न नहीं किये होंगे या सत्यापनोपरांत गलत पाये जायेगे तो वैसी स्थिति में
 स्वाभिस्व एवं मालिकाना फीस की वसूली की जायेगी।

विश्वासभाजन

ह0/-

अपर सचिव-सह-निदेशक

E-mail

ज्ञापांक-...../एम0, पटना, दिनांक-
 प्रतिलिपि:- प्रधान सचिव, भवन निर्माण विभाग को उनके पत्रांक-9496(भ), दिनांक-25.10.
 2019 के आलोक में सूचनार्थ प्रेषित।

ह0/-

अपर सचिव-सह-निदेशक

E-mail

ज्ञापांक-...../एम0, पटना, दिनांक-
 प्रतिलिपि:- कार्यपालक अभियंता, पथ प्रमंडल, बिहारशरीफ (नालंदा) को उनके पत्रांक-
 995, दिनांक-24.10.2019 के आलोक में सूचनार्थ एवं आवश्यक कार्रवाई
 प्रेषित।

ह0/-

अपर सचिव-सह-निदेशक

E-mail

ज्ञापांक-...../एम0, पटना, दिनांक-
 प्रतिलिपि:- प्रभासी निदेशक (वित्त)- अक्षात्सूक्त-संरचना-विकास-प्रधिकार-उद्योग-भवन,
 गाँधी मैदान, पटना को उनके पत्रांक-3450/AC, दिनांक-23.10.2019 के
 आलोक में सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

ह0/-

अपर सचिव-सह-निदेशक

E-mail

ज्ञापांक-...../एम0, पटना, दिनांक-
 प्रतिलिपि:- मुख्य अभियंता, योजना एवं विकास विभाग, स्थानीय क्षेत्र अभियंत्रण संगठन,
 विश्वेश्वररया भवन, बेली रोड, पटना को उनके पत्रांक-2335 दिनांक-06.11.
 2019 के आलोक में सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

ह0/-

अपर सचिव-सह-निदेशक

E-mail

ज्ञापांक- 3947...../एम0, पटना, दिनांक- 15/11/19
 प्रतिलिपि:- सभी संबंधित कार्य विभाग, बिहार को सूचनार्थ एवं आवश्यक कार्रवाई हेतु
 प्रेषित।

15/11/19

(VIX)

अपर सचिव-सह-निदेशक

XXIII

बिहार सरकार
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
पथ निर्माण विभाग, बिहार, पटना।
E-mail ID:sorrcal2012@gmail.com

पत्रांक :- गु0नि0(पथ) 64/2021
प्रेषक,

79 (अनु०)

पटना, दिनांक :- 10/12/21

सेवा में,
संतोष कुमार
संयोजक, राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-राह-अभियंता प्रमुख (मुख्यालय), पथ निर्माण विभाग, बिहार, पटना।

1. अभियंता प्रमुख,
ग्रामीण कार्य विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
2. अभियंता प्रमुख (मुख्यालय),
जल संसाधन विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
3. अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
4. अभियंता प्रमुख,
तकनीकी परीक्षा केंद्रों, निगम विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
5. अभियंता प्रमुख,
भवन निर्माण विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
6. अभियंता प्रमुख,
लघु जल संसाधन विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
7. मुख्य अभियंता (असैनिक),
बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
8. मुख्य अभियंता (मिश्रित),
भवन निर्माण विभाग राह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।

विषय :- राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा दिनांक-07.12.2021 को बैठक में लिखे गये निर्णयानुसार सीमेंट, विद्युत, इस्पात, स्टील एवं Plant & Machinery से संबंधित दर की सूची के प्रेषण के संबंध में।

महाशय,

उपर्युक्त विषय के संबंध में कहना है कि दिनांक 07.12.2021 को बैठक में राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित सीमेंट, विद्युत, इस्पात, स्टील एवं Plant & Machinery की पुनरीक्षित दर की सूची "M1", "M3A", "M3B", "M3C", "M4", "M5", "M6", "M8", "M9", "M10A", Schedule P&M/MoRTH-1A, Schedule P&M/MoRTH-1B, Schedule BIMP एवं कार्गो की प्रति आवश्यक कार्याई हेतु सलग की जा रही है।

अनु-यथोक्त।

विभागाध्यक्ष,

(संतोष कुमार)


संयोजक,

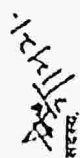
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-राह-अभियंता प्रमुख (मुख्यालय),
पथ निर्माण विभाग, बिहार, पटना।


XXIV


Schedule : M1
 Date: 07.12.2021
 List of Rates of Ordinary Portland Cement approved by State Level Schedule Rate Committee for the year 2021 - 22 (for Preparation of Schedule of Rates only) - Materials should conform to relevant BIS/IRC/MORT&H Specifications.
 Rates are exclusive of GST @ 28%, Overhead Charges & Contractor's Profit.


Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate	
				in figure ()	in words
1	Ordinary Portland Cement (O.P.C. - 43 Grade)	Per bag of 50 Kg	Panna	5	6
			Muzaffarpur	257.80	Rupees Two Hundred Fifty Seven and Paise Eighty Only
			Darbhanga	253.90	Rupees Two Hundred Fifty Three and Paise Ninety Only
			Bhagalpur	257.80	Rupees Two Hundred Fifty Seven and Paise Eighty Only
			Munger	253.90	Rupees Two Hundred Fifty Three and Paise Ninety Only
			Saharsa	257.80	Rupees Two Hundred Fifty Seven and Paise Eighty Only
			Purnea	257.80	Rupees Two Hundred Fifty Seven and Paise Eighty Only
			Gaya	244.10	Rupees Two Hundred Forty Four and Paise Ten Only
			Saran	253.50	Rupees Two Hundred Fifty Three and Paise Fifty Only



 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख
 पटना निर्माण विभाग, बिहार, पटना।


 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख,
 प्रांतीय कार्य विभाग, बिहार, पटना।



 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-मुख्य अभियंता (अरीओ), बिहार स्टेट
 एण्डर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।



 सचिव,
 राज्य स्तरीय अनुसूचित दर निर्धारण समिति
 -सह-मुख्य अभियंता (विद्युत),
 भवन निर्माण विभाग, बिहार, पटना।


 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख,
 लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।


 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख, मुख्यतम,
 जल ससाधन विभाग, बिहार, पटना।

सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख,
 तटपु जल ससाधन विभाग, बिहार, पटना।


 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख, तकनीकी परीक्षण कोष,
 निगमानी विभाग, बिहार, पटना।


 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख (पुष्कार),
 पथ निर्माण विभाग, बिहार, पटना।

XXV

Date: 07.12.2021

Schedule - M3A

Rate of Best Portland Pozzolana Cement approved by State Level Schedule Rate Committee for the year 2021-22 (for Preparation of Schedule of Rates only). Materials should conform to relevant BIS/IRC/MORTH Specifications. Rates are exclusive of GST @ 28%, Overhead Charges & Contractor's Profit.

Sl. No	Name & Description of Material	Unit	Zones	Approved Rate	
				In figure (₹)	in words
1	Best Portland Cement (P.P.C.)	Per Bag of 50 KG	1	5	6
			North	210.90	Rupees Two Hundred Ten and Paise Ninety Only
			DehraDun	205.70	Rupees Two Hundred Five and Paise Seventy Only
			Muzaffarpur	205.70	Rupees Two Hundred Five and Paise Seventy Only
			Muzaffarpur	210.90	Rupees Two Hundred Ten and Paise Ninety Only
			Muzaffarpur	209.00	Rupees Two Hundred Nine and Paise Zero Only
			North	207.40	Rupees Two Hundred Seven and Paise Forty Only
			Patna	214.40	Rupees Two Hundred Fourteen and Paise Forty Only
			Gaya	185.60	Rupees One Hundred Eighty Five and Paise Sixty Only
			North	206.20	Rupees Two Hundred Six and Paise Twenty Only

North
 राज्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-पुन-अधिसूचना संख्या-
 प्रमाण और विभाग, बिहार, दरभंगा।

DehraDun
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-अधिसूचना संख्या-
 लघु उच्च सहायक विभाग, बिहार, दरभंगा।

Muzaffarpur
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-पुन-अधिसूचना संख्या-
 प्रमाण और विभाग, बिहार, दरभंगा।

Muzaffarpur
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-अधिसूचना संख्या-
 लघु उच्च सहायक विभाग, बिहार, दरभंगा।

North
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-पुन-अधिसूचना संख्या-
 प्रमाण और विभाग, बिहार, दरभंगा।

Patna
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-अधिसूचना संख्या-
 लघु उच्च सहायक विभाग, बिहार, दरभंगा।

Gaya
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-अधिसूचना संख्या-
 लघु उच्च सहायक विभाग, बिहार, दरभंगा।

North
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -एन-पुन-अधिसूचना संख्या-
 प्रमाण और विभाग, बिहार, दरभंगा।

Date: 07.12.2021

Schedule - MCC

List of Rates of Portland Slag Cement approved by State Level Schedule Rate Committee for the year 2021- 22 for Preparation of Schedule of Rates only) - Materials should conform to relevant BIS/IRC/MORTH Specifications. Rates are exclusive of GST @ 28%, Overhead Charges & Contractor's Profit.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate	
				in figure (₹)	in words
1	Portland Slag Cement (P.S.C)	Per bag of 50 Kg	1	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			2	229.30	Rupees Two Hundred Twenty Nine and Paise Thirty Only
			3	224.60	Rupees Two Hundred Twenty Four and Paise Sixty Only
			4	229.90	Rupees Two Hundred Twenty Nine and Paise Ninety Only
			5	221.10	Rupees Two Hundred Twenty One and Paise Ten Only
			6	228.30	Rupees Two Hundred Twenty Eight and Paise Thirty Only
			7	224.60	Rupees Two Hundred Twenty Four and Paise Sixty Only
			8	220.40	Rupees Two Hundred Twenty and Paise Forty Only
			9	226.80	Rupees Two Hundred Twenty Six and Paise Eighty Only


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

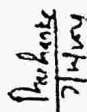
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिलास, पटना।

Schedule - 132C
 Date: 07.12.2021
 List of Rates of Portland Composite Cement approved by State Level Schedule Rate Committee for the year 2021 - 22 (for Preparation of Schedule of Rates only) - Materials should conform to relevant BIS/IRC/MORTH Specifications. Rates are exclusive of GST @ 28%, Overhead Charges & Contractor's Profit.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate	
				in figure (₹)	in words
1	Portland Composite Cement (P.C.C)	Per bag of 50 Kg	1	5	6
			Patna	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Muzaffarpur	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Darbhanga	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Bhagalpur	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Mongher	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Subarua	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Chausa	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Gaya	230.50	Rupees Two Hundred Thirty and Paise Fifty Only
			Saran	230.50	Rupees Two Hundred Thirty and Paise Fifty Only

रज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अधिकृत प्रमुख, भवन निर्माण विभाग, बिहार, पटना।
 सत्य 07.12.21

रज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अधिकृत प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

रज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अधिकृत प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

XXVIII

रज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अधिकृत प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

रज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अधिकृत प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

रज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अधिकृत प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

Schedule : M4

Date: 07.12.2021

List of Rates of Different Grades of Bitumen approved by State Level Schedule Rate Committee for the year 2021 - 22 (for the Preparation of Schedule of Rates only). Materials should confirm to relevant BIS/IRC/MORT&H Specifications. Rates are exclusive of GST @ 18%, Overhead Charges and Contractor's Profit

Sl. No.	Name & Description of Material	Unit	Approved Rate	
			In figure (₹)	In words
1	Bitumen Grade VG-40(30/40) Packed			
	Per MT	59541.00	Rupees Fifty Nine Thousand Five Hundred Fifty Four and Paise Zero Only	
	Per MT	59515.00	Rupees Fifty Nine Thousand Five Hundred Thirty Five and Paise Zero Only	
	Per MT	59735.00	Rupees Fifty Nine Thousand Two Hundred Thirty Five and Paise Zero Only	
	Per MT	59860.00	Rupees Fifty Nine Thousand Nine Hundred Ninety Eight and Paise Zero Only	
2	Bitumen Grade VG-30(60/70) Packed			
	Per MT	56414.00	Rupees Fifty Six Thousand Four Hundred Fourteen and Paise Zero Only	
	Per MT	56810.00	Rupees Fifty Six Thousand Forty Eight and Paise Zero Only	
	Per MT	56285.00	Rupees Fifty Six Thousand Two Hundred Eighty Five and Paise Zero Only	
	Per MT	54955.00	Rupees Fifty Four Thousand Nine Hundred Eighty Five and Paise Zero Only	
3	Bitumen Grade VG-10(80/100) Packed			
	Per MT	55614.00	Rupees Fifty Five Thousand Six Hundred Fourteen and Paise Zero Only	
	Per MT	55248.00	Rupees Fifty Five Thousand Two Hundred Forty Eight and Paise Zero Only	
	Per MT	55485.00	Rupees Fifty Five Thousand Four Hundred Eighty Five and Paise Zero Only	
	Per MT	54185.00	Rupees Fifty Four Thousand One Hundred Eighty Five and Paise Zero Only	
4	Bitumen Grade VG-40(30/40) Bulk			
	Per MT	57562.00	Rupees Fifty Two Thousand Five Hundred Sixty Two and Paise Zero Only	
5	Bitumen Grade VG-30(60/70) Bulk			
	Per MT	49707.00	Rupees Forty Nine Thousand Seven Hundred Two and Paise Zero Only	
6	Bitumen Grade VG-10(80/100) Bulk			
	Per MT	48907.00	Rupees Forty Eight Thousand Nine Hundred Two and Paise Zero Only	
7	Modified Graded Bitumen			
	Per MT	53728.00	Rupees Fifty Three Thousand Seven Hundred Twenty Eight and Paise Zero Only	
	Per MT	53965.00	Rupees Fifty Three Thousand Nine Hundred Sixty Five and Paise Zero Only	
	Per MT	54265.00	Rupees Fifty Four Thousand Two Hundred Sixty Five and Paise Zero Only	
8	Bitumen Emulsion MS1(Packoff) HOPE			
	Per MT	52919.00	Rupees Fifty Two Thousand Nine Hundred Nineteen and Paise Zero Only	
	Per MT	52769.00	Rupees Fifty Two Thousand Seven Hundred Sixty Nine and Paise Zero Only	
	Per MT	55519.00	Rupees Fifty Five Thousand Two Hundred Nineteen and Paise Zero Only	
9	Bitumen Emulsion MS(Packed) HOPE			
	Per MT	55115.00	Rupees Fifty Five Thousand Three hundred Two and Paise Zero Only	
	Per MT	55145.00	Rupees Fifty Five Thousand One Hundred Fifty Two and Paise Zero Only	
	Per MT	54615.00	Rupees Fifty Five Thousand Six Hundred Two and Paise Zero Only	
10	Bitumen Emulsion SS1(Packed) HOPE			
	Per MT	54270.00	Rupees Fifty Four Thousand Two hundred Seventy and Paise Zero Only	
	Per MT	54120.00	Rupees Fifty Four Thousand One Hundred Twenty and Paise Zero Only	
	Per MT	54570.00	Rupees Fifty Four Thousand Five Hundred Seventy and Paise Zero Only	

[Signature]
 07.12.21
 Director, Public Works Department
 Government of Karnataka
 Bangalore

[Signature]
 07.12.21
 Director, Public Works Department
 Government of Karnataka
 Bangalore

[Signature]
 07.12.21
 Director, Public Works Department
 Government of Karnataka
 Bangalore

Approved new rate of G.C. Sheet by State Level Schedule Rate Committee for the year 2021-22 (for Preparation of Schedule of Rates only) -
 Materials should conform to relevant BIS/IRC/MORT&H Specifications
 Rates are exclusive of GST @ 18%, Overhead Charges and Contractor's Profit

Sl No	Name & Description of Material	Unit	in figure	Approved Rate	in words
1	G.C. Sheet in mtr	S	4	5	5
2	0.80	Per MT	94513.56	Rupees Ninety Four Thousand Five Hundred Thirteen and Paise Fifty Six Only	
3	0.60	Per MT	93823.73	Rupees Ninety Three Thousand Eight Hundred Twenty Three and Paise Seventy Three Only	
4	0.40	Per MT	95415.25	Rupees Ninety Five Thousand Four Hundred Fifteen and Paise Twenty Five Only	
5	0.35	Per MT	97272.03	Rupees Ninety Seven Thousand Two Hundred Seventy Two and Paise Three Only	
			99925.42	Rupees Ninety Nine Thousand Nine Hundred Twenty Five and Paise Forty Two Only	

[Signature]
 सदर
 राजस्थान अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख
 जयपुर सिविल विभाग, विहार, जयपुर।

[Signature]
 सदर
 राजस्थान अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख
 जयपुर सिविल विभाग, विहार, जयपुर।

[Signature]
 सदर
 राजस्थान अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख
 जयपुर सिविल विभाग, विहार, जयपुर।

[Signature]
 सदर
 राजस्थान अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख
 जयपुर सिविल विभाग, विहार, जयपुर।

[Signature]
 सदर
 राजस्थान अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख
 जयपुर सिविल विभाग, विहार, जयपुर।

[Signature]
 सदर
 राजस्थान अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख
 जयपुर सिविल विभाग, विहार, जयपुर।

XXXI

Approved rate of Steel - Wire Rod in Coil by State Level Schedule Rate Committee for the year 2021- 22 (for Preparation of Schedule of Rates only) - Materials should conform to relevant BIS/IRCMORT&H Specifications.
 Rates are exclusive of GST @ 18%, Overhead Charges and Contractor's Profit.

Schedule No.

Date: 07.12.2021

Sl. No.	Name & Description of Material	Unit	Approved Rate	
			In figure (₹)	In words
1	2	3	4	5
Wire Rod in Coil				
1	5.5 mm	Per MT	57900.00	Rupees Fifty Seven Thousand Nine Hundred and Paise Zero Only
2	7.0 mm	Per MT	59000.00	Rupees Fifty Nine Thousand and Paise Zero Only
3	8.0 mm	Per MT	58900.00	Rupees Fifty Eight Thousand Nine Hundred and Paise Zero Only

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
 भवन निर्माण विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह- अभियंता प्रमुख,
 प्राचीन ऊर्ध्व विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता (अर्थ), बिहार स्टेट पावर लिमिटेड, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति,
 सह-मुख्य अभियंता (विद्युत),
 भवन निर्माण विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
 लोक सभासद अभियंता विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, मुख्यसदस्य
 जल सहायक विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 सह-अभियंता प्रमुख,
 तट्टु जल सहायक विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 सह-अभियंता प्रमुख, तकनीकी परीक्षण कोष,
 निर्माण विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 सह-अभियंता प्रमुख (मुख्यसदस्य),
 न्या निर्माण विभाग, बिहार, पटना।

XXXII

Schedule : M8

Date: 07.12.2021

Approved rate of Steel Channel by State Level Schedule Rate Committee for the year 2021 - 22 (for Preparation of Schedule of Rates only) - Materials should conform to relevant BIS/IRC/MORT&H Specifications.

Rates are exclusive of GST @ 18%, Overhead Charges and Contractor's Profit.

Sl. No.	Name & Description of Material	Unit	in figure (Rs)	Approved Rate in words
1	STEEL CHANNEL	J	4	5
1	Channel 100x50	Per MT	56400.00	Rupees Fifty Six Thousand Four Hundred and Paise Zero Only
2	Channel 150x75	Per MT	56400.00	Rupees Fifty Six Thousand Four Hundred and Paise Zero Only

[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख
 जल सहायन विभाग, विहार, पटना।

[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख
 जल सहायन विभाग, विहार, पटना।

[Signature]
 07.12.21
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख (विद्युत)
 जल सहायन विभाग, विहार, पटना।

[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख (विद्युत)
 जल सहायन विभाग, विहार, पटना।

[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख
 जल सहायन विभाग, विहार, पटना।

[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख (विद्युत)
 जल सहायन विभाग, विहार, पटना।

[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख
 जल सहायन विभाग, विहार, पटना।


[Signature]
 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख
 जल सहायन विभाग, विहार, पटना।

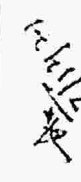
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 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति - संघ - अधिकाय प्रमुख (विद्युत)
 जल सहायन विभाग, विहार, पटना।


XXXIII


Schedule : M9
 Date : 07.12.2021
 Approved rate of Steel Angles by State Level Schedule Rate Committee for the year 2021 - 22 (for Preparation of Schedule of Rates only) -
 Materials should conform to relevant BIS/IRC/MORT&H Specifications.
 Rates are exclusive of GST @ 18%, Overhead Charges and Contractor's Profit.

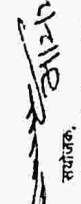
Sl. No.	Name & Description of Material	Unit	Approved Rate	
			in figure (₹)	in words
1	2	3	4	5
1	STEEL ANGLES	Per MT.	56100.00	Rupees Fifty Six Thousand One Hundred and Paise Zero Only

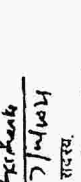

 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख,
 राष्ट्रीय कार्य विभाग, बिहार, पटना।



 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख,
 राष्ट्रीय कार्य विभाग, बिहार, पटना।

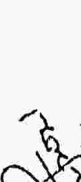

 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख, तकनीकी परीक्षण कोषागार,
 निगरानी विभाग, बिहार, पटना।


 सदस्य,
 राज्य स्तरीय अनुसूचित दर निर्धारण समिति
 -सह-मुख्य अभियंता (विद्युत),
 मदन निर्माण विभाग,
 बिहार, पटना।


 सचिव,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख (मुख्यालय),
 पथ निर्माण विभाग, बिहार, पटना।


 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-अभियंता प्रमुख, मुख्यालय,
 जल संचयन विभाग, बिहार, पटना।


 सदस्य, 07.12.21
 राज्यस्तरीय अनुसूचित दर निर्धारण समिति
 -सह-मुख्य अभियंता (अधीन), विचार स्टेट पावर
 होल्डिंग कर्पोरेशन लिमिटेड, बिहार, पटना।


 राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख,
 लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

Page 38 of 473

Notes: (1) Rates should conform to relevant BIS, IRC, MORT & H Specifications.
 Rates are exclusive of GST @ 18% Overhead Charges and Contractor's Profit

No.	Name & Description of Material	Unit	in figure	Approved Rate in words
1	STEEL TMS BARS			₹
2	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Forty N A Thousand Four Hundred Forty One and Paise Zero Only
3	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Forty Five and Paise Zero Only
4	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Fifty Four Hundred Four Hundred N A Only Paise Zero Only
5	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Fifty Four Hundred Ninety Two and Paise Zero Only
6	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Fifty Four Hundred Ninety Two and Paise Zero Only
7	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Fifty Four Hundred Ninety Two and Paise Zero Only
8	STEEL TMS BARS	per MT	₹ 4492.00	Rupees Fifty Four Hundred Ninety Two and Paise Zero Only

Handwritten signatures and notes in Hindi are present next to the table rows, providing additional context or verification for the rates.

Schedule- P & M / MORTH - 1A

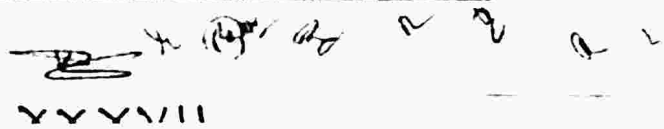
Date :- 07.12.2021

Approved Usages rate of Plants & Machinery for preparation of Schedule of rate including all charges ,cost of repair,maintainance,tyre- replacement,running and operating charges such as fuel lubricant,labour etc but excluding GST,Overhead and Contractor's profit.


Sl.No.	Code	Description	Unit	Approved Rate	Remarks
1	PM1001	Dozer - 240 HP	Hour	5,523.00	
2	PM1002	Dozer - 175 HP	Hour	4,249.00	
3	PM1003	Dozer - 90 HP	Hour	2,930.00	
4	PM2001	Motor Grader 4.3 metre blade	Hour	5,450.00	
5	PM2002	Motor Grader 3.7 metre blade	Hour	4,985.00	
6	PM2003	Motor Grader 3.35 metre blade	Hour	4,403.00	
7	PM3003	Hydraulic Excavator of 1.2 cum bucket	Hour	2,703.00	
8	PM3004	Hydraulic Excavator of 1.1 cum bucket	Hour	2,432.00	
9	PM3005	Hydraulic Excavator of 0.9 cum bucket	Hour	2,202.00	
10	PM4001	Jack Hammer (attachment of Hydraulic Excavator)	Hour	206.00	
11	PM5001	Front End loader 3.1 cum bucket capacity	Hour	3,433.00	
12	PM5002	Front End loader 2.1 cum bucket capacity	Hour	2,033.00	
13	PM5003	Backhoe-loader 1 cum bucket capacity	Hour	1,366.00	
14	PM6001	Tipper-18 Cum	Hour	2,239.00	
15	PM6002	Tipper-14 Cum	Hour	1,998.00	
16	PM6003	Tipper-10 Cum	Hour	1,785.00	
17	PM6004	Tipper-5.5 Cum	Hour	1,371.00	
18	PM7001	Vibratory Soil Compactor (10 tonne)	Hour	1,988.00	
19	PM8001	Smooth Wheeled Roller 8 tonne	Hour	1,518.00	
20	PM9001	Tandem Roller	Hour	1,978.00	Vibratory road Roller
21	PM9002	Mini Tandem Roller	hour	1,048.00	Do
22	PM10001	Pneumatic Road Roller	Hour	1,996.00	Do
23	PM11001	Water Tanker (16 KL)	Hour	1,121.00	
24	PM11002	Water Tanker (12 KL)	Hour	947.00	
25	PM11003	Water Tanker (6 KL)	Hour	707.00	
26	PM12001	Tractor-Trolley	Hour	629.00	
27	PM13001	Rotavator	Hour	17.00	
28	PM14001	Ripper	Hour	21.00	
29	PM15001	Air Compressor -250 cfm	Hour	391.00	
30	PM15002	Air Compressor -500 cfm	Hour	1,831.00	
31	PM16001	integrated Stone Crusher Stone (3 Stage) 250 TPH	Hour	13,481.00	
32	PM17001	Wet Mix Plant - 250 TPH Capacity	Hour	649.00	
33	PM17002	Wet Mix Plant - 200 TPH Capacity	Hour	354.00	
34	PM17003	Wet Mix Plant - 100 TPH Capacity	Hour	329.00	
35	PM18001	Hotmix Plant - 200 TPH Capacity	Hour	44,761.00	
36	PM18002	Hotmix Plant - 160 TPH Capacity	Hour	34,660.00	
37	PM18003	Hotmix Plant - 120 TPH capacity	Hour	26,375.00	
38	PM19001	Batching and Mixing Plant 240 cum Capacity	Hour	5,681.00	
39	PM19002	Batching and Mixing Plant 120 cum Capacity	Hour	3,635.00	
40	PM2000*	Mobile Concrete Batching / Mixing Plant	Hour	617.00	
41	PM21001	Concrete Mixer - 0.4/0.28 cum	Hour	283.00	
42	PM21002	Concrete Mixer - 1 cum	Hour	313.00	
43	PM22001	Generator 725 KVA	Hour	7,759.00	
44	PM22002	Generator 500 KVA	Hour	5,360.00	
45	PM22003	Generator 400 KVA	Hour	4,323.00	
46	PM22004	Generator 250 KVA	Hour	3,034.00	
47	PM22005	Generator 125 KVA	Hour	1,587.00	
48	PM22006	Generator 100 KVA	Hour	1,359.00	
49	PM22007	Generator 62.5 KVA	Hour	850.00	

(Signature)
 XXXVII

50	PM22008	Generator 33 KVA	Hour	495 00	
51	PM22009	Generator 15 KVA	Hour	274 00	
52	PM23001	Mechanical Broom Hydraulic	Hour	746 00	
53	PM24001	Bitumen Pressure Distributor	Hour	1 299 00	
54	PM25001	Emulsion Pressure Distributor	Hour	1 299 00	
55	PM26001	Bitumen Boiler Oil Fired	Hour	510 00	
56	PM27001	Mastic Cooker	Hour	450 00	
57	PM28001	Paver Finisher Mechanical	Hour	2078 00	
58	PM29001	Paver Finisher Hydrostatic with sensor control -240 HP	Hour	8054 00	
59	PM29002	Paver Finisher Hydrostatic with sensor control -170 HP	Hour	6346 00	
60	PM30001	Paver Finisher Concrete with 300 HP Motor	Hour	25929 00	
61	PM30002	Paver Finisher Concrete with 241 HP Motor	Hour	16593 00	
62	PM30003	Paver Finisher Concrete with 118 HP Motor	Hour	3 764 00	
63	PM31001	Texture Curing Machine (TCM) upto 18 m	Hour	4 328 00	
64	PM31002	Texture Curing Machine (TCM) upto 9 m	Hour	3 354 00	
65	PM32001	Hydraulic Chip Spreader	Hour	1 602 00	
66	PM33001	Pot-Hole Repair Machine	Hour	1 235 00	
67	PM34001	Transit Mixer - 6 Cum	Hour	1 860 00	
68	PM35001	Concrete Pump	Hour	960 00	
69	PM36001	Boom Placer	Hour	3 695 00	
70	PM37001	kerb Casting Machine	Hour	1 468 00	
71	PM38001	Piling Rig with Bentonite Pump	Hour	17 135 00	
72	PM39001	Pneumatic Sinking Plant	Hour	5 333 00	
73	PM40001	Road marking machine	Hour	1 349 00	
74	PM41001	Mobile Slurry Seal Equipment	Hour	3 392 00	
75	PM42001	Joint Cutting Machine	Hour	293 00	
76	PM43001	Bar Bending & Cutting Machine	Hour	309 00	
77	PM44001	Needle Vibrator	Hour	325 00	
78	PM45001	Jack Hammer for air compressor	Hour	11 00	
79	PM46001	Plate Compactor	Hour	335 00	
80	PM47001	Milling Machine with 1 meter Drum Width	Hour	4 026 00	
81	PM47002	Milling Machine with 1.2 meter Drum Width	Hour	4 707 00	
82	PM47003	Milling Machine With 1.3 meter Drum Width	Hour	6 803 00	
83	PM47004	Milling Machine With 2 meter Drum Width	Hour	9 824 00	
84	PM48001	Cold in Situ recycling of bitumen's pavement with foam bitumen technology	Hour	27 209 00	
85	PM49001	In situ stabilisation of WMM/GSB/Sub grade	Hour	24 056 00	
86	PM50001	Cement Spreader	Hour	6 913 00	
87	PM51001	Mobile cold recycling mixing plant	Hour	20 422 00	
88	PM52001	Hot in place recycling	Hour	1 02 535 00	
89	PM53001	Pre heater unit for hot in place recycling	Hour	634 00	
90	PM54001	Single boom Hydraulic Drill Jumbo	Hour	4 394 00	
91	PM55001	Two boom Hydraulic Drill Jumbo	Hour	6 604 00	
92	PM56001	Three boom Hydraulic Drill Jumbo	Hour	9 638 00	
93	PM57001	Hydraulic Rock bolt drill	Hour	6 572 00	
94	PM58001	Rotating Telerollers	Hour	887 00	
95	PM59001	Shotcrete Machine	Hour	1 349 00	
96	PM60001	Grouting machine	Hour	525 00	
97	PM61001	Dewatering Pump 10 HP	Hour	195 00	
98	PM61002	Concrete cutting machine	Hour	170 00	
99	PM62001	Crawler mounted Crane 35 tonne capacity	Hour	5 502 00	
100	PM62002	Crawler mounted Crane 80 tonne capacity	Hour	5 615 00	
101	PM62003	Crawler mounted Crane 100 tonne capacity	Hour	8 705 00	
102	PM63001	Mobile Hydraulic Crane 3 tonne capacity	Hour	728 00	
103	PM63002	Mobile Hydraulic Crane 5 tonne capacity	Hour	765 00	
104	PM63003	Mobile Hydraulic Crane 10 tonne capacity	Hour	864 00	
105	PM63004	Mobile Hydraulic Crane 15 tonne capacity	Hour	899 00	

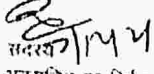


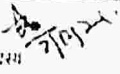
106	PM63005	Mobile Hydraulic Crane 20 tonne capacity	Hour	1,125.00	
107	PM63006	Mobile Hydraulic Crane 35 tonne capacity	Hour	1,747.00	
108	PM64001	Concrete Bucket	Hour	86.00	
109	PM65001	Prestressing Jack with Pump & Access	Hour	413.00	
110	PM66001	Boat to carry atleast 20 persons	hour	714.00	
111	PM67001	Crane with grab 0.75 cum capacity	hour	738.00	
112	PM68001	Epoxy Injection gun	hour	231.00	
113	PM69001	Induction, deinduction and erection of plant and equipment including all components and accessories for pneumatic method of well sinking	hour	9,004.00	
114	PM70001	Jack for Lifting 40 tonne lifting capacity.	hour	239.00	
115	PM71001	Vibrating Pile driving hammer complete with power unit and accessories.	hour	16,014.00	
116	PM72001	Tipper 18 Cum (Surface Road)	Per Tonne Km.	4.80	As per Carnage Rate analysis
117	PM72002	Tipper-18 Cum (Unsurfaced Gravelled Road) excluding OH & CP	t.km	5.83	Do
118	PM72003	Tipper-18 Cum (Katcha Track) excluding OH & CP	t.km	11.66	Do
119	PM73001	Tipper -14 Cum (Surface Road) excluding OH & CP	t.km	5.48	Do
120	PM73002	Tipper -14 Cum (Unsurfaced Gravelled Road) excluding OH & CP	t.km	6.66	Do
121	PM73003	Tipper -14 Cum (Katcha Track) excluding OH & CP	t.km	13.32	Do
122	PM74001	Tipper -10 Cum (Surface Road) excluding OH & CP	t.km	6.80	Do
123	PM74002	Tipper -10 Cum (Unsurfaced Gravelled Road) excluding OH & CP	t.km	8.26	Do
124	PM74003	Tipper -10 Cum (Katcha Track) excluding OH & CP	t.km	16.53	Do
125	PM75001	Tipper- 5.5 Cum (Surface Road) excluding OH & CP	t.km	9.41	Do
126	PM75002	Tipper- 5.5 Cum (Unsurfaced Gravelled Road) excluding OH & CP	t.km	11.42	Do
127	PM75003	Tipper- 5.5 Cum (Katcha Track) excluding OH & CP	t.km	22.85	Do
128	PM76001	Transit Mixer - 6 Cum excluding OH & CP	t.km	10.33	Do
129	PM77001	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 18 cum capacity Tipper & 3.1 Cum capacity Loader) excluding OH & CP	cum	73.42	Do
130	PM77002	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 14 cum capacity Tipper & 2.1 Cum capacity Loader) excluding OH & CP	cum	71.98	Do
131	PM77003	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 10 cum capacity Tipper & 1.0 Cum capacity Loader) excluding OH & CP	cum	100.20	Do
132	PM77004	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 5 cum capacity Tipper & 1.0 Cum capacity Loader) excluding OH & CP	cum	112.96	Do
133	PM77005	Loading and Unloading of Cement or Steel by Manual Means and Stacking	tonne	420.80	Do
134	PM78001	Centrifugal water pump	Hour	240.00	
135	PM79001	Shredding Machine	Hour	391.00	
136	PM80001	Mobile Bodge Inspection Unit (MBIU)	hour	6,549.00	
137	PM81001	Network Survey Vehicle (NSV) With SUV	hour	6,044.00	
138	PM82001	Falling weight deflectometer (FWD) Equipment With SUV	hour	2,884.00	
139	PM83001	Retroreflectometer testing equipment with Vehicle With SUV	hour	1,468.00	



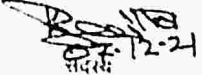
XXXVIII


140	PMB4001	Sport utility vehicle (SUV)	hour	975.00	
141	PMB5001	Automatic Vehicle Counter Classifier (ATCC) System	hour	74.00	



सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
भवन निर्माण विभाग
बिहार,पटना।



सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति - सह अभियंता प्रमुख
प्राचीन कार्य विभाग
बिहार,पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
लघु जल संसाधन विभाग
बिहार,पटना।

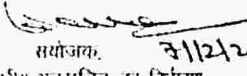

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-मुख्यअभियंता (अ.सौ.)
बिहार स्टेट पावर होल्डिंग कंपनी लि.
बिहार,पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-मुख्यअभियंता (विद्युत)
भवन निर्माण विभाग
बिहार,पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
तकनीकी परीक्षक कोषांग, निगरानी विभाग,
बिहार,पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
लोक सार्वजन्य अभियंत्रण
विभाग, बिहार,पटना।


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख (मुख्यालय)
जल संसाधन विभाग
बिहार,पटना।


सहोपायक
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख (मुख्यालय)
पथ निर्माण विभाग,
बिहार,पटना।

Schedule P & M/MoRTH-1B

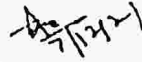
Date 07.12.2021

Approved usages rate of Plant & Mechinery for preparation of schedule of rate including all charges, cost of repair, maintainence, tyre-replacement, running and operation charges such as fuel, lubricant, labour etc. but excluding GST, overhead and contractor profit.

Sl. No.	Code	Description	Unit	Approved Rate (Rs.)
1.	PM 90004	Hot Mix Plant (40-60TPH)	Hour	18776.00


सदस्य

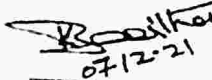
राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, भवन निर्माण विभाग,
बिहार, पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, ग्रामीण कार्य विभाग,
बिहार, पटना

सदस्य

राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, लघु जल संसाधन विभाग,
बिहार, पटना


सदस्य
07/12/21

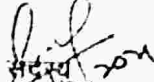
राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-मुख्य
अभियंता (असैनिक) बिहार
स्टेट पावर होल्डिंग कंपनी
लि०, बिहार, पटना


सदस्य
07/12/21

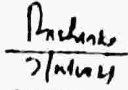
राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-मुख्य
अभियंता, (विद्युत) भवन निर्माण
विभाग, बिहार, पटना


सदस्य
07/12/21

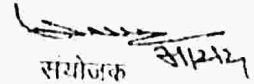
राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, तकनीकी परीक्षक कोषांग,
निगरानी विभाग, बिहार, पटना


सदस्य
07/12/21

राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, लोक स्वास्थ्य अभियंत्रण
विभाग, बिहार, पटना


सदस्य
07/12/21

राज्य स्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, मुख्यालय जल संसाधन
विभाग, बिहार, पटना।


संयोजक
07/12/21

राज्य स्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख (मुख्यालय),
पथ निर्माण विभाग, बिहार, पटना।

XL

Schedule - HMP1

Date: 07.12.2021

यह निर्माण विभाग में उपलब्ध Hot Mix Plant एवं अन्य सतमन यंत्रों-साधनों से तैयार किये जा रहे Production/Carriage/Laying/Compaction का Usage Charge Per MT की पुनरीक्षित दर गणना।

Sr. No.	Code	Machinery	Unit	Quantity	Rate (₹)	Cost (Rs.)
1	PM 90004	Hot mix Plant 40-60 TPH @ 37.4 tonne per hour actual output	hour	6 000	18776 00	112656 00
2	PM 28001	Paver finisher Mechanical	hour	6 000	2078 00	12468 00
OR						
3	PM 29002	Sensor Paver Finisher 170 HP	hour	6 000	6346 00	38076 00
4	PM 22005	Generator 125 KVA	hour	6 000	1587 00	9522 00
5	PM 5033	Front end loader 1 cum bucket capacity/Backhoe loader 1cum bucket capacity	hour	6 000	1365 00	8196 00
6	PM 8001	Smooth wheeled Roller 8-10 tonnes for initial break down rolling, final and finishing rolling	hour	12 00*0.65	1518.00	11840 40
7	PM 9001	Vibratory Roller 8 - 10 tonnes /Tandem Roller for intermediate rolling	hour	6 00*0.65	1978 00	7714 20
8	PM 23001	Mechanical broom hydraulic @ 1250 sqm per hour	hour	2 200	746 00	1641 20


Total cost of usages charge using Paver Finisher (Mechanical) in Rupees 164037.80
and

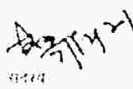
Total cost of usages charge using Paver Finisher (Sensor) in Rupees 189645.80

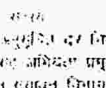
Output of Plant = 17*2 2*6 = 224.4 MT per day

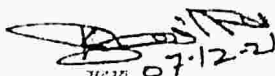
- (a) Cost per MT with Mechanical Paver finisher $164037.80 / 224.4 = 731.00$
Say 731.00 /MT
- and
- (b) Cost per MT with Sensor Paver finisher $189645.80 / 224.4 = 845.10$
Say 845.00 /MT

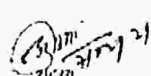
- Note.- In addition to the above, following points shall be considered while calculating Usages Rate per MT :-
- (i) For carriage of Mix by Tipper as per carriage rate will be charged extra as per Lead from the Government Hot Mix Plant
 - (ii) The cost of labour for Bitumen feeding & laying at Paver site will be arranged by the Contractor
 - (iii) Rate is excluding GST

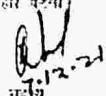

सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।

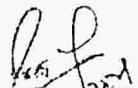

सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।

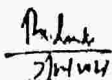

सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।

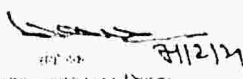

सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।


सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।


सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।


सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।


सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।


सहायक अभियंता एवं निरीक्षण अधिकारी - राह-प्रमाण प्रमुख, सतमन विभाग, विहार, पटना।

XLI

बिहार सरकार

राज्य स्तरीय अनुसूचित दर निर्धारण समिति

पथ निर्माण विभाग, बिहार, पटना।

E-mail ID-sorred2012@gmail.com

पत्रांक :-
पेपक

सू०नि०(पथ) 02/2006-अंश-III 15 (अ०३७) पटना दिनांक :- 26/4/2022

DPT
1/11
सेवा में

हनुमान प्रसाद चौधरी,
संयोजक
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
सह-अभियंता प्रमुख (मुख्यालय),
पथ निर्माण विभाग, बिहार, पटना।

1. अभियंता प्रमुख,
ग्रामीण-कार्य विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 2. अभियंता प्रमुख (मुख्यालय),
जल संसाधन विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 3. अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 4. अभियंता प्रमुख,
कम्युनिटी परीक्षक कोषांग, निगरानी विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 5. अभियंता प्रमुख,
मकान निर्माण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 6. अभियंता प्रमुख,
जल संसाधन विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 7. मुख्य अभियंता (अरीजिक),
बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
 8. मुख्य अभियंता (विद्युत),
मकान निर्माण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
- राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा दिनांक-19.04.2022 की बैठक में अनुमोदित श्रम दर (Schedule-I, II & III), CWJC No.-2071/2021 से संबंधित तथ्य विवरणी एवं कार्यवाही की प्रति के देयक संबंध में।

10
29/4/22
विषय :-
(अ०३७)
2021
मनाशय

उपर्युक्त विषय के संबंध में कहना है कि दिनांक-19.04.2022 की बैठक में राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित श्रम दर (Schedule-I, II & III), CWJC No.-2071/2021 से संबंधित तथ्य विवरणी एवं कार्यवाही की प्रति आवश्यक कार्यवाई हेतु समर्पित की जाती है।

- अनु० 1 अनुमोदित श्रम दर (Schedule-I, II & III)
- 2 CWJC No.-2071/2021 से संबंधित तथ्य विवरणी (06 पृष्ठ)
- 3 कार्यवाही की प्रति।

विश्वारागजन,
26.4.22
(हनुमान प्रसाद चौधरी)
संयोजक,

राज्य स्तरीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख(मुख्यालय),
पथ निर्माण विभाग, बिहार, पटना।

अभियंता प्रमुख (मुख्यालय)
पथ निर्माण विभाग, बिहार, पटना।
964
27/4/22

राज्यस्तरीय अनुसूचित दर निर्धारण समिति की दिनांक- 19.04.2022 की बैठक में निर्माण कार्यों (सड़कें, बाँध तथा सिंचाई कार्य) में नियोजित विभिन्न श्रेणी के मजदूरों का संशोधित न्यूनतम दैनिक मजदूरी का अनुमोदन

जनवरी 2021 से जून, 2021 तक का औसत मूल्य सूचकांक श्रम संसाधन विभाग, बिहार सरकार के अधिसूचना सं.-5/एम डब्ल्यू-40-16/2021-आर।ओ-2847 पटना/दिनांक-30.09.2021 के अनुसार 7879.86 है। जुलाई, 2021 से जून, 2021 तक का औसत मूल्य सूचकांक श्रम संसाधन विभाग, बिहार सरकार के अधिसूचना सं.-5/एम डब्ल्यू-40-16/2021-आर।ओ-992 पटना/दिनांक-30.03.2022 के अनुसार 8163.63 है।

सूचकांक में वृद्धि $8163.63 - 7879.86 = 283.77$

सूचकांक में प्रतिशत वृद्धि $= 283.77 / 7879.86 \times 100 = 3.601\%$

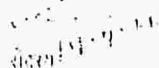
औसत मूल्य सूचकांक (जनवरी 2021 से जून, 2021 तक) पर आधारित न्यूनतम श्रम दर की सूची, अनुसूची 'I' एवं 'II' के खण्ड 'क' पर अंकित है। इसी रतम के अंकित दर में 3.601% वृद्धि कर न्यूनतम श्रम दर की गणना कर खण्ड 'Z' पर अंकित कर दी गयी है।

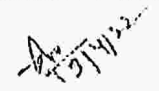
भारतसंसाधन विभाग, बिहार, पटना का अधिसूचना सं.-5/एम.डब्ल्यू.-40-16/2021-आर।ओ-992 पटना/दिनांक-30.03.2022 के आलोक में अनुसूचित दर पुनरीक्षण हेतु उपरोक्त वृद्धि को सम्मिलित करते हुए निर्माण कार्यों, सड़कें, बाँध निर्माण तथा सिंचाई कार्यों में नियोजित दैनिक मजदूरों के न्यूनतम दैनिक मजदूरी में संशोधन के लिए संलग्न अनुसूची I तथा II के खण्ड 'Z' के अनुसार राज्यस्तरीय अनुसूचित दर निर्धारण समिति द्वारा सहमति प्रदान की जाती है। यह दर मध्य निर्माण विभाग, भवन निर्माण विभाग, ग्रामीण कार्य विभाग, लोक स्वास्थ्य अभियंत्रण विभाग एवं अन्य कार्य विभाग के प्रयोग के लिये जहाँ तक संभव हो सके तब तक प्रयोग में ली जा सकती है। Schedule-I के लिए Serial No 1,2,3,4,5,6,70,71, एवं 72 पर अंकित श्रमदर, श्रम संसाधन विभाग की अधिसूचना सं.-5/एम डब्ल्यू-40-16/2021-आर।ओ-992 पटना/दिनांक-30.03.2022 में अंकित श्रम दर के अनुसार लिया गया है एवं शेष श्रम दर, मध्य संसाधन विभाग के संज्ञत अधिसूचना में अंकित औसत मूल्य सूचकांक में परिवर्तन के आधार पर संगणित किया गया है। इसी प्रकार Schedule-II के लिए क्रमांक 1,69,70 एवं 71 पर अंकित श्रमदर श्रम संसाधन विभाग की अधिसूचना सं.-5/एम डब्ल्यू-40-16/2021-आर।ओ-992 पटना/दिनांक-30.03.2022 में अंकित श्रम दर के अनुसार लिया गया है एवं शेष श्रम दर मध्य संसाधन विभाग के संज्ञत अधिसूचना में अंकित औसत मूल्य सूचकांक में परिवर्तन के आधार पर संगणित किया गया है। इनके अतिरिक्त MoRI&H Standard Data Book 2019(2nd Revision) के दर विश्लेषण में प्रयुक्त होनेवाले श्रमदर Schedule III के अनुसार जो Schedule -I पर आधारित हैं, समिति के सदस्यों के द्वारा सर्वसम्मति से अनुमोदित करने का निर्णय लिया गया।

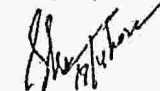
निर्णय जनवरी से श्रम संसाधन विभाग, बिहार सरकार का अधिसूचना सं.-5/एम डब्ल्यू-40-16/2021-आर।ओ-992 पटना/दिनांक-30.03.2022 दिनांक-30.03.2022 दिनांक


उक्त दर (Schedule I, II,III) श्रम संसाधन विभाग, बिहार पटना की अधिसूचना संख्या-5/एम डब्ल्यू-40-16/2021-आर।ओ-992 पटना/दिनांक-30.03.2022 में अंकित तिथि 01.04.2022 से प्रभावी होगा।

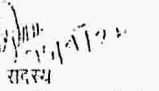
खण्ड I, II एवं III



सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति सह अभियंता प्रमुख मध्य निर्माण विभाग, बिहार, पटना

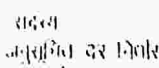

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख ग्रामीण कार्य विभाग, बिहार, पटना

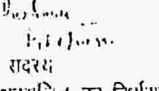

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लघु जल संसाधन विभाग, बिहार, पटना

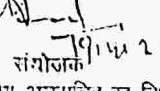

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति सह मुख्य अभियंता (अरीय) मध्य निर्माण विभाग, बिहार, पटना


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति सह-मुख्य अभियंता (विपुल) भवन निर्माण विभाग, बिहार, पटना


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, तकनीकी परीक्षा कक्षा, निर्मात्री विभाग, बिहार, पटना


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति सह अभियंता पब्लिक लोक


सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख (मुख्यालय)


संयोजक
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख (मुख्यालय)

विहार सरकार
जल संसाधन विभाग

दिनांक-17.08.2022 को अभियंता प्रमुख (मुख्यालय) सह-अध्यक्ष विभागीय अनुसूचित दर निर्धारण समिति जल संसाधन विभाग, विहार, पटना के कार्यालय कक्ष में आयुक्त बैठक की कार्यवाही।

उपस्थित:-

1. ई० रवीन्द्र कुमार शर्मा
अभियंता प्रमुख, मुख्यालय-सह-अध्यक्ष, विभागीय अनुसूचित दर निर्धारण समिति।
2. ई० शैलेन्द्र,
अभियंता प्रमुख (वाढ नियंत्रण एवं जल निरसरण)-सह-सदस्य, विभागीय अनुसूचित दर निर्धारण समिति।
3. ई० ईश्वर चन्द्र ठाकुर,
अभियंता प्रमुख (सिंचाई सृजन)-सह-सदस्य विभागीय अनुसूचित दर निर्धारण समिति।
4. ई० कुमार जयंत प्रसाद,
मुख्य अभियंता (यांत्रिक)-सह-सदस्य-विभागीय अनुसूचित दर निर्धारण समिति।
5. ई० सुजीत कुमार,
निदेशक, कृषि, गंधार एवं सामग्री प्रबंधन निदेशालय-सह-सदस्य सचिव, विभागीय अनुसूचित दर निर्धारण समिति।

समीक्षा:-

मुख्य अभियंता, (यांत्रिक), जल संसाधन विभाग, विहार, पटना के पत्रांक-1393 दिनांक- 06.08.2022 द्वारा यांत्रिक/विद्युत से संबंधित सामग्रियों एवं कार्य मदों की सूची समीक्षा किया गया है, जो भवन निर्माण विभाग, विहार एवं भवन निर्माण विभाग (विद्युत) अंतर्गत में लागू अनुमोदित अनुसूचित दर पुस्तिका-2022 के आधार पर है। साथ ही मुख्य अभियंता, (यांत्रिक), जल संसाधन विभाग, विहार द्वारा यांत्रिक/विद्युत से संबंधित उक्त सामग्रियों की दर एवं कार्य मदों के दरों की सूची को विभागीय अनुसूचित दर पुस्तिका-2022 में सम्मिलित करने का अनुरोध किया गया है।

समिति का निर्णय:- विभागीय अनुसूचित दर निर्धारण समिति द्वारा विमर्शोपरान्त मुख्य अभियंता, (यांत्रिक), जल संसाधन विभाग, विहार, पटना द्वारा भवन निर्माण विभाग, विहार एवं भवन निर्माण विभाग (विद्युत) के अनुमोदित अनुसूचित दर पुस्तिका-2022 के आधार पर तैयार किये गये यांत्रिक/विद्युत से संबंधित सामग्रियों एवं कार्य मदों के दरों को जॉन 17-8-2022 को शीघ्र अगली बैठक में उपस्थापित किया जाय।

(सुजीत कुमार)
सदस्य सचिव

विभागीय अनुसूचित दर निर्धारण समिति-सह-निदेशक,
कृषि गंधार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, विहार, पटना

(ईश्वर चन्द्र ठाकुर)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख (सिंचाई सृजन)
जल संसाधन विभाग, विहार, पटना।

(कुमार जयंत प्रसाद)
सदस्य

विभागीय अनुसूचित दर निर्धारण समिति-सह-
मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, विहार, पटना

(शैलेन्द्र)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(वाढ नियंत्रण एवं जल निरसरण)
जल संसाधन विभाग, विहार, पटना।

(रवीन्द्र कुमार शर्मा)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, विहार, पटना।

बिहार सरकार
जल संसाधन विभाग

दिनांक-19.09.2022 को अभियंता प्रमुख (मुख्यालय) सह-अध्यक्ष विभागीय अनुसूचित दर निर्धारण समिति, जल संसाधन विभाग, बिहार, पटना के कार्यालय कक्ष में आहूत बैठक की कार्यवाही।

उपस्थिति:-

1. ई0 रवीन्द्र कुमार शंकर
अभियंता प्रमुख, मुख्यालय-सह-अध्यक्ष, विभागीय अनुसूचित दर निर्धारण समिति।
2. ई0 शैलेन्द्र,
अभियंता प्रमुख (बाढ़ नियंत्रण एवं जल निस्सरण)-सह-सदस्य, विभागीय अनुसूचित दर निर्धारण समिति।
3. ई0 कुमार जयंत प्रसाद,
मुख्य अभियंता (यांत्रिक)-सह-सदस्य-विभागीय अनुसूचित दर निर्धारण समिति।
4. ई0 सुजीत कुमार,
निदेशक, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय-सह-सदस्य सचिव, विभागीय अनुसूचित दर निर्धारण समिति।

समीक्षा:-

दिनांक-17.08.2022 को विभागीय अनुसूचित दर निर्धारण समिति, जल संसाधन विभाग की बैठक में मुख्य अभियंता, (यांत्रिक), जल संसाधन विभाग, बिहार, पटना के पत्रांक-1393 दिनांक-06.08.2022 द्वारा समर्पित भवन निर्माण विभाग, बिहार एवं भवन निर्माण विभाग (विद्युत), बिहार के अनुमोदित अनुसूचित दर पुस्तिका-2022 के आधार पर तैयार किये गये यांत्रिक/विद्युत से संबंधित सामग्रियों एवं कार्य मदों के दरों की जाँच कर इसे शीघ्र अगली बैठक में उपस्थापित करने हेतु निदेशक, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय, जल संसाधन विभाग, पटना को निदेश दिया गया।


जाँचोपरान्त मुख्य अभियंता, (यांत्रिक) को यांत्रिक/विद्युत से संबंधित सामग्रियों/कार्य मदों का दर (दर विश्लेषण सहित), जो भवन निर्माण विभाग/भवन निर्माण विभाग (विद्युत) में लागू अनुमोदित दर पुस्तिका-2022 के आधार पर तैयार किया गया है, में आवश्यक सुधार कर समर्पित करने का निदेश दिया गया।

मुख्य अभियंता (यांत्रिक) द्वारा आवश्यक सुधार कर अपने पत्रांक-1609 दिनांक-09.09.2022 द्वारा समर्पित करते हुए इसे विभागीय अनुसूचित दर पुस्तिका-2022 में सम्मिलित करने हेतु अनुरोध किया गया है।

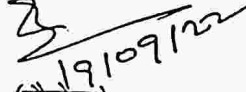
मुख्य अभियंता (यांत्रिक) से प्राप्त कार्य मदों के दर विश्लेषण में Goods & Service Tax (GST) एवं Labour Cess (1%) शामिल नहीं है परन्तु इसमें Contractor Profit (C.P) & Overhead शामिल है, जो जल संसाधन विभाग के अनुमोदित अनुसूचित दर पुस्तिका में वर्णित प्रावधानों के अनुरूप है।

विदित है कि भवन निर्माण विभाग/भवन निर्माण विभाग (विद्युत) के अनुमोदित अनुसूचित दर पुस्तिका-2022 के प्रत्येक कार्य मदों के दर विश्लेषण में Contractor Profit (C.P) & Overhead के अतिरिक्त GST एवं Labour Cess भी सम्मिलित रहता है, जबकि जल संसाधन विभाग के अनुमोदित अनुसूचित दर पुस्तिका में प्रत्येक कार्य मदों के दर विश्लेषण में Contractor Profit (C.P) & Overhead सम्मिलित किया जाता है परन्तु GST एवं Labour Cess को परियोजना की प्रावकलित राशि में सम्मिलित करने का प्रावधान रहता है।

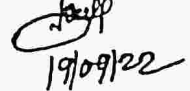
समिति का निर्णय:- विभागीय अनुसूचित दर निर्धारण समिति द्वारा उपर्युक्त समीक्षा के आलोक में मुख्य अभियंता (यांत्रिक), जल संसाधन विभाग, बिहार, पटना द्वारा भवन निर्माण विभाग/भवन निर्माण विभाग (विद्युत), बिहार के अनुमोदित अनुसूचित दर पुस्तिका-2022 के आधार पर तैयार किये गये यांत्रिक/विद्युत से संबंधित सामग्रियों/कार्य मदों के दरों (दर विश्लेषण सहित) को विभागीय अनुसूचित दर पुस्तिका-2022 (जो दिनांक-01.07.2022 से लागू है) में परिशिष्ट के रूप में सम्मिलित कर प्रकाशन करने एवं विभागीय वेबसाईट-<https://wrd.fmiscwrdbihar.gov.in> पर अपलोड करने का निर्णय लिया गया।


19/09/2022
(सुजीत कुमार)
सदस्य सचिव,

विभागीय अनुसूचित दर निर्धारण
समिति-सह-निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, बिहार, पटना


19/09/22
(शैलेन्द्र)
सदस्य,

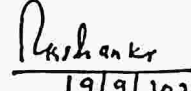
विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(बाढ़ नियंत्रण एवं जल निस्सरण)
जल संसाधन विभाग, बिहार, पटना


19/09/22
(कुमार जयंत प्रसाद)
सदस्य,

विभागीय अनुसूचित दर निर्धारण
समिति-सह-मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, बिहार, पटना

(ईश्वर चन्द्र ठाकुर)
सदस्य,

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(सिंचाई सृजन)
जल संसाधन विभाग, बिहार, पटना।


19/9/2022
(रवीन्द्र कुमार शंकर)
अध्यक्ष,

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, बिहार, पटना

Chapter - I (Labour Rate)

SCHEDULE - I Date: 19-04-2022						
Approved Schedule of Rates for labour engaged in construction & maintenance of Roads						
Sl. No.	Category of Employees	Lab. Deptt. Memo No. 1050/ 24.03.2020.	Lab. Deptt. Memo No. 2620 Dated 21.09.2020	Lab. Deptt. Notification No. 5/MW. 40-16/2021-1231/L&R Dated 31.03.2021.	Lab. Deptt. Notification No. 5/MW. 40-16/2021-L&R 2847 Dated 30.09.2021.	Lab. Deptt. Notification No. 5/MW. 40-16/2021-L&R 992 Dated 30.03.2022.
1	2	3	(1.01595xcl.3) 4	(1.03582xcl.4) 5	(1.01249xcl.5) 6	(1.0360xcl.6) 7
1	Unskilled labour	287.00	292.00	304.00	306.00	318.00
2	Sweeper	287.00	292.00	304.00	306.00	318.00
3	Mistry	287.00	292.00	304.00	306.00	318.00
4	Cleaner	287.00	292.00	304.00	306.00	318.00
5	Helper	287.00	292.00	304.00	306.00	318.00
6	Khalasi/Chainman	287.00	292.00	304.00	306.00	318.00
7	Marker	364.00	370.00	383.00	388.00	402.00
8	Fitter grade-I	395.00	401.00	415.00	420.00	435.00
	Fitter grade-II	345.00	351.00	364.00	369.00	382.00
9	Turner	345.00	351.00	364.00	369.00	382.00
10	Mechanic grade-I	444.00	451.00	467.00	473.00	490.00
	Mechanic grade-II	413.00	420.00	435.00	440.00	456.00
11	Electrician grade-I	367.00	373.00	386.00	391.00	405.00
	Electrician grade-II	345.00	351.00	364.00	369.00	382.00
12	Lineman/Wireman	333.00	338.00	350.00	354.00	367.00
13	Chargeman	413.00	420.00	435.00	440.00	456.00
14	Foreman	488.00	496.00	514.00	520.00	539.00
15	Welder grade-I	434.00	441.00	457.00	463.00	480.00
	Welder grade-II	367.00	373.00	386.00	391.00	405.00
16	Glazier	323.00	328.00	340.00	344.00	356.00
17	Carpenter	345.00	351.00	364.00	369.00	382.00
18	Head Carpenter	388.00	394.00	408.00	413.00	428.00
19	Checker	349.00	355.00	368.00	373.00	386.00
20	Hammerman	302.00	307.00	318.00	322.00	334.00
21	Tin smith	395.00	401.00	415.00	420.00	435.00
22	Tin plate maker	413.00	420.00	435.00	440.00	456.00
23	Black Smith	345.00	351.00	364.00	369.00	382.00
24	Head black smith	388.00	394.00	408.00	413.00	428.00
25	Tile layer	305.00	310.00	321.00	325.00	337.00
26	Thatcher	305.00	310.00	321.00	325.00	337.00
27	P plumber	367.00	373.00	386.00	391.00	405.00
28	Grader	349.00	355.00	368.00	373.00	386.00
29	Road binder	323.00	328.00	340.00	344.00	356.00
30	Mason	345.00	351.00	364.00	369.00	382.00
31	Head Mason	388.00	394.00	408.00	413.00	428.00
32	Stone layer	345.00	351.00	364.00	369.00	382.00
33	Tarman	302.00	307.00	318.00	322.00	334.00
34	Fireman	305.00	310.00	321.00	325.00	337.00
35	Grinder	345.00	351.00	364.00	369.00	382.00
36	Gas cutter	364.00	370.00	383.00	388.00	402.00
37	Rigger	349.00	355.00	368.00	373.00	386.00
38	Sarang	413.00	420.00	435.00	440.00	456.00
39	Chipper-cum-rivetter	364.00	370.00	383.00	388.00	402.00
40	Tractor operator	413.00	420.00	435.00	440.00	456.00
41	Dozer operator grade-I	488.00	496.00	514.00	520.00	539.00
	Dozer operator grade-II	434.00	441.00	457.00	463.00	480.00
42	Dumper operator	414.00	421.00	436.00	441.00	457.00
43	Vibrator Operator	321.00	326.00	338.00	342.00	354.00
44	Pump driver grade-I	367.00	373.00	386.00	391.00	405.00
	Pump driver grade-II	345.00	351.00	364.00	369.00	382.00
45	Dragline operator grade-I	488.00	496.00	514.00	520.00	539.00
	Dragline operator grade-II	434.00	441.00	457.00	463.00	480.00

46	Concrete mixer operator grade-I	367.00	373.00	386.00	391.00	405.00
	Concrete mixer operator grade-II	345.00	351.00	364.00	369.00	382.00
47	Compressor operator grade-I	367.00	373.00	386.00	391.00	405.00
	Compressor operator grade-II	345.00	351.00	364.00	369.00	382.00
48	Earth excavator				0.00	0.00
	(a) For every 110 cu. ft for soft earth	285.00	290.00	300.00	304.00	315.00
	(b) For every 100 cu. ft for hard earth	285.00	290.00	300.00	304.00	315.00
	(c) For every 90 cu. ft for highly hard earth	285.00	290.00	300.00	304.00	315.00
49	Truck driver	413.00	420.00	435.00	440.00	456.00
50	Car/Jeep driver	364.00	370.00	383.00	388.00	402.00
51	Crane operator grade-I	488.00	496.00	514.00	520.00	539.00
	Crane operator grade-II	434.00	441.00	457.00	463.00	480.00
52	Winch operator	367.00	373.00	386.00	391.00	405.00
53	Road roller driver	498.00	506.00	524.00	531.00	550.00
54	Blastor	477.00	485.00	502.00	508.00	526.00
55	Painter grade-I	367.00	373.00	386.00	391.00	405.00
56	Polisher	305.00	310.00	321.00	325.00	337.00
57	Peon / Darvan / Choukidar	302.00	307.00	318.00	322.00	334.00
58	Clerk / Typist / Typist clerk	341.00	346.00	358.00	362.00	375.00
59	Time keeper	341.00	346.00	358.00	362.00	375.00
60	Store Assistant / Storeman	369.00	375.00	388.00	393.00	407.00
61	Store head	351.00	357.00	370.00	375.00	389.00
62	Material chaser	351.00	357.00	370.00	375.00	389.00
63	Male and Road male	305.00	310.00	321.00	325.00	337.00
64	Munshi	321.00	326.00	338.00	342.00	354.00
65	Work Supervisor	323.00	328.00	340.00	344.00	356.00
66	Amin	341.00	346.00	358.00	362.00	375.00
67	Surveyor	349.00	355.00	368.00	373.00	386.00
68	Supervisory diploma holder	468.00	475.00	492.00	498.00	516.00
69	Supervisory non-diploma holder	345.00	351.00	364.00	369.00	382.00
70	Any other category of semi-skilled workers not mentioned above	299.00	304.00	316.00	316.00	330.00
71	Any other category of skilled workers not mentioned above	364.00	370.00	385.00	388.00	403.00
72	Highly skilled labour	444.00	451.00	470.00	474.00	492.00

1. The above rates has been calculated as 3.601% Increase vide Labour Dept. Notification No. 5/M.W. 40-16/2021-
 Note:- L&R-992 Dated 30.03.2022. i.e(1.0360xcolumn 6).

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर
 निर्धारण समिति-सह-अभियंता प्रमुख,
 पवन निर्माण विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर
 निर्धारण समिति-सह-अभियंता प्रमुख, यागीण
 कार्य विभाग,
 बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख, लघु
 जल संसाधन विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर
 निर्धारण समिति-सह-मुख्य अभियंता
 (असे), बिहार स्टेट पावर होल्डिंग
 कंपनी लिमिटेड, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर
 निर्धारण समिति-सह-मुख्य अभियंता
 (विद्युत), पवन निर्माण विभाग, बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख, तकनीकी
 परीक्षक कोषांग, नियंत्रणी विभाग,
 बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर
 निर्धारण समिति-सह-अभियंता प्रमुख,
 लोक स्वास्थ्य अभियंत्रण विभाग,
 बिहार, पटना।

[Signature]
 सदस्य,
 राज्यस्तरीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख, (मुख्यालय) जल
 संसाधन विभाग,
 बिहार, पटना।

[Signature]
 संयोजक,
 राज्यस्तरीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख,
 (मुख्यालय) पथ निर्माण विभाग,
 बिहार, पटना।

SCHEDULE - II Date:-19-04-2022.						
Approved Schedule of Rates for labour engaged in Dam construction & Irrigation works						
Sl. No.	Category of Employees	Minimum Rates of wages per day as per				
		Lab. Deptt. Memo No. 1050/24.03.2020.	Lab. Deptt. Memo No.2620 Dated 21.09.2020.	Lab. Deptt. Notification No. 5/MW. 4016/2021-1231/L&R Dated 31.03.2021.	Lab. Deptt. Notification No.5/MW. 40-16/2021-L&R 2847 Dated 30.09.2021.	Lab. Deptt. Notification No.5/MW. 40-16/2021-L&R 992 Dated 30.03.2022.
1	2	3	4 (1.01595xcl.3)	5 (1.03582xcl.4)	6 (1.01249xcl.5)	7 (1.0360xcl.6)
1	Unskilled labour	287.00	292.00	304.00	308.00	318.00
2	Molo	311.00	316.00	327.00	331.00	343.00
3	Head Mason	388.00	394.00	408.00	413.00	428.00
4	Mason	345.00	351.00	364.00	369.00	382.00
5	Printer Class-I	367.00	373.00	386.00	391.00	405.00
6	Printer Class-II	345.00	351.00	364.00	369.00	382.00
7	Head Carpenter	388.00	394.00	408.00	413.00	428.00
8	Carpenter	345.00	351.00	364.00	369.00	382.00
9	Head black smith	388.00	394.00	408.00	413.00	428.00
10	Black Smith	345.00	351.00	364.00	369.00	382.00
11	Glazier	305.00	310.00	321.00	325.00	337.00
12	Stone Dresser	367.00	373.00	386.00	391.00	405.00
13	Water Carrier	285.00	290.00	300.00	304.00	315.00
14	Filter Class-I	395.00	401.00	415.00	420.00	435.00
15	Filter Class-II	345.00	351.00	364.00	369.00	382.00
16	Helper	302.00	307.00	318.00	322.00	334.00
17	Hammer man	302.00	307.00	318.00	322.00	334.00
18	Bellowman	285.00	290.00	300.00	304.00	315.00
19	Road Roller Driver	498.00	506.00	524.00	531.00	550.00
20	Concrete Mixer Operator, Class-I	367.00	373.00	386.00	391.00	405.00
21	Concrete Mixer Operator, Class-II	345.00	351.00	364.00	369.00	382.00
22	Stone Crusher Driver, Class-I	367.00	373.00	386.00	391.00	405.00
23	Stone Crusher Driver, Class-II	345.00	351.00	364.00	369.00	382.00
24	Truck Driver	413.00	420.00	435.00	440.00	456.00
25	Compressor Operator, Class-I	367.00	373.00	386.00	391.00	405.00
26	Compressor Operator, Class-II	345.00	351.00	364.00	369.00	382.00
27	Pump Driver, Class-I	367.00	373.00	386.00	391.00	405.00
28	Pump Driver, Class-II	345.00	351.00	364.00	369.00	382.00
29	Concrete Mixer Attendant	302.00	307.00	318.00	322.00	334.00
30	Cleaner or Oilman	294.00	299.00	310.00	314.00	325.00
31	Tar Boiler Man	345.00	351.00	364.00	369.00	382.00
32	Plumber	367.00	373.00	386.00	391.00	405.00
33	Thatcher	305.00	310.00	321.00	325.00	337.00
34	Khatasi / Chainman	305.00	310.00	321.00	325.00	337.00
35	Sweeper	294.00	299.00	310.00	314.00	325.00
36	Watchman	294.00	299.00	310.00	314.00	325.00
37	Stone Breaker	294.00	299.00	310.00	314.00	325.00
38	Work Sarkar	323.00	328.00	340.00	344.00	356.00
39	Time Keeper	341.00	346.00	358.00	362.00	375.00
40	Welder, Grade-I	434.00	441.00	457.00	463.00	480.00
41	Welder, Grade-II	367.00	373.00	386.00	391.00	405.00
42	Wireman/Lineman	333.00	338.00	350.00	354.00	367.00
43	Mechanic, Grade-I	444.00	451.00	467.00	473.00	490.00
44	Mechanic, Grade-II	413.00	420.00	435.00	440.00	456.00
45	Sarang	413.00	420.00	435.00	440.00	456.00
46	Drill Operator	345.00	351.00	364.00	369.00	382.00
47	Tractor Operator	413.00	420.00	435.00	440.00	456.00
48	Gauge Reader-cum-silt Observer	302.00	307.00	318.00	322.00	334.00
49	Crane Operator, Grade-I	488.00	496.00	514.00	520.00	539.00
50	Crane Operator, Grade-II	434.00	441.00	457.00	463.00	480.00

51	Dragline / Scraper / Showel Operator Grade-I	488.00	496.00	514.00	520.00	539.00
52	Dragline/Scraper/Showel Operator Grade-II	434.00	441.00	457.00	463.00	480.00
53	Dumper Operator	414.00	421.00	436.00	441.00	457.00
54	Foreman	488.00	496.00	514.00	520.00	539.00
55	Junior Forman	434.00	441.00	457.00	463.00	480.00
56	Chargeman	414.00	421.00	436.00	441.00	457.00
57	Electrician, Grade-I	367.00	373.00	386.00	391.00	405.00
58	Electrician, Grade-II	345.00	351.00	364.00	369.00	382.00
59	Electrician, Grade-III	302.00	307.00	318.00	322.00	334.00
60	Turner	345.00	351.00	364.00	369.00	382.00
61	Compounder	345.00	351.00	364.00	369.00	382.00
62	Supervisor / (Diploma holder)	468.00	475.00	492.00	498.00	516.00
63	Surveyer / Supervisor	345.00	351.00	364.00	369.00	382.00
64	Blue Printer	302.00	307.00	318.00	322.00	334.00
65	Tracer	302.00	307.00	318.00	322.00	334.00
66	Vibrator Operator	321.00	326.00	338.00	342.00	354.00
67	Clork / Typist / Typist Clerk	341.00	346.00	358.00	362.00	375.00
68	Earth Excavator,				0.00	0.00
	(a) For every 110 cubic feet of soft earth	285.00	290.00	300.00	304.00	315.00
	(b) For every 100 cubic feet of hard earth	285.00	290.00	300.00	304.00	315.00
	(c) For every 90 cubic feet of highly hard earth	285.00	290.00	300.00	304.00	315.00
69	Any other category of semi-skilled workers not mentioned above	299.00	304.00	316.00	318.00	330
70	Any other category of skilled workers not mentioned above	364.00	370.00	385.00	388.00	403
71	Highly skilled labour	444.00	451.00	470.00	474.00	492

Note:- 1. The above rates has been calculated as 3.601% Increase vide Labour Dept. Notification No. 5/M.W. 40-16/2021-L&R-992 Dated 30.03.2022. I.e(1.0360xcolumn 6).

सदस्य,
19-4-22
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता प्रमुख,
गवन निर्माण विभाग, बिहार, पटना।

सदस्य,
19/4/22
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख, ग्रामीण
कार्य विभाग, बिहार, पटना।

सदस्य,
19/4/22
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख, लघु
जल संसाधन विभाग, बिहार, पटना।

सदस्य,
19-4-22
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति-सह-मुख्य अभियंता
(अरीओ), बिहार स्टेट पावर लिमिटेड,
कंपनी लिमिटेड, बिहार, पटना।

सदस्य,
19/4/22
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति-सह-मुख्य अभियंता
(विद्युत), गवन निर्माण विभाग,
बिहार, पटना।

सदस्य,
19-4-22
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख, तकनीकी परीक्षक कोषांग,
निगरानी विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग,
बिहार, पटना।

सदस्य,
19/4/22
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख,
(मुख्यालय) जल संसाधन विभाग,
बिहार, पटना।

संयोजक
19.4.22
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता
प्रमुख,(मुख्यालय) पथ निर्माण विभाग,
बिहार, पटना।

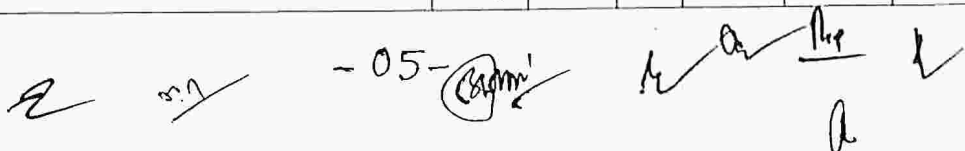
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CHAPTER-II

Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should conform to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
The rates are exclusive of all taxes, GST , Labour Cess, Contractor's profit and overhead charges.								
1		Cement (as per T.E.C Letter No.23 dated 28.02.06, capacity of one bag of cement = 0.034 Cum)						
M-1		(i) Ordinary Portland Cement (O.P.C-43 Grade) (Unit-Per bag of 50 kg) approved by State Level schedule rate Committee for the year 2022-23 (for preparation of schedule of rate only) - Materials should conform to relevant BIS/IRC/MORT&H Specifications. (Rate are exclusive of GST @28% OH & CP					Per M ³	
		Patna	Per bags	257.80	-	257.80	7582.35	RCD SOR 2022
		Muzaffarpur	Per bags	253.90	-	253.90	7467.65	
		Darbhanga	Per bags	257.80	-	257.80	7582.35	
		Bhagalpur	Per bags	253.90	-	253.90	7467.65	
		Munger	Per bags	253.90	-	253.90	7467.65	
		Saharsa	Per bags	257.80	-	257.80	7582.35	
		Purnea	Per bags	257.80	-	257.80	7582.35	
		Gaya	Per bags	244.10	-	244.10	7179.41	
		Saran	Per bags	253.50	-	253.50	7455.88	
M-2		(ii) Ordinary Portland Cement (O.P.C-33 Grade) (Unit-Per bag of 50 kg)						
		Patna	Per bags	-	-	-	#VALUE!	RCD SOR 2022
		Muzaffarpur	Per bags	-	-	-	#VALUE!	
		Darbhanga	Per bags	-	-	-	#VALUE!	
		Bhagalpur	Per bags	-	-	-	#VALUE!	
		Munger	Per bags	-	-	-	#VALUE!	
		Saharsa	Per bags	-	-	-	#VALUE!	
		Purnea	Per bags	-	-	-	#VALUE!	
		Gaya	Per bags	-	-	-	#VALUE!	
		Saran	Per bags	-	-	-	#VALUE!	
M-3A		(iii) Portland Pozzolana Cement (P.P.C) (Unit-Per bag of 50 kg) approved by State Level Committee for the year 2022-23 (for preparation of schedule of rate only) - Materials should conform to relevant BIS/IRC/MORT&H Specifications.						
		Patna	Per bags	210.90	-	210.90	6202.94	RCD SOR 2022
		Muzaffarpur	Per bags	203.70	-	203.70	5991.18	
		Darbhanga	Per bags	203.70	-	203.70	5991.18	
		Bhagalpur	Per bags	210.90	-	210.90	6202.94	
		Munger	Per bags	209.00	-	209.00	6147.06	
		Saharsa	Per bags	207.40	-	207.40	6100.00	
		Purnea	Per bags	214.40	-	214.40	6305.88	
		Gaya	Per bags	185.60	-	185.60	5458.82	
		Saran	Per bags	206.20	-	206.20	6064.71	
M-3B		(iv) Portland Slag Cement (P.S.C) (Unit-Per bag of 50 kg) approved by State Level Committee for the year 2022-23 (for preparation of schedule of rate only)-Materials should conform to relevant BIS/IRC/MORT&H Specifications.						
		Patna	Per bags	230.50	-	230.50	6779.41	RCD SOR 2022
		Muzaffarpur	Per bags	229.30	-	229.30	6744.12	
		Darbhanga	Per bags	224.60	-	224.60	6605.88	
		Bhagalpur	Per bags	229.90	-	229.90	6761.76	
		Munger	Per bags	221.10	-	221.10	6502.94	
		Saharsa	Per bags	228.30	-	228.30	6714.71	

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference		
1	2	3	4	5	6	7	8	9	
		Purnea	Per bags	224.60	-	224.60	6605.88	RCD SOR 2022	
		Gaya	Per bags	220.40	-	220.40	6482.35		
		Saran	Per bags	226.80	-	226.80	6670.59		
2	M-4	BITUMEN- List of Rates of Different Grades of Bitumen approved by state level Schedule rate committee for the year 2022-23 for the preparation of Schedule rates only. Materials should confirm to relevant BIS/ IRC/ MORTH Specification (Rate are exclusive of GST @18% OH & CP							RCD SOR 2022
	a	Bitumen Grade VG - 40 (30/40) Packed			-				
		(i) Ex. Haldia	Per M.T	input	-	#VALUE!			
		(ii) Ex Barauni	Per M.T	59554.00	-	59554.00			
		(iii) Ex Giddha	Per M.T	input	-	#VALUE!			
		(iv) Ex. Fatuha	Per M.T	59235.00	-	59235.00			
		(v) Ex Muzaffarpur	Per M.T	59535.00	-	59535.00			
		(vi) Ex Gaya	Per M.T	58998.00	-	58998.00			
	b	Bitumen Grade VG 30 (60/70) Packed			-				
		(i) Ex Barauni	Per M.T	56414.00	-	56414.00			
		(ii) Ex Gaya	Per M.T	56048.00	-	56048.00			
		(iii) Ex Fatuha	Per M.T	56285.00	-	56285.00			
		(iv) Ex. Muzaffarpur	Per M.T	54985.00	-	54985.00			
		(v) Ex. Jasidih	Per M.T	input	-	input			
	c	Bitumen Grade VG10 (80/100) Packed			-				
		(i) Ex Barauni	Per M.T	55614.00	-	55614.00			
		(ii) Ex Gaya	Per M.T	55248.00	-	55248.00			
		(iii) Ex Fatuha	Per M.T	55485.00	-	55485.00			
		(iv) Ex. Jasidih	Per M.T	input	-	input			
		(v) Ex Muzaffarpur	Per M.T	54185.00	-	54185.00			
	d	Bitumen Grade VG- 40 (30/40) Bulk			-				
		(i) Ex. Haldia	Per M.T	input	-	#VALUE!			
		(ii) Ex Barauni	Per M.T	52562.00	-	52562.00			
	e	Bitumen Grade VG - 30 (60/70) Bulk			-				
		(i) Ex Haldia	Per M.T	input	-	#VALUE!			
		(ii) Ex Barauni	Per M.T	49702.00	-	49702.00			
	f	Bitumen Grade VG - 10 (80/100) Bulk			-				
		(i) Ex Haldia	Per M.T	input	-	#VALUE!			
		(ii) Ex Barauni	Per M.T	48902.00	-	48902.00			
	g	Modified Graded Bitumen			-				
		(i) CRMB- 50 Packed Ex Barauni	Per M.T	input	-	#VALUE!			
		(ii) CRMB- 50 Packed Ex Muzaffarpur	Per M.T	input	-	#VALUE!			
		(iii) CRMB- 50 Packed Ex Gaya	Per M.T	input	-	#VALUE!			
		(iv) CRMB- 50 Packed Ex Patna	Per M.T	input	-	#VALUE!			
		(v) CRMB- 55 Packed Ex Barauni	Per M.T	input	-	input			
		(vi) CRMB- 55 Packed Ex Gaya	Per M.T	53728.00	-	53728.00			
		(vii) CRMB- 55 Packed Ex Fatuha	Per M.T	53965.00	-	53965.00			
		(viii) CRMB- 55 Packed Ex Muzaffarpur	Per M.T	54265.00	-	54265.00			
		(ix) CRMB- 60 Packed Ex Barauni	Per M.T	input	-	#VALUE!			
		(x) CRMB- 60 Packed Ex Patna	Per M.T	input	-	#VALUE!			
		(xi) CRMB- 60 Packed Ex Muzaffarpur	Per M.T	input	-	#VALUE!			

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
		(xii)CRMB -60 Packed Ex Gaya	Per M.T	input	-	#VALUE!		
	h	Bitumen Emulsion			-			
		(A) RS1 (packed) HDPE			-			
		(i) Ex. Patna	Per M.T	52919.00	-	52919.00		
		(ii) Ex. Gaya	Per M.T	52769.00	-	52769.00		
		(iii) Ex. Muzaffarpur	Per M.T	53219.00	-	53219.00		
		(B) MS (packed) HDPE			-			
		(i) Ex. Patna	Per M.T	55302.00	-	55302.00		
		(ii) Ex. Gaya	Per M.T	55152.00	-	55152.00		
		(iii) Ex. Muzaffarpur	Per M.T	55602.00	-	55602.00		
		(c) SS1 (Packed) HDPE			-			
		(i) Ex Patna	Per M.T	54270.00	-	54270.00		
		(ii) Ex.Gaya	Per M.T	54120.00	-	54120.00		
		(iii)Ex.Muzaffarpur	Per M.T	54570.00	-	54570.00		
3	0368	White Cement	Per Tonne	11200.00	-	11200.00	BCD	
4	M-5	G.C sheets thickness in mm (Rate are exclusive of GST @18% OH & CP			-			
		ii 0.63	Per M.T	93823.73	-	93823.73		
		iii 0.50	Per M.T	95415.25	-	95415.25		
		iv. 0.40	Per M.T	97272.03	-	97272.03		
		v. 0.35	Per M.T	99925.42	-	99925.42		
5	M-6	Wire Rod in COIL			-			
		(i) 5.5mm	Per M.T	57900.00	-	57900.00		
		(ii)6.0 mm	Per M.T	input	-	input		
		(iii) 6.5 mm	Per M.T	input	-	input		
		(iv) 7.0 mm	Per M.T	59000.00	-	59000.00		
		(v) 8.00 mm	Per M.T	58900.00	-	58900.00		
		(vi)10.0 mm	Per M.T	input	-	input		
		(vii)12.0/12.7 mm	Per M.T	input	-	input		
6	M-7	Joist size in mm			-			
		iv. 200x100	Per M.T	49500.00	-	49500.00	BCD	
		vi. 250x125	Per M.T	49500.00	-	49500.00	BCD	
		vii 300x140	Per M.T	49500.00	-	49500.00	BCD	
	1007A	ix 400x140	Per M.T	49500.00	-	49500.00	BCD	
		x 450 x 150	Per M.T	49500.00	-	49500.00	BCD	
		xii 600x210	Per M.T	49500.00	-	49500.00	BCD	
7	M-8	Steel Channel size in mm			-			
		i. 75x40	Per M.T	51200.00	-	51200.00	BCD	
		ii. 100 x 50	Per M.T	56400.00	-	56400.00	RCD 2022	
		iii 125 x 65	Per M.T	51200.00	-	51200.00	BCD	
		iv. 150 x 75	Per M.T	56400.00	-	56400.00	RCD 2022	
	1007B	v 175x75	Per M.T	51200.00	-	51200.00	BCD	
		vi. 200 x 75	Per M.T	51200.00	-	51200.00	BCD	
		vii 250 x 82	Per M.T	51200.00	-	51200.00	BCD	
		viii 300 x 90	Per M.T	51200.00	-	51200.00	BCD	
		ix 400 x 100	Per M.T	51200.00	-	51200.00	BCD	

RCD SOR 2022

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Peparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
8	M-9	Steel Angle size in mm			-			
	1007C	i) 50 x50 x6	Per M.T	56100.00	-	56100.00	RCD	RCD SOR 2022
		ii) 60 x 60 x6	Per M.T	50900.00	-	50900.00	BCD	As per state level SDR committee dt. 22.11.2021 & 07.12.2021 item (ii)
		iii) 65x65x6	Per M.T	50900.00	-	50900.00	BCD	
		iv) 75 x75 x6/10	Per M.T	50900.00	-	50900.00		
		v) 80 x80 x8 /10 /12	Per M.T	50900.00	-	50900.00	BCD	
		vi) 90x90x6/8	Per M.T	50900.00	-	50900.00	BCD	
		vii) 100x100 x 8 /10 /12	Per M.T	50900.00	-	50900.00		
		viii) 110x110 x 8 /10 /12	Per M.T	50900.00	-	50900.00	BCD	
		ix) 130 x130 x10 /12	Per M.T	50900.00	-	50900.00	BCD	
		x) 150x150 x12 /16/20	Per M.T	50900.00	-	50900.00	BCD	
		xi) 200 x200 x16 /18 /20	Per M.T	50900.00	-	50900.00	BCD	
9	M-10A	Steel T.M.T bars			-			
	1005	T.M.T Fe -500D- 8 mm	Per M.T	56441.00	-	56441.00		RCD SOR 2022
		T.M.T Fe -500D- 10 mm	Per M.T	55085.00	-	55085.00		
		T.M.T Fe -500D-12 mm	Per M.T	54492.00	-	54492.00		
		T.M.T Fe -500D- 16 mm	Per M.T	54492.00	-	54492.00		
		T.M.T Fe -500D-20 mm	Per M.T	54492.00	-	54492.00		
		T.M.T Fe -500D-25 mm	Per M.T	54492.00	-	54492.00		
		T.M.T Fe -500D-28 mm	Per M.T	54492.00	-	54492.00		
		T.M.T Fe -500D- 32 mm	Per M.T	54492.00	-	54492.00		
		T.M.T Fe -500D- 36 mm	Per M.T	46700.00	-	46700.00	BCD	

Material at Serial No. 10 to 71- The rates are exclusive of all taxes,GST, Labour cess, Contrator's Profit and overhead charges but inclusive of royalty

S.No.	Ref. Code No	NAME OF MATERIALS	Unit	Basic Rate	Royalty	Basic Rate including Royalty for SOR 2022-23		
1	2	3	4	5	6	7	8	
10	M-11	100A Bricks (Rate of 13.03.2018 of SLSRC)						
	a	(i) For Urban Patna	Per 1000 nos	6024.00	45.00	6069.00		RCD SOR 2022
		(ii) For Darbhanga,Bhagalpur,Munger &Muzaffarpur	Per 1000 nos	5078.00	45.00	5123.00		
		(iii) For Gaya & Saran	Per 1000 nos	4802.00	45.00	4847.00		
		(iv) For Saharsa	Per 1000 nos	5217.00	45.00	5262.00		
		(v) For Purnea	Per 1000 nos	5495.00	45.00	5540.00		
		(vi) For Rural Patna	Per 1000 nos	5010.00	45.00	5055.00		

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference
1	2	3	4	5	6	7	8
	b	(ii) 100B Bricks					
		(i) For Urban Patna	Per 1000 nos	5588.00	45.00	5633.00	RCD SOR 2022
		(ii) For Darbhanga, Baghalpur, Munger & Muzaffarpur	Per 1000 nos	4662.00	45.00	4707.00	
		(iii) For Gaya & Saran	Per 1000 nos	4387.00	45.00	4432.00	
		(iv) For Saharsa	Per 1000 nos	4802.00	45.00	4847.00	
		(v) For Purnea	Per 1000 nos	5078.00	45.00	5123.00	
		(vi) For Rural Patna	Per 1000 nos	4575.00	45.00	4620.00	
	c	(iii) Bricks Tiles (300mmx150mmx50mm)					
		(i) For Urban Patna and Rural Patna	Per 1000 nos	6024.00	45.00	6069.00	RCD SOR 2022
		(ii) For Saharsa, Bhagalpur, Darbhanga, & Muzaffarpur	Per 1000 nos	6049.00	45.00	6094.00	
		(iii) For Purnea	Per 1000 nos	6327.00	45.00	6372.00	
		(iv) For Other Places	Per 1000 nos	5771.00	45.00	5816.00	
	d	Picket Jhama Brick					
		(i) For Urban Patna	Per 1000 nos	5156.00	45.00	5201.00	RCD SOR 2022
		(ii) For Darbhanga, Bhagalpur, Munger & Muzaffarpur	Per 1000 nos	4248.00	45.00	4293.00	
		(iii) For Gaya & Saran	Per 1000 nos	3966.00	45.00	4011.00	
		(iv) For Purnea	Per 1000 nos	4662.00	45.00	4707.00	
		(v) For Saharsa	Per 1000 nos	4387.00	45.00	4432.00	
		(vi) For Rural Patna	Per 1000 nos	4151.00	45.00	4196.00	
	e	Brick Bats					
		(i) For Urban Patna	Per M ³	1056.00	18.00	1074.00	RCD SOR 2022
		(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per M ³	1013.00	18.00	1031.00	
		(iii) For Rural Patna	Per M ³	1012.00	18.00	1030.00	
		(iv) For Other Places	Per M ³	968.00	18.00	986.00	
	f	Jhama metal					
		(a) 63mm to 40mm size					RCD SOR 2022
		(i) For Urban Patna	Per M ³	1257.00	18.00	1275.00	
		(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per M ³	1203.00	18.00	1221.00	
		(iii) For Rural Patna	Per M ³	1228.00	18.00	1246.00	
		(iv) For Other Places	Per M ³	1178.00	18.00	1196.00	
		(b) 40mm to 20mm size					
		(i) For Urban Patna	Per M ³	1401.00	18.00	1419.00	
		(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per M ³	1342.00	18.00	1360.00	
		(iii) For Rural Patna	Per M ³	1358.00	18.00	1376.00	
		(iv) For Other Places	Per M ³	1303.00	18.00	1321.00	
		(c) 20mm & down size					
		(i) For Urban Patna	Per M ³	1605.00	18.00	1623.00	
		(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per M ³	1537.00	18.00	1555.00	

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
		(iii) For Rural Patna	Per M ³	1548.00	18.00	1566.00		RCD SOR 2022
		(iv) For Other Places	Per M ³	1483.00	18.00	1501.00		
11	g	Surkhi						RCD SOR 2022
		(i) For Urban Patna	Per M ³	1662.00	18.00	1680.00		
		(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per M ³	1594.00	18.00	1612.00		
		(iii) For Rural Patna	Per M ³	1606.00	18.00	1623.00		
		(iv) For Other Places	Per M ³	1537.00	18.00	1555.00		
12	1157	stone for masonry work	Per M ³	950.00	150.00	1100.00	BCD	As per SLSORC 22.11.2021
13	1158	Stone for pitching 15cmX22.5cm	Cum	450.00	150.00	600.00	BCD	
14		Ashlar stone masonry	Per M ³	input	150.00	value		
15	M-001	Stone Boulder of size 150 mm and below at source Quarry.	Per M ³	525.00	150.00	675.00		RCD SOR 2022
16	M-002	Supply of quarried stone 150 - 200 mm size for Hand Broken at source quarry	Per M ³	525.00	150.00	675.00		
17	M-003	Boulder with minimum size of 300 mm for Pitching at source quarry	Per M ³	525.00	150.00	675.00		
18	M-004	Coarse sand (i) at source quarry Koliwar/Sone sand	Per M ³	419.00	75.00	494.00		RCD SOR 2022
19	M-005	Coarse sand (ii) Equivalent to koliwar/Sone sand at source quarry	Per M ³	419.00	75.00	494.00		
20	M-006	Fine sand at source	Per M ³	68.32	75.00	143.32		
21	M-007	Moorum at source quarry	Per M ³	77.00	83.00	160.00		
22	M-008	Gravel/Quarry spall at Source Quarry	Per M ³	205.79	150.00	355.79		
23		River bed material (30 % sand And 70 % Quarry spall)	Per M ³	164.55	127.50	292.05		
24		River bed material (50% sand And 50% Quarry spall)	Per Cum	137.06	112.50	249.56		
25	M-009	Granular Material or hard murrum for GSB works at source quarry.	Per M ³	82.30	83.00	165.30		
26	M-055	Crushing of Stone aggregates (GSB Crusher Run)	Cum	450.00	150.00	600.00		
27	M-010	Fly ash conforming to IS: 3012 (Part II & I) at HMP Plant/ Batching plant/ crushing plant	Per M ³	NIL	0.00	NIL		
28	M-011	Filter media/Filter Material as per Table 300-3 (MoRT&H Specification) at Crusher.	Per M ³	528.14	150.00	678.14		
29	M-012	Close graded Granular sub-base Material 53 mm to 9.5 mm/4.75mm at Crusher	Per M ³	765.67	150.00	915.67		
30	M-013	Close graded Granular sub-base Material 37.5 mm to 9.5 mm at Crusher	Per M ³	765.67	150.00	915.67		
31	M-014	Close graded Granular sub-base Material 26.5 mm to 9.5 mm at Crusher	Per M ³	736.00	150.00	886.00		
32	M-015	Close graded Granular sub-base Material 9.5 mm to 4.75 mm at Crusher	Per M ³	436.00	150.00	586.00		
33	M-016	Close graded Granular sub-base Material 9.5 mm to 2.36 mm at Crusher	Per M ³	274.21	150.00	424.21		
34	M-017	Close graded Granular sub-base Material 4.75mm to 2.36 mm at Crusher	Per M ³	112.42	150.00	262.42		
35	M-018	Close graded Granular sub-base Material 4.75mm to 75 micron at Crusher	Per M ³	112.42	150.00	262.42		
36	M-019	Close graded Granular sub-base Material 2.36 mm & below at Crusher	Per M ³	112.42	150.00	262.42		
37	M-020	Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve. at Crusher	Per M ³	112.42	150.00	262.42		
38	M-021	Coarse graded Granular sub-base Material 2.36 mm & below at Crusher	Per M ³	112.42	150.00	262.42		
39	M-022	Coarse graded Granular sub-base Material 4.75mm to 75 micron at Crusher	Per M ³	112.42	150.00	262.42		
40	M-023	Coarse graded Granular sub-base Material 4.75 mm to 2.36mm at Crusher	Per M ³	112.42	150.00	262.42		

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference		
1	2	3	4	5	6	7	8	9	
41	M-024	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm at Crusher	Per M ³	436.00	150.00	586.00		RCD SOR 2022	
42	M-025	Coarse graded Granular sub-base Material 26.5 mm to 4.75 mm at Crusher	Per M ³	736.00	150.00	886.00			
43	M-026	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm at Crusher	Per M ³	736.00	150.00	886.00			
44	M-027	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm at Crusher	Per M ³	765.67	150.00	915.67			
45	M-028	Coarse graded Granular sub-base Material 53 mm to 26.5mm at Crusher	Per M ³	930.50	150.00	1080.50			
46	M-029	Aggregates below 5.6 mm at Crusher	Per M ³	274.21	150.00	424.21			
47	M-030	Aggregates 22.4 mm to 2.36 mm at Crusher	Per M ³	528.14	150.00	678.14			
48	M-031	Aggregates 22.4 mm to 5.6 mm at Crusher	Per M ³	736.00	150.00	886.00			
49	M-032	Aggregates 45 mm to 2.8 mm at Crusher	Per M ³	602.36	150.00	752.36			
50	M-033	Aggregates 45 mm to 22.4 mm at Crusher	Per M ³	930.50	150.00	1080.50			
51	M-034	Aggregates 53 mm to 2.8 mm at Crusher	Per M ³	602.36	150.00	752.36		RCD SOR 2022	
52	M-035	Aggregates 53 mm to 22.4 mm (Garde III) at Crusher	Per M ³	930.50	150.00	1080.50			
53	M-036	Aggregates 63 mm to 2.8 mm at Crusher	Per M ³	602.36	150.00	752.36			
54	M-037	Aggregates 63 mm to 4.5 mm (Garde II) at Crusher	Per M ³	825.00	150.00	975.00			
55	M-038	Aggregates 90 mm to 4.5 mm (Garde I) at Crusher	Per M ³	825.00	150.00	975.00			
56	M-039	Aggregates 10 mm to 5 mm at Crusher	Per M ³	436.00	150.00	586.00			
57	M-040	Aggregates 11.2 mm to 0.09 mm (Key aggregate Type B) at Crusher	Per M ³	274.21	150.00	424.21			
58	M-041	Aggregates 13.2 mm to 0.09 mm (Key aggregate Type A) at Crusher	Per M ³	274.21	150.00	424.21			
59	M-042	Aggregates 13.2 mm to 5.6 mm at Crusher	Per M ³	436.00	150.00	586.00			
60	M-043	Aggregates 13.2 mm to 10 mm at Crusher	Per M ³	436.00	150.00	586.00			As per RCD SOR 2022
61	M-044	Aggregates 20 mm to 10 mm at Crusher	Per M ³	736.00	150.00	886.00			
62	M-045	Aggregates 25 mm to 10 mm at Crusher	Per M ³	736.00	150.00	886.00			
63	M-046	Aggregates 19 mm to 6 mm at Crusher	Per M ³	736.00	150.00	886.00			
64	M-047	Aggregates 37.5 mm to 19 mm at Crusher	Per M ³	930.50	150.00	1080.50			
65	M-048	Aggregates 37.5 mm to 25 mm at Crusher	Per M ³	930.50	150.00	1080.50			
66	M-049	Aggregates 6 mm nominal size at Crusher	Per M ³	274.21	150.00	424.21			
67	M-050	Aggregates 10 mm nominal size at Crusher Plant	Per M ³	436.00	150.00	586.00			
68	M-051	Aggregates 13.2/12.5 mm nominal size at Crusher Plant	Per M ³	436.00	150.00	586.00			
69	M-052	Aggregates 20 mm nominal size at Crusher Plant	Per M ³	1036.00	150.00	1186.00			
70	M-053	Aggregates 25 mm nominal size at Crusher	Per M ³	1036.00	150.00	1186.00		As per RCD SOR 2022	
71	M-054	Aggregates 40 mm nominal size at Crusher	Per M ³	825.00	150.00	975.00			
The rates are exclusive of all taxes, GST, Labour cess, Contractor's Profit and overhead charges.									
S.No.	Ref. Code No.	NAME OF MATERIALS	Unit	Basic Rate	Royalty	Basic Rate including Royalty for SOR 2022-23			
1	2	3	4	5	6	7			
72	M-056	AC pipe 100 mm dia	metre	44.28	-	44.28			
73	M-057	Acrylic polymer bonding coal	litre	131.88	-	131.88			
74	M-058	Aluminium Paint	litre	124.70	-	124.70			
75	M-059	Aluminium alloy plate 2mm Thick	sqm	9512.21	-	9512.21			
76	M-060	Aluminium alloy/galvanised steel	tonne	57033.00	-	57033.00			

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Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
77	M-061	Aluminium sheeting fixed with encapsulated lens type reflective sheeting including 2% towards lettering, cost of angle iron, cost of drilling holes, nuts, bolts etc. and signs as applicable	sqm	8945.43	-	8945.43		
78	M-062	Road Stud with Micro Prismatic lens reflectors(with shank) (100mmx100mm)	each	187.29	-	187.29		
79	M-063	Barbed wire	kg	73.77	-	73.77		
80	M-064	Bearing (Cost of parts)	nos	input	-	#VALUET		
81	M-065	Bearing (Cast steel rocker bearing assembly of 250 tonne)	nos	85505.67	-	85505.07		
82	M-066	Bearing (Elastomeric bearing assembly consisting of 7 internal layers of elastomer bonded to 6 nos. internal reinforcing steel laminates by the process of vulcanisation,) (Taking elastomeric bearing of size 500x400x96mm, Overall volume=19200 cubic cm @Rs 0.62/cucum= Rs 11904)	cubic cm	0.62	-	0.62		
83	M-067	Bearing (Forged steel roller bearing of 250 tonne)	nos	47480.35	-	47480.35		
84	M-068	Bearing (Pot type bearing assembly consisting of a metal piston supported by a disc, PTFE pads providing sliding surfaces against stainless steel mating together with cast steel assemblies/ fabricated structural steel assemblies duly painted with all components output=250 Tonne) -DO- Nos. Rs 35667.50	MT	142.67	-	142.67		
		(a) Fixed POT-PTFE Bearing	MT	142.67	-	142.67		
		(b) Free POT-PTFE Bearing	MT	152.87	-	152.87		
		(c) Guide Slide (L) POT-PTFE Bearing	MT	163.06	-	163.06		
		(d) Guide Slide (T) POT-PTFE Bearing	MT	157.97	-	157.97		
85	M-069	Bearing (PTFE sliding plate bearing assembly of 80 Tonnes)	nos	12637.56	-	12637.56		
86	M-070	Bearing (Supply of sliding plate bearing of 80 tonne)	nos	11414.17	-	11414.17		
87	M-071	Bentonite	kg	4.02	-	4.02		
88	M-072	Binding wire	kg	75.04	-	75.04		
89	M-073	Bitumen (Cationic Emulsion) Ex- Patna(RS1)Packed	tonne	52919.00	-	52919.00		
90	M-074	Bitumen (60-70 grade) Packed Ex- Barauni	tonne	56414.00	-	56414.00		
91	M-075	Bitumen (80-100 grade) Packed Ex- Barauni	tonne	55614.00	-	55614.00		
92	M-076	Bitumen (Cutback) Packed Ex- Barauni	tonne	56414.00	-	56414.00		
93	M-077	Bitumen (emulsion) Packed Ex- Patna (SS1)	tonne	54270.00	-	54270.00		
94	M-078	Bitumen (modified graded) Packed Ex -Faluha (CRMB - 55)	tonne	53965.00	-	53965.00		
95	M-079	Brick 100A for - Patna Urban	each	6.024	0.045	6.069	including royalty	
96	M-080	C I shoes for the pile	kg	47.04	-	47.04		
97	M-081	Cement - OPC 43 Grade at Patna	tonne	5156.00	-	5156.00		
98	M-083	Cold twisted bars (HYSD Bars) - Fe 500 Av. of M-10A	tonne	54810.00	-	54810.00		
99	M-084	Collar for joints 300 mm dia	nos	56.00	-	56.00		
100	M-085	Compressible Fibre Board (20mm thick)	sqm	1132.98	-	1132.98		
101	M-086	Connectors / Staples	each	8.33	-	8.33		
102	M-087	Copper Plate (12m long x 250mm wide)	kg	896.80	-	896.80		
103	M-088	Corrosion resistant Structural steel	tonne	46827.05	-	46827.05		
104	M-089	Corrugated sheet, 3 mm thick, "Thrie" beam section railing	kg	49.62	-	49.62		
105	M-090	Credit for excavated rock found suitable for use (add Royalty @30 % of rate)	cum	77.88	23.36	101.24	including royalty	
106	M-091	Curing compound	litre	136.22	-	136.22		
107	M-092	Delineators from ISI certified firm as per the standard drawing given in IRC - 79	each	879.05	-	879.05		
108	M-093	Earth Cost or compensation for earth taken from private land	cum	2.01	33	35.01	including royalty	

As per RCD SOR 2022

(Handwritten signatures and marks)

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Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
109	M-094	Elastomeric slab seal expansion joint assembly manufactured by using chloroprene, elastomer for elastomeric slab unit conforming to clause 915.1 of IRC: 83 (part II)	metre	28508.46	-	28508.46		
110	M-217	Electric Detonators @ 1 detonator for 1/2 gelatin stick of 125 gms each	100 nos	619.00	-	619.00	RCD 2022	
111	M-095	Epoxy compound with accessories for preparing epoxy mortar	kg	595.97	-	595.97		
112	M-096	Epoxy mortar	kg	817.29	-	817.29		
113	M-097	Epoxy primer	kg	122.02	-	122.02		
114	M-098	Epoxy resin-hardner mix for prime coat	kg	723.67	-	723.67		
115	M-99	Flag of red color cloth 600 x 600 mm	each	57.46	-	57.46		
116	M-100	Flowering Plants	each	9.00	-	9.00		
117	M-101	Galvanised MS flat clamp	nos	17.17	-	17.17		
118	M-102	Galvanised steel wire crates of mesh size 100 mm x 100 mm woven with 4mm dia GI wire in rolls of required size	sqm	111.88	-	111.88		
119	M-103	Galvanised structural steel plate 200 mm wide, 6 mm thick, 24 m long	kg	57.03	-	57.03		
120	M-215	Explosive for blasting (Gelatine 80%)	kg	976.21	-	976.21		
121	M-104	Geo grids	sqm	89.26	-	89.26		
122	M-105	Geomembrane	sqm	45.00	-	45.00		
123	M-106	Geonets	sqm	108.16	-	108.16		
124	M-107	Geotextile	sqm	84.55	-	84.55		
125	M-108	Geotextile filter fabric	sqm	84.55	-	84.55		
126	M-109	GI bolt 10 mm Dia	nos	17.88	-	17.88		
127		Grouting pump with agitator	hour	input	-	0.00		
128	M-111	Grass (Doob)	kg	4.96	-	4.96		
129	M-112	Grass (Fine)	kg	4.96	-	4.96		
130	M-113	HDPE pipes 75mm dia	metre	237.01	-	237.01		
131	M-114	HDPE pipes 90mm dia	metre	237.01	-	237.01		
132	M-115	Hedge plants	each	40.00	-	40.00		
133	M-116	Helical pipes 600mm diameter	metre	input	-	#VALUE!		
134	M-117	Hot applied thermoplastic compound (Sp gravity - 2.10)	litre	198.46	-	198.46		
135	M-118	HTS strand	tonne	79629.50	-	79629.50		
136	M-119	Joint Sealant Compound	kg	27.24	-	27.24		
137	M-120	Jute netting, open weave, 2.5 cm square opening for seeding and Mulching	sqm	41.26	-	41.26		
138	M-121	LDO for steam curing	litre	input	-	input		
139	M-122	M S Clamps	nos	43.36	-	43.36		
140	M-123	M S Clamps	kg	78.47	-	78.47		
141	M-124	M S shoes @ 35 Kg per pile of 15 m	kg	30.00	-	30.00		
142	M-125	Mild Steel bars (Av-M6)	tonne	58600.00	-	58600.00		
143	M-126	Modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140mm assembly comprising of edge beams, central beam, 2 modules chloroprene seal, anchorage elements, support and control system, all steel sections protected against corrosion and installed by the manufacturer or his authorised representative	metre	31417.46	-	31417.46		
144	M-127	Modular strip/box seal expansion joint catering to a horizontal movement beyond 140mm and upto 210mm box/box seal joint assembly containing 3 modules/cells and comprising of edge beams, two central beams, chloroprene seal, anchorage elements, support and control system, all steel sections protected against corrosion and installed by the manufacturer or his authorised representative	metre	31417.46	-	31417.46		

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Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
145	M-128	Nipples 12mm, 300 mm long	nos	44.80	-	44.80		
146	M-129	Nuts and bolts	kg	69.15	-	69.15		
147	M-130	Paint	litre	246.65	-	246.65		
148	M-131	Pavement Marking Paint	litre	246.65	-	246.65		
149	M-132	Paving Fabric	sqm	93.58	-	93.58		
150	M-133	Perforated geosynthetic pipe 150 mm dia	metro	20.35	-	20.35		
151	M-134	Perforated pipe of cement concrete, internal dia 100 mm	metre	112.83	-	112.83		
152	M-135	Pesticide	kg	80.97	-	80.97		
153	M-136	Pipes 200 mm dia, 2.5 m long for drainage	metre	173.47	-	173.47		
154	M-137	Plastic sheath, 1.25 mm thick for dowel bars	sqm	17.75	-	17.75		
155	M-138	Plastic tubes 50 mm dia, 1.2 m high	nos	input	-	#VALUE!		
156	M-139	Polymer braids	metre	input	-	#VALUE!		
157	M-140	Pre moulded Joint filler, 25 mm thick for expansion joint	sqm	1064.18	-	1064.18		
158	M-141	Pre-coated stone chips of 13.2 mm nominal size	cum	494.70	150	644.70	including royalty	
159	M-142	Preformed continuous chloroprene elastomer or closed cell foam sealing element with high tear strength, vulcanised in a single operation for the full length of a joint to ensure water tightness.	metre	input	-	#VALUE!		
160	M-143	Pre-moulded asphalt filler board	sqm	1064.18	-	1064.18		
161	M-144	Pre-packed cement based polymer concrete of strength 45 Mpa at 28 days	kg	input	-	#VALUE!		
162	M-145	Primer (wall)	kg	77.60	-	77.60		
163	M-146	Quick setting compound	kg	input	-	#VALUE!		
164	M-147	Random Rubble Stone	cum	525.00	150	675.00	including royalty	
165	M-148	RCC Pipe NP 4 heavy duty non pressure pipe 1000 mm dia with Spigot	metre	5570.00	-	5570.00		
166	M-149	RCC Pipe NP 4 heavy duty non pressure pipe 1200 mm dia with Spigot	metre	6510.00	-	6510.00		
167	M-152	RCC Pipe NP 4 heavy duty non pressure pipe 300 mm dia	metre	532.24	-	532.24		
168	M-153	Reflectorising glass beads	kg	72.00	-	72.00		
169	M-154	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102 (Copper Strips)	metre	input	-	input		
170	M-155	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102 (Galvanised carbon steel strips)	metre	input	-	input		
171	M-156	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102 (Glass reinforced polymer/fibre reinforced polymer/polymeric strips)	metre	input	-	#VALUE!		
172	M-157	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102 (Stainless steel strips)	metre	input	-	#VALUE!		
173	M-158	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102 (Aluminium strips)	metre	input	-	#VALUE!		
174	M-159	Rivets	each	9.08	-	9.08		
175	M-160	Sand bags (Cost of sand and Empty cement bag)	nos	6.52	2.59	9.11	including royalty	
176	M-161	Sapling 2 m high 25 mm dia	each	25.55	-	25.55		
177	M-162	Scrap tyres of size 900 x 20	nos	85.14	-	85.14		
178	M-163	Seeds	kg	38.31	-	38.31		
179	M-164	Selected earth (including royalty @ Rs 33.0 per cum & compensation @ Rs 1.81 per cum)	cum	2.01	33	35.01	including royalty	
180	M-165	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	15.24	-	15.24		
181	M-166	Sheathing duct	metre	93.66	-	93.66		
182	M-167	Shrubs	each/(sqft)	2.77	-	2.77		
183	M-168	Sludge / Farm yard manure @ 0.18 cum per 100 sqm at site of work for turling	cum	278.90	-	278.90		

As per RCD SOR 2022

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Peparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
184	M-169	Sodium vapour lamp (70 watt)	each	188.94	-	188.94		
185	M-170	Square Rubble Coursed Stone	cum	525.00	150	675.00	including royalty	
186	M-171	Steel circular hollow pole of standard specification for street lighting to mount light at 5 m height above deck level	each	input	-	input		
187	M-172	Steel circular hollow pole of standard specification for street lighting to mount light at 9 m height above road level	each	input	-	input		
188	M-173	Steel drum 300 mm dia 1.2 m high/empty bitumen drum	nos	170.47	-	170.47		
189	M-174	Steel helmet and cushion block on top of pile head during driving	kg	41.93	-	41.93		
190	M-175	Steel pipe 25 mm external dia as per IS:1239	metre	136.85	-	136.85		
191	M-176	Steel pipe 50 mm external dia as per IS:1239	metre	244.89	-	244.89		
192	M-178	Steel wire rope 20 mm	kg	43.42	-	43.42		
193	M-179	Steel wire rope 40 mm	kg	43.42	-	43.42		
194	M-180	Strip seal expansion joint	metre	8844.47	-	8844.47		
195	M-181	Structural Steel (Av Of M6, M8, & M9)	tonne	57033.00	-	57033.00		
196	M-182	Super plastisizer admixture IS marked as per 9103-1999	kg	214.86	-	214.86		
197	M-183	Synthetic Geogrids as per clause 3102.8 and approved design and specifications	sqm	187.90	-	187.90		
198	M-184	Through and bond stone	each	10.58	-	10.58		
199	M-185	Tie rods 20mm diameter (500mm length) @ 2.47 Kg/m	nos	67.30	-	67.30		
200	M-186	Tiles size 300 x 300 mm and 25 mm thick	each	41.07	-	41.07		
201	M-187	Timber	cum	44845.72	-	44845.72		
202	M-188	Traffic cones with 150 mm reflective sleeve	nos	input	-	value		
203	M-189	Tube anchorage set complete with bearing plate, permanent wedges etc	nos	51.08	-	51.08		
204	M-190	Unslaked lime	tonne	3873.95	-	3873.95		
205	M-191	Water	KL	56.20	-	56.20		
206	M-192	Water based cement paint	litre	125.53	-	125.53		
207	M-193	Welded steel wire fabric	kg	51.18	-	51.18		
208	M-194	Wire mesh 50mm x 50mm size of 3mm wire	kg	51.66	-	51.66		
209	M-195	Wooden ballies 2" Dia for bracing (Sal)	each	22.29	-	22.29		
210	M-196	Wooden ballies 8" Dia and 9 m long	each	538.98	-	538.98		
211	M-197	Wooden packing	cum	input	-	#REF!		
212	M-198	Wooden staff for fastening of flag 25 mm dia, 1.0 m long	each	27.86	-	27.86		
213		Bitumen (30/40 grade) Ex- Palna Packed	per MT	input	-	input		
214		deleted						
215	M-324	Paver Block (Excluding GST)						
		i) M-35 Grade and 60 mm						
		(a) White	Per M ²	516.79	-	516.79		
		(b) Red	Per M ²	526.00	-	526.00		
		(c) Yellow	Per M ²	542.52	-	542.52		
		ii) M-40 Grade and 80mm						

As per RCD SOR 2022

(Handwritten signatures and initials)

Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should confirm to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
		(a) White	Per M ²	593.06	-	593.06		As per RCD SOR 2022
		(b) Red	Per M ²	608.57	-	608.57		
		(c) Yellow	Per M ²	628.20	-	628.20		
216	M-325	Kerd-Stone Block-M30 Grade(size 375mmx300mmx150mm) inclusive of OH and CP	Per M ² each	91.50	-	91.50		
217	M-326	Autoclaved Aerated concrete (AAC) block	cum	2506.34	-	2506.34	BCD	As per SLSORC 22 11:2021
218	1199	Sal wood Scantling (@ Rs 600 00/10 cudm)	Per M ³	60000.00	-	60000.00	BCD	
219	1195	Local Wood in scantling (@ Rs 309 39 / 10 cudm)	Per M ³	30939.00	-	30939.00	BCD	
220	1196	First class kail wood in planks (@ Rs300 00 / 10 cudm)	Per M ³	30000.00	-	30000.00	BCD	
221	1198	Second class kail wood in planks (@ Rs 260 00 / 10 cudm)	Per M ³	26000.00	-	26000.00	BCD	
222	M229	Bamboo	Meter					
		i 75 mm dia 6m long to 8m long	Meter	19.65	-	19.65	RCD	RCD SOR 2022
		ii 100 mm dia 6m long to 8m long	Meter	20.98	-	20.98	RCD	
		iii 50 mm dia Hill Bamboo	Meter	13.12	-	13.12	RCD	
223		Sal Ballah Post						WRD SOR 2021
		i 100 mm dia	Per M	32.21	-	32.21	WRD	
		ii 125 mm dia	Per M	56.85	-	56.85	WRD	
		iii 150 mm dia	Per M	70.57	-	70.57	WRD	
224		Wire						
		i G I wire, 3.15mm dia (IS 4826-79)	Per Kg	86.75	-	86.75	WRD	
		ii Black annealed wire 3 15mm dia (IS 280-78)	Per kg.	78.77	-	78.77	WRD	
225	1029	Galvanised steel Barbed wire @ 9.8 kg/100 metre (@ Rs 5500 00/ Quintal)	Per M T	55000.00	-	55000.00	BCD	As per SLSORC 22 11:2021
226		Welded mesh (8 to 10 SWG) 100 to 125 mm square size	Per M ²	input	-	input	BCD	
227	1213	water proofing compound 'Impermo' of Sisuwcem India Ltd	Per Kg	35.00	-	35.00	BCD	
228	1219	Wire Nails	Per Kg	58.00	-	58.00	BCD	
229		Narial coil string	Per Kg	31.25	-	31.25	WRD	
230		Narial rope 20 mm to 25 mm dia	Per Kg	39.51	-	39.51	WRD	
231		Narial rope above 25 mm dia	Per Kg	47.80	-	47.80	WRD	
232		Setah	Per Kg	22.05	-	22.05	WRD	
233		Sabey string	Per Kg	16.54	-	16.54	WRD	
234		Sqm	Sqm	70.00	-	70.00	WRD	
234	322	Bitumen felt Type 3, grade 1, conforming to IS 1322	Per quintal	440.00	-	440.00	BCD	
235	370	Coal (steam)	per 100 Nos.	21.00	-	21.00	BCD	
236	1207	washers cadmium Coated G I Limpet washer	per 100 Nos	30.00	-	30.00	BCD	
237	1208	Washers Bitumen washer	per 100 Nos	30.00	-	30.00	BCD	
238	341	Flat pressed 3 layer particle board (medium density) Grade I 12mm thick	Per M ²	288.00	-	288.00	BCD	As per SLSORC 22 11:2021
239	1701	R C C Pipes NP ₂ Class 150 mm dia	Per M	220.00	-	220.00	BCD	
240	1703	R C C Pipes NP ₂ Class 300 mm dia	Per M	450.00	-	450.00	BCD	
241	1706	R C C Pipes NP ₂ Class 600 mm dia	Per M	1150.00	-	1150.00	BCD	
242	1710	R C C Pipes NP ₂ Class 900 mm dia	Per M	2550.00	-	2550.00	BCD	
243	1713	R C C Pipes NP ₂ Class 1200 mm dia	Per M	3575.00	-	3575.00	BCD	
244	1715	RCC Collars NP ₂ class 150mm dia	Each	37.00	-	37.00	BCD	
245	1717	RCC Collars NP ₂ class 300mm dia	Each	56.00	-	56.00	BCD	
246	1720	RCC Collars NP ₂ class 600mm dia	Each	145.00	-	145.00	BCD	
247	1724	RCC Collars NP ₂ class 900mm dia	Each	240.00	-	240.00	BCD	
248	1727	RCC Collars NP ₂ class 1200mm dia	Each	375.00	-	375.00	BCD	

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Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials should conform to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
249		(i) Analysis of rate of brick khoa (63 mm to 40 mm size)			*			As per WRD Analysis
		For 2.832 Cum Khoa (i) Material- 100B Bricks (Patna Urban) 800 Nos @ Rs.5633.00 per thousand including royalty = 4506.40			*			
		(ii) Labour -Unskilled mazdoor 3 Nos. @ Rs 318 = 954.00			*			
		Total cost for 2.832 cum = 5460.40	cum	1928.11	*	1928.11		
250		(ii) Analysis of rate of brick khoa (40 mm to 20 mm size)			*			
		For 2.832 Cum Khoa (i) Material- 100B Bricks (Patna Urban) 850 Nos @ Rs.5633.00 per thousand including royalty = 4788.05			*			
		(ii) Labour- Unskilled mazdoor 4 Nos @ Rs 318.00 = 1272.00			*			
		Total cost for 2.832 cum = 6060.05	cum	2139.85	*	2139.85		
251		(ii) Analysis of rate of brick khoa (20 mm and down)			*			
		For 2.832 Cum Khoa (i) Material- 100B Bricks (Patna Urban) 900 Nos @ Rs.5633.00 per thousand including royalty = 5069.70			*			
		(ii) Labour- Unskilled mazdoor 5 Nos @ Rs 318 = 1590			*			
		Total cost for 2.832 cum =6659.70	cum	2351.59	*	2351.59		
252		Pressure release valves(Vertical non return valve)	Each	input	-	#VALUE!		As per WRD
253		Pocket valve (non return pocket valve)	Each	input	-	#VALUE!		
254		Safety valve	Each	input	-	#VALUE!		
255		Reflex valve	Each	input	-	#VALUE!		
256		Burnt clay pipe of internal dia 30 mm . External dia 31.75 mm		input	-	#VALUE!		
		(a). 100 mm long	Each	input	-	#VALUE!		
		(b) 222mm long	Each	input	-	#VALUE!		
257		Jute	Per Kg	22.83	-	22.83	WRD	
258		M.S Bends	Cach	input	-	#VALUE!		
259		Rubber seal	metre	input	-	#VALUE!		
260		Sheet Pile	Per M.T	input	-	#VALUE!		
261		Tree branches of dia150 mm to 200 mm and 3 M to 4.5 M long with jhankli covering the space of 100 cft in volume	nos	input	-	#VALUE!		
262	0761	Fuel (wood) (Rs 500.00 per Quintal)	Kg	5.00	-	5.00	BCD	As per SLSO RC 22.11.2021
263	0326	Blasting fuse (Fuse Wire)	each	15.00	-	15.00	BCD	
264		Cardium compound	kg	input	-	#VALUE!		As per SLSORC 22.11.2021
265		M S Bolt 20mm dia ,25 Cm long	Each	36.35	-	36.35	WRD	
266	8509	Special primer (C W)	Litre	160.00	-	160.00	BCD	
267	8510	Metal Primer (U G)	Litre	105.00	-	105.00	BCD	
268	0818	Linseed oil (double boiled)	Litre	200.00	-	200.00	BCD	As per SLSOR C 22.11.2021
269		Electric Charge	K W.H	input	-	#VALUE!		
270		Slotted pins and wedges 10 mm dia and 60 mm long	nos	input	-	#VALUE!		
271		Tube and nuts 26 no. 25 mm dia and above	nos	input	-	#VALUE!		
272		M.S Electrodes	nos	input	-	#VALUE!		
273	771	Kerosene Oil	litre	50.00	-	50.00	BCD	
274		Gun metal in gate	Kg	input	-	#VALUE!		

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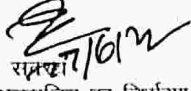
Approved Usages Rates of Construction Materials by the State Level Schedule Rate Committee for the Preparation of Schedule of Rates for year 2022-23 Only (Materials Should conform to relevant B.I.S., MoRD and MoRT&H Specifications) The Rates are Inclusive of royalty but exclusive of all taxes, G.S.T, Overhead, Seigniorage fee and Contractor's Profit. "Rates are at source" Quarry/Crusher Plant

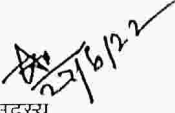
Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
275		Old empty cement bag (synthetic) (Annexure-I)	Per 100 nos	345.38	-	345.38	WRD	
276		Nylon Crate of size 1mx1mx1m (As per Annex-II)	Each	41.00	-	41.00	WRD	
277		Geo bag (non woven) size 1mx0.70m (As per Annex-III)	nos	83.06	-	83.06	WRD	
278		Mega Geo Bag of size 2mx1.5m (As per Annex-IV)	nos	584.75	-	584.75	WRD	
279		P.P. Rope Gabion of size 1.80mx1.80mx0.5m (As per Annex-V)	nos.	1965.60	-	1965.60	WRD	
280		P.P. Rope Gabion of size 1.80mx1.20mx0.5m (As per Annex-VI)	Nos.	1427.40	-	1427.40	WRD	
281	7754	Gravel 5 mm to 10mm	Cum	665.00	150	815.00	including of royalty BCD	As per SLSORC 22.11.2021
282		Shalitec Board (For use as per expansion Joint)						As per WRD SOR 2021
283		(i) 25mm thick	Per Sqm	input	-	input		
284		(ii) 12mm thick	Per Sqm	input	-	input		
285		(iii) 18mm thick	Per Sqm	input	-	input		
286		Shalitec Primer	Per litre	input	-	input		
287	312	Bitumen grade PMB-40	M.T	32950.00	-	32950.00	BCD	As per SLSORC RC 22.11.2021
288	M-3 C	Portland Composite Cement (P.C.C) (Unit-Per bag of 50 kg) approved by State Level Committee for the year 2022-23 (for preparation of schedule of rate only)-Materials should conform to relevant BIS/IRC/MORT&H Specifications					Per M ³	RCD SOR 2022
		Palna	Per bags	230.50	-	230.50	6779.00	
		Muzaffarpur	Per bags	230.50	-	230.50	6779.00	
		Darbhanga	Per bags	230.50	-	230.50	6779.00	
		Bhagalpur	Per bags	230.50	-	230.50	6779.00	
		Munger	Per bags	230.50	-	230.50	6779.00	
		Saharsa	Per bags	230.50	-	230.50	6779.00	
		Purnea	Per bags	230.50	-	230.50	6779.00	
		Gaya	Per bags	230.50	-	230.50	6779.00	
		Saran	Per bags	230.50	-	230.50	6779.00	
289		Mechanically Woven Double Twisted Hexagonal shaped wire Mesh Gabion Boxes/Crates of required Sizes, mesh Type 10cm x 12 cm, heavily Zinc Coated Mesh wire Dia 8 to 10 (SWG), Mechanically edged/selvedged with partitions at every one mt. interval as per IS 16014: 2012						As per WRD SOR 2021
		a) size (3m x 1.5m x 0.60m)	Each	2591.20	-	2591.20	WRD	
		b) size (3m x 1.5m x 0.75m)	Each	2834.00	-	2834.00	WRD	
290	M-292	Waste Plastic (as per IRC: SP:98-2013)	tonne	15790.14		15790.14	RCD-2022	
291		New Empty Cement Bag Conforming to IS 11652 : 2000	Each	11.24		11.24	WRD	
292	324	coaltar	Litre	30.00		30.00	BCD	As per SLSORC 22.11.2021
293	1550	G I Pipe 50 mm dia	m	360.00		360.00	BCD	
294	M-108	Geop Textile Filter (Annexure-VIII)	Sqm	84.55		84.55	RCD-2022	

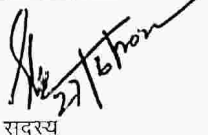
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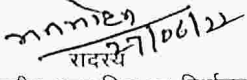
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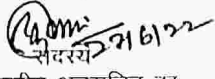
Sr.No.	Ref. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2022-23	Reference	
1	2	3	4	5	6	7	8	9
295	M150	RCC Pipe NP 4 Heavy duty non presure pipe 900 mm dia with spigot	m	4500.00		4500.00		
296	M151	RCC Pipe NP 4 Heavy duty non presure pipe 600 mm dia with spigot	m	2350.00		2350.00		
297	323	Cement Fly Ash Brick (conforming to IS12894, Size 230x110x70mm weight of one brick=3Kg, composition Fly ash=60% coarse sand =30%, Cement=10%, including carriage of sand	each	5.01		5.01		

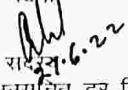

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना

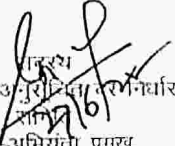

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख,
ग्राभीण कार्य विभाग, बिहार,
पटना

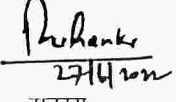

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख,
लघु जल संसाधन विभाग, बिहार,
पटना

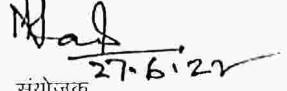

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--मुख्य अभियंता, (असौ),
बिहार स्टेट पावर होल्डिंग कम्पनी लि०,
बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--मुख्य अभियंता, (विधुत)
भवन निर्माण विभाग, बिहार,
पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख,
तकनीकी परीक्षण कोषांग, निगरानी विभाग, बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग,
बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख, (मुख्यालय),
जल संसाधन विभाग, बिहार,
पटना


संयोजक
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
--सह--अभियंता प्रमुख (मुख्यालय)
पथ निर्माण विभाग, बिहार, पटना

Chapter - III (Usages rate of Plant & Machinery)

Schedule- P & M / MORTH - 1A

Date :- 07.12.2021

Approved Usages rate of Plants & Machinery for preparation of Schedule of rate including all charges ,cost of repair,maintainance,tyre- replacement,running and operating charges such as fuel lubricant,labour etc but excluding GST,Overhead and Contractor's profit.					
Sl.No.	Code	Description	Unit	Approved Rate	Remarks
1	PM1001	Dozer - 240 HP	Hour	5,523.00	
2	PM1002	Dozer - 175 HP	Hour	4,249.00	
3	PM1003	Dozer - 90 HP	Hour	2,930.00	
4	PM2001	Motor Grader 4.3 metre blade	Hour	5,450.00	
5	PM2002	Motor Grader 3.7 metre blade	Hour	4,985.00	
6	PM2003	Motor Grader 3.35 metre blade	Hour	4,403.00	
7	PM3003	Hydraulic Excavator of 1.2 cum bucket	Hour	2,703.00	
8	PM3004	Hydraulic Excavator of 1.1 cum bucket	Hour	2,432.00	
9	PM3005	Hydraulic Excavator of 0.9 cum bucket	Hour	2,202.00	
10	PM4001	Jack Hammer (attachment of Hydraulic Excavator)	Hour	206.00	
11	PM5001	Front End loader 3.1 cum bucket capacity	Hour	3,433.00	
12	PM5002	Front End loader 2.1 cum bucket capacity	Hour	2,033.00	
13	PM5003	Backhoe-loader 1 cum bucket capacity	Hour	1,366.00	
14	PM6001	Tipper-18 Cum	Hour	2,239.00	
15	PM6002	Tipper-14 Cum	Hour	1,998.00	
16	PM6003	Tipper-10 Cum	Hour	1,785.00	
17	PM6004	Tipper-5.5 Cum	Hour	1,371.00	
18	PM7001	Vibratory Soil Compactor (10 tonne)	Hour	1,988.00	
19	PM8001	Smooth Wheeled Roller 8 tonne	Hour	1,518.00	
20	PM9001	Tandem Roller	Hour	1,978.00	Vibratory road Roller
21	PM9002	Mini Tandem Roller	hour	1,048.00	Do
22	PM10001	Pneumatic Road Roller	Hour	1,996.00	Do
23	PM11001	Water Tanker (16 KL)	Hour	1,121.00	
24	PM11002	Water Tanker (12 KL)	Hour	947.00	
25	PM11003	Water Tanker (6 KL)	Hour	707.00	
26	PM12001	Tractor-Trolley	Hour	629.00	
27	PM13001	Rotavator	Hour	17.00	
28	PM14001	Ripper	Hour	21.00	
29	PM15001	Air Compressor -250 cfm	Hour	391.00	
30	PM15002	Air Compressor -500 cfm	Hour	1,831.00	
31	PM16001	Integrated Stone Crusher Stone (3 Stage) 250 TPH	Hour	13,481.00	
32	PM17001	Wet Mix Plant - 250 TPH Capacity	Hour	649.00	
33	PM17002	Wet Mix Plant - 200 TPH Capacity	Hour	354.00	
34	PM17003	Wet Mix Plant - 100 TPH Capacity	Hour	329.00	
35	PM18001	Hotmix Plant - 200 TPH Capacity	Hour	44,761.00	
36	PM18002	Hotmix Plant - 160 TPH Capacity	Hour	34,660.00	
37	PM18003	Hotmix Plant - 120 TPH capacity	Hour	26,375.00	
38	PM19001	Batching and Mixing Plant - 240 cum Capacity	Hour	5,681.00	
39	PM19002	Batching and Mixing Plant - 120 cum Capacity	Hour	3,635.00	
40	PM20001	Mobile Concrete Batching / Mixing Plant	Hour	617.00	
41	PM21001	Concrete Mixer - 0.4/0.28 cum	Hour	283.00	
42	PM21002	Concrete Mixer - 1 cum	Hour	313.00	
43	PM22001	Generator 725 KVA	Hour	7,759.00	
44	PM22002	Generator 500 KVA	Hour	5,360.00	
45	PM22003	Generator 400 KVA	Hour	4,323.00	
46	PM22004	Generator 250 KVA	Hour	3,024.00	
47	PM22005	Generator 125 KVA	Hour	1,587.00	
48	PM22006	Generator 100 KVA	Hour	1,359.00	
49	PM22007	Generator 62.5 KVA	Hour	869.00	

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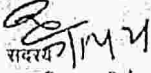
50	PM22008	Generator 33 KVA	Hour	495.00
51	PM22009	Generator 15 KVA	Hour	274.00
52	PM23001	Mechanical Broom Hydraulic	Hour	746.00
53	PM24001	Bitumen Pressure Distributor	Hour	1,299.00
54	PM25001	Emulsion Pressure Distributor	Hour	1,299.00
55	PM26001	Bitumen Boiler Oil Fired	Hour	510.00
56	PM27001	Mastic Cooker	Hour	450.00
57	PM28001	Paver Finisher Mechanical	Hour	2078.00
58	PM29001	Paver Finisher Hydrostatic with sensor control -240 HP	Hour	8054.00
59	PM29002	Paver Finisher Hydrostatic with sensor control -170 HP	Hour	6346.00
60	PM30001	Paver Finisher Concrete with 300 HP Motor	Hour	25929.00
61	PM30002	Paver Finisher Concrete with 241 HP Motor	Hour	16593.00
62	PM30003	Paver Finisher Concrete with 118 HP Motor	Hour	3,764.00
63	PM31001	Texture Curing Machine (TCM) - upto 18 m	Hour	4,328.00
64	PM31002	Texture Curing Machine (TCM) - upto 9 m	Hour	3,354.00
65	PM32001	Hydraulic Chip Spreader	Hour	1,602.00
66	PM33001	Pot-Hole Repair Machine	Hour	1,235.00
67	PM34001	Transit Mixer - 6 Cum	Hour	1,860.00
68	PM35001	Concrete Pump	Hour	960.00
69	PM36001	Boom Placer	Hour	3,695.00
70	PM37001	Kerb Casting Machine	Hour	1,468.00
71	PM38001	Piling Rig with Bentonite Pump	Hour	17,135.00
72	PM39001	Pneumatic Sinking Plant	Hour	5,333.00
73	PM40001	Road marking machine	Hour	1,349.00
74	PM41001	Mobile Slurry Seal Equipment	Hour	3,392.00
75	PM42001	Joint Cutting Machine	Hour	293.00
76	PM43001	Bar Bending & Cutting Machine	Hour	309.00
77	PM44001	Needle Vibrator	Hour	325.00
78	PM45001	Jack Hammer for air compressor	Hour	11.00
79	PM46001	Plate Compactor	Hour	335.00
80	PM47001	Milling Machine with 1 meter Drum Width	Hour	4,026.00
81	PM47002	Milling Machine with 1.2 meter Drum Width	Hour	4,707.00
82	PM47003	Milling Machine With 1.3 meter Drum Width	Hour	6,803.00
83	PM47004	Milling Machine With 2 meter Drum Width	Hour	9,824.00
84	PM48001	Cold in Situ recycling of bitumen's pavement with foam bitumen technology	Hour	27,209.00
85	PM49001	In situ stabilisation of WMM/GSB/Sub grade	Hour	24,056.00
86	PM50001	Cement spreader	Hour	6,913.00
87	PM51001	Mobile cold recycling mixing plant	Hour	20,422.00
88	PM52001	Hot in place recycling	Hour	1,02,535.00
89	PM53001	Pre heater unit for hot in place recycling	Hour	634.00
90	PM54001	Single boom Hydraulic Drill Jumbo	Hour	4,394.00
91	PM55001	Two boom Hydraulic Drill Jumbo	Hour	6,604.00
92	PM56001	Three boom Hydraulic Drill Jumbo	Hour	9,638.00
93	PM57001	Hydraulic Rock bolt drill	Hour	6,572.00
94	PM58001	Rotating Telehandlers	Hour	887.00
95	PM59001	Shotcrete Machine	Hour	1,349.00
96	PM60001	Grouting machine	Hour	525.00
97	PM61001	Dewatering Pump 10 HP	Hour	195.00
98	PM61002	Concrete cutting machine	Hour	170.00
99	PM62001	Crawler mounted Crane 35 tonne capacity	Hour	5,502.00
100	PM62002	Crawler mounted Crane 80 tonne capacity	Hour	5,615.00
101	PM62003	Crawler mounted Crane 100 tonne capacity	Hour	8,705.00
102	PM63001	Mobile Hydraulic Crane 3 tonne capacity	Hour	728.00
	PM63002	Mobile Hydraulic Crane 5 tonne capacity	Hour	765.00
104	PM63003	Mobile Hydraulic Crane 10 tonne capacity	Hour	864.00
105	PM63004	Mobile Hydraulic Crane 15 tonne capacity	Hour	899.00

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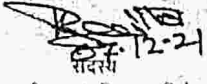
106	PM63005	Mobile Hydraulic Crane 20 tonne capacity	Hour	1,125.00	
107	PM63006	Mobile Hydraulic Crane 35 toone capacity	Hour	1,747.00	
108	PM64001	Concrete Bucket	Hour	86.00	
109	PM65001	Prestressing Jack with Pump & Access	Hour	413.00	
110	PM66001	Boat to carry atleast 20 persons	hour	714.00	
111	PM67001	Crane with grab 0.75 cum capacity	hour	738.00	
112	PM68001	Epoxy Injection gun	hour	231.00	
113	PM69001	Induction, deinduction and erection of plant and equipment including all components and accessories for pneumatic method of well sinking.	hour	9,004.00	
114	PM70001	Jack for Lifting 40 tonne lifting capacity.	hour	239.00	
115	PM71001	Vibrating Pile driving hammer complete with power unit and accessories.	hour	16,014.00	
116	PM72001	Tipper 18 Cum (Surface Road)	Per Tonne Km.	4.80	As per Carriage Rate analysis
117	PM72002	Tipper-18 Cum (Unsurfaced Gravelled Road) excluding OH & CP	l.km	5.83	Do
118	PM72003	Tipper-18 Cum (Katcha Track) excluding OH & CP	l.km	11.66	Do
119	PM73001	Tipper -14 Cum (Surface Road) excluding OH & CP	l.km	5.48	Do
120	PM73002	Tipper -14 Cum (Unsurfaced Gravelled Road) excluding OH & CP	l.km	6.66	Do
121	PM73003	Tipper -14 Cum (Katcha Track) excluding OH & CP	l.km	13.32	Do
122	PM74001	Tipper -10 Cum (Surface Road) excluding OH & CP	l.km	6.80	Do
123	PM74002	Tipper -10 Cum (Unsurfaced Gravelled Road) excluding OH & CP	l.km	8.26	Do
124	PM74003	Tipper -10 Cum (Katcha Track) excluding OH & CP	l.km	16.53	Do
125	PM75001	Tipper- 5.5 Cum (Surface Road) excluding OH & CP	l.km	9.41	Do
126	PM75002	Tipper- 5.5 Cum (Unsurfaced Gravelled Road) excluding OH & CP	l.km	11.42	Do
127	PM75003	Tipper- 5.5 Cum (Katcha Track) excluding OH & CP	l.km	22.85	Do
128	PM76001	Transit Mixer - 6 Cum excluding OH & CP	l.km	10.33	Do
129	PM77001	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 18 cum capacity Tipper & 3.1 Cum capacity Loader) excluding OH & CP	cum	73.42	Do
130	PM77002	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 14 cum capacity Tipper & 2.1 Cum capacity Loader) excluding OH & CP	cum	71.98	Do
131	PM77003	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 10 cum capacity Tipper & 1.0 Cum capacity Loader) excluding OH & CP	cum	100.20	Do
132	PM77004	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum (Using by 5 cum capacity Tipper & 1.0 Cum capacity Loader) excluding OH & CP	cum	112.96	Do
133	PM77005	Loading and Unloading of Cement or Steel by Manual Means and Stacking	tonne	420.80	Do
134	PM78001	Centrifugal water pump	Hour	240.00	
135	PM79001	Shredding Machine	Hour	391.00	
136	PM80001	Mobile Bridge Inspection Unit (MBIU)	hour	6,549.00	
137	PM81001	Network Survey Vehicle (NSV) With SUV	hour	6,044.00	
138	PM82001	Falling weight deflectometer (FWD) Equipment With SUV	hour	2,884.00	
139	PM83001	Retroreflectometer testing equipment with Vehicle With SUV	hour	1,468.00	

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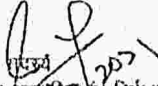
140	PM84001	Sport utility vehicle (SUV)	hour	975.00	
141	PM85001	Automatic Vehicle Counter Classifier (ATCC) System	hour	74.00	


सदस्य

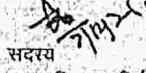
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
भवन निर्माण विभाग
बिहार,पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-मुख्यअभियंता (अरी.)
बिहार स्टेट पावर होल्डिंग कम्पनी लि.
बिहार,पटना।


सदस्य

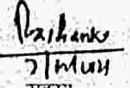
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
लोक स्वस्थ अभियंता
विभाग, बिहार,पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
प्राथमिक कार्य विभाग
बिहार,पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-मुख्यअभियंता (विद्युत)
भवन निर्माण विभाग
बिहार,पटना।


सदस्य

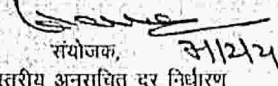
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख (मुख्यालय)
जल संसाधन विभाग
बिहार,पटना।

सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
लघु जल संसाधन विभाग
बिहार,पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख
तकनीकी परीक्षक कोषांग, निगरानी विभाग,
बिहार,पटना।


संयोजक,

राज्य स्तरीय अनुसूचित दर निर्धारण
समिति -सह-अभियंता प्रमुख (मुख्यालय)
पथ निर्माण विभाग,
बिहार,पटना।

Schedule P & M/MoRTH-1B

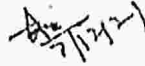
Date 07.12.2021

Approved usages rate of Plant & Mechinery for preparation of schedule of rate including all charges, cost of repair, maintainence, tyre-replacement, running and operation charges such as fuel, lubricant, labour etc. but excluding GST, overhead and contractor profit.

Sl. No.	Code	Description	Unit	Approved Rate (Rs.)
1.	PM 90004	Hot Mix Plant (40-60TPH)	Hour	18776.00


सदस्य


राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य

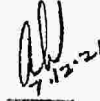
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लघु जल संसाधन विभाग, बिहार, पटना


सदस्य


राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता (असैनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि०, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता, (विद्युत) भवन निर्माण विभाग, बिहार, पटना


सदस्य

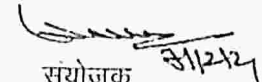
राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, तकनीकी परीक्षक कोषांग, निगरानी विभाग, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना


सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, मुख्यालय जल संसाधन विभाग, बिहार, पटना।


संयोजक

राज्य स्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख (मुख्यालय), पथ निर्माण विभाग, बिहार, पटना।

Schedule - HMP1

Date: 07.12.2021

पथ निर्माण विभाग में उपलब्ध Hot Mix Plant एवं अन्य सततग यंत्रों-संयंत्रों से तैयार किये जा रहे Production/Carriage/Laying/Compaction का Usage Charge Per MT की पुनरीक्षित दर गणना।

Sr. No.	Code	Machinery	Unit	Quantity	Rate (₹)	Cost (Rs.)
1	PM 90004	Hot mix Plant 40-60 TPH @ 37.4 tonne per hour actual output	hour	6.000	18776.00	112656.00
2	PM 28001	Paver finisher Mechanical	hour	6.000	2078.00	12468.00
		OR				
3	PM 29002	Sensor Paver Finisher 170 HP	hour	6.000	6346.00	38076.00
4	PM 22005	Generator 125 KVA	hour	6.000	1587.00	9522.00
5	PM 5003	Front end loader 1 cum bucket capacity/Backhoe loader 1 cum bucket capacity.	hour	6.000	1366.00	8196.00
6	PM 8001	Smooth wheeled Roller 8 -10 tonnes for initial break down rolling, final and finishing rolling.	hour	12.00*0.65	1518.00	11840.40
7	PM 9001	Vibratory Roller 8 - 10 tonnes /Tandem Roller for intermediate rolling.	hour	6.00*0.65	1978.00	7714.20
8	PM 23001	Mechanical broom hydraulic @ 1250 sqm per hour	hour	2.200	746.00	1641.20

Total cost of usages charge using Paver Finisher (Mechanical) in Rupees 164037.80
and

Total cost of usages charge using Paver Finisher (Sensor) in Rupees 189645.80

Output of Plant = $17 \times 2.2 \times 6 = 224.4$ MT per day

(a) Cost per MT with Mechanical Paver finisher $164037.80 / 224.4 = 731.00$ Say 731.00 / MT

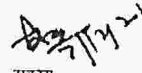
and

(b) Cost per MT with Sensor Paver finisher $189645.80 / 224.4 = 845.10$ Say 845.00 / MT

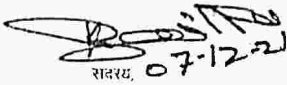
Note:- In addition to the above, following points shall be considered while calculating Usages Rate per MT :-


- For carriage of Mix by Tipper as per carriage rate will be charged extra as per Lead from the Government Hot Mix Plant.
- The cost of labour for Bitumen feeding & laying at Paver site will be arranged by the Contractor.
- Rate is excluding GST.

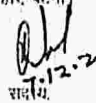

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

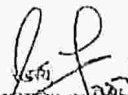

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना।

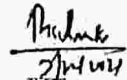
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लघु जल सहायन विभाग, बिहार, पटना।

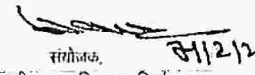

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता (असें), बिहार स्टेट पावर सोल्यूशंस कंपनी लि, बिहार, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-मुख्य अभियंता (विद्युत), भवन निर्माण विभाग, बिहार, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, तकनीकी परीक्षक कोषांग, निगरानी विभाग, बिहार, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।


सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख (मुख्यालय), जल सहायन विभाग, बिहार, पटना।


संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति-सह-अभियंता प्रमुख (मुख्यालय), पथ निर्माण विभाग, बिहार, पटना।

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CHAPETER 4 -- CARRIAGE OF MATERIALS

4.1 A	Loading and unloading of stone boulder/stone aggregates/sand/Kanker/moorum (Tipper 5.5 cum capacity) Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip	129.91	cum
4.1 B	Loading and unloading of stone boulder/stone aggregates/sand/Kanker/moorum (Tipper 10 cum capacity) Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip	115.20	cum
4.1 C	Loading and unloading of stone boulder/stone aggregates/sand/Kanker/moorum (Tipper 14 cum capacity) Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip	82.78	cum
4.1 D	Loading and unloading of stone boulder/stone aggregates/sand/Kanker/moorum (Tipper 18 cum capacity) Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip	84.40	cum
4.2	Loading and unloading of stone boulder by Manual Means (Tipper 10 cum capacity)	332.05	cum
4.3	Loading and unloading of cement or steel by Manual Means and stacking (Tipper 10 cum capacity)	486.85	Tonne
4.4	Cost of Haulge Excluding Loading and unloading - Case I: Surfaced Road		
A	Haulage of materials by tipper (10 tonne capacity) excluding cost of loading, unloading and stacking	10.80	t.km.
B	Haulage of materials by tipper (18 tonne capacity) excluding cost of loading, unloading and stacking	7.80	t.km.
C	Haulage of materials by tipper (25 tonne capacity) excluding cost of loading, unloading and stacking	6.30	t.km.
D	Haulage of materials by tipper (32 tonne capacity) excluding cost of loading, unloading and stacking	5.52	t.km.
4.5	ii) Case II: unSurfaced Gravelled Road		
A	Haulage of materials by tipper (10 tonne capacity) excluding cost of loading, unloading and stacking	13.13	t.km.
B	Haulage of materials by tipper (18 tonne capacity) excluding cost of loading, unloading and stacking	9.50	t.km.
C	Haulage of materials by tipper (25 tonne capacity) excluding cost of loading, unloading and stacking	7.66	t.km.
D	Haulage of materials by tipper (32 tonne capacity) excluding cost of loading, unloading and stacking	6.70	t.km.
4.6	Case-III : Katcha Track and Track in River bed/nallah bed and choe bed.		
A	Haulage of materials by tipper (10 tonne capacity) excluding cost of loading, unloading and stacking	26.28	t.km.
B	Haulage of materials by tipper (18 tonne capacity) excluding cost of loading, unloading and stacking	19.01	t.km.
C	Haulage of materials by tipper (25 tonne capacity) excluding cost of loading, unloading and stacking	15.32	t.km.
D	Haulage of materials by tipper (32 tonne capacity) excluding cost of loading, unloading and stacking	13.41	t.km.
4.6 E	case IV Katcha Track in hilly area :- Haulage of materials by tipper (10 tonne capacity) excluding cost of loading, unloading and stacking	54.06	t.km.

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4.6 F	case V Transit Mixture:- Haulage of of concrete by Transit mixture (6cum capacity) excluding cost of loading, unloading and stacking:	11.88	t.km.
4.7	Hand Broken stone aggregates 63 mm nominal size :- Supply of quarried stone, hand breaking into coarse aggregate 63 mm nominal size (passing 80 mm and retained on 50 mm sieve) and stacking as directed	1426.09	cum

CHAPTER - IV

A. CARRIAGE OF MATERIALS (By TRACTOR)

Sl.No	Description	Unit	Quantity	Rate(Rs)	Cost(Rs)	Ref.
4.1	Loading and Unloading of Stone Boulder/ Stone aggregates/Sand /Kanker/Moorum by Mechanical Means					
	Placing tractor at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip.					
	Unit = cum					
	Taking output = 2.25 cum					
	Time required for					
	i) Positioning of tipper at loading point		1Min			
	ii) Loading by front end loader 1cum bucket capacity @ 25 cum per hour		2.71 Min			
	iii) Maneuvering, reversing, dumping and turning for return.		0 Min			
	iv) Waiting time, unforeseen contingencies etc		0 Min			
	Total		3.71 Min			
	a) Machinery					
	Tractor 3.6 tonnes capacity	hour	0.060	629.00	37.74	PM12001
	Front end-loader 1cum bucket capacity @ 25 cum/hour	hour	0.06	1366.00	81.96	PM5003
					119.70	
	Overhead charges & C.P @ 15%				17.96	
	Cost for 2.25 cum				137.66	
	Rate per cum				61.18	
				say	61.20	
	Note:-Unloading will be done manually.					
4.2	Loading and Unloading of stone Boulders by Manual means					
	Unit = cum					
	Taking output = 2.25 cum					
	a) Labour					
	Mate	no.	0.012	337.00	4.044	
	Mazdoor for loading and unloading	no.	0.31	318.00	98.58	
	b) Machinery					
	Tractor 3.60 tonne capacity	hour	0.31	629	194.99	
					297.61	
	Overhead charges & C.P @ 15%				44.64	
	Cost for 2.25 cum				342.26	
	Rate per cum				152.11	
				say	152.10	Xa
	Note:-Unloading will be done manually.					
4.3	Loading and Unloading of Cement or Steel by manual means and stacking					
	Unit = tonne					
	Taking output = 3.6 tonnes					
	a) Labour					
	Mate	no.	0.03	337.00	10.11	

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	Mazdoor for loadina and unloading	no.	0.72	318.00	228.96	
	b) Machinery					
	Tractor 3.6 tonne capacity	hour	0.72	629.00	452.88	
					691.95	
	Overhead charges & C.P @ 15%				103.79	
	Cost for 3.6 tonnes				795.74	
	Rate per tonnes				221.04	
				say	221.00	Xb
4.4	Cost of Haulage Excluding Loading and Unloading					
	Haulage of materials by tractor excluding cost of loading, unloading and stacking.					
	Unit = t.km or cum.km					
	Taking output (3.60 tonnes load and lead 10 km) =36 t. km					
4.4a	Surfaced Road					
	Speed with load : 15 km / hour.					
	Speed while Returning empty :25 km / hour.					
	a) Machinery					
	Tractor 3.60 tonne capacity					
	Time taken for onward haulage with load	hour	0.667	629.00	419.54	
	Time taken for empty return trip.	hour	0.40	629.00	251.60	
					671.14	
	Overhead charges & C.P @ 15%				100.671	
	cost for 36 t km				771.81	
	Rate per t.km				21.44	
				say	21.40	Hsb
4.4b	Unsurfaced Graveled Road					
	Speed with load: 12 km / hour					
	Speed for empty return trip : 20 km / hour					
	a) Machinery					
	Tractor 3.6 tonnes capacity					
	Time taken for onward haulage with load	hour	0.833	629.00	523.96	
	Time taken for empty return trip	hour	0.50	629.00	314.50	
					838.46	
	b) Overhead charges & C.P @ 15%				125.77	
	Cost for 36 t .km				964.23	
	Rate per t.Km				26.78	
				say	26.80	Hub
4.4c	Katcha Track and Track in River Bed/Nallah Bed and choe Bed					
	Speed with load :10 km / hour					
	Soeed while returning empty : 15 km / hour					
	a) Machinery					
	Tractor 3.6 tonnes capacity					
	Time taken for onward haulage	hour	1.00	629.00	629.00	
	Time taken for empty return trip	hour	0.667	629.00	419.54	
					1048.54	
	c) Overhead charges & C.P @ 15%				157.28	
	Cost for 36 t.km				1205.82	
	Rate per t.Km				33.5	
				say	33.50	Hkb

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B. CARRIAGE OF MATERIALS (BY TIPPER)

	Description	UNIT				Input_ Ref
			Quantity	Rate	Amount	
4.1 A	Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum.					
	Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip					
	Unit = cum					
	A. Taking output = 5.5 Cum					
	Time required for					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 1 cum bucket capacity	Min	6.633			
	iii) Maneuvering, reversing, dumping and turning for return	Min	2.000			
	iv) Waiting time, unforeseen contingencies etc	Min	4.000			
	Total	Min	13.633			
	a) Machinery					
	Tipper-5.5 Cum capacity	Hour	0.227	1371.00	311.22	PM6004
	Front end loader 1 cum bucket capacity	Hour	0.227	1366.000	310.08	PM5003
	Total Cost Excluding OH & CP				621.30	
	b) Contractor's profit & OH Charge @ 15%				93.19	
	Total Cost for 5.5 cum = (a+b) Including OH & CP				714.49	
	Unit Cost= (a+b+c)/5.5 Including OH & CP				129.91	129.91
	Unloading will be by tipping.					
4.1 B	Loading and unloading of stone boulder / stone aggregates / sand / kanker/ moorum.					
	Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip					
	Unit = cum					
	Taking Output = 10.00 cum					
	Time required for					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 1 cum bucket capacity	Min	12.060			
	iii) Maneuvering, reversing, dumping and turning for return	Min	2.000			
	iv) Waiting time, unforeseen contingencies etc	Min	4.000			
	Total	Min	19.060			
	a) Machinery					
	Tipper-10 Cum capacity	Hour	0.318	1785.00	567.63	PM6003
	Front end loader 1 cum bucket capacity	Hour	0.318	1366.000	434.39	PM5003
	Total Cost Excluding OH & CP				1002.02	
	b) Contractor's profit & OH Charge @ 15%				150.30	
	Total Cost for 10 cum = (a+b) Including OH & CP				1152.32	
	Unit Cost= (a+b)/10 Including OH & CP				115.23	115.20
	Unloading will be by tipping.					

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4.1 C	Loading and unloading of stone boulder / stone aggregates / sand / kanker/ moorum.					
	Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip					
	Unit = cum					
	Taking Output = 14.00 cum					
	Time required for					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 2.1 cum bucket capacity	Min	8.029			
	iii) Maneuvering, reversing, dumping and turning for return	Min	2.000			
	iv) Waiting time, unforeseen contingencies etc	Min	4.000			
	Total	Min	15.029			
	a) Machinery					
	Tipper-14 Cum capacity	Hour	0.250	1998.000	499.50	PM6002
	Front End loader 2.1 cum bucket capacity	Hour	0.250	2033.000	508.25	PM5002
	Total Cost Excluding OH & CP				1007.75	
	b) Contractor's profit & OH Charge @ 15%				151.16	
	Total Cost for 14 cum = (a+b)Including OH & CP				1158.91	
	Unit Cost= (a+b+c)/14 Including OH & CP				82.78	82.78
	Unloading will be by tipping.					
4.1 D	Loading and unloading of stone boulder / stone aggregates / sand / kanker/ moorum.					
	Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip					
	Unit = cum					
	Taking Output = 18.00 cum					
	Time required for					
	i) Positioning of tipper at loading point	Min	1.000			
	ii) Loading by front end loader 3.1 cum bucket capacity	Min	6.996			
	iii) Maneuvering, reversing, dumping and turning for return	Min	2.000			
	iv) Waiting time, unforeseen contingencies etc	Min	4.000			
	Total	Min	13.996			
	a) Machinery					
	Tipper-18 Cum capacity	Hour	0.233	2239.000	521.69	PM6001
	Front End loader 3.1 cum bucket capacity	Hour	0.233	3433.000	799.89	PM5001
	Total Cost Excluding OH & CP				1321.58	
	b) Contractor's profit & OH Charge @ 15%				198.24	
	Total Cost for 18 cum Including OH & CP				1,519.8	
	Unit Cost= (a+b)/18 Including OH & CP				84.43	84.40
	Unloading will be by tipping.					
4.2	Loading and Unloading of Boulders by Manual Means					
	Unit = cum					
	Taking output = 10 Cum					
	a) Labour					

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	Mate / Supervisor	day	0.055	343.000	18.865	LII-2
	Mazdoor for loading and unloading.	day	1.364	318.000	433.752	LII-1
	b) Machinery					
	Tipper-10 Cum capacity	Hour	1.364	1785.000	2434.740	PM6003
	Total Cost Excluding OH & CP				2887.357	
	c) Contractor's profit & OH Charge on (a+b) @15%				433.10	
	Total Cost for 10 cum=(a+b+c)Including OH & CP				3320.461	
	Unit Cost-(a+b+c)/10 Including OH & CP				332.05	332.05
	Unloading will be by tipping.					
4.3	Loading and Unloading of Cement or Steel by Manual Means and Stacking					
	Unit = tonne					
	Taking Output = 18.00 tonne					
	a) Labour					
	Mate	day	0.144	343.000	49.392	LII-2
	Mazdoor	day	3.600	318.000	1144.800	LII-1
	b) Machinery					
	Truck-18 tonne capacity.	Hour	3.600	1785.000	6426.000	PM6003
	Total Cost Excluding OH & CP				7620.192	
	c) Contractor's profit & OH Charge on (a+b) @15%				1143.0288	
	Total Cost for 18 tonnes=(a+b+c)Including OH & CP				8763.221	
	Unit Cost=(a+b+c+d)/18 Including OH & CP				486.8456	486.85
	Cost of Haulage Excluding Loading and Unloading					
	i) A Case-I : Surfaced Road.					
4.4 A	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 10 tonnes load and lead 10 km=100. t.km					
	Speed with load : 25 km / hour.					
	Speed while Returning empty : 35 km / hour.					
	a) Machinery					
	i) Tipper 10 tonnes capacity.					
	Time taken for onward haulage with load.	Hour	0.400	1371.000	548.40	PM6004
	Time taken for empty return trip.	Hour	0.286	1371.000	392.11	PM6004
	Total Cost Excluding OH & CP				940.51	
	b) Contractor's profit & OH Charge on (a) @15%				141.08	
	Total Cost for 100 t.km = (a+b)Including OH & CP				1081.58	
	Rate per t.km= (a+b)/100 Including OH & CP				10.82	10.80
	Cost of Haulage Excluding Loading and Unloading					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
4.4 B	i) Case-I : Surfaced Road .					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking					

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	Unit = l.km					
	Taking Output =18tonnes load and lead10 km=180. t.km					
	Speed with load : 25 km / hour.					
	Speed while Returning empty: 35 km / hour.					
	a) Machinery					
	i) Tipper 18 tonne capacity.					
	Time taken for onward haulage with load.	Hour	0.400	1785.000	714.00	PM6003
	Time taken for empty return trip.	Hour	0.286	1785.000	510.51	PM6003
	Total Cost Excluding OH & CP				1224.51	
	b) Contractor's profit & OH Charge on (a) @15%				183.68	
	Total Cost for180 t.km = (a+b)Including OH & CP				1408.19	
	Rate per l.km= (a+b)/180 Including OH & CP				7.82	7.80
4.4 C	Case-I : Surfaced Road .					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output = 25 tonne load and lead 10km=250 t.km					
	Speed with load : 25 km / hour.					
	Speed while Returning empty : 35 km / hour.					
	a) Machinery					
	i) Tipper 25 tonnes capacity					
	Time taken for onward haulage with load.	Hour	0.400	1998.000	799.20	PM6002
	Time taken for empty return trip.	Hour	0.286	1998.000	571.43	PM6002
	Total Cost Excluding OH & CP				1370.63	
	b) Contractor's profit & OH Charge on (a) @15%				205.59	
	Total Cost for250 t.km = (a+b)Including OH & CP				1576.22	
	Rate per l.km= (a+b+c)/250 Including OH & CP				6.30	6.30
4.4 D	Case-I : Surfaced Road .					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output =32tonnes load and lead10km= 320. t.km					
	Speed with load : 25 km / hour.					
	Speed while Returning empty: 35 km / hour.					
	a) Machinery					
	i) Tipper 32 tonne capacity					
	Time taken for onward haulage with load.	Hour	0.400	2239.000	895.60	PM6001
	Time taken for empty return trip.	Hour	0.286	2239.000	640.35	PM6001
	Total Cost Excluding OH & CP				1535.95	
	b) Contractor's profit & OH Charge on (a) @15%				230.39	
	Total Cost for320 t.km = (a+b)Including OH & CP				1766.35	

2

(30m)

33

m

A

Q

	Rate per l.km= (a+b+c)/320 Including OH & CP				5.52	5.52
4.5 A	Case-II : Unsurfaced Gravelled Road .					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 10 tonnes load & lead 10 km= 100 l.km					
	Speed with load: 20 km/hour					
	Speed for empty return trip : 30 km / hour					
	a) Machinery					
	Tipper 10 tonnes capacity					
	Time taken for onward haulage with load	Hour	0.500	1371.000	685.50	PM6004
	Time taken for empty return trip.	Hour	0.333	1371.000	456.54	PM6004
	Total Cost Excluding OH & CP				1142.04	
	b) Contractor's profit & OH Charge on (a) @15%				171.31	
	Total Cost for 100 l.km = (a+b)Including OH & CP				1313.35	
	Rate per l.km= (a+b)/100 Including OH & CP				13.13	13.13
4.5 B	Case-II : Unsurfaced Gravelled Road .					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 18 tonnes load & lead 10 km=180.l.km					
	Speed with load : 20 km / hour					
	Speed for empty return trip : 30 km / hour					
	a) Machinery					
	Tipper 18 tonnes capacity					
	Time taken for onward haulage with load.	Hour	0.500	1785.000	892.50	PM6003
	Time taken for empty return trip.	Hour	0.333	1785.000	594.41	PM6003
	Total Cost Excluding OH & CP				1486.91	
	b) Contractor's profit & OH Charge on (a) @15%				223.04	
	Total Cost for 180 t.km = (a+b)Including OH & CP				1709.94	
	Rate per l.km= (a+b)/180 Including OH & CP				9.50	9.50
4.5 C	Case-II : Unsurfaced Gravelled Road .					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 25 tonnes load & lead 10 km =250. l.km					
	Speed with load : 20 km / hour					
	Speed for empty return trip : 30 km / hour					
	a) Machinery					
	Tipper 25 tonnes capacity.					
	Time taken for onward haulage with load	Hour	0.500	1998.000	999.00	PM6002
	Time taken for empty return trip.	Hour	0.333	1998.000	665.33	PM6002
	Total Cost Excluding OH & CP				1664.33	

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	b) Contractor's profit & OH Charge on (a) @15%				249.65	
	Total Cost for 250 t.km = (a+b) Including OH & CP				1913.98	
	Rate per 1.km = (a+b)/250 Including OH & CP				7.66	7.66
4.5 D	Case-II : Unsurfaced Gravelled Road.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 32 tonnes load & lead 10 km = 320. l.km					
	Speed with load : 20 km / hour					
	Speed for empty return trip : 30 km / hour					
	a) Machinery					
	i) Tipper 32 tonnes capacity					
	Time taken for onward haulage with load	Hour	0.500	2239.000	1119.50	PM6001
	Time taken for empty return trip.	Hour	0.333	2239.000	745.59	PM6001
	Total Cost Excluding OH & CP				1865.09	
	b) Contractor's profit & OH Charge on (a) @15%				279.76	
	Total Cost for 320 l.km = (a+b) Including OH & CP				2144.85	
	Rate per 1.km = (a+b)/320 Including OH & CP				6.70	6.70
4.6A	Case-III : Katcha Track and Track in river bed / nallah bed and choe bed.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking					
	Unit = t.km					
	Taking Output 10 tonnes load & lead 10km = 100 t.km					
	Speed with load: 10 km / hour					
	Speed while returning empty: 15 km / hour					
	a) Machinery					
	i) Tipper 10 tonnes capacity.					
	Time taken for onward haulage	Hour	1.000	1371.000	1371.00	PM6004
	Time taken for empty return trip.	Hour	0.667	1371.000	914.46	PM6004
	Total Cost Excluding OH & CP				2285.46	
	b) Contractor's profit & OH Charge on (a) @15%				342.82	
	Total Cost for 100 t.km = (a+b) Including OH & CP				2628.28	
	Rate per 1.km = (a+b)/100 Including OH & CP				26.28	26.28
4.6 B	Case-III : Katcha Track and Track in river bed / nallah bed and choe bed.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 18 tonnes load & lead 10km = 180.00 l.km					
	Speed with load: 10 km / hour					
	Speed while returning empty: 15 km / hour					
	a) Machinery					

2 (35) 35 $\frac{m}{h}$ $\frac{a}{h}$ $\frac{h}{h}$

	Tipper 18 tonnes capacity					
	Time taken for onward haulage	Hour	1.000	1785.000	1785.00	PM6003
	Time taken for empty return trip.	Hour	0.667	1785.000	1190.60	PM6003
	Total Cost Excluding OH & CP				2975.60	
	b) Contractor's profit & OH Charge on (a) @15%				446.34	
	Total Cost for 180 t.km = (a+b) Including OH & CP				3421.93	
	Rate per t.km = (a+b)/180 Including OH & CP				19.01	19.01
	Rate per cum.km. = (a+b)/100 Including OH & CP				34.22	X
4.6 C	Case-III : Katcha Track and Track in river bed / nallah bed and choe bed.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 25 Tonnes load & lead 10 km = 250 t.km					
	Speed with load: 10 km / hour					
	Speed while returning empty: 15 km / hour					
	a) Machinery					
	i) Tipper 25 tonnes capacity					
	Time taken for onward haulage	Hour	1.000	1998.000	1998.00	PM6002
	Time taken for empty return trip.	Hour	0.667	1998.000	1332.67	PM6002
	Total Cost Excluding OH & CP				3330.67	
	b) Contractor's profit & OH Charge on (a) @15%				499.60	
	Total Cost for 250 t.km = (a+b) Including OH & CP				3830.27	
	Rate per t.km = (a+b)/250 Including OH & CP				15.32	15.32
4.6 D	Case-III : Katcha Track and Track in river bed / nallah bed and choe bed.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 32 tonnes load & lead 10 km = 320 t.km					
	Speed with load: 10 km / hour					
	Speed while returning empty: 15 km / hour					
	a) Machinery					
	i) Tipper 32 tonnes capacity					
	Time taken for onward haulage	Hour	1.000	2239.000	2239.00	PM6001
	Time taken for empty return trip	Hour	0.667	2239.000	1493.41	PM6001
	Total Cost Excluding OH & CP				3732.41	
	b) Contractor's profit & OH Charge on (a) @15%				559.86	
	Total Cost for 320 t.km = (a+b) Including OH & CP				4292.27	
	Rate per t.km = (a+b)/320 Including OH & CP				13.41	13.41
4.6 E	Case-IV : Katcha Track in hilly area.					
	Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
	Unit = t.km					
	Taking Output 10 tonnes load & lead 10 km = 100 t.km					
	Speed with load: 5 km / hour					

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	Speed while returning empty: 7 km / hour					
	a) Machinery					
	i) Tipper 10 tonnes capacity.					
	Time taken for onward haulage	Hour	2.000	1371.000	2742.00	PM6004
	Time taken for empty return trip	Hour	1.429	1371.000	1959.16	PM6004
	Total Cost Excluding OH B CP				4701.16	
	b) Contractor's profit & OH Charge on (a) @15%				705.17	
	Total Cost for 100 l.km = (a+b) Including OH & CP				5406.33	
	Rate per l.km = (a+b)/100 Including OH & CP				54.06	54.06
4.6 F	Case-V : Transit Mixture					
	Haulage of Concrete by Transit mixture excluding cost of loading, unloading and stacking.					
	Unit = l.km					
	Taking Output 15Tonnes load & lead 10km= 150 l.km					
	Speed with load : 20 km / hour					
	Speed while returning empty: 30 km / hour					
	a) Machinery					
	i) Transit Mixture 6 cum capacity.					
	Time taken for onward haulage with load	Hour	0.500	1860.000	930.00	PM34001
	Time taken for empty return trip.	Hour	0.333	1860.000	619.38	PM34001
	Total Cost Excluding OH & CP				1549.38	
	b) Contractor's profit & OH Charge on (a) @15%				232.41	
	Total Cost for 150 l.km = (a) Including OH & CP				1781.79	
	Rate per l km = (a+b)/150 Including OH & CP				11.88	11.88
4.7	Hand Broken Stone Aggregates 63 mm nominal size					
	Supply of quarried stone, hand breaking into coarse aggregate 63 mm nominal size (passing 80 mm and retained on 50 mm sieve) and stacking as directed					
	Unit = cum					
	Taking Output = 1.00 cum					
	a) Labour					
	Mate	day	0.0600	343.0000	20.58	LII-2
	Mazdoor	day	1.500	318.000	477.00	LI-1
	b) Material					
	Supply of quarried stone 150 - 200 mm size	cum	1.1000	675.0000	742.50	M-002
	Total Cost Excluding OH & CP				1240.08	
	c) Contractor's profit & OH Charge on (a+b) @15%				186.01	
	Total Cost for 1cum = (a+b+c) Including OH & CP				1426.09	
	Rate per cum = (a+b+c) Including OH & CP				1426.09	1426.09

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Loading and Unloading of Cement or Steel by manual means and stacking. BY 10T TIPPER					
Unit = tonne					
Taking output = 10 tonnes					
a) Labour					
Mate	no.	0.08	343.00	27.44	
Mazdoor for loading and unloading	no.	2.00	318.00	636.00	
b) Machinery					
Truck 10 tonne capacity	hour	2.00	1371.00	2742.00	PM6004
				3405.44	
c) Overhead charges & C.P @ 15%					
Cost for 10 tonnes				510.82	
Rate per tonnes				3916.26	
				391.626	
				say	391.60
Xb					
Cost of Haulage Excluding Loading and Unloading					
Haulage of materials by tipper excluding cost of loading, unloading and stacking.					
Unit = t.km					
Taking output (for 10 tonnes or 5.5 cum load and lead 10 km) =100 t.km or 55 cum.km					
Surfaced Road					
Speed with load : 25 km / hour.					
Speed while Returning empty :35 km / hour.					
a) Machinery					
Tipper 10 tonne capacity					
Time taken for onward haulage with load	hour	0.40	1371.00	548.4	PM6004
Time taken for empty return trip.	hour	0.286	1371.00	392.11	PM6004
				940.51	
b) Overhead charges & C.P @ 15%					
cost for 100 t.km or 55cum.km				141.0765	
Rate per t.km				1081.59	
				10.82	
				say	10.80
Hsb					
Rate per cum.km				19.67	
				say	19.70
Has					
Unsurfaced Graveled Road					
Speed with load: 20 km / hour					
Speed for empty return trip :30 km / hour					
a) Machinery					
Tipper 10 tonnes or 5.5 cum capacity					
Time taken for onward haulage with load	hour	0.50	1371.00	685.50	PM6004
Time taken for empty return trip	hour	0.333	1371.00	456.54	PM6004
				1142.04	
b) Overhead charges & C.P @ 15%					
Cost for 100 t.km or 55cum.km				171.31	
Rate per t.Km				1313.35	
				13.13	
				say	13.10
Hub					
Rate per cum.km				23.88	
				say	23.90
Hua					
Katcha Track and Track in River Bed/Nallah Bed and choe Bed					
Speed with load :10 km / hour					
Speed while returning empty: 15 km / hour					
a) Machinery					
Tipper 10 tonnes capacity					
Time taken for onward haulage	hour	1.00	1371.00	1371.00	PM6004

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	Time taken for empty return trip	hour	0.667	1371.00	914.46	PM6004
					2285.46	
	b) Overhead charges & C.P @ 15%				342.82	
	Cost for 100 t.km				2628.28	
	Rate per t.Km				26.28	
				say	26.30	Hkb
	Rate per cum.km				47.79	
				say	47.80	Hka

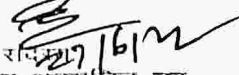
Note :- Considering Crushed volume will be 1.2 times the volume of boulder.

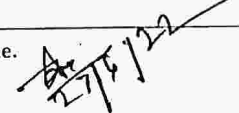
Note-1. For local transportation , carriage rate will be given as per provision of different Capacity of vehicle in rate analysis of particular item of any Chapter.

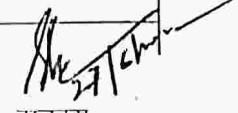
Note-2. Except Note 1, for transportation/carriage of Stone Aggregate/Stone Boulder/Moorum/Bitumen/Steel/Cement and Other Construction Materials,Loading-Unloading charges&Haulage charges will be allowed by 18 Cum Capacity tipper(18 tonne Capacity Truck in case of loading unloading of Cement/steel/Bitumen by manual means) and 32 tonne Capacity tipper respectively only for all types of Projects (Large/ medium/Small) except in case/ circumstances where any limitation/restriction regarding capacity of Vehicle has been imposed by competent Authority (district/State). In case of restriction, rate of allowed capacity of vehicle will be given.

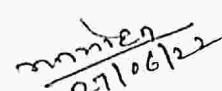
Note-3. In case of Loading &Unloading of Boulders by Manual means, loading-unloading charges will be allowed by 10Cum Capacity tipper.

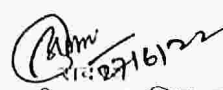
Note-4. Carriage of material will be done by shortest route.



राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार,
पटना

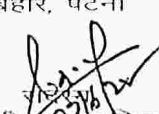

सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार,
पटना

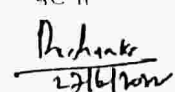

सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
लघु जल संसाधन विभाग,
बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-मुख्य अभियंता,(अरौ0),
बिहार स्टेट पावर होल्डिंग
कंपनी लि0,
बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-मुख्य अभियंता, (विद्युत)
भवन निर्माण विभाग, बिहार,
पटना


सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
सकनीची परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण
विभाग,
बिहार, पटना

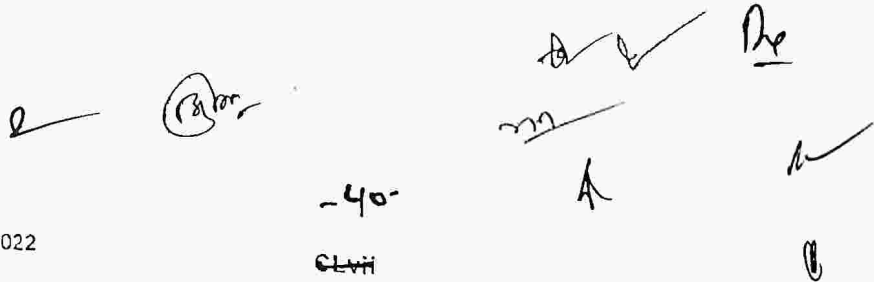

सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता
प्रमुख,(मुख्यालय),
जल संसाधन विभाग, बिहार,
पटना

संयोजक
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति-सह-अभियंता
प्रमुख (मुख्यालय)
पथ निर्माण विभाग, बिहार,
पटना

TRUCK CAPACITY PER TRIP

VIDE T.E.C. LETTER No. 1115 DATED 12.07.85

Sr. No.	Materials	Truck Capacity per trip	Multi-plying factor	Net payable Volume or weight col.3 x col.4
1.	2.	3.	4.	5.
1.	Lime, Moonum and building rubbish	6.00 M ³	1.00	6.00 M ³
2.	Earth	6.00 M ³	0.80	4.80 M ³
3.	Manure or sludge	6.00 cum	0.92	5.52 cum
4.	Excavated rocks (120 Lbs)	6.00 cum	0.67	4.02 cum
5.	Stone Metal	5.40 cum	0.85	4.59 cum
6.	Soling stone	5.00 cum	0.85	4.25 cum
7.	Boulder (90 Lbs to 120 Lbs)	6.00 cum	0.80	4.80 cum
8.	Bricks	2000 Nos	1.00	2000 Nos.
9.	Tiles/Mangra/Mosaic	3200 Nos	1.00	3200 Nos.
10.	Brick tiles (300 x 150 x 50 mm)	1760 Nos	1.00	1760 Nos.
11.	Cement, Stone blocks, G.I, C.I, A.C. and C.C. Pipe below 100 mm dia and other heavy materials.	8.00 M.T.	1.00	8.00 M.T.
12.	Steel	8.00 M.T.	1.00	8.00 M.T.
13.	Timber	9.60 cum	1.00	9.60 cum
14.	Tar, Bitumen	8.00 M.T.	1.00	8.00 M.T.
15.	Steam coal	8.00 M.T.	1.00	8.00 M.T.
16.	S.W. pipe 60 cm. length			
	(i) 100 mm dia	800 No/480 M	1.00	800 No/480M
	(ii) 150 mm dia	400 No/240 M	1.00	400 No/240M
	(iii) 200 mm dia	224 No/134.40 M	1.00	224 No/134.4M
	(iv) 230 mm dia	176 No/105.60 M	1.00	176 No/105.6M
	(v) 250 mm dia	140 No/84 M	1.00	140 No/84 M
	(vi) 300 mm dia	112 No/67.20 M	1.00	112 No/67.2M
	(vii) 350 mm dia	80 No/48 M	1.00	80 No/48 M
	(viii) 400 mm dia	56 No/33.60 M	1.00	56 No/33.60 M
	(ix) 450 mm dia	44 No/26.40 M	1.00	44 No/26.40 M
	(x) 500 mm dia	40 No/24.00M	1.00	40No/24.00 M
	(xi) 600 mm dia	32 No/19.20M	1.00	32 No/19.20M
17.	R.C.C. pipe and A.C. pipe			
	(i) 100 mm dia	145No x 2M= 290M	1.00	290.00M
	(ii) 125 mm dia	100No x 2M= 200M	1.00	200.00M
	(iii) 150 mm dia	90No x 2M=180M	1.00	180.00M
	(iv) 200 mm dia	40No x 2.5M=100M	1.00	100.00M



2.	3.	4.	5.
(v) 250 mm dia	30No x 2.50M=75M	1.00	75.00M
(vi) 300 mm dia	24No x 2.5M=60M	1.00	60.00M
(vii) 350 mm dia	19No x 2.5M=47.5M	1.00	47.50M
(viii) 400 mm dia & 450 mm dia	13No x 2.5M=32.5M	1.00	32.50M
(ix) 500 mm dia & 600 mm dia	10No x 2.5M=25.0M	1.00	25.00M
(x) 700 mm dia & 800 mm dia	6No x 2.5M=15M	1.00	15.00M
(xi) 900 mm dia & 1100 mm dia	4No x 2.5M=10M	1.00	10.00M
(xii) 1100 mm dia & 1200 mm dia	3No x 2.5M=7.5M	1.00	7.50M
18. G.I. crates 1 x 1.5 x 0.75 M	80 No.	1.00	80 No.
19. Bamboos			
(i) 75 mm dia & 100 mm dia	280 No.	1.00	280 No.
(ii) 50 mm dia & 75 mm dia	300 No.	1.00	300 No.
20. Empty bags of cement	3000 nos.	1.00	3000 nos.
21. Sal bullah Av. 6 M length			
(i) 100 mm dia	125 Nos.	1.00	125 Nos.
(ii) 125 mm dia	80 Nos.	1.00	80 Nos.
(iii) 150 mm dia	60 Nos.	1.00	60 Nos.
(iv) 175 mm dia	45 Nos.	1.00	45 Nos.
(v) 200 mm dia	25 Nos.	1.00	25 Nos.
(vi) 225 mm dia	20 Nos.	1.00	20 Nos.
22. Stone chips sand and Fly Ash	5.4 cum	0.924	5.00 cum
23. Steel and C.I. Pipe 3.66 M			
(i) 100 mm dia	80No x 3.66M=292.80M	1.00	292.8M
(ii) 125 mm dia	60No x 3.66M=219.60M	1.00	219.60M
(iii) 150 mm dia	50No x 3.66M=183.00M	1.00	183.00M
(iv) 200 mm dia	30No x 3.66M=109.80M	1.00	109.80M
(v) 250 mm dia	22No x 3.66M=80.52M	1.00	80.52M
(vi) 300 mm dia	17No x 3.66M=62.22M	1.00	62.22M
(vii) 350 mm dia	12No x 3.66M=43.92M	1.00	43.92M
(viii) 400 mm dia	9No x 3.66M=32.94M	1.00	32.94M
(ix) 500 mm dia	7No x 3.66M=25.62M	1.00	25.62M
(x) 600 mm dia	5No x 3.66M=18.30M	1.00	18.30M

Handwritten signatures and marks: *Bm*, *mn*, *✓*, *Be*, *De*, *x*, *h*

CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVERHEAD CHARGES & C.P.
(by manual means)

Sr.No	Name of Materials	Unit	Gross Tipper Capacity per trip	(For void) Multiplying Factor	Net Tipper capacity (Payable Qty)	Cost of loading, Unloading & Stacking per Trip Of Tipper capacity 8t (x Xb) (By Manual Means)	Cost Of Haulage Per Tonne-KM			Cost of Haulage per Tipper of 8t capacity			Lead in KM			Cost of carriage = (8Hsb.Ls+8Hsb.Lu+8Hkb.Lk)+8Xb)	Per Unit Rate =(col17/Net Payable capacity
							H _{sb}	H _{ub}	H _{kb}	8H _{sb}	For Surface Road	For Unsurfaced graveled Road	bed/ Nallah bed & Choe Bed	L _s	L _u		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Brick (93/4x3/4x23/4)	Per %0	2000	1	2000.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
2	G.I. Crate (3x1.5x0.75)	Per %	80	1	80.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
3	Bitumen, Tar, Steam, Coal	MT	8	1	8.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
4	R.C.C hume, A.C pipe	mtir	290	1	290.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	100 mm dia	mtir	200	1	200.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	125 mm dia	mtir	180	1	180.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	150 mm dia	mtir	100	1	100.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	200 mm dia	mtir	75	1	75.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	250 mm dia	mtir	60	1	60.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	300 mm dia	mtir	47.5	1	47.50	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	350 mm dia	mtir	32.5	1	32.50	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	400 mm & 450 dia	mtir	25	1	25.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	500 mm & 600 mm dia	mtir	15	1	15.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	700 mm & 800 mm dia	mtir	10	1	10.00	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	900mm & 1000 mm dia	mtir	7.5	1	7.50	3132.80	10.80	13.10	26.30	86.40	104.80	210.40	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	1100 & 1200 m dia	mtir															
5	Bamboo																
	75 mm to 100 mm dia	Per %	280	1	280.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	50 mm to 75 mm dia	Per %	300	1	300.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
6	E.C bag 30000 nos	Per %0	30000	1	30000.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
7	Sal ballah av 6m length																
	100 mm dia	Nos	125	1	125.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	125 mm dia	Nos	80	1	80.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!

CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVERHEAD CHARGES & C.P.
(by manual means)

Sr.No	Name of Materials	Unit	Gross Tipper Capacity per trip	(For void) Multiplying Factor	Net Tipper capacity (Payable Qtyant)	Per Trip	Cost Of Haulage Per Tonne-KM						Cost of Haulage per Tipper of 8t capacity			Lead in KM			Cost of carriage = [(8Hsb.Ls+8Hub.Lu+8Hkb.Lk)+8Xb]	Per Unit Rate =(col17/Net Payable capacity)
							Hsb	Hsb	Hsb	Hsb	Hsb	Hsb	Hsb	Hsb	Hsb	Hsb	Ls	Lu		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
		Nos	60	1	60.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!			
		Nos	45	1	45.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!			
		Nos	25	1	25.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!			
		Nos	20	1	20.00	-	-	-	-	-	-	-	INPUT	INPUT	INPUT	#VALUE!	#VALUE!			

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CHAPTER ---V**CANAL EMBANKMENT AND STRUCTURE****5.1 EARTH WORK**

Sr.No	Items	Rate	Unit
5.1.1	Preparation of seat of embankment or canals by 75 mm ploughing and removing the grass roots etc as per specifications and direction of E/I.	4.9	Per M ²
5.1.2	Preparation of borrow areas of embankment or canals by removing the grass and the jungle, bushes from the top including weeding out shrubs including roots and leveling all complete as per specifications and direction of E/I.	3.00	Per M ²
5.1.3	Jungle clearance and weeding out shrubs including small tree up to 0.50 M girth and removal as per specifications and direction of E/I.	8.9	Per M ²
5.1.4	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I. (Measurement of girth at a height of one meter above the ground level)		
	(a) Girth above 0.50 meter but up to 0.75 meter	292.70	Each
	(b) Girth above 0.75 meter but upto 1.50 meter	585.40	Each
	(c) Girth above 1.5 meter but upto 2.50 meter	1060.90	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	1719.20	Each
	(e) Girth above 4.00 meter	2487.50	Each
5.1.5	Uprooting of stumps and their removal ,away from the work site as per		
	(a) Girth above 0.50 meter but up to 0.75 meter	182.90	Each
	(b) Girth above 0.75 meter but up to 1.50 meter	182.90	Each
	(c) Girth above 1.5 meter but upto 2.50 meter	243.80	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	365.70	Each
	(e) Girth above 4.00 meter	457.10	Each
5.1.6	Earth work in excavation of canals and dhars caring minimum full supply discharge above 28 cumecs (1000 cusecs) in ordinary soil (vide classification of soil item -A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.	155.20	Per M ³
5.1.7	Earth work in excavation of canals and dhars caring minimum full supply discharge between 28 cumecs (1000 cusecs) and 8.5 cumecs (300 cusecs) in ordinary soil (vide classification of soil item A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.	123.80	Per M ³
5.1.8	Earth work in excavation of canals and dhars caring minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.	117.40	Per M ³
5.1.9	Earth work in filling for the maintenance of canals having minimum full supply discharge up to 28 cumecs (1000 cusecs) and flood embankment in ordinary soil (vide classification of soil item A) including clod breaking having earth in 225 mm layers and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.	117.40	Per M ³
5.1.10	Extra for earth work in hard soil (vide classification of soil item B) all complete as per specifications and direction of E/I.	25.80	Per M ³

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5.1.11	Extra for earth work in marshy, slushy and daladal soil (vide classification of soil item F) all complete as per specifications and direction of E/I.	38.70	Per M ³
5.1.12.1	Earth work in excavation in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 10 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	614.60	Per M ³
5.1.12.2	Earth work in excavation in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C)with initial lead of 10M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	441.10	Per M ³
5.1.13.1	Earth work in excavation in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 300M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	632.90	Per M ³
5.1.13.2	Earth work in excavation in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C)with initial lead of 30M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	459.40	Per M ³
5.1.14	Earth work in excavation in hard rock (vide classification of soil item D) where blasting is needed with initial lead of 10 mtr and lift of 1.5 mtr including dressing , making the sides in profile and dressing the bed in proper grade etc all complete as per specifications and direction of E/I.	1060.90	Per M ³
5.1.15	Earth work in excavation in hard rock (vide classification of soil item D) where blasting is needed with initial lead of 30 M and lift of 1.5 M including dressing , making the sides in proper profile and dressing the bed in proper grade as well as fine dressing of side and slopes etc. all complete as per specifications and direction of E/I.	1079.20	Per M ³
5.1.16	Earth work in excavation of water course in ordinary soil with all lead and lift including clod breaking ,rough dressing all complete as per specifications and direction of E/I.	117.40	Per M ³
5.1.17	Earth work in maintenance of canals having discharge less than 28 cumecs (1000 cusecs) in ordinary soil (vide classification of soil item A) including clod breaking and rough dressing of soil with all leads and lift all complete including royalty as per specifications and direction of E/I.	117.40	Per M ³
5.1.18	Earth work in bed clearance or desilting of canals caring full supply discharge of 28 cumecs (1000 cusecs) or more in dead courses of river etc, in ordinary soil and removing the excavated earth in proper profile in spoils etc.with an initial lead of 30 mtr and lift of 1.5M all complete as per specifications and direction of E/I.	119.70	Per M ³
5.1.19	Earth work in bed clearance or desilting of canals having full supply discharge between of 28 cumecs (1000 cusecs) and 8.5cumecs (300 Cusecs) including rough dressing ,with all lead and lift all complete including royalty as per specifications and direction of E/I.	117.40	Per M ³
5.1.20	Earth work in bed clearance or desilting of canals having full supply discharge between 8.5 cumecs (300 cusecs) and 0.14cumecs (5 Cusecs) and renovation of pynes etc. in ordinary soil and disposal of excavated earth etc.including rough dressing ,with all lead and lift all complete including royalty as per specifications and direction of E/I.	117.40	Per M ³

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5.1.21	Earth work in leap cutting in side slopes and bed of canal in ordinary soil with initial lead of 30 M and lift of 1.5 M including the cost of formation of sub grade of canal lining profiling, leveling ,controlling of slopes and fine dressing ,disposal of excavated earth and nominal dewatering if any all complete as per approved design , specifications and direction of E/I.	147.20	Per M ³
5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.	12.90	Per M ³
5.1.23	Earth work in excavation of filling of E.R.P.set channels, tube well channels (lined or unlined) in ordinary soil with all lead and lift including clod breaking dressing of sides of banks etc. all complete as per specifications and direction of E/I.	117.40	Per M ³
5.1.24	Earth work in filling in flood embankment ,canal banks (canals discharge above 28 cumecs)as well as special repairs of embankment and canal banks in ordinary soil in proper profile (vide classification of soil item A) obtained from borrow area or any other source free from logs, roots or any other ingredients etc. with initial lead of 30 M and initial lift of 1.5 M including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225 mm, thick all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)	136.10	Per M ³
5.1.25	Earth work in filling in canal banks (canals discharge up to 28 cumecs)as well as special repairs of canal banks in ordinary soil in proper profile (vide classification of soil item A) obtained from borrow area or any other source free from logs, roots or any other ingredients etc. with initial lead of 30 M and initial lift of 1.5 M including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225mm, thick all complete including royalty as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)	123.80	Per M ³
5.1.26	Deleted		
5.1.27	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance up to 50 mtr and average lift of 1.5 M including leveling , ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	146.40	Per M ³
5.1.28	Earth work in excavation of foundation trenches in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 300M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	632.90	Per M ³
5.1.29	Earth work in excavation of foundation trenches in proper section in hard rock (vide classification of soil item D) (non- blasting zone) with chisel and hammer with. disposal of excavated rock to a distance up to 30 M lifts of 1.5 M in proper stack including leveling, dressing of foundation trenches all complete as per specifications and direction of E/I.	475.20	Per M ³
5.1.30	Earth work in excavation of foundation trenches in hard rock (vide classification of soil item D) in proper section by blasting disposal of excavated rock in proper stack sat places beyond working site with initial lead of 30 mtr and lift of 1.5M including leveling, dressing of foundation trenches all complete as per specifications and direction of E/I.	1079.20	Per M ³
5.1.31	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.	111.90	Per M ³

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5.1.32	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with semi-pervious or suitable earth obtained after cutting of borrow pits within a lead of 30 M and lift of 1.5 M complete job as per specifications and direction of E/I.	124.80	Per M ³
5.1.33.1	Extra for earth work for ordinary or hard soil (vide classification of soil item-A and B) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.	12.90	Per M ³
5.1.33.2	Extra for earth work for ordinary or hard soil (vide classification of soil item-C and D) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.	19.40	Per M ³
5.1.34.1	Extra for earth work for ordinary or hard soil(vide classification of soil item-A and B) of each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.	12.90	Per M ³
5.1.34.2	Extra for earth work for ordinary soft or hard rock(vide classification of soil item-C and D) of each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.	19.40	Per M ³
5.1.35	Deleted		
5.1.36	Trimming and fine dressing the side slopes of canal (of preparation of soil of lining for precast P.C.C slab) to proper section and profile and disposal of spoil at a suitable place complete job as per specifications and direction of E/I.	25.90	Per M ²
5.1.37	Providing coarse clean local sand in filling in foundation trenches including ramming, watering ,royalty all complete job as per specifications and direction of E/I.	293.90	Per M ³
5.1.38	Watering and consolidation of earth laid in 150 mm to 225 mm layers by manual labour with C.I hammer to achieve minimum 85 % of dry density including supply of water and necessary tools and plants with all leads and lifts all complete as per specifications and direction of E/I.	77.70	Per M ³
5.1.39	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by sheep foot roller driven by tractor to achieve minimum 95 % of dry density including sprinkling the required quantity of water, making arrangement for supply and carriage of water with all leads and lifts, finishing the surfaces as per plan and drawing including hire charge of compaction, machine and other tools and plants etc. for lined canal all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)	48.20	Per M ³
5.1.40	Close timbering in trenches including strutting, shoring and packing cavities(wherever required)depth not exceeding 1.5 M, complete as per specifications and direction of E/I (measurement to be taken of the face area timbered).	108.70	Per M ²
5.1.41	Close timbering in trenches including strutting, shoring and packing cavities(wherever required)depth not exceeding 1.5 M, but up to 3.0 M complete as per specifications and direction of E/I. (measurement to be taken of the face area timbered).	114.00	Per M ²
5.1.42.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sod obtained within a lead of 150 mtr including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I	2566.80	Per % M ²
5.1.42.2	Extra for each lead of 150 mtr over initial lead of 150 mtr including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	548.60	Per % M ²
5.1.43	Jungle clearance in borrow area, building premises; flanks, slope of existing road and canal etc,embankment by removing the jungle , bushes from top including weeding out shrubs including roots and leveling complete job as per specifications and direction of E/I.	3.00	Per M ²

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5.1.44	Earth work by tractor (Rajashani) with bucket (Doli) with spreader (Tractor leveler or Tractor Dozer) in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers and construction & removal of dhalas properly with lead of meter (lead will be considered as perpendicular distance from C.G. of Pit to C.G. of banks or embankment) and with all lifts all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)(Lead should be taken C.G to C.G. perpendicular to the bank Maximum Lead Upto - 150 mtr. Note:- Track Path may not be taken as lead)		
5.1.44.1	For C.G to C.G Lead 15 M	92.30	Per M ³
5.1.44.2	For C.G To C.G Lead 30 M	103.70	Per M ³
5.44.3.	For C.G to C.G Lead 55 M	118.10	Per M ³
5.44.4	For C.G to C.G Lead 80 M	129.70	Per M ³
5.44.5	For C.G to C.G Lead 100 M	137.10	Per M ³
	NOTE :- Add Royalty of Earth Rs 33.00 Where needed without overhead charge & C.P		
5.1.45	Deleted		
5.1.46	Earth work by Mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead of meter (lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of haulage path from pit to bank or embankment Pit will be beyond 150 meter from centre of bank i.e. perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 meter) and with all lifts all complete job as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)		
5.1.46.1	Beyond 150M but upto 1/2 K M	161.80	Per M ³
5.1.46.2	Beyond 1/2 K M but upto 1 K M	202.70	Per M ³
5.1.46.3	Beyond 1.00 K M but upto 1.50 K M	250.90	Per M ³
5.1.46.4	Beyond 1.50 K M but upto 2.00K M	299.00	Per M ³
5.1.46.5	Beyond 2.0 K M but upto 2.50 K.M	347.20	Per M ³
5.1.46.6	Beyond 2.50 K M but upto 3.00 K M	395.40	Per M ³
	NOTE :- Add Royalty of Earth Rs 33.00 Where needed without overhead charge & C.P		
5.1.47	Earth work by excavator and spreader or tractor- leveler in lower level canal or flood embankment or dhar (Like, Minor, Sub -minor, Jamindari bundh, Pynes etc where tipper is not needed) all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead below 15 meter and with. all lifts all complete job as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth) NOTE :- Add Royalty of Earth Rs 33.00 Where needed without overhead charge & C.P	57.10	Per M ³

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CHAPTER --V
CANAL EMBANKMENT AND STRUCTURE

5.1 EARTH WORK

S.No.	Description	Quantity	Unit	Rate	Amount	Ref
5.1.1	Preparation of seat of embankment or canals by 75 mm ploughing and removing the grass roots etc. and as per specifications and direction of E/I.					
	Unit :- Per Sqm.					
	Taking Out put:- 92.94 Sqm					
	Unskilled mazdoor for leveling and ploughing	0.50	nos	318.00	159.00	(SI-1)
	Unskilled mazdoor for removing grass roots and leveling	0.75	nos	318.00	238.50	(SI-1)
					397.50	
	Add Overhead charge & C.P @ 15%				59.63	
					457.13	
					4.92	
	Rate per Sqm			say, Rs	4.90	Per M ²
5.1.2	Preparation of borrow areas of embankment or canals by removing the grass and the jungle, bushes from the top including weeding out shrubs including roots & levelling all complete as per specifications and direction of E/I					
	Unit :- Per Sqm.					
	Taking Out put:- 92.94 Sqm					
	Unskilled mazdoor for leveling and ploughing	0.75	nos	318.00	238.50	(SI-1)
	Add Overhead charge & C.P @ 15%				35.78	
					274.28	
				Rs	2.95	
	Rate per Sqm			say, Rs	3.00	Per M ²
5.1.3	Jungle clearance and weeding out shrubs including small tree up to 0.50M girth and removal as per specifications and direction of E/I					
	Unit :- Per Sqm					
	Taking Out put:- 92.94 Sqm					
	Unskilled mazdoor for cutting shrubs and trees	1.50	nos	318.00	477.00	(SI-1)
	Unskilled mazdoor for collecting and removing shrubs, weeds and	0.75	nos	318.00	238.50	(SI-1)
					715.50	
	Add Overhead charge & C.P @ 15%				107.33	
					822.83	
					8.85	
	Rate pe sqm			say, Rs	8.90	Per M ²
5.1.4	Cutting of trees along with branches and their removal away from the work site and stacking the same and as per specifications and direction of E/I. (Measurement of girth at a height of one metre above the ground level)					
	Unit :- Each					
	(a) Girth above 0.50 metre but up to 0.75 metre					
	Carpenter Gr II	0.25	nos	382.00	95.50	(SI-17)
	Unskilled mazdoor	0.50	nos	318.00	159.00	(SI-1)
					254.50	
	Add Overhead charge & C.P @ 15%				38.18	
					292.68	
	Rate for each			say, Rs	292.70	Each
	(b) Girth above 0.75 metre but up to 1.50 metre					
	Carpenter Gr II	0.50	nos	382.00	191.00	(SI-17)
	Unskilled mazdoor	1	nos	318.00	318.00	(SI-1)
					509.00	
	Add Overhead charge & C.P @ 15%				76.35	
					585.35	
	Rate for each			say, Rs	585.40	
	(c) Girth above 1.5 metre but up to 2.50 metre					
	Carpenter Gr II	0.75	nos	382.00	285.50	(SI-17)
	Unskilled mazdoor	2	nos	318.00	636.00	(SI-1)
					922.50	
	Add Overhead charge & C.P @ 15%				138.38	
					1060.88	
	Rate for each			say, Rs	1060.90	Each
	(d) Girth above 2.50 metre but up to 4.00 metre					
	Carpenter Gr II	1	nos	382.00	382.00	(SI-17)
	Unskilled mazdoor	3.50	nos	318.00	1113.00	(SI-1)
					1495.00	
	Add Overhead charge & C.P @ 15%				224.25	
					1719.25	
	Rate for each			say, Rs	1719.20	each

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	(e) Girth above 4.00 metre					
	Carpenter Gr II	1.50	nos	382.00	573.00	{SI-17}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
					2163.00	
	Add Overhead charge & C.P@15%				324.45	
					2487.45	
	Rate for each			say, Rs	2487.50	Each
5.1.5	Up rooting of stumps and their removal away from the work site and as per specifications and direction of E/I.					
	Unit :- Each					
	(a) Girth above 0.50 metre but up to 0.75 metre					
	Unskilled mazdoor	0.50	nos	318.00	159.00	{SI-1}
					159.00	
	Add Overhead charge & C.P@15%				23.85	
					182.85	
				say, Rs	182.90	each
	(b) Girth above 0.75 metre but up to 1.50 metre					
	Unskilled mazdoor	0.50	nos	318.00	159.00	{SI-1}
					159.00	
	Add Overhead charge & C.P@15%				23.85	
					182.85	
				say, Rs	182.90	Each
	(c) Girth above 1.5 metre but upto 2.50 metre					
	Unskilled mazdoor	0.67	nos	318.00	212.00	{SI-1}
					212.00	
	Add Overhead charge & C.P@15%				31.80	
					243.80	
				say, Rs	243.80	Each
	(d) Girth above 2.50 metre but up to 4.00 metre					
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					318.00	
	Add Overhead charge & C.P @15%				47.70	
					365.70	
				say, Rs	365.70	each
	(e) Girth above 4.00 metre					
	Unskilled mazdoor	1.25	nos	318.00	397.50	{SI-1}
					397.50	
	Add Overhead charge & C.P*15%				59.63	
					457.13	
	Rate for each			say, Rs	457.10	Each
5.1.6	Earth work in excavation of canals and dhars carrying minimum full supply discharge above 28 cumecs (1000 cusecs) in ordinary soil (vide classification of soil item A) and making the banks with excavated earth in proper profile, clod breaking and laying earth in 225 mm layers with an initial lead of 30 M and lift of 1.5 M all complete and as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out cut = 28.32 Cum					
	Unskilled mazdoor for cutting	5	nos	318.00	1590.00	{SI-1}
	Unskilled mazdoor for carrying	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for clod breaking	0.75	nos	318.00	238.50	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
					3822.25	
	Add Overhead charge & C.P @15%				573.34	
					4395.59	
					155.21	
					155.21	
	Rate per cum			say, Rs	155.20	Per M ³
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C P					
5.1.7	Earth work in excavation of canals and dhars carrying minimum full supply discharge between 28 cumecs (1000 cusecs) and 8.5 cumecs (300 cusecs) in ordinary soil (vide classification of soil item A) and making the banks with excavated earth in proper profile, clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 15M and lift of 1.5 M all complete and as per specifications and direction of E/I.					

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	AS per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	(SI-1)
	Unskilled mazdoor for clod breaking	0.5	nos	318.00	159.00	(SI-1)
					3049.62	
	Add Overhead charge & C.P @15%				457.44	
					3507.06	
						123.84
						123.84
	Rate per cum			say,Rs	123.80	Per M ³
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.8	Earth work in excavation of canals and dhars carrying minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in ordinary soil (vide classification of soil item A) and making the banks with excavated earth in proper profile and clod breaking and laying earth in 225 mm layers and rough dressing with an initial lead of 10 M and lift of 1.5 M all complete . and as per specifications and direction of E/I.					
	As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
	Unit :- Per Cum					
	Taking Out put = 28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	(SI-1)
	Add Overhead charge & C.P@15%				433.59	
					3324.21	
						117.38
						117.38
	Rate per cum			say,Rs	117.40	Per M ³
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.9	Earth work in filling for the maintenance of canals having minimum full supply discharge up to 28 cumecs (1000 cusecs) and flood embankment in ordinary soil (vide classification of soil item A) including clod breaking having earth in 225 mm layers and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.					
	As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	(SI-1)
	Add Overhead charge & C.P @15%				433.59	
					3324.21	
						117.38
						117.38
	Rate per cum			say,Rs	117.40	Per M ³
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.10	Extra for earth work in hard soil (vide classification of soil item B) all complete as per specifications and direction of E/I					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting	2	nos	318.00	636.00	(SI-1)
					636.00	
	Add Overhead charge & C.P @15%				95.40	
					731.40	
						25.83
	Rate per cum			say,Rs	25.80	Per M ³
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.11	Extra for earth work in marshy, slushy and daldal soil (vide classification of soil item F) all complete as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put=28.32 Cum	28.32	Cum			
	Unskilled mazdoor for cutting	15	nos	318.00	477.00	(SI-1)
	Unskilled mazdoor for carrying	15	nos	318.00	477.00	(SI-1)
					954.00	
	Add Overhead charge & C.P @15%				143.10	
					1097.10	
						38.74
	Rate Per Cum			say,Rs	38.70	Per M ³
5.1.12.1	Earth work in excavation in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 10 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.(Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit :- per Cum					
	Taking Out put =10 cum					
	Materials					

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	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	(0326) (BCD)
					2029.32	
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			15.00	
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	6.50	nos	318.00	2067.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
					3300.32	
					5344.64	
	Add Overhead charge & C.P@15%				801.70	
					6146.34	
						614.63
	Rate per Cum			say, Rs	614.60	
5.1.12.2	Earth work in excavation in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C) with initial lead of 10 M and lift of 1.5M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete and as per specifications and direction of E/I					
	Unit :- Per Cum					
	Taking Out put =10 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	8.50	nos	318.00	2703.00	{SI-1}
	Mason Gr I	0.50	nos	428.00	214.00	{S II-3}
					3835.50	
	Add Overhead charge & C.P @15%				575.33	
					4410.83	
						441.08
	Rate Per Cum	Say	Rs	441.10	Per M ³	
5.1.13.1	Earth work in excavation in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 300 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete and as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit :- Per Cum					
	Taking Out put= 10 Cum					
	Materials					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Defonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	(0326) (BCD)
					2029.32	
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	7.00	nos	318.00	2226.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
					3459.32	
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			15.00	
					5503.64	
	Add Overhead charge & C.P @15%				825.55	
					6329.19	
						632.92
	Rate per Cum	Say	Rs	632.90	Per M ³	
5.1.13.2	Earth work in excavation in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C)with initial lead of 30M and lift of 1.5M including dressing , making the sides in profile and dressing the bed in proper grade etc all complete and as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =10 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	9.00	nos	318.00	2862.00	{SI-1}
	Mason Gr I	0.50	nos	428.00	214.00	{S II-3}

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				3994.50	
	Add Overhead charge & C.P@15%			599.18	
				4593.68	
					459.37
	Rate per Cum	Say	Rs	459.40	Per M ³
5.1.14	Earth work in excavation in hard rock (vide classification of soil item D) where blasting is needed with initial lead of 10 M and lift of 1.5M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete and as per specifications and direction of E/I.				
	Unit :- Per Cum				
	Taking Out put =10Cum				
	Materials				
	Special Gelatin	2.00	Kg	976.21	1952.42 M-215
	Detonator	10	nos	6.19	61.90 M-217
	Fuse coil	1	nos	15.00	15.00 (0326) (BCD)
				2029.32	
	Labour				
	Hammer man	10.50	nos	334.00	3507.00 (S II-17)
	Unskilled mazdoor for all work	10.00	nos	318.00	3180.00 (SI-1)
	Mason Gr I	0.33	nos	428.00	141.24 (S II-3)
	Blaster	0.67	nos	526.00	352.42 (S I-54)
				7180.66	
	Tools and Plants				
	Cost of hire charge of compressor, drilling equipment and other accessories	L S		15.00	
	Total			9224.98	
	Add Overhead charge & C.P@15%			1383.75	
				10608.73	
					1060.87
	Rate per Cum	Say	Rs	1060.90	Per M ³
5.1.15	Earth work in excavation in hard rock (vide classification of soil item D) where blasting is needed with initial lead of 30 M and lift of 1.5M including dressing , making the sides in proper profile and dressing the bed in proper grade as well as fine dressing of side and slopes etc. all complete and as per specifications and direction of E/I.				
	Unit :- Per Cum				
	Taking Out put =10 Cum				
	Blasting material				
	Special Gelatin	2.00	Kg	976.21	1952.42 M-215
	Detonator	10	nos	6.19	61.90 M-217
	Fuse coil	1	nos	15.00	15.00 (0326) (BCD)
				2029.32	
	Labour				
	Hammer man	10.50	nos	334.00	3507.00 (S II-17)
	Unskilled mazdoor for all work	10.50	nos	318.00	3339.00 (SI-1)
	Mason Gr I	0.33	nos	428.00	141.24 (S II-3)
	Blaster	0.670	nos	526.00	352.42 (S I-54)
				7339.66	
	Tools and Plants				
	Cost of hire charge of compressor, drilling equipment and other accessories	L S		15.00	
	Total			9383.98	
	Add Overhead charge & C.P @15%			1407.60	
				10791.58	
					1079.16
	Rate per Cum	Say	Rs	1079.20	Per M ³
5.1.16	Earth work in excavation of water course in ordinary soil with all lead and lift including clod breaking ,rough dressing all complete and as per specifications and direction of E/I				
	As per labour deptt. Norms (Vide T.E.C no 63 dt 7.10.94)				
	Unit :- Per Cum				
	Taking Out put =28.32 Cum				
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62 (SI-1)
	Add Overhead charge & C.P @15%			433.59	
				3324.21	
					117.38
					117.38
	Rate per Cum	Say	Rs	117.40	Per M ³
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P				
5.1.17	Earth work in maintenance of canals having discharge less than 28 cumecs (1000 cusecs) in ordinary soil (vide classification of soil item A) including clod breaking and rough dressing of soil with all leads and lift all complete and as per specifications and direction of E/I.				

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	As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
	Unit :- Per Cum					
	Taking Out put = 28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	{SI-1}
	Add Overhead charge & C.P @15%				433.59	
					3324.21	
						117.38
						117.38
	Rate per Cum	Say	Rs	117.40	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.18	Earth work in bed clearance or desilting of canals carrying full supply discharge of 28 cumecs (1000 cusecs) or more in dead courses of river etc, in ordinary soil and removing the excavated earth in proper profile in spoils etc with an initial lead of 30 M and lift of 1.5 M all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting	5	nos	318.00	1590.00	{SI-1}
	Unskilled mazdoor for carrying	4	nos	318.00	1272.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
	Total				2947.75	
	Add Overhead charge & C.P @15%				442.16	
					3389.91	
						119.70
						119.70
	Rate per Cum	Say	Rs	119.70	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.19	Earth work in bed clearance or desilting of canals having full supply discharge between of 28 cumecs (1000 cusecs) and 8.5cumecs (300 Cusecs) including rough dressing ,with all lead and lift all complete and as per specifications and direction of E/I.					
	As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
	Unit :- Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	{SI-1}
	Add Overhead charge & C.P @15%				433.59	
					3324.21	
						117.38
						117.38
	Rate per Cum	Say	Rs	117.40	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.20	Earth work in bed clearance or desilting of canals having full supply discharge between 8.5 cumecs (300 cusecs) and 0.14cumecs (5 Cusecs) and renovation of pynes etc in ordinary soil and disposal of excavated earth etc.including rough dressing with all lead and lift all complete and as per specifications and direction of E/I.					
	As per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	{SI-1}
	Add Overhead charge & C.P@15%				433.59	
					3324.21	
						117.38
						117.38
	Rate per Cum	Say	Rs	117.40	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.21	Earth work in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30 M and lift of 1.5 M including the cost of formation of sub grade of canal lining, profiling, leveling, controlling of slopes and fine dressing, disposal of excavated earth and nominal dewatering if any all complete and as per approved design , specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor for cutting	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for carrying	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for controlling slope and fine dressing	2	nos	318.00	636.00	{SI-1}
	Skilled mazdoor	0.25	nos	403.00	100.75	{SII-70}
	Mate	1	nos	343.00	343.00	S II-2
					3623.75	
	Add Overhead charge & C.P@15%				543.56	
					4167.31	
						147.15
	Rate per Cum	Say	Rs	147.20	Per M ³	

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5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor	1	nos	318.00	318.00	(SI-1)
	Add Overhead charge & C.P@15%				47.70	
					365.70	
						12.91
	Rate per Cum	Say	Rs	12.90	Per M ³	
5.1.23	Earth work in excavation of filling of E.R.P.set channels, tube well channels (lined or unlined) in ordinary soil with all lead and lift including clod breaking, dressing of sides of banks etc. all complete and as per specifications and direction of E/I.					
	As per labour deptt .Norms (Vide T.E.C no 63 dt					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	(SI-1)
	Add Overhead charge & C.P @15%				433.59	
					3324.21	
						117.38
						117.38
	Rate per Cum	Say	Rs	117.40	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.24	Earth work in filling in flood embankment ,canal banks (canals discharge above 28 cumecs)as well as special repairs of embankment and canal banks in ordinary soil in proper profile (vide classification of soil item A) obtained from borrow area or any other source free from logs, roots or any other ingredients etc. with initial lead of 30 M and initial lift of 1.5M including breaking the clods to maximum 60 mm cube ,placing the earth in layers not exceeding 225 mm, thick all complete and as per specifications and direction of E/I (mode of measurement-sectional measurement of compacted earth)					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	Unskilled mazdoor for cutting	9	nos	318.00	2862.00	(SI-1)
	Skilled mazdoor	1	nos	403.00	403.00	(SII-70)
	Male	U/25	nos	343.00	85.75	S II-2
					3350.75	
	Add Overhead charge & C.P@15%				502.61	
					3853.36	
						136.07
						136.07
	Rate per Cum	Say	Rs	136.10	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P					
5.1.25	Earth work in filling in canal banks (canals discharge up to 28 cumecs) as well as special repairs of canal banks in ordinary soil in proper profile (vide classification of soil item A) obtained from borrow area or any other source, free from logs, roots or any other ingredients etc with initial lead of 30M and initial lift of 1.5 M including breaking the clods to maximum 60 mm cube ,placing the earth in layers not exceeding 225mm, thick all complete and as per specifications and direction of E/I (mode of measurement-sectional measurement of compacted earth) .					
	As per labour deptt .Norms (Vide T.E.C no 63 dt					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Labour					
	Unskilled mazdoor for cutting, carrying	9.09	nos	318.00	2890.62	(SI-1)
	Add extra wao of 1/2 no unskilled labour per 28.32 M ³	0.5	nos	318.00	159.00	(SI-1)
					3049.62	
	Add Overhead charge & C.P@15%				457.44	
					3507.06	
						123.84
						123.84
	Rate per Cum	Say	Rs	123.80	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed					
5.1.26	Deleted					

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5.1.27	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained to a distance up to 50 M and average lift of 1.5 M including leveling , ramming the foundation trenches, removing the roots of shrubs etc. all complete and as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Labour					
	Unskilled mazdoor for cutting and carrying etc.	11	nos	318.00	3498.00	{SI-1}
	Head mason	0.25	nos	428.00	107.00	{S II -3}
					3605.00	127.30
	Add Overhead charge & C.P@15%				540.75	
					4145.75	
						146.39
	Rate per Cum	Say	Rs	146.40	Per M ³	
5.1.28	Earth work in excavation of foundation trenches in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 300 M and lift of 1.5 M including dressing , making the sides in profile and dressing the bed in proper grade etc. all complete including and as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit :-Per Cum					
	Taking Out put=10.00 Cum					
	Blasting material					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	{0326}
					2029.32	(A)
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	7.00	nos	318.00	2226.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
					3459.32	(B)
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and				15.00	(C)
	Total				5503.64	(A+B+C)
	Add Overhead charge & C.P@15%				825.55	
					6329.19	
						632.92
	Rate per Cum	Say	Rs	632.90	Per M ³	
5.1.29	Earth work in excavation of foundation trenches in proper section in hard rock (vide classification of soil item D) (non- blasting zone) with chisel and hammer with disposal of excavated rock to a distance up to 30 M and lifts of 1.5 M in proper stack including leveling, dressing of foundation trenches all complete and as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =10 Cum					
	Labour					
	Hammer man	2.25	nos	334.00	751.50	{S II-17}
	Skilled mazdoor for all work	2.25	nos	403.00	906.75	{SII-70}
	Unskilled mazdoor	5.5	nos	318.00	1749.00	{SI-1}
	Blacksmith	1	nos	382.00	382.00	{S II-10}
	Mate	1	nos	343.00	343.00	S II-2
					4132.25	
	Add Overhead charge & C.P@15%				619.84	
					4752.09	
						475.21
	Rate per Cum	Say	Rs	475.20	Per M ³	
5.1.30	Earth work in excavation of foundation trenches in hard rock (vide classification of soil item D) in proper section by blasting disposal of excavated rock in proper stack at places beyond working site with initial lead of 30 M and lift of 1.5M, including leveling, dressing of foundation trenches all complete and as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =10 Cum					
	Blasting material					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	{0326}
					2029.32	

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	Labour					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all work	10.50	nos	318.00	3339.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.67	nos	526.00	352.42	{S I -54}
					7339.66	
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and				15.00	
					9383.98	
	Add Overhead charge & C.P@15%				1407.60	
					10791.58	
						1079.16
	Rate per Cum	Say	Rs	1079.20	Per M ³	
5.1.31	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 M and lift of 1.5 M, all complete job and as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Labour					
	Unskilled mazdoor for cutting	4.5	nos	318.00	1431.00	{SI-1}
	Unskilled mazdoor for carrying	4	nos	318.00	1272.00	{SI-1}
	Head mason	0.125	nos	428.00	53.50	{S II -3}
					2756.50	
	Add Overhead charge & C.P@15%				413.48	
					3169.98	
						111.93
	Rate per Cum	Say	Rs	111.90	Per M ³	
5.1.32	Earth work in filling in foundation trenches and back filling of structures in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with semi - pervious or suitable earth obtained after cutting of borrow pits within a lead of 30M and lift of 1.5 M complete job and as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put= 28.32 Cum					
	Labour					
	Unskilled mazdoor for cutting	5.5	nos	318.00	1749.00	{SI-1}
	Unskilled mazdoor for carrying	4	nos	318.00	1272.00	{SI-1}
	Head mason	0.125	nos	428.00	53.50	{S II -3}
					3074.50	
	Add Overhead charge & C.P@15%				461.18	
					3535.68	
						124.85
	Rate per cum	Say	Rs	124.80	Per M ³	
5.1.33.1	Extra for earth work for ordinary or hard soil (vide classification of soil item-A and B) in each additional lead up to 25 M beyond the initial lead of 30 M as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
	Add Overhead charge & C.P@15%				47.70	
					365.70	
						12.91
	Rate per Cum	Say	Rs	12.90	Per M ³	
5.1.33.2	Extra for earth work for ordinary or hard soil (vide classification of soil item-C and D) in each additional lead up to 25 M beyond the initial lead of 30 M and as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Add Overhead charge & C.P@15%				71.55	
					548.55	
						19.37
	Rate per Cum	Say	Rs	19.40	Per M ³	
5.1.34.1	Extra for earth work for ordinary or hard soil (vide classification of soil item-A and B) for each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put = 28.32 Cum					
	Unskilled mazdoor for cutting	1	nos	318.00	318.00	{SI-1}
	Add Overhead charge & C.P@15%				47.70	
					365.70	
						12.91
	Rate per Cum	Say	Rs	12.90	Per M ³	

5.1.34.2	Extra for earth work for ordinary soft or hard rock (vide classification of soil item-C and D) for each subsequent lift up to 1 M over the initial lift of 1.5 M as per specification and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=28.32 Cum					
	Unskilled mazdoor for cutting	1.5	nos	318.00	477.00	{SI-1}
	Add Overhead charge & C.P@15%				71.55	
					548.55	
						19.37
	Rate per Cum	Say	Rs	19.40	Per M ³	
	NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C P					
5.1.35	Deleted					
5.1.36	Trimming and fine dressing the side slope of canal (for preparation of soil for lining of precast P.C.C. slab) to proper section and profile and disposal of soil at a suitable place complete job as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put=100Sqm					
	Labour					
	Mason Gr II	0.25	nos	382.00	95.50	{S II- 4}
	Unskilled mazdoor for cutting slope	3	nos	318.00	954.00	{SI-1}
	Unskilled mazdoor for carrying the spoils	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for making the seat of lining to proper profile	1.5	nos	318.00	477.00	{SI-1}
	Male	0.25	nos	343.00	85.75	S II-2
					2248.25	
	Add Overhead charge & C.P@15%				337.24	
					2585.49	
						25.85
	Rate per sqm	Say	Rs	25.90	Per M ²	
5.1.37	Providing coarse clean local sand in filling in foundation trenches including ramming, watering, royalty, all complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Labour					
	Unskilled mazdoor for cutting	1	nos	318.00	318.00	{SI-1}
	Local Sand	2.832	Cum	143.32	405.88	{ M 006}
					723.88	
	Add Overhead charge & C.P@15%				108.58	
					832.46	
						293.95
	Rate per sqm	Say	Rs	293.90	Per M ³	
5.1.38	Watering and consolidation of earth laid in 150 mm to 225 mm layers by manual labour with C I hammer to achieve minimum 85 % of dry density including cost and carriage of water and necessary tools and plants with all leads and lifts all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	Cost of water	L S			15.00	
	Labour					
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Bhisti for carriage of water and sprinkling	3	nos	315.00	945.00	S II-13
					1914.00	
	Add Overhead charge & C.P@15%				287.10	
					2201.10	
						77.72
	Rate per cum	Say	Rs	77.70	Per M ³	
5.1.39	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by sheep foot roller driven by tractor to achieve minimum 95 % of dry density including sprinkling the required quantity of water making arrangement for supply and carriage of water with all leads and lifts, finishing the surfaces plan and drawing including hire charge of compaction, machine and other tools and plants etc for lined canal all complete as per specifications and direction of E/I. (mode of measurement- sectional measurement of compacted earth)					
	Unit :- Per Cum					
	Taking Out put =28.32 Cum					
	Cost of water	LS			15.00	
	Bhisti for carriage of water and sprinkling	3	nos	315.00	945.00	S II-13
	Hire charge of sheep foot roller assuming 1450 cum to be rolled in 8 hr wide item no 3 16	0.1600	hr	1518.00	242.88	PM8001
					1187.88	
	Add Overhead charge & C.P@15%				178.18	
					1366.06	
						48.237
	Rate per cum	Say	Rs	48.20	Per M ³	

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5.1.40	Close timbering in trenches including strutting, shoring and packing cavities (wherever required) depth not exceeding 1.5 M, complete as per specifications and direction of E/I. (measurement to be taken of the face area timbered).					
	Unit :-Per Sqm					
	Taking Out put =90 Sqm					
	Assuming 30M long 1.5 M deep					
	Area= 2 x 30 x 1.5 = 90 sqm					
	Poling Boards					
	Local wood planks 90 x 0.038= 3.42 cum	3.42	cum	26000.00	88920.00	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	26000.00	31200.00	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long =2 x17x1.5=51 M	51	M	56.85	2899.35	(M SL no-223)
					123019.35	
	Carriage					
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				1230.19	
	Total				124249.54	
	Deduct credit for materials 75 % of the cost of material				92264.51	
					31985.03	a
	This can be used four times, therefore cost per use= a/4				7996.26	A
	Labour					
	Carpenter Gr II	0.50	nos	382.00	191.00	(S I -17)
	Unskilled mazdoor	1	nos	318.00	318.00	(SI-1)
					509.00	B
	Total A+B				8505.26	
	Add Overhead charge & C.P@15%				1275.79	
					9781.05	
						108.68
	Rate per sqm	Say	Rs	108.70	Per Sqm	
5.1.41	Close timbering in trenches including strutting, shoring and packing cavities(whenever required) depth not exceeding 1.5 M, but up to 3.0 M complete as per specifications and direction of E/I. (measurement to be taken of the face area timbered).					
	Unit :-Per Sqm					
	Taking Out put=90 Sqm					
	Assuming 30 mtr long 1.5 mtr deep					
	Area= 2 x 30 x 1.5 = 90 sqm					
	Poling Boards					
	Local wood planks 90 x 0.038= 3.42 cum	3.42	cum	26000.00	88920.00	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	26000.00	31200.00	
	Balli struts					
	Sal ballah 125 mm dia 1.5 m long 2 x17x1.5=51 mtr	51	mtr	56.85	2899.35	(M SL no-23)
					123019.35	
	Carriage					
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				1230.19	
	Total				124249.54	
	Deduct credit for materials 75 % of the cost of material				92264.51	
					31985.03	a
	This can be used four times, therefore cost per use a/4				7996.26	A
	Labour					
	Carpenter Gr II	0.75	nos	382.00	286.50	(S I -17)
	Unskilled mazdoor	2	nos	318.00	636.00	(SI-1)
					922.50	B
	Total A+B				8918.76	
	Add Overhead charge & C.P@15%				1337.81	
					10256.57	
						113.96
	Rate per sqm	Say	Rs	114.00	Per Sqm	
5.1.42.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sode obtained within a lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =100Sqm					
	Cost of watering till the growth	L S			15	
	Labour					
	Unskilled mazdoor for cutting	1.5	nos	318.00	477.00	(SI-1)
	Unskilled mazdoor for carrying	1.5	nos	318.00	477.00	(SI-1)
	Unskilled mazdoor for dressing, placing turf and ramming	1	nos	318.00	318.00	(SI-1)
	Bhisti for carriage of water and sprinkling	3	nos	315.00	945.00	S II-13
					2232.00	
	Add Overhead charge & C.P@15%				334.80	
					2566.80	
						2566.80
	Rate per 100 sqm	Say	Rs	2566.80	Per % M ²	

5.1.42.2	Extra for each lead of 150 M over initial lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put=100 Sqm					
	Unskilled mazdoor for carrying	1.50	nos	318.00	477.00	{SI-1}
					477.00	
	Add Overhead charge & C.P@15%				71.55	
					548.55	
						548.55
	Rate per 100 sqm	Say	Rs	548.60	Per % M ²	
5.1.43	Jungle clearance in borrow area, building premises; flanks, slope of existing road and canal etc,embankment by removing the jungle, bushes from top including weeding out shrubs including roots and leveling complete job as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =92.94 Sqm					
	Unskilled mazdoor for carrying	0.75	nos	318.00	238.50	{SI-1}
					238.50	
	Add Overhead charge & C.P@15%				35.78	
					274.28	
						2.95
	Rate per sqm	Say	Rs	3.00	Per M ²	

De

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Earth work by tractor (Rajasthani) with bucket (Doli) with spreader (Tractor leveler or Tractor Dozer) in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers and construction & removal of dhais properly with lead of meter (lead will be considered as perpendicular distance from C.G. of Pit to C.G. of banks or embankment) and with all lifts all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)(Lead should be taken C.G to C.G.perpendicular to the bank Maximum Lead Up to -150 mtr. Note:- Track Path may not be taken as lead)		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	For C.G to C.G Lead in K.M (L)	Speed (km/hr) (V)	Time for loading, Unloading etc (hr) (1) = 1 min	Spacing of Dhais (km) (S)	Capacity Per Trip Cum (e)	Haulage Path (Distance travelled in one cycle) = 2(L+S)	Time of run per trip = 2(L+S)/V	Time per cycle (hr) = 2(L+S) / V + 1	No of trips , N = 8V/ (2L+2S+V)	Output per day with 80% efficiency = 0.80xNxe	Use Rate of Tractor with Leveler Per Day (Tr) (PM 12001 + PM 13001)	Cost per Cubic Metre = Tr/0.8 Ne	Proportional Cost of Dhala (10% only)	Cost of Dhala Per cubic metre	Add for cutting (Use rate of tractor/ Capacity of cutting 324 cum per day) = Tr/324	Add for spreading cost = (Use rate of D-80 Dozer Per hr / Capacity of D-80 Dozer per hr 300 cum) PM 1003/300	Add for finishing and dressing = one mazdoor/100M ³	Total cost (12+14+15+16+17)	Add Overhead charge & C.P 15%	Rate Per M ³	
5.1.44.1	For C.G to C.G Lead 15 M (L=0.015 K.M)	5,000	0.0167	0.03	0.60	0.09	0.018	0.035	230.55	110.66	5168.00	46.70	0.10	4.67	15.95	9.77	3.18	80.27	12.04	92.30	
5.1.44.2	For C.G to C.G Lead 30 M (L=0.030 K.M)	5,670	0.0167	0.04	0.60	0.14	0.025	0.041	193.28	92.77	5168.00	55.71	0.10	5.57	15.95	9.77	3.18	90.17	13.53	103.70	
5.1.44.3	For C.G to C.G Lead 55 M (L=0.055 K.M)	6,330	0.0167	0.05	0.60	0.21	0.033	0.050	160.40	76.99	5168.00	67.12	0.10	6.71	15.95	9.77	3.18	102.73	15.41	118.10	
5.1.44.4	For C.G to C.G Lead 80 M (L=0.080 K.M)	7,000	0.0167	0.06	0.60	0.28	0.040	0.057	141.09	67.72	5168.00	76.31	0.10	7.63	15.95	9.77	3.18	112.84	16.93	129.70	
5.1.44.5	For C.G to C.G Lead 100 M (L=0.100 K.M)	7,670	0.0167	0.07	0.60	0.34	0.044	0.061	131.09	62.92	5168.00	82.13	0.10	8.21	15.95	9.77	3.18	119.24	17.89	137.10	
5.1.45	NOTE :- Add Royalty of Earth Rs 33.00 Where needed without overhead charge & C.P Deleted																				

Be

5.1.46 Earth work by Mechanical means with help of Excavator, Tipper and Spreader in canal or flood embankment or dhar all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead of metre (lead will be considered as track path i.e. half of distance travelled in one cycle i.e. half of haulage path from pit to bank or embankment. Pit will be beyond 150 meter from centre of bank i.e. perpendicular distance from centre of bank to nearest boundary of pit will be more than 150 meter) and with all lifts all complete job as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Lead in K.M (L)	Cost of cutting & Loading by Excavator one M3 capacity= Use rate of Excavator / Capacity of Excavator (60M ³) PM 3005/60	Average Speed on Kucha track Km / hr = (V)	Average haulage path (Distance) in one cycle (D) in Km	Haulage Time in minute (Time taken in one cycle of run) = 60DV	Loading Time one minute Per M ³ For 5.5 M ³	Unloading & Turning Time in minute	Total Time Per trip in minute Col (5+6+7) = (T)	No. of Trip per hour taken as 50 minute N = 50/T	Output per hour with 80 % efficiency Q = 0.8 X N X 5.5	Use Rate per hour of Tipper 5.5 M ³ capacity = (Tr)	Carriage Cost per M ³ = Tr / Q	Add for spreading cost = (Use rate of D-80 Dozer Per hr / Capacity of D-80 Dozer = 2930/300	Add 5 % for haul road maintenance, 5 % for processing and 2 % for extra labour for finishing = 12 % of column (2+12+13)	Total Cost per M3 col (2+12+13+14)	Add Overhead charge & C.P 15%	Rate Per M ³
5.1.46.1 Beyond 150m but upto 1/2 K.M	36.70	10.00	0.65	3.90	5.50	3.30	12.70	3.937	17.323	1371.00	79.14	9.77	15.07	140.68	21.10	161.80
5.1.46.2 Beyond 1/2 K.M but upto 1.00 K.M	36.70	10.00	1.50	9.00	5.50	3.30	17.80	2.809	12.360	1371.00	110.93	9.77	18.89	176.28	26.44	202.70
5.1.46.3 Beyond 1.00 K.M but upto 1.50 K.M	36.70	10.00	2.50	15.00	5.50	3.30	23.80	2.101	9.244	1371.00	148.32	9.77	23.37	218.16	32.72	250.90
5.1.46.4 Beyond 1.50 K.M but upto 2.00 K.M	36.70	10.00	3.50	21.00	5.50	3.30	29.80	1.678	7.383	1371.00	185.71	9.77	27.86	260.04	39.01	299.00
5.1.46.5 Beyond 2.00 K.M but upto 2.50 K.M	36.70	10.00	4.50	27.00	5.50	3.30	35.80	1.397	6.145	1371.00	223.10	9.77	32.35	301.91	45.29	347.20
5.1.46.6 Beyond 2.50 K.M but upto 3.00 K.M	36.70	10.00	5.50	33.00	5.50	3.30	41.80	1.196	5.263	1371.00	260.49	9.77	36.83	343.79	51.57	395.40

NOTE:- Add Royalty of Earth Rs 33.00 Where needed without overhead charge & C.P

B

5.1.47	Earth work by excavator and spreader or tractor- leveler in lower level canal or flood embankment or dhar (Like Minor, Sub -minor, Jamindari bundh, Pynes etc where tipper is not needed) all types of work like filling and making of canal banks or embankment of earth free from logs, roots or any other gradients, desilting of canal bed and dhar in proper profile with dressing and finishing including new construction, repair or restoration in ordinary soil including cutting, loading, carriage from pit to banks or embankments, unloading, spreading, clod-breaking and laying in layers properly with lead below 15 metre and with all lifts all complete jobas per specifications and direction of E/I. (mode of measurement- sectional measurement of compacted earth)				
	Unit:-Per Cum				
	(A) Cost of cutting, loading, unloading & piacing by excavator 1 M ³				
	Use rate of Excavator(Rupees per hour)		2202.00		PM3005
	Output of Excavator =60 Cum per hour				
	Cost			36.70	
	(B) Cost of spreading by D-80 Dozer				
	Use rate of D-80 Dozer(Rupees per hour)		2930.00		PM1003
	Output of D-80 Dozer =300 Cum per Hour				
	Cost			9.77	
	(C) For dressing & finishing one labour for 100 M ³				
	Unskilled labour	0.01	no	318.00	3.18 (SI-1)
	Total			49.65	
	Add Overhead charge & C.P@15%			7.45	
				57.09	
	Rate per cum	Say	Rs	57.10	Per M ³

NOTE:- Add royalty of Earth Rs 33.00 where needed without overhead charge & C.P

Py

5.2 CANAL LINING

Sr.No	Item	Rate	Unit
5.2.1	Providing compacted 75 mm thick sand filter of required F.M as per design on slopes and in bed of canal with local sand including cost of water, ramming, leveling and dressing, etc. all complete as per specification and direction of E/I	119.00	Per M ³
5.2.2	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, rains including hand packing, etc. all complete as per specification and direction of E/I	1205.30	Per M ³
5.2.3	Providing intake wells with P.C.C M 150 with nominal mix of (1:2:4) using stone chips 20 mm and down and sand of F.M. not less than 2 including cost of form work, making space for under drainage pipes, fixing bolts, curing and placing in position, all complete including as per specification and direction of E/I	1483.00	Each
5.2.4	Providing single brick tile 300 mm x 150 mm x 50 mm lining in canal bed laid on 10 mm thick cement mortar in (1:5) base coarse and 5 mm vertical joints all round filled with the mortar of the same mix and top finished with 20 mm thick cement plaster in (1:3) washed, screened sand having F.M not less than 2. including royalty etc, all complete as per specification and direction of E/I	656.60	Per M ²
5.2.5	Providing double brick tile 300 mm x 150 mm x 50 mm lining on canal side slopes with top layer of tile and laid on 5 mm thick green cement mortar (1:3) over hardened surface of 15 mm thick cement plaster (1:3) on top of bottom layer of brick tiles, laid on 10 mm thick cement mortar in (1:5) as base coarse over sand filter 5 mm vertical joints all round of top layer of brick tiles filled with cement mortar (1:3) and that of bottom layers with C.M. (1:5) with washed and screened sand F.M. not less than 2 including cost of scaffolding staging, curing royalty etc. all complete as per specification and direction of E/I	1216.30	Per M ²
5.2.6	Supplying and laying jhama khoa(metal) filter of 20 to 25 mm size in under drainage of canal lining including royalty etc. all complete as per specification and direction of E/I	1825.50	Per M ³
5.2.7	Supplying and laying stone metal graded filter of size 90 mm to 45 mm size in slope and bed of canal below lining including royalty , all complete as per specification and direction of E/I (where depth of cutting is more than 6M)	1801.70	Per M ³
5.2.8	Supplying and laying sand filter free from clay and other organic materials (F.M 2.5 to 3.0) in slope and bed of the canal, below lining including the cost of watering, compaction, including royalty etc. all complete as per specification and direction of E/I (where depth of cutting is more than 6 M)	1506.80	Per M ²
5.2.9	Providing junction lining over one layer of brick tiles, laid on 10 mm thick cement mortar (1:5) joints filled with mortar of the same mix by laying cement concrete M150 with nominal mix of (1:2:4) with well graded stone metal 20 mm and down washed and screened sand having F.M not less than 2 including curing royalty etc. all complete as per specification and direction of E/I	1021.70	Per M ²
5.2.10	Providing 10 mm thick vertical joints at suitable intervals, filled with bituminous materials of approved quality. including royalty etc. all complete as per specification and direction of E/I		
5.2.10.1	For canal side slope per 30.50 M	159.10	Per M
5.2.10.2	For canal bed for 30.50M	102.20	Per M
5.2.11	Supplying and laying 150 mm dia R.C.C NP2 perforated pipe in under drainage of canal lining as per specification and direction of E/I	278.30	Per M

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5.2.12	Supplying and laying 150 mm dia open jointed 1220 mm long P.C.C (1:1:2) pipes in under drainage of canal lining including the cost of curing as per specification and direction of E/I	#VALUE!	Per M
5.2.13	Supplying and laying 150 mm dia open jointed 610 mm long earthen ware pipe in under drainage of canal lining including the cost of curing as per specification and direction of E/I	#VALUE!	Per M
5.2.14	Providing 150 mm dia vertical non return valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I	#VALUE!	Each
5.2.15	Providing 50 mm dia non return pocket valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I	#VALUE!	Each
5.2.16	Providing safety valve in lined section of canal with M.S rod embedded in cement concrete (1:3:6) all complete as per specification and direction of E/I	#VALUE!	Each
5.2.17	Providing safety ladder in lined section of canal with M.S rod embedded in cement concrete (1:3:6) in accordance with I.S.S 3812-1966 including royalty etc. all complete as per specification and direction of E/I	#VALUE!	Each
5.2.18	Laying of 600 mm x 525 mm x 55 mm, 600 mm x 450 mm x 55 mm, 600 mm x 425 mm x 55 mm size precast P.C.C. slab in side slopes and berm of canal with groove of the slab and lug slab set in C.M. (1 : 3) and flush pointing (1 : 2) including royalty but excluding the cost of precast slabs including royalty etc. all complete as per specification and direction of E/I	417.70	Per M ²
5.2.19	Providing 100 mm thick P.C.C lining in M-100 with nominal mix of (1:3:6) with well graded stone chips (20 mm & down and coarse sand of approved quality and of requisite F.M. in side and bottom curved portion of the canal in panels with construction joints including cost of form work and its removal, curing including royalty etc. complete job as per specification and direction of E/I	7595.80	Per M ³
5.2.20	Providing 30 mm internal dia burnt clay pipe for providing holes in concrete section of slab, cross and longitudinal sleepers including sand packing in holes in lining work of canals . all complete job as per specification and direction of E/I	#VALUE!	Each
5.2.21	Providing 100/75mm thick P.C.C lining in M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requirement 5M in side and bottom common portion of the canal in panels with construction joints including cost of form work and its removal,curing,all complete job as per specification & direction of E/I	8064.10	Per M ³
5.2.22	Providing and laying P.C.C M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requisite F.M in lug slab,cross and longitudinal sleeper for lining canal including cost of form work and its removal,curing, all complete job as per specification & direction of E/I.	8064.10	Per M ³
5.2.23	Providing and laying LDPE film of 250 micron or kg/sqm in the bed of canal and side slope as per specification and direction of E/I	57.97	Per M ²

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5.2 CANAL LINING

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
5.2.1	Providing compacted 75 mm thick sand filter of required F.M as per design on slopes and in bed of canal with local sand including cost of water, ramming, leveling and dressing etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	(Assuming 9.3 sqm area with 75 mm thickness sand layer)					
	Material					
	Cost of local sand as per design & specification	0.70	cum	143.32	100.32	(M-006)
	Labour					
	Skilled labour	0.167	nos	403.00	67.30	{SII-70}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Unskilled mazdoor for watering and ramming	1	nos	318.00	318.00	{SI-1}
	Total				962.63	
	Add Overhead charge & C.P @15%				144.39	
					1107.02	
						119.03
	Rate per sqm		Rs	119.00	Per M ²	
5.2.2	Providing filter of stone chips 20 mm and down well graded as per design for lined canal, rains including hand packing etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =2.832 Cum					
	Material					
	Stone chips (M-040+M-045)/2	2.832	cum	655.11	1855.26	
	Labour					
	Unskilled mazdoor for screening and grading filter	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for laying and hand packing	1.5	nos	318.00	477.00	{SI-1}
	Total				2968.26	
	Add Overhead charge & C.P@15%				445.24	
					3413.50	
						1205.33
	Rate per cum		Rs	1205.30	Per M ³	
5.2.3	Providing intake wells with P.C.C M 150 with nominal mix of (1:2:4) using stone chips 20 mm and down and sand of F.M not less than 2.00 including cost of form work, making space for under drainage pipes, fixing bolts, curing and placing in position all complete as per specification and direction of E/I					
	Unit :-Each					
	Volume of one intake well					
	$\frac{\pi}{4} \times (0.650)^2 \times 0.075 = 0.025$					
	$\frac{\pi}{4} \{ (0.65)^2 - (0.5)^2 \} \times 0.42 = 0.057$					
	Total = 0.082 cum					
	P.C.C (1:2:4) vide item 5.3.4 (without C.P etc)	0.082	cum	4701.02	385.48	
	Detail of side shuttering = $22/7 \times 0.65 \times 0.495 + 22/7 \times 0.50 \times 0.42 = 1.67$ sqm Shuttering vide item 5.3.18 (without C.P etc)					
		1.67	sqm	454.32	758.71	
	Bolts 20 mm dia 25 cm long	4	nos	36.35	145.40	M SL No 255
					1289.59	
	Add Overhead charge & C.P@15%				193.44	
					1483.03	
						1483.03
	Rate	Say Rs		1483.00	Each	
5.2.4	Providing single brick tile 300 mm x 150 mm x 50 mm lining in canal bed laid on 10 mm thick cement mortar in (1:5) base coarse and 5 mm vertical joints all round filled with the mortar of the same mix and top finished with 20 mm thick cement plaster in (1:3) washed screened sand having F.M not less than 2, including royalty etc. all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Material					
i	Brick tiles 1 st class including 5 % wastage	198	nos	6.069	1201.66	(M-11 C-I)
ii	Volume of (1:5) mortar					
	(a) Base course 10 mm thick $10/1000 \times 9.3 = 0.0930$					
	(b) Vertical longitudinal joints 5 mm thick $21 \times 5/1000 \times 50/1000 \times 3.05 = 0.016$					
	(c) Vertical transverse joints 5 mm thick $11 \times 5/1000 \times 50/1000 \times 3.05 = 0.008$					
	Total = 0.117					

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	Add 20% extra for undulation of sub grade and wastage of mortar etc = 0.023					
	Total 0.140 cum					
	Cement	0.028	cum	7582.35	212.31	M-1 P
	Sand	0.140	cum	494.00	69.16	M-004
	Labour					
	Mason Gr I	1.5	nos	428.00	642.00	{S II-3}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
iii	Volume of (1:3) mortar					
	20/1000x3.05x3.05=0.186					
	Add 5% wastage =0.009					
	Total= 0.195 say 0.2 cum					
	Cement	0.07	cum	7582.35	530.76	M-1 P
	Sand	0.21	cum	494.00	103.74	M-004
	Labour					
	Mason Gr I	1.5	nos	428.00	642.00	{S II-3}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Total				5309.63	
	Add Overhead charge & C.P @15%				796.44	
					6106.08	
						656.57
	Rate per sqm	Say Rs		656.60	Per M ²	
5.2.5	Providing double brick tile 300 mm x 150 mm x 50 mm lining on canal side slopes with top layer of tile and laid on 5 mm thick green cement mortar (1:3) over hardened surface of 15 mm thick cement plaster (1 : 3) on top of the bottom layer of brick tiles, laid on 10 mm thick cement mortar in (1: 5) as base coarse over sand filter 5 mm vertical joints all round of top layer of brick tiles filled with cement mortar (1:3) and that of the bottom layers with C.M. (1:5) with washed and screened sand F.M. not less than 2 including royalty etc all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put= 9.3 Sqm					
	(Assuming 9.3 sqm =3.05m x3.05m)					
	A. Bottom layer of tile lining					
i	Brick tiles	198	nos	6.069	1201.66	{M-11 C-I}
ii	Volume of (1:5) mortar with 20 % extra for foundation of sub grade and wastage of cement mortar vide item no 5.2.4=0.14 cum					
	Cement	0.028	cum	7582.35	212.31	M-1 P
	Sand	0.140	cum	494.00	69.16	M-004
	Mason Gr I	0.5	nos	428.00	214.00	{S II-3}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
iii	Add 25 % For working in slope				292.00	
	B. Top layer of lining volume of (1:3) mortar with 10 % wastage 1 st class brick tiles					
	a 15 mm thick cement plaster = 15/1000x9.3=0.14					
	5 mm thick C P= 5/1000x9.3=0.047					
	(b) Vertical longitudinal joints 5 mm thick 21 x 5/1000x50/1000x3.05=0.016					
	(c) Vertical transverse joints 5 mm thick 11 x5/1000x50/1000x3.05=0.008					
	Total (a+b+c)=0.14+0.047+0.016+0.008=0.211					
	Add 10 % wastage =0.021					
	Total = 0.232 cum					
	Brick tiles	198	nos	6.069	1201.66	{M-11 C-I}
	Cement	0.077	cum	7582.35	583.84	M-1 P
	Sand	0.232	cum	494.00	114.61	M-004
	Mason Gr I	1.5	nos	428.00	642.00	{S II-3}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Add 25 % on labour for working in slope				399.00	
	C. Labour for laying tiles including mortar jointing					
	Mason Gr I	2	nos	428.00	856.00	{S II-3}
	Unskilled mazdoor	4	nos	318.00	1272.00	{SI-1}
	Add 25 % on labour for working in slope				532.00	
	D. Cost of scaffolding					
	Add 10 % of cost of cement, sand and bricks tiles				338.32	
	Total				9836.56	
	Add Overhead charge & C.P@15%				1475.48	
					11312.05	
						1216.35
	Rate per sqm	Say Rs		1216.30	Per M ²	

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5 2 6	Supplying and laying jhama metal filter of 20 to 25 mm size in under drainage of canal lining including royalty etc.all complete as per specification and direction of E/I					
	Unit :-Per Cum					
	Taking Out put= 2.832 Cum					
	Material					
	Jhama metal	2.832	cum	1419.00	4018.61	M 11-F I
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
					4495.61	
	Add Overhead charge & C.P@15%				674.34	
					5169.95	
						1825.55
	Rate per cum		Rs	1825.50	Per M ³	
5 2 7	Supplying and laying stone metal graded filter of size 90 mm to 45 mm size in slope and bed of canal below lining including royalty etc. all complete as per specification and direction of E/I (where depth of cutting is more than 6 M)					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Material					
	Stone metal	2.832	cum	975.00	2761.20	M-038
	Labour					
	Mate	0.25	nos	343.00	85.75	S II-2
	Unskilled mazdoor for carrying metal	3.5	nos	318.00	1113.00	{SI-1}
	Unskilled mazdoor for spreading	1.5	nos	318.00	477.00	{SI-1}
	Total				4436.95	
	Add Overhead charge & C.P@15%				665.54	
					5102.49	
						1801.73
	Rate per cum		Rs	1801.70	Per M ³	
5 2 8	Supplying and laying sand filter free from clay and other organic materials (F M 2.5 to 3.0) in slope and bed of the canal, below lining including the cost of watering, compaction,including royalty etc. all complete as per specification and direction of E/I (where depth of cutting is more than 6M)					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Material					
	Sand	2.832	cum	494.00	1399.01	M-004
	Labour					
	Mate	0.25	nos	343.00	85.75	S II-2
	Unskilled mazdoor for carrying and placing	3.5	nos	318.00	1113.00	{SI-1}
	Unskilled mazdoor for spreading	1.5	nos	318.00	477.00	{SI-1}
	Unskilled mazdoor for loading and ramming	2	nos	318.00	636.00	{SI-1}
	Total				3710.76	
	Add Overhead charge & C.P@15%				556.61	
					4267.37	
						1506.84
	Rate per cum		Rs	1506.80	Per M ³	
5 2 9	Providing junction lining over one layer of brick tiles, laid on 10 mm thick cement mortar (1:5) joints filled with mortar of the same mix by laying cement concrete M150 with nominal mix of (1:2:4) with well graded stone metal 20 mm and down washed and screened sand having F M not less than 2.00 including curing royalty etc all complete as per specification and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	A. Bottom layer of tile lining					
	Brick tiles	198	nos	6.069	1201.06	{M-11 C-I}
	B. Volume of (1:5) mortar with 20 % extra for foundation of sub grade and wastage of cement mortar vide Item no 5.2.4=0.14 cum					
	i Cement	0.028	cum	7582.35	212.31	
	ii Sand	0.140	cum	494.00	69.16	
	iii. Labour for laying tiles including mortar jointing					
	Mason Gr I	1.5	nos	428.00	642.00	{S II-3}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	iv. Labour charge for 10 mm thick base course					
	Mason Gr I	1.5	nos	428.00	642.00	{S II-3}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	C. Quantity of (1:2:4) concrete in 9.3 sqm of junction lining=(20 mm +70 mm)x 0.30/(2x1000)=0.42 cum					
	Material					
	Stone chips (M-040+M-045)/2	0.38	cum	655.11	248.94	
	Cement	0.095	cum	7582.35	720.32	M-1 P

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	Sand	0.190	cum	494.00	93.86	M-004
	Labour					
	Mason Gr I	0.25	nos	428.00	107.00	{S II-3}
	Mason Gr II	1.75	nos	382.00	668.50	{S II-4}
	Unskilled mazdoor	5.5	nos	318.00	1749.00	{SI-1}
	Total				8262.75	
	Add Overhead charge & C.P@15%				1239.41	
					9502.16	
						1021.74
	Rate per sqm	Say Rs		1021.70	Per M ²	
5.2.10	Providing 10 mm thick vertical joints at suitable intervals, filled with bituminous materials of approved quality including royalty etc. all complete as per specification and direction of E/I					
	Unit :- Per Metre					
	Taking Out put =30.50M					
5.2.10.1	For canal side slope per 30.50M					
	Volume of bitumen 30.5 x0.010x0.130/=0.04 cum@1440 kg per cum=0.04x1440=57.6 kg					
	Bitumen (Grade VG 30 (60/70) Packed)	57.6	kg	56.285	3242.016	M-4 b-III
	Semi Skilled labour	2	nos	330.00	660.00	S II -69
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					4220.02	
	Add Overhead charge & C.P@15%				633.00	
					4853.02	
						159.12
	Rate per Metre		Rs	159.10	Per M	
5.2.10.2	For canal bed per 30.50M					
	Volume of bitumen= 30.5 x10x80/(1000x1000)=0.0244 cum@1440 kg per cum=0.0244x1440=35.13 kg					
	Bitumen (Grade VG 30 (60/70) Packed)	35.13	kg	56.29	1977.29	M-4 b-III
	Semi Skilled labour	1.5	nos	330.00	495.00	S II -69
	Unskilled mazdoor	0.75	nos	318.00	238.50	{SI-1}
					2710.79	
	Add Overhead charge & C.P@15%				406.62	
					3117.41	
						102.21
	Rate per Metre		Rs	102.20	Per M	
5.2.11	Supplying and laying 150 mm dia R.C.C NP ₂ perforated pipe in under drainage of canal lining as per specification and direction of E/I					
	Unit :-Per Metre					
	Taking Out put=1 M					
	Cost of pipe	1	M	220.00	220.00	BCD 1701
	Cost of laying @ 10% of above				22.00	
					242.00	
	Add Overhead charge & C.P@15%				36.30	
					278.30	
						278.30
	Rate per Metre	Say Rs		278.30	Per M	
5.2.12	Supplying and laying 150 mm dia open jointed 1220 mm long P C C (1:1:2) pipes in under drainage of canal lining including the cost of curing, royalty etc. all complete as per specification and direction of E/I					
	Unit :-Per Metre					
	Taking Out put=1.22 M					
	Taking pipe length as 1.22 m					
	Cost of 150 mm dia P C C pipe	1.22	M	INPUT	#VALUE!	
	Cost of laying @ 10% of above				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P @15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per Metre	Say Rs		#VALUE!	Per M	
5.2.13	Supplying and laying 150 mm dia open jointed 610 mm long earthen ware pipe in under drainage of canal lining including the cost of curing, royalty etc all complete as per specification and direction of E/I					
	Unit :-Per Metre					
	Taking Out put =0.61M					
	Taking pipe length as 0.61 m					
	Cost of 150 mm dia P C C pipe	0.61	M	INPUT	#VALUE!	

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	Cost of laying @ 10% of above				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per Metre	Say Rs		#VALUE!	Per M	
5.2.14	Providing 150 mm dia vertical non return valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I					
	Unit :-Each					
	Cost of pressure release valves	1	nos	input	#VALUE!	
	Cost of laying @ 10% of above				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	#VALUE!
5.2.15	Providing 50 mm dia non return pocket valve complete with holding down bolts, nuts, base plate etc.all complete as per specification and direction of E/I					
	Unit :-Each					
	Cost of pocket valves	1	nos	input	#VALUE!	
	Cost of laying @ 10% of above				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	#VALUE!
5.2.16	Providing safety valve in lined section of canal with M S rod embedded in cement concrete (1:3:6) all complete as per specification and direction of E/I (Vide I.S.I 3872-1966)					
	Unit :-Each					
	Volume of concrete	0.74	cum			
	M.S. rods 10 mm dia	25	kg			
	25 mm dia 10.5 m @ 3.87 kg / mtr=40.63 kg	40.63	kg			
	Cost of concrete (1:3:6) mix vide item no 5.3.3 (Modify the rates for the quality of aggregate)	0.74	cum	4409.10	3262.73	
	Providing M S bars Vide item no 5.3.22					
	10 mm dia	25	kg	INPUT	#VALUE!	
	25 mm dia	40.63	kg	INPUT	#VALUE!	
	Cost of safety valve	1	nos	INPUT	#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P (Safety valve only)@15%				#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	#VALUE!
5.2.17	Providing safety ladder in lined section of canal with M S rod embedded in cement concrete (1:3:6) in accordance with I S S 3812-1966 including royalty all complete as per specification and direction of E/I. (Vide I.S.I 3872-1966)					
	Unit :-Each					
	Volume of concrete	0.74	cum			
	M.S. rods 10 mm dia	25	kg			
	25 mm dia 10.5 m @ 3.87 kg / m=40.63 kg	40.63	kg			
	Cost of concrete (1:3:6) mix vide item no 5.3.3 (Modify the rates for the quality of aggregate)	0.74	cum	4409.10	3262.73	
	Providing M.S bars Vide item no 5.3.22					
	10 mm dia	25	kg	input	#VALUE!	
	25 mm dia	40.63	kg	input	#VALUE!	
	Cost of safety ladder	1	nos	input	#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P (Safety ladder only)@15%				#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	#VALUE!
5.2.18	Laying of 600 mm x 525 mm x 55 mm; 600 mm x 450 mm x 55 mm; 600 mm x 425 mm x 55 mm size precast P.C.C. slab in side slopes and berm of canal with groove of the slab and lug slab set in C.M (1: 3) and flush pointing (1 : 2) but excluding the cost of precast slabs including royalty all complete as per specification and direction of E/I					

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	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Laying of precast slab					
	Mason Gr II	0.5	nos	382.00	191.00	{S II-4}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
	Jointing pre cast slab					
	Cement	0.006	cum	7582.35	45.49	M-1 P
	Sand	0.018	cum	494.00	8.89	M-004
	Labour					
	Mason Gr II	3	nos	382.00	1146.00	{S II-4}
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Bhisti	1.5	nos	315.00	472.50	S II-13
	Flush pointing of joints					
	Cement	0.003	cum	7582.35	22.75	M-1 P
	Sand	0.010	cum	494.00	4.94	M.004
	Labour					
	Mason Gr II	0.25	nos	382.00	95.50	{S II-4}
	Unskilled mazdoor	0.25	nos	318.00	79.50	{SI-1}
	Bhisti	0.125	nos	315.00	39.38	S II-13
					3377.95	
	Add Overhead charge & C.P@15%				506.69	
					3884.64	
						417.70
	Rate per sqm	Say Rs		417.70		Per M ²
5.2.19	Providing 100 mm thick P.C.C lining in M-100 with nominal mix of (1:3:6) with well graded stone chips (20 mm & down) and coarse sand of approved quality and of requisite F.M. in side and bottom curved portion of the canal in panels with construction joints including cost of form work and its removal, curing, royalty all complete job as per specification and direction of E/I					
	Unit :- Per Cum					
	Taking Out put =2.832 Cum					
A.	Materials					
	Stone chips	2.66	M ³	886.00	2356.76	M 044
	Sand	1.33	M ³	494.00	657.02	M-004
	Cement	0.443	M ³	7582.35	3358.98	M-1 P
B.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 HP) To be calculated taking 2 cum of concrete per hr) for 1.42 hr	1.42	hr	283.00	401.86	{P M -21001}
	(ii) Vibrator	1.42	hr	325.00	461.50	{P M -44001}
C.	Shuttering					
	I Form work for curved portion for 2.832 cum of concrete assuming 14 sqm Vide item no 5.3.18(without C.P.etc)	14	sqm	454.32	6360.43	
D.	Labour					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II-4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				18705.55	
	Add Overhead charge & C.P@15%				2805.83	
					21511.38	
						7595.83
	Rate per cum	Say Rs		7595.80		Per M ³
5.2.20	Providing 30 mm internal dia burnt clay pipe for providing holes in concrete section of slab, cross and longitudinal sleepers including sand packing in holes in lining work of canals all complete job as per specification and direction of E/I					
	Unit :-Each					
	Assuming 100 mm long hole=139 Nos. and 225 mm long holes=222 Nos.					
	Materials					
	i. Cost of burnt clay pipe of internal dia 31.75 mm 1-1/4'External dia 38.00 mm1-1/2'					
	(a) 100 mm long	139	nos	input	#VALUE!	
	(b) 225 mm long	222	nos	input	#VALUE!	
	ii. Sand	0.07	cum	494.00	34.58	
	Labour					
	Head mason	1	nos	428.00	428.00	{S II -3}
	Mason Gr II	0.5	nos	382.00	191.00	{S II-4}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
	Unskilled mazdoor for sand packing	1	nos	318.00	318.00	{SI-1}
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate	Say Rs		#VALUE!		Each

5.2.21	Providing 100/75mm thick P.C.C lining in M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requirement 5M in side and bottom common portion of the canal in panels with construction joints including cost of form work and its removal,curing, all complete job as per specification & direction of E/I.					
	Unit- Per Cum					
	Taking output 2.832 cum					
A	Material					
	Stone chips (20mm & down)	2.548	M ³	886.00	2257.53	M 044
	Sand	1.274	M ³	494.00	629.36	M-004
	Cement	0.637	M ³	7582.35	4829.96	M-1 P
B	Hire charge of Machine					
	Concrete Mixer(taking 2cum per hr)	1.42	hr	283.00	401.86	P M21001
	Vibrator	1.42	hr	325.00	461.50	P M44001
C.	Shuttering					
	Form work for curved portion for 2.832 cum of concrete assuming 14sqm vide item no -5.3.19	14	sqm	454.316	6360.43	
D.	Labour					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr-II	1.5	nos	382.00	573.00	{S II-4}
	Unskilled Mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				19858.63	
	Add Overhead charge & C.P@15%				2978.79	
					22837.42	8064.06
	Rate per Cum	Say Rs			8064.10	
5.2.22	Providing and laying P.C.C M-150 with nominal mix of (1:2:4) with well graded stone chips (20mm & down) and coarse sand of approved quality and requisite F.M in lug slab,cross and longitudinal sleeper for lining canal including cost of form work and its removal,curing, royalty etc. all complete job as per specification & direction of E/I.					
	Unit- per cum					
	Out put = 2.832 cum					
	Material					
	Stone chips(20mm & down)	2.548	M ³	886.00	2257.53	M 044
	sand	1.274	M ³	494.00	629.36	M-004
	Cement	0.637	M ³	7582.35	4829.96	M-1 P
	Hire charge of Machine					
	Concrete Mixer(taking 2cum per hr)	1.42	hr	283.00	401.86	PM21001
	Vibrator	1.42	hr	325.00	461.50	PM44001
	Shuttering					
	Form work for curved portion for 2.832 cum of concrete assuming 14sqm vide item no -5.3.19	14	sqm	454.316	6360.43	
	Labour					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr-II	1.5	nos	382.00	573.00	{S II-4}
	Unskilled Mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				19858.63	
	Add Overhead charge & C.P@15%				2978.79	
					22837.42	8064.06
	Rate per cum	Say Rs			8064.10	
5.2.23	Providing and laying LDPE film of 250 micron or kg/sqm in the bed of canal and side slope as per specification and direction of E/I					
	Unit- per Sqm					
	Taking output =10 Sqm					
	Materials					
	250 micron LDPE film @ 230 gm/sqm(including 5%v for overlap and wastage)	2.415	kg	141.42	341.53	
	Adhesive and cello Tape		LS		20.00	
	Labour					
	Mate	0.02	nos	343.00	6.86	S II-2
	Unskilled labour	0.30	nos	318.00	95.40	(SI-1)
	skilled labour	0.1	nos	403.00	40.30	{SII-70}
					504.09	
	Add Overhead charge & C.P@15%				75.61	
					579.70	
	Rate pe sqm			say,Rs	57.97	

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5.3. CONCRETE WORK

Sr.No.	Item	Rate	Unit
5.3.1	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) with approved quality of graded stone chips (20 mm and down)and coarse granular sand of requisite F.M in lug slab, cross and longitudinal sleepers for lining of canals including cost of form work and its removal, curing including royalty etc. all complete job as per specifications and direction of E/I.	8289.30	Per M ³
5.3.2	Providing and laying P.C.C.M-75 with nominal mix of (1:4:8) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, . royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr III Taken)	4786.40	Per M ³
5.3.3	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, . royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr IV Taken)	5070.50	Per M ³
5.3.4	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F M washed and screened including necessary tools and plants, vibrating, curing, . excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm To 10 mm Taken)	5406.20	Per M ³
5.3.5	Providing and laying P.C.C.or R.C.C M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm To 10 mm Taken)	5893.50	Per M ³
5.3.6	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1.:2) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job including royalty as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	7071.60	Per M ³

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5.3.7	Providing and laying P.C.C. M-75 with nominal mix of (1:4:8) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr III Taken)	4786.40	Per M ³
5.3.8	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr IV Taken)	5070.50	Per M ³
5.3.9	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm To 10 mm Taken)	5406.20	Per M ³
5.3.10	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm To 10 mm Taken)	5893.50	Per M ³
5.3.11	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1:2) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	7027.90	Per M ³
5.3.12	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5445.30	Per M ³

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5.3.13	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5932.20	Per M ³
5.3.14	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 10 mm To 5 mm Taken)	5173.30	Per M ³
5.3.15	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:1.5.:3) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 10 mm To 5 mm Taken)	5673.80	Per M ³
5.3.16	Providing and laying dry pitching with precast cement concrete block of size 600 mm x 600 mm x 300 mm in M-75 with nominal mix of (1:4:8) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr III Taken)	7039.70	Per M ³
5.3.17	Providing and laying dry pitching with precast cement concrete blocks of size 600 mm x 600 mm x 300 mm in M-100 with nominal mix of (1:3:6) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr III Taken)	7346.10	Per M ³
5.3.18	Providing shuttering including strutting,propping etc. and its removal after use in foundation as per specifications and direction of E/I.	522.50	Per M ²
5.3.19	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	522.50	Per M ²
5.3.20	Providing centering including strutting, propping etc. and removing after use in deck slab as per specifications and direction of E/I.	718.30	Per M ²
5.3.21	Providing M.S reinforcement(Plain steel) as per approved design , drawing, removal of rust, cutting, bending, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
	(a).Dia of bar 6 mm	80852.50	Per M.T
	(B).Dia of bar above 6 mm to 12 mm	80852.50	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	80852.50	Per M.T

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5.3.22	Providing M.S reinforcement (Tor steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
(a)	T.M.T.GRADE Fe-415- 8 mm	#VALUE!	Per M.T
(b)	T.M.T.GRADE Fe-415- 10 mm	#VALUE!	Per M.T
(c)	T.M.T.GRADE Fe-415- 12 mm	#VALUE!	Per M.T
(d)	T.M.T.GRADE Fe-415- 16 mm	#VALUE!	Per M.T
(e)	T.M.T.GRADE Fe-415- 20 mm	#VALUE!	Per M.T
(f)	T.M.T.GRADE Fe-415- 25 mm	#VALUE!	Per M.T
(g)	T.M.T.GRADE Fe-415- 28 mm	#VALUE!	Per M.T
(h)	T.M.T.GRADE Fe-415- 32 mm	#VALUE!	Per M.T
(i)	T.M.T.GRADE Fe-500- 8 mm	78245.60	Per M.T
(j)	T.M.T.GRADE Fe-500- 10 mm	76608.20	Per M.T
(k)	T.M.T.GRADE Fe-500- 12 mm	75892.10	Per M.T
(l)	T.M.T.GRADE Fe-500- 16 mm	75892.10	Per M.T
(m)	T.M.T.GRADE Fe-500- 20 mm	75892.10	Per M.T
(n)	T.M.T.GRADE Fe-500- 25 mm	75892.10	Per M.T
(o)	T.M.T.GRADE Fe-500- 28 mm	75892.10	Per M.T
(p)	T.M.T.GRADE Fe-500- 32 mm	75892.10	Per M.T
(q)	T.M.T.GRADE Fe-500- 36 mm	#VALUE!	Per M.T

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5.3. CONCRETE WORK

Sr.No.	Description	Quantity	Unit	Rate	Amount	
5.3.1	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) with approved quality of graded stone chips (20 mm and down)and coarse granular sand of requisite F.M in lug slab, cross and longitudinal sleepers for lining of canals including cost of form work and its removal, curing, royalty etc. all complete and job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A.	Materials					
	Stone chips (20 mm & down))	2.66	M ³	886.00	2356.76	M-044
	Sand	1.330	M ³	494.00	657.02	M-004
	Cement	0.443	M ³	7582.35	3358.98	M-1 P
	Total				6372.76	
B	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer	1.42	hr	283.00	401.86	PM21001
	(ii) Vibrator	1.42	hr	325.00	461.50	PM44001
					863.36	
C	Shuttering					
	I. Form work for curved portion for 2.832 cum of concrete assuming 18.6sqm Vide item no 5.3.18	18.6	sqm	454.32	8450.28	
D	Labour					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
					20413.40	
	Add Overhead charge & C.P@15%				3062.01	
					23475.41	
						8289.34
	Rate per Cum	Say Rs		8289.30	Per M ³	
5.3.2	Providing and laying P.C.C. M-75 with nominal mix of (1:4:8) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M ,washed and screened including necessary tools and plants, vibrating, curing , royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A.	MATERIALS					
	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)	2.718	M ³	1080.50	2936.80	M-035
	Sand	1.368	M ³	494.00	675.79	M-004
	Cement	0.34	M ³	7582.35	2578.00	M-1 P
	Total				6190.59	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				11787.03	
	Add Overhead charge & C.P@15%				1768.05	
					13555.09	
						4786.40
	Rate per Cum	Say Rs		4786.40	Per M ³	

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5.3.3	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc.excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
A.	MATERIALS					
	Coarse aggregates Gr IV (Rate of approved quality of aggregate as per Design)	2.66	M ³	1080.50	2874.13	M-047
	Sand	1.33	M ³	494.00	657.02	M-004
	Cement	0.443	M ³	7582.35	3358.98	M-1 P
	Total				6890.13	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				12486.57	
	Add Overhead charge & C.P@15%				1872.99	
					14359.56	
						5070.47
	Rate per Cum	Say Rs		5070.50	Per M ³	
5.3.4	Providing and laying P.C.C. M-150 with nominal mix of (1:2:4) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :- Per Cum					
	Taking Out put= 2.832 Cum					
A.	MATERIALS					
	Coarse aggregates (20 mm To 10 mm) (Taking Rate of approved quality of aggregate as per Design)	2.548	M ³	886.00	2257.53	M-044
	Sand	1.274	M ³	494.00	629.36	M-004
	Cement	0.637	M ³	7582.35	4829.96	M-1 P
	Total				7716.84	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				13313.28	
	Add Overhead charge & C.P@15%				1996.99	
					15310.28	
						5406.17
	Rate per cum	Say Rs		5406.20	Per M ³	

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5.3.5	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
A.	MATERIALS					
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	2.436	M ³	886.00	2158.30	M-044
	Sand	1.218	M ³	494.00	601.69	M-004
	Cement	0.812	M ³	7582.35	6156.87	M-1 P
					8916.86	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				14513.30	
	Add Overhead charge & C.P@15%				2176.99	
					16690.29	
						5893.47
	Rate per cum	Say Rs		5893.50	Per M ³	
5.3.6	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1:2) in foundation of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
A.	MATERIALS					
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	2.40	M ³	886.00	2126.40	M-044
	Sand	1.20	M ³	494.00	592.80	M-004
	Cement	1.20	M ³	7582.35	9098.82353	M-1 P
	Total				11818.02	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.690	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				17414.46	
	Add Overhead charge & C.P@15%				2612.17	
					20026.63	
						7071.55
	Rate per cum	Say Rs		7071.60	Per M ³	

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5.3.7	Providing and laying P.C.C. M-75 with nominal mix of (1:4:8) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
A.	MATERIALS					
	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)	2.718	M ³	1080.50	2936.80	M-035
	Sand	1.368	M ³	494.00	675.79	M-004
	Cement	0.34	M ³	7582.35	2578.00	M-1 P
	Total				6190.59	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II -4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m ³ per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				11787.03	
	Add Overhead charge & C.P@15%				1768.05	
					13555.09	
	Rate per cum	Say Rs		4786.40	Per M ³	4786.40
5.3.8	Providing and laying P.C.C. M-100 with nominal mix of (1:3:6) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A.	MATERIALS					
	Coarse aggregates Gr IV (Cost of coarse aggregate as per Design)	2.66	M ³	1080.50	2874.13	M-047
	Sand	1.33	M ³	494.00	657.02	M-004
	Cement	0.443	M ³	7582.35	3358.98	M-1 P
	Total				6890.13	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II -4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m ³ per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				12486.57	
	Add Overhead charge & C.P@15%				1872.99	
					14359.56	
	Rate per cum	Say Rs		5070.50	Per M ³	5070.47

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5 3 9	Providing and laying P.C.C. M-150 with nominal mix of (1:2:4) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.						
	Unit :-Per Cum						
	Taking Out put=2.832 Cum						
A.	MATERIALS						
	Coarse aggregates (20 mm to 10 mm) coarse aggregate as per Design	(Cost of	2 548	M ³	886.00	2257.53	M-044
	Sand		1.274	M ³	494.00	629.36	M-004
	Cement		0 637	M ³	7582.35	4829.96	M-1 P
	Total					7716.84	
B.	LABOUR						
	Head mason		0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II		1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor		12	nos	318.00	3816.00	{SI-1}
	Bhisti		1	nos	315.00	315.00	S II-13
	Total					4727.00	
C.	HIRE CHARGES OF MACHINE						
	(i)Concrete mixer (10 H P) for 2.832 cum consists on the basis of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98		1.43	hr	283.00	404.690	{P M -21001}
	(ii) Vibrator 1no. to vibrate 2.832 cum on the basis of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98		1.43	hr	325.00	464.75	{P M -44001}
	Total					13313.28	
	Add Overhead charge & C.P@15%					1996.99	
						15310.28	
	Rate per cum	Say Rs			5406.20	Per M ³	5406.17
5 3 10	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I						
	Unit :-Per Cum						
	Taking Out put=2.832 Cum						
A.	MATERIALS						
	Coarse aggregates (20 mm to 10 mm) coarse aggregate as per Design	(Cost of	2 436	M ³	886.00	2158.30	M-044
	Sand		1 218	M ³	494.00	601.69	M-004
	Cement		0 812	M ³	7582.35	6156.87	M-1 P
	Total					8916.86	
B.	LABOUR						
	Head mason		0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II		1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor		12	nos	318.00	3816.00	{SI-1}
	Bhisti		1	nos	315.00	315.00	S II-13
	Total					4727.00	
C.	HIRE CHARGES OF MACHINE						
	(i)Concrete mixer (10 H P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98		1.43	hr	283.00	404.690	{P M -21001}
	(ii) Vibrator 1no To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98		1.43	hr	325.00	464.75	{P M -44001}
	Total					14513.30	
	Add Overhead charge & C.P@15%					2176.99	
						16690.29	
	Rate per cum	Say Rs			5893.50	Per M ³	5893.47

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5 3 11	Providing and laying P.C.C. or R.C.C M-250 with nominal mix of (1:1:2) superstructure of various components of canal or embankment structures with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2 832 Cum					
A.	MATERIALS					
	Coarse aggregates (20 mm to 10 mm) coarse aggregate as per Design) (Cost of	2 379	M ³	886 00	2107.79	M-044
	Sand	1.189	M ³	494.00	587.37	M-004
	Cement	1.189	M ³	7582.35	9015.42	M-1 P
	Total				11710.58	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4727.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				17307.02	
	Add Overhead charge & C P@15%				2596.05	
					19903.07	
						7027.92
	Rate per cum	Say Rs		7027.90	Per M ³	
5 3 12	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F M, washed and screened including necessary tools and plants, vibrating, curing, royalty etc excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2 832 Cum					
A.	MATERIALS					
	Coarse aggregates (20 mm to 10 mm) coarse aggregate as per Design) (Cost of	2 549	M ³	886 00	2258.414	M-044
	Sand	1.274	M ³	494.00	629.36	M-004
	Cement	0 637	M ³	7582 35	4829.96	M-1 P
	Total				7717.73	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1.25	nos	382.00	477.50	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4822.50	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				13409.67	
	Add Overhead charge & C P@15%				2011.45	
					15421.12	
						5445.31
	Rate per cum	Say Rs		5445.30	Per M ³	

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5.3.13	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete jobs per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
A.	MATERIALS					
	Coarse aggregates (20 mm to 10 mm) (Cost of coarse aggregate as per Design)	2.436	M ³	886.00	2158.30	M-044
	Sand	1.218	M ³	494.00	601.69	M-004
	Cement	0.812	M ³	7582.35	6156.87	M-1 P
	Total				8916.86	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1.25	nos	382.00	477.50	{S II-4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4822.50	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				14608.80	
	Add Overhead charge & C P@15%				2191.32	
					16800.12	
						5932.25
	Rate per cum	Say Rs		5932.20	Per M ³	
5.3.14	Providing and laying P.C.C. or R.C.C M-150 with nominal mix of (1:2:4) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out pvt=2.832 Cum					
A.	MATERIALS					
	Coarse aggregates (10 mm to 5 mm) (Cost of coarse aggregate as per Design)	2.548	M ³	586.00	1493.13	M-039
	Sand	1.274	M ³	494.00	629.36	M-004
	Cement	0.637	M ³	7582.35	4829.96	M-1 P
	Total				6952.44	
B.	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1.5	nos	382.00	573.00	{S II-4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4918.00	
C.	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				12739.88	
	Add Overhead charge & C P@15%				1910.98	
					14650.87	
						5173.33
	Rate per cum	Say Rs		5173.30	Per M ³	
5.3.15	Providing and laying P.C.C. or R.C.C M-200 with nominal mix of (1:1.5:3) in wearing coat over deck slab with approved quality of graded coarse aggregate of required grade (as per design) and approved quality sand of requisite F.M washed and screened including necessary tools and plants, vibrating, curing, royalty etc. excluding cost of form work as well reinforcement, its cutting, bending, binding and placing complete job as per specifications and direction of E/I.					

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	Unit :-Per Cum						
	Taking Out put =2.832 Cum						
A.	MATERIALS						
	Coarse aggregates (10 mm to 5 mm) coarse aggregate as per Design	(Cost of	2.435	M ³	586.00	1426.91	M-039
	Sand		1.217	M ³	494.00	601.20	M-004
	Cement		0.812	M ³	7582.35	6156.87	M-1 P
	Total					8184.98	
B.	LABOUR						
	Head mason		0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II		1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor		12	nos	318.00	3816.00	{SI-1}
	Bhisti		1	nos	315.00	315.00	S II-13
	Total					4918.00	
C.	HIRE CHARGES OF MACHINE						
	(i)Concrete mixer (10.H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98		1.43	hr	283.00	404.690	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98		1.43	hr	325.00	464.75	{P M -44001}
	Total					13972.42	
	Add Overhead charge & C.P@15%					2095.86	
						16068.28	
							5673.83
	Rate per cum	Say Rs			5673.80	Per M ³	
5.3.16	Providing and laying dry pitching with precast cement concrete blocks of size 600 mm x 600 mm x 300 mm in M-7.5 with nominal mix of (1:4:8) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite FM washed and screened including necessary form work, tools and plants, vibrating, curing as well as royalty complete job as per specifications and direction of E/I.						
	Unit :-Per Cum						
	Taking Out put =2.832 Cum						
A.	MATERIALS						
	Coarse aggregates Gr III coarse aggregate as per Design	(Cost of	2.720	M ³	1080.50	2938.96	M-035
	Sand		1.360	M ³	494.00	671.84	M-004
	Cement		0.34	M ³	7582.35	2578.00	M-1 P
	Total					6188.80	A
B.	LABOUR						
	Head mason		0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II		1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor		12	nos	318.00	3816.00	{SI-1}
	Bhisti		1	nos	315.00	315.00	S II-13
	Unskilled mazdoor for placing blocks in position		4	nos	318.00	1272.00	{SI-1}
	Total					5999.00	B
C.	HIRE CHARGES OF MACHINE						
	(i)Concrete mixer (10.H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98		1.43	hr	283.00	404.690	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98		1.43	hr	325.00	464.75	{P M -44001}
	Total					869.44	C
D.	SHUTTERING CHARGES						
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000		0.51125	M ³	26000.00	13292.50	{1198}
	Add 1 % for cost of nails and spikes					132.93	
	LABOUR						
	Carpenter Gr II		3	Rs	382.00	1146.00	{S I-17}
	Unskilled mazdoor		8	Rs	318.00	2544.00	{SI-1}
	Assuming 4 uses to calculate					17115.43	a
	Cost of shuttering for 2.832 cum = a/4					4278.86	D
	TOTAL(A+B+C+D)					17336.10	
	Add Overhead charge & C.P@15%					2600.41	
						19936.51	
							7039.73
	Rate per cum	Say Rs			7039.70	Per M ³	

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5.3.17	Providing and laying dry pitching with precast cement concrete blocks of size 600 mm x 600 mm x 300 mm in M-100 with nominal mix of (1:3:6) in floor and flank wall with approved quality of graded coarse aggregate of required grade(as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as wll as royalty and all complete as per specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
A	MATERIALS					
	Coarse aggregates Gr IV (Cost of coarse aggregate as per Design)	2.66	M ³	1080.50	2874.13	M-047
	Sand	1.33	M ³	494.00	657.02	M-004
	Cement	0.45	M ³	7582.35	3412.06	M-1 P
	Total				6943.21	A
B	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Unskilled mazdoor for placing blocks in position	4	nos	318.00	1272.00	{SI-1}
	Total				5999.00	B
C	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	{P M -21001}
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	{P M -44001}
	Total				869.44	C
D	SHUTTERING CHARGES					
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20 45X25/1000 0.51M3	0.51	PerM ³	26000.00	13292.500	{1198}
	Add 1 % for cost of nails and spikes				132.93	
	LABOUR					
	Carpenter Gr II	3	Rs	382.00	1146.00	{S I -17}
	Unskilled mazdoor	8	Rs	318.00	2544.00	{SI-1}
	Assuming 4 uses to calculate				17115.43	a
	Cost of shuttering for 2.832 cum = a/4				4278.86	D
	TOTAL=A+B+C+D				18090.51	
	Add Overhead charge & C.P@15%				2713.58	
					20804.08	
						7346.07
	Rate per cum	Say Rs		7346.10	Per M ³	
5.3.18	Providing shuttering including strutting, propping etc and its removal after use in foundation as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
A	MATERIALS					
	Local wood planks 38 mm thick =9.3 x 38 / 1000	0.353	cum			
	Add 5 % wastage	0.017	cum			
	Cost of 0.37 cum local wood planks	0.37	cum	26000.00	9620.00	{1198}
	Add cost for strutting and propping @ 10 % of above				962.00	
	Total cost of wood				10582.00	
	Assuming 4 uses to calculate	4	use			
	Cost of shuttering for 2.832 cum total cost/4				2645.50	
	Add 1 % for cost of nails and spikes on total cost of wood				105.82	
					2751.32	A
B	LABOUR					
	Carpenter Gr II	1.5	nos	382.00	573.00	{S I -17}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
					1368.00	B
C	Carriage of materials					
	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials				105.82	C
	TOTAL cost per 9.3 sqm =A+B+C				4225.14	
	Add Overhead charge & C.P@15%				633.77	
					4858.91	
						522.46
	Rate pe sqm	Say Rs		522.50	Per M ²	

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5.3.19	Providing shuttering including strutting, propping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put=9.30 Sqm					
A	MATERIALS					
	Local wood planks 38 mm thick 9.3 x 38 / 1000 =0.353 cum	0.353	cum			
	Add 5 % wastage	0.017	cum			
	Cost of 0.37 cum local wood planks	0.37	cum	26000.00	9620.00	(1198)
	Add cost for strutting and propping @ 10 % of above				962.00	
	Total cost of wood				10582.00	
	Assuming 4 uses to calculate	4	use			
	Cost of shuttering for 2.832 cum total cost/4				2645.50	
	Add 1 % for cost of nails and spikes on total cost of wood				105.82	
					2751.32	A
B	LABOUR					
	Carpenter Gr II	1.5	nos	382.00	573.00	{SI-17}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
					1368.00	B
C	Carriage of materials					
	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials				105.82	C
	TOTAL cost per 9.3 sqm =A+B+C				4225.14	
	Add Overhead charge & C.P@15%				633.77	
					4858.91	
						522.46
	Rate per sqm	Say Rs		522.50	Per M ²	
5.3.20	Providing centering including strutting,propping etc. and removing after use in deck slab as per specifications and direction of E/I.					
	Unit :-Per Sqm					
	Taking Out put =22.326 Sqm					
	(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
A.	MATERIALS					
	a. 40 mm thick local wood planks 22.326 x40 / 1000					
	=0.893					
	Add 5 % for wastages	=0.045				
	=0.938	0.94	cum	26000.00	24440.00	BCD-1197
	Assuming 4 uses to calculate					
	Cost of planks per use =0.89 x rate of local wood /4				6110.00	
	b. Assuming av. Height of slab from G L=3.66 M					
	150 mm sal bullah required =78 nos					
	Length of sal bullah =78 x3.66 =285.48 Mtr	285.48	M	70.57	20146.32	M SL No.-223
	(Assuming sal bullah to be used 10 times for centerins					
	=285.48 x Rate per Mtr / 10				2014.63	
	c. Salwood scantling required (75 mm x 63 mm size) =0.311 cum	0.311	cum	60000.00	18660.00	{BCD-1199}
	(Assuming 10 uses)					
	Cost per use =0.311 x Rate per Mtr/10				1866.00	
					9990.63	
	Add 1 % for cost of nails and spikes				99.91	
					10090.54	(A)
B.	LABOUR					
	Carpenter Gr II	4	nos	382.00	1528.00	{SI-17}
	Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
					3754.00	(B)
C.	Carrage of matters					
	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials (A)				99.91	(C)
	TOTAL cost per 22.326 sqm =A+B+C				13944.45	
	Add Overhead charge & C.P@15%				2091.67	
					16036.11	
						718.27
	Rate per sqm	Say Rs		718.30	Per M ²	

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5.3.21	Providing M.S reinforcement(Plain steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M S rods in position complete job as per specifications and direction of E/I.					
	Unit :-Per M.T					
	Assumng 1.00M.T					
	(a).Dia of bar 8mm					
(A)	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M.T	58600.00	61530.00	M-125
(B)	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	S1-1
					8776.56	B
	Total of A+B				70306.56	
	Add Overhead charge & C.P@15%				10545.98	
					80852.54	
						80852.50
	Rate per MT	Say Rs		80852.50	Per M.T	
	(b)Dia. of bar above 6 mm to 12 mm					
(A)	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M T	58600.00	61530.00	A (M-125)
(B)	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	S1-1
					8776.56	B
	Total of A+B				70306.56	
	Add Overhead charge & C.P@15%				10545.98	
					80852.54	
						80852.50
	Rate per MT	Say Rs		80852.50	Per M.T	
	(c)Dia of bar above 14 mm to 50 mm					
(A)	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M T	58600.00	61530.00	A (M-125)
(B)	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	S1-1
					8776.56	B
	Total of A+B				70306.56	
	Add Overhead charge & C.P@15%				10545.98	
					80852.54	
						80852.54
	Rate per MT	Say Rs		80852.50	Per M.T	
5.3.22	Providing M S reinforcement (Tor steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M S rods in position complete job as per specifications and direction of E/I.					
	Unit :-Per M.T					
	Assuming 1.00 M T					
(a).	T.M.T Fe-415 8 mm					
(A)	Providing M S reinforcement Plain (including 5 % wastage)	1 05	M T	#VALUE!	#VALUE!	
(B)	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per MT	Say Rs		#VALUE!	Per M.T	
(b).	T.M.T Fe-415 10 mm					
(A)	Providing M S reinforcement Plain (including 5 % wastage)	1 05	M.T	input	#VALUE!	
(B)	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	

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	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M.T	#VALUE!
(c).	T.M.T Fe-415 12 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14	Kg	75 04	1050 56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428 00	428 00	S II-9
	iv. Skilled mazdoor	8	nos	403 00	3224 00	S I-71
	v Unskilled mazdoor	2	nos	318 00	636 00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M T	#VALUE!
(d).	T.M.T Fe -415 16 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14	Kg	75 04	1050 56	M 072
	ii Black smith Gr II	9	nos	382.00	3438 00	S II-10
	iii. Head black smith	1	nos	428 00	428 00	S II-9
	iv. Skilled mazdoor	8	nos	403 00	3224 00	S I-71
	v Unskilled mazdoor	2	nos	318 00	636 00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M T	#VALUE!
(e).	T.M.T Fe -415- 20 mm					
(A).	Providing M.S reinforcement Plain (including 5% wastage)	1 05	M T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14	Kg	75 04	1050 56	M 072
	ii Black smith Gr II	9	nos	382 00	3438 00	S II-10
	iii. Head black smith	1	nos	428 00	428 00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224 00	S I-71
	v Unskilled mazdoor	2	nos	318 00	636.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M T	#VALUE!
(f).	T.M.T Fe -415- 25 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14	Kg	75 04	1050 56	M 072
	ii Black smith Gr II	9	nos	382 00	3438 00	S II-10
	iii Head black smith	1	nos	428 00	428 00	S II-9
	iv. Skilled mazdoor	8	nos	403 00	3224 00	S I-71
	v Unskilled mazdoor	2	nos	318 00	636 00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M T	#VALUE!
(g).	T.M.T Fe -415 28 mm					
(A).	Providing M.S reinforcement Plain(including 5% wastage)	1 05	M T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14	Kg	75 04	1050 56	M 072
	ii Black smith Gr II	9	nos	382 00	3438 00	S II-10
	iii. Head black smith	1	nos	428 00	428 00	S II-9
	iv. Skilled mazdoor	8	nos	403 00	3224 00	S I-71
	v Unskilled mazdoor	2	nos	318 00	636.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M T	#VALUE!
(h).	T.M.T Fe -415 32 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1 05	M T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14	Kg	75 04	1050 56	M 072
	ii Black smith Gr II	9	nos	382 00	3438 00	S II-10
	iii. Head black smith	1	nos	428 00	428 00	S II-9
	iv. Skilled mazdoor	8	nos	403 00	3224 00	S I-71
	v Unskilled mazdoor	2	nos	318 00	636 00	

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	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
					#VALUE!	
		Say Rs		#VALUE!	Per M.T	#VALUE!
(i).	T.M.T Fe -500 8 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M T	56441.00	59263.05	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					68039.61	
	Add Overhead charge & C.P@15%				10205.94	
					78245.55	
		Say Rs		78245.60	Per M.T	78245.55
(j).	T.M.T Fe -500 10 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M T	55085.00	57839.25	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					66615.81	
	Add Overhead charge & C.P@15%				9992.37	
					76608.18	
		Say Rs		76608.20	Per M.T	76608.18
(k).	T.M.T Fe -500 12 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M T	54492.00	57216.60	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					65993.16	
	Add Overhead charge & C.P@15%				9898.97	
					75892.13	
		Say Rs		75892.10	Per M.T	75892.13
(l).	T.M.T Fe -500 16 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M T	54492.00	57216.60	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					65993.16	
	Add Overhead charge & C.P@15%				9898.97	
					75892.13	
		Say Rs		75892.10	Per M.T	75892.13
(m).	T.M.T Fe -500 20 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M.T	54492.00	57216.60	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					65993.16	
	Add Overhead charge & C.P@15%				9898.97	
					75892.13	
		Say Rs		75892.10	Per M.T	75892.13
(n).	T.M.T Fe -500 25 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M.T	54492.00	57216.60	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii Head black smith	1	nos	428.00	428.00	S II-9

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	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					65993.16	
	Add Overhead charge & C.P@15%				9898.97	
					75892.13	
						75892.13
		Say Rs		75892.10	Per M T	
(o).	T.M.T Fe -500- 28 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M.T	54492.00	57216.60	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					65993.16	
	Add Overhead charge & C.P@15%				9898.97	
					75892.13	
						75892.13
		Say Rs		75892.10	Per M T	
(p).	T.M.T Fe -500 32 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M.T	54492.00	57216.60	M-10A
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					65993.16	
	Add Overhead charge & C.P@15%				9898.97	
					75892.13	
						75892.13
		Say Rs		75892.10	Per M T	
(q).	T.M.T Fe -500 36 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05	M.T	Input	#VALUE!	
(B).	i. Annealed wire	14	Kg	75.04	1050.56	M 072
	ii Black smith Gr II	9	nos	382.00	3438.00	S II-10
	iii. Head black smith	1	nos	428.00	428.00	S II-9
	iv. Skilled mazdoor	8	nos	403.00	3224.00	S I-71
	v Unskilled mazdoor	2	nos	318.00	636.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per MT	Say Rs		#VALUE!	Per M T	

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5.4 MASONARY WORK

Sr.No.	Item	Rate	Unit
5.4.1	Brick work in designation 100 A Brick with cement motar (1 : 3) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	5047.80	Per M ³
5.4.2	Brick work in designation 100 A Brick with cement motar (1 : 4) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4909.90	Per M ³
5.4.3	Brick work in designation 100 A Brick with cement motar (1 : 5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4792.80	Per M ³
5.4.4	Brick work in designation 100 A Brick with cement motar (1 : 6) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4707.10	Per M ³
5.4.5	Brick work in designation 100 A Brick with cement motar (1:3) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	5177.00	Per M ³
5.4.6	Brick work in designation 100 A Brick with cement motar (1 : 4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job including Royalty as per specification and direction of E / I.	5039.10	Per M ³
5.4.7	Brick work in designation 100 A Brick with cement motar (1 : 5) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4921.90	Per M ³
5.4.8	Brick work in designation 100 A Brick with cement motar (1 : 6) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4836.30	Per M ³
5.4.9	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E/I.	3106.10	Per M ³
5.4.10	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	2904.60	Per M ³

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5.4.11	Providing rough dressed random rubble stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	2781.20	Per M ³
5.4.12	Providing rough dressed random rubble/coarse stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. .complete job as per specification and direction of E / I.	3267.50	Per M ³
5.4.13	Providing rough dressed random rubble/coarse stone masonry in cement mortar (1 : 4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal, wherever required , all complete job including royalty as per specification and direction of E / I.	3066.00	Per M ³
5.4.14	Providing rough dressed random rubble/course stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal including royalty etc. wherever required all complete job as per specification and direction of E / I.	2942.60	Per M ³
5.4.15	Providing rough dressed coarse rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I	3267.50	Per M ³
5.4.16	Providing rough dressed coarse rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	3066.00	Per M ³
5.4.17	Providing rough dressed coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	2942.60	Per M ³

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5.4 MASONRY WORK

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
5.4.1	Brick work in designation 100 A Brick with cement mortar (1 : 3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.84	cum	494.00	414.96	M-004
	Cement	0.28	cum	7582.35	2123.06	M-1 P
	Total				9517.37	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				2913.50	
					12430.87	
	Add Overhead charge & C.P@15%				1864.63	
					14295.50	
						5047.85
	Rate per cum	Say Rs		5047.80	Per M ³	
5.4.2	Brick work in designation 100 A Brick with cement mortar (1 : 4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put=2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.92	cum	494.00	454.48	M-004
	Cement	0.23	cum	7582.35	1743.94	M-1 P
	Total				9177.77	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				2913.50	
					12091.27	
	Add Overhead charge & C.P@15%				1813.69	
					13904.96	
						4909.94
	Rate per cum	Say Rs		4909.90	Per M ³	
5.4.3	Brick work in designation 100 A Brick with cement mortar (1 : 5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put= 2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.95	cum	494.00	469.30	M-004
	Cement	0.19	cum	7582.35	1440.65	M-1 P
	Total				8889.30	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				2913.50	
					11802.80	
	Add Overhead charge & C.P@15%				1770.42	
					13573.22	
						4792.80
	Rate per cum	Say Rs		4792.80	Per M ³	
5.4.4	Brick work in designation 100 A Brick with cement mortar (1 : 6) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					

	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.968	cum	494.00	478.19	M-004
	Cement	0.161	cum	7582.35	1220.76	M-1 P
					8678.30	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					2913.50	
					11591.80	
	Add Overhead charge & C.P@15%				1738.77	
					13330.57	
						4707.12
	Rate per cum	Say Rs		4707.10	Per M ³	
5.4.5	Brick work in designation 100 A Brick with cement mortar (1 : 3) in superstructure with approved quality of coarse sand of requisite F.M washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. all complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.84	cum	494.00	414.96	M-004
	Cement	0.28	cum	7582.35	2123.06	M-1 P
					9517.37	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	6	nos	318.00	1908.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					3231.50	
					12748.87	
	Add Overhead charge & C.P@15%				1912.33	
					14661.20	
						5176.98
	Rate per cum	Say Rs		5177.00	Per M ³	
5.4.6	Brick work in designation 100 A Brick with cement mortar (1 : 4) in superstructure with approved quality of coarse sand of requisite F M washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.92	cum	494.00	454.48	M-004
	Cement	0.23	cum	7582.35	1743.94	M-1 P
					9177.77	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	6	nos	318.00	1908.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					3231.50	
					12409.27	
	Add Overhead charge & C.P@15%				1861.39	
					14270.66	
						5039.08
	Rate per cum	Say Rs		5039.10	Per M ³	
5.4.7	Brick work in designation 100 A Brick with cement mortar (1 : 5) in superstructure with approved quality of coarse sand of requisite F.M washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					

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	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.95	cum	494.00	469.30	M-004
	Cement	0.19	cum	7582.35	1440.65	M-1 P
					8889.30	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	6	nos	318.00	1908.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					3231.50	
					12120.80	
	Add Overhead charge & C.P@15%				1818.12	
					13938.92	
						4921.93
	Rate per cum	Say Rs		4921.90	Per M ³	
5.4.8	Brick work in designation 100 A Brick with cement mortar (1 : 6) in superstructure with approved quality of coarse sand of requisite F.M. ,washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. all complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Bricks	1150	nos	6.069	6979.35	M-11
	Sand	0.968	cum	494.00	478.19	M-004
	Cement	0.161	cum	7582.35	1220.76	M-1 P
					8678.30	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	6	nos	318.00	1908.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					3231.50	
					11909.80	
	Add Overhead charge & C.P@15%				1786.47	
					13696.27	
						4836.25
	Rate per cum	Say Rs		4836.30	Per M ³	
5.4.9	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc complete job as per specification and direction of E / I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Stone boulder	2.832	cum	675.00	1911.60	M-147
	Sand	1.050	cum	494.00	518.70	M-004
	Cement	0.350	cum	7582.35	2653.82	M-1 P
					5084.12	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II- 4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
					2565.00	
					7649.12	
	Add Overhead charge & C.P@15%				1147.37	
					8796.49	
						3106.11
	Rate per cum	Say Rs		3106.10	Per M ³	
5.4.10	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc.complete job as per specification and direction of E / I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Stone boulder	2.832	cum	675.00	1911.60	M-147
	Sand	1.120	cum	494.00	553.28	M-004
	Cement	0.280	cum	7582.35	2123.06	M-1 P
					4587.94	

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	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II -4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
					2565.00	
					7152.94	
	Add Overhead charge & C.P@15%				1072.94	
					8225.88	
						2904.62
	Rate per cum	Say Rs		2904.60	Per M ³	
5.4.11	Providing rough dressed random rubble stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc.complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Stone boulder	2.832	cum	675.00	1911.60	M-147
	Sand	1.180	cum	494.00	582.92	M-004
	Cement	0.236	cum	7582.35	1789.44	M-1 P
					4283.96	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II -4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
					2565.00	
					6848.96	
	Add Overhead charge & C.P@15%				1027.34	
					7876.30	
						2781.18
	Rate per cum	Say Rs		2781.20	Per M ³	
5.4.12	Providing rough dressed random rubble/coarse stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Stone boulder	2.832	cum	675.00	1911.60	M-147
	Sand	1.050	cum	494.00	518.70	M-004
	Cement	0.350	cum	7582.35	2653.82	M-1 P
					5084.12	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II -4}
	Unskilled mazdoor	6.25	nos	318.00	1987.50	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
					2962.50	
					8046.62	
	Add Overhead charge & C.P@15%				1206.99	
					9253.62	
						3267.52
	Rate per cum	Say Rs		3267.50	Per M ³	
5.4.13	Providing rough dressed random rubble/coarse stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc.complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Stone boulder	2.832	cum	675.00	1911.60	M-147
	Sand	1.120	cum	494.00	553.28	M-004
	Cement	0.280	cum	7582.35	2123.06	M-1 P
					4587.94	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II -4}
	Unskilled mazdoor	6.25	nos	318.00	1987.50	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
					2962.50	

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				7550.44	
	Add Overhead charge & C.P@15%			1132.57	
				8683.00	
					3066.03
	Rate per cum	Say Rs	3066.00	Per M ³	
5.4.14	Providing rough dressed random rubble /coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc complete job as per specification and direction of E / I.				
	Unit :-Per Cum				
	Taking Out put =2.832 Cum				
	Materials				
	Stone boulder	2.832 cum	675	1911.6	M-147
	Sand	1.18 cum	494	582.92	M-004
	Cement	0.236 cum	7582.35	1789.44	M-1 P
				4283.95529	
	Labour				
	Head mason	0.125 nos	428	53.5	{S II -3}
	Mason Gr II	2 nos	382	764	{S II- 4}
	Unskilled mazdoor	6.25 nos	318	1987.5	{SI-1}
	Bhisti	0.5 nos	315	157.5	S II-13
				2962.5	
				7246.45529	
	Add Overhead charge & C.P@15%			1086.96829	
				8333.42359	
					2942.593075
	Rate per cum	Say Rs	2942.60	Per M ³	
5.4.15	Providing rough dressed coarse rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc complete job as per specification and direction of E / I.				
	Unit :-Per Cum				
	Taking Out put =2.832 Cum				
	Materials				
	Stone boulder	2.832 cum	675.00	1911.60	M-147
	Sand	1.050 cum	494.00	518.70	M-004
	Cement	0.350 cum	7582.35	2653.82	M-1 P
				5084.12	
	Labour				
	Head mason	0.125 nos	428.00	53.50	{S II -3}
	Mason Gr II	2 nos	382.00	764.00	{S II- 4}
	Unskilled mazdoor	6.25 nos	318.00	1987.50	{SI-1}
	Bhisti	0.5 nos	315.00	157.50	S II-13
				2962.50	
				8046.62	
	Add Overhead charge & C.P@15%			1206.99	
				9253.62	
					3267.52
	Rate per cum	Say Rs	3267.50	Per M ³	
5.4.16	Providing rough dressed coarse rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc complete job as per specification and direction of E / I.				
	Unit :-Per Cum				
	Taking Out put =2.832 Cum				
	Materials				
	Stone boulder	2.832 cum	675.00	1911.60	M-147
	Sand	1.120 cum	494.00	553.28	M-004
	Cement	0.280 cum	7582.35	2123.06	M-1 P
				4587.94	
	Labour				
	Head mason	0.125 nos	428.00	53.50	{S II -3}
	Mason Gr II	2 nos	382.00	764.00	{S II- 4}
	Unskilled mazdoor	6.25 nos	318.00	1987.50	{SI-1}
	Bhisti	0.5 nos	315.00	157.50	S II-13
				2962.50	
				7550.44	
	Add Overhead charge & C.P@15%			1132.57	
				8683.00	
					3066.03
	Rate per cum	Say Rs	3066.00	Per M ³	

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5.4.17	Providing rough dressed coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	Stone boulder	2.832	cum	875.00	1911.60	M-147
	Sand	1.180	cum	494.00	582.92	M-004
	Cement	0.236	cum	7582.35	1789.44	M-1 P
					4283.96	
	Labour					
	Head mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	2	nos	382.00	764.00	{S II- 4}
	Unskilled mazdoor	6.25	nos	318.00	1987.50	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
					2962.50	
					7246.46	
	Add Overhead charge & C.P@15%				1086.97	
					8333.42	
						2942.59
	Rate per cum	Say Rs		2942.60	Per M ³	

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5.5. PLASTER WORK

Sr.No.	Item	Rate	Unit
5.5.1	Providing 12 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M, washed and screened including curing, scaffolding wherever required, and its removal, royalty etc. all complete job as per specification and direction of E / I.	173.90	Per M ²
5.5.2	Providing 12 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.	165.90	Per M ²
5.5.3	Providing 12 mm thick cement plaster (1:5) with approved quality sand of requisite F.M,washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.	160.50	Per M ²
5.5.4	Providing 25 mm thick cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.	283.60	Per M ²
5.5.5	Providing 25 mm thick cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty etc. complete job as per specification and direction of E / I.	269.00	Per M ²
5.5.6	Providing 25 mm thick cement plaster (1:5) with approved quality sand of requisite F.M,washed and screened including curing, scaffolding wherever and its removal , royalty etc. complete job as per specification and direction of E / I.	253.40	Per M ²
5.5.7	Providing 12 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal , royalty etc.complete job as per specification and direction of E / I.	184.30	Per M ²
5.5.8	Providing 25 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.	304.40	Per M ²
5.5.9	Providing 25 mm thick water proof cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal , royalty etc. complete job as per specification and direction of E / I.	289.80	Per M ²
5.5.10	Providing 1.5 mm thick cement punning including curing complete job as per specification and direction of E / I.	49.90	Per M ²
5.5.11	Providing cement ruled pointing (1:3) with approved quality sand of requisite F.M, washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal., royalty etc. complete job as per specification and direction of E / I.	165.00	Per M ²
5.5.12	Providing cement flush pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.	121.70	Per M ²

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5.5.13	Providing cement truck pointing (1:3) on Brick work with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.	179.50	Per M ²
5.5.14	Providing cement truck pointing (1:3) on stone masonry with approved quality sand of requisite F.M , washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal., royalty etc. complete job as per specification and direction of E / I.	232.40	Per M ²

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5.5. PLASTER WORK

Sl.No.	Description	Quantity	Unit	Rate	Amount	
5.5.1	Providing 12 mm thick cement plaster (1:3) with approved quality of sand of requisite F.M, washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.043	cum	7582.35	326.04	M-1 P
	Sand	0.129	cum	494.00	63.73	M-004
	Total				389.77	
	Labour					
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1016.50	
					1406.27	
	Add Overhead charge & C.P@15%				210.94	
					1617.21	
						173.89
	Rate per sqm	Say Rs		173.90	Per M ²	
5.5.2	Providing 12 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.034	cum	7582.35	257.80	M-1 P
	Sand	0.136	cum	494.00	67.18	M-004
	Total				324.98	
	Labour					
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1016.50	
					1341.48	
	Add Overhead charge & C.P@15%				201.22	
					1542.71	
						165.88
	Rate per sqm	Say Rs		165.90	Per M ²	
5.5.3	Providing 12 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.028	cum	7582.35	212.31	M-1 P
	Sand	0.140	cum	494.00	69.16	M-004
	Total				281.47	
	Labour					
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1016.50	
					1297.97	
	Add Overhead charge & C.P@15%				194.69	
					1492.66	
						160.50
	Rate per sqm	Say Rs		160.50	Per M ²	
5.5.4	Providing 25 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					

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	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.085	cum	7582.35	644.50	M-1 P
	Sand	0.250	cum	494.00	123.50	M-004
	Total				768.00	
	Labour					
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1525.50	
					2293.50	
	Add Overhead charge & C.P@15%				344.03	
					2637.53	
						283.60
	Rate per sqm	Say Rs		283.60	Per M ²	
5.5.5	Providing 25 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.068	cum	7582.35	515.60	M-1 P
	Sand	0.272	cum	494.00	134.37	M-004
	Total				649.97	
	Labour					
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1525.50	
					2175.47	
	Add Overhead charge & C.P@15%				326.32	
					2501.79	
						269.01
	Rate per sqm	Say Rs		269.00	Per M ²	
5.5.6	Providing 25 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.056	cum	7582.35	424.61	M-1 P
	Sand	0.200	cum	494.00	98.80	M-004
	Total				523.41	
	Labour					
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1525.50	
					2048.91	
	Add Overhead charge & C.P@15%				307.34	
					2356.25	
						253.36
	Rate per sqm	Say Rs		253.40	Per M ²	
5.5.7	Providing 12 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M., washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.043	cum	7582.35	326.04	M-1 P
	Sand	0.129	cum	494.00	63.73	M-004
	Cost of water proofing compound (Cico)	2.4	Kg	35.00	84.00	{1213}
	Total				473.77	
	Labour					
	Mason Gr II	1	nos	382.00	382	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477	{SI-1}
	Bhisti	0.5	nos	315.00	157.5	S II-13
	Total				1016.5	
					1490.27	
	Add Overhead charge & C.P@15%				223.54	
					1713.81	
						184.28
	Rate per sqm	Say Rs		184.30	Per M ²	

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5.5.8	Providing 25 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.085	cum	7582.35	644.50	M-1 P
	Sand	0.250	cum	494.00	123.50	M-004
	Cost of water proofing compound (Cico)	4.8	Kg	35.00	168.00	{1213}
	Total				936.00	
	Labour					
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	total				1525.50	
					2461.50	
	Add Overhead charge & C.P@15%				369.23	
					2830.73	
						304.38
	Rate per sqm	Say Rs		304.40	Per M ²	
5.5.9	Providing 25 mm thick water proof cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.068	cum	7582.35	515.60	M-1 P
	Sand	0.272	cum	494.00	134.37	M-004
	Cost of water proofing compound (Cico)	4.8	Kg	35.00	168.00	{1213}
	Total				817.97	
	Labour					
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	2.5	nos	318.00	795.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1525.50	
					2343.47	
	Add Overhead charge & C.P@15%				351.52	
					2694.99	
						289.78
	Rate per sqm	Say Rs		289.80	Per M ²	
5.5.10	Providing 1.5 mm thick cement punning including curing, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.014	cum	7582.35	106.15	M-1 P
	Labour					
	Head Mason	0.0625	nos	428.00	26.75	{S II -3}
	Mason Gr II	0.5	nos	382.00	191.00	{S II- 4}
	Unskilled mazdoor	0.25	nos	318.00	79.50	{SI-1}
	Total				297.25	
					403.40	
	Add Overhead charge & C.P@15%				60.51	
					463.91	
						49.88
	Rate per sqm	Say Rs		49.90	Per M ²	
5.5.11	Providing cement ruled pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.014	cum	7582.35	106.15	M-1 P
	Sand	0.042	cum	494.00	20.75	M-004
	Total				126.90	
	Labour					
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1207.50	
					1334.40	
	Add Overhead charge & C.P@15%				200.16	
					1534.56	
						165.01
	Rate per sqm	Say Rs		165.00	Per M ²	

5.5.12	Providing cement flush pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.014	cum	7582.35	106.15	M-1 P
	Sand	0.042	cum	494.00	20.75	M-004
	Total				126.90	
	Labour					
	Mason Gr II	1	nos	382.00	382.00	{S II- 4}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				857.50	
					984.40	
	Add Overhead charge & C.P@15%				147.66	
					1132.06	
						121.73
	Rate per sqm	Say Rs		121.70	Per M ²	
5.5.13	Providing cement truck pointing (1:3) on Brick work with approved quality sand of requisite F.M washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.021	cum	7582.35	159.23	M-1 P
	Sand	0.063	cum	494.00	31.12	M-004
	Total				190.35	
	Labour					
	Head Mason	0.125	nos	428.00	53.50	{S II -3}
	Mason Gr II	1.5	nos	382.00	573.00	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1261.00	
					1451.35	
	Add Overhead charge & C.P@15%				217.70	
					1669.05	
						179.47
	Rate per sqm	Say Rs		179.50	Per M ²	
5.5.14	Providing cement truck pointing (1:3) on stone masonry with approved quality sand of requisite F.M, washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Cement	0.032	cum	7582.35	242.64	M-1 P
	Sand	0.096	cum	494.00	47.42	M-004
	Total				290.06	
	Labour					
	Mason Gr II	2.5	nos	382.00	955.00	{S II- 4}
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Bhisti	0.5	nos	315.00	157.50	S II-13
	Total				1589.50	
					1879.56	
	Add Overhead charge & C.P@15%				281.93	
					2161.49	
						232.42
	Rate per sqm	Say Rs		232.40	Per M ²	

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5.6 HUME PIPE LAYING

Sr.No.	Item	Rate	Unit
5.6.1	Labour for laying, fitting and fixing NP ₂ pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E / I.		
5.6.1.1	150 mm dia NP ₂ H.P	182.60	Per M
5.6.1.2	225 mm dia NP ₂ H.P	283.10	Per M
5.6.1.3	300 mm dia NP ₂ H.P	334.00	Per M
5.6.1.4	450 mm dia NP ₂ H.P	519.40	Per M
5.6.1.5	600 mm dia NP ₂ H.P	643.40	Per M
5.6.1.6	700 mm or 800 mm dia NP ₂ H.P	703.10	Per M
5.6.1.7	900 mm dia or 1000 mm dia NP ₂ H.P	848.40	Per M
5.6.1.8	1200 mm dia NP ₂ H.P	1116.50	Per M
5.6.2	Labour for laying, fitting and fixing NP ₂ pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E / I. (Hume pipe available within a lead of 40 M)		
5.6.2.1	450 mm dia NP ₃ H.P	524.40	Per M
5.6.2.2	600 mm dia NP ₃ H.P	545.90	Per M
5.6.2.3	700 mm or 800 mm dia NP ₃ H.P	898.10	Per M
5.6.2.4	900 mm dia or 1000 mm dia NP ₃ H.P	1303.90	Per M
5.6.2.5	1200 mm dia NP ₃ H.P	1562.40	Per M

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5.6 HUME PIPE LAYING

Sl.No.	Description	quantity	Unit	Rate	Amount	Ref.
5 6.1	Labour for laying, fitting and fixing NP ₂ pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E / I.					
5 6.1.1	150 mm dia NP ₂ H.P					
	Unit :-Per M					
	Taking Out put =8.0M					
	(Assuming 4 pipes of 2 M length and three collars)					
	Materials					
	Cement	0 011	cum	7582 35	83.41	M-1 P
	Sand	0 011	cum	494.00	5.43	M-004
	Jute	1.5	Kg	22 83	34.245	M SI No.-257
	Total				123.08	
	Labour					
	Head Mason	0.5	nos	428 00	214.00	{S II -3}
	Unskilled mazdoor	2.25	nos	318 00	715.50	{SI-1}
	Filter Gr I	0.5	nos	435 00	217.50	S I-8
	Total				1147 00	
					1270 08	
	Add Overhead charge & C.P@15%				190.51	
					1460.60	
						182 57
	Rate per M	Say	Rs	182.60	Per M	
5 6.1.2	225 mm dia NP ₂ H.P					
	Unit :-Per M					
	Taking Out put =8 0M					
	(Assuming 4 pipes of 2 M length and three collars)					
	Materials					
	Cement	0 014	cum	7582 35	106 15	M-1 P
	Sand	0 014	cum	494 00	6.92	M-004
	Jute	2	Kg	22 83	45.66	M SI No -257
	Total				158.73	
	Labour					
	Head Mason	0.75	nos	428 00	321.00	{S II -3}
	Unskilled mazdoor	4	nos	318 00	1272 00	{SI-1}
	Filter Gr I	0.5	nos	435 00	217 50	S I-8
					1810.50	
					1969 23	
	Add Overhead charge & C.P@15%				295.38	
					2264.61	
						283 08
	Rate per M	Say	Rs	283.10	Per M	
5 6.1.3	300 mm dia NP ₂ H.P					
	Unit :-Per M					
	Taking Out put =10.0M					
	(Assuming 4 pipes of 2.5 mtr length and three collars)					
	Materials					
	Cement	0 023	cum	7582 35	174 39	M-1 P
	Sand	0 023	cum	494 00	11 36	M-004
	Jute	2.5	Kg	22 83	57.08	M SI No.-257
	Total				242.83	
	Labour					
	Head Mason	1	nos	428 00	428 00	{S II -3}
	Unskilled mazdoor	6	nos	318 00	1908 00	{SI-1}
	Filter Gr I	0.75	nos	435 00	326 25	S I-8
					2662 25	
					2905 08	
	Add Overhead charge & C.P@15%				435 76	
					3340 84	
						334 08
	Rate per M	Say	Rs	334.00	Per M	
5 6.1.4	450 mm dia NP ₂ H.P					
	Unit :-Per M					
	Taking Out put =7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0 028	cum	7582 35	212 31	M-1 P
	Sand	0 028	cum	494 00	13 83	M-004
	Jute	3.25	Kg	22 83	74.20	M SI No.-257
	Total				300 34	
	Labour					
	Head Mason	1.25	nos	428 00	535 00	{S II -3}

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	Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
	Fitter Gr I	0.75	nos	435.00	326.25	S I-8
	Total				3087.25	
	Add Overhead charge & C.P@15%				508.14	
					3895.72	
						519.43
	Rate per M	Say	Rs	519.40	Per M	
5.6.1.5	600 mm dia NP, H.P					
	Unit :-Per M					
	Taking Out put =7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0.034	cum	7582.35	257.80	M-1 P
	Sand	0.034	cum	494.00	16.80	M-004
	Jute	4	Kg	22.83	91.32	M SI No -257
					365.92	
	Labour					
	Head Mason	1.5	nos	428.00	642.00	{S II -3}
	Unskilled mazdoor	9	nos	318.00	2862.00	{SI-1}
	Fitter Gr I	0.75	nos	435.00	326.25	S I-8
					3830.25	
					4196.17	
	Add Overhead charge & C.P@15%				629.42	
					4825.59	
						643.41
	Rate per M	Say	Rs	643.40	Per M	
5.6.1.6	700 mm or 800 mm dia NP, H.P					
	Unit :-Per M					
	Taking Out put =7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0.040	cum	7582.35	303.29	M-1 P
	Sand	0.040	cum	494.00	19.76	M-004
	Jute	5	Kg	22.83	114.15	M SI No -257
					437.20	
	Labour					
	Head Mason	1.5	nos	428.00	642.00	{S II -3}
	Unskilled mazdoor	10	nos	318.00	3180.00	{SI-1}
	Fitter Gr I	0.75	nos	435.00	326.25	S I-8
					4148.25	
					4585.45	
	Add Overhead charge & C.P@15%				687.82	
					5273.27	
						703.10
	Rate per M	Say	Rs	703.10	Per M	
5.6.1.7	900 mm dia or 1000 mm dia NP2 H.P					
	Unit :-Per M					
	Taking Out put =7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0.045	cum	7582.35	341.21	M-1 P
	Sand	0.045	cum	494.00	22.23	M-004
	Jute	7.5	Kg	22.83	171.23	M SI No -257
	Total				534.66	
	Labour					
	Head Mason	2	nos	428.00	856.00	{S II -3}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Fitter Gr I	0.75	nos	435.00	326.25	S I-8
	Total				4998.25	
					5532.91	
	Add Overhead charge & C.P@15%				829.94	
					6362.85	
						848.38
	Rate per M	Say	Rs	848.40	Per M	
5.6.1.8	1200 mm dia NP, H.P					
	Unit :-Per M					
	Taking Out put =7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0.057	cum	7582.35	432.19	M-1 P
	Sand	0.057	cum	494.00	28.15	M-004

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Jute	10	Kg	22.83	228.30	M SI No -257
				688.65	
Labour					
Head Mason	2.5	nos	428.00	1070.00	{S II -3}
Unskilled mazdoor	16	nos	318.00	5088.00	{SI-1}
Filter Gr I	1	nos	435.00	435.00	S I-8
				6593.00	
				7281.65	
Add Overhead charge & C.P@15%				1092.25	
				8373.90	
					1116.52
Rate per M	Say	Rs	1116.50	Per M	
5.6.2	Labour for laying, fitting and fixing NP ₃ pipe with collars in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all complete as per specification and direction of E / I. (Hume pipe available within a lead of 40 mtr)				
5.6.2.1	450 mm dia NP ₃ H.P				
	Unit :-Per M				
	Taking Out put =7.5 M				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)				
	Materials				
Cement	0.028	cum	7582.35	212.31	M-1 P
Sand	0.028	cum	494.00	13.83	M-004
Jute	3.25	Kg	22.83	74.20	M SI No -257
				300.34	
	Labour				
Head Mason	1.250	nos	428.00	535.00	{S II -3}
Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
Filter Gr I	0.825	nos	435.00	358.88	S I-8
				3119.88	
				3420.21	
Add Overhead charge & C.P@15%				513.03	
				3933.24	
					524.43
Rate per M	Say	Rs	524.40	Per M	
5.6.2.2	600 mm dia NP ₃ H.P				
	Unit :-Per M				
	Taking Out put =7.5 M				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)				
	Materials				
Cement	0.034	cum	7582.35	257.80	M-1 P
Sand	0.034	cum	494.00	16.80	M-004
Jute	4	Kg	22.83	91.32	M SI No -257
Total				365.92	
	Labour				
Head Mason	1.50	nos	428.00	642.00	{S II -3}
Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
Filter Gr I	0.750	nos	435.00	326.25	S I-8
Total				3194.25	
				3560.17	
Add Overhead charge & C.P@15%				534.02	
				4094.19	
					545.89
Rate per M	Say	Rs	545.90	Per M	
5.6.2.3	700 mm or 800 mm dia NP ₃ H.P				
	Unit :-Per M				
	Taking Out put =7.5 M				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)				
	Materials				
Cement	0.040	cum	7582.35	303.29	M-1 P
Sand	0.040	cum	494.00	19.76	M-004
Jute	5	Kg	22.83	114.15	M SI No -257
Total				437.20	
	Labour				
Head Mason	1.5	nos	428.00	642.00	{S II -3}
Unskilled mazdoor	14	nos	318.00	4452.00	{SI-1}
Filter Gr I	0.75	nos	435.00	326.25	S I-8
Total				5420.25	
				5857.45	
Add Overhead charge & C.P@15%				878.62	
				6736.07	
					898.14
Rate per M	Say	Rs	898.10	Per M	

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5.6.2.4	900 mm dia or 1000 mm dia NP ₃ H.P					
	Unit :-Per M					
	Taking Out put=7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0.045	cum	7582.35	341.21	M-1 P
	Sand	0.045	cum	494.00	22.23	M-004
	Jute	7.5	Kg	22.83	171.23	M SI No -257
					534.66	
	Labour					
	Head Mason	2	nos	428.00	856.00	{S II -3}
	Unskilled mazdoor	21	nos	318.00	6678.00	{SI-1}
	Fitter Gr I	1	nos	435.00	435.00	S I-8
					7969.00	
					8503.66	
	Add Overhead charge & C.P@15%				1275.55	
					9779.21	
						1303.89
	Rate per M	Say	Rs	1303.90	Per M	
5.6.2.5	1200 mm dia NP ₂ H.P					
	Unit :-Per M					
	Taking Out put=7.5 M					
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
	Materials					
	Cement	0.057	cum	7582.35	432.19	M-1 P
	Sand	0.057	cum	494.00	28.16	M-004
	Jute	12	Kg	22.83	273.96	M SI No -257
					734.31	
	Labour					
	Head Mason	2.5	nos	428.00	1070.00	{S II -3}
	Unskilled mazdoor	25	nos	318.00	7950.00	{SI-1}
	Fitter Gr I	1	nos	435.00	435.00	S I-8
					9455.00	
					10189.31	
	Add Overhead charge & C.P@15%				1528.40	
					11717.71	
						1562.36
	Rate per M	Say	Rs	1562.40	Per M	

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5.7 PITCHING AND PILING

Sr.No.	Item	Rate	Unit
5.7.1	Labour for making 150 mm to 200 mm dia Sal ballah piles including cutting to size and dressing, making shoes for driving etc.all complete as per specification and direction of E / I.	22.00	Per pile
5.7.2	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level upto 5 meter including cost of all tools and plants required for the job all complete as per specification and direction of E / I.	238.90	Per M
5.7.3	Labour for fitting and fixing 100 mm to 150 mm dia sal ballah cross pieces 1350 mm length in position with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers all complete job as per specification and direction of E / I.	90.40	Per M
5.7.4	Labour for fitting and fixing 150 mm dia sal ballah in position as back stay with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I.	42.20	Per M
5.7.5	Labour for fitting and fixing 100 mm to 150 mm dia sal ballah walling pieces with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I.	57.60	Per M
5.7.6	Labour for fitting and fixing 150 mm to 200 mm dia sal ballah piles with two nos 16 mm dia 225 mm long nuts and washers including the cost of bolts nuts and washers complete job as per specification and direction of E / I.	114.70	Per M
5.7.7	Labour for cutting 62 mm to 75 mm dia sal bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E / I.	33.60	Per M
5.7.8	Labour for fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E / I.	88.40	Per M ²
5.7.9	Labour for fitting and fixing 62mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost of G.I. wire or nails complete job as per specification and direction o E / I.	5.90	Per M
5.7.10	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level in running water upto complete job as per specification and direction of E / I.	412.70	Per M
5.7.11	Labour for fitting and fixing 75 mm dia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and direction of E / I.	24.20	Per M
5.7.12	Labour for fitting and fixing 75 mm but upto 150 mm dia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and direction of E / I.	35.10	Per M
5.7.13	Labour for laying fine filter (Sand) or coarse dry graded filter either of jhama khoa or stone metal or stone chips under brick pitching or boulder pitching in slope and apron including light ramming etc.all complete job as per specification and direction of E / I.	387.40	Per M ³
5.7.13(b)	Labour for laying River bed Material (70 % 40 mm to 20 mm size and 30 % Less than 20 mm and Sand) including light ramming etc.all complete job as per specification and direction of E / I.	274.20	Per M ³
5.7.14	Providing brick flat soling with designation 100A bricks joints filled with coarse sand of approved quality including royalty etc. all complete as per approved design, specifications and direction of E/I	290.60	Per M ²
5.7.15	Providing brick on edge soling with designation 100A bricks joints filled with coarse sand of approved quality including royalty etc. all complete as per approved design, specifications and direction of E/I	458.90	Per M ²

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5.7.16	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I	749.50	Per M ²
5.7.17	Providing pitching work with designation 100A bricks in panel two brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I	1256.90	Per M ²
5.7.18.1	Labour charge for pitching work on apron slope of bank with stone boulder duly packed (Uncreated complete job) materials within 150 m lead with all lifts, including royalty etc. all complete as per approved design, specifications and direction of E/I	928.30	Per M ³
5.7.18.2	Labour charge for pitching work on apron slope of bank with stone boulder duly packed (Uncreated complete job) materials within 50 m lead with all lifts, including royalty etc. all complete as per approved design, specifications and direction of E/I	411.80	Per M ³
5.7.19	Labour charge for stone boulder (uncreated) laying in launching apron and slope (materials within 150 m lead all lifts), all complete as per approved design, specifications and direction of E/I	1099.50	Per M ³
5.7.20	Labour charge for pitching with jhama bricks closely packed over apron and including preparation of base, making proper slope and grade etc all complete (materials within 150 m lead with all lifts) as per approved design, specifications and direction of E/I	852.30	Per M ³
5.7.21.1	Labour charge for pitching above water on apron and slope of bank with boulder in crates of specified size (material within 150 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I	1126.90	Per M ³
5.7.21.2*	Labour charge for pitching above water in apron and slope of bank with boulder in crates of specified size (material within 50 M lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I	545.80	Per M ³
5.7.22	Labour charge for pitching under water in apron and slope of bank with boulder in crates of specified size (material within 150 M lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I	1665.60	Per M ³
5.7.23	Labour charge for pitching under water in apron and slope with rubble having 600 mm to 300 mm size with all leads and lifts including royalty etc. all complete as per approved design, specifications and direction of E/I	1272.60	Per M ³
5.7.24.1	Labour charge for pitching above water in apron and slope of bank with bricks packed in crates of specified size (material within 150 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I	1085.70	Per M ³
5.7.24.2	Labour charge for pitching above water in apron and slope of bank with bricks packed in crates of specified size (material within 50 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I	504.70	Per M ³
5.7.24.3	Extra for each lead of 30 M over the initial lead of 50 M (Boulder or Brick) as per approved design, specifications and direction of E/I	163.60	Per M ³
5.7.25	Labour charge for pitching under water in apron and slope of bank with bricks packed in crates of specified size (material within 150 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I	1730.20	Per M ³

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5.7.26	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm for pitching in cement mortar (1:3) with approved quality of sand of requisite F.M. over 150 mm dry khoa rrammed to make the inter spaces closer, keeping the thickness intact including royalty etc. complete job as per approved design, specifications and direction of E/I	2223.00	Per M ²
5.7.27	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm duly pointed in cement mortar (1:3) with coarse sand of approved quality for staggered pitching over 150 mm dry khoa filter rrammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty etc. complete job as per approved design, specifications and direction of E/I	2276.30	Per M ²
5.7.28	Providing brick block in designation 100 A bricks of size 600 x 600 x 200 mm duly pointed in cement mortar (1:4) with coarse sand of approved quality for staggered pitching over 100 mm dry khoa filter rrammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty etc. complete job as per approved design, specifications and direction of E/I	1498 00	Per M ²
5.7.29.1	Supplying fitting and packing jhawa bush wood Kans grass or local wood brush in bundle of 600 mm dia tied with coir string as per specification including loading, unloading, stacking and carriage upto 1 K.M. lead etc.all complete job as per approved design, specifications and direction of E/I	#VALUE!	Per M ³
5.7.29.2	Extra for carriage of jhankhi for subsequent K.M. beyond initial 1st K M by bullock cart	#VALUE!	Per K M/ M ³
5.7.30	Supplying palm leaves and fixing in position all complete job as per approved design, specifications and direction of E/I	#VALUE!	Per % nos
5.7.31	Labour charge for making crates including cutting Taranga wire roll of suitable size from G.I. wire in 8 nos.including cutting the wire and tying the joints with binding wire and making square mesh of 100 mm to 150 mm double knotted with 6 to 10 S.W.G. wire as per approved design, specifications and direction of E/I	35.40	Per M ²
5.7.32 A	(a).Labour charge for making crates box of size 3m x 1.5m x 0.6m including cutting of G I wire or B.A wire, weaving of wire to make it Taranga wire having 150 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	197.60	Each
5.7.32.B	(a).Labour charge for making crates box size 3m x 1.5m x 0.6m including cutting of G I wire or B.A.wire, weaving of wire to make it Taranga wire having 100 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	338 10	Each
5.7.32.C	(a).Labour charge for making crates box of size 3m x 1.5m x 0.75m including cutting of G I wire or B A wire, weaving of wire to make it Taranga wire having 150 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	217.30	Each
5.7.32.D	(a).Labour charge for making crates box size 3m x 1.5m x 0.75m including cutting of G.I wire or B.A.wire, weaving of wire to make it Taranga wire having 100 mm square mesh with double knotte with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I	370 30	Each
5.7.33	(a).Labour charge for fitting and fixing empty coal tar drum sheets at piles in position with G.I. nails including cutting the coal tar drum and making it plain as per approved design, specifications and direction of E/I	158.60	Per M ²
5.7.34	Supplying G I wire crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of G.I wire 8 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	3537.40	Each
5.7.35.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	3066.60	Each

5.7.35.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2771.30	Each
5.7.36.1	Supplying wire mesh crates of size 3M x 1.5 M x 0.75 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2099.60	Each
5.7.36.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1917.60	Each
5.7.37.1	Supplying wire mesh crates of size 3M x 1.5 M x 0.75 M and 100 mm square mesh made out of B.A.wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2818.60	Each
5.7.37.2	Supplying wire mesh crates of size 3M x 1.5 M x 0.60 M and 100 mm square mesh made out of Black annealed wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	2547.50	Each
5.7.38.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 150 mm square mesh made out of B.A.wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1926.40	Each
5.7.38.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of Black annealed wire 10 S.W.G. double knotte at each joints in box type etc. all complete as per approved design, specifications and direction of E/I	1759.40	Each
5.7.39.1	Carriage of boulder and metals by boat including, loading, unloading and stacking with lead of 1 K.M.all complete as per approved design, specifications and direction of E/I	1598.20	Per M ³
5.7.39.2	Extra for carriage of boulder and metals by boat including, loading, unloading and stacking beyond 1 K.M. but upto 4 K.M.all complete as per approved design, specifications and direction of E/I	133.60	Per K M /M ³
5.7.39.3	Carriage of Filled E.C Bags by boat including loading, unloading and stacking with lead of 1/2 K.M.all complete as per approved design, specifications and direction of E/I	2131.00	Per % nos
5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete as per approved design, specifications and direction of E/I	1841.20	Per % nos
A.	Labour for filling empty cement bags with local sand, stitching the bags and stacking including supply of sutli etc. all complete as per, specifications and direction of E/I	744.10	Per % nos
B.	Labour for placing sand filled E.C . Bags all complete as per specifications and direction of E/I	1097.10	Per % nos
5.7.40.2	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including supply of sutli etc.in dry portion all complete as per approved design, specifications and direction of E/I	460.30	Each
5.7.40.3	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including supply of sutli etc and placing the filled crates in water portion within a lead 30 M , all complete as per approved design, specifications and direction of E/I	752.80	Each
5.7.41	Labour charge for taking out disturbed boulder from boulder pitching or riprap or rock toe etc. and cleaning the surface and stacking the same within a lead of 100 meter as per approved design, specifications and direction of E/I	387.40	Per M ³
5.7.42	Labour charge for loading boulder and dumping etc. with all lead and lifts as per specifications and direction of E/I	387.40	Per M ³

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5.7.43	Labour rate for fitting and fixing sal bullah runner in vertical ballah in river bed or canal bed including cost of nails complete job as per specifications and direction of E/I	37.40	Per M
5.7.44	Earth work in cutting and making slope in all kinds of soil with all leads and lifts as per specifications and direction of E/I	92.10	Per M
5.7.45.1	Providing and Laying of a Geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I	118.50	Per M ²
5.7.45.2	Laying of a Geotextile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I	16.40	Per M ²
5.7.46(a)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with boulder Spall in empty cement bags and tying it with B.A. Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	1054.60	Each
5.7.46(b)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with (brick 100B) in empty cement bags and tying it with B.A. Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post, including Piling of bamboo post & royalty etc. and carriage of all materials at site all complete job as per specifications and direction of E/I	1230.50	Each
5.7.46©	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with Local sand in empty cement bags and tying it with G.I. Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	1046.10	Each
5.7.47(a)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M ³ providing 3 nos of loads by filling Boulder spall in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A. Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each
5.7.47(b)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M ³ providing 3 nos of loads by filling Bricks (100 B) in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A. Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each

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5.7.47(c)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M ³ providing 3 nos of loads by filling Local Sand in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I	#VALUE!	Each
5.7.48	Providing , laying and filling Geo bags of size 1mx0.7m (Type A 300 GSM nonwoven) weight of bag 420 gm,volume of filled bag 0.07 cum, weight of filled Geo bag 126 kg with local sand including stiching in four lines by approved nylon thred with stiching machine and generator, stacking and placing in gabion of size 1.8mx1.8mx0.5m (18nos. Geo bags per gabion) after loading,unloading and carriage with the help of trolley within 150m lead all complete as per specification and direction of E/I	5248.00	Each
5.7.49	Supply of New bag and N.C with labour for filling New E C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in water portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.	1206.80	Each
5.7.50	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stiching in four lines by approved Nylon thread with stiching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolley within 150m lead and boat,including cess all complete as per specification and direction of E/I(where boat is used)	216.90	Each
5.7.51	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stiching in four lines by approved Nylon thread with stiching machine and generator,stacking and placing in Nylon Crate of size 1.0mx1.0mx1.0m(6 nos. geo bag per N.C) after loading,unloading and carriage with the help of Trolley within 150m lead all complete as per specification and direction of E/I(where boat is used)	1043.00	Each
5.7.52	Supply of New bag and N.C with labour for filling New E C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in dry portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.	914.30	Each
5.7.53	Supply of New bag with labour for filling New E C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stiching machine & generator,Stacking the bags and placing with a lead of 150m including supply of nylon threads etc ,all complete as per approved design,specification and direction of E/I.	34.70	Each
5.7.54	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filledf Geo bag 126kg with local sand including stiching in four lines by approved Nylon thread with stiching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolley within 150m lead all complete as per specification and direction of E/I.	166.00	Each

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5.7 PITCHING AND PILING

Sl.no	Description	Quantity	Unit	Rate	Amount	
5.7.1	Labour for making 150 mm to 200 mm dia Sal ballah piles including cutting to size and dressing, making shoes for driving etc.all complete as per specification and direction of E/I					
	Unit :-Per Pile					
	Taking Out put =10 Piles					
	Labour					
	Carpenter Gr II	0.5	nos	382.00	191.00	{SI-17}
					191.00	
	Add Overhead charge & C.P@15%				28.65	
					219.65	
						21.97
	Rate per pile			22.00	Per pile	
5.7.2	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level up to 5 metre including cost of all tools and plants required for the job all complete as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =30.5 M					
	Materials					
	Coal tar	9	Kg	30.00	270.00	BCD -324
	Labour					
	Unskilled mazdoor	18	nos	318.00	5724.00	{SI-1}
	Mate	1	nos	343.00	343.00	S II-2
					6337.00	
	Add Overhead charge & C.P@15%				950.55	
					7287.55	
						238.94
	Rate per M			238.90	Per M	
5.7.3	Labour for fitting and fixing 100 mm to 150 mm dia sal ballah cross pieces 1350 mm length in position with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =13.7 M					
	(Assuming 10 nos. of piles)					
	Total nos of joints 2x10 =20 nos					
	Length of one cross pipe = 1.37 mtr					
	Hence total length 10 x 1.37 metre =13.7 mtr					
	Materials					
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	20	nos	36.35	727.00	M SL No 265
	Labour					
	Carpenter Gr II	0.5	nos	382.00	191.00	{SI-17}
	Unskilled mazdoor	0.5	nos	318.00	159.00	{SI-1}
					1077	
	Add Overhead charge & C.P@15%				161.55	
					1238.55	
						90.41
	Rate per M			90.40	Per M	
5.7.4	Labour for fitting and fixing 150 mm dia sal ballah in position as back stay with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I					
	Unit :-Per M					
	Taking Out put =48.80 M					
	(Assuming 10 nos. of back stay each of 4.88 mt)					
	Total nos of joints 3x10 =30 nos					
	Length of back stay including 2 % wastage =49.8 m					
	Materials					
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	30	nos	36.35	1090.5	M SL No.265
	Labour					
	Carpenter Gr II	1	nos	382.00	382.00	{SI-17}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					1790.5	
	Add Overhead charge & C.P@15%				268.58	
					2059.08	
						42.19
	Rate per M			42.20	Per M	

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57.5	Labour for fitting and fixing 100 mm to 150 mm dia sal ballah walling pieces with 16 mm dia bolts, nuts and washers at each joints including the cost of bolts nuts and washers complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =6.10 M (Assuming 6.10 m long walling pieces)					
	Total nos. of joints with vertical pile at 1.22 m = 6 nos.					
	Materials					
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	6	nos	36.35	218.10	M SL No.265
	Labour					
	Carpenter Gr II	0.125	nos	382.00	47.75	{S I -17}
	Unskilled mazdoor	0.125	nos	318.00	39.75	{SI-1}
					305.6	
	Add Overhead charge & C.P@15%				45.84	
					351.44	
						57.61
	Rate per M			57.60	Per M	
57.6	Labour for fitting and fixing 150 mm to 200 mm dia sal ballah piles with two nos 16 mm dia 225 mm long nuts and washers including the cost of bolts nuts and washers complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =10 Joints (Assuming 10 joints)					
	Materials					
	Nuts and bolts 16 mm dia 225 mm long with washer etc.	20	nos	36.35	727.00	M SL No.265
	Labour					
	Carpenter Gr II	0.5	nos	382.00	191.00	{S I -17}
	Unskilled mazdoor	0.25	nos	318.00	79.50	{SI-1}
					997.5	
	Add Overhead charge & C.P@15%				149.63	
					1147.13	
						114.71
	Rate per M			114.70	Per M	
57.7	Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =30.50M (Assuming 20 nos pile sunk 1.525 mtr deep)					
	Total depth sunk 30.50 meter					
	Labour					
	Carpenter Gr II	0.25	nos	382.00	95.50	{S I -17}
	Unskilled mazdoor for piling	2.5	nos	318.00	795.00	{SI-1}
					890.50	
	Add Overhead charge & C.P@15%				133.58	
					1024.08	
						33.58
	Rate per M			33.60	Per M	
57.8	Labour for fitting and fixing split bamboo woven chachari in position with 20 swg G I wire or 75 mm to 100 mm long nails alternatively including cost of G I wire or nails complete job as per specification and direction of E / I.					
	Unit :-Per Sqm					
	Taking Out put = 9.30 Sqm (Assuming strip of 3.05x3.05 = 9.30 sqm)					
	Materials					
	75 mm to 100 mm long nails	0.25	Kg	58.00	14.50	{1219}
	Labour					
	Carpenter Gr II	1	nos	382.00	382.00	{S I -17}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					714.5	
	Add Overhead charge & C.P@15%				107.18	
					821.68	
						88.35
	Rate per sqm			88.40	Per M ²	
57.9	Labour for fitting and fixing 62mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G I wire including cost of G.I. wire or nails complete job as per specification and direction of E / I					
	Unit :-Per M					
	Taking Out put =30.50M					
	Materials					

	Cost of 150 mm long nails	0.5	. Kg	58.00	29.00	{1219}
	Labour					
	Carpenter Gr II	0.125	nos	382.00	47.75	{S I-17}
	Unskilled mazdoor	0.25	nos	318.00	79.5	{SI-1}
	Total				127.25	
					156.25	
	Add Overhead charge & C.P@15%				23.44	
					179.69	
						5.89
	Rate per M			5.90	Per M	
5.7.10	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level in running water upto complete job as per specification and direction of E/I. (Assuming 30.5 meter of piles)					
	Unit :-Per M					
	Taking Out put=30.50 M					
	Materials					
	Coal tar	9	Kg	30.00	270.00	BCD -324
	Labour					
	Unskilled mazdoor	28	nos	318.00	8904.00	{SI-1}
	Male	1	nos	343.00	343.00	S II-2
	Hire charge of Boat 40 Qt capacity	2	nos	714.00	1428.00	PM 66001
					10945.00	
	Add Overhead charge & C.P@15%				1641.75	
					12586.75	
						412.68
	Rate per M			412.70	Per M	
5.7.11	Labour for fitting and fixing 75 mm dia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =30.50M					
	Materials					
	Cost of nails or spikes	2	Kg	58.00	116.00	{1219}
	Labour					
	Carpenter Gr II	0.75	nos	382.00	286.50	{S I-17}
	Unskilled mazdoor	0.75	nos	318.00	238.50	{SI-1}
					641	
	Add Overhead charge & C.P@15%				96.15	
					737.15	
						24.17
	Rate per M			24.20	Per M	
5.7.12	Labour for fitting and fixing 75 mm but upto 150 mm dia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and direction of E / I.					
	Unit :-Per M					
	Taking Out put =30.50M					
	Materials					
	Cost of nails or spikes	4	Kg	58.00	232.00	{1219}
	Labour					
	Carpenter Gr II	1	nos	382.00	382.00	{S I-17}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					932.00	
	Add Overhead charge & C.P@15%				139.80	
					1071.80	
						35.14
	Rate per M	Say Rs		35.10	Per M	
5.7.13	Labour for laying fine filter (Sand) or coarse dry graded filter either of jhama khoa or stone metal or stone chips under brick pitching or boulder pitching in slope and apron including light ramming etc all complete job as per specification and direction of E / I.					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
					954.00	
	Add Overhead charge & C.P@15%				143.10	
					1097.10	
						387.39
	Rate per cum	Say Rs		387.40	Per M ³	
5.7.13(b)	Labour for laying River bed Material (30 % sand and 70% Quarry spall) including light ramming etc all complete job as per specification and direction of E / I					
	Unit :-Per Cum					

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	Taking Out put =1 Cum					
	Unskilled mazdoor	0.75	nos	318.00	238 50	{SI-1}
					238 5	
	Add Overhead charge & C.P@15%				35.78	
					274.28	
						274 28
	Rate per cum	Say Rs		274.20	Per M ³	
5.7.14	Providing brick flat soling with designation 100A bricks joints filled with coarse sand of approved quality including royalty etc all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Bricks	300	per 1000 nos	6069.00	1820.70	M-11
	Local Sand	0.142	M ³	143.32	20.35	{ M 006}
	Total				1841.05	
	Labours					
	Mason Gr II	0.50	nos	382.00	191.00	{S II-4}
	Unskilled mazdoor	1.00	nos	318.00	318.00	{SI-1}
	Total				509.00	
					2350.05	
	Add Overhead charge & C.P15%				352.51	
					2702.56	
						290 60
	Rate per sqm	Say Rs		290.60	Per M ²	
5.7.15	Providing brick on edge soling with designation 100A bricks joints filled with coarse sand of approved quality including royalty etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put = 9.30 Sqm					
	Materials					
	Bricks	500	per 1000 nos	6069.00	3034.50	M-11
	Local Sand	0.283	M ³	143.32	40.56	{ M 006}
	Total				3075.06	
	Labours					
	Mason Gr II	0.625	nos	382.00	238.75	{S II-4}
	Unskilled mazdoor	1.25	nos	318.00	397.50	{SI-1}
	Total				636.25	
					3711.31	
	Add Overhead charge & C.P@15%				556.70	
					4268.01	
						458 93
	Rate per sqm	Say Rs		458.90	Per M ²	
5.7.16	Providing pitching work with designation 100A bricks in panel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Bricks	800	per 1000 nos	6069.00	4855.20	M-11
	Local Sand	0.425	M ³	143.32	60.91	{ M 006}
	Total				4916.11	
	Labours					
	Mason Gr II	1.125	nos	382.00	429.75	{S II-4}
	Unskilled mazdoor	2.25	nos	318.00	715.50	{SI-1}
	Total				1145.25	
					6061.36	
	Add Overhead charge & C.P@15%				909.20	
					6970.57	
						749 52
	Rate per sqm	Say Rs		749.50	Per M ²	
5.7.17	Providing pitching work with designation 100A Bricks in panel two brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Materials					
	Bricks	1300	per 1000 nos	6069.00	7889.70	M-11
	Local Sand	0.556	M ³	143.32	79.69	{ M 006}
	Total				7969.39	
	Labours					

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	Mason Gr II	2.00	nos	382.00	764.00	{S II-4}
	Unskilled mazdoor	4.50	nos	318.00	1431.00	{SI-1}
					2195.00	
					10164.39	
	Add Overhead charge & C.P@15%				1524.66	
					11689.04	
						1256.89
	Rate per sqm	Say Rs		1256.90	Per M ²	
5.7.18.1	Labour charge for pitching work on apron slope of bank with stone boulder duly packed (Uncreated complete job) materials within 150 m lead with all lifts, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Unskilled mazdoor for carrying and laying boulder	6	nos	318.00	1908.00	{SI-1}
	Mason Gr II	0.50	nos	382.00	191.00	{S II-4}
	Mate	0.25	nos	343.00	85.75	S II-2
	Stone dresser	0.25	nos	405.00	101.25	S II-12
					2286.00	
	Add Overhead charge & C.P@15%				342.90	
					2628.90	
						928.28
	Rate per cum	Say Rs		928.30	Per M ³	
5.7.18.2	Labour charge for pitching work on apron slope of bank with stone boulder duly packed (Uncreated complete job) materials within 50 m lead with all lifts, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Unskilled mazdoor for carrying and laying boulder	2	nos	318.00	636.00	{SI-1}
	Mason Gr II	0.50	nos	382.00	191.00	{S II-4}
	Mate	0.25	nos	343.00	85.75	S II-2
	Stone dresser	0.25	nos	405.00	101.25	S II-12
					1014.00	
	Add Overhead charge & C.P@15%				152.10	
					1166.10	
						411.76
	Rate per cum	Say Rs		411.80	Per M ³	
5.7.19	Labour charge for stone boulder (uncreated) laying in launching apron and slope (materials within 150 m lead all lifts), all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Unskilled mazdoor for carrying and laying boulder	6	nos	318.00	1908.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
	Hire Charge of boat 40 Qt Capacity	1	hrs	714.00	714.00	PM 66001
					2707.75	
	Add Overhead charge & C.P@15%				406.16	
					3113.91	
						1099.55
	Rate per cum	Say Rs		1099.50	Per M ³	
5.7.20	Labour charge for pitching with jhama bricks closely packed over apron and including preparation of base, making proper slope and grade etc all complete (materials withing150 m lead with all lifts) as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Mason Gr II	0.50	nos	382.00	191.00	{S II-4}
	Unskilled mazdoor	6	nos	318.00	1908.00	{SI-1}
					2099.00	
	Add Overhead charge & C.P@15%				314.85	
					2413.85	
						852.35
	Rate per cum	Say Rs		852.30	Per M ³	

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5.7.21.1	Labour charge for pitching above water on apron and slope of bank with boulder in crates of specified size (material within 150 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Skilled mazdoor	1.00	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	6.50	nos	318.00	2067.00	{SI-1}
	Black smith Gr II	0.25	nos	382.00	95.50	{S II-10}
	Stone dresser	0.25	nos	405.00	101.25	{S II-12}
	Mate	0.25	nos	343.00	85.75	{S II-2}
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	75.04	22.51	{M-072}
					2775.01	
	Add Overhead charge & C.P@15%				416.25	
					3191.26	
						1126.86
	Rate per cum	Say Rs		1126.90	Per M ³	
5.7.21.2	Labour charge for pitching above water in apron and slope of bank with boulder in crates of specified size (material within 50 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put = 2.832 Cum					
	Skilled mazdoor	1.00	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	2.00	nos	318.00	636.00	{SI-1}
	Black smith Gr II	0.25	nos	382.00	95.50	{S II-10}
	Stone dresser	0.25	nos	405.00	101.25	S II-12
	Mate	0.25	nos	343.00	85.75	S II-2
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	75.04	22.51	{M-072}
					1344.01	
	Add Overhead charge & C.P@15%				201.60	
					1545.61	
						545.77
	Rate per sqm	Say Rs		545.80	Per M ²	
5.7.22	Labour charge for pitching under water in apron and slope of bank with boulder in crates of specified size (material within 150 M lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G.I wire including cost of G.I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Skilled mazdoor	1	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	6.50	nos	318.00	2067.00	{SI-1}
	Black smith Gr II	0.25	nos	382.00	95.50	{S II-10}
	Mate	0.25	nos	343.00	85.75	S II-2
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	75.04	22.51	{M-072}
	Hire charge of boat of 40 quintal capacity	2	hrs	714.00	1428.00	PM 66001
					4101.76	
	Add Overhead charge & C.P@15%				615.26	
					4717.03	
						1665.62
	Rate per cum	Say Rs		1665.60	Per M ³	
5.7.23	Labour charge for pitching under water in apron and slope with rubble having 600 mm to 300 mm size with all leads and lifts complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put = 2.832 Cum					
	Skilled mazdoor	1	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	8	nos	318.00	2544.00	{SI-1}

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	Stone dresser	0.25	nos	405.00	101.25	S II-12
	Mate	0.25	nos	343.00	85.75	S II-2
					3134.00	
	Add Overhead charge & C.P@15%				470.10	
					3604.10	
						1272.63
	Rate per cum	Say Rs		1272.60	Per M ³	
5.7.24.1	Labour charge for pitching above water in apron and slope of bank with bricks packed in crates of specified size (material within 150 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	6.5	nos	318.00	2067.00	{SI-1}
	Black smith Gr II	0.25	nos	382.00	95.50	{S II-10}
	Mate	0.25	nos	343.00	85.75	S II-2
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	75.04	22.51	(M-072)
					2673.76	
	Add Overhead charge & C.P@15%				401.06	
					3074.83	
						1085.74
	Rate per cum	Say Rs		1085.70	Per M ³	
5.7.24.2	Labour charge for pitching above water in apron and slope of bank with bricks packed in crates of specified size (material within 50 M lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	2	nos	318.00	636.00	{SI-1}
	Black smith Gr II	0.25	nos	382.00	95.50	{S II-10}
	Mate	0.25	nos	343.00	85.75	S II-2
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	75.04	22.51	(M-072)
					1242.76	
	Add Overhead charge & C.P@15%				186.41	
					1429.18	
						504.65
	Rate per cum	Say Rs		504.70	Per M ³	
5.7.24.3	Extra for each lead of 30 M over the initial lead of 50 M (Boulder or Brick) as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1.0	nos	403.00	403.00	{SII-70}
	Add Overhead charge & C.P@15%				60.45	
					463.45	
						163.65
	Rate per cum	Say Rs		163.60	Per M ³	
5.7.25	Labour charge for pitching under water in apron and slope of bank with bricks packed in crates of specified size (material within 150 mtr lead and all lifts) including boxing and tying the crates with 12 to 14 gauge G I wire including cost of G I wire all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Skilled mazdoor	1	nos	403.00	403.00	{SII-70}
	Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
	Black smith Gr II	0.25	nos	382.00	95.50	{S II-10}
	Mate	0.25	nos	343.00	85.75	S II-2
	Cost of 12 to 14 gauge binding wire for binding crate	0.30	Kg	75.04	22.51	(M-072)
	Hire charge of Boat 40 Ql capacity	2	hrs	714.00	1428.00	PM 66001
					4260.76	
	Add Overhead charge & C.P@15%				639.11	
					4899.88	
						1730.18
	Rate per cum	Say Rs		1730.20	Per M ³	

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5.7.26	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm for pitching in cement mortar (1:3) with approved quality of sand of requisite F.M over 150 mm dry khoa rammed to make the inter spaces closer, keeping the thickness intact including royalty etc. complete job as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put = 9.30 Sqm					
	i. Rammed khoa					
	ii Cost of rammed khoa before ramming (1.415+0.472) 40 mm to 50 mm size	1.887	M ³	1928.11	3638.34	(M SL No.249)
	Unskilled mazdoor	2	nos	318.00	636.00	{SI-1}
	iii.9.3 Sqm of block is equivalent to 2.832 cum of brick work in C.M (1:3). Cost of 2.832 cum of B.W. in C.M. (1:3) vide item no 5.4.1 (without O.H & C.P)	2.832	M ³	4389.43	12430.87	
	Unskilled mazdoor for placing	4	nos	318.00	1272.00	{SI-1}
					17977.21	
	Add Overhead charge & C.P@15%				2696.58	
					20673.79	
						2222.99
	Rate per sqm	Say Rs		2223.00	Per M ²	
5.7.27	Providing brick block in designation 100 A bricks of size 600 x 600 x 300 mm duly pointed in cement mortar (1:3) with coarse sand of approved quality for staggered pitching over 150 mm dry khoa filter rammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty etc. complete job as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	A. Cost of 2.832 cum brick block in C.M (1:3) as item no.5.4.1 (without O.H & C.P)	2.832	M ³	4389.43	12430.87	A
	B. Unskilled mazdoor carrying and placing in position	4	nos	318.00	1272.00	B
	C. Cost of 150 mm graded jam filter sand packing					
	i. Jhama metal 20mm to 40mm	2.832	M ³	1419.00	4018.61	M-11F
	ii. Sand	0.425	M ³	494.00	209.95	M-004
	iii. Unskilled mazdoor for packing	1.5	nos	318.00	477.00	
					4705.56	C
	Total (A+ B+C)				18408.43	
	Add Overhead charge & C.P @15% on (A+B+C)				2761.26	
					21169.69	
						2276.31
	Rate per sqm	Say Rs		2276.30	Per M ²	
5.7.28	Providing brick block in designation 100 A bricks of size 600 x 600 x 200 mm duly pointed in cement mortar (1:4) with coarse sand of approved quality for staggered pitching over 100 mm dry khoa filter rammed to make the inter spaces closer, keeping the thickness intact. The inter spaces of blocks to be filled with coarse sand of approved quality including royalty etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	A. 9.3 sqm of block is equivalent to 1.887 cum of brick work in C.M (1:4). Cost of 1.887 cum of B.W. in C.M. (1:4) vide item no 5.4.2	1.887	M ³	4909.90	9264.98	A
	B. Unskilled mazdoor for carrying and placing	3	M ³	318.00	954.00	B
	C. Cost of khoa	1.258	M ³	1928.11	2425.56	(M SL No 249)
	Unskilled mazdoor for carrying and ramming	1.5	nos	318.00	477.00	{SI-1}
					2902.56	C
	D. Extra materials for setting the block in position					
	Cement	0.011	M ³	7582.35	83.41	M-1 P
	Sand	0.045	M ³	494.00	22.23	M-004
	Mason Gr II	0.25	nos	382.00	95.50	{S II- 4}
					201.14	D
	Sub-Total (B+C+D)				4057.70	
	Add Overhead charge & C.P on (B+C+D)@15%				608.65	
					4666.35	E
	Grand Total (A+E)				13931.33	1497.99
	Rate per sqm	Say Rs		1498.00	Per M ²	
5.7.29.1	Supplying fitting and packing jhawa bush wood ,Kans grass or local wood brush in bundle of 600 mm die tied with coir string as per specification including loading, unloading, stacking and carriage up to 1 K.M. lead etc.all complete job as per approved design, specifications and direction of E/I					

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	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Materials					
	1. Cost of 2.832 cum of Jhankhi					
	Carriage for 1 K.M lead					
	Hire charge of bullock cart per day	input				
	Taking lead of 1 km and speed 2 km per hour					
	Nos. of trips per day = $8/(2/S(L+3/4))$ =	4.56	trip			
	Cost per trip= Hire charges/4.56=136.6/4.56=	#VALUE!				
	Assuming bullock cart capacity as jhawa bush wood	1.70	cum			
	Carriage cost per 2.832 cum per trip x 2.832 /1.70 =Cost				#VALUE!	
	2. Cost of coir string	0.5	Kg	31.25	15.63	M SL No 229
	Labour					
	Unskilled mazdoor for loading, unloading and placing	0.5	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for cutting jhankhi	0.33	nos	318.00	104.94	{SI-1}
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per cum	Say Rs		#VALUE!	Per M ³	
5.7.29.2	Extra for carriage of jhankhi for subsequent K.M beyond initial 1st K.M by bullock cart.					
	Unit :-Per Km per Cum					
	Taking Out put =2.832 Cum					
	Assuming 5 K M lead					
	Nos of trips per day= $8/(2/S(L+3/4))$ =	1.4	trip			
	Hire charge of bullock cart per day	0.00	Rs			
	Cost per trip= Hire charges/1.4=136.6/1.4=	0.00	Rs			
	Assuming bullock cart capacity as jhawa bush wood	1.7	cum			
	Carriage cost for 5 K M lead = Cost per trip x 2.832 /1.70					
					Input	
	Hence rate for each subsequent K.M beyond 1 k m					
	(Carriage cost for 5 k.m-Carriage cost for 1 k.m)/4*2.832				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per cum	Say Rs		#VALUE!	Per K M Per M ³	
5.7.30	Supplying palm leaves and fixing in position all complete job as per approved design, specifications and direction of E/I					
	Unit :-Per 100 Nos'					
	Materials					
	Supplying palm leaves 100 nos				input	
	Labour					
	Unskilled mazdoor for fixing	1	nos	318.00	318.00	{SI-1}
					318.00	
	Add Overhead charge & C.P@15%				47.70	
					#VALUE!	
						#VALUE!
	Rate per % nos	Say Rs		#VALUE!	Per % nos	
5.7.31	Labour charge for making crates including cutting taranga wire roll of suitable size from G.I. wire in 8 nos including cutting the wire and tying the joints with binding wire and making square mesh of 100 mm to 150 mm double knotted with 8 to 10 S W G. wire as per approved design, specifications and direction of E/I					
	Vide T.E.C No 67 dated 26.6.90					
	Unit :-Per Sqm					
	Taking Out put =55.76 Sqm					
	Labour					
	Black smith Gr II	2	nos	382.00	764.00	{SI-II-10}
	Unskilled mazdoor as Helper	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for tying joints	1	nos	318.00	318.00	{SI-1}
					1718.00	
	Add Overhead charge & C.P@15%				257.70	
					1975.70	
						35.43
	Rate per sqm	Say Rs		35.40	Per M ²	

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5.7.32 A	(a) Labour charge for making crates box of size 3m x 1.5m x 0.6m including cutting of G.I wire or B A wire, weaving of wire to make it taranga wire having 150 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 33 dated 8.4.06)					
	Unit :-Each					
	Taking Out put =10 nos.					
	Labour					
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	2	nos	382.00	764.00	{S II-10}
	Unskilled mazdoor for weaving the wire, as helper in making creates & tying joints	3	nos	318.00	954.00	{SI-1}
					1718.00	171.80
	Add Overhead charge & C.P@15%				257.70	
					1975.70	
						197.57
	Rate per Each	Say Rs		197.60	Each	
5.7.32 B	(a) Labour charge for making crates box size 3m x 1.5m x 0.6m including cutting of G.I wire or B A wire, weaving of wire to make it taranga wire having 100 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 33 dated 8.4.06)					
	Unit :-Each					
	Taking Out put =10 nos.					
	Labour					
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	4.2	nos	382.00	1604.40	{S II-10}
	Unskilled mazdoor for weaving the wire, as helper in making creates & tying joints	4.2	nos	318.00	1335.60	{SI-1}
					2940.00	294
	Add Overhead charge & C.P@15%				441.00	
					3381.00	
						338.10
	Rate per Each	Say Rs		338.10	Each	
5.7.32 C	(a) Labour charge for making crates box of size 3m x 1.5m x 0.75m including cutting of G.I wire or B A wire, weaving of wire to make it taranga wire having 150 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 33 dated 8.4.06)					
	Unit :-each					
	Taking Out put =10 nos					
	Labour					
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	2.2	nos	382.00	840.40	{S II-10}
	Unskilled mazdoor for weaving the wire, as helper in making creates & tying joints	3.3	nos	318.00	1049.40	{SI-1}
					1889.80	188.98
	Add Overhead charge & C.P@15%				263.47	
					2173.27	
						217.33
	Rate per Each	Say Rs		217.30	Each	
5.7.32 D	(a) Labour charge for making crates box size 3m x 1.5m x 0.75m including cutting of G.I wire or B A wire, weaving of wire to make it taranga wire having 100 mm square mesh with double knot with 8 & 10 S.W.G. wire as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 33 dated 8.4.06)					
	Unit :-Each					
	Taking Out put =10 nos.					
	Labour					
	Black smith Gr II for weaving the wire roll for cutting the taragana wire to size	4.6	nos	382.00	1757.20	{S II-10}
	Unskilled mazdoor for weaving the wire, as helper in making creates & tying joints	4.6	nos	318.00	1462.80	{SI-1}
					3220.00	322
	Add Overhead charge & C.P@15%				483.00	
					3703.00	
						370.30
	Rate per Each	Say Rs		370.30	Each	
5.7.33	Supplying and Labour charge for fitting and fixing empty coal tar drum sheets at piles in position with G.I. nails including cutting the coal tar drum and making it plain as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 11 dated 7.3.94 and 1(E) dt 3.2.93					
	Unit :-Per Sqm					
	Taking Out put =10.76 Sqm					

	Material					
	Cola lar drum	6	nos	170.47	1022.82	(M-173)
	Nail and spike	0.4	Kg	58.00	23.20	ECO 1219
	Labour					
	Black smith Gr II	0.5	nos	382.00	191.00	(S II-10)
	Helper for cutting 12 drum and making plain	0.5	nos	334.00	167.00	(S II-16)
	Unskilled mazdoor for fitting and fixing drums	0.25	nos	318.00	79.50	(SI-1)
					1483.52	
	Add Overhead charge & C.P@15%				222.53	
					1706.05	
						158.55
	Rate per sqm	Say Rs		158.60	Per M ²	
5.7.34	Supplying G.I wire crates of size 3 M x 1.5 M x 0.75M and 100 mm square mesh made out of G.I wire 8 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Each					
	Materials					
	Cost of one M.T. of G.I. Wire of 8 S.W.G					
	including carriage	1	M.T	86750.00		(M SL-224) (i)
	Av nos of crate manufactured $(30+33)/2=31.5$ nos	31.5	nos			
	Materials cost of one box=Cost of 1 M T G.I wire/31.5				2753.97	
	Labour					
	Labour charge as item 5.7.32.D				322.00	
					3075.97	
	Add Overhead charge & C.P@15%				461.40	
					3537.36	
						3537.36
	Rate per Each	Say Rs		3537.40	Each	
5.7.35.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 37 dated 30.4.06)					
	Unit :-Each					
	Materials					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	86750.00		(M SL-224)(i)
	Av nos of crate manufactured 37 nos	37	nos			
	Materials cost of one box=Cost of 1 M T G I wire/37				2344.59	
	Labour					
	Labour charge as item 5.7.32.D				322.00	
					2666.59	
	Add Overhead charge & C.P@15%				399.99	
					3066.58	
						3066.58
	Rate per Each	Say Rs		3066.60	Each	
5.7.35.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 100 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 37 dated 30.4.06)					
	Unit :-Each					
	Materials					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	86750.00		(M SL-224) (i)
	Av nos of crate manufactured 41 nos	41	nos			
	Materials cost of one box=Cost of 1 M T G I wire/41				2115.85	
	Labour					
	Labour charge as item 5.7.32.D				294.00	
					2409.85	
	Add Overhead charge & C.P@15%				361.48	
					2771.33	
						2771.33
	Rate per Each	Say Rs		2771.30	Each	
5.7.36.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 150 mm square mesh made out of G.I wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 37 dated 30.4.06)					
	Unit :-Each					
	Materials					
	Cost of one M.T. of G.I Wire of 10 S.W.G					
	including carriage	1	M.T	86750.00		(M SL-224) (i)

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	Av nos of crate manufactured 53nos	53	nos				
	Materials cost of one box=Cost of 1 M.T G I wire/53					1636 79	
	Labour						
	Labour charge as item 5.7.32.C					188.98	
						1825.77	
	Add Overhead charge & C.P@15%					273.87	
						2099.64	
							2099.64
	Rate per Each	Say Rs		2099.60		Each	
5.7.36.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of G.I wire 10 S.W.G double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I						
	As per T.E.C.letter no 37 dated 30.4.06)						
	Unit :-Each						
	Materials						
	Cost of one M.T. of G I Wire of 10 S.W.G						
	including carriage	1	M T	86750.00			(M SL-224)(i)
	Av nos of crate manufactured 58 nos	58	nos				
	Materials cost of one box=Cost of 1 M.T G I wire/58					1495.69	
	Labour						
	Labour charge as item 5.7.32.A					171.80	
						1667.49	
	Add Overhead charge & C.P@15%					250.12	
						1917.61	
							1917.61
	Rate per Each	Say Rs		1917.60		Each	
5.7.37.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 100 mm square mesh made out of B.A.wire 10 S.W.G double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I						
	As per T.E.C.letter no 37 dated 30.4.06)						
	Unit :-Each						
	Materials						
	Cost of one M.T. of B.A Wire of 10 S.W.G						
	including carriage	1	M T	78770.00			(M SL-224)(ii)
	Av nos of crate manufactured 37nos	37	nos				
	Materials cost of one box=Cost of 1 M.T G.I wire/37					2128.92	
	Labour						
	Labour charge as item 5.7.32.D					322.00	
						2450.92	
	Add Overhead charge & C.P@15%					367.64	
						2818.56	
							2818.56
	Rate per Each	Say Rs		2818.60		Each	
5.7.37.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 100 mm square mesh made out of Black annealed wire 10 S.W.G double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I						
	As per T.E.C.letter no 37 dated 30.4.06)						
	Unit :-Each						
	Materials						
	Cost of one M.T. of B.A Wire of 10 S.W.G						
	including carriage	1	M T	78770.00			(M SL-224) (ii)
	Av nos of crate manufactured 41nos	41	nos				
	Materials cost of one box=Cost of 1 M.T G.I wire/41					1921.22	
	Labour						
	Labour charge as item 5.7.32.B					294.00	
						2215.22	
	Add Overhead charge & C.P@15%					332.28	
						2547.50	
							2547.50
	Rate per Each	Say Rs		2547.50		Each	
5.7.38.1	Supplying wire mesh crates of size 3 M x 1.5 M x 0.75 M and 150 mm square mesh made out of B.A.wire 10 S.W.G double knot at each joints in box type etc all complete as per approved design, specifications and direction of E/I						
	As per T.E.C.letter no 37 dated 30.4.06)						
	Unit :-Each						
	Materials						
	Cost of one M.T. of B.A Wire of 10 S.W.G						
	including carriage	1	M T	78770.00			(M SL-224)(ii)
	Av nos of crate manufactured 53nos	53	nos				

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Per

	Materials cost of one box=Cost of 1 M.T G.I wire/53				1486.23	
	Labour					
	Labour charge as item 5.7.32.C				188.98	
					1675.21	
	Add Overhead charge & C.P@15%				251.28	
					1926.49	
						1926.49
	Rate per Each	Say Rs		1926.40	Each	
5.7.39.2	Supplying wire mesh crates of size 3 M x 1.5 M x 0.60 M and 150 mm square mesh made out of Black annealed wire 10 S.W.G. double knot at each joints in box type etc. all complete as per approved design, specifications and direction of E/I					
	As per T.E.C.letter no 37 dated 30.4.06)					
	Unit :-Each					
	Materials					
	Cost of one M.T. of B.A Wire of 10 S.W.G					
	including carriage	1	M.T	78770.00		(M SL-224)(ii)
	Average nos of crate manufactured= 58nos	58	nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/58				1358.10	
	Labour					
	Labour charge as item 5.7.32 A				171.80	
					1529.90	
	Add Overhead charge & C.P@15%				229.49	
					1759.39	
						1759.39
	Rate per Each	Say Rs		1759.40	Each	
5.7.39.1	Carriage of boulder and metals by boat including, loading, unloading and stacking with lead of 1 K M all complete as per approved design, specifications and direction of E/I					
	Unit :- Per Cum					
	Taking Out put =8.0 Cum					
	Assuming three trips per day by 40 quintal capacity boat boulder carried in each trip					
	100x40/42=95.2 cft					
	Total carried per day=3x95.2=285.6 cft=8.08cum					
	Say 8.00 cum					
	Hire charge of Boat 40 Qt capacity	1	Day	5712.00	5712.00	PM 66001
	Unskilled mazdoor for loading and unloading	17	nos	318.00	5406.00	(SI-1)
					11118.00	
	Add Overhead charge & C.P@15%				1667.70	
					12785.70	
						1598.21
	Rate per cum	Say Rs		1598.20	PerM ³	
5.7.39.2	Extra for carriage of boulder and metals by boat including, loading, unloading and stacking beyond 1 K M but up to 4 K M, all complete as per approved design, specifications and direction of E/I					
	Unit :-Per Km per Cum					
	Taking Out put =5.39 Cum					
	Assuming 4 K M lead two trips per day by 40 quintal capacity boat boulder carried in each trip					
	100x40/42=95.2 cft					
	Total carried per day=2x95.2=190.4 cft=5.39cum					
	Hire charge of Boat 40 Qt capacity	1	Day	5712.00	5712.00	PM 66001
	Unskilled mazdoor for loading and unloading	11.5	nos	318.00	3657.00	(SI-1)
					9369.00	
	Add Overhead charge & C.P@15%				1405.35	
					10774.35	
						1998.95
						133.58
	Hence Rate per K M per M ³ = (Rate vide item no 5.7.39.2 - Rate vide item no 5.7.39.1)/3	Say Rs		133.60	Per K M Per M ³	
5.7.39.3	Carriage of Filled E.C Bags by boat including loading, unloading and stacking with lead of 1/2 K M.all complete as per approved design specifications and direction of E/I					
	Unit :- Per % nos.					
	Taking Out put =600 nos.					
	Assuming Six trips per day by 40 quintal Capacity of boat Filled E.C Bags carried in each trip100 nos filled E.C Bags					
	Total carried per day=6 x100=600 nos					
	Hire charge of Boat 40 Qt capacity	1	Day	5712.00	5712	PM 66001
	Unskilled mazdoor for loading and unloading	17	nos	318.00	5406.00	(SI-1)
					11118.00	
	Add Overhead charge & C.P@15%				1667.70	
					12785.70	

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Per

						2130.95
	Rate per % nos	Say Rs		2131.00	Per % nos	
5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of suttli etc. all complete as per approved design, specifications and direction of E/I					
	Unit :-Per % nos					
	Taking Out put =100 nos					
	(a)For filling & stitching & stacking					
	Unskilled mazdoor for filling sand into bags and sewing	2	nos	318.00	636.00	{SI-1}
	Suttali	0.5	Kg	22.05	11.03	(M SL 232)
					647.03	
	Add Overhead charge & C.P@15%				97.05	
					744.08	
	Rate per % nos	Say Rs		744.10	Per % nos	(a)
	(b)Labour rate for carrying & placing filled E.C.Bags					
	Unskilled mazdoor for carrying filled bags and placing to work site	3	nos	318.00	954.00	{SI-1}
	Add Overhead charge & C.P@15%				143.10	
					1097.10	
	Rate per % nos	Say Rs		1097.10	Per % nos	(b)
	Total (a+b)			1841.20	Per % nos	
5.7.40.2	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including supply of suttli etc. at site in dry portion all complete as per approved design, specifications and direction of E/I					
	Unit :-Each N/C					
	Taking Out put =25 nos.filled E.C Bags in each N/C					
	Cost of 25 nos of filled E.C.Bag (vide item no 5.7.40.1)	25	nos	18.412	460.30	460.30
	Rate per Each				460.30	Each N/C
5.7.40.3	Labour for filling empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including supply of suttli etc.and placing the filled crates in water portion within a lead 30 M , all complete as per approved design, specifications and direction of E/I					
	Unit :-Each N/C					
	(i) Labour Cost for filling bags in one Nylon crate in dry portion (vide item no 5.7.40.2)	1	nos	460.30	460.30	(i)
	(ii) Placing of filled N/C with 30 m lead in water Portion					
	a. Skilled mazdoor	1	No	403.00	403.00	{SII-70}
	b. Unskilled mazdoor	1	No	318.00	318.00	{S II- 1}
	c. Mate	0.37	No	343.00	126.91	{S II- 2}
					847.91	
	Add Overhead charge & C.P@15%				127.19	
	Hence, Total Labour for 100cft				975.10	
	Taking one E C bags to contain 1.20 cft of Sand					
	Hence, labour rate for placing one filled N/C	292.53			292.53	(ii)
	Hence rate Per Nylon crate in water Portion(i+ii)				752.83	752.83
	Rate per Each N/C	Say Rs		752.80	Each	
5.7.41	Labour charge for taking out disturbed boulder from boulder pitching or riprap or rock toe etc. and cleaning the surface and stacking the same within a lead of 100 metre as per approved design, specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Labour					
	Unskilled mazdoor for picking and carrying	2.5	nos	318.00	795.00	{SI-1}
	Unskilled mazdoor for making stacking	0.5	nos	318.00	159.00	{SI-1}
					954.00	
	Add Overhead charge & C.P@15%				143.10	
					1097.10	
						387.39
	Rate per cum	Say Rs		387.40	Per M ³	
5.7.42	Labour charge for loading boulder and dumping etc. with all lead and lifts as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Labour					
	Unskilled mazdoor for carriage and dumping boulder	3	nos	318.00	954.00	{SI-1}
	Add Overhead charge & C.P@15%				143.10	
					1097.10	
						387.39
	Rate per cum	Say Rs		387.40	Per M ³	
5.7.43	Labour rate for fitting and fixing sal ballah runner in vertical ballah in river bed or canal bed including cost of nails complete job as per specifications and direction of E/I					
	Unit :-Per M					

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	Taking Out put =30.48 M					
	Materials					
	Cost of nails or spikes	5	Kg	58.00	290.00	(BCD 1219)
	Labour					
	Carpenter Gr II	1	nos	382.00	382.00	(SI-17)
	Unskilled mazdoor	1	nos	318.00	318.00	(SI-1)
					990.00	
	Add Overhead charge & C.P@15%				148.50	
					1138.50	
	Rate per M	Say Rs		37.40	Per M	37.35
5.7.44	Earth work in cutting and making slope in all kinds of soil with all leads and lifts as per specifications and direction of E/I					
	Unit :-Per Cum					
	Taking Out put =28.32 Cum					
	Labour					
	Unskilled mazdoor for cutting earth	4	nos	318.00	1272.00	(SI-1)
	Unskilled mazdoor for carrying earth and clod breaking and rough dressing of slope	3	nos	318.00	954.00	(SI-1)
	Mate	0.125	nos	343.00	42.88	S II-2
					2268.88	
	Add Overhead charge & C.P@15%				340.33	
					2609.21	
	Rate per cum	Say Rs		92.10	Per M ³	92.13
5.7.45.1	Providing and Laying of a Geo-textile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I					
	Vide T.E.C. letter no 48 (e) dated 10.05.04					
	Unit :-Per Sqm					
	Taking Out put =10.0 Sqm					
	Material					
	Permeable synthetic Geotextile including 5 % for overlap and wastage	10.50	Sqm	84.55	887.78	(M SL -224)
	Labour					
	Mate	0.02	nos	343.00	6.86	S II-2
	Unskilled mazdoor	0.30	nos	318.00	95.40	(SI-1)
	Skilled mazdoor	0.10	nos	403.00	40.30	(SII-70)
					1030.34	
	Add Overhead charge & C.P@15%				154.55	
					1184.89	
	Rate per sqm	Say Rs		118.50	Per M ²	118.49
5.7.45.2	Laying of a Geo-textile filter between pitching and embankment slopes on which pitching is laid to prevent escape of the embankment materials through the voids of the stone pitching/cement concrete block as well as to allow free movement of water without creating any uplift head on the pitching as per specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =10.0 Sqm					
	Mate	0.02	nos	343.00	6.86	S II-2
	Unskilled mazdoor	0.30	nos	318.00	95.40	(SI-1)
	Skilled mazdoor	0.10	nos	403.00	40.30	(SII-70)
					142.56	
	Add Overhead charge & C.P@15%				21.38	
					163.94	
	Rate per sqm	Say Rs		16.40	Per M ²	16.39
5.7.46(a)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with boulder Spall in empty cement bags and tying it with B.A. Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Materials					
	Bamboo 75 mm dia 6 m to 8 m long	4.25	Nos	137.55	584.59	(M 229)
	Annealed wire 20 to 25 SWG	0.5	Kg	78.77	39.39	(M SL 224)

	B.A.Wire 8 to10 SWG	1.125	Kg	78.770	88.616	(M SL. 224)
	E.C.bags	3	Nos	3.45	10.36	(M SL. 275)
	Boulder spall Taking compact volume 0.75 cft per bags	0.064	Cum	249.56	15.97	(M SL-24)
	Labour					
	Unskilled labour for Tying and Placing etc.	0.5		318.00	159.00	{SI-1}
	Unskilled Labour for filling E.C.Bags	0.06		318.00	19.08	{SI-1}
					917.00	
	Add Overhead charge & C.P@15%				137.55	
					1054.55	
						1054.55
	Rate	Say Rs		1054.60	Each	
5.7.46(b)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with (brick 100B) in empty cement bags and tying it with B.A.Wire 8 to 10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post, including Piling of bamboo post & royalty etc. and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Materials					
	Bamboo 75 mm dia 6 m to 8 m long	4.25	Nos	137.55	584.59	(M 229)
	Annealed wire 20 to 25 SWG	0.5	Kg	78.77	39.39	(M SL. 224(ii))
	B.A.Wire 8 to10 SWG	1.125	Kg	78.770	88.616	(M SL. 224(ii))
	E.C.bags	3	Nos	3.4538	10.36	(M SL. 275)
	Brick (100 B)	30	Nos	5.633	168.99	(M-11 b)
	Labour					
	Unskilled labour for Tying and Placing etc.	0.5	Cum	318.00	159.00	{SI-1}
	Unskilled Labour for filling E.C.Bags	0.06	Cum	318.00	19.08	{SI-1}
					1070.02	
	Add Overhead charge & C.P@15%				160.50	
					1230.52	
					1230.52	1230.52
	Rate	Say Rs		1230.50	Each	
5.7.46(c)	Supplying and Placing bamboo roll each roll of 4 nos uncleaned full bamboo 75 mm dia 6 m to 8 m long at site binding properly each other in bunch with Annealed wire 20 to 25 SWG at least at three places along its length, 3 nos loads filled with Local sand in empty cement bags and tying it with G.I.Wire 8 to10 SWG launching in river and placing in position and tying the bamboo roll at one end at least 15 M away from river bank to bamboo post, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :-Each					
	Assuming one nos of bamboo roll					
	Materials					
	Bamboo 75 mm dia 6 m to 8 m long	4.25	Nos	137.55	584.59	(M 229)
	Annealed wire 20 to 25 SWG	0.5	Kg	78.77	39.39	(M SL. 224(ii))
	B.A.Wire 8 to 10 SWG	1.125	Kg	78.770	88.616	(M SL. 224)
	E.C.bags	3	Nos	3.45	10.36	(M SL. 275)
	Local sand Taking compact volume 0.75 cft per bags	0.06	Cum	143.32	8.60	{ M 006}
	Labour					
	Unskilled labour for Tying and Placing etc.	0.5	Nos	318.00	159.00	{SI-1}
	Unskilled Labour for filling E.C.Bags	0.06	Nos	318.00	19.08	{SI-1}
					909.63	
	Add Overhead charge & C.P@15%				136.44	
					1046.07	
						1046.07
	Rate	Say Rs		1046.10	Each	
5.7.47(a)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M ³ providing 3 nos of loads by filling Boulder spall in E.C.bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A.Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Assuming 10 nos Tree branches					
	Materials					
	Cost of Tree branches of dia 150 mm to 200 mm and 3 M to 4.5 M long with jhankhi covering the space of 100 cft in volume	10	Nos	input	#VALUE!	

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	Bamboo 75 mm dia 6 m to 8 m long	3.25	Nos	137.55	447.04	(M 229)
	Annealed wire 20 to 25 SWG	1.5	Kg	78.77	118.16	(M SL 224)
	B.A Wire 8 to 10 SWG	11.25	Kg	78.770	886.163	(M SL 224)
	E.C bags	30	Nos	3.45	103.61	(M SL 275)
	Boulder spall (compact volume)	0.64	Cum	249.56	159.72	(MSL-24)
	Labour					
	Unskilled labour for Tying and Placing etc.	5	nos	318.00	1590.00	{SI-1}
	Unskilled Labour for filling E.C.Bags	0.6	nos	318.00	190.80	{SI-1}
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	
5.7.47(b)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M ³ providing 3 nos of loads by filling Bricks (100 B) in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Assuming 10 nos Tree branches					
	Materials					
	Cost of Tree branches of dia150 mm to 200 mm and 3 M to 4.5 M long with Jhankhi covering the space of 100 cft in volume	10	Nos	INPUT	#VALUE!	
	Bamboo 75 mm dia 6 m to 8 m long	3.25	Nos	137.55	447.04	(M 229)
	Annealed wire 20 to 25 SWG	1.5	Kg	78.77	118.16	(M SL 224)
	B.A Wire 8 to 10 SWG	11.3	Kg	78.770	890.101	(M SL 224)
	E C bags	30	Nos	3.45	103.61	(M SL 275)
	Bricks(100B)	300	Nos	5.633	1689.90	(M-11 b)
	Labour					
	Unskilled labour for Tying and Placing etc.	5		318.00	1590.00	{SI-1}
	Unskilled Labour for filling E C Bags	0.6		318.00	190.80	{SI-1}
					#VALUE!	
	Add Overhead charge & C P@15%				#VALUE!	
					#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	
5.7.47(c)	Supplying making and Placing in position Tree branches and Jhankhi covering over all space of about of 2.832 M ³ providing 3 nos of loads by filling Local Sand in E.C bags, tying with 20 to 25 SWG Annealed wire to the tree spur and anchoring the same with B.A .Wire 8 to 10 SWG to the bamboo post at least 15 M away from the river bank, including Piling of bamboo post & royalty etc and carriage of all materials at site all complete job as per specifications and direction of E/I					
	Unit :- Each					
	Assuming 10 nos Tree branches					
	Materials					
	Cost of Tree branches of dia150 mm to 200 mm and 3 M to 4.5 M long with Jhankhi covering the space of 100 cft in volume	10	Nos	INPUT	#VALUE!	
	Bamboo 75 mm dia 6 m to 8 m long	3.25	Nos	137.55	447.04	(M 229)
	Annealed wire 20 to 25 SWG	1.5	Kg	78.77	118.16	(M SL 224)
	B.A Wire 8 to 10 SWG	11.25	Kg	78.770	886.163	(M SL 224)
	E C bags	30	Nos	3.45	103.61	(M SL 275)
	Local sand					
	Taking compact volume 0.75 cft per bags	0.64	Cum	143.32	91.72	{ M 006}
	Labour					
	Unskilled labour for Tying and Placing etc.	5		318.00	1590.00	{SI-1}
	Unskilled Labour for filling E C Bags	0.6		318.00	190.80	{SI-1}
					#VALUE!	
	Add Overhead charge & C P@15%				#VALUE!	
					#VALUE!	
					#VALUE!	
	Rate	Say Rs		#VALUE!	Each	
5.7.48	Providing , laying and filling Geo bags of size 1mx0.7m (Type A 300 GSM nonwoven) weight of bag 420 gm,volume of filled bag 0.07 cum, weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved nylon thred with stitching machine and generator, slacking and placing in gabion of size 1.8mx1.8mx0.5m (18nos Geo bags per gabion) after loading,unloading and carriage with the help of trolley within 150m lead all complete as per specification and direction of E/I					
	Unit Each bag					

A . Assuming out put of filling and stitching of 40 nos. of Geo Bags per day					
Materials					
Stiching Roll(Nylon)	2	nos	30.00	60.00	WRD SOR 2020
Labour					
Unskilled labour for filling,stacking	2	nos	318.00	636.00	(SI-1)
Skilled labour for stacking	0.33	nos	403.00	132.99	(SII-70)
Unskilled labour for carrying and placing	4	nos	318.00	1272.00	(SI-1)
Mate	0.25	nos	343.00	85.75	S II-2
Machine					
Hire charge of Stiching Machine	0.33	day	50.00	16.50	WRD SOR 2021
Hire Charge of manual Trolley	1	day	50.00	50.00	
Hire charge of 3 KVA Generator	2.67	hrs	74.00	197.58	
Total				2450.82	
Add Overhead charge & C.P@15%				367.62	
				2818.44	
Rate per bag=Total/40				70.46	
Cost of filling & stitching of 18 nos of Geo bags	18	nos	70.46	1268.30	A
B. Materials					
Geo Bag	18	nos	83.06	1495.08	(MSL- 277)
Gabion	1	nos	1965.60	1965.60	(MSL- 279)
Total				3460.68	
Add Overhead charge & C.P@15%				519.10	
				3979.78	B
Total(A+B)				5248.08	
Rate			Say,Rs	5248.00	Each
5.7.49	Supply of New bag and N.C with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stitching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc. , placing the filled crates in water portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.				
Unit- Each Bag					
Taking output 100 nos. filled New bags in 4 nos N.C.					
Material					
New bag (volume of filled bag 1.2 cft)	100	each	11.24	1124.00	(M SL 291)
Nylon Crate(N.C)	4	each	41.00	164.00	(M SL 276)
				1288.00	
Add Overhead charge &C.P @15%				193.20	
				1481.20	
				1481.20	
Rate of material per N.C (25 bags per N.C)				370.30	A
Labour					
Unskilled mazdoor for filling sand,stiching& stacking	1.67	nos	318.00	531.06	(SI-1)
Unskilled labour for carrying and placing	3	nos	318.00	954.00	(SI-1)
Skilled labour for stitching	0.33	nos	403.00	132.99	(SII-70)
Material for stiching					
Stiching Roll(Nylon)	2	nos	30.00	60.00	WRD 2020
Hire charge of Machine					
Hire charge of Stiching Machine	0.33	day	50.00	16.50	WRD SOR 2021
Hire charge of generator 3KVA	2.67	hrs	74.00	197.58	
				1892.13	
Add Overhead charge &C.P @15%				283.82	
				2175.95	
Rate per Each N.C				543.99	(i)
Placing of filled N.C. with 30m lead in water portion					
Skilled Labour	1	nos	403.00	403.00	(SII-70)
Unskilled labour	1	nos	318.00	318.00	(SI-1)
Mate	0.37	nos	343.00	126.91	S II-2
				847.91	
Add Overhead charge &C.P @15%				127.19	
				975.10	V
Taking one E.C bag to contain 1.2 cft of sand,hence rate for 100 nos. of bags(V*120/100*4)					
				292.53	(ii)
Rate for N.C in water Portion (i+ii)					
				836.52	B
Hence, finish rate of N.C in water portion(A+B)					
				1206.82	
Rate			Say,Rs	1206.80	
5.7.50	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filled Geo bag 126kg with local sand including stiching in four lines by approved Nylon thread with stitching machine and generator,stacking and placing after loading,unloading and carriage with the help of Trolley within 150m lead and boat all complete as per specification and direction of E/I(where boat is used)				
Unit Each bag					

	out put 40 nos bags					
	Labour					
	Unskilled labour for filling,stacking	2	nos	318.00	636.00	{SI-1}
	Skilled labour for Stacking	0.33	nos	403.00	132.99	{SII-70}
	Unskilled labour for carrying and placing	4	nos	318.00	1272.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
	Stiching Roll(Nylon)	2	each	30.00	60.00	
	Hire charge of Stiching Machine	0.33	day	50.00	16.50	WRD SOR 2021
	Hire Charge of manual Trolley	1	day	50.00	50.00	
	Hire charge of generator 3KVA	2.67	hrs	74.00	197.58	
	Total				2450.82	
	Add Overhead charge & C.P @15%				367.62	
					2818.44	
	Rate per bag (total/40)				70.46	A
	Charge for placing & dumping with the help of Powe boat of 40 Quintal					
	Out put per day - 256 nos bags carriage by Boat					
	Hire charge of Boat 40 Qt capacity	1	day	5712.00	5712.00	PM66001
	Unskilled labour for loading,unloading & dumping	16	nos	318.00	5088.00	{SI-1}
	Mate	1	nos	343.00	343.00	S II-2
	Hire charge of Trolley	4	each	50.00	200.00	WRD SOR 2021
					11343.00	
	Add Overhead charge & C.P @15%				1701.45	
					13044.45	
	Rate per bag (Total/256)				50.95	B
	Materials					
	Cost of Geo bag	1	each	83.06	83.06	(MSL- 277)
	Add Overhead charge & C.P @15%				12.46	
					95.52	C
	Total Cost (A+B+C)				216.93	
	Rate per bag			Say,Rs	216.90	
5.7.51	Providing,laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm,volume of filled bag 0.07 cum,weight of filled Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stitching machine and generator,stacking and placing in Nylon Crate of size 1.0mx1.0mx1.0m(6 nos. geo bag per N.C) after loading,unloading and carriage with the help of Trolly within 150m lead , all complete as per specification and direction of E/I(where boat is used)					
	Out put - 40 nos bags					
	Labour					
	Unskilled labour for filling,stacking	2	nos	318.00	636.00	{SI-1}
	Skilled labour for stacking	0.33	nos	403.00	132.99	{SII-70}
	Unskilled labour for carrying and placing	4	nos	318.00	1272.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
	Stiching roll(nylon)	2	each	30.00	60.00	
	Hire Charge of Stiching Machine	0.33	each	50.00	16.50	WRD SOR 2021
	Hire Charge of manual Trolley	1	day	50.00	50.00	
	Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
	Total				2450.82	
	Add Overhead charge & C.P @15%				367.62	
					2818.44	
	Rate per bag (Total/40)				70.46	A
	Material					
	Cost of Geo bag	1	each	83.06	83.06	MSL 277
	Add Overhead charge & C.P @15%				12.46	
					95.52	B
	Rate of Geo bag including filling ,stiching placing (A+B)				165.98	
	Rate of Geo bag including filling ,stiching placing per Nylon Crate	6	Each	165.98	995.88	C
	Material					
	Cost of Nylon Crate	1	Each	41.00	41.00	MSL 276
	Add Overhead charge & C.P @15%				6.15	
					47.15	D
	Rate of N C with Geo Bag(C+D)				1043.03	
				say, Rs	1043.00	
5.7.52	Supply of New bag and N C with labour for filling New E.C bag with local sand (volume of filled bag 1.2 cft and weight 50kg),stiching on two lines by approved nylon thread with stitching machine & generator,Stacking the bags and placing in Nylon crate of size (1mx1mx1m) with a lead of 150m including supply of nylon threads etc , placing the filled crates in dry portion within a lead of 30m,all complete as per approved design,specification and direction of E/I.					
	Unit - Each bag					
	Taking output of 100 nos filled new bags in 4 nos N.C					

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Material					
New E C bag	100	nos	11.24	1124.00	MSL 291
Nylon Crate(N.C)	4	nos	41.00	164.00	MSL 276
				1288.00	
Add Overhead charge &C.P @15%				193.20	
Total				1481.20	
Rate of material for each N.C(Totalx25/100)				370.30	A
Labour					
Unskilled labour for filling, stitching & stacking	1.67	nos	318.00	531.06	{SI-1}
Unskilled labour for crying & placing at work site	3	nos	318.00	954.00	{SI-1}
Skilled labour for stitching	0.33	nos	403.00	132.99	{SII-70}
Stiching Roll(Nylon)	2	nos	30.00	60.00	WRD SOR 2021
Hire Charge of Stiching Machine	0.33	day	50.00	16.50	
Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
				1892.13	
Add Overhead charge &C.P @15%				283.82	
Total				2175.95	
Rate for each N C(Totalx25/100)				543.99	B
Rate for each N.C in dry portion (A+B)				914.29	
				say, Rs	914.30
5.7.53	Supply of New bag with labour for filling New E C bag with local sand (volume of filled bag 1.2 cft and weight 50kg), stitching on two lines by approved nylon thread with stitching machine & generator, Stacking the bags and placing with a lead of 150m including supply of nylon threads etc , all complete as per approved design specification and direction of E/I.				
Unit- Each bag					
Taking output 100nos filled new bags					
Material					
New E C Bag	100	nos	11.24	1124.00	MSL 291
Stiching Roll(Nylon)	2	nos	30.00	60.00	
				1184.00	A
Labour					
Unskilled labour for filling, stacking	1.67	nos	318.00	531.06	{SI-1}
Unskilled labour for crying & placing at work site	3	nos	318.00	954.00	{SI-1}
Skilled labour for stitching	0.33	nos	403.00	132.99	{SII-70}
				1618.05	B
Hire Charge of Machine					
Hire Charge of Stiching Machine	0.33	day	50.00	16.50	
Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
				214.08	C
Total (A+B+C)				3016.13	
Add Overhead charge &C P @15%				452.42	
				3468.55	
Rate for 100 nos E.C. bag (A+B+C)				3468.55	
Rate per N C				34.69	
				say, Rs	34.70
5.7.54	Providing, laying & filling Geo bags of size 1mX0.7m (Type A 300GSM nonwoven) Weight 420gm, volume of filled bag 0.07 cum, weight of filled Geo bag 126kg with local sand including stitching in four lines by approved Nylon thread with stitching machine and generator, stacking and placing after loading, unloading and carriage with the help of Trolley within 150m lead , all complete as per specification and direction of E/I.				
Unit- Each Bag					
Taking output of 40 nos Geo bags					
Material					
Geo bag	40	nos	83.06	3322.40	MSL 277
Stiching roll(nylon)	2	nos	30.00	60.00	
Labour					
Unskilled labour for filling, stacking	2	nos	318.00	636.00	{SI-1}
Unskilled labour for crying & placing at work site	4	nos	318.00	1272.00	{SI-1}
Skilled labour for stitching	0.33	nos	403.00	132.99	{SII-70}
Mate	0.25	nos	343.00	85.75	S II-2
Hire Charge of Machine					
Hire Charge of Stiching Machine	0.33	nos	50.00	16.50	WRD SOR 2021
Hire Charge of manual Trolley	1	day	50.00	50.00	
Hire charge of Generator 3KVA	2.67	hrs	74.00	197.58	
Total				5773.22	
Add Overhead charge &C.P @15%				865.98	
				6639.20	
Rate per geo Bag				165.98	
				say, Rs	166.00

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5.8 MISCELLANEOUS

Sr.No.	Item	Rate	Unit
5.8.1	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 90 % purity) in expansion joints all complete as per approved design, specifications and direction of E/I	1071.20	Per KG
5.8.2	Supplying, fitting and fixing rubber seal of (water stop) of approved quality for construction joints all complete as per approved design, specifications and direction of E/I .	#VALUE!	Per Mtr
5.8.3	Supplying, and fixing in position 25 mm thick Bituminous board (Shalitex or equivalent) in expansion or construction joint all complete as per approved design, specifications and direction of E/I	#VALUE!	Per M ²
5.8.4	Supplying, and fixing (Bitumen, cement and sand) in construction joints all complete as per approved design, specifications and direction of E/I	168.80	cm width/ cm depth/ 100 M length
5.8.5.1	Providing and driving steel sheet piles on specified alignment and up to designed level including painting the sheet piles with two coats of anti corrosive bitumen paint (portion of sheet pile inside concrete shall not be painted) including cost of sheet piles and hire charge of sheet pile, driving plant etc as per approved design, specifications and direction of E/I (For the purpose of payment of sheet pile driving measurement of sheet pile dully driven shall be taken only)	#VALUE!	Per M.T
5.8.5.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I (For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only)	#VALUE!	Per M.T
5.8.6(a)	Providing weep holes with dry graded stone single filter of 20 mm to 40 mm size in abutment and wing wall including royalty as per specification and direction of E/I	105.70	Each
5.8.6(b)	Providing weep holes with dry graded Jhama metal filter of 20 mm to 40 mm size in abutment and wing wall including royalty as per specification and direction of E/I	221.30	Each
5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 Meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I	521.40	Per M ³
5.8.8	Dismantling plain cement or lime concrete work including stacking serviceable materials in stacks within 15 Meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	918.50	Per M ³
5.8.9	Dismantling R.C.C work including stacking serviceable materials in stacks within 15 Meter lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	1871.70	Per M ³
5.8.10	Dismantling old plaster and pointing in cement or lime and raking out joints to 15 mm. depth, watering and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.	20.60	Per M ²

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5.8 MISCELLANEOUS

Sl.No	Description	Quantity	Unit	Rate	Amount	Ref.
5.8.1	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 99 % purity) in expansion joints complete job as per drawing, specifications and direction of E/I.					
	Unit:-Per Kg					
	Furnishing and installing seal					
	A. Cost of copper seal and accessories					
	Size of copper seal 250 mm x 1.6 mm					
	weight per sq metre= 14.70 kg	14.7	kg			
	Weight of strips per linear metre Allowing 2.5 % for wastage and incidental to work)= $0.25 \times 1 \times 14.70 \times 1.025 = 3.77 \text{ kg}$					
	i. Cost per linear metre including furnishing, storing, handling and cutting etc.	3.77	kg	896.80	3380.94	(M-087)
	ii. Cost of bracing, washers and nails etc. per running metre @ 3 % of item (i)				101.43	
	Sub-Total				3482.36	
	B. Labour charge					
	Taking that 1/4 mason and 1 helper can place seal in one lift of 15 mtr in one shift.					
	Head mason	0.25	nos	428.00	107.00	(S II -3)
	Helper	1	nos	334.00	334.00	(S II-16)
	Total labour charge				441.00	
	Total charge per mtr= total labour charge / 15				29.40	
	Total A+B				3511.76	
	Hence rate per kg =Total (A+B)/ wt Of seal per mtr				931.50	
	Add Overhead charge & C.P@15%				139.73	
					1071.23	1071.23
	Hence rate per kg of copper seal	Say Rs		1071.20	Per kg	
5.8.2	Supplying, fitting and fixing rubber seal of (water stop) of approved quality for construction joints expansion joints complete job as per drawing, specifications and direction of E/I.					
	Unit:-Per M					
	Taking Out put =1 M					
	Cost of rubber seal	1	m	#VALUE!	#VALUE!	
	Add for overlapping and vulcanizing 10 % of the materials cost				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Hence rate per mtr of rubber seal			#VALUE!	Per mtr	
5.8.3	Supplying, and fixing in position 25 mm thick Bituminous board (Shalitec or equivalent) in expansion or construction joint in dam and its allied works all complete as per approved design, specifications and direction of E/I					
	Unit:-Per Sqm					
	Taking Out put =9.30 Sqm					
	Material					
	Bituminastic board	9.3	M ²	input	#VALUE!	
	Shalitec primer	2.25	Kg	input	#VALUE!	
	Labour					
	Mason Gr II	0.25	nos	382.00	95.50	(S II-4)
	Unskilled mazdoor	0.25	nos	318.00	79.50	(SI-1)
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate pe sqm	Say Rs		#VALUE!	Per M ²	
5.8.4	Supplying, and fixing Bitumen filter (Bitumen, cement and sand) in construction joints in dam and its allied works all complete as per approved design, specifications and direction of E/I					
	Unit - Per cm width per cm depth per 100M					
	Consider a joint =2.5 cm wide 15 cm deep and 292.75 metre in length					
	Hence cubical contents of a joint 292.75 x 0.15 x 0.025 =1.1 cum					
	Material					
	Bitumen	0.282	M.T	32950.00	9291.90	(BCD 312)
	Cement	0.088	Cum	7582.35	667.25	M1- P
	Coarse sand	0.0283	Cum	494.00	13.98	M-004
	Steam coal @ 2 quintal / M T(including carriage charge)	0.564	Qnt	440.00	248.16	(BCD 370)

	Total				10221.29	
	Labour					
	Mason Gr II	5	nos	382.00	1910.00	{S II- 4}
	Unskilled mazdoor	8	nos	318.00	2544.00	{SI-1}
	Total				4454.00	
					14675.29	
	Add Overhead charge & C.P@15%				2201.29	
					16876.58	168.77
	Rate per cm width per cm depth per 100M	Say Rs			168.80	
5 8 5.1	Providing and driving steel sheet piles on specified alignment and upto designed levels including painting the sheet piles with two coats of anti- corrosive bitumen paint (portion of sheet pile inside concrete shell not be painted) including cost of sheet piles and hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile driving, measurement of sheet pile duly driven shall be taken only)					
	Unit-Per M					
	Assuming piling that can be expected to be driven per hour= 65.37 x 6 70= 437.98 Kg (Assuming I.S.P.S. 1625 U& piling section vide I.S. 2314, 1963)					
	Hourly use rate of sheet pile					
A.	Material					
	Cost of Sheet Pile with 10 % wastage	1.1	M.T	#VALUE!	#VALUE!	
	Sheet pile Driving plant			#VALUE!		
B	(i). Cost of driving pile per M.T =(x)x1000 / 437.98			#VALUE!	Rs	#VALUE!
	(ii) Shifting of 3 to 4 nos of pile per M.T at the place ready for driving @ 1.5 % of Sub item (i)				Rs	#VALUE!
	(iii) Erecting piling machines and dismantling @ 0.5 % of sub item (i)				Rs	#VALUE!
	(iv) Depreciation charges for track land wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)				Rs	#VALUE!
	(v). Depreciation charges for supply of rails @ 1 % of sub item (i)				Rs	#VALUE!
	(vi). Welding piles 3 to 4 nos @ 8 % of sub item b(i)				Rs	#VALUE!
	(vii) Cutting piles 2 to 4 nos @ 2 % of sub item (i)				Rs	#VALUE!
	(viii) Driving hole 3 to 4 nos @ 0.5 % of sub item (i)				Rs	#VALUE!
	(ix) Carriage of sheet piles 1 M.T. @ 2 % of sub item (i)				Rs	#VALUE!
C.	Surface area of 1 M T. sheet piles to be painted both side with anti corrosive bitumen, paint					
	Length of sheet pile per M.T=1 x 1000 / 65.37 = 15.29 m					
	Area of both side of sheet piles=15.29 x 1.71 =24.62 sqm Surface of sheet piles to be painted with two coats of bitumen (Assuming 0.5 Kg / M ² =24.62 x 0.5 =	12.31	Kg	32 95	405 61	(BCD-312)
D	Unskilled mazdoor	2	nos	318 00	636 00	{SI-1}
	Total (A+B+C+D)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Say			Rs	#VALUE!	Per M T
5 8 5.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only)					
	Unit-Per M					
	Assuming piling that can be expected to be extracting per hour= 65.37 x 6 70= 437.98 Kg (Assuming I.S.P.S. 1625 U& piling section vide I.S. 2314, 1963)					
	Hourly use rate of sheet pile					
	Sheet pile Driving plant			#VALUE!		
A	(i) Cost of Extracting pile per M.T =(x)x1000 / 437.98				Rs	#VALUE!
	(ii) Shifting of 3 to 4 nos of pile per M.T at the place ready for driving @ 1.5 % of Sub item (i)				Rs	#VALUE!
	(iii) Erecting piling machines and dismantling @ 0.5 % of sub item (i)				Rs	#VALUE!
	(iv) Depreciation charges for track land wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)				Rs	#VALUE!
	(v). Depreciation charges for supply of rails @ 1 % of sub item (i)				Rs	#VALUE!
	(vi) Welding piles 3 to 4 nos @ 8 % of sub item b(i)				Rs	#VALUE!
	(vii) Cutting piles 2 to 4 nos @ 2 % of sub item (i)				Rs	#VALUE!
	(viii) Driving hole 3 to 4 nos @ 0.5 % of sub item (i)				Rs	#VALUE!
	(ix) Carriage of sheet piles 1 M.T. @ 2 % of sub item (i)				Rs	#VALUE!

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B	Unskilled mazdoor	2	nos	318.00	636.00	{SI-1}
	Total (A+B)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M.T	
5.8.6(a)	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm siz in abutment and wing well as per specification and direction of E/I					
	Unit :-Each					
	Stone metal filter 20 mm to 40 mm	0.113	M ³	678.14	76.63	M-011
	Fitting and cost of Wire netting @ 20% of above				15.33	
	Add Overhead charge & C.P@15%				91.96	
					13.79	
					105.75	105.75
	Rate	Say Rs		105.70	Each	
5.8.6(b)	Providing weep holes with dry graded Jhama metal filter of 20 mm to 40 mm siz in abutment and wing wall, as per specification and direction of E/I					
	Unit :-Each					
	Jhama metal filter 20 mm to 40 mm	0.113	M ³	1419.00	160.35	M 11-F I
	Fitting and cost of Wire netting @ 20% of above				32.07	
	Add Overhead charge & C.P@15%				192.42	
					28.86	
					221.28	
	Rate	Say Rs		221.30	Each	
5.8.7	Dismantling pucca brick or lime work including stacking serviceable materials in countable stacks within 15 Metre lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Semi skilled mazdoor	1	nos	330.00	330.00	S II -69
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Add Overhead charge & C.P@15%				1284.00	
					192.60	
					1476.60	521.40
	Rate per cum	Say Rs		521.40	Per M ³	
5.8.8	Dismantling plain cement or lime concrete work including stacking serviceable materials in stacks within 15 Metre lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
	Unit :-Per Cum	Per M ³				
	Taking Out put =2.832 Cum	2.832	Cum			
	Semi skilled mazdoor	3	nos	330.00	990.00	S II -69
	Unskilled mazdoor	4	nos	318.00	1272.00	{SI-1}
	Add Overhead charge & C.P@15%				2262.00	
					339.30	
					2601.30	918.54
	Rate per cum	Say Rs		918.50	Per M ³	
5.8.9	Dismantling R.C.C work including stacking serviceable materials in stacks within 15 Metre lead and disposal of unserviceable materials with all leads as per building specifications and direction of E/I.					
	Unit :-Per Cum					
	Taking Out put =2.832 Cum					
	Hammer man	2.25	nos	334.00	751.50	{S II-17}
	Skilled mazdoor	2.25	nos	403.00	906.75	{SII-70}
	Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
	Blacksmith Gr II	1	nos	382.00	382.00	{S II-10}
	Mate	1	nos	343.00	343.00	S II-2
	Add Overhead charge & C.P@15%				4609.25	
					691.39	
					5300.64	1,871.69
	Rate per cum	Say Rs		1871.70	Per M ³	
5.8.10	Dismantling old plaster and pointing in cement or lime and raking out joints to 15 mm depth, watering and disposal of unserviceable materials with all leads as per building specifications and direction of E/I					
	Unit :-Per Sqm					
	Taking Out put =9.30 Sqm					
	Semi skilled mazdoor	0.35	nos	330.00	115.50	S II -69
	Unskilled mazdoor	0.10	nos	318.00	31.80	{SI-1}
	Bhisti	0.06	nos	315.00	18.90	S II-13
	Add Overhead charge & C.P@15%				166.20	
					24.93	
					191.13	20.55
	Rate per sqm	Say Rs		20.60	Per M ²	

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CHAPTER VI

BARRAGE AND WEIR

6.1 EARTH WORK

Sr.No.	Item	Rate	Unit
6.1.1	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I.(Measurement of girth at a height of one meter above the ground level)		
	(a) Girth above 0.50 meter but up to 0.75 meter	292.70	Each
	(b) Girth above 0.75 meter but upto 1.50 meter	585.40	Each
	(c) Girth above 1.5 meter but upto2.50 meter	1060.90	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	1719.20	Each
	(e) Girth above 4.00 meter	2487.50	Each
6.1.2	Uprooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 meter but up to 0.75 meter	182.90	Each
	(b) Girth above 0.75 meter but up to 1.50 meter	182.90	Each
	(c) Girth above 1.5 meter but upto2.50 meter	243.80	Each
	(d) Girth above 2.50 meter but up to 4.00 meter	365.70	Each
	(e) Girth above 4.00 meter	457.10	Each
6.1.3.1	Preparation of borrow areas by removing the grass and the jungle, bushes from the top before excavation as per specifications and direction of E/I.	3.00	Per M ²
6.1.3.2	Jungle clearance and weeding out shrubs including small tree up to 0.50 mtr girth and removal as per specifications and direction of E/I.	8.90	Per M ²
6.1.4	Removal of stone boulder of more than 300 mm size from alignment of the dam and stacking the same (beyond 50 M away from Toe of the dam base in the country side) within initial lead of 150 M as per specifications and direction of E/I.	116.20	Per M ³
6.1.5	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials (beyond 50 M away from Toe of the dam base in the country side) with initial lead of 150 M and all lifts as per specifications and direction of E/I.	216.50	Per M ³
6.1.6	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 K.M and all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.	469.90	Per M ³
6.1.7	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper including loading, unloading and maintenance of haul roads. as per specifications and direction of E/I.	506.10	Per M ³

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6.1.8	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of excavated earth so obtained (50 m away from the edge of the trench) with initial lead of 150 M and initial lifts of 1.5 M all complete as per specifications and direction of E/I.	172.20	Per M ³
6.1.9	Extra for earth work in hard soil (vide classification of soil item-B) as per specification and direction of E/I.	25.80	Per M ³
6.1.10	Extra for earth work in marshy soil , slushy and daldal (vide classification of soil item-F)	38.70	Per M ³
6.1.11.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of excavated materials so obtained (beyond 50 mtr away from the edge of the trench) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	724.30	Per M ³
6.1.11.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock(Where blasting is not required) (vide classification of soil item C) disposal of excavated materials so obtained (beyond 50 mtr away from the edge of the trench) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.	550.80	Per M ³
6.1.12	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is required and stacking properly in approved stack size in approved stack yard (beyond 50 M away from the edge of the trench in country side) with initial lead of 150M and initial lifts of 1.5 mtr all complete	1265.25	Per M ³
6.1.13	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of same in country side by Truck (50M away from the edge of the trench)beyond initial lead of 150 m but up to 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete. as per specifications and direction of E/I.	464.30	Per M ³
6.1.14.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C)and disposal of soil by truck (50M away from the edge of the trench beyond initial lead of 150 mtr but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	964.70	Per M ³
6.1.14.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C) and disposal of soil by truck (50 M away from the edge of the trench beyond initial lead of 150 M but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	709.60	Per M ³
6.1.15	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by truck (50M away from the edge of the trench beyond initial lead of 150M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	964.70	Per M ³
6.1.16	Earth work in filling in foundation trenches and back filling of masonry structures with suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30 mtr and lift of 1.5M complete job as per specifications and direction of E/I.	111.90	Per M ³
6.1.17	Earth work in filling in foundation trenches and back filling of masonry structures with semi pervious or suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits with initial lead of 30 mtr and initial lift of 1.5 mtr. complete job as per specifications and direction of E/I.	124.80	Per M ³

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6.1.18	Extra for each subsequent lift upto 1 M over the initial lift of 1.5 M (for ordinary or hard soil) as per specification and direction of E/I.	12.90	Per M ³
6.1.19	Extra for each subsequent lead upto 25 M beyond the initial lead of 30 M (for ordinary or hard soil) as per specification and direction of E/I.	12.90	Per M ³
6.1.20	Extra for each subsequent lift upto 1 M over the initial lift of 1.5 M (for ordinary soft or hard rock) as per specification and direction of E/I.	19.40	Per M ³
6.1.21	Extra for each subsequent lead upto 25 Mtr beyond the initial lead of 30 M (for ordinary soft or hard rock) as per specification and direction of E/I.	19.40	Per M ³
6.1.22	Deleted		
6.1.23	deleted		
6.1.24.1	Fine dressing of the canals banks or embankment and turfing with 75 mm thick grass sod obtained within a lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	2566.80	Per % M ²
6.1.24.2	Extra for each lead of 150 M over initial lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.	548.60	Per % M ²
6.1.25	Close timbering in trenches including strutting, shoring and packing cavities(whenever required)depth not exceeding 1.5M, complete as per specifications and direction of E/I.	108.70	Per M ²
6.1.26	Close timbering in trenches including strutting, shoring and packing cavities(whenever required)depth not exceeding 1.5 M, but upto 30M complete as per specifications and direction of E/I.	114.00	Per M ²
6.1.27	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 K.M and all lifts by Tipper including loading, unloading and maintenance of haul road as per specifications and direction of E/I.	249.70	Per M ³
6.1.28	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper including loading, unloading and maintenance of haul roads. as per specifications and direction of E/I.	284.00	Per M ³
6.1.29	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of same in country side by Tipper (50M away from the edge of the trench) beyond initial lead of 150M but upto 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete as per specifications and direction of E/I	244.20	Per M ³
6.1.30.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C)and disposal of soil by Tipper (50 M away from the edge of the trench beyond initial lead of 150M but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	672.60	Per M ³
6.1.30.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C)and disposal of soil by Tipper (50 M away from the edge of the trench beyond initial lead of 150 mtr but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	417.60	Per M ³

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6.1.31	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by Tipper (50 mtr away from the edge of the trench beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	672.60	Per M ³
6.1.32	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 150 M lead but up to 1/2 K.M with all lift and carriage by Tipper complete job as per specifications and direction of E/I.	365.40	Per M ³
6.1.33	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 1/2 K.M lead but up to 1 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.	382.50	Per M ³

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CHAPTER VI

BARRAGE AND WEIR

6.1 EARTH WORK

Sl.no.	Description	Quantity	Unit	Rate	Amount	Ref.
6.1.1	Cutting of trees along with branches and their removal away from the work site and stacking the same including as per specifications and direction of E/I.(Measurement of girth at a height of one metre above the ground level)					Analysis same as Item 5.1.4
6.1.2	Uprooting of stumps and their removal, away from the work site . as per specifications and direction of E/I.					Analysis same as Item 5.1.5
6.1.3.1	Preparation of borrow areas by removing the grass and the jungles, bushes from the top before excavation as per specifications and direction of E/I					Analysis same as Item 5.1.2
6.1.3.2	Jungle clearance and weeding out shrubs including small tree up to 0.50 meter girth and their removal as per specifications and direction of E/I.					Analysis same as Item 5.1.3
6.1.4	Removal of stone boulder of more than 300 mm size from alignment of the Barrage / Weir and stacking the same (beyond 50 M away from the edge of the foundation trenches in the country side) within initials lead of 150 M . as per specifications and direction of E/I					
	Unit:- Per Cum					
	Assuming out put =28.32 Cum	28.32	Cum			
	Unskilled mazdoor for removal and stacking	9	nos	318.00	2862.00	{SI-1}
					2862.00	
	Add Overhead charge & C.P@15%				429.3	
					3291.30	116 22
	Rate per cum	Say Rs		116.20	Per M ³	
6.1.5	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials (beyond 50M away from the edge of the foundation trenches in the country side) with initial lead of 150M and all lifts as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put =28.32 Cum					
	Unskilled mazdoor for dagbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for for cutting earth as well as removing	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Unskilled mazdoor for disposal of earth and organic materials	9	nos	318.00	2862.00	{SI-1}
	Male	0.25	nos	343.00	85.75	S II-2
					5332.75	
	Add Overhead charge & C.P@15%				799.91	
					6132.66	216 55
	Rate per cum	Say Rs		216.50	Per M ³	
6.1.6	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150M but within 1.00 KM and all lifts by Truck including loading, unloading and maintenance of haul roads . as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put =28.32 Cum					
A.	Unskilled mazdoor for dagbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Male	0.25	nos	343.00	85.75	S II-2
B.	Carriage of earth by 10 M.T capacity Truck					
	Carriage cost of earth for 1 k.m lead					
	Average lead	575	M			
	Truck capacity 8 MT (compacted earth)	4.8	Cum			
	Cycle time---- Average speed	16	km/hr			
	(a) Hauling time = Average lead					
	x 60 x 2/1000 x Average speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			

	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading					
	unloading turning and spollting time / Total hauling time	0.932	trips			
	Material carried=trips x net capacity	4.480	M ³			
	Hourly use rate of truck (Vide Item no P M-6004)	1371.00	hr			PM6004
	Rate per 28.32 cum for carriage only= Use rate of truck x 28.32 / material carried			Rs	8666.68	
	(c). Construction and maintenance of haul road @ 5 % of Item (B)			Rs	433.33	
					11570.76	
	Add Overhead charge & C.P@15%				1735.61	
					13306.38	469.86
	Rate per cum	Say Rs		469.90		Per M ³
6.1.7	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder up to 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Truck including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for dagbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for cutting earth as well as removing organic materials etc.	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
B.	Carriage of earth by 10 M.T capacity Truck					
	Carriage cost of earth for 2 k.m lead					
	Average lead	1500	M			
	Truck capacity 8 MT (compacted earth)	4.8	Cum			
	Cycle time--- Average speed	17	km/hr			
	(a) Hauling time = Average lead x 60 x 2/1000 x Average speed	10.59	minutes			
	(b) Loading unloading turning and spollting time=	60	minutes			
	Total hauling cycle time=	70.59	minutes			
	No of trip per working hour = Loading					
	unloading turning and spollting time / Total hauling time	0.85	trips			
	Material carried=trips x net capacity	4.08	M ³			
	Hourly use rate of truck	1371.00	hr			PM6004
	Rate per 28.32 cum for carriage only= Use rate of truck x 28.32 / material carried			Rs	9516.35	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	475.82	
	Total (A+B+C)				12462.92	
	Add Overhead charge & C.P@15%				1869.44	
					14332.36	506.09
	Rate per cum	Say Rs		506.10		Per M ³
6.1.8	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of the excavated earth so obtained (50 M away from the edge of the trench) with initial lead of 150M and initial lifts of 1.5M all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put= 28.32 Cum					
	Unskilled mazdoor for cutting earth	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for carrying	7	nos	318.00	2226.00	{SI-1}
	Head Mason	0.25	nos	428.00	107.00	{S II -3}
					4241.00	
	Add Overhead charge & C.P@15%				636.15	
					4877.15	172.22
	Rate per cum	Say Rs		172.20		Per M ³
6.1.9	Extra for earth work in hard soil (vide classification of soil item-B) all complete as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put =28.32 Cum					
	Unskilled mazdoor	2	nos	318.00	636.00	{SI-1}
					636.00	
	Add Overhead charge & C.P@15%				95.40	
					731.40	25.83

	Rate per cum		Say Rs	25.80	Per M ³	
6.1.10	Extra for earth work in marshy soil , slush and daldal (vide classification of soil item-F) all complete as per specification and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put= 28.32 Cum					
	Unskilled mazdoor for cutting	1.50	nos	318.00	477.00	{SI-1}
	Unskilled mazdoor for carrying	1.50	nos	318.00	477.00	{SI-1}
					954.00	
	Add Overhead charge & C.P@15%				143.10	
					1097.10	38.74
	Rate per cum		Say Rs	38.70	Per M ³	
6.1.11.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of excavated materials so obtained (beyond 50M away from the edge of the trench) with initial lead of 150M and initial lifts of 1.5M all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit:- Per Cum					
	Assuming out put =10.00 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	9.50	nos	318.00	3021.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	BCD-0326
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					6298.64	
	Add Overhead charge & C.P@15%				944.80	
					7243.44	724.34
	Rate per cum	Say Rs		724.30	Per M ³	
6.1.11.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock(Where blasting is not required) (vide classification of soil item C) disposal of excavated materials so obtained (beyond 50 M away from the edge of the trench) with initial lead of 150M and initial lifts of 1.5M all complete as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put=10.00 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	11.50	nos	318.00	3657.00	{SI-1}
	Mason Gr I	0.50	nos	428.00	214.00	{S II -3}
					4789.50	
	Add Overhead charge & C.P@15%				718.43	
					5507.93	550.79
	Rate per cum	Say Rs		550.80	Per M ³	
6.1.12	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is required and stacking properly in approved stack size in approved stack yard (beyond 50 M away from the edge of the trench in country side) with initial lead of 150 m and initial lifts of 1.5M all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10.00 Cum					
A.	Labour					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all work	13.00	nos	318.00	4134.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
	Blaster	0.67	nos	526.00	352.42	{S I -54}
B.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin 80%	2.75	Kg	976.21	2684.58	M-215

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	Detonator	18	nos	6.19	111.42	M-217
	Fuse coil	3	nos	15.00	45.00	{0326}
C.	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				26.50	
					11002.16	
	Add Overhead charge & C.P@15%				1650.32	
					12052.48	1265.25
	Rate per cum	Gay Rs		1265.25	Per M³	
6.1.13	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of same in country side by Truck (50M away from the edge of the trench)beyond initial lead of 150M but up to 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put =28.32 Cum					
A.	Unskilled mazdoor for cutting earth	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for carrying	1	nos	318.00	318.00	{SI-1}
	Head Mason	0.25	nos	428.00	107.00	{S II -3}
B.	Cost of carriage of 28.32 cum earth by Truck including loading					
	Carriage cost of earth for 1 k.m lead					
	Average lead	575	M			
	Truck capacity 8 MT (compacted earth)	4.8	Cum			
	Cycle time---- Average speed	16	km/hr			
	(a) Hauling time = Average lead x 60 x 2/1000 x Average speed	4.31	minutes			
	(b) Loading unloading, turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading, unloading, turning and spolling time / Total hauling time	0.932	trips			
	Material carried=trips x net capacity	4.47	M ³			
	Hourly use rate of truck	1371.00	hr			PM 6004
	Rate per 28.32 cum for carriage only= Use rate of truck x 28.32 / material carried			Rs	8666.68	
C.	Construction and maintenance of haul road @ 5% of Item (B)			Rs	433.33	
					11433.01	
	Add Overhead charge & C.P@15%				1714.95	
					13147.96	464.26
	Rate per cum	Gay Rs		464.30	Per M³	
6.1.14.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C)and disposal of soil by Truck (50M away from the edge of the trench) beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit:- Per Cum					
	Assuming out put= 10.00 Cum					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity=Truck capacity swell factor	4.02	Cum			
	Cycle time---- Average speed	16	km/hr			
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			

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	No of trip per working hour =	0.93	trips			
	unloading turning and spolling time / Total hauling time	3.75	M ³			
	Material carried=trips X net capacity	1371.00	hr			PM 6004
	Hourly use rate of truck			Rs	3656.00	
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried			Rs	182.80	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	182.80	
C.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-104
	Detonator	10	nos	6.190	61.90	M-094
	Fuse coil	1	nos	15.00	15.00	(0326)
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and				15.00	
					8388.44	
	Add Overhead charge & C.P@15%				1258.27	
					9646.71	964.67
	Rate per cum	Say Rs		964.70	Per M ³	
6.1.14.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock(where blasting is not required) (vide classification of soil item C)and disposal of soil by Truck (50M away from the edge of the trench) beyond initial lead of 150 M but upto 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put =10.00 Cum-					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity=Truck capacity X swell factor	4.02	Cum			
	Cycle time---- Average speed	16	km/hr			
	(a) Hauling time = Average					
	lead X 60 X 2/1000 X Average speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour =					
	unloading turning and spolling time / Total hauling time	0.93	trips			
	Material carried=tripsXnet capacity	3.75	M ³			
	Hourly use rate of truck	1371.00	hr			PM 6004
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried			Rs	3656.00	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	182.80	
					6170.54	
	Add Overhead charge & C.P@15%				925.58	
					7096.12	709.61
	Rate per cum	Say Rs		709.60	Per M ³	
6.1.15	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by Truck (50M away from the edge of the trench beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10.0 Cum					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}

	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity=Truck capacity X swell factor	4.02	Cum			
	Cycle time--- Average speed	16	km/hr			
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.31	minutes			
	(b) Loading unloading turning and spotting time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading					
	unloading turning and spotting time / Total hauling time	0.93	trips			
	Material carried=trips X net capacity	3.75	M ³			
	Hourly use rate of truck	1371.00	hr			PM 6004
	Rate per 10 cum for carriage only=Use rate of truck X 10/material carried			Rs	3656.00	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	182.80	
C.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	BCD-0326
D.	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					8388.44	
	Add Overhead charge & C.P.@15%				1258.27	
					9646.71	964.67
	Rate per cum	Say Rs		964.70	Per M ³	
6.1.16	Earth work in filling in foundation trenches and back filling of masonry structures with suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable profile within a lead of 30M and lift of 1.5M complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting .	4.5	nos	318.00	1431.00	{SI-1}
	Unskilled mazdoor for carrying	4	nos	318.00	1272.00	{SI-1}
	Head mason	0.125	nos	428.00	53.50	{S II -3}
					2756.50	
	Add Overhead charge & C.P.@15%				413.48	
					3169.98	111.93
	Rate per cum	Say Rs		111.90	Per M ³	
6.1.17	Earth work in filling in foundation trenches and back filling of masonry structures with semi pervious or suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits with initial lead of 30 M and initial lift of 1.5 M complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting .	5.5	nos	318.00	1749.00	{SI-1}
	Unskilled mazdoor for carrying .	4	nos	318.00	1272.00	{SI-1}
	Head mason	0.125	nos	428.00	53.50	{S II -3}
					3074.50	
	Add Overhead charge & C.P.@15%				461.18	
					3535.68	124.85
	Rate per cum	Say Rs		124.80	Per M ³	
6.1.18	Extra for each subsequent lift up to 1 M over the initial lift of 1.5 M (for ordinary or hard soil) as per specification and direction of E/I.					

	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1	nos	318.00	318.00	{SI-1}
					318.00	
	Add Overhead charge & C.P@15%				47.70	
					365.70	12.91
	Rate per cum	Say Rs		12.90	Per M ³	
6.1.19	Extra for each subsequent lead up to 25 M beyond the initial lead of 30 M (for ordinary or hard soil) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
	Add Overhead charge & C.P@15%				47.70	
					365.70	12.91
	Rate per cum	Say Rs		12.90	Per M ³	
6.1.20	Extra for each subsequent lift up to 1 M over the initial lift of 1.5 M (for ordinary soft or hard rock) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1.5	nos	318.00	477.00	{SI-1}
	Add Overhead charge & C.P@15%				71.55	
					548.55	19.37
	Rate per cum	Say Rs		19.40	Per M ³	
6.1.21	Extra for each subsequent lead up to 25 M beyond the initial lead of 30 M (for ordinary soft or hard rock) as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor	1.5	nos	318.00	477.00	{SI-1}
	Add Overhead charge & C.P@15%				71.55	
					548.55	19.37
	Rate per cum	Say Rs		19.40	Per M ³	
	(b) Loading unloading turning and spollting time=	60	minutes			
	Total hauling cycle time=(a+b)	#REF!	minutes			
	No of trip per working hour = 60 / Total hauling time	#REF!	Trips			
	Material carried=TripsxTruck capicty =	#REF!	Cum			
	Hourly use rate of	1371.00	hr			PM 6004
	Rate per cum=Use rate of truckx28.32/material carried			Rs	#REF!	
	© Consluction and maintenance of haul road @ 5 % of Item (b)			Rs	#REF!	
	C. Cost of compaction(vide itm no 5.1.38)					
6.1.22	Deleted					
6.1.23	Deleted					
6.1.24.1	Fine dressing of the canals banks or embankment and turlng with 75 mm thick grass sode obtained within a lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.					
	Unit:-Per % Sqm					
	Assuming out put=100Sqm					
	Unskilled mazdoor for cutting	1.5	nos	318.00	477.00	{SI-1}
	Unskilled mazdoor for caring	1.5	nos	318.00	477.00	{SI-1}
	Unskilled mazdoor for dressing, placing turf and ramming	1	nos	318.00	318.00	{SI-1}
	Bhistli for carriage of water and sprikling	3	nos	315.00	945.00	{S II-13}
	Cost of watering till the growth				15.00	
					2232.00	
	Add Overhead charge & C.P@15%				334.80	
					2566.80	2566.80
	Rate per % sqm	Say Rs		2566.80	Per % M ²	
6.1.24.2	Extra for each lead of 150 M over initial lead of 150 M including the cost of watering the grass surface till it acquires greenness as per specifications and direction of E/I.					
	Unit:-Per % Sqm					
	Assuming out put=100Sqm					
	Unskilled mazdoor for carrng	1.50	nos	318.00	477.00	{SI-1}
					477.00	

	Add Overhead charge & C.P@15%				71.55	
					548.55	548.55
	Rate per % sqm	Say Rs		548.60	Per % M ²	
6.1.25	Close timbering in trenches including strutting, shoring and packing cavities (whereve required) depth not exceding 1.5 M, complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)					
	Unit:-Per Sqm					
	Assuming out put=90 Sqm					
	Assuming 30 mtr long 1.5 mtr deep					
	Area= 2 x 30 x 1.5 = 90 sqm.					
	Poling Boards					
	Local wood/kail planks 90 x 0.38= 3.42 cum	3.42	cum	26000.00	88920.00	M SL-221
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	26000.00	31200.00	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51	mtr	56.85	2899.35	M SL-223
	Total Cost of material				123019.35	
	Carriage					
	Cost of carriage of material including loading, unloading and stacking @ 1% of total of cost materials				1230.19	
	Total cost of material with carriage cost				124249.54	
	Deduct credit for materials 75 % of the cost of material				92264.51	
	Total cost after deducting cradit material				31985.03	(A)
	This (A) can be used four times					
	Therefore cost per use A/4				7996.26	
	Labour					
	Carpenter Gr II	0.5	nos	382.00	191.00	{S I -17}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
	Total				8505.26	
	Add Overhead charge & C.P@15%				1275.79	
					9781.05	108.68
	Rate per sqm	Say Rs		108.70	Per M ²	
6.1.26	Close timbering in trenches including strutting, shoring and packing cavities (whereve required) depth exceding 1.5M ,but upto 3.0 M complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)					
	Unit:-Per Sqm					
	Assuming out put=90 Sqm					
	Assuming 30 mtr long 1.5 mtr deep					
	Area= 2 x 30 x 1.5 = 90 sqm.					
	Poling Boards					
	Local wood planks 90 x 0.38= 3.42 cum	3.42	cum	26000.00	88920.00	(BCD-1199)
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2	Cum	26000.00	31200.00	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51	mtr	56.85	2899.35	M SL-223
	Total Cost of material				123019.35	
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				1230.19	
	Total cost of material with carriage cost				124249.54	
	Deduct credit for materials75 % of the cost of material				92264.51	
	Total cost after deducting cradit material				31985.03	(A)
	This (A) can be used four times					
	Therefore, cost per use A/4				7996.26	
	Labour					
	Carpenter Gr II	0.75	nos	382.00	286.50	{S I -17}
	Unskilled mazdoor	2	nos	318.00	636.00	{SI-1}
	Total				8918.76	
	Add Overhead charge & C.P@15%				1337.81	
					10256.57	113.96
	Rate per sqm	Say Rs		114.00	Per Sqm	

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6.1.27	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 M but within 1.00 K.M and all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for daqbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
					2470.75	
	Add Overhead charge & C.P@15%				370.61	
					2841.36	100.33
B.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manual means Vide item no 4.1 B	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum.km	34.22	34.22	
					149.42	149.41934
						249.75
	Rate per sqm	Say Rs		249.70	Per M ³	
6.1.28	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 KM but up to 2 K.M away with all lifts by Tipper including loading, unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for daqbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	S II-2
					2470.75	
	Add Overhead charge & C.P@15%				370.6125	
					2841.36	100.33
B.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manual means Vide item no 4.1 b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	2	cum.km	34.22	68.44	
					183.64	183.63869
						283.97
	Rate per cum	Say Rs		284.00	Per M ³	
6.1.29	Earth work in excavation of foundation trenches in ordinary soil (vide classification of soil item A) and disposal of same in country side by Tipper (50M away from the edge of the trench)beyond initial lead of 150M but up to 1 k.m with all lifts including loading, unloading, constructing and maintenance of haul roads etc.all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Unskilled mazdoor for cutting earth	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for carrying	1	nos	318.00	318.00	{SI-1}
	Head Mason	0.25	nos	428.00	107.00	{S II -3}
					2333.00	
	Add Overhead charge & C.P@15%				349.95	
					2682.95	94.74
B.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum km					
	Loading and Unloading of Earth By manual means Vide item no 4.1b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum.km	34.22	34.22	

					149.42	149.41934
						244.16
	Rate per cum	Say Rs		244.20	Per M ³	
6.1.30.1	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) and disposal of soil by Tipper (50 M away from the edge of the trench beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit.-Pcr Cum					
	Assuming out put=10.00 Cum					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
					2505.32	
	Add Overhead charges & C.P@15%				375.80	
					2881.12	288.11
B.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Delonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	BCD-0326
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					2044.32	
	Add Overhead charge & C.P@15%				306.65	
					2350.97	235.10
C.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.1 b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum.km	34.22	34.22	
					149.42	149.42
						672.63
						672.63
	Rate per cum (A+B+C)	Say Rs		672.60	Per M ³	
6.1.30.2	Earth work in excavation of foundation trenches as per designed section in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C) and disposal of soil by Tipper (50 M away from the edge of the trench beyond initial lead of 150 M but up to 1 k.m away with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Assuming 10cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
					2331.74	
	Add Overhead charge & C.P@15%				349.76	
					2681.50	268.15
	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.1 b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum.km	34.22	34.22	
					149.42	149.41934
						417.57
						417.57
	Rate per cum	Say Rs		417.60	Per M ³	

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6.1.31	Earth work in excavation of foundation trenches as per designed section in hard rock where blasting is needed and disposal of soil by Tipper (50M away from the edge of the trench beyond initial lead of 150 M but upto 1 k.m away with all lifts, including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10.00 Cum					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II -3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
B.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	BCD-0326
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					4549.64	
	Add Overhead charge & C.P@15%				682.45	
					5232.09	523.21
C.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum km					
	Loading and Unloading of Earth By manuals means Vide item no 4.1 b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum.km	34.22	34.22	
					149.42	149.42
						672.63
						672.63
	Rate per cum (A+B+C)	Say Rs		672.60	Per M ³	
6.1.32	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 150 M lead but up to 1/2 KM. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Mate	1.00	nos	343.00	343.00	S II-2
B.	Cost of compaction(vide itm no 6.1.38)					
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Bhisti for carriage of water and sprinkling	3	nos	315.00	945.00	{S II-13}
	Total (A+B)				5740.00	
	Add Overhead charge & C.P	15	%		861.00	
					6601.00	233.09
C.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.1 b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	0.5	cum.km	34.22	17.11	
					132.31	132.30967
						365.40
						365.40
	Rate per cum	Say Rs		365.40	Per M ³	

Per

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6.1.33	Earth work in filling in foundation trenches or back filling of masonry structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finally dressed with earth obtained after cutting from borrow pits beyond 1/2 K.M lead but up to 1 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.					
		Unit-Per Cum				
		Assuming out put=28.32 Cum				
A	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Male	1.00	nos	343.00	343.00	S II-2
B.	Cost of compaction(vide item no 6.1.38)					
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Whisli for carriage of water and sprinkling	3	nos	315.00	945.00	S II-1
	Total (A+B)				5740.00	
	Add Overhead charge & C.P@15%				861.00	
					6601.00	233.09
C.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.1 b	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	1	cum.km	34.22	34.22	
					149.42	149.41934
						382.51
						382.51
	Rate per cum	Say Rs		382.50	Per M ³	

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6.2 DRILLING WORK

Sr.No.	Item	Rate	Unit
6.2.1.1	Core drilling of N x (53 mm To 75 mm) (Internal dia To External dia) size by Rotary core drilling machine up to 20 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.1.2	Core drilling of N x (Internal dia To External dia) (53 mm To 75 mm) (Internal dia To External dia) size by Rotary core drilling machine up to 20 meters depth and up to 30 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.2	Core drilling of 41mm To 75 mm (Internal dia To External dia) size by Rotary core drilling machine with T.C drill bit in all kinds of soil mixed with boulder, pebbles, shingles etc. including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction maintenance of core and sludge for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.3.1	Core drilling of B x (41 mm To 59 mm) (Internal dia To External dia) size by Rotary core drilling machine up to 20 meters depth and up to 30 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.3.2	Core drilling of B x (Internal dia To External dia) (41 mm To 59 mm) size by Rotary core drilling machine up to 20 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
6.2.4.	Drilling by Rotary core drilling machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill bit for grout and test holes in all kinds of soil including moorum, hard soil mixed with pebbles, shingles and compacted soil up to 20 meter depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
6.2.5	Drilling by Rotary drill machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill BUT for grout and test holes in clay soft and decomposed rock upto 20 meter depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till grouting, complete including as per specifications and direction of E/I.	#VALUE!	Per M
6.2.6	Drilling B x (41 mm To 59 mm) (Internal dia To External dia) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.	#VALUE!	Per M

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6.2.7	Drilling N x (53 mm To 75 mm) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
6.2.8.	Drilling Jack Hammer in hard of all kinds for grout holes up to 5 meter depth (for contact grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.	#VALUE!	Per M
6.2.9	Drilling by wagon drill machine in hard of all kinds for grout holes up to 5 meter depth (for consolidation grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.	#VALUE!	Per M

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6.2 DRILLING WORK

Sl.no	Description	Quantity	Unit	Rate	Amount	Ref.
6.2.1.1	Core drilling of N x (53 mm To 75 mm) (Internal dia To External dia) size by Rotary core drilling machine up to 20 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	(ii).Average progress of core drilling has been found to be 1.5 metre in 3 hrs. Therefore cost of drilling /m= R/0.5	0.5	M		#VALUE!	
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT				
	Life of the bit = 10 metres	10	M			
	Cost of bit per metre = D/10				#VALUE!	
	(iv). Cost of (N x Size) Reaming shell at site = 'S'	IINPUT				
	Life of Reaming shell = 50 metres / shell	50	M/shell			
	Cost of shell per metre = S / 50				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	M			
	Cost of core box = 'X'	IINPUT				
	Cost per meter= X/15				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	
	Rate per M		Say Rs	#VALUE!	Per M	
6.2.1.2	Core drilling of N x (Internal dia To External dia) (53 mm To 75 mm) (Internal dia To External dia) size by Rotary core drilling machine up to 20 metres depth and up to 30 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					
	The rate for item 6.2.1.1 has been worked out for drilling up to 20 metres depth while drilling beyond 20 metres depth. The depth covered per hour gets reduced to 0.33 metres in place of 0.50 metre per hour, therefore affecting the cost of drilling as per item 8.2.1 ii.Hence cost of drilling per metre = R x 3					
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	ii.Hence cost of drilling per metre = R /0.33	0.33	M		#VALUE!	
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT				
	Life of the bit = 10 metres	10	M			
	Cost of bit per metre = D/10				#VALUE!	
	(iv). Cost of (NxSize) Reaming shell at site = 'S'	IINPUT				
	Life of Reaming shell = 50 metres / shell	50	mtr/shell			
	Cost of shell per metre = S / 50				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Cost of core box, Indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	M			
	Cost of core box = 'X' {	IINPUT				
	Cost per mtr= X/15				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	

		Say Rs	#VALUE!	Per M	#VALUE!
Rate per M					
Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (I). Upton Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.2	Core drilling of 41mm to 75 mm (Internal dia To External dia) size by Rotary core drilling machine with T.C drill bit in all kinds of soil mixed with boulder, pebbles, shingles etc. including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction maintenance of core and sludge for foundation exploration only complete as per specifications and direction of E/I.				
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!			
	(II) Average progress of core drilling has been found to be 2.50 metre per hour (As per actual observation). Therefore cost of drilling /m= Use rate of DCDM/2.5	2.5	mtr	#VALUE!	
	(iii). Cost of Tungsten Carbide bit at site Rs.	INPUT			
	Assuming Life of the bit = 20 metres / bit	20			
	Cost of bit per metre = R/20			#VALUE!	
	(iv). Cost of Reaming shell at site = 'N'	INPUT			
	Life of Reaming shell = 100 metres / shell	100			
	Cost of shell per metre = N / 100			#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above (On the basis of item on 20(iii) page 125 of report of committee on control of R.V.Project)	40	%	#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	M		
	Cost of core box = 'CB'	INPUT			
	Cost per meter= CB/15			#VALUE!	
	(vii). Lowering 50 m dia light duty C.I causing pipe and its extraction including cutting , threading an providing socket wherever necessary.				
	(a). Cost of 50 mm dia light duty G.I pipe= (assuming 50 % of light G.I pipe will be salvaged hence only 50 % cost should be taken)	INPUT		#VALUE!	
	(b) Unskilled mazdoor for raising (Extracting) the casing pipe	0.17	nos	318.00	53.00 S II-1
	Total (ii)+(iii)+(iv)+(v)+(vi)+(vii)			#VALUE!	
	Add Overhead charge & C.P@15%			#VALUE!	
	Rate per M	Say Rs	#VALUE!	Per M	#VALUE!
Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (I). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.3.1	Core drilling of B x (41 mm To 59 mm)(Internal dia To External dia) size by Rotary core drilling machine up to 20 metres depth and up to 30 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.				
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!			

	(ii).Average progress of core drilling has been found to be 0.80 metre per hrs(as per actual observation at Latratu Dam site). Therefore cost of drilling /m= R/0.80	0.8	M		#VALUE!	
	(iii). Cost of Diamond bit or (Bxsize) at site Rs 'T'	INPUT				
	Life of the bit = 10 metres	10				
	Cost of bit per metre = T/10				#VALUE!	
	(iv). Cost of (Bxsize) Reaming shell at site = 'TK'	INPUT				
	Life of Reaming shell = 50 metres / shell	50				
	Cost of shell per metre = 1K / 50				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	M			
	Cost of core box = 'CB'	INPUT				
	Cost per meter= CB/15				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
					#VALUE!	#VALUE!
	Rate per M		Say Rs	#VALUE!		Per M
6.2.3.2	Core drilling of B x (Internal dia To External dia) (41 mm To 59 mm) size by Rotary core drilling machine up to 20 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					
	The rate for item 8.2.3.1 has been worked out for drilling up to 20 metres depth while drilling beyond 20 metres depth. The depth covered per hour gets reduced to 0.50 metres in place of 0.80 metre per hour, therefor affecting the cost of drilling as per item 8.2.1 (ii). Hence cost of drilling per metre = R x 0.50					
	(i) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	(ii).Average progress of core drilling has been found to be 0.50 metre per hrs(as per actual observation at Latratu Dam site). Therefore cost of drilling /m= R/0.50	0.5	mtr		#VALUE!	
	(iii). Cost of Diamond bit or (Bxsize) at site Rs 'T'	INPUT				
	Life of the bit = 10 metres	10				
	Cost of bit per metre = T/10				#VALUE!	
	(iv). Cost of (Bxsize) Reaming shell at site = 'TK'	INPUT				
	Life of Reaming shell = 50 metres / shell	50				
	Cost of shell per metre = TK / 50				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Cost of core box, indexing marking placing in the core box and storing it properly. Cost of good quality wooden core box 3 metres long x 0.85 metre wide x 0.15 metre deep with longitudinal compartment to accommodate 5 row of 3 metres long cores i.e. total 15 metres.	15	M			
	Cost of core box = 'CB'	INPUT				
	Cost per metre= CB/15				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
					#VALUE!	#VALUE!
	Rate per M		Say Rs	#VALUE!		Per M

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	Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (i). Up to Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.4.	Drilling by Rotary core drilling machine of size 41 mm I o 75 mm dia (Internal dia To External dia) with T.C drill bit for grout and test holes in all kinds of soil including moorum, hard soil mixed with pebbles, shingles and compacted soil up to 20 metre depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till operation is completed as per specifications and direction of E/I.					
	(I) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	(ii). Average progress of core drilling has been found to be 2.50 metre per hour (As per actual observation). Therefore cost of drilling /m= D/2.5	2.5	M		#VALUE!	
	(iii). Cost of Tungsten Carbide bit at site Rs.T.C Assuming Life of the T.C bit = 20 metres Cost of bit per metre = T.C/20	INPUT				#VALUE!
	(iv). Cost of Reaming shell at site = 'RS' Assuming Life of Reaming shell = 100 metres Cost of shell per metre = RS / 100	INPUT				#VALUE!
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Lowering 50 metre dia light duty G.I casing pipe and its extraction including cutting, threading and providing socket wherever necessary (vide T.E.C Item no 12.1.61)	1	M	#VALUE!	#VALUE!	
	Analysis (vide T.E.C Item no 12.1.61) Supplying labour, materials and equipment for lowering 100 mm G.I. pipe (casing) up to 12 m depth for protecting the sides from filling during the process of drilling as per specification and direction of E/I. (G.I casing to be supplied departmentally)					
	i. Carriage of pipe for an average lead of 50 K.M from store to site (12 mtr. In length as per carriage schedual					
	ii. Cutting two pipe in four pieces) lowering of pipe is made in length of 3 metre)					
	iii. Making thread in cut pieces	4	nos	INPUT	#VALUE!	
	iv. Supplying and fitting two extra socket	2	nos	INPUT	#VALUE!	
	v. Red lead and jute etc. for socket fixing				3.00	
	vi. Plumber Gr I	0.5	nos	405.00	202.50	(SII 32)
	Add Overhead charge & C.P @15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per M		Say Rs	#VALUE!	Per mtr	
	(a). Cost of 50 mm dia light duty G.I pipe= (assuming 50 % of light G.I pipe will be salvaged hence only 50 % cost should be taken)	1.00	mtr	INPUT	#VALUE!	
	(b). Labour for cutting, threading and inserting etc.	0.08		318.00	25.44	SII-1
	(c) Unskilled mazdoor for raising (Extracting) the casing pipe	0.17	nos	318.00	54.06	SII-1
	(d). Clearing the pipe					
	Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
					#VALUE!	#VALUE!
	Rate per M		Say Rs	#VALUE!	Per M	

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	Note:- To the rates derived above following may be included as mobilisation and demobilisation charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
0.2.5	Drilling by Rotary drill machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill BUT for grout and test holes in clay soft and decomposed rock upto 20 metre depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till grouting, complete as per specifications and direction of E/I.					
	(i) Hourly use rate of rotary core drilling machine and diesel pump (Vide item no 3.4)	#VALUE!				
	(ii) Average progress of core drilling has been found to be 1.50 metre per hour (As per actual observation at Latrau Dam site). Therefore cost of drilling /m= R/1.5	1.5	M		#VALUE!	
	(iii). Cost of Tungston Carbide bit at site Rs. Assuming Life of the T.C bit = 20 metres	INPUT				
	Cost of bit per metre = T.C/20				#VALUE!	
	(iv). Cost of Reaming shell at site = 'RS' Assuming Life of Reaming shell = 100 metres	INPUT				
	Cost of shell per metre = RS / 100				#VALUE!	
	(v). Shifting cost of the machine from one hole to another @ 40 % of item no (ii). Above	40	%		#VALUE!	
	(vi). Lowering 50 metre dia light duty G.I casing pipe and its extraction including cutting, threading and providing socket wherever necessary.	1	mtr	#VALUE!	#VALUE!	
	(a). Cost of 50 mm dia light duty G.I pipe= (assuming 50 % of light G.I pipe will be salvaged hence only 50 % cost should be taken)	1.00	M	INPUT	#VALUE!	
	(b). Labour for cutting, threading and inserting etc.	0.08		INPUT	#VALUE!	
	⊗ Unskilled mazdoor for raising (Extracting) the casing pipe	0.17	nos	INPUT	#VALUE!	
	(d). Clearing the pipe					
	Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
					#VALUE!	#VALUE!
	Rate per M		Say Rs	#VALUE!	Per M	
	Note:- To the rates derived above following may be included as mobilisation and demobilisation charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.6	Drilling B x (41 mm To 59 mm) (Internal dia To External dia) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.					
	(A). 40% drilling is done by wagon drill machine. Hence cost of drilling per metre by wagon drill vide item no 8.2.9 x 0.4 =				#VALUE!	
	(B). 60 % drilling is done by diamond core drilling machine because beyond filled up portion of cut off trench diamond core drilling machine is utilised in place of wagon drill for deeper depth machine. Drilling for the purpose of test and grout holes take place only in fissures and fractured rock. Hence cost of drilling per metre by Diamond core drilling= 0.60 x Rate of B x Size drilling by Rotary core drilling machine. Cost of core box, indexing, marking etc.) vide item 8.2.3.1. Total cost of drilling per metre				#VALUE!	
	Total				#VALUE!	#VALUE!

	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Rate pe M	Say Rs	#VALUE!	Per M	
	Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depending on the valu of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii).Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only				
6.2.7	Drilling N x (53 mm To 75 mm) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.				
	(One a fission and Zeological condition as per report received from zeological and actual obervation)				
	(A). 40% drilling is done by wagon drill machine. Hence cost of drilling per metre by wagon drill vide item no 8.2.9 x 0.4 =				#VALUE!
	(B). 60 % drilling is done by diamond core drilling machine because beyond filled up portion of cut off trench diamond core drilling machine is utilised in place of wagon drill for deeper depth machine. Drilling for the purpose of test and grout holes take place only in fissures and fractured rock. Hence cost of drilling per metre by Diamond core drilling= 0.60 x Rate of N x Size drilling by Rotary core drilling machine. Cost of core box, indexing, marking etc.) vide item 8.2.1.2. Total cost of drilling per metre				#VALUE!
	Total				#VALUE! #VALUE!
	Add Overhead charge & C.P@15%				#VALUE! #VALUE!
					#VALUE!
	Rate per M	Say Rs	#VALUE!	Per M	
	Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depending on the valu of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii).Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only				
6.2.8	Drilling Jack Hammer in hard of all kinds for grout holes upto 5 metre depth (for contact grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.				
	(A) Cost of drilling. Use rate of Jack Hammer (52 lbs) (vide item 3.2)	#REF!			
	Average rate of drilling 35 mm hole per hour-- 2.3 metre	2.3	M		
	Hence rate of drilling per metre = Use rate of Jack Hammer/2.3				#REF!
	(B). Cost of drill rod per metre of drilling. Drilling with Jack Hammer . Cost of 5.6 metre drill rod at site including cost of bit 'P'. Bit life 130 metre	#VALUE!			
	(a). Rate per metre of drill rod and bit= P/130				#VALUE!
	(b). Sharpening charge of bit @Rs 1.00 per m				1.00
	Use rate of drill rods with bit / M= (a+b)				#VALUE!
	(C). Labour, lighting and scaffolding etc. = 60 % of use rate of drill rods with bit per metre				#VALUE!
	(D). Ventilation and work shap charges = = 40 % of use rate of drill rods with bit per metre				#VALUE!
	(E). Washing the hole				
	Total				#VALUE!
	Add Overhead charge & C.P@15%				#VALUE! #REF!
					#VALUE!
	Rate per M	Say Rs	#VALUE!	Per M	

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	Note:- To the rates derived above following may be included as mobilisation and demobilisation charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					
6.2.9	Drilling by wagon drill machine in hard of all kinds for grout holes upto 5 metre depth (for consolidation grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I					
	(On the basis of item on 20 page 125 of report of committee on control of R.V.Project vil II)					
	(I) Hourly use rate of Wagon drilling machine and diesel pump. (vide item 3.5)	#VALUE!				
	(II) Average progress of core drilling has been found to be 6 metre per hour 50 % progress due to source limitation etc. . The rate of drilling /hr- Use rate of wagon drill M/C=R/3				#VALUE!	
	(iii). Cost of drill steel per metre of drilling					
	(a). Drill steel used with wagon drill					
	The following drill equipments will be required for 10 metre deep drill holes with one wagon drill.					
	Shank adopter	1	no	IINPUT	#VALUE!	
	Coupling sleeves	4	no	IINPUT	#VALUE!	
	Extension rod 1 x 3.00metre	1	no	IINPUT	#VALUE!	
	Extension rod 1 x 2.50 metre	1	no	IINPUT	#VALUE!	
	Extension rod 1 x 2.00 metre	1	no	IINPUT	#VALUE!	
	Extension rod 1 x 1.50 metre	1	no	IINPUT	#VALUE!	
	Extension rod 1 x 1.00 metre	1	no	IINPUT	#VALUE!	
					#VALUE!	
	Economic lift=460 metre	460				
	Cost of drill steel per metre of drilling				#VALUE!	
	(b).Cost of 4 point drill bit at site= R.S (Vide item no 3.5h)					
		IINPUT				
	Total life of bit 130 metre	130				
	Cost of bit/ metre of drilling= R.S/130				#VALUE!	
	(c).Sharpening charge @ 1.00 per metre				1.00	
	(iv). Cost of shifting of wagon drill @ 40 % of item (iii)				#VALUE!	
	(v). Lightening, ventilation and workshop charge @ 40 % of item (iii)				#VALUE!	
	(iv) Washing hole					
	Total				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
						#VALUE!
	Rate per M		Say Rs	#VALUE!	Per M	
	Note:- To the rates derived above following may be included as mobilization and demobilization charge depending on the value of work (i). Upto Rs 5 lakhs @ 10 % subject to maximum of Rs 37500 /- only (ii). Above Rs 5 lakhs Upto Rs 10 lakhs @ 7.5 % subject to maximum of Rs 50000 /- only (iii). Above Rs 10 lakhs @ 5 % subject to maximum of Rs 75000 /- only					

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6.3. CONCRETE WORK

Sr.No.	Item	Rate	Unit
6.3.1	Providing and laying P.C.C with nominal mix of (1: 4 : 8) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr III Taken)	4786.40	Per M ³
6.3.2	Providing and laying P.C.C M-100 with nominal mix of (1: 3 : 6) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr IV Taken)	5070.50	Per M ³
6.3.3	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc complete job as per specifications and direction of F/I (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm to 10 mm Taken)	5406.20	Per M ³
6.3.4	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm to 10 mm Taken)	5893.50	Per M ³
6.3.5	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1:1:2) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm To 10 mm Taken)	7071.60	Per M ³

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6.3.6	Providing and laying P.C.C M-75 with nominal mix of (1: 4 : 8) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr IV Taken)	4825.20	Per M ³
6.3.7	Providing and laying P.C.C M-100 with nominal mix of (1: 3 : 6) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr III Taken)	5109.20	Per M ³
6.3.8	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per design) (Rate of Coarse aggregates 20 mm to 10 mm Taken)	5406.20	Per M ³
6.3.9	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm to 10 mm Taken)	5893.50	Per M ³
6.3.10	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1.1:2) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates 20 mm to 10 mm Taken)	7110.30	Per M ³
6.3.11	Providing and laying R.C.C M-150 with nominal mix of (1: 2 : 4) in deck slab with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5445.30	Per M ³

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6.3.12	Providing and laying R.C.C M-200 with nominal mix of (1:1.5:3) in deck slab with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm to 10 mm Taken)	5932.20	Per M ³
6.3.13	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr IV Taken)	#VALUE!	Per M ³
6.3.14	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete including royalty as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	#VALUE!	Per M ³
6.3.15	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5:3) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc as well as royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete including royalty, as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	#VALUE!	Per M ³
6.3.16	Providing and laying mass concrete of M-250 with nominal mix of (1:1:2) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc as well as royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete including royalty as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	#VALUE!	Per M ³
6.3.17	Providing and laying dry pitching with precast cement concrete block 600 mm x 600 mm x 300 mm size of M-75 with nominal mix of (1:4 8) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well as royalty complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr III Taken)	7036.40	Per M ³

6.3.18	Providing and laying dry pitching with precast cement concrete block 600 mm x 600 mm x 300 mm size of M-100 with nominal mix of (1:3:6) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well as royalty complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr III Taken)	7342.70	Per M ³
6.3.19	Centering and shuttering in major Barrage work involving mass concrete including cost of form work, their carriage from work shop to work site, correction with the help of suitable crane and stripping etc. complete job as per specifications and direction of E/I.	#VALUE!	Per M ²
6.3.20	Providing shuttering including strutting. Propping etc. and its removal after use in foundation work as per specifications and direction of E/I.	522.50	Per M ²
6.3.21	Providing shuttering including strutting. Propping etc. and its removal after use in superstructure portion of various components of dam work. as per specifications and direction of E/I.	522.50	Per M ²
6.3.22	Providing centering including strutting. Propping etc. and removing after use in deck slab as per specifications and direction of E/I.	701.20	Per M ²
6.3.23	Providing M.S reinforcement(Plain steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
	(a).Dia of bar 6 mm	80852.50	Per M.T
	(B).Dia of bar above 6 mm to 12 mm	80852.50	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	80852.50	Per M.T
6.3.24	Providing M.S reinforcement (Tor steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
(a)	T.M.T.GRADE Fe-415- 8 mm	#VALUE!	Per M.T
(b)	T.M.T.GRADE Fe-415- 10 mm	#VALUE!	Per M.T
(c)	T.M.T.GRADE Fe-415- 12 mm	#VALUE!	Per M.T
(d)	T.M.T.GRADE Fe-415- 16 mm	#VALUE!	Per M.T
(e)	T.M.T.GRADE Fe-415- 20 mm	#VALUE!	Per M.T
(f)	T.M.T.GRADE Fe-415- 25 mm	#VALUE!	Per M.T
(g)	T.M.T.GRADE Fe-415- 28 mm	#VALUE!	Per M.T
(h)	T.M.T.GRADE Fe-415- 32 mm	#VALUE!	Per M.T
(i)	T.M.T.GRADE Fe-500- 8 mm	78245.60	Per M.T
(j)	T.M.T.GRADE Fe-500- 10 mm	76608.20	Per M.T
(k)	T.M.T.GRADE Fe-500- 12 mm	75892.10	Per M.T
(l)	T.M.T Fe-500- 16 mm	75892.10	Per M.T
(m)	T.M.T Fe-500- 20 mm	75892.10	Per M.T
(n)	T.M.T Fe-500- 25 mm	75892.10	Per M.T
(o)	T.M.T Fe-500- 28 mm	75892.10	Per M.T
(p)	T.M.T Fe-500- 32 mm	75892.10	Per M.T
(q)	T.M.T Fe-500- 36 mm	#VALUE!	Per M.T
6.3.25	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.	386.80	Per Bags of cement
6.3.26	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in flow and non-over flow of dam section with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.as well as royalty.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.(With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr IV Taken)	3811.30	Per M ³

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6.3.27	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in over flow and non-over flow sectopm of dry intake, structures and bridges etc with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc..as well as royalty but excluding cost of form work etc. wherever provided and removed alter use, all complete as per specifications and direction of E/I. (With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	4141.90	Per M ³
6.3.28	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5 :3) in Dam and Spillways with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.as well as royalty .but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I (With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	4630.40	Per M ³
6.3.29	Providing and laying mass concrete of M-250 with nominal mix of (1: 1 : 2) in Dam , Spillways and Head works with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5764.10	Per M ³

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6.3. CONCRETE WORK

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
6.3.1	Providing and laying P.C.C with nominal mix of (1: 4 : 8) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design) (Rate of Coarse aggregates Gr III Taken)					Analysis same as Item 5.3.2
6.3.2	Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1: 3 : 6) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.					Analysis same as Item 5.3.3
6.3.3	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1: 2 : 4) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.					Analysis same as Item 5.3.4
6.3.4	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.					Analysis same as Item 5.3.5
6.3.5	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1: 1 : 2) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.					Analysis same as Item 5.3.6
6.3.6	Providing and laying P.C.C or R.C.C M-75 with nominal mix of (1: 4 : 8) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.					
	Unit:- Per Cum					
	Assuming out put=2.832 Cum					
	MATERIALS					
	Coarse aggregates Gr IV (Rate of approved quality of aggregate as per Design)	2.718	M ³	1080.50	2936.80	(M-048)
	Sand	1.368	M ³	494.00	675.79	M-004
	Cement	0.34	M ³	7582.35	2578.00	M-1 P
	Total				6190.59	
	Labour					
	Head mason	0.5	nos	428.00	214.00	{SII -3}
	Mason Gr II	1.25	nos	382.00	477.50	{SII-4}

	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Total				4822.50	
	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 M ³ per hour. (vide item 3.25)					
	Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	PM21001
	(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.					
	Used rate per hourx2.832/1.98	1.43	hr	325.00	464.75	PM44001
					869.44	
					11882.53	
	Add Overhead charge & C.P@15%				1782.38	
					13664.91	4825.18
	Rate per cum	Say Rs		4825.20	Per M ³	
6.3.7	Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1:3:6) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=2.832 Cum					
	MATERIALS					
	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)					
		2.66	M ³	1080.50	2874.13	M-035
	Sand	1.330	M ³	494.00	657.02	M-004
	Cement	0.443	M ³	7582.35	3358.98	M-1 P
					6890.13	
	Labour					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1.25	nos	382.00	477.50	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
					4822.50	
	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 M ³ per hour. (vide item 3.25)					
	Used rate per hourx2.832/1.98	1.43	hr	283.00	404.69	PM21001
	(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.					
	Used rate per hourx2.832/1.98	1.43	hr	325	464.75	PM44001
	Total				12582.07	
	Add Overhead charge & C.P@15%				1887.31	
					14469.38	5109.25
	Rate per cum	Say Rs		5109.20	Per M ³	
6.3.8	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job , as per specifications and direction of E/I.					
	Analysis same as Item 5.3.9					

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6.3.9	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1: 1.5 : 3) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.	Analysis same as Item 5.3.10			
6.3.10	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1: 1 : 2) in various components of Barrage superstructure with approved quality of gravel coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.				
Unit: Per Cum					
Assuming out put=2.832 Cum					
MATERIALS					
Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)					
	2.40	M ³	886.00	2126.40	M-044
Sand	1.20	M ³	494.00	592.80	M-004
Cement	1.20	M ³	7582.35	9098.82	M-1 P
				11818.02	
Labour					
Head mason	0.5	nos	428.00	214.00	{S II -3}
Mason Gr II	1.25	nos	382.00	477.50	{S II -4}
Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
Bhisti	1	nos	315.00	315.00	S II-13
				4822.50	
HIRE CHARGES OF MACHINE					
(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basic of mixer production capacity 1.98 M ³ per hour. (vide item 3.25)					
	Used rate per hour X 2.832/1.98	1.43	hr	283.00	404.69 PM 21001
(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour.					
	Used rate per hour X 2.832/1.98	1.43	hr	325.00	464.75 PM 44001
Total				17509.96	
Add Overhead charge & C.P@15%				2626.49	
				20136.46	7110.33
Rate per cum		Say Rs		7110.30	Per M ³
6.3.11	Providing and laying R.C.C M-150 with nominal mix of (1: 2 : 4) in deck slab with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc complete job as per specifications and direction of E/I.	Analysis same as Item 5.3.12			
6.3.12	Providing and laying R.C.C M-200 with nominal mix of (1: 1.5 : 3) in deck slab with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened excluding cost of shuttering or form work as well as reinforcement its cutting, bending, binding, and placing but including necessary tools and plants, vibrating, curing, royalty etc. complete job as per specifications and direction of E/I.	Analysis same as Item 5.3.13			

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6.3.13	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in flow and non-over flow of dam section with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					
		Unit:-Per Cum				
		Taking Out put=1.00 Cum				
	MATERIALS					
	Coarse aggregates Gr IV. (Rate of approved quality of aggregate as per Design)	0.94	M ³	1080.50	1015.67	M-046
	Sand	0.470	M ³	494.00	232.18	M-004
	Cement	0.157	M ³	7582.35	1190.43	M-1 P
(B)	(a). Batching and mixing charge					
	Use rate of Batching and mixing plant (vide item 3.13a)	3635.00				PM 19002
	Batching and mixing plant capacity 26.76 cum (35 cuyd)	26.76	cum			
	(Taking job management factor as 0.69)	0.69				
	Rate per cum= Use rate/26.76*0.69	93.73			93.73	
	(b) Transport of concrete by 3.06 cum (4 cuyd) buckets hauled by 5 T Diesel Locomotive from batching and mixing plant to pick up point	3.06	cum			
	Average lead= 1.0 Km	1.00	Km			
	Hauling Cycle time					
	Ideal production at Batching plant=57.34 cum (75 cuyd)	57.34	cum			
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
	i. Loading time of a Train =3.06 x2 x60/39.56 =9.28 minutes	9.28	minute			
	ii. spotting time and waiting time =	1.50	minutes			
	iii. Turning and unloading time	9.28	minutes			
	iv. Empty haul @6.00 K.M per hour =Average Leadx60/6	10.00	minutes			
	v. Loaded haul @ 6.00 K.M per hour =Average Leadx60/6	10.00	minutes			
	Total hauling cycle time=(i +ii+iii+iv+v)	40.06	minutes			
	No of trips in 50 cum in working	1.25				
	Output of one train with 2 buckets per hr	7.65	cum			
	Use rate of Diesel Locomotive (Vide item 3.17a)	#VALUE!				
	Use rate of concrete buckets 2.nos (Vide item 3.30a)	172.00				PM 64001
	Total use rate	#VALUE!				
	Transport rate per cum= Total use rate/7.65	#VALUE!			#VALUE!	
	(c). Placement of concrete by Hammer Head Crane					
	Use rate per cum (vide item 3.20 b)	765.00				PM63002
	Output of crane per hour (production) using 2 no Bucates of 3.06 cum (4 cuyd) capacity each	3.06	cum			
	(Taking job management factor as 0.69)	0.69				
	Ideal production =57.34 cum (75 cuyd)	57.34	cum			
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
	Rate per cum= Use rate/39.56	1.00	cum	19.34	19.34	
	(d). Vibrating the concrete.	0.07	day	2600.00	182.00	PM44001
					#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	
	Rate per cum	Say Rs		#VALUE!	Per M ³	
6.3.14	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in over flow and non-over flow section of dry intake, structures and bridges etc with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					

		Unit:-Per Cum					
		Taking Out put=1.00Cum					
A	MATERIALS						
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	0.90	M ³	886.00	797.40	M 044	
	Sand	0.450	M ³	494.00	222.30	M-004	
	Cement	0.225	M ³	7582.35	1706.03	M-I P	
(B)	(a). Batching and mixing charge						
	Use rate of Batching and mixing plant (vide item 3.13a)	3635.00					PM19002
	Batching and mixing plant capacity 26.76 cum (35 cuyd)	26.76	cum				
	(Taking job management factor as 0.69)	0.69					
	Rate per cum= Use rate/26.76*0.69	93.73			93.73		
	(b) Transport of concrete by 3.06 cum (4 cuyd) buckets hauled by 5 T Diesel Locomotive from batching and mixing plant to pick up point	3.06	cum				
	Average lead= 1.0 Km	1.00	Km				
	Hauling Cycle time						
	Ideal production at Batching plant=57.34 cum (75 cuyd)	57.34	cum				
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum				
	i. Loading time of a Train =3.06 x2 x60/39.56 =9.28 minutes	9.28	minute				
	ii. spotting time and waiting time =	1.50	minutes				
	iii. Turning and unloading time	9.28	minutes				
	iv. Empty haul @6.00 K M per hour =Average Leadx60/6	10.00	minutes				
	v. Loaded haul @ 6.00 K.M per hour =Average Leadx60/6	10.00	minutes				
	Total hauling cycle time=(i +ii+iii+iv+v)	40.06	minutes				
	No of trips in 50 cum in working	1.25					
	Output of one train with 2 buckets per hr	7.65	cum				
	Use rate of Diesel Locomotive (Vide item 3.17a)	#VALUE!					
	Use rate of concrete buckets 2.nos (Vide item 3.30a)	172.00					PM64001
	Total use rate	#VALUE!					
	Transport rate per cum= Total use rate/7.65	#VALUE!			#VALUE!		
	(c). Placement of concrete by Hammer Head Crane						
	Use rate per cum (vide item 3.20 b)	765.00					PM63002
	Output of crane per hour (production) using 2 no Bucates of 3.06 cum (4 cuyd) capacity each	3.06	cum				
	(Taking job management factor as 0.69)	0.69					
	Ideal production =57.34 cum (75 cuyd)	57.34	cum				
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum				
	Rate per cum= Use rate/39.56	1.00	cum	19.34	19.34		
	(d). Vibrating the concrete.	0.07	day	2600	182.00		PM44001
					#VALUE!		
	Add Overhead charge & C P@15%				#VALUE!		
					#VALUE!		
	Rate per cum	Say Rs		#VALUE!	Per M ³		

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6.3.15	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5 :3) in Dam and Spillways with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					
		Unit -Per Cum Taking Out put=1.00Cum				
(A)	MATERIALS					
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	0.860	M ³	886.00	761.96	M-044
	Sand	0.430	M ³	494.00	212.42	M-004
	Cement	0.287	M ³	7582.35	2176.14	M-1 P
(B)	(a). Batching and mixing charge					
	Use rate of Batching and mixing plant (vide item 3.13a)	3635.00				PM19002
	Batching and mixing plant capacity 26.76 cum (35 cuyd)	26.76	cum			
	(Taking job management factor as 0.69)	0.69				
	Rate per cum= Use rate/26.76*0.69	93.73			93.73	
	(b) Transport of concrete by 3.06 cum (4 cuyd) buckets hauled by 5 T Diesel Locomotive from batching and mixing plant to pick up point	3.06	cum			
	Average lead= 1.0 Km	1.00	Km			
	Hauling Cycle time					
	Ideal production at Batching plant=57.34 cum (75 cuyd)	57.34	cum			
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
	i. Loading time of a Train =3.06 x2 x60/39.56 =9.28 minutes	9.28	minute			
	ii. spotting time and waiting time =	1.50	minutes			
	iii. Turning and unloading time	9.28	minutes			
	iv. Empty haul @6.00 K.M per hour =Average Leadx60/6	10.00	minutes			
	v. Loaded haul @ 6.00 K.M per hour =Average Leadx60/6	10.00	minutes			
	Total hauling cycle time=(i +ii+iii+iv+v)	40.06	minutes			
	No of trips in 50 cum in working	1.25				
	Output of one train with 2 buckets per hr	7.65	cum			
	Use rate of Diesel Locomotive (Vide item 3.17a)	#VALUE!				
	Use rate of concrete buckets 2.105 (Vide item 3.30a)	172.00				PM64001
	Total use rate	#VALUE!				
	Transport rate per cum= Total use rate/7.65	#VALUE!			#VALUE!	
	(c). Placement of concrete by Hammer Head Crane					
	Use rate per cum (vide item 3.20 b)	765.00				PM63002
	Output of crane per hour (production) using 2 no Bucates of 3.06 cum (4 cuyd) capacity each	3.06	cum			
	(Taking job management factor as 0.69)	0.69				
	Ideal production =57.34 cum (75 cuyd)	57.34	cum			
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
	Rate per cum= Use rate 39.56	19.34			19.34	
	(d). Vibrating the concrete.	0.07	day	2600.00	182.00	PM44001
					#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	
	Rate per cum	Say Rs		#VALUE!	Per M ³	
6.3.16	Providing and laying mass concrete of M-200 with nominal mix of (1: 1 : 2) in Dam , Spillways and Head works with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, pre cooling etc. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					
		Unit -Per Cum Taking Out put=1.00 Cum				

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A	MATERIALS					
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	0.84	M ³	886.00	744.24	M-044
	Sand	0.420	M ³	494.00	207.48	M-004
	Cement	0.42	M ³	7582.35	3184.59	M-1 P
(B)	(a) Batching and mixing charge					
	Use rate of Batching and mixing plant (vide item 3.13a)	3635.00				PM19002
	Batching and mixing plant capacity 26.76 cum (35 cuyd)	26.76	cum			
	(Taking job management factor as 0.69)	0.69				
	Rate per cum= Use rate/26.76*0.69	93.73			93.73	
	(b) Transport of concrete by 3.06 cum (4 cuyd) buckets hauled by 5 T Diesel Locomotive from batching and mixing plant to pick up point	3.06	cum			
	Average lead= 1.0 Km	1.00	Km			
	Hauling Cycle time:					
	Ideal production at Batching plant=57.34 cum (75 cuyd)	57.34	cum			
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
	i.Loading time of a Train =3.06 x2 x60/39.56 =9.28 minutes	9.28	minute			
	ii.spolling time and waiting time =	1.50	minutes			
	iii.Turning and unloading time	9.28	minutes			
	iv.Empty haul @6.00 K.M per hour =Average Leadx60/6	10.00	minutes			
	v.Loaded haul @ 6.00 K.M per hour =Average Leadx60/6	10.00	minutes			
	Total hauling cycle time=(i +ii+iii+iv+v)	40.06	minutes			
	No of trips in 50 cum in working	1.25				
	Output of one trian with 2 buckets per hr	7.65	cum			
	Use rate of Diesel Locomotive (Vide item 3.17a)	#VALUE!				
	Use rate of concrete buckets 2.nos (Vide item 3.30a)	172.00				PM64001
	Total use rate	#VALUE!				
	Transport rate per cum= Total use rate/7.65	#VALUE!			#VALUE!	
	(c) Placement of concrete by Hammer Head Crane					
	Use rate per cum (vide Item 3.20 b)	765.00				PM63002
	Output of crane per hour (production) using 2 no Bucates of 3.06 cum (4 cuyd) capacity each	3.06	cum			
	(Taking job management factor as 0.69)	0.69				
	Ideal production =57.34 cum (75 cuyd)	57.34	cum			
	Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
	Rate per cum= Use rate/39.56	1.00	cum	19.34	19.34	
	(d). Vibrating the concrete.	0.07	day	2600	182.00	M44001
					#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	
	Rate per cum	Say Rs		#VALUE!	Per M ³	
6 3.17	Providing and laying dry pitching with precast cement concrete block 600 mm x 600 mm x 300 mm size of M-75 with nominal mix of (1:4:8) in floor and flank wall with approved quality of graded coarse aggregate of required grade(as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well as royalty complete job as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Taking Out put=2.832 Cum					

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A	MATERIALS					
	Coarse aggregates Gr III (Rate of approved quality of aggregate as per Design)	2.720	M ³	1080.50	2938.96	M-035
	Sand	1.360	M ³	494.00	671.84	M-004
	Cement	0.34	M ³	7582.35	2578.00	M-1 P
					6188.80	A
B	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	302.00	{S II -4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Unskilled mazdoor for placing blocks in position	4	nos	318.00	1272.00	{SI-1}
					5999.00	B
C	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hrs	283.00	404.69	PM 21001
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hrs	325.00	464.75	PM44001
					869.44	C
D	SHUTTERING CHARGES					
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000 Add 1 % for cost of nails and spikes	0.51	M ³	26000.00	13260.00	BCD-1198
					132.60	
	LABOUR for shuttering					
	Carpenter Gr II	3	nos	382.00	1146.00	{S I -17}
	Unskilled mazdoor	8	nos	318.00	2544.00	{SI-1}
	Total cost of Shuttering				17082.60	
	Assuming 4 uses to calculate Cost of Shuttering for 2.832 Cum=total cost/4				4270.65	D
	Total Cost =A+B+C+D				17327.89	
	Add Overhead charge & C.P@15%				2599.18	
					19927.07	7036.40
	Rate per cum	Say Rs		7036.40	Per M ³	
6.3.18	Providing and laying dry pitching with precast cement concrete block 600 mm x 600 mm x 300 mm size of M-100 with nominal mix of (1:3:6) in floor and flank wall with approved quality of graded coarse aggregate of required grade (as per design) and approved quality of sand of requisite F.M washed and screened including necessary form work, tools and plants, vibrating, curing as well royalty complete job as per specifications and direction of E/I					
	Unit:- Per Cum Taking Out put=2.832 Cum					
A	MATERIALS					
	Coarse aggregates GR III (Rate of approved quality of aggregate as per Design)	2.66	M ³	1080.50	2874.13	M-035
	Sand	1.33	M ³	494.00	657.02	M-004
	Cement	0.45	M ³	7582.35	3412.06	M-1 P
					6943.21	A
B	LABOUR					
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1	nos	382.00	382.00	{S II -4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisti	1	nos	315.00	315.00	S II-13
	Unskilled mazdoor for placing blocks in position	4	nos	318.00	1272.00	{SI-1}
					5999.00	B
C	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consists on the basic of mixer production capacity 1.98 m3 per hour. Used rate per hourx2.832/1.98	1.43	hrs	283.00	404.69	PM21001
	(ii) Vibrator 1no. To vibrate 2.832 cum on the basic of vibrator capacity 1.98 cum per hour. Used rate per hourx2.832/1.98	1.43	hrs	325.00	464.75	PM44001
					869.44	C

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D	SHUTTERING CHARGES					
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000 0.51M3 @Rs11075.00	0.51	PerM ³	26000.00	13260.00	BCD-1198
	Add 1 % for cost of nails and spikes				132.60	
	LABOUR					
	Carpenter Gr II	3	nos	382.00	1146.00	(S I -17)
	Unskilled mazdoor	8	nos	318.00	2544.00	(SI-1)
	Total cost of Shuttering				17082.60	
	Assuming 4 uses to calculate					
	Cost of shuttering for 2.832 cum total cost/4				4270.65	D
	TOTAL Cost=A+B+C+D				18082.30	
	Add overhead charges & C.P @15%				2712.34	
					20794.64	
	Rate per cum	Say Rs		7342.70	Per M ³	
6.3.19	Centering and shuttering in major Barrage work involving mass concrete including cost of form work, their carriage from work shop to work site, erection with the help of suitable crane and stripping etc complete job as per specifications and direction of E/I.					
	Brief specification					
	Heavir type steel shuttering for use in dams					
	Working with suitable crane					
	Shuttering once manufactured shall be used thirty four times.					
	Materials (for 100 sqm).					
	(A) Materials (for 100 sqm).					
	M.S. plates 3 mm thick	57	kg	#VALUE!	#VALUE!	
	M.S. plates 2 mm thick	23	kg	#VALUE!	#VALUE!	
	M.S. plates 60x60x10 mm thick	47	kg	#VALUE!	#VALUE!	
	M.S. plates 65x45x8 mm thick	20	kg	#VALUE!	#VALUE!	
	M.S. channel 125 x 50 mm	82	kg	#VALUE!	#VALUE!	
	M.S. channel 150x55 mm	42	kg	#VALUE!	#VALUE!	
	M.S. channel 100x45 mm	30	kg	#VALUE!	#VALUE!	
	M.S. plates 63x6 mm	22	kg	#VALUE!	#VALUE!	
	G.I pipe 50 mm dia	3.5	M	360.00	1260.00	BCD 1550
	Nuts and bolts 10 mm dia and 85 mm long(31 nos)	4.5	kg	69.15	311.18	M-129
	Slotted pins and wedges 10 mm dia and 60 mm long	30	nos	#VALUE!	#VALUE!	
	Tube and nuts 25 mm dia and above	26	nos	#VALUE!	#VALUE!	
	Total of materials cost				#VALUE!	
	Deduct salvage @ 20 % of the above sub total				#VALUE!	
	Net total cost of materials				#VALUE!	
	Additional materials (per 50 % sqm)	50	%		#VALUE!	
	M.S. rods 16 mm and 25 mm dia for anchorage 24 kg	24	kg	58.60	1406.40	M-125
	Linseed oil @ 8 litres per % sqm	8	lit	200.00	1600.00	BCD-0818
	Sub Total of materials				#VALUE!	
	(B). Transportation and fabrication (per % sqm)					
	i. Transportation shuttering from work shops to work site including loading, unloading for lead below 5 km @ 5% of sub Total of materials cost at sl (A)				#VALUE!	
	ii. Fabrication charge including cutting, welding, marking and oil other operations @ 90 % of the materials item 1 to 12				#VALUE!	
	Total transportation and fabrication charge per sqm.				#VALUE!	
	(C). Machinery charge					
	Taking in output of crane / hr	8.33	sqm			
	Hourly use rate of crane	765.00				PM63002
	Machinery charge per sqm = Use rate of crane x 100 / 8.33				9183.67	
	(D). Labour charge					
	Foreman	0.25	nos	539.00	134.75	(SII-54)
	Semi Skilled mazdoor	20	nos	403.00	8060	(SII-70)
	Carpenters Gr II	4	nos	382.00	1528	(S I -17)
	Total				9722.75	
	Total Of A+B+C				#VALUE!	
	Add Overhead charge & C.P@15%		%		#VALUE!	
					#VALUE!	
	Rate per sqm	Say Rs		#VALUE!	Per M ²	
6.3.20	Providing shuttering including structting proping etc. and its removal after use in foundation work as per specifications and direction of E/I.					Analysis same as Item 5.3.18

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6.3.21	Providing shuttering including structling. Proping etc. and its removal after use in superstructure portion of various components of Barrage work as per specifications and direction of E/I.	Analysis same as Item 5.3.19				
6.3.22	Providing centering including strutting. Proping etc. and removing after use in deck slab as per specifications and direction of E/I.					
	(Assuming size in slab 7.32 x 3.05 =22.326 sqm)					
A.	MATERIALS					
	a. 40 mm thick local wood planks 22.326 x40 / 1000					
	=0.85					
	Add 5 % for wastages =0.04					
	=0.89					
	Assuming 4 uses to calculate					
	Cost of planks per use =0.89 x rate of local wood /4	0.89	cum	26000.00	5785.00	BCD-1198
	b. Assuming av. Hight of slab from G.L=3.66 M					
	150 mm salbullah required =78 nos					
	Length of sal bullah =78 x3.66 =285.48 Mtr					
	(Assuming sal bullah to be used 10 times for centerins					
	=285.48 x Rate per Mtr / 10	285.48	mtr	70.57	2014.63	WRD-MSL223
	c. Salwood scanting required (75 mm x 63 mm size) =0.311 cum					
	(Assuming 10 uses)					
	Cost per use =0.311 x Rate per Mtr/10	0.311	cum	60000.00	1866.00	BCD-1199
	Total				9665.63	
	Add 1 % for cost of nails and spikes				96.66	
					9762.29	(A)
B.	LABOUR					
	Carpenter Gr II	4	nos	382.00	1528.00	{SI-17}
	Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
					3754.00	(B)
C.	Carriage of materials					
	Cost of the carriage of materials from Godown and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materials				96.66	(C)
	TOTAL cost per 22.326 sqm =A+B+C				13612.95	
	Add Overhead charge & C.P@15%				2041.94	
					15654.89	701.20
	Rate per sqm	Say Rs		701.20	Per M ²	
6.3.23	Providing M.S reinforcement(Plain steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position etc. complete job as per specifications and direction of E/I.	Analysis same as Item 5.3.21				
6.3.24	Providing M.S reinforcement (Tor steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I	Analysis same as Item 5.3.22				
6.3.25	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.					
	Unit:-Per Bag of Cement					
	Taking Out put=1.0 Bag					
	(A) Cost of 1.05 bag of cement at site including 5 % wastage and incidental charge	0.0357	Cum	7582.35	270.69	M-1 P
	(B) Grouting					
	I. Hourly use rate of grouting machine	525.00				PM60001
	Taking progress of grouting 8 bags of cement per hour	8	Bags			
	Cost of Grouting= use rate/8	1	Bags	65.625	65.63	
					336.32	
	Add Overhead charge & C.P@15%				50.45	
					386.76	386.76
	Rate per bag of Cement	Say Rs		386.80	Per Bag of cement	

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6.3.26	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing as well royalty etc. but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					
	With Batching Plant, Transit Mixer And Concrete Pump					
	Unit:-Per Cum					
	Taking Out put=1.0 Cum					
	MATERIALS					
	Coarse aggregates Gr IV (Rate of approved quality of aggregate as per Design)	0.94	M ³	1080.50	1015.67	M-048
	Sand	0.470	M ³	494.00	232.18	M-004
	Cement	0.157	M ³	7582.35	1190.43	M-1 P
					2438.28	
	(b) LABOURS					
	Mate	0.01	nos	343.00	3.43	S II-2
	Mason	0.03	nos	382.00	11.46	S II-4
	Mazdoor	0.15	nos	318.00	47.70	SII-1
					62.59	
	c) Machinery					
	Batching Plant @ 20 cum/hour	0.05	hr	3635.00	181.75	PM19002
	Generator 100 KVA	0.05	hr	1359.00	67.95	PM22006
	Loader 1 cum capacity	0.05	hr	1366.00	68.30	PM5003
	Transit Mixer 4 cum capacity for lead up to 1 km.	0.13	hr	1860.00	241.80	PM34001
	Lead beyond 1 km, L-lead in km	2.50	t km	9.41	23.53	PM75001
	Concrete Pump	0.05	hr	960.00	48.00	PM35001
					631.33	
	(d). Vibrating the concrete.	0.07	day	2600.00	182.00	PM44001
					3314.19	
	Add Overhead charge & C.P@15%				497.13	
					3811.32	3811.32
	Rate per cum	Say Rs.		3811.30	Per M ³	
6.3.27	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty etc. but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					
	With Batching Plant, Transit Mixer And Concrete Pump					
	Unit:-Per Cum					
	Taking Out put=1.0 Cum					
	MATERIALS					
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	0.90	M ³	886.00	797.40	M-044
	Sand	0.450	M ³	494.00	222.30	M-004
	Cement	0.225	M ³	7582.35	1706.03	M-1 P
					2725.73	
	(b) LABOURS					
	Mate	0.01	nos	343.00	3.43	S II-2
	Mason	0.03	nos	382.00	11.46	S II-4
	Mazdoor	0.15	nos	318.00	47.70	SII-1
					62.59	
	c) Machinery					
	Batching Plant @ 20 cum/hour	0.05	hr	3635.00	181.75	PM19002
	Generator 100 KVA	0.05	hr	1359.00	67.95	PM22006
	Loader 1 cum capacity	0.05	hr	1366.00	68.30	PM5003
	Transit Mixer 4 cum capacity for lead upto 1 km.	0.13	hr	1860.00	241.80	PM34001
	Lead beyond 1 km, L-lead in km	2.50	t km	9.41	23.53	PM75001
	Concrete Pump	0.05	hr	960.00	48.00	PM35001
					631.33	
	(d). Vibrating the concrete.	0.07	day	2600.00	182.00	PM44001

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				3601.64	
	Add Overhead charge & C.P@15%			540.25	
				4141.89	4141.89
	Rate per cum	Say Rs	4141.90	Per M ³	
6.3.28	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5:3) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty, but excluding the cost of form work etc. wherever provided and removed after use, all complete including royalty as per specifications and direction of F/I				
	With Batching Plant, Transit Mixer And Concrete Pump				
	Unit:-Per Cum				
	Taking Out put=1.0 Cum				
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	0.86	M ³	886.00	761.96 M-044
	Sand	0.430	M ³	494.00	212.42 M-004
	Cement	0.287	M ³	7582.35	2176.14 M-1 P
				3150.52	
	(b) LABOURS				
	Mate	0.01	nos	343.00	3.43 S II-2
	Mason	0.03	nos	382.00	11.46 S II-4
	Mazdoor	0.15	nos	318.00	47.70 S II- I
				62.59	
	c) Machinery				
	Batching Plant @ 20 cum/hour	0.05	hr	3635.00	181.75 PM19002
	Generator 100 KVA	0.05	hr	1359.00	67.95 PM22006
	Loader 1 cum capacity	0.05	hr	1366.00	68.30 PM5003
	Transit Mixer 4 cum capacity for lead upto 1 km	0.13	hr	1860.00	241.80 PM34001
	Lead beyond 1 km, L-lead in km	2.50	t km	9.41	23.53 PM75001
	Concrete Pump	0.05	hr	960.00	48.00 PM35001
				631.33	
	(d). Vibrating the concrete.	0.07	day	2600.00	182.00 PM44001
				4026.43	
	Add Overhead charge & C.P@15%			603.96	
				4630.39	4630.39
	Rate per cum	Say Rs	4630.40	Per M ³	
6.3.29	Providing and laying mass concrete of M-250 with nominal mix of (1:1:2) in Barrage with approved quality of graded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well as royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.				
	With Batching Plant, Transit Mixer And Concrete Pump				
	Unit:-Per Cum				
	Taking Out put=1.0 Cum				
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm) (Rate of approved quality of aggregate as per Design)	0.84	M ³	886.00	744.24 M-044
	Sand	0.420	M ³	494.00	207.48 M-004
	Cement	0.42	M ³	7582.35	3184.59 M-1 P
				4136.31	
	(b) LABOURS				
	Mate	0.01	nos	343.00	3.43 S II-2
	Mason	0.03	nos	382.00	11.46 S II-4
	Mazdoor	0.15	nos	318.00	47.70 SII-I
				62.59	
	c) Machinery				
	Batching Plant @ 20 cum/hour	0.05	hr	3635.00	181.75 PM19002
	Generator 100 KVA	0.05	hr	1359.00	67.95 PM22006
	Loader 1 cum capacity	0.05	hr	1366.00	68.30 PM5003
	Transit Mixer 4 cum capacity for lead upto 1 km.	0.13	hr	1860.00	241.80 PM34001
	Lead beyond 1 km, L-lead in km	2.50	t km	9.41	23.53 PM75001

Concrete Pump	0.05	hr	960.00	48.00	PM35001
				631.33	
(d). Vibrating the concrete.	0.07	day	2600.00	182.00	PM44001
				5012.22	
Add Overhead charge & C.P@15%				751.83	
				5764.06	5764.06
Rate per cum	Say Rs		5764.10	Per M ³	

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6.4 MASONRY WORK

Sr.No	Item	Rate	Uni
6.4.1	Brick work in designation 100 A Brick with cement motar (1 : 3) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	5047.80	Per M ³
6.4.2	Brick work in designation 100 A Brick with cement motar(1 : 4) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royaltocomplete job as per specification and direction of E / I.	4909.90	Per M ³
6.4.3	Brick work in designation 100A Brick with cement motar (1 : 5) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	4792.80	Per M ³
6.4.4	Brick work in designation 100 A Brick with cement motar (1:3) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	5177.00	Per M ³
6.4.5	Brick work in designation 100 A Brick with cement motar (1 : 4) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required. including royalty complete job .as per specification and direction of E / I.	5039.10	Per M ³
6.4.6	Brick work in designation 100 A Brick with cement motar (1 : 5) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	4921.90	Per M ³
6.4.7	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E/I.	3106.10	Per M ³
6.4.8	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E/I.	2904.60	Per M ³
6.4.9	Providing rough dressed random rubble stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E/I.	2781.20	Per M ³
6.4.10	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	3267.50	Per M ³

Per

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6.4.11	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	3066.00	Per M ³
6.4.12	Providing rough dressed random rubble stone masonry in cement mortar (1.5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E/I.	2942.60	Per M ³
6.4.13	Providing rough dressed coarse rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	3267.50	Per M3
6.4.14	Providing rough dressed coarse rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I	3066.00	Per M3
6.4.15	Providing rough dressed coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I	2942.60	Per M3

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6. 4 MASONARY WORK

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
6.4.1	Brick work in designation 100 A Brick with cement mortar (1 : 3) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.1
6.4.2	Brick work in designation 100 A Brick with cement mortar (1 : 4) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc complete job as per specification and direction of E / I.					Analysis same as Item 5.4.2
6.4.3	Brick work in designation 100 A Brick with cement mortar (1 : 5) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.3
6.4.4	Brick work in designation 100 A Brick with cement mortar (1 : 3) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required complete job including royalty etc. as per specification and direction of E / I.					Analysis same as Item 5.4.5
6.4.5	Brick work in designation 100 A Brick with cement mortar (1 : 4) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.					Analysis same as Item 5.4.6
6.4.6	Brick work in designation 100 A Brick with cement mortar (1 : 5) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required complete job including royalty as per specification and direction of E / I.					Analysis same as Item 5.4.7
6.4.7	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required complete job including royalty as per specification and direction of E / I.					Analysis same as Item 5.4.9
6.4.8	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.10
6.4.9	Providing rough dressed random rubble stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.					Analysis same as Item 5.4.11
6.4.10	Providing rough dressed random/coursed rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.12
6.4.11	Providing rough dressed random /coursed rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.13
6.4.12	Providing rough dressed random/coursed rubble stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.14

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6.4.13	Providing rough dressed coarse rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	Analysis same as Item 5.4.15
6.4.14	Providing rough dressed coarse rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	Analysis same as Item 5.4.16
6.4.15	Providing rough dressed coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	Analysis same as Item 5.4.17

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6.5. PLASTER WORK

Sr.No.	Item	Rate	Unit
6.5.1	Providing 12 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal royalty etc. complete job as per specification and direction of E / I.	173.90	Per M ²
6.5.2	Providing 12 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal royalty etc. complete job as per specification and direction of E / I.	165.90	Per M ²
6.5.3	Providing 12 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M., washed and screened, including curing, scaffolding wherever required and its removal royalty etc. complete job as per specification and direction of E / I.	160.50	Per M ²
6.5.4	Providing 25 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job including as per specification and direction of E / I.	283.60	Per M ²
6.5.5	Providing 25 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty complete job as per specification and direction of E / I.	269.00	Per M ²
6.5.6	Providing 25 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty complete job as per specification and direction of E / I.	253.40	Per M ²
6.5.7	Providing 12 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty complete job as per specification and direction of E / I.	184.30	Per M ²
6.5.8	Providing 25 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty complete job as per specification and direction of E / I.	304.40	Per M ²
6.5.9	Providing 25 mm thick water proof cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal. royalty complete job as per specification and direction of E / I.	289.80	Per M ²
6.5.10	Providing 1.5 mm thick cement punning including curing, royalty complete job as per specification and direction of E / I.	49.90	Per M ²
6.5.11	Providing cement ruled pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.	165.00	Per M ²
6.5.12	Providing cement flush pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc., complete job as per specification and direction of E / I.	121.70	Per M ²

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6.5.13	Providing cement truck pointing (1:3) on Brick work with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc.. complete job as per specification and direction of E / I.	179.50	Per M ²
6.5.14	Providing cement truck pointing (1:3) on stone masonry with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc.. complete job as per specification and direction of E / I.	232.40	Per M ²

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6.5 PLASTER WORK

Sl.no.	Description	Quantity	Unit	Rate	Amount	Ref.
6.5.1	Providing 12 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.1
6.5.2	Providing 12 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.2
6.5.3	Providing 12 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.3
6.5.4	Providing 25 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.4
6.5.5	Providing 25 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.5
6.5.6	Providing 25 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, complete job including royalty etc. as per specification and direction of E / I.					Analysis same as Item 5.5.6
6.5.7	Providing 12 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty complete job as per specification and direction of E / I.					Analysis same as Item 5.5.7
6.5.8	Providing 25 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.8
6.5.9	Providing 25 mm thick water proof cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.9
6.5.10	Providing 15 mm thick cement punning including curing, royalty etc. complete job including royalty etc. as per specification and direction of E / I.					Analysis same as Item 5.5.10
6.5.11	Providing cement ruled pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.11
6.5.12	Providing cement flush pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.12
6.5.13	Providing cement truck pointing (1:3) on Brick work with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, complete job including royalty etc. as per specification and direction of E / I.					Analysis same as Item 5.5.13
6.5.14	Providing cement truck pointing (1:3) on stone masonry with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.14

6.6 PITCHING & PILING

Sr.No.	Item	Rate	Unit
6.6.1	Labour for laying dry graded jhama khoa or stone filler under brick pitching or boulder pitching in slope or apron including light ramming etc.all complete job as per specification and direction of E / I.	387.40	Per M ³
6.6.2	Labour for laying sand filter under brick pitching or boulder pitching in slope or apron including light ramming etc.all complete job as per specification and direction of E / I.	387.40	Per M ³
6.6.3	Providing pitching work with designation 100A bricks in panel in herring bond pattern one brick on edge over a brick flat soling filled with local sand free from clay contents including royalty as per approved design, specifications and direction of E/I	749.80	Per M ²
6.6.4	Providing pitching work with designation 100A bricks in panel two brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty as per approved design, specifications and direction of E/I	1257.00	Per M ²
6.6.5	Providing Brick flat soling work with designation 100A bricks joints filled with local sand free from clay contents including royalty as per approved design, specifications and direction of E/I	290.60	Per M ²
6.6.6	Labour charge for pitching with stone boulder duly packed in slope and apron with materials within 150 meter of work site and all lifts as per approved design, specifications and direction of E/I	928.30	Per M ²
6.6.7	Providing and laying coarse clean sand in filling in foundation trenches including ramming as well as royalty as per approved design, specifications and direction of E/I	293.90	Per M ³

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6.6 PITCHING & PILING

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
6.6.1	Labour for laying dry graded jhama khoa or stone filter under brick pitching or boulder pitching in slope or apron including light ramming etc.all complete job as per specification and direction of E/I.					
	Unit:-Per Cum Taking Out put=2.832 Cum					
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Add Overhead charge & C.P@15%				954.00	
					143.10	
					1097.10	387.39
	Rate per cum	Say Rs		387.40	Per M ³	
6.6.2	Labour for laying sand filter under brick pitching or boulder pitching in slope or apron including light ramming etc.all complete job as per specification and direction of E/I.					
	Unit:-Per Cum Taking Out put=2.832 Cum					
	Unskilled mazdoor	3	nos	318.00	954.00	{SI-1}
	Add Overhead charge & C.P@15%				954.00	
					143.10	
					1097.10	387.39
	Rate per cum	Say Rs		387.40	Per M ³	
6.6.3	Providing pitching work with designation 100A bricks in panel in herring bond pattern one brick on edge over a brick flat soling filled with local sand free from clay contents including royalty etc as per approved design, specifications and direction of E/I					
	Unit:-Per Sqm Taking Out put=9.30 Sqm					
	Materials					
	Bricks	800	per 1000 nos	6069.00	4855.20	M-11
	Local Sand	0.43	M ³	143.32	61.63	M-006
	Labour					
	Mason Gr II	1.13	nos	382.00	431.66	S II-4
	Unskilled mazdoor	2.25	nos	318.00	715.50	{SI-1}
	Add Overhead charge & C.P@15%				6063.99	
					909.60	
					6973.59	749.85
	Rate per sqm	Say Rs		749.80	Per M ²	
6.6.4	Providing pitching work with designation 100A bricks in panel two brick on edge over a brick flat soling joints filled with local sand free from clay contents including royalty as per approved design, specifications and direction of E/I					
	Unit:-Per Sqm Taking Out put=9.30 Sqm					
	Materials					
	Bricks	1300	per 1000 Nos	6069.00	7889.70	M-11
	Local Sand	0.56	M ³	143.32	80.26	M-006
	Labour					
	Mason Gr II	2	nos	382.00	764.00	S II-4
	Unskilled mazdoor	4.50	nos	318.00	1431.00	{SI-1}
	Add Overhead charge & C.P@15%				10164.96	
					1524.74	
					11689.70	1256.96
	Rate per sqm	Say Rs		1257.00	Per M ²	
6.6.5	Providing Brick flat soling work with designation 100A bricks joints filled with local sand free from clay contents including royalty etc. as per approved design, specifications and direction of E/I					
	Unit:-Per Sqm Taking Out put=9.30 Sqm					
	Materials					
	Bricks	300	per 1000 Nos.	6069.00	1820.70	M-11

	Local Sand	0.142	M ³	143.32	20.35	M-006
	Labour					
	Mason Gr II	0.50	nos	382.00	191.00	S II-4
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					2350.05	
	Add Overhead charge & C.P@15%				352.51	
					2702.56	290.60
	Rate per sqm	Say Rs		290.60	Per M ²	
6.6.6	Labour charge for pitching with stone boulder duly packed in slope and apron with materials within 150 metre of work site and all lifts as per approved design, specifications and direction of E/I					
	Unit:-Per Cum					
	Taking Out put=2.832 Cum					
	Unskilled mazdoor for lifting stone boulder on head carrying to work site and unloading from head at place of work site	6	nos	318.00	1908.00	{SI-1}
	Mason Gr II	0.50	nos	382.00	191.00	S II-4
	Stone dresser	0.25	nos	405.00	101.25	S II-12
	Male	0.25	nos	343.00	85.75	S II-2
					2286.00	
	Add Overhead charge & C.P@15%				342.90	
					2628.90	928.28
	Rate per cum	Say Rs		928.30	Per M ²	
6.6.7	Providing and laying coarse clean sand in filling in foundation trenches including ramming as per approved design, specifications and direction of E/I					
	Unit:-Per Cum					
	Taking Out put=2.832 Cum					
	Materials					
	Local sand	2.832	cum	143.32	405.88	M-006
	Labour					
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					723.88	
	Add Overhead charge & C.P@15%				108.58	
					832.46	293.95
	Rate per cum	Say Rs		293.90	Per M ³	

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6.7 MISCELLANEOUS

Sr.No	Item	Rate	Unit
6.7.1	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 99 % purity) in expansion joints complete job as per drawing, specifications and direction of E/I.	1071.20	Per kg
6.7.2	Supplying, fitting and fixing rubber seal of (water stop) of approved quality for construction joints expansion joints complete job as per drawing, specifications and direction of E/I	#VALUE!	Per mtr
6.7.3	Supplying, and fixing in position 25 mm thick Bituminous board (Shalitec or equivalent) in expansion or construction joint in dam and its allied works all complete as per approved design, specifications and direction of E/I	#VALUE!	Per M ²
6.7.4	Supplying, and fixing Bitumen filter (Bitumen, cement and sand) in construction joints in dam and its allied works all complete including royalty as per approved design, specifications and direction of E/I	168.80	per cm width per cm depth per 100M
6.7.5.1	Providing and driving steel sheet piles on specified alignment and upto designed levels including painting the sheet piles with two coats of anti-corrosive bitumen paint (portion of sheet pile inside concrete shell not be painted) including cost of sheet piles and hire charges of sheet pile driving plant etc. all complete. as per specifications and direction of E/I . (For the purpose of payment of sheet pile driving, measurement of sheet pile duly driven shall be taken only)	#VALUE!	Per M.T
6.7.5.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only)	#VALUE!	Per M.T
6.7.6	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm size in abutment and wing wall including royalty as per specification and direction of E/I	105.70	Each

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6.7 MISCELLANEOUS

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
6.7.1	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 99 % purity) in expansion joints complete job as per drawing, specifications and direction of E/I.					Analysis same as Item 5.8.1
6.7.2	Supplying, fitting and fixing rubber seal of (water stop) of approved quality for construction joints expansion joints complete job as per drawing, specifications and direction of E/I.					Analysis same as Item 5.8.2
6.7.3	Supplying, and fixing in position 25 mm thick Bituminous board (Shaliflex or equivalent) in expansion or construction joint in dam and its allied works all complete as per approved design, specifications and direction of E/I					Analysis same as Item 5.8.3
6.7.4	Supplying, and fixing Bitumen filter (Bitumen, cement and sand) in construction joints in dam and its allied works all complete including royalty etc. as per approved design, specifications and direction of E/I					Analysis same as Item 5.8.4
6.7.5.1	Providing and driving steel sheet piles on specified alignment and up to designed levels including painting the sheet piles with two coats of anti- corrosive bitumen paint (portion of sheet pile inside concrete shell not be painted) including cost of sheet piles and hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I.(For the purpose of payment of sheet pile driving, measurement of sheet pile duly driven shall be taken only)					Analysis same as Item 5.8.5.1
6.7.5.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I .(For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only)					Analysis same as Item 5.8.5.2
6.7.6	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm size in abutment and wing wall including royalty etc. as per specification and direction of E/I					Analysis same as Item 5.8.6(a)

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CHAPTER VII

EARTHEN MASONRY AND COCRETE DAM WITH SPILLWAY OUTLET INTAKE WELL, SURGE TANK AND TUNNELLING ETC.

7.1 EARTH WORK

Sr.No	Item	Rate	Unit
7.1.1	Cutting of trees along with branches and their removal away from the work site and stacking the same as per specifications and direction of E/I.(Measurement of girth at a height of one meter above the ground level)		
	(a) Girth above 0.50 meter but upto 0.75 meter	292.70	Each
	(b) Girth above 0.75 meter but upto 1.50 meter	585.40	Each
	(c) Girth above 1.5 meter but upto 2.50 meter	1060.90	Each
	(d) Girth above 2.50 meter but upto 4.00 meter	1719.20	Each
	(e) Girth above 4.00 meter	2487.50	Each
7.1.2	Uprooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 meter but upto 0.75 meter	182.90	Each
	(b) Girth above 0.75 meter but upto 1.50 meter	182.90	Each
	(c) Girth above 1.5 meter but upto 2.50 meter	243.80	Each
	(d) Girth above 2.50 meter but upto 4.00 meter	365.70	Each
	(e) Girth above 4.00 meter	457.10	Each
7.1.3.1	Preparation of borrow areas by removing the grass and the jungle, bushes from the top before excavation as per specifications and direction of E/I.	3.00	Per M ²
7.1.3.2	Jungle clearance and weeding out shrubs including small tree upto 0.50 M girth and removal as per specifications and direction of E/I	8.90	Per M ²
7.1.4	Removal of stone boulder of more than 300 mm size from alignment of the dam and stacking the same (beyond 50 M away from Toe of the dam base in the country side) within initial lead of 150M as per specifications and direction of E/I.	116.20	Per M ³
7.1.5	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials (beyond 50M away from Toe of the dam base in the country side) with initial lead of 150M and all lifts as per specifications and direction of E/I.	216.50	Per M ³
7.1.6	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150M but within 1.00 K.M and all lifts by Truck including loading unloading and maintenance of haul roads as per specifications and direction of E/I	469.90	Per M ³
7.1.7	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 KM but up to 2 K.M away with all lifts by Truck including loading unloading and maintenance of haul roads as per specifications and direction of E/I.	506.10	Per M ³

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7.1.8	Earth work in excavation of cut -off trenches as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same (beyond 50 mtr away from Toe of the dam base in the country side) with initial lead of 150 m and initial lifts of 1.5 mtr as per specifications and direction of E/I.	197.60	Per M ³
7.1.9	Earth work in excavation of cut -off trenches as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150 mtr but up to 1 K.M away with all lifts by truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	477.30	Per M ³
7.1.10.1	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil (beyond 50 M away from Toe of the dam base in the country side) with initial lead of 150M and initial lifts of 1.5 M including making the section in proper profile, dressing side in proper slope and bed in proper grade etc all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	724.30	Per M ³
7.1.10.2	Earth work in excavation of cut-off trenches as per designed section in soft rock or ordinary rock (Where blasting is not required) (vide classification of soil item C) disposal of soil (beyond 50M away from Toe of the dam base in the country side) with initial lead of 150M and initial lifts of 1.5M including making the section in proper profile, dressing side in proper slope and bed in proper grade etc.all complete as per specifications and direction of E/I.	550.80	Per M ³
7.1.11.1	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 M from the Toe of the dam but within 1 k.m with all lifts by Truck including loading unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	964.70	Per M ³
7.1.11.2	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock. (Where blasting is not required) (vide classification of soil item C) with disposal of soil beyond 150 mtr from the Toe of the dam but within 1 k.m with all lifts by truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I	709.60	Per M ³
7.1.12	Earth work in excavation of cut -off trenches as per designed section in hard rock and stacking properly in approved stack size in approved stack yard (beyond 50 M away from Toe of the dam base in the country side) with initial lead of 150 M and initial lifts of 1.5 M as per specifications and direction of E/I.	1265.20	Per M ³
7.1.13	Earth work in excavation of cut-off trenches as per designed section in hard rock and stacking properly in approved stack size in approved stack yard beyond initial lead of 150 M but upto 1 k.m in country side with all lifts by truck including loading, unloading, stacking properly in approved stack yards. construction and maintenance of haul roads as per specifications and direction of E/I.	1597.00	Per M ³
7.1.14.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc.as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same (beyond 50 M away the edge of the trench) with initial lead of 150 M and initial lift of 1.5 M as per specifications and direction of E/I.	197.60	Per M ³

7.1.14.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150 M but up to 1 K.M away with all lifts by truck including loading, unloading, construction and maintenance of haul roads as per specifications	478.50	Per M ³
7.1.15.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil (beyond 50 M from Toe the edge of the trench) with initial lead of 150 M and initial lifts of 1.5 M, all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	542.80	Per M ³
7.1.15.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C) disposal of soil (beyond 50M from Toe the edge of the trench) with initial lead of 150 M and initial lifts of 1.5 M, all complete as per specifications and direction of E/I.	542.40	Per M ³
7.1.15.3	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 mtr but upto 1 k.m away from toe of the dam with all lifts by truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	964.70	Per M ³
7.1.15.4	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock(Where blasting is not required) (vide classification of soil item C) disposal of soil beyond 150 M but upto 1 k.m away from toe of the dam with all lifts by truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	709.60	Per M ³
7.1.16.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in hard rock where blasting needed and staking properly in approved stack size in approved stack yard (beyond 50 M from the edge of the trench in country side) with initial lead of 150 M and initial lifts of 1.5 M, all complete as per	1265.20	Per M ³
7.1.16.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in hard rock where blasting needed and disposal of excavated rock by truck beyond initial lead of 150 M but upto 1 k.m away from toe of the dam with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	1597.00	Per M ³
7.1.17.1	Earth work in excavation of the toe drain and heel trench as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same (beyond 50M away the edge of the trench) with initial lead of 100 M and initial lift of 1.5 M, all complete as per specifications and direction of E/I.	185.10	Per M ³
7.1.17.2	Earth work in excavation of the drain and heel trench as per designed section in soft rock or ordinary rock (vide classification of soil item C) with disposal of the soil (beyond 50M away from the toe drain in country side) with initial lead of 100M and initial lifts of 1.5 M, all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	689.10	Per M ³
7.1.17.3	Earth work in excavation of the drain and heel trench as per designed section in soft rock or ordinary rock (Where blasting is not required) (vide classification of soil item C) with disposal of the soil (beyond 50 M away from the toe drain in country side) with initial lead of 100 M and initial lifts of 1.5 M, all complete as per specifications and direction of E/I.	542.40	Per M ³

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7.1.17.4	Earth work in excavation of the toe drain and heel trench as per designed section in hard rock where blasting needed and and stacking properly in approved stack yard (beyond 50 M away from the toe drain in country side)and approved stack size with initial lead of 150 M and initial lifts of 1.5 M,all complete as per specifications and direction of E/I.	1265.20	Per M ³
7.1.17.5	Earth work in excavation of the toe drain and heel trench as per designed section in hard rock with chisel and hammer and stacking properly in approved stack yard (beyond 50M away from the toe drain with initial lead of 100 m and initial lifts of 1.5 M,all complete as per specifications and direction of E/I.	530.10	Per M ³
7.1.18	Earth work in excavation of foundation trenches in hard rock (on- blasting zone) or dismantling cement concrete (1:2:4) by manual labour with chisel hammer, wedging barring etc. disposal of excavated materials with an initial lead of and initial lifts of 1.5M including making the edges straight, dressing, profiling and final preparation of surface all complete as per specifications and direction of E/I.	530.10	Per M ³
7.1.19	Earth work in dam fill by head load in semi previous or impervious soil with initial lead of 150 M and initial lift of 1.5 M including breaking clods to maximum 63 mm cubs, placing the earth in layer not exceeding 225 mm thick all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth)	278.60	Per M ³
7.1.20.1	Extra for earth work in all kinds of soil for each additional lead of 25 Mtr or part there of over the initial lead as per specification and direction of E/I.	12.90	Per M ³
7.1.20.2	Extra for earth work in rock for each additional lead of 25M or part there of over the initial lead as per specification and direction of E/I	19.40	Per M ³
7.1.21.1	Extra for earth work in all kinds of soil for each additional lift of 1 Mtr or part there of over the initial lift of 1.50M as per specification and direction of E/I.	12.90	Per M ³
7.1.21.2	Extra for earth work in rock each additional lift of 1 M or part there of over the initial lift of 1.50 M as per specification and direction of E/I.	19.40	Per M ³
7.1.22	Earth work in dam fill in semi previous or impervious zone by manual excavation and carriage by Tipper and loading by manual labours including , making dam in proper design section including earth to be laid in layers of not more than 225 mm thick with all lift and breaking clods to maximum 63 mm cubs as well as construction and maintenance of haul roads, all complete as per specifications and direction of E/I (Mode of measurement- sectional measurement of compacted earth)		
7.1.22.1	Lead beyond 150 mtr but upto 1/2 K.M	515.10	Per M ³
7.1.22.2	Lead beyond 1/2 K.M but upto 1 K.M	533.10	Per M ³
7.1.22.3	Lead beyond 1 K.M but upto 2 K.M	561.70	Per M ³
7.1.22.4	Lead beyond 2 K.M but upto 3 K.M	#VALUE!	Per M ³
7.1.23	Earth work in dam fill in semi previous or impervious zone fill materials to be loosened and excavated by Ripper and shovel at the borrow area and transported by truck to the dam fill site with all lift as well as spreading leveling by Dozer including construction and maintenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth).		
7.1.23.1	Lead beyond 150 mtr but upto 1/2 K.M	#VALUE!	Per M ³
7.1.23.2	Lead beyond 1/2 K.M but upto 1 K.M	#VALUE!	Per M ³
7.1.23.3	Lead beyond 1 K.M but upto 2 K.M	#VALUE!	Per M ³
7.1.23.4	Lead beyond 2 K.M but upto 3 K.M	#VALUE!	Per M ³

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7.1.24	Earth work in dam fill in semi pervious or impervious zone fill materials to be loosened and excavated by Ripper and shovel at the borrow area and transported by Dumper to the dam fill site with all lift as well as spreading leveling by Dozer including construction and maintenance of haul roads, all complete as per specifications and direction of E/I (Mode of measurement- sectional measurement of compacted earth).		
7.1.24.1	Lead beyond 150 mtr but upto 1/2 K.M	#VALUE!	Per M ³
7.1.24.2	Lead beyond 1/2 K.M but upto 1 K.M	#VALUE!	Per M ³
7.1.24.3	Lead beyond 1 K.M but upto 2 K.M	#VALUE!	Per M ³
7.1.24.4	Lead beyond 2 K.M but upto 3 K.M	#VALUE!	Per M ³
7.1.25	Earth work in dam fill in semi pervious or impervious zone fill materials to be loosened and excavated by Ripper and scraper at the borrow area and transported by Scraper itself to the dam fill site with all lift as well as spreading leveling by Dozer including construction and maintenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth).		
7.1.25.1	Lead beyond 150 mtr but upto 1/2 K.M	#VALUE!	Per M ³
7.1.25.2	Lead beyond 1/2 K.M but upto 1 K.M	#VALUE!	Per M ³
7.1.25.3	Lead beyond 1 K.M but upto 2 K.M	#VALUE!	Per M ³
7.1.25.4	Lead beyond 2 K.M but upto 3 K.M	#VALUE!	Per M ³
7.1.26*	Labour for initial Rolling and compacting the ground before forming the embankment with power road roller at O.M.C to achieve minimum 95 % of dry density including sprinkling the required quanting of water, making arrangement for supply and carriage of water with all leads and lifts, finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine and other tools and plants etc. all complete as per specifications and direction of E/I.	108.70	Per 10 M ²
7.1.27	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by sheep foot roller driven by tractor to achieve minimum 95 % of dry density includingsprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lifts, finishing the surfaces plan and drawing including hire charge of compaction, machine and other tools and plants etc. for lined canal all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)	#VALUE!	Per M ³
7.1.28	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by road roller to achieve minimum 95 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)	30.60	Per M ³
7.1.29	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement Sectional measurement of compacted earth)	#VALUE!	Per M ³

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7.1.30	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by road roller to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)	28.30	Per M ³
7.1.31	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)	#VALUE!	Per M ³
7.1.32	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by road roller to achieve minimum 95 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine tanker and other tools and plants etc all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)	63.70	Per M ³
7.1.33	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift	#VALUE!	Per M ³
7.1.34	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by road roller to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift finishing the surface with proper grade, camber or super elevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I (Mode of measurement - Sectional measurement of compacted earth)	61.20	Per M ³
7.1.35	Close timbering in trenches including shuttering, shoring and packing cavities (wherever required) depth not exceeding 1.5 meter all complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)	105.70	Per M ²
7.1.36	Close timbering in trenches including shuttering, shoring and packing cavities (wherever required) depth not exceeding 1.5 meter but upto 3.0 meter all complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)	111.00	Per M ²
7.1.37	Supply and laying 300 mm thick humous earth layer on slopes of dam with manual compaction and turfing the surface with approved dub grass with 1 k.m lead including watering and ramming till growth of grass all complete as per specifications and direction of E/I.	#VALUE!	Per M ²
7.1.38	Trimming an dressing the side slope of dam to proper section with all lead and lifts as per drawing, specifications and direction of E/I.	35.00	Per M ²
7.1.39	Earth work in foundation excavation as per designed section in ordinary or soft rock (vide classification of soil item C) by shovel and its disposal upto 1 k.m by dumper with all lift including construction and maintenance of haul roads, all complete as per specifications and direction of E/I.	#VALUE!	Per M ³

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7.1.40	Earth work in foundation excavation as per designed section in hard rock where blasting is needed and disposal of excavated rock with the combination of machines shovel, Dumper and Tractor - Dozer within one k.m with all lift including stacking properly in approved stack yard as well as construction and maintenance of haul roads, all complete as per specifications and direction of E/I.	#VALUE!	Per M ³
7.1.41	Earth work in foundation excavation as per designed section in sand and slushes soil in river bed and disposal of the same upto 1/2 k.m with the combination of machines Dragline Dumper and Tractor - Dozer complete job including construction and maintenance of haul roads, all complete as per specifications and direction of E/I.	#VALUE!	Per M ³
7.1.42	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 K.M and all lifts by Tipper and loading by Front end loader, including unloading and maintenance of haul roads as per specifications and direction of E/I.	249.70	Per M ³
7.1.43	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper and loading by Front end loader, including unloading and maintenance of haul roads as per specifications and direction of E/I.	283.90	Per M ³
7.1.44	Earth work in excavation of cut -off trenches as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150 M but up to 1 K.M away with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	257.10	Per M ³
7.1.45.1	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 M from the Toe of the dam but within 1 k.m with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)	672.60	Per M ³
7.1.45.2	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (Where blasting is not required) (vide classification of soil item C) with disposal of soil beyond 150 M from the Toe of the dam but within 1 k.m with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I	417.60	Per M ³
7.1.46	Earth work in excavation of cut -off trenches as per designed section in hard rock and stacking properly in approved stack size in approved stack yard beyond initial lead of 150 M but upto 1 k.m in country side with all lifts by Tipper and loading by Front end loader, including unloading, stacking properly in approved stack yards, construction and maintenance of haul roads as per specifications and direction of E/I.	1305.00	Per M ³
7.1.47	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150 M but up to 1 K.M away with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	257.10	Per M ³

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7.1.48.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 M but upto 1 k.m away from toe of the dam with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I (Soft rock where blasting is required and approved by concerned Chief Engineer)	672.60	Per M ³
7.1.48.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock(Where blasting is not required) (vide classification of soil item C) disposal of soil beyond 150 M but upto 1 k.m away from toe of the dam with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	417.60	Per M ³
7.1.49	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in hard rock where blasting needed and disposal of excavated rock by Tipper and loading by Front end loader, including beyond initial lead of 150 M but upto 1 k.m away from toe of the dam with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.	1305.00	Per M ³
7.1.50	Earth work in dam fill in semi pervious or impervious zone by manual excavation and carriage by Tipper and loading by manual labours including , making dam in proper design section including earth to be laid in layers of not more than 225 mm thick with all lift and breaking clods to maximum 63 mm cubs as well as construction and maintenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth)		
7.1.50.1	Lead beyond 150 mtr but upto 1/2 K.M	288.30	Per M ³
7.1.50.2	Lead beyond 1/2 K.M but upto 1 K.M	305.40	Per M ³
7.1.50.3	Lead beyond 1 K.M but upto 2 K.M	339.60	Per M ³
7.1.50.4	Lead beyond 2 K.M but upto 3 K.M	373.80	Per M ³

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CHAPTER --VII

EARTHEN MASONARY AND COCRETE DAM WITH SPILLWAY OUTLET INTAKE WELL, SURGE TANK AND TUNNELLING ETC.

7.1 EARTH WORK

Sl.no.	Description	Quantity	unit	Rate	amount	Ref.
7.1.1	Cutting of trees alongwith branches and their removal away from the work site and stacking the same as per specifications and direction of E/I (Measurment of girth at a hight of one metre above the ground level)					Analysis same as Item 5.1.4
7.1.2	Up rooting of stumps and their removal ,away from the work site as per specifications and direction of E/I					Analysis same as Item 5.1.5
7.1.3.1	Preparation of borrow areas by removing the grass and the jungle, bushes from the top befor excavation as per specifications and direction of E/I.					Analysis same as Item 5.1.2
7.1.3.2	Jungle clearance and weeding out shrubs including small tree upto 0.50 mtr girth and removal as per specifications and direction of E/I.					Analysis same as Item 5.1.3
7.1.4	Removal of stone boulder of more than 300 mm size from alignment of the dam and stacking the same (beyond 50 mtr away from Toe of the dam base in the country side) within initial lead of 150 m as per specifications and direction of E/I					Analysis same as Item 6.1.4
7.1.5	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials (beyond 50 mtr away from Toe of the dam base in the country side) with initial lead of 150 m and all lifts as per specifications and direction of E/I					Analysis same as Item 6.1.5
7.1.6	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 K.M and all lifts by Truck including loading unloading and maintenance of haul roads as per specifications and direction of E/I.					Analysis same as Item 6.1.6
7.1.7	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Truck including loading unloading and maintenance of haul roads as per specifications and direction of E/I.					Analysis same as Item 6.1.7
7.1.8	Earth work in excavation of cut -off trenches as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same (beyond 50 M away from Toe of the dam base in the country side) with initial lead of 150M and initial lifts of 1.5M as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting earth	7	nos	318 00	2226 00	{SI-1}
	Unskilled mazdoor for profiling dressing and making edge straight	1	nos	318 00	318 00	{SI-1}
	Unskilled mazdoor for carrying excavated materials	7	nos	318 00	2226 00	{SI-1}
	Mason Gr II	0.25	nos	382 00	95 50	{S II- 4}
					4865 50	
	Add Overhead charge & C.P@15%				729 83	
					5595 33	
						197.58
	Rate per cum	Say Rs		197.60	Per M ³	
7.1.9	Earth work in excavation of cut -off trenches as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150M but up to 1K.M away with all lifts by Truck including loading unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A	Unskilled mazdoor for cutting earth	7.00	nos	318 00	2226 00	{SI-1}
	Unskilled mazdoor for profiling dressing and making edge straight	1.00	nos	318 00	318 00	{SI-1}
	Mason Gr I	0.25	nos	428 00	107 00	{S II- 3}
B	Carrriage of earth by 10 M T capacity Truck					
	Carrriage cost of earth for 1 k m lead					
	Average lead	575	M			
	Truck capicty 8 MT (compacted earth)	4.8	Cum			
	Cycle time--- Average speed	16	km/hr			
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = L, U & S time / Total hauling time=0.93 trips	0.933	trips			
	Material carried=tripsxnet capacity	4.478	M ³			
	Hourly use rate of truck (Vide item no 3.26)	1371 00	hr			PM6004
	Rate per 28.32 cum for carrriage only=Use rate of truckx28.32/material carried			Rs	8670 55	
	⊕ Constuction and maintenance of haul road @ 5 % of Item (B)			Rs	433 53	
					11755 08	
	Add Overhead charge & C.P 15%				1763 26	
					13518.34	

Rate per cum		Say Rs		477.30	Per M ³	477.34
7.1.10.1	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil (beyond 50M away from Toe of the dam base in the country side) with initial lead of 150M and initial lifts of 1.5M including making the section in proper profile, dressing side in proper slope and bed in proper grade etc.all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	9.50	nos	318.00	3021.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II- 3}
	Blaster	0.33	nos	526.00	173.58	{S I-54}
	Materials					
	Blasting material including carriage from Gomia to work site, storage etc					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					6298.64	
	Add Overhead charge & C.P @15%				944.80	
					7243.44	
						724.34
	Rate per cum	Say Rs		724.30	Per M ³	
7.1.10.2	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (Where blasting is not required)(vide classification of soil item C) disposal of soil (beyond 50M away from Toe of the dam base in the country side) with initial lead of 150M and initial lifts of 1.5M including making the section in proper profile, dressing side in proper slope and bed in proper grade etc.all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work (i.e cutting & carrying etc.)	11.50	nos	318.00	3657.00	{SI-1}
	Mason Gr I	0.50	nos	428.00	214.00	{S II- 3}
					4789.50	
	Add Overhead charge & C.P15%				718.425	
					5507.93	
						550.79
	Rate per cum	Say Rs		550.80	Per M ³	
7.1.11.1	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150M from the Toe of the dam but within 1 k.m with all lifts by Truck including loading unloading, construction and maintenance of haul roads as per specifications and direction of E/I (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
A	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II- 3}
	Blaster	0.33	nos	526.00	173.58	{S I-54}
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity=Truck capacityx swell factor	4.02	Cum			
	Cycle time----	16	km/hr			
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading unloading turning and spolling time / Total hauling time	0.93	trips			
	Material carried=tripsxnet capacity	3.75	M ³			
	Hourly use rate of truck (Vide item no 3.26)	1371.00	hr			PM6004
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried			Rs	3656.00	

	© Constuction and maintenance of haul road @ 5% of Item (B)			Rs	182 80	
	Materials					
C.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M SL-120
	Detonator	10	nos	6.19	61.90	M SL-110
	Fuse coil	1	nos	15 00	15.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15 00	
					1338 44	
	Add Overhead charge & C.P@15%				1258.27	
					9646 71	
						964.67
	Rate per cum	Say Rs		964.70	Per M ³	
7.1.11.2	Earth work in excavation of cut-off trenches as per designed section in soft rock or ordinary rock. (Where blasting is not required) (vide classification of soil item C) with disposal of soil beyond 150M from the Toe of the dam but within 1 km with all lifts Truck including loading unloading, construction and maintenance of haul roads as per specifications and direction of E/I					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
A.	Labour					
	Hammer man	2.75	nos	334 00	918 50	{S II-17}
	Unskilled mazdoor for all work	4	nos	318 00	1272 00	{SI-1}
	Mason Gr I	0.33	nos	428 00	141.24	{S II- 3}
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity=Truck capacity X swell factor	4.02	Cum			
	Cycle time--- Average speed	16	km/hr			
	(a) Hauling time = Average lead X 60 X 2/1000 X Average speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading unloading turning and spolling time / Total hauling time	0.93	trips			
	Material carried=tripsxnet capacity	3.75	M ³			
	Hourly use rate of truck (Vide item no 3.26)	1371.00	hr			PM6004
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried			Rs	3656 00	
	(c) Constuction and maintenance of haul road @ 5% of Item (B)			Rs	182 80	
					6170.54	
	Add Overhead charge & C.P@15%				925 58	
					7096 12	
						709 61
	Rate per cum	Say Rs		709.60	Per M ³	
7.1.12	Earth work in excavation of cut-off trenches as per designed section in hard rock and stacking properly in approved stack size in approved stack yard (beyond 50 m away from Toe of the dam base in the country side) with initial lead of 150 m and initial lifts of 1.5 m as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
A.	Labour					
	Hammer man	10 50	nos	334 00	3507 00	{S II-17}
	Unskilled mazdoor for all work	13 00	nos	318 00	4134 00	{SI-1}
	Mason Gr I	0 33	nos	428 00	141 24	{S II- 3}
	Blaster	0 67	nos	526 00	352 42	{S I -54}
	Materials					
B.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976 21	2684 58	M -215
	Detonator	18	nos	6.19	111 42	M -217
	Fuse coil	3	nos	15.00	45.00	{0326}
C.	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				26 50	
					11002 16	
	Add Overhead charge & C.P@15%				1650.32	
					12652 48	
						1265 25
	Rate per cum	Say Rs		1265.20	Per M ³	

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7.1.13	Earth work in excavation of cut-off trenches as per designed section in hard rock and stacking properly in approved stack size in approved stack yard beyond initial lead of 150 m but upto 1 k m in country side with all lifts by Truck including loading, unloading, stacking properly in approved stack yards, construction and maintenance of haul roads as per specifications and direction of E/I					
		Unit:-Per Cum				
		Assuming out put=10 Cum				
A	Labour					
	Hammer man	10.50	nos	331.00	3507.00	{SI-17}
	Unskilled mazdoor for all work	10.00	nos	318.00	3100.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{SI-3}
	Blaster	0.67	nos	526.00	352.42	{SI-54}
	Materials					
B	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976.21	2684.58	M-215
	Detonator	18	nos	6.19	111.42	M-217
	Fuse coil	3	nos	15.00	45.00	{0326}
C	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	LS			26.50	
D	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity=Truck capacityx swell factor	4.02	Cum			
	Cycle time--- Average speed	16	km/hr			
	(a) Hauling time = Average leadx60x2/1000xAverage speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading unloading turning and spolling time / Total hauling time	0.93	trips			
	Material carried=tripsxnet capacity	3.75	M ³			
	Hourly use rate of truck (Vide item no 3.26 b)	1371.00	hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carried			Rs	3656.00	
	© Constuction and maintenance of haul road @ 5 % of Item (B)			Rs	182.80	
					13886.96	
	Add Overhead charge & C P@15%				2083.04	
					15970.00	
	Rate per cum	Say Rs		1597.00	Per M ³	1597.00
7.1.14.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same (beyond 50M away the edge of the trench) with initial lead of 150M and initial lift of 1.5M as per specifications and direction of E/I					
		Unit:-Per Cum				
		Assuming out put=28.32 Cum				
	Unskilled mazdoor for cutting earth	7	nos	318.00	2226.00	{SI-1}
	Unskilled mazdoor for profiling dressing and making edge straight	1	nos	318.00	318.00	{SI-1}
	Unskilled mazdoor for carrying excavated materials	7	nos	318.00	2226.00	{SI-1}
	Mason Gr II	0.25	nos	382.00	95.50	{SI-4}
					4865.50	
	Add Overhead charge & C P@15%				729.825	
					5595.33	
	Rate per cum	Say Rs		197.60	Per M ³	197.58
7.1.14.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150M but up to 1 KM away with all lifts by Truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I					
		Unit:-Per Cum				
		Assuming out put=28.32 Cum				
A	Labour					
	Unskilled mazdoor for cutting foundation	7	nos	318.00	2226.00	{SI-1}
	Unskilled mazdoor for forming spoil	1	nos	318.00	318.00	{SI-1}
	Mason Gr II	0.25	nos	382.00	95.50	{SI-4}
		LS			4.50	
				Total	2644.00	(a)

B.	Cost of carriage of 28.32 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead	575	M			
	Truck capacity 8 MT (compacted earth)	4.8	Cum			
	Cycle time---- Average speed	17	km/hr			
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.06	minutes			
	(b) Loading unloading turning and spollting time=	60	minutes			
	Total hauling cycle time=	64.06	minutes			
	No of trips per working hour = Loading, unloading, turning and spollting time / Total hauling time	0.94	trips			
	Material carried=trips x net capacity	4.46	M ³			
	Hourly use rate of truck (Vide item no 3 26)	1371.00	hr			PM6004
	Rate per cum= Use rate of truck x 28.32/material carried			Rs	8705.54	(b)
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	435.28	(c)
					11784.82	(a+b+c)
	Add Overhead charge & C.P@15%				1767.72	
					13552.54	
						478.55
	Rate per cum	Say Rs			478.50	Per M ³
7.1.15.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil (beyond 50 m from Toe the edge of the trench) with initial lead of 150 m and initial lifts of 1.5M all complete as per specifications and direction of E/I (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit:-Per Cum					
	Assuming out put=10.0 Cum					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for cutting	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for carrying	0.50	nos	318.00	159.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
B.	Materials					
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M -215
	Detonator	10	nos	6.19	61.90	M -217
	Fuse coil	1	nos	15.00	15.00	{0326}
C	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			26.50	
					4720.15	
	Add Overhead charge & C P@15%				708.02	
					5428.17	
	Rate per cum	Say Rs			542.80	Per M ³
7.1.15.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (where blasting is not required) (vide classification of soil item C) disposal of soil (beyond 50M from Toe the edge of the trench) with initial lead of 150 m and initial lifts of 1.5M all complete as per specifications and direction of E/I					
	Unit:-Per Cum					
	Assuming out put=10.0 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for cutting	11.50	nos	318.00	3657.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
					4716.75	
	Add Overhead charge & C P@15%				707.51	
					5424.26	
	Rate per cum	Say Rs			542.40	Per M ³

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7.1.15.3	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 m but upto 1 k.m away from toe of the dam with all lifts by Truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
		Unit:-Per Cum	Per M ³			
		Assuming out put=10.0 Cum	10	Cum		
A	Labour					
	Hammer man		2.75	nos	334.00	918.50 (S II-17)
	Unskilled mazdoor for all work		4	nos	318.00	1272.00 (SI-1)
	Mason Gr I		0.33	nos	428.00	141.24 (S II-3)
	Blaster		0.33	nos	526.00	173.58 (S I-54)
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead=		575	M		
	Truck capacity 8 MT		6	cum		
c.	Swell factor		0.67			
	Net capacity=Truck capacity X swell factor		4.02	Cum		
	Cycle time--- Average speed		16	km/hr		
	(a) Hauling time =Average leadx60x2/1000xAverage speed		4.31	minutes		
	(b) Loading unloading turning and spollting time=		60	minutes		
	Total hauling cycle time=		64.31	minutes		
	No of trip per working hour = Loading unloading turning and spollting time / Total hauling time		0.93	trips		
	Material carried=trips x net capacity		3.75	M ³		
	Hourly use rate of truck		1371.00	hr		PM6004
	Rate per cum=Use rate of truck x 10/material carried				Rs	3656.00
	© Constuction and maintenance of haul road @ 5 % of Item (B)				Rs	182.80
	Materials					
C	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin		2.00	Kg	976.21	1952.42 M 215
	Detonator		10	nos	6.19	61.90 M 217
	Fuse coil		1	nos	15.00	15.00 (0326)
D	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessones		L.S			15.00
						8388.44
	Add Overhead charge & C P@15%					1258.27
						9646.71
						964.67
	Rate per cum		Say Rs		964.70	Per M ³
7.1.15.4	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock(Where blasting is not required) (vide classification of soil item C) disposal of soil beyond 150 m but upto 1 k.m away from toe of the dam with all lifts by Truck including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
		Unit:-Per Cum				
		Assuming out put=10 Cum				
A	Labour					
	Hammer man		2.75	nos	334.00	918.50 (S II-17)
	Unskilled mazdoor for all work		4	nos	318.00	1272.00 (SI-1)
	Mason Gr I		0.33	nos	428.00	141.24 (S II-3)
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k.m lead					
	Average lead=		575	M		
	Truck capacity 8 MT		6	cum		
	Swell factor		0.67			
	Net capacity=Truck capacity x swell factor		4.02	Cum		
	Cycle time--- Average speed		16	km/hr		
	(a) Hauling time =Average leadx60x2/1000xAverage speed		4.31	minutes		
	(b) Loading unloading turning and spollting time=		60	minutes		
	Total hauling cycle time=		64.31	minutes		
	No of trip per working hour = Loading, unloading, turning and spollting time /		0.93	trips		
	Total hauling time					
	Material carried=trips x net capacity		3.75	M ³		
	Hourly use rate of truck		1371.00	hr		PM6004

	Rate per cum=Use rate of truck x 10/material carried			Rs	3656.00	
C.	Constuction and maintenance of haul road @ 5 % of Item (B)			Rs	182.80	
	Rate (A+B+C)				6170.54	
	Add Overhead charge & C.P@15%				925.58	
					7096.12	
						709.61
	Rate per cum	Say Rs		709.60	Per M ³	
7.1.16.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in hard rock where blasting needed and staking properly in approved stock size in approved stock yard (beyond 50 m from the edge of the trench in country side) with initial lead of 150 m and initial lifts of 1.5 m all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit-Per Cum					
	Assuming out put=10 Cum					
A.	Labour					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all job	13.00	nos	318.00	4134.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.67	nos	526.00	352.42	{S I -54}
B.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976.21	2684.58	M215
	Detonator	18	nos	6.19	111.42	M217
	Fuse coil	3	nos	15.00	45.00	{0326}
C.	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			26.50	
					11002.17	
	Add Overhead charge & C.P@15%				1650.33	
					12652.49	
						1265.25
	Rate per cum	Say Rs		1265.20	Per M ³	
7.1.16.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in hard rock where blasting needed and disposal of excavated rock by Truck beyond initial lead of 150 m but up to 1 k.m away from toe of the dam with all lifts including loading, unloading and stacking properly in approved stock size in approved stock yard as well as construction and maintenance of haul roads as per specifications and direction of E/I					
	Unit-Per Cum					
	Assuming out put=10 Cum					
A	Labour					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all work	10	nos	318.00	3180.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.67	nos	526.00	352.42	{S I -54}
B.	Cost of carriage of 10 cum earth by Truck including loading and unloading					
	Carriage cost of earth for 1 k m lead					
	Average lead=	575	M			
	Truck capacity 8 MT	6	cum			
	Swell factor	0.67				
	Net capacity= Truck capacity X swell factor	4.02	Cum			
	Cycle time---- Average speed	16	km/hr			
	(a) Hauling time =Average leadx60x2/1000xAverage speed	4.31	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=	64.31	minutes			
	No of trip per working hour = Loading ,unloading ,turning and spolling time / Total hauling time	0.93	trips			
	Material carried=tripsxnet capacity	3.75	M ³			
	Hourly use rate of truck (Vide item no 3.26)	1371.00	hr			PM6004
	Rate per cum=Use rate of truck x 10/material carried			Rs	3656.00	
	Constuction and maintenance of haul road @ 5 % of Item (B)			Rs	182.80	
	Materials					

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C.	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976.21	2684.58	M 215
	Detonator	18	nos	6.19	111.42	M 217
	Fuse coil	3	nos	15.00	45.00	{0326}
D.	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			26.50	
					13886.96	
	Add Overhead charge & C.P@15%				2083.04	
					15970.00	
						1597.00
	Rate per cum	Say Rs		1597.00	Per M ³	
7.1.17.1	Earth work in excavation of the toe drain and heel trench as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same (beyond 50 m away the edge of the trench) with initial lead of 100 m and initial lift of 1.5 m as per specifications and direction of E/I					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting earth	7	nos	318.00	2226.00	{SI-1}
	Unskilled mazdoor for profiling dressing and making edge straight	1	nos	318.00	318.00	{SI-1}
	Unskilled mazdoor for carrying excavated materials	6	nos	318.00	1908.00	{SI-1}
	Mason Gr I	0.25	nos	428.00	107.00	{S II- 3}
					4559.00	
	Add Overhead charge & C.P@15%				683.85	
					5242.85	
						185.13
	Rate per cum	Say Rs		185.10	Per M ³	
7.1.17.2	Earth work in excavation of the drain and heel trench as per designed section in soft rock or ordinary rock (vide classification of soil item C) with disposal of the soil (beyond 50 m away from the toe drian in country side) with initial lead of 100 m and initial lifts of 1.5 m all complete as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for cutting	4.00	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for carrying and stacking	4.50	nos	318.00	1431.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II- 3}
	Blaster	0.33	nos	526.00	173.58	{S I -54}
	Materials					
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M 215
	Detonator	10	nos	6.19	61.90	M217
	Fuse coil	1	nos	15.00	15.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			26.50	
					5992.15	
	Add Overhead charge & C.P@15%				898.82	
					6890.97	
						689.10
	Rate per cum	Say Rs		689.10	Per M ³	
7.1.17.3	Earth work in excavation of the drain and heel trench as per designed section in soft rock or ordinary rock (Where blasting is not required) (vide classification of soil item C) with disposal of the soil (beyond 50 mtr away from the toe drain in country side) with initial lead of 100 m and initial lifts of 1.5 mtr .all complete as per specifications and direction of E/I					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for cutting	7	nos	318.00	2226.00	{SI-1}
	Unskilled mazdoor for carrying and stacking	4.50	nos	318.00	1431.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II- 3}
					4716.74	
	Add Overhead charge & C.P@15%				707.51	
					5424.25	
						542.43
	Rate per cum	Say Rs		542.40	Per M ³	

7.1.17.4	Earth work in excavation of the toe drain and heel trench as per designed section in hard rock where blasting needed and stacking properly in approved stack yard (beyond 50M away from the toe drain in country side) and approved stack size with initial lead of 150 m and initial lifts of 1.5 M all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all work	13	nos	318.00	4134.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.67	nos	526.00	352.42	{S I-54}
	Materials					
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976.21	2684.58	M215
	Detonator	18	nos	6.19	111.42	M217
	Fuse coil	3	nos	15.00	45.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories	L.S			26.50	
					11002.16	
	Add Overhead charge & C.P@15%				1650.32	
					12652.48	
						1265.25
	Rate per cum	Say Rs		1265.20	Per M ³	
7.1.17.5	Earth work in excavation of the toe drain and heel trench as per designed section in hard rock with chisel and hammer and stacking properly in approved stack yard (beyond 50 m away from the toe drain with initial lead of 100 m and initial lifts of 1.5 m all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	2.25	nos	334.00	751.50	{S II-17}
	Skilled mazdoor for all work	2.25	nos	403.00	906.75	S II-70
	Unskilled mazdoor for collecting the excavated materials and carrying the same beyond 50 m and stacking properly	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for making edge straight, dressing, profiling and final preparation of surface	3	nos	318.00	954.00	{SI-1}
	Blacksmith	1	nos	382.00	382.00	{S II-10}
	Male	1	nos	343.00	343.00	{S II-2}
					4609.25	
	Add Overhead charge & C.P@15%				691.39	
					5300.64	
						530.06
	Rate per cum	Say Rs		530.10	Per M ³	
7.1.18	Earth work in excavation of foundation trenches in hard rock (non-blasting zone) or dismantling cement concrete (1:2:4) by manual labour with chisel hammer, wedging barring etc disposal of excavated materials with an initial lead of and initial lifts of 1.5 m including making the edges straight, dressing, profiling and final preparation of surface all complete as per specifications and direction of E/I					
	Unit:-Per Cum					
	Assuming out put=10 Cum					
	Labour					
	Hammer man	2.25	nos	334.00	751.50	{S II-17}
	Skilled mazdoor for all work	2.25	nos	403.00	906.75	S II-70
	Unskilled mazdoor for collecting the excavated materials and carrying the same beyond 50 m and stacking properly	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for making edge straight, dressing, profiling and final preparation of surface	3	nos	318.00	954.00	{SI-1}
	Blacksmith	1	nos	382.00	382.00	{S II-10}
	Male	1	nos	343.00	343.00	{S II-2}
					4609.25	
	Add Overhead charge & C.P@15%				691.39	
					5300.64	
						530.06
	Rate per cum	Say Rs		530.10	Per M ³	

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7.1.19	Earth work in dam fill by head load in semi previous or impervious soil with initial lead of 150 m and initial lift of 1.5 m including breaking clods to maximum 63 mm cubs, placing the earth in layer not exceeding 225 mm thick all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth).					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	5	nos	318.00	1590.00	{SI-1}
	Unskilled mazdoor for carriage of earth	14	nos	318.00	4452.00	{SI-1}
	Mate	1	nos	343.00	343.00	{S II-2}
					6862.00	
	Add Overhead charge & C.P@15%				1029.30	
					7891.30	
						278.65
	Rate per cum	Say Rs		278.60	Per M ³	
7.1.20.1	Extra for earth work in all kinds of soil for each additional lead of 25 M or part there of over the initial lead as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1	nos	318.00	318.00	{SI-1}
					318.00	
	Add Overhead charge & C.P@15%				47.70	
					365.70	
						12.91
	Rate per cum		Say Rs	12.90	Per M ³	
7.1.20.2	Extra for earth work in rock for each additional lead of 25 M or part there of over the initial lead as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1.50	nos	318.00	477.00	{SI-1}
					477.00	
	Add Overhead charge & C.P@15% ^A				71.55	
					548.55	
						19.37
	Rate per cum		Say Rs	19.40	Per M ³	
7.1.21.1	Extra for earth work in all kinds of soil for each additional lift of 1 M or part there of over the initial lift of 1.50 m as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1	nos	318.00	318.00	{SI-1}
					318.00	
	Add Overhead charge & C.P@15%				47.70	
					365.70	
						12.91
	Rate per cum		Say Rs	12.90	Per M ³	
7.1.21.2	Extra for earth work in rock each additional lift of 1 M or part there of over the initial lift of 1.50 m as per specification and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
	Unskilled mazdoor for cutting	1.50	nos	318.00	477.00	{SI-1}
					477.00	
	Add Overhead charge & C.P@15%				71.55	
					548.55	
						19.37
	Rate per cum		Say Rs	19.40	Per M ³	
7.1.22	Earth work in dam fill in semi previous or impervious zone by manual excavation and carriage by Truck including loading, including , making dam in proper design section including earth to be laid in layers of not more than 225 mm thick with all lift and breaking clods to maximum 63 mm cubs as well as construction and maintenance of haul roads, all complete as per specifications and direction of E/I (Mode of measurement- sectional measurement of compacted earth).					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
7.1.22.1	Lead beyond 150 m but up to 1/2 K.M					
A.	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Mate	1	nos	343.00	343.00	{S II-2}

B.	Carriage of earth by 10 M.T capacity Truck					
	Average lead	325	M			
	Truck capacity 8 MT	4.8	Cum			
	Cycle time----					
	(a) Hauling time @ 16 KM (Average)speed per hours	16	k.m/hr			
	=Average leadx60x2/1000xhauling time=	2.44	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=(a+b)	62.44	minutes			
	No of trip per working hour = 60 / Total hauling time	0.96	Trips			
	Material carried=TripsxTruck capacity =	4.61	Cum			
	Hourly use rate of truck	1371.00	hr			PM6004
	Rate per cum=Use rate of truckx28.32/material carried			Rs	8422.28	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	421.11	
					12684.40	
	Add Overhead charge & C.P@15%				1902.66	
					14587.06	
	Rate per cum		Say Rs	515.10	Per M ³	515.08
7.1.22.2	Lead beyond 1/2 K.M but up to 1 K.M					
A.	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Mate	1.00	nos	343.00	343.00	{S II-2}
B.	Carriage of earth by 10 M.T capacity Truck					
	Average lead	750	M			
	Truck capacity 8 MT	4.8	Cum			
	Cycle time----					
	(a) Hauling time @ 16 KM (Average)speed per hours	16	k.m/hr			
	=Average leadx60x2/1000xhauling time=5.63 minutes	5.63	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=(a+b)	65.63	minutes			
	No of trip per working hour = 60 / Total hauling time	0.91	Trips			
	Material carried=TripsxTruck capacity =	4.39	Cum			
	Hourly use rate of truck	1371.00	hr			PM6004
	Rate per cum=Use rate of truckx28.32/material carried			Rs	8844.36	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	442.22	
					13127.57	
	Add Overhead charge & C.P@15%				1969.136	
					15096.71	
	Rate per cum		Say Rs	533.10	Per M ³	533.08
7.1.22.3	Lead beyond 1 K.M but up to 2 K.M					
A.	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Mate	1.00	nos	343.00	343.00	{S II-2}
B.	Carriage of earth by 10 M.T capacity Truck					
	Average lead	1.5	M			
	Truck capacity 8 MT	4.8	Cum			
	Cycle time----					
	(a) Hauling time @ 17 KM (Average)speed per hours	17	k.m/hr			
	=Average leadx60x2/hauling time=5.63 minutes	10.59	minutes			
	(b) Loading unloading turning and spolling time=	60	minutes			
	Total hauling cycle time=(a+b)	70.59	minutes			
	No of trip per working hour = 60 / Total hauling time	0.85	Trips			
	Material carried=TripsxTruck capacity =	4.080	Cum			
	Hourly use rate of truck	1371.00	hr			PM6004
	Rate per cum=Use rate of truckx28.32/material carried			Rs	9516.35	
	© Construction and maintenance of haul road @ 5 % of Item (B)			Rs	475.82	
					13833.17	
	Add Overhead charge & C.P@15%				2074.98	
					15908.15	
	Rate per cum		Say Rs	561.70	Per M ³	561.73
7.1.22.4	Lead beyond 2 K.M but up to 3 K.M					
A.	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Mate	1.00	nos	343.00	343.00	{S II-2}

B.	Carriage of earth by 8 M.T capacity Truck					
	Taking efficiency factor	0.88				
	Job management factor	0.69				
	Out put of shovel per hour $172.48 \times 0.69 \times 0.88 = 104.72$ Say 100 cum					
	Truck capacity	8	M T			
	Machinery charges					
	I. Ripper with D-9 tractor Dozer					
	Out put per working hour =	150	cum			
	Use rate per working hour	VAI U F				
	Cost of ripping per Cum= Use rate / out put					#VALUE!
	ii.Shovel					
	Use rate per working hour	#VALUE!				
	Out put per working hour =	100	cum			
	Rate per Cum= Use rate of shovel / out put					#VALUE!
	iii. Carriage by Truck					
	Truck capacity 8 MT =4.8 cum (compacted earth)	4.8	cum			
	Average lead 2.5 k.m	2.5	k m			
	Cycle time----					
	(i) Loading time per minute= Body capacityx60/ shovel	2.88	minute			
	(ii) Hauling time @ 17.5 KM (Average)speed per hours	17.50	k.m/hr			
	=Average leadx60x2/hauling time=	17.14	minutes			
	(b) Loading unloading turning and spolling time=	20	minutes			
	Total hauling cycle time=(a+b)	37.14	minutes			
	No of trip per working hour = 60 / Total hauling time	1.62	Trips			
	Material carried=TripsxTruck capacity =	7.75	Cum			
	Hourly use rate of truck	1371.00	hr			PM6004
	Rate per cum= use of truckx28.32/material carried			Rs	5007.41	
	© Construction and maintenance of haul road @ 5 % of Item			Rs	250.37	
						#VALUE!
	Add Overhead charge & C.P@15%					#VALUE!
						#VALUE!
						#VALUE!
	Rate per cum			Say Rs	#VALUE!	Per M ³
7.1.23	Earth work in dam fill in semi pervious or impervious zone fill materials to be loosened and excavated by Ripper and shovel at the borrow area and transported by truck to the dam fill site with all lift as well as spreading leveling by Dozer including construction and maintenance of haul roads, all complete as per specifications and direction of E/I (Mode of measurement- sectional measurement of compacted earth).					
	Unit:-Per Cum					
	Assuming out put=1.0 Cum					
7.1.23.1	Lead beyond 150 m but up to 1/2 K.M					
	(Ref.Report of committee on cost control of River valley projects vol. II. Jan. 1981 page 89 to 93)					
	Average lead =	325	Metre			
	Diesel Shovel capacity	2	cum			
	Ideal production per hour=196 cum (Bank volume)	196	cum			
	Taking depth of cut and angle of swing factor =0.88	0.88				
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum			
	Taking efficiency factor	0.88				
	Job management factor	0.69				
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum			
	Say	100	cum			
	Truck capacity 10 M T	10	M T			
A.	Clearing and grubbing of borrow area		L S			1.00
B	Machinery charges					
	I. Ripper with D-9 tractor Dozer					
	Out put per working hour =	150	cum			
	Use rate per working hour	VALUE				
	Cost of ripping per Cum= Use rate / out put					#VALUE!
	ii.Shovel					
	Use rate per working hour	#VALUE!				
	Out put per working hour =	100	cum			
	Rate per Cum= Use rate of shovel / out put					#VALUE!
	iii. Carriage by Truck					
	Truck capacity 8 MT =4.8 cum (compacted earth)	4.8	cum			
	Average lead 325 M	325	M			
	Cycle time----					
	(a) Loading time per minute= Body capacity / shovel out put	2.88	minute			

	(b) Hauling time @ 16 KM (Average)speed per hours =Average leadx60x2/1000xhauling time=	16.00 2.44	k m/hr minutes		
	(c) Loading unloading turning and spolting time=	20	minutes		
	Total hauling cycle time=(a+b+c)	25.32	minutes		
	No of trip per working hour of 50 minute = 50 / Total hauling time	1.97	Trips		
	Material carried=TripsxTruck capacity =	9.48	Cum		
	Hourly use rate of truck	1371.00			PM6004
	Rate per cum=Use rate of truck / Material carried			144.63	
	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300	cum		
	Use Rate of D-8 Tractor Dozer	VALUE			
	Rate per cum =Use rate of D-8 / Out put			#VALUE!	
	Total Machinery charges (i+ii+iii+iv)	#VALUE!		#VALUE!	
C.	Add for				
	i. Construction and maintenance of haul road @ 5 % of machinery charges			#VALUE!	
	ii. Leveling and trimming of waste pile etc. @ 5 % of machinery charges			#VALUE!	
	Add Overhead charge & C P@15%			#VALUE!	
				#VALUE!	
	Rate per cum		Say Rs	#VALUE!	Per M ³
7.1.23.2	Lead beyond 1/2 K.M but up to 1 K.M (Ref.Report of committee on cost control of River valley projects vol. II. Jan. 1981 page 89 to 93)				
	Average lead =	750	Metre		
	Diesel Shovel capacity	2	cum		
	Ideal production per hour=196 cum (Bank volume)	196	cum		
	Taking depth of cut and angle of swing factor =0.88	0.88			
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum		
	Taking efficiency factor	0.88			
	Job management factor	0.69			
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum		
	Say	100	cum		
	Truck capacity 10 M T	10	M T		
A	Clearing and grubbing of borrow area		L S		1.00
B	Machinery charges				
	i Ripper with D-9 tractor Dozer				
	Out put per working hour =	150	cum		
	Use rate per working hour	VALUE			
	Cost of ripping per Cum= Use rate / out put			#VALUE!	
	ii Shovel				
	Use rate per working hour	#VALUE!			
	Out put per working hour =	100	cum		
	Rate per Cum= Use rate of shovel / out put			#VALUE!	
	iii Carriage by Truck				
	Truck capacity 8 MT =4.8 cum (compacted earth)	4.8	cum		
	Average lead 750 M	750	M		
	Cycle time----				
	(a). Loading time per minute= Body capacity / shovel out put	2.88	minute		
	(b) Hauling time @ 16 KM (Average)speed per hours =Average leadx60x2/1000xhauling time=	16.00 5.63	k m/hr minutes		
	(c) Loading unloading turning and spolting time=	20	minutes		
	Total hauling cycle time=(a+b+c)	28.51	minutes		
	No of trip per working hour of 50 minute = 50 / Total hauling time	1.75	Trips		
	Material carried=TripsxTruck capacity =	8.42	Cum		
	Hourly use rate of truck	1371.00			PM6004
	Rate per cum=Use rate of truck / Material carried			162.83	
	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300	cum		
	Use Rate of D-8 Tractor Dozer	VALUE			
	Rate per cum=Use rate of D-8 / Out put			#VALUE!	
	Total Machinery charges (i+ii+iii+iv)			#VALUE!	
C.	Add for				

	I. Construction and maintenance of haul road @ 5 % of machinery charges				#VALUE!	
	ii. Levelling and trimming of waste pile etc. @ 5 % of machinery charges				#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.1.23.3	Lead beyond 1 K.M but up to 2 K.M					
	(Ref.Report of committee on cost control of River valley projects vol II. Jan. 1981 page 89 to 93)					
	Average lead =	1500	Metre			
	Diesel Shovel capacity	2	cum			
	Ideal production per hour=196 cum (Bank volume)	196	cum			
	Taking depth of cut and angle of swing factor =0.88	0.88				
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum			
	Taking efficiency factor	0.88				
	Job management factor	0.69				
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum			
	Say	100	cum			
	Truck capacity 10 M.T	10	M T			
A	Machinery charges					
	i. Ropper with D-9 tractor Dozer					
	Out put per working hour =	150	cum			
	Use rate per working hour	VALUE				
	Cost of ripping per Cum= Use rate / out put				#VALUE!	
	ii.Shovel					
	Use rate per working hour	#VALUE!				
	Out put per working hour =	100	cum			
	Rate per Cum= Use rate of shovel / out put				#VALUE!	
	iii. Carriage by Truck					
	Truck capacity 8 MT =4.8 cum (compacted earth)	4.8	cum			
	Average lead	1500	M			
	Cycle time----					
	(a) Loading time per minute= Body capacity / shovel out put	2.88	minute			
	(b) Hauling time @ 16 KM (Average)speed per hours	16.00	k m/hr			
	=Average leadx60x2/1000xhauling time=	11.25	minutes			
	(c) Loading unloading turning and spolling time=	20	minutes			
	Total hauling cycle time=(a+b+c)	34.13	minutes			
	No of trip per working hour of 50 minute = 50 / Total hauling time	1.46	Trips			
	Material carried=TripsxTruck capacity =	7.03	Cum			
	Hourly use rate of truck	1371.00				PM6004
	Rate per cum=Use rate of truck / Material carried				194.97	
	(iv). Spreading charge at placement by D- 8 Tractor Dozer					
	Out put per working hour =	300	cum			
	Use Rate of D-8 Tractor Dozer	VALUE				
	Rate per cumof D-8=Use rate of / Out put				#VALUE!	
	Total Machinery charges (i+ii+iii+iv)				#VALUE!	
B.	Add for					
	I. Construction and maintenance of haul road @ 5 % of machinery charges				#VALUE!	
	ii. Levelling and trimming of waste pile etc. @ 5 % of machinery charges				#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.1.23.4	Lead beyond 2 K.M but upto 3 K.M					
	(Ref.Report of committee on cost control of River vally projects voi II. Jan. 1981 page 89 to 93)					
	Average lead =	2500	Metre			
	Diesel Shovel capacity	2	cum			
	Ideal production per hour=196 cum (Bank volume)	196	cum			
	Taking depth of cut and angle of swing factor =0.88	0.88				
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum			
	Taking efficiency factor	0.88				

	Job management factor	0.69				
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum			
	Say	100	cum			
	Truck capacity 10 M T	10	M.T			
A.	Machinery charges					
	i. Ripper with D-9 tractor Dozer					
	Out put per working hour =	150	cum			
	Use rate per working hour	VALUE				
	Cost of ripping per Cum= Use rate / out put					#VALUE!
	ii. Shovel					
	Use rate per working hour	#VALUE!				
	Out put per working hour =	100	cum			
	Rate per Cum= Use rate of shovel / out put					#VALUE!
	iii. Carriage by Truck					
	Truck capacity 8 MT =4.8 cum (compacted earth)	4.8	cum			
	Average lead 750 M	2500	M			
	Cycle time---					
	(a). Loading time per minute= Body capacity / shovel out put	2.88	minute			
	(b) Hauling time @ 16 KM (Average)speed per hours	16.00	k m/hr			
	=Average leadx60x2/1000xhauling time=	18.75	minutes			
	(c) Loading unloading turning and spotting time=	20	minutes			
	Total hauling cycle time=(a+b+c)	41.63	minutes			
	No of trip per working hour of 50 minute = 50 / Total hauling time	1.20	Trips			
	Material carried=TripsxTruck capacity =	5.77	Cum			
	Hourly use rate of truck (Vide item no 3.26)	1371.00				
	Rate per cum=Use rate of truck / Material carried					237.81
	(iv). Spreading charge at placement by D-8 Tractor Dozer					
	Out put per working hour =	300	cum			
	Use Rate of D-8 Tractor Dozer	VALUE				
	Rate per cum of D-8=Use rate of / Out put					#VALUE!
	Total Machinery charges (i+ii+iii+iv)					#VALUE!
B	Add for					
	i. Constuction and maintenance of haul road @ 5 % of machinery charges					#VALUE!
	ii. Levelling and trimming of waste pile etc. @ 5 % of machinery charges					#VALUE!
	Add Overhead charge & C.P.@15%					#VALUE!
						#VALUE!
	Rate per cum			Say Rs	#VALUE!	Per M ³
7.1.24	Earth work in dam fill in semi previous or imprevious zone fill materials to be loosened and excavated by Ripper and shovel at the borrow area and transported by Dumper to the dam fill site with all lift as well as spreading levelling by Dozer including construction and maintenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth)					
	Unit:-Per Cum					
	Assuming out put=1.0 Cum					
7.1.24.1	Lead beyond 150 mtr but upto 1/2 K.M					
	(Ref.Report of committee on cost control of River vally projects voi II. Jan. 1981 page 89 to 93)					
	Average lead =	325	Metre			
	Diesel Shovel capacity	2	cum			
	Ideal production per hour=196 cum (Bank volume)	196	cum			
	Taking depth of cut and angle of swing factor =0.88	0.88				
	Production per hour=ideal production per hour X depth of cut and angle of swing factor	172.48	cum			
	Taking efficiency factor	0.88				
	Job management factor	0.69				
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum			
	Say	100	cum			
	Dumper 15 M T	10	M.T			

	Capacity 8.33 cum	8.33	cum		
	Swell factor= 0.75	0.75			
A	Machinery charges				
	i. Ripper with D-9 tractor Dozer				
	Out put per working hour =	150	cum		
	Use rate per working hour	VALUE	Per hr		
	Cost of ripping per Cum= Use rate / out put				#VALUE!
	ii. Shovel				
	Use rate per working hour	#VALUE!			
	Out put per working hour =	100	cum		
	Rate per Cum= Use rate of shovel / out put				#VALUE!
	iii. Dumper				
	Average lead	325	M		
	Body capacity= capacity x Swell factor	6.25	cum (Bank volume)		
	Handling Cycle time---				
	(a). Loading time per minute= Body capacity / shovel out put	3.75	minute		
	(b) spotting time=	0.30	minutes		
	(c). Turning and dumping time	2.00	minutes		
	(d). Empty haul @ 15 K.M per hour Leadx60/15x1000 =Average	1.3	minutes		
	(e). Loaded haul @ 10 K.M per hour Leadx60/15x1000 =Average	1.95	minutes		
	Total hauling cycle time=(a+b+c+d+e)	9.30	minutes		
	No of dumper trip per working hour of 50 minute = 50 / Total hauling time	5.38	Trips		
	Material carried=TripsxDumper capacity =	33.59	Cum		
	Hourly use rate of Dumper 15 T	#VALUE!			
	Rate per cum=Use rate of Dumper/ Material carried				#VALUE!
	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300	cum		
	Use Rate of D-8 Tractor Dozer	VALUE			
	Rate per cumof D-8=Use rate of / Out put				#VALUE!
	Total Machinery charges (i+ii+iii+iv)				#VALUE!
B	Add for				
	i. Constuction and maintenance of haul road @ 5 % of machinery charges				#VALUE!
	ii. Levelling and triming of waste pile etc. @ 5 % of machinery charges				#VALUE!
					#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³
7 1.24 2	Lead beyond 1/2 K.M but upto 1 K.M				
	(Ref.Report of committee on cost control of River vally projects voi II. Jan. 1981 page 89 to 93)				
	Average lead =	750	Metre		
	Diesel Shovel capacity	2	cum		
	Ideal production per hour=196 cum (Bank volume)	196	cum		
	Taking depth of cut and angle of swing factor =0.88	0.88			
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum		
	Taking efficiency factor	0.88			
	Job management factor	0.69			
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum		
	Say	100	cum		
	Dumper 15 M.T	10	M.T		
	Capacity 8.33 cum	8.33	cum		
	Swell factor= 0.75	0.75			
A.	Machinery charges				
	i. Ripper with D-9 tractor Dozer				
	Out put per working hour =	150	cum		
	Use rate per working hour	VALUE			
	Cost of ripping per Cum= Use rate / out put				#VALUE!
	ii. Shovel				
	Use rate per working hour	#VALUE!			
	Out put per working hour =	100	cum		
	Rate per Cum= Use rate of shovel / out put				#VALUE!
	iii. Dumper				
	Average lead	750	M		
	Body capacity= capacity x Swell factor	6.25	(Bank volume)		

	Handling Cycle time---				
	(a). Loading time per minute= Body capacity / shovel out put	3.75	minute		
	(b) spotting time=	0.30	minutes		
	(c). Turning and dumping time	2.00	minutes		
	(d). Empty haul @ 25 K M per hour Leadx60/25x1000 =Average	1.8	minutes		
	(e). Loaded haul @20 K M per hour Leadx60/20x1000 =Average	2.25	minutes		
	Total hauling cycle time=(a+b+c+d+e)	10.10	minutes		
	No of dumper trip per working hour of 50 minute = 50 / Total hauling time	4.95	Trips		
	Material carried=TripsxDumper capacity -	30.83	Cum		
	Hourly use rate of Dumper	#VALUE!			
	Rate per cum=Use rate of Dumper/ Material carried				#VALUE!
	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300	cum		
	Use Rate of D-8 Tractor Dozer	VALUE			
	Rate per cum of D-8=Use rate of / Out put				#VALUE!
	Total Machinery charges (i+ii+iii+iv)				#VALUE!
B.	Add for				
	i. Constuction and maintenance of haul road @ 5 % of machinery charges				#VALUE!
	ii. Levelling and triming of waste pile etc. @ 5 % of machinery charges				#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³
7.1.24.3	Lead beyond 1 K.M but upto 2 K.M				
	(Ref.Report of committee on cost control of River vally projects voi II. Jan. 1981 page 89 to 93)				
	Average lead =	1500	Metre		
	Diesel Shovel capacity	2	cum		
	Ideal production per hour=196 cum (Bank volume)	196	cum		
	Taking depth of cut and angle of swing factor =0.88	0.88			
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum		
	Taking efficiency factor	0.88			
	Job management factor	0.69			
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum		
	Say	100	cum		
	Dumper 15 M T	10	M T		
	Capacity 8.33 cum	8.33	cum		
	Swell factor= 0.75	0.75			
A	Machinery charges				
	i. Ripper with D-9 tractor Dozer				
	Out put per working hour =	150	cum		
	Use rate per working hour	VALUE			
	Cost of ripping per Cum= Use rate / out put				#VALUE!
	ii Shovel				
	Use rate per working hour	#VALUE!			
	Out put per working hour =	100	cum		
	Rate per Cum= Use rate of shovel / out put				#VALUE!
	iii.Dumper				
	Average lead	1500	M		
	Body capacity= capacity x Swell factor	6.25	(Bank volume)		
	Handling Cycle time---				
	(a) Loading time per minute= Body capacity / shovel out put	3.75	minute		
	(b) spotting time=	0.30	minutes		
	(c). Turning and dumping time	2.00	minutes		
	(d). Empty haul @ 25 K M per hour Leadx60/25x1000 =Average	3.6	minutes		
	(e). Loaded haul @20 K M per hour Leadx60/20x1000 =Average	4.5	minutes		
	Total hauling cycle time=(a+b+c+d+e)	14.15	minutes		
	No of dumper trip per working hour of 50 minute = 50 / Total hauling time	3.53	Trips		
	Material carried=TripsxDumper capacity =	22.08	Cum		
	Hourly use rate of Dumper	#VALUE!			
	Rate per cum=Use rate of Dumper/ Material carried				#VALUE!

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	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300	cum		
	Use Rate of D-8 Tractor Dozer	VALUE			
	Rate per cum of D-8=Use rate of / Out put				#VALUE!
	Total Machinery charges (i+ii+iii+iv)				#VALUE!
B.	Add for				
	I. Constuction and maintenance of haul road @ 5 % of machinery charges				#VALUE!
	II. Levelling and trimming of waste pile etc. @ 5 % of machinery charges				#VALUE!
	Add Overhead charge & C P@15%				#VALUE!
					#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³
7.1 24.4	Lead beyond 2 K.M but upto 3 K.M				
	(Ref.Report of committee on cost control of River vally projects voi II. Jan. 1981 page 89 to 93)				
	Average lead =	2500	Metre		
	Diesel Shovel capacity	2	cum		
	Ideal production per hour=196 cum (Bank volume)	196	cum		
	Taking depth of cut and angle of swing factor =0.88	0.88			
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum		
	Taking efficiency factor	0.88			
	Job management factor	0.69			
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum		
	Say	100	cum		
	Dumper 15 M.T	10	M.T		
	Capacity 8.33 cum	8.33	cum		
	Swell factor= 0.75	0.75			
A.	Machinery charges				
	I. Ripper with D-9 tractor Dozer				
	Out put per working hour =	150	cum		
	Use rate per working hour of Tractor Dozer	VALUE			
	Cost of ripping per Cum= Use rate / out put				#VALUE!
	ii.Shovel				
	Use rate per working hour	#VALUE!			
	Out put per working hour =	100	cum		
	Rate per Cum= Use rate of shovel / out put				#VALUE!
	iii.Dumper				
	Average lead	2500	M		
		6.25	cum (Bank volume)		
	Body capacity= capacity x Swell factor				
	Handling Cycle time----				
	(a) Loading time per minute= Body capacity / shovel out put	3.75	minute		
	(b) spolling time=	0.30	minutes		
	(c) . Turning and dumping time	2.00	minutes		
	(d) . Empty haul @ 25 K.M per hour =Average	6	minutes		
	Leadx60/25x1000				
	(e) . Loaded haul @20 K.M per hour =Average	7.5	minutes		
	Leadx60/20x1000				
	Total hauling cycle time=(a+b+c+d+e)	19.55	minutes		
	No of dumper trip per working hour of 50 minute = 50 / Total hauling time	2.56	Trips		
	Material carried=TripsxDumper capacity =	15.98	Cum		
	Hourly use rate of Dumper	1371.00			PM6004
	Rate per cum=Use rate of Dumper/ Material carried				85.80
	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300	cum		
	Use Rate of D-8 Tractor Dozer				
	Rate per cum of D-8=Use rate of / Out put				0.00
	Total Machinery charges (i+ii+iii+iv)				#VALUE!
C.	Add for				
	I. Constuction and maintenance of haul road @ 5 % of machinery charges				#VALUE!

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	ii. Levelling and trimming of waste pile etc. @ 5 % of machinery charges				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.125	Earth work in dam fill in semi previous or imprevious zone fill materials to be loosened and excavated by Dozer and scraper at the borrow area and transported by Scraper itself to the dam fill site with all lift as well as spreading levelling by Dozer including construction and maintenance of haul roads, all complete as per specifications and direction of E/I (Mode of measurment-sectional measurement of compacted earth).					
	Unit-Per Cum					
7.125.1	Lead beyond 150 mtr but upto 1/2 K.M					
	Average lead =	325	Metre			
	Capacity of scraper 9.175 cum (12 cyd) but actually loaded to 7.645 cum (10 cyd) for all practical purpose.	7.645	cum			
	Assuming speed of scraper as 8 km per hr	8	km/hr			
	For average condition (Ref:- Back "construction planing, equipment and methods" by R.L .Peurifey)					
	(a). Loading time	1.00	minute			
	(b) Time of dumping and running	0.50	minutes			
	(c) . Time for accelerating and decelerating	0.40	minutes			
	Total time=(a+b+c)	1.90	minutes			
	Operating efficiency of scraper	0.83				
	No of trip per hour = 1000x8xefficiency / average leadx2	10.22	Trips			
	Loading and unloading time =Tripsx total time	19.41	minutes			
	Total time taken by scraper in 10.21 trip=1 per 19.41 minutes	1.32	hr			
	Eart work involved per day= Actu capacityx no of tripsx 8 hr/Total time taken by scraper in no of trips	472.07	cum			
	Time taken by ripper per day @ 15 minutes per 1.32 hr	1.51	hr			
	(i). Cost of 8 hour of scraper	8	hr	#VALUE!	#VALUE!	
	(ii). Cost of 1.51 hour of Dozer	1.51	hr	Value	#VALUE!	
	Add for					
	i. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!			#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1.00	nos	318.00	318.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.125.2	Lead beyond 1/2 K.M but upto 1 K.M					
	Average lead =500+500/2	750	Metre			
	Capacity of scraper 9.175 cum (12 cyd) but actually loaded to 7.645 cum (10 cyd) for all practical purpose.	7.645	cum			
	Assuming speed of scraper as 8 km per hr	8	km/hr			
	For average condition (Ref:- Back "construction planing, equipment and methods" by R L peurifey)					
	(a) Loading time ut	1.00	minute			
	(b) Time of dumping and running	0.50	minutes			
	(c) . Time for accelerating and decelerating	0.40	minutes			
	Total time=(a+b+c)	1.90	minutes			
	Operating efficiency of scraper	0.83				
	No of trip per hour = 1000x8xefficiency / average leadx2	4.43	Trips			
	Loading and unloading time =Tripsx total time	8.41	minutes			
	Total time taken by scraper in 10.21 trip=1 per 19.41 minutes	1.14	hr			
	Eart work involved per day= Actu capacityx no of tripsx 8 hr/Total time taken by scraper in no of trips	237.45	cum			
	Time taken by dozer per day @ 8 minutes per 1.14 hr	0.94	hr			
	(i). Cost of 8 hour of scraper	8	hr	Value	#VALUE!	
	(ii). Cost of 0.94 hour of Dozer	0.94	hr	Value	#VALUE!	
	Add for					
	i. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!			#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1.00	nos	318.00	318.00	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	

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7.1.25.3	Lead beyond 1 K.M but upto 2 K.M					
	Average lead =	1500	Metre			
	Capacity of scraper 9.175 cum (12 cyd) but actually loaded to 7.645 cum 9 10 cyd 0 for all practical purpose.	7.645	cum			
	Assuming speed of scraper as 8 km per hr	8	km/hr			
	For average condition (Ref:- Back "construction planing, equipment and methods" by R.L .Peurifey)					
	(a). Loading time ut	1.00	minute			
	(b) Time of dumping and running	0.50	minutes			
	(c). Time for accelerating and decelerating	0.40	minutes			
	Total time=(a+b+c)	1.90	minutes			
	Operating efficiency of scraper	0.83				
	No of trip per hour = 1000x8xefficiency / average leadx2	2.21	Trips			
	Loading and unloading time =Tripsx total time	4.21	minutes			
	Total time taken by scraper in 10 21 trip=1 per 19.41 minutes	1.07	hr			
	Eart work involved per day= Actu capacityx no of tripsx 8 hr/Total time taken by scraper in no of trips	126.50	cum			
	Time taken by dozer per day @ 4 minutes per 1.07 hr	0.50	hr			
	(i). Cost of 8 hour of scraper	8	hr	Value	#VALUE!	
	(ii). Cost of 0.50 hour of Dozer	0.50	hr	Value	#VALUE!	
	Add for					
	i. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!			#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1.00	nos	318 00	318 00	
					#VALUE!	
	Add Overhead charge & C P@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.1.25.4	Lead beyond 2 K.M but upto 3 K.M					
	Average lead =	2500	Metre			
	Capacity of scraper 9.175 cum (12 cyd) but actually loaded to 7.645 cum 9 10 cyd 0 for all practical purpose.	7.645	cum			
	Assuming speed of scraper as 8 km per hr	8	km/hr			
	For average condition (Ref:- Back "construction planing, equipment and methods" by R L >peurifey)	0.88				
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor					
	(a). Loading time ut	1.00	minute			
	(b) Time of dumping and running	0.50	minutes			
	(c). Time for accelerating and decelerating	0.40	minutes			
	Total time=(a+b+c)	1.90	minutes			
	Operating efficiency of scraper	0.83				
	No of trip per hour = 1000x8xefficiency / average leadx2	1.33	Trips			
	Loading and unloading time =Tripsx total time	2.52	minutes			
	Total time taken by scraper in 10 21 trip=1 per 19.41 minutes	1.04	hr			
	Eart work involved per day= Actu capacityx no of tripsx 8 hr/Total time taken by scraper in no of trips	77.94	cum			
	Time taken by dozer per day @ 2.5 minutes per 1.04 hr	0.32	hr			
	(i). Cost of 8 hour of scraper	8	hr	Value	#VALUE!	
	(ii). Cost of 0.32 hour of Dozer	0.32	hr	Value	#VALUE!	
	Add for					
	i. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!			#VALUE!	
	ii. Unskilled mazdoor for controlling slope	0.5	nos	318 00	159 00	
					#VALUE!	
	Add Overhead charge & C P@15%				#VALUE!	
					#VALUE!	#VALUE!
					#VALUE!	#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.1.26	Labour for initial Rolling and compacting the ground before forming the embankment with power road roller at O M C to achieve minimum 95 % of dry density including sprinkling the required quanting of water, making arrangement for supply and carriage of water with all leads and lifts, finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine and other tools and plants etc all complete as per specifications and direction of E/I					

Unit:-Per Sqm

Rs

	Assuming out put=9.3 Sqm				
	Unskilled mazdoor	0.2	nos	318.00	63.60 (SI-1)
	Bhisti for carriage of water and sprinkling	1	nos	315.00	315.00 (SI II-13)
	Cost of water	L.S			15.00
	Hire charge of Roller				
	Assuming 2300 sqm. to be rolled in 8 hrs	0.32	hrs	1518.00	485.76 PM8001
					879.36
	Add Overhead charge & C.P@15%				131.90
					1011.26
					108.74
	Rate per sqm		Say Rs	108.70	Per 10 M ²
7.1.27	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 95 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)				
	Unit:-Per Cum				
	Assuming out put=100 Cum Fill				
	(A). Watering for compaction				
	Assuming additional moisture required 7 % including 1 % loss. Quantity of water required = 100 x 62.5x 35.3x7/10x100 =1544.38 gal for 100 cum fill	1544.38	Gal for 100 cm fill		
	One Imp gail = 10 lbs	10	lbs		
	Bound trip time for 8000 gail tankar				
	Filling time + hauling (1 km) 16 km /hr+ Return @ 24 kmh				
	Sprinkling at 500 gpm+ lost time=16+3.75+2.5-16+6=44.25 mts.	44.25	mts		
	Quantity hauled per hour (50 mts)= 50 x 8000/44.25=90.40 gallon	9040	gallon		
	Use Rate of tanker with tractor	707.00			PM11003
	Cost of water per gallon (cost of water per kl x4.546/1000)	0.255	Per gallon		M-191
	Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallon+cost of water per gallonx1544.38				515.35
	(B). Hire charge of sheep foot roller for 100 cum				
		0.55	hrs	#VALUE!	#VALUE!
					#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³
7.1.28	Labour for Rolling and compacting the earth in layers of 225 mm thicl at O M C by road roller to achieve minimum 95 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)				
	Unit:-Per Cum				
	Assuming out put=100 Cum				
	(A). Watering for compaction				
	Assuming additional moisture required 7 % including 1 % loss. Quantity of water required = 100 x 62.5x 35.3x7/10x100 =1544.38 gal for 100 cum fill	1544.38	Gal for 100 cm fill		
	One Imp gail = 10 lbs				
	capacity of tanker	8000	gallon		
	Bound trip time for 8000 gal tankar =				
	Filling time	16	mts		
	Hauling (1 km) 16 km / hr	3.75	mts		
	Returning Time @ 24 kmh	2.5	mts		
	Sprinkling Time at 500 gpm	16	mts		
	lost time	6	mts		
	Total time	44.25	mts		
	Quantity hauled per hour (50 mts)= 50 x 8000/44.25=9040 gallon	9040	gallon		
	Use Rate of tanker with Tractor	707.00			PM11003

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	Cost of water per gallon (cost of water per kl x4.546/1000)	0.255	Per gallon		M-191
	Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallon+cost of water per gallonx1544.38			515.36	
	(B). Hire charge of Road roller for 100 cum				
	Assuming 566 cum to be rolled in 8 hrs	1.413	hrs	1518.00	PM8001
				2145.58	
				2660.94	
	Add Overhead charge & C.P@15%			399.14	
				3060.08	
					30.60
	Rate per cum		Say Rs	30.60	Per M ³
7.1.29	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)				
	Unit -Per Cum				
	Assuming out put=100 Cum fill				
	(A). Watering for compaction				
	Assuming additional moisture required 7 % including 1 % loss Quantity of water required = 100 x 62.5x 35 3x7/10x100 =1544.38 gal for 100 cum fill	1544.38		for 100 cm fill	
	One Imp gail = 10 lbs				
	capacity of tanker	8000	gallon		
	Bound trip time for 8000 gal tanker =				
	Filling time	16	mts		
	Hauling (1 km) 16 km / hr	3.75	mts		
	Returning Time @ 24 kmh	2.5	mts		
	Sprinkling Timeat 500 gpm	16	mts		
	lost time	6	mts		
	Total time	44.25	mts		
	Quantity hauled per hour (50 mts)= 50 x 8000/44.25=9040 gallon	9040	gallon		
	Use Rate of tanker with tractor	707.00			PM11003
	Cost of water per gallon (cost of water per kl x4.546/1000)	0.255	Per gallon		M-191
	Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallon+cost of water per gallonx1544.38			515.36	
	(B) Hire charge of sheep foot roller for 100 cum				
	Assuming 1755 cum to be rolled in 8 hrs	0.46	hrs	#VALUE!	#VALUE!
					#VALUE!
	Add Overhead charge & C.P@15%				#VALUE!
					#VALUE!
					#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³
7.1.30	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by road roller to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water by tanker within 1 km. lead and all lifts including cost of water, finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)				
	Unit -Per Cum				
	Assuming out put=100 Cum fill				
	(A) Watering for compaction				
	Assuming additional moisture required 7 % including 1 % loss Quantity of water required = 100 x 62.5x 35 3x7/10x100 =1544.38 gal for 100 cum fill	1544.38		for 100 cm fill	
	One Imp gail = 10 lbs				
	capacity of tanker	8000	gallon		
	Bound trip time for 8000 gal tanker =				
	Filling time	16	mts		
	Hauling (1 km) 16 km / hr	3.75	mts		
	Returning Time @ 24 kmh	2.5	mts		
	Sprinkling Timeat 500 gpm	16	mts		
	lost time	6	mts		
	Total time	44.25	mts		
	Quantity hauled per hour (50 mts)= 50 x 8000/44.25=9040 gallon	9039.55	gallon		
	Use Rate of tanker (vide item 3.29b)	707.00			PM11003
	Cost of water = Rs 500 / gallon	0.26	Per gallon		M-191

	Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallon+cost of water per gallonx1544.38				515.36	
	(B). Hire charge of Road roller for 100 cum					
	Assuming 623 cum to be rolled in 8 hrs	1.28	hrs	1518.00	1943.04	PM8001
					2458.40	
	Add Overhead charge & C.P@15%				368.76	
					2827.15	
						28.27
	Rate per cum		Say Rs	28.30		Per M ³
7.1.31	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by sheep foot roller driven by tractor to achieve minimum 95 % of dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lifts, finishing the surface as plan and drawing including hire charge of compaction, machine and other tools and plants etc. for lined canal all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)					
	Unit.-Per Cum					
	Assuming out put=28.32 Cum					
	Bhisti for carriage of water and sprinkling	3	nos	315.00	945.00	(S II-13)
	Cost of water				15.00	
	Hire charge of sheep foot roller assuming 1450 cum to be rolled in 8 hr (vide item no 4.16 d)	0.16	hr	input	#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum	Say	Rs	#VALUE!		Per M ³
7.1.32	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C by road roller to achieve minimum 95 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)					
	Unit.-Per Cum					
	Assuming out put=28.32 Cum					
	Bhisti for carriage of water and sprinkling	3.0	nos	315.00	945.00	(S II-13)
	Cost of water				15.00	
	(B) Hire charge of road roller for 100 cum					
	Assuming 566 cum to be rolled in 8 hrs (Vide item no 4.16a)	0.40	hrs	1518.00	607.63	PM 8001
					1567.63	
	Add Overhead charge & C.P@15%				235.14	
					1802.77	
						63.70
	Rate per cum		Say Rs	63.70		Per M ³
7.1.33	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by sheep foot roller driven by tractor to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)					
	Unit.-Per Cum					
	Assuming out put=28.32 Cum					
	Bhisti for carriage of water and sprinkling	3.0	nos	315.00	945.00	(S II-13)
	Cost of water				15.00	
	(B) Hire charge of sheep foot roller for 100 cum					
	Assuming 1755 cum to be rolled in 8 hrs (Vide item no 4.16 d)	0.13	hrs	input	#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum		Say Rs	#VALUE!		Per M ³
7.1.34	Labour for Rolling and compacting the earth in layers of 225 mm thick at O.M.C. by road roller to achieve minimum 90 % of maximum dry density including sprinkling the required quanting of water making arrangement for supply and carriage of water with all leads and lift finishing the surface with proper grade, camber or superelevation including, hire charges of compaction machine tanker and other tools and plants etc. all complete as per specifications and direction of E/I. (Mode of measurement - Sectional measurement of compacted earth)					

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		Unit-Per Cum				
		Assuming out put=28.32 Cum				
	Bhisi for carriage of water and sprinkling	30	nos	315.00	945.00	{S II-13}
	Cost of water				15.00	
	(B). Hire charge of road roller for 100 cum					
	Assuming 623 cum to be rolled in 8 hrs (Vide item no 4.16a)	0.36	hrs	1518.00	546.48	PM 8001
					1506.48	
	Add Overhead charge & C.P@15%				225.97	
					1732.45	
						61.17
	Rate per cum		Say Rs	61.20	Per M ³	
7.1.35	Close timbering in trenches including shuttering, shoring and packing cavities (wherever required) depth not exceeding 1.5 metre all complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)					
		Unit-Per Sqm				
		Assuming out put=90 Sqm				
	Assuming trench 30 metre long 1.5 metre deep					
	Area=2x30x1.5= 90 sqm.					
	Piling boards					
	Local wood 90x0.038	3.42	cum	26000.00	88920.00	BCD-1198
	Walings 100 mm x 100 mm					
	Local wood 4 x30 x0.1 x0.1	1.2	cum	26000.00	31200.00	BCD-1198
	Ball struts					
	Sal ballah (125 mm dia 1.5 metre long)					
	2 x17 x 1.5	51	metre	56.85	2899.35	WRD
	Carriage					
	Cost of carriage of material including loading, unloading and stacking 1 % of total cot of materials				1230.19	
					124249.54	A
	Deduct credit for materials 75 % of the cost of materials. This can be used four times (Ax0.75)			(-)	93187.158	
					31062.39	B
	Therefore cost of use =B/4				7765.60	
	Labour					
	Carpenter Gr II	0.5	nos	382.00	191.00	{SI I -8}
	Unskilled mazdoor	1	nos	318.00	318.00	{SI-1}
					8274.60	
	Add Overhead charge & C.P@15%				1241.19	
					9515.79	
						105.73
	Rate per sqm		Say Rs	105.70	Per M ²	
7.1.36	Close timbering in trenches including shuttering, shoring and packing cavities (wherever required) depth not exceeding 1.5 metre but upto 3.0 metre all complete as per specifications and direction of E/I. (Measurement to be taken of the face area timbered)					
		Unit-Per Sqm				
		Assuming out put=90 Sqm				
	Assuming trench 30 metre long 1.5 metre deep					
	Area=2x30x1.5= 90 sqm.					
	Piling boards					
	Local wood 90x0.038	3.42	cum	26000.00	88920.00	BCD-1198
	Walings 100 mm x 100 mm					
	Local wood 4 x30 x0.1 x0.1	1.2	cum	26000.00	31200.00	BCD-1198
	Ball struts					
	Sal ballah (125 mm dia 1.5 metre long)					
	2 x17 x 1.5	51	metre	56.85	2899.35	MSL 223(II)
	Carriage					
	Cost of carriage of material including loading, unloading and stacking 1 % of total cot of materials				1230.19	
					124249.54	A
	Deduct credit for materials 75 % of the cost of materials. This can be used four times			(-)	93187.158	
					31062.39	B
	Therefore cost of use =B/4				7765.60	
	Labour					
	Carpenter Gr II	0.75	nos	382.00	286.50	{S II -8}
	Unskilled mazdoor	2	nos	318.00	636.00	{SI-1}
					8688.10	
	Add Overhead charge & C.P@15%				1303.21	

					9991.31	
						111.01
	Rate per sqm		Say Rs	111.00		Per M ²
7.1.37	Supply and laying 300 mm thick humous earth layer on slopes of dam with manual compaction and turfing the surface with approved dub grass with 1 km lead including watering and ramming till growth of grass all complete as per specifications and direction of E/I.					
	Unit-Per Sqm					
	Assuming out put=100 Sqm					
	Unskilled mazdoor for cutting humous earth and dub grass	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for carrying earth to dnm slope and laying in layers	8	nos	318.00	2544.00	{SI-1}
	Carriage of earth by truck with 1 km lead	28.32	cum	input	#VALUE!	
	Unskilled mazdoor for ramming for proper consolidation	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for watering the surface including carriage of water	1	nos	318.00	318.00	{SI-1}
	Unskilled mazdoor for or carriage of grass sides on slope	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for watering the planted grass till gramination	2	nos	318.00	636.00	{SI-1}
	Mate	0.5	nos	343.00	171.50	{S II-2}
					#VALUE!	
	Add Overhead charge & C.P.@15%				#VALUE!	
					#VALUE!	
						#VALUE!
	Rate per sqm		Say Rs	#VALUE!		Per M ²
7.1.38	Trimming an dressing the side slope of dam to proper section with all lead and lifts as per drawing specifications and direction of E/I.					
	Unit-Per Sqm					
	Assuming out put=100 Sqm					
	Mason Gr II	0.25	nos	382.00	95.50	{S II- 4}
	Unskilled mazdoor for cutting slope	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for carrying the spoils	4	nos	318.00	1272.00	{SI-1}
	Unskilled mazdoor for dressing the slope	1	nos	318.00	318.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					3043.25	
	Add Overhead charge & C.P.@15%				456.4875	
					3499.74	
						35.00
	Rate per sqm		Say Rs	35.00		Per M ²
7.1.39	Earth work in foundation excavation as per designed section in ordinary or soft rock (vide classification of soil item C) by shovel and its disposal upto 1 km by dumper with all lift including construction and maintenance of haul roads, all complete as per specifications and direction of E/I					
	Unit-Per Cum					
	Assuming out put=10 Cum					
	Assuming Per cum					
	Average lead =	500	Metre			
	Diesel Shovel capacity	2	cum			
	Ideal production per hour=196 cum (Bank volume)	196	cum			
	Taking depth of cut and angle of swing factor =0.88	0.88				
	Production per hour=Ideal production per hour X depth of cut and angle of swing factor	172.48	cum			
	Taking efficiency factor	0.88				
	Job management factor	0.69				
	Out put of shovel per hour=Production per hr x efficiency factor x Job management factor	104.73	cum			
	Say	100	cum			
A.	Machinery charges					
	i. D-9 tractor dozer					
	Assuming that one Dozer will work one shovel out put of Tracter Dozer output of shovel/per working hour =	100	cum			
	Use rate per working hour	2930.00				PM1001
	Rate per Cum= Use rate / out put				29.30	
	ii.Shovel					
	Use rate per working hour	#VALUE!				
	Out put per working hour =	100	cum			
	Rate per Cum= Use rate of shovel / out put				#VALUE!	
	iii.Dumper 15 M.T					
	Average lead	500	M			
	Swell factor	0.67				
	Capacity	8.33				
	Body capacity= capacity x Swell factor	5.58	cum (compacted volume)			
	Handling Cycle time----					

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(a). Loading time per minute= Body capacity / shovel out put	3.35	minute				
(b) spotting time=	0.30	minutes				
(c). Turning and dumping time	2.00	minutes				
(d). Empty haul @ 25 K M per hour Leadx60/25x1000 =Average	1.2	minutes				
(e). Loaded haul @20 K M per hour Leadx60/20x1000 =Average	1.5	minutes				
Total hauling cycle time=(a+b+c+d+e)	8.35	minutes				
No of dumper trip per working hour of 50 minute = 50 / Total hauling time	5.99	Trips				
Material carried-TripsxDumper capacity =	33.43	Cum				
Hourly use rate of Dumper (Vide item no 4.12c)	#VALUE!				#VALUE!	
Rate per cum=Use rate of Dumper/ Material carried					#VALUE!	
Total Machinery charges (i+ii+iii)					#VALUE!	A
B Add for					#VALUE!	B
I. Constuction and maintenance of haul road @ 5 % of machinery charges					#VALUE!	
Total(A+B)					#VALUE!	
Add Overhead charge & C.P.@15%		%			#VALUE!	
					#VALUE!	
					#VALUE!	
Rate per cum		Say Rs	#VALUE!	Per M ³		
7.140	Earth work in foundation excavation as per designed section in hard rock where blasting is needed and disposal of excavated rock with the combination of machines shovel, Dumper and Tractor - Dozer within one k.m with all lift including slacking properly in approved stack yard as well as construction and maintenance of haul roads, all complete as per specifications and direction of E/I.					
		Unit -Per Cum				
		Assuming out put=100 Cum				
A.	Drilling and blasting					
	(a) Drilling charges					
	Rock drilling for excavation will be carried out by jack hammers on the basis of the following table(Construction, planing, equipment and methods by R L.Peurify page 259) Considering 1 ft hole sufficient for blasting 0.92 cu yd (0.92 cum) of rock.					
	(Ref.Report of committee on cost control of River vally projects voi II. Jan. 1981)					
	Size of hole in mm	Hole patter meter	Area per hole cum	Quantity of rock per linear m of hole cum	Kg Of explosives per linear m of hole	Kg of esplosive per cum of rock @ of hole filled
						100%
	1	2	3	4	5	6
	38	1.52x1.52	2.31	2.31	1.34	0.58
	Depth of drilling per 100 cum of rock=100/2.31=43.29 m	43.29	M			
	Horizontal drilling and pull effect @ 50 %	21.65	M			
	Total drilling per 100 cum of rock	64.94	M			
	Say	65.00	M			
	Cost of drilling					
	Rate of drilling per hour 2.3 m	2.3	M			
	Hourly use rate (vide item 3.19)	6572.00			185730.43	PM-57001
	Cost of comprassed air= Total drilling per 100 cum of rockx hourly use rate (vide item 4.19)/rate of drilling per hour					
	Hourly use rate (vide item 3.2)	391.00				PM-15001
	Cost of drilling by jack hammer=Total drilling per 100 cum of rockx hourly use rate (vide item 4.2)/rate of drilling per hour				11050.00	
B.	Use rate of drilling steel per mt (Vide item no 4.2 a)	#VALUE!				
	Cost of drill steel 65 m	65	mtr		#VALUE!	
C.	Blasting materials including Carriage from Gomia to worksite, storage etc					
	(i) Cost of Gelatine					
	Assuming that the drill holes can be filled with dynamite upto 75 % of thiek capacity					
	The quantity of explosive required per 100 cum of rock=0.43x100	43	Kg			
	Cost of Gelatine	43	Kg	976.21	41977.03	
	(ii) Cost of Detonators					
	Average depth of hole	1.75	M			
	Quantity of rock per linear metre of hole	2.31	M			
	Quantity of rock per 1.75 m deep hole=	4.04				
	No of holes per 100 cum=	24.74				
	Say	25				
	Using one detonator per hole					

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	Nos of detonators per 100 cum	25	nos	6.19	154.75	
	(iii). Blasting batteries, primer, primac rod and loading wire etc per 100 cum @ 50 % of the cost of detonators				77.38	
	(iv). Stemming @ 40 % of the cost of detonators				61.90	
	Total (A+B+C)				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum				#VALUE!	
	Carriage of blasted rock upto 1 km.lead (vide item no 7.1.39)				Input	
					#VALUE!	
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.1.41	Earth work in foundation excavation as per designed section in sand and slushes soil in river bed and disposal of the same upto 1/2 km with the combination of machines Dragline Dumper and Tractor - Dozer complete job including construction and maintenance of haul roads, all complete as per specifications and direction of E/I.					
	Unit-Per Cum					
	Assuming out put=1.0 Cum					
	Average lead =	250	Metre			
	Tata P and H , Dragline capacity	2	cum			
	Net output of Dragline/hr	115	cum			
	Dumper 15 M T	15	M.T			
	Capacity 8.33 cum	8.33	cum			
	Swell factor= 0.75	0.75				
(A)	Machinery charges					
	i Use rate of Dragline/hr (Vide item 3.37a)	INPUT				
	Rate Per cum=Use rate / out put	Rs	#VALUE!	a		
	ii.Dumper 15 T					
	Average lead	250	M			
	Body capacity= capacity x Swell factor	6.25	(Bank volume)			
	Handling Cycle time---					
	(a) Loading time per minute= Body capacity / Dragline out put/minutes	3.26	minute			
	(b) spolling time=	0.30	minutes			
	(c) Turning and dumping time	2.00	minutes			
	(d) Empty haul @ 15 K.M per hour =Average Leadx60/15x1000	1	minutes			
	(e) Loaded haul @10 K.M per hour =Average Leadx60/10x1000	1.5	minutes			
	Total hauling cycle time=(a+b+c+d+e)	8.06	minutes			
	No of dumper trip per working hour of 50 minute = 50 / Total hauling time	6.20	Trips			
	Material carried=TripsxDumper capacity =	38.76	Cum			
	Hourly use rate of Dumper	#VALUE!				
	Rate per cum=Use rate of Dumper/ Material carried	#VALUE!	b			
	(iii). D- 8 Tractor Dozer					
	Assuming that one Dozer will work with one Draglines					
	Therefore out put of D-8 Tractor Dozer =	230	cum			
	Use Rate of D-8 Tractor Dozer	2930.00				PM1003
	Rate per cum of D-8=Use rate of / Out put	12.74	c			
	Total Machinery charges (a+b+c)	#VALUE!			#VALUE!	
B	Add for					
	i Construction and maintenance of haul road @ 5 % of machinery charges	#VALUE!			#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum		Say Rs	#VALUE!	Per M ³	
7.1.42	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond initial lead of 150 mtr but within 1.00 KM and all lifts by Tipper and loading by Front end loader,including unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit-Per Cum					
	Assuming out put=28.32 Cum					
A.	Labour					
	Unskilled mazdoor for dagbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6	nos	318.00	1908.00	{SI-1}

	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Male	0.25	nos	343.00	85.75	{S II-2}
					2470.75	
	Add Overhead charge & C.P@15%				370.6125	
					2841.36	100.33
B.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	1	cum.km	34.22	34.22	
					149.42	149.42
					249.75	
					249.75	
	Rate per cum	Say Rs		249.70	Per M ³	
7.1.43	Earth work in stripping in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same along with all organic materials in country side beyond 1.00 K.M but up to 2 K.M away with all lifts by Tipper and loading by Front end loader,including unloading and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Labour					
	Unskilled mazdoor for dagbelling	0.50	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for cutting earth as well as removing organic materials etc.	6	nos	318.00	1908.00	{SI-1}
	Unskilled mazdoor for preparation of sheet	1	nos	318.00	318.00	{SI-1}
	Male	0.25	nos	343.00	85.75	{S II-2}
					2470.75	
	Add Overhead charge & C.P@15%				370.6125	
					2841.36	100.33
B.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	2	cum km	34.22	68.44	
					183.64	183.64
					283.97	
					283.97	
	Rate per cum	Say Rs		283.90	Per M ³	
7.1.44	Earth work in excavation of cut-off trenches as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150 mtr but up to 1 K.M away with all lifts by Tipper and loading by Front end loader,including unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Assuming out put=28.32 Cum					
A.	Labour					
	Unskilled mazdoor for cutting earth	7.00	nos	318.00	2226.00	{SI-1}
	Unskilled mazdoor for profiling dressing and making edge straight	1.00	nos	318.00	318.00	{SI-1}
	Mason Gr I	0.25	nos	428.00	107.00	{S II-3}
					2651.00	
	Add Overhead charge & C.P@15%				397.65	
					3048.65	107.65
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	1	cum km	34.22	34.22	
					149.42	149.42
	Rate (A+B)				257.07	
					257.07	
	Rate per cum	Say Rs		257.10	Per M ³	
7.1.45.1*	Earth work in excavation of cut-off trenches as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 mtr from the Toe of the dam but within 1 k.m with all lifts by Tipper and loading by Front end loader,including unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)					
	Assuming 10cum					
A.	Labour					

	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.33	nos	526.00	173.58	{S I-54}
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00	Kg	976.21	1952.42	M-215
	Detonator	10	nos	6.19	61.90	M-217
	Fuse coil	1	nos	15.00	15.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				15.00	
					4549.64	
	Add Overhead charge & C.P@15%				682.45	
					5232.09	523.21
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	1	cum km	34.22	34.22	
					149.42	149.42
	Rate (A+B)					672.63
						672.63
	Rate per cum	Say Rs		672.60	Per M ³	
7.1.45 2	Earth work in excavation of cut -off trenches as per designed section in soft rock or ordinary rock, (Where blasting is not required) (vide classification of soil item C) with disposal of soil beyond 150 mtr from the Toe of the dam but within 1 k.m with all lifts by Tipper and loading by Front end loader,including unloading, construction and maintenance of haul roads as per specifications and direction of E/I					
	Assuming 10cum					
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
					2331.74	
	Add Overhead charge & C.P@15%				349.76	
					2681.50	268.15
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	1	cum km	34.22	34.22	
					149.42	149.42
	Rate (A+B)					417.57
						417.57
	Rate per cum	Say Rs		417.60	Per M ³	
7.1.46	Earth work in excavation of cut -off trenches as per designed section in hard rock and stacking properly in approved stack size in approved stack yard beyond initial lead of 150 mtr but upto 1 k.m in country side with all lifts by Tipper and loading by Front end loader,including unloading, stacking properly in approved stack yards,construction and maintenance of haul roads as per specifications and direction of E/I.					
	Taking out put=10 Cum					
A.	For Excavation					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all work	10.00	nos	318.00	3180.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.67	nos	526.00	352.42	{S I-54}
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976.21	2684.58	M-215
	Detonator	18	nos	6.19	111.42	M-217
	Fuse coil	3	nos	15.00	45.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				26.50	
					10048.16	
	Add Overhead charge & C.P@15%				1507.22	
					11555.38	1155.54

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B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader					*	
	Taking output = 1 cum km						
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20		
	Cost of Haulage vide item no 4.6(b)	1	cum km	34.22	34.22		
					149.42		149.42
	Rate (A+B)						1304.96
							1304.96
	Rate per cum	Say Rs		1305.00		Per M ³	
7.1.47	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in all kinds of soil including moorum soil, soil mixed with kanker, pebbles, and boulder upto 300 mm size and disposal of the same in country side beyond initial lead of 150 mtr but up to 1 K.M away with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I.						
	Assuming 28.32 cum						
A.	Labour						
	Unskilled mazdoor for cutting foundation	7 00	nos	318 00	2226 00		{SI-1}
	Unskilled mazdoor for forming spoil	1 00	nos	318 00	318 00		{SI-1}
	Mason Gr I	0 25	nos	428 00	107 00		{S II- 3}
					2651.00		
	Add Overhead charge & C.P@15%				397.65		
					3048.65		107.65
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader						
	Taking output = 1 cum km						
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20		
	Cost of Haulage vide item no 4.6(b)	1	cum km	34.22	34.22		
					149.42		149.42
	Rate (A+B)						257.07
							257.07
	Rate per cum	Say Rs		257.10		Per M ³	
7.1.48.1	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (vide classification of soil item C) disposal of soil beyond 150 mtr but upto 1 k.m away from toe of the dam with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I. (Soft rock where blasting is required and approved by concerned Chief Engineer)						
	Assuming 10cum						
A.	Labour						
	Hammer man	2 75	nos	334 00	918 50		{S II-17}
	Unskilled mazdoor for all work	4 00	nos	318 00	1272 00		{SI-1}
	Mason Gr I	0 33	nos	428 00	141 24		{S II- 3}
	Blaster	0 33	nos	526 00	173 58		{S I -54}
	Blasting material including carriage from Gomia to work site, storage etc.						
	Special Gelatin	2 00	Kg	976 21	1952 42		M-215
	Detonator	10	nos	6 19	61 90		M-217
	Fuse coil	1	nos	15 00	15 00		{0326}
	Tools and Plants						
	Cost of hire charge of compressor, drilling equipment and other accessories				15 00		
					4549 64		
	Add Overhead charge & C.P@15%				682 45		
					5232 09		523 21
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader						
	Taking output = 1 cum km						
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20		
	Cost of Haulage vide item no 4.6(b)	1	cum km	34.22	34.22		
					149.42		149.42
	Rate (A+B)						672.63
							672.63
	Rate per cum	Say Rs		672.60		Per M ³	
7.1.48.2	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in soft rock or ordinary rock (Where blasting is not required) (vide classification of soil item C) disposal of soil beyond 150 mtr but upto 1 k.m away from toe of the dam with all lifts by Tipper and loading by Front end loader, including unloading, construction and maintenance of haul roads as per specifications and direction of E/I.						

Assuming 10cum						
A.	Labour					
	Hammer man	2.75	nos	334.00	918.50	{S II-17}
	Unskilled mazdoor for all work	4.00	nos	318.00	1272.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
					2331.74	
	Add Overhead charge & C.P@15%				349.76	
					2681.50	268.15
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum km	34.22	34.22	
					149.42	149.42
	Rate (A+B)					417.57
	Rate per cum	Say Rs		417.60	Per M ³	417.57
7.1.49	Earth work in excavation of foundation trenches of toe wall, spillway, head regulators, outlets, intake wells etc as per designed section in hard rock where blasting needed and disposal of excavated rock by Tipper and loading by Front end loader, including beyond initial lead of 150 mtr but upto 1 k.m away from toe of the dam with all lifts including loading, unloading, construction and maintenance of haul roads as per specifications and direction of E/I.					
Assuming 10cum						
A.	Labour					
	Hammer man	10.50	nos	334.00	3507.00	{S II-17}
	Unskilled mazdoor for all work	10.00	nos	318.00	3180.00	{SI-1}
	Mason Gr I	0.33	nos	428.00	141.24	{S II-3}
	Blaster	0.67	nos	526.00	352.42	{S I-54}
	Blasting material including carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	976.21	2684.58	M-215
	Detonator	18	nos	6.19	111.42	M-217
	Fuse coil	3	nos	15.00	45.00	{0326}
	Tools and Plants					
	Cost of hire charge of compressor, drilling equipment and other accessories				26.50	
					10048.16	
	Add Overhead charge & C.P@15%				1507.22	
					11555.38	1155.54
B.	Carriage of earth by 10 cum capacity Tipper and loading by front end loader					
	Taking output = 1 cum km					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6 (b)	1	cum km	34.22	34.22	
					149.42	149.42
	Rate (A+B)					1304.96
	Rate per cum	Say Rs		1305.00	Per M ³	1304.96
7.1.50	Earth work in dam fill in semi previous or impervious zone by manual excavation and carriage by Tipper and loading by manual labours including , making dam in proper design section including earth to be laid in layers of not more than 225 mm thick with all lift and breaking clods to maximum 63 mm cubsas well as construction and maintenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurement- sectional measurement of compacted earth)					
Assuming 28.32cum						
7.1.50.1	Lead beyond 150 mtr but upto 1/2 K.M					
A.	Labour					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}
	Mate	1.00	nos	343.00	343.00	{S II-2}
					3841.00	
	Add Overhead charge & C.P@15%				576.15	
					4417.15	155.97
B.	Carriage of earth by 10 cum capacity Tipper					
	Taking output = 1 cum km					
	Loading and Unloading of Earth By manuals means					
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20	
	Cost of Haulage vide item no 4.6(b)	0.5	cum km	34.22	17.11	
					132.31	132.31

	Rate (A+B)					288.28	
	Rate per cum	Say	Rs	288.30	Per M ³	288.28	
7.1.50.2	Lead beyond 1/2 K.M but upto 1 K.M						
A.	Labour						
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}	
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}	
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}	
	Mate	1.00	nos	343.00	343.00	(S II-2)	
	Add Overhead charge & C.P@15%				576.15		
					4417.15	155.97	
B.	Carriage of earth by 10 cum capacity Tipper						
	Taking output = 1 cum.km						
	Loading and Unloading of Earth By manual means						
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20		
	Cost of Haulage vide item no 4.6(b)	1	cum.km	34.22	34.22		
					149.42	149.42	
	Rate (A+B)					305.39	
						305.39	
	Rate per cum	Say	Rs	305.40	Per M ³		
7.1.50.3	Lead beyond 1 K.M but upto 2 K.M						
A.	Labour						
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}	
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}	
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}	
	Mate	1.00	nos	343.00	343.00	(S II-2)	
	Add Overhead charge & C.P@15%				576.15		
					4417.15	155.97	
B.	Carriage of earth by 10 cum capacity Tipper						
	Taking output = 1 cum.km						
	Loading and Unloading of Earth By manual means						
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20		
	Cost of Haulage vide item no 4.6(b)	2	cum km	34.22	68.44		
					183.64	183.64	
	Rate (A+B)					339.61	
						339.61	
	Rate per cum	Say	Rs	339.60	Per M ³		
7.1.50.4	Lead beyond 2 K.M but upto 3 K.M						
A.	Labour						
	Unskilled mazdoor for stripping the borrow area	0.75	nos	318.00	238.50	{SI-1}	
	Unskilled mazdoor for throwing the stripped earth from borrow area	0.75	nos	318.00	238.50	{SI-1}	
	Unskilled mazdoor for cutting earth	9.50	nos	318.00	3021.00	{SI-1}	
	Mate	1.00	nos	343.00	343.00	(S II-2)	
	Add Overhead charge & C.P@15%				576.15		
					4417.15	155.97	
B.	Carriage of earth by 5.5 cum capacity Tipper						
	Taking output = 1 cum.km						
	Loading and Unloading of Earth By manual means						
	Loading of earth by Front end loader (Vide item no 4.1 b)	1	cum	115.20	115.20		
	Cost of Haulage vide item no 4.6(b)	3	cum km	34.22	102.66		
					217.86	217.86	
	Rate (A+B)					373.83	
						373.83	
	Rate per cum	Say	Rs	373.80	Per M ³		

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7.2 DRILLING WORK

Sr.No	Item	Rate	Unit
7.2.1.1	Core drilling of N x (53 mm To 75 mm) (Internal dia To External dia) size by Rotary core drilling machine upto 20 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
7.2.1.2	Core drilling of N x (Internal dia To External dia) (53 mm To 75 mm) (Internal dia To External dia) size by Rotary core drilling machine upto 20 meters depth and upto 30 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
7.2.2	Core drilling of 41mm To 75 mm (Internal dia To External dia) size by Rotary core drilling machine with T C drill bit in all kinds of soil mixed with boulder, pebbles, shingles etc. including reamina (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction maintenance of core and sludge for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
7.2.3.1	Core drilling of B x (41 mm To 59 mm)(Internal dia To External dia) size by Rotary core drilling machine upto 20 meters depth and upto 30 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
7.2.3.2	Core drilling of B x (Internal dia To External dia) (41 mm To 59 mm) size by Rotary core drilling machine upto 20 meters depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.	#VALUE!	Per M
7.2.4.	Drilling by Rotary core drilling machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill bit for grout and test holes in all kinds of soil including moorum, hard soil mixed with pebbles, shingles and compacted soil upto 20 meter depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
7.2.5	Drilling by Rotary drill machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T.C drill BUT for grout and test holes in clay soft and decomposed rock upto 20 meter depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till grouting, complete as per specifications and direction of E/I.	#VALUE!	Per M
7.2.6	Drilling B x (41 mm To 59 mm) (Internal dia To External dia) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.	#VALUE!	Per M

Per

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7.2.7	Drilling N x (53 mm To 75 mm) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.	#VALUE!	Per M
7.2.8.	Drilling Jack Hammer in hard of all kinds for grout holes upto 5 meter depth (for contact grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.	#VALUE!	Per M
7.2.9	Drilling by wagon drill machine in hard of all kinds for grout holes upto 5 meter depth (for consolidation grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.	#VALUE!	Per M

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7.2 DRILLING WORK

Sl.No.	Description	Quantity	Unit	Rate	amount	Ref.
7.2.1.1	Core drilling of N x (53 mm to 75 mm) (Internal dia To External dia) size by Rotary core drilling machine upto 20 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					Analysis same as Item 6.2.1.1
7.2.1.2	Core drilling of N x (Internal dia To External dia) (53 mm to 75 mm) (Internal dia To External dia) size by Rotary core drilling machine upto 20 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					Analysis same as Item 6.2.1.2
7.2.2	Core drilling of 41mm To 75 mm (Internal dia To External dia) size by Rotary core drilling machine with T.C drill bit in all kinds of soil mixed with boulder, pebbles, shingles etc. including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction maintenance of core and sludge for foundation exploration only complete as per specifications and direction of E/I.					Analysis same as Item 6.2.2
7.2.3.1	Core drilling of B x (41 mm To 59 mm)(Internal dia To External dia) size by Rotary core drilling machine upto 20 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					Analysis same as Item 6.2.3.1
7.2.3.2	Core drilling of B x (Internal dia to External dia) (41 mm to 59 mm) size by Rotary core drilling machine upto 20 M depth in all kinds of hard rock including finishing and maintenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per specifications and direction of E/I.					Analysis same as Item 6.2.3.2
7.2.4	Drilling by Rotary core drilling machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T C drill bit for grout and test holes in all kinds of soil including moorum, hard soil mixed with pabbles, shingles and compacted soil upto 20 metre depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till operation is completed as per specifications and direction of E/I.					Analysis same as Item 6.2.4
7.2.5	Drilling by Rotary drill machine of size 41 mm To 75 mm dia (Internal dia To External dia) with T C drill BUT for grout and test holes in clay soft and decomposed rock upto 20 metre depth including reaming (to facilitate smooth lowering of casing pipe) lowering of casing pipes and its extraction finishing etc. till grouting, complete as per specifications and direction of E/I.					Analysis same as Item 6.2.5
7.2.6	Drilling B x (41 mm To 59 mm) (Internal dia To External dia) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.					Analysis same as Item 6.2.6
7.2.7	Drilling N x (53 mm To 75 mm) size dia test and grout holes in all kinds of hard rock including finishing etc. till grouting operation is completed as per specifications and direction of E/I.					Analysis same as Item 6.2.7
7.2.8	Drilling Jack Hammer in hard of all kinds for grout holes upto 5 metre depth (for contact grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.					Analysis same as Item 6.2.8
7.2.9	Drilling by wagon drill machine in hard of all kinds for grout holes upto 5 metre depth (for consolidation grouting) all complete including washing of holes for period not exceeding 10 minutes per hole as per specifications and direction of E/I.					Analysis same as Item 6.2.9

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7.3. CONCRETE WORK

Sr.No	Item	Rate	Unit
7.3.1	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in flow and non-over flow of dam section with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr IV Taken)	#VALUE!	Per M ³
7.3.2	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in over flow and non-over flow sectopm of dry intake, structures and bridges etc with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. . as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	#VALUE!	Per M ³
7.3.3	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5 :3) in Dam and Spillways with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm lo 10 mm Taken)	#VALUE!	Per M ³
7.3.4	Providing and laying mass concrete of M-200 with nominal mix of (1:1:2) in Dam , Spillways and Head works with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	#VALUE!	Per M ³
7.3.5	Providing and laying P.C.C M-100 with nominal mix of (1: 3 : 6) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc... as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing royalty etc. all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design))(Rate of Coarse aggregates Gr IV Taken)	5070.50	Per M ³

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7.3.6	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.. as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty etc all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5406.20	Per M ³
7.3.7	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing royalty etc all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5893.50	Per M ³
7.3.8	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1:1:2) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc..but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty etc. all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	7071.60	Per M ³
7.3.9	Providing and laying P.C.C M-100 with nominal mix of (1:3:6) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.. as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing royalty etc all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates Gr IV Taken)	5109.20	Per M ³
7.3.10	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty etc. all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5406.20	Per M ³
7.3.11	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing royalty etc. all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	5932.20	Per M ³

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7.3.12	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1: 1 : 2) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc as well as royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing royalty etc all complete as per specifications and direction of E/I. (Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	7110.30	Per M ³
7.3.13	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.	386.80	Per Bags of cement
7.3.14	Providing M.S reinforcement(Plain steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
	(a) Dia of bar 6 mm	80852.50	Per M.T
	(B) Dia of bar above 6 mm to 12 mm	80852.50	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	80852.50	Per M.T
7.3.15	Providing M.S reinforcement (Tor steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.		
(a)	T.M.T. Fe-415- 8 mm	#VALUE!	Per M.T
(b)	T.M.T. Fe-415- 10 mm	#VALUE!	Per M.T
(c)	T.M.T. Fe-415- 12 mm	#VALUE!	Per M.T
(d)	T.M.T. Fe-415- 16 mm	#VALUE!	Per M.T
(e)	T.M.T. Fe-415- 20 mm	#VALUE!	Per M.T
(f)	T.M.T. Fe-415- 25 mm	#VALUE!	Per M.T
(g)	T.M.T. Fe-415- 20 mm	#VALUE!	Per M.T
(h)	T.M.T. Fe-415- 32 mm	#VALUE!	Per M.T
(i)	T.M.T. Fe-500- 8 mm	78245.60	Per M.T
(j)	T.M.T. Fe-500- 10 mm	76608.20	Per M.T
(k)	T.M.T. Fe-500- 12 mm	75892.10	Per M.T
(l)	T.M.T. Fe-500- 16 mm	75892.10	Per M.T
(m)	T.M.T. Fe-500- 20 mm	75892.10	Per M.T
(n)	T.M.T. Fe-500- 25 mm	75892.10	Per M.T
(o)	T.M.T. Fe-500- 28 mm	75892.10	Per M.T
(p)	T.M.T. Fe-500- 32 mm	75892.10	Per M.T
(q)	T.M.T. Fe-500- 36 mm	#VALUE!	Per M.T
7.3.16	Centering and shuttering in major dam work involving mass concrete including cost of form work, their carriage from work shop to work site, erection with the help of suitable crane and stripping etc. complete job as per specifications and direction of E/I.	#VALUE!	Per M ²
7.3.17	Providing shuttering including strutting, Propping etc. and its removal after use in foundation work as per specifications and direction of E/I.	522.50	Per M ²
7.3.18	Providing shuttering including strutting, Propping etc. and its removal after use in superstructure portion of various components of dam work as per specifications and direction of E/I.	522.50	Per M ²
7.3.19	Providing centering including strutting, Propping etc. and removing after use in deck slab as per specifications and direction of E/I.	701.20	Per M ²

Per

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7.3.20	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in flow and non-over flow of dam section with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (With Batching Plant, Transit Mixer Lead up to 1 K.M And Concrete Pump) (Taking Rate of approved quality of aggregate as per Design)) (Rate of Coarse aggregates Gr IV Taken)	3811.30	Per M ³
7.3.21	Providing and laying mass concrete of M-150 with nominal mix of (1:2 :4) in over flow and non-over flow sectopm of dry intake, structures and bridges etc with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete including royalty as per specifications and direction of E/I. (With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design))(Rate of Coarse aggregates 20 mm To 10 mm Taken)	4141.90	Per M ³
7.3.22	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5 :3) in Dam and Spillways with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc.but excluding cost of form work etc. wherever provided and removed after use, all complete including royalty as per specifications and direction of E/I. (With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20 mm To 10 mm Taken)	4630.40	Per M ³
7.3.23	Providing and laying mass concrete of M-250 with nominal mix of (1:1:2) in Dam , Spillways and Head works with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I. (With Batching Plant, Transit Mixer And Concrete Pump)(Taking Rate of approved quality of aggregate as per Design)(Rate of Coarse aggregates 20mm To 10 mm Taken)	5764.10	Per M ³

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7.3 CONCRETE WORK

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
7.3.1	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in flow and non-over flow of dam section with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royally but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					Analysis same as Item 6.3.13
7.3.2	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in over flow and non-over flow section of dry intake, structures and bridges etc with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc as well royally but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					Analysis same as Item 6.3.14
7.3.3	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5:3) in Dam and Spillways with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc as well royally but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					Analysis same as Item 6.3.15
7.3.4	Providing and laying mass concrete of M-200 with nominal mix of (1:1:2) in Dam, Spillways and Head works with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc as well royally but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.					Analysis same as Item 6.3.16
7.3.5	Providing and laying P.C.C M-100 with nominal mix of (1:3:6) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royally but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I.					Analysis same as Item 5.3.3
7.3.6	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1:2:4) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royally but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I.					Analysis same as Item 5.3.4
7.3.7	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1:1.5:3) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royally but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I.					Analysis same as Item 5.3.5
7.3.8	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1:1:2) in various components of dam foundation with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royally but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I.					Analysis same as Item 5.3.6
7.3.9	Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1:3:6) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc as well royally but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I.					
	Unit:-Per Cum					
	Taking Out put=2.832 Cum					
MATERIALS						
	Coarse aggregates Gr IV (Rate of approved quality of aggregate as per Design)	2.66	M ³	1080.50	2874.13	M-048
	Sand	1.330	M ³	494.00	657.02	M-004
	Cement	0.443	M ³	7582.35	3358.98	M-1 P
	Total				6890.13	
Labour						
	Head mason	0.5	nos	428.00	214.00	{S II -3}
	Mason Gr II	1.25	nos	382.00	477.50	{S II- 4}
	Unskilled mazdoor	12	nos	318.00	3816.00	{SI-1}
	Bhisli	1	nos	315.00	315.00	S II-13
	Total				4822.50	

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HIRE CHARGES OF MACHINE					
	(i) Concrete mixer (10 H.P.) for 2.832 cum consists on the basis of mixer production capacity 1.98 M ³ per hour.	283.00			PM21001
	= Used rate per hour 2.832/1.98	1.43	hr	283.00	404.69
	(ii) Vibrator 1no To vibrate 2.832 cum on the basis of vibrator capacity 1.98 cum per hour	1.43	hr	325.00	464.750
	= Used rate per hour 2.832/1.98				
					869.44
					12582.07
	Add Overhead charge & C.P@15%				1887.31
					14469.38
					5109.25
	Rate per cum	Say Rs		5109.25	Per M ³
7.3.10	Providing and laying P.C.C or R.C.C M-150 with nominal mix of (1: 2 : 4) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I				Analysis same as Item 5.3.9
7.3.11	Providing and laying P.C.C or R.C.C M-200 with nominal mix of (1: 1.5 : 3) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I				Analysis same as Item 5.3.13
7.3.12	Providing and laying P.C.C or R.C.C M-250 with nominal mix of (1: 1 : 2) in various components of dam superstructure with approved quality of graded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating, precooling etc. as well royalty but excluding cost of form work as well as of reinforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, etc. all complete as per specifications and direction of E/I				Analysis same as Item 6.3.10
7.3.13	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I				Analysis same as Item 6.3.25
7.3.14	Providing M.S reinforcement (Plain steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.				Analysis same as Item 5.3.21
7.3.15	Providing M.S reinforcement (Tor steel) as per approved design , drawing, removal of rust, cutting, bending, binding, including supplying annealed wire, placing M.S rods in position complete job as per specifications and direction of E/I.				Analysis same as Item 5.3.22
7.3.16	Centering and shuttering in major dam work involving mass concrete including cost of form work, their carriage from work shop to work site, erection with the help of suitable crane and stripping etc. complete job as per specifications and direction of E/I.				Analysis same as Item 6.3.19
7.3.17	Providing shuttering including structling Proping etc. and its removal after use in foundation work as per specifications and direction of E/I.				Analysis same as Item 5.3.18
7.3.18	Providing shuttering including structling Proping etc. and its removal after use in superstructure portion of various components of dam work including GST, labour cess & other taxes etc. as per specifications and direction of E/I				Analysis same as Item 5.3.19
7.3.19	Providing centering including strutting Proping etc. and removing after use in deck slab as per specifications and direction of E/I				Analysis same as Item 6.3.22
7.3.20	Providing and laying mass concrete of M-100 with nominal mix of (1:3:6) in Barrage with approved quality of raded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I				Analysis same as Item 6.3.26
7.3.21	Providing and laying mass concrete of M-150 with nominal mix of (1:2:4) in Barrage with approved quality of raded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I				Analysis same as Item 6.3.27
7.3.22	Providing and laying mass concrete of M-200 with nominal mix of (1:1.5:3) in Barrage with approved quality of raded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I				Analysis same as Item 6.3.28
7.3.23	Providing and laying mass concrete of M-250 with nominal mix of (1:1:2) in Barrage with approved quality of raded coarse aggregate of required grades as per design and approved quality sand of requisite F.M washed and screened including vibrating, curing etc. as well royalty but excluding the cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.				Analysis same as Item 6.3.29

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7.4 MASONARY WORK

Sr.No	Item	Rate	Unit
7.4.1	Brick work in designation 100 A Brick with cement motar (1 : 3) in foundation with approved quality coarse sand of requisite F.M washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	5047.80	Per M ³
7.4.2	Brick work in designation 100 A Brick with cement motar (1 : 4) in foundation with approved quality coarse sand of requisite F.M washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4909.90	Per M ³
7.4.3	Brick work in designation 100 A Brick with cement motar (1 : 5) in foundation with approved quality coarse sand of requisite F.M washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	4792.80	Per M ³
7.4.4	Brick work in designation 100 A Brick with cement motar (1:3) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required complete job as per specification and direction of E / I.	5177.00	Per M ³
7.4.5	Brick work in designation 100 A Brick with cement motar (1 : 4) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	5039.10	Per M ³
7.4.6	Brick work in designation 100 A Brick with cement motar (1 : 5) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curing, scaffolding and its removal wherever required including royalty etc. . complete job as per specification and direction of E / I.	4921.90	Per M ³
7.4.7	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. all complete job as per specification and direction of E / I.	3106.10	Per M ³
7.4.8	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. .complete job as per specification and direction of E/I.	2904.60	Per M ³
7.4.9	Providing rough dressed random rubble stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal, wherever required including royalty etc. all complete job as per specification and direction of E / I.	2781.20	Per M ³

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7.4.10	Providing rough dressed random rubble/coursed stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.	3267.50	Per M ³
7.4.11	Providing rough dressed random rubble/coursed stone masonry in cement mortar (1 : 4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal, wherever required complete job including royalty as per specification and direction of E / I.	3066.00	Per M ³
7.4.12	Providing rough dressed random rubble/coursed stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E/I.	2942.60	Per M ³
7.4.13	Providing rough dressed coarse rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	3267.50	Per M3
7.4.14	Providing rough dressed coarse rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	3066.00	Per M3
7.4.15	Providing rough dressed coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	2942.60	Per M3

Per

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7. 4 MASONARY WORK						
Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
7.4.1	Brick work in designation 100 A Brick with cement motar (1 : 3) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.1
7.4.2	Brick work in designation 100 A Brick with cement motar (1 : 4) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.2
7.4.3	Brick work in designation 100 A Brick with cement motar (1 : 5) in foundation with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.3
7.4.4	Brick work in designation 100 A Brick with cement motar (1 : 3) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.5
7.4.5	Brick work in designation 100 A Brick with cement motar(1 : 4) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curring, scaffolding and its removal wherever required complete job including royalty as per specification and direction of E / I.					Analysis same as Item 5.4.6
7.4.6	Brick work in designation 100 A Brick with cement motar (1 : 5) in superstructure with approved quality coarse sand of requisite F.M. washed and screened with raking out joints to 12 mm depth, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.7
7.4.7	Providing rough dressed random rubble stone masonry in cement mortar (1:3) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.9
7.4.8	Providing rough dressed random rubble stone masonry in cement mortar (1:4) in foundation with approved quality of coarse sand of requisite F.M washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.10
7.4.9	Providing rough dressed random rubble stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.11
7.4.10	Providing rough dressed random rubble/coursed stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.12
7.4.11	Providing rough dressed random rubble/coursed stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.13
7.4.12	Providing rough dressed random rubble/coursed stone masonry in cement mortar (1:5) in foundation with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.4.14
7.4.13	Providing rough dressed coarse rubble stone masonry in cement mortar (1:3) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.					Analysis same as Item 5.4.15
7.4.14	Providing rough dressed coarse rubble stone masonry in cement mortar (1:4) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curring, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.					Analysis same as Item 5.4.16

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7.4.15	Providing rough dressed coarse stone masonry in cement mortar (1:5) in superstructure with approved quality of coarse sand of requisite F.M. washed and screened with raking out joints, curing, scaffolding and its removal wherever required including royalty complete job as per specification and direction of E / I.	Analysis same as Item 5.4.17
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7.5. PLASTER WORK

Sr.No	Item	Rate	Unit
7.5.1	Providing 12 mm thick cement plaster (1:3) with approved quality sand of requisite F.M ,washed and screened including curing, scaffolding, wherever required, and its removal,royalty etc. complete job as per specification and direction of E / I.	173.90	Per M ²
7.5.2	Providing 12 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal ,royalty etc.complete job as per specification and direction of E / I.	165.90	Per M ²
7.5.3	Providing 12 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal ,royalty etc. complete job as per specification and direction of E / I.	160.50	Per M ²
7.5.4	Providing 25 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal ,royalty etc. complete job as per specification and direction of E / I.	283.60	Per M ²
7.5.5	Providing 25 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal ,royalty etc. complete job as per specification and direction of E / I.	269.00	Per M ²
7.5.6	Providing 25 mm thick cement plaster (1: 5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal ,royalty etc. complete job as per specification and direction of E / I.	253.40	Per M ²
7.5.7	Providing 12 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal ,royalty etc.complete job as per specification and direction of E / I.	184.30	Per M ²
7.5.8	Providing 25 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal. ,royalty etc.complete job as per specification and direction of E / I.	304.40	Per M ²
7.5.9	Providing 25 mm thick water proof cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, ,royalty etc. complete job as per specification and direction of E / I.	289.80	Per M ²

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7.5.10	Providing 1.5 mm thick cement punning including curing, ,royalty etc.. complete job as per specification and direction of E / I.	49.90	Per M ²
7.5.11	Providing cement ruled pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal complete job including royalty as per specification and direction of E / I.	165.00	Per M ²
7.5.12	Providing cement flush pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required complete job including royalty as per specification and direction of E / I.	121.70	Per M ²
7.5.13	Providing cement truck pointing (1:3) on Brick work with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, ,royalty etc.complete job as per specification and direction of E / I.	179.50	Per M ²
7.5.14	Providing cement truck pointing (1:3) on stone masonry with approved quality sand of requisite F.M , washed and screened and stander water proofing compound including curing, scaffolding wherever required, and their removal, ,royalty etc.. complete job as per specification and direction of E / I.	232.40	Per M ²

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7.5 PLASTER WORK

Sl.No	Description	Quantity	Unit	Rate	Amount	Ref
7.5.1	Providing 12 mm thick cement plaster (1: 3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc.complete job as per specification and direction of E / I.					Analysis same as Item 5.5.1
7.5.2	Providing 12 mm thick cement plaster (1: 4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.2
7.5.3	Providing 12 mm thick cement plaster (1:5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal,royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.3
7.5.4	Providing 25 mm thick cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever required and its removal, royalty etc complete job as per specification and direction of E / I.					Analysis same as Item 5.5.4
7.5.5	Providing 25 mm thick cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.5
7.5.6	Providing 25 mm thick cement plaster (1:5) with approved quality sand of requisite F.M . Washed and screened including curing, scaffolding wherever and its removal,royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.6
7.5.7	Providing 12 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.7
7.5.8	Providing 25 mm thick water proof cement plaster (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.8
7.5.9	Providing 25 mm thick water proof cement plaster (1:4) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.9
7.5.10	Providing 1.5 mm thick cement punning including curing, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.10
7.5.11	Providing cement ruled pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.11
7.5.12	Providing cement flush pointing (1:3) with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.12
7.5.13	Providing cement truck pointing (1:3) on Brick work with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete jobas per specification and direction of E / I.					Analysis same as Item 5.5.13
7.5.14	Providing cement truck pointing (1:3) on stone masonry with approved quality sand of requisite F.M . Washed and screened and stander water proofing compound including curing, scaffolding wherever required and their removal, royalty etc. complete job as per specification and direction of E / I.					Analysis same as Item 5.5.14

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7.6 PITCHING AND PILING

Sr.No	Item	Rate	Unit
7.6.1	Supplying and laying and filter blanketing in horizontal portion of the dam as per design and drawing with watering, compaction including cost of sand,royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	1313.10	Per M ³
7.6.2	Supplying and laying gravel filter (size 5 mm to 15 mm) in filter blanket in the toe drain (in horizontal portion) of the dam as per design and drawing including cost of materials.,royalty etc.but excluding the cost of carriage all complete job as per specification and direction of E / I.	1359.50	Per M ³
7.6.3	Supplying and laying good quality of stone filter (size 20 mm to 63 mm size) in rock toe, heal trench, toe drain as per design and drawing including the cost of material.,royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	1664.80	Per M ³
7.6.4	Supplying and laying boulder in rock toe heal trench of the dam as per design and drawing including the cost of materials ,royalty etc. but excluding the cost of carriage, all complete job as per	1495.50	Per M ³
7.6.5	Supplying and laying sand filter on slope of the dam as per design and drawing, with watering and compaction including the cost of materials ,royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E/I.	1506.80	Per M ³
7.6.6	Supplying and laying gravel filter (size 5 mm to 15 mm)on slope of the dam as per design and drawing including cost of materials, royalty etc. but excluding the cost of carriage all complete job as per specification and direction of E / I.	1682.30	Per M ³
7.6.7	Supplying and laying good quality of stone filter (size 20 mm to 63 mm size) on slope of the dam as per design and drawing including the cost of materials. but excluding the cost of carriage, all complete job including royalty as per specification and direction of E / I.	1987.60	Per M ³
7.6.8	Supplying and laying (properly as per design and drawing) riprap with good quality of boulder duly packed including the cost of materials,royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E/I.	1753.80	Per M ³

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7.6 PITCHING AND PILING

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref
7.6.1	Supplying and laying and filter blanketing in horizontal portion of the dam as per design and drawing with watering, compaction including cost of sand, royalty etc. but excluding the cost of carriage, all complete jobs per specification and direction of E / I.					
	Unit -Per Cum Taking Out put=2 832 Cum					
	Materials					
	Sand	2 832	cum	494.00	1399.01	M004
	Labour					
	Unskilled mazdoor for placing	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for spreading	1.5	nos	318.00	477.00	{SI-1}
	Unskilled mazdoor for watering and ramming	2	nos	318.00	636.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					3233.76	647.86
	Add Overhead charge & C.P@15%				485.06	
					3718.82	
						1313.14
	Rate per cum	Say Rs		1313.10	Per M ³	
7.6.2	Supplying and laying gravel filter (size 5 mm to 15 mm) in filter blanket in the toe drian (in horizontal portion) of the dam as per design and drawing including cost of materials,royalty etc. but excluding the cost of carriage all complete job as per specification and direction of E / I.					
	Unit -Per Cum Taking Out put=2 832 Cum					
	Materials					
	Cost of gravel filter (5 mm to 15 mm)	2 832	cum	815.00	2308.08	SI 281
	Labour					
	Unskilled mazdoor for placing	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for spreading	0.5	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for loqht compaction	0.5	nos	318.00	159.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					3347.83	367.14
	Add Overhead charge & C.P@15%				502.17	
					3850.00	
						1359.46
	Rate per cum	Say Rs		1359.50	Per M ³	
7.6.3	Supplying and laying good quality of stone filter (size 20 mm to 63 mm size) in rock toe, heal trench, toe drian as per design and drawing including the cost of materials, royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.					
	Unit -Per Cum Taking Out put=2 832 Cum					
	Materials					
	Cost of stone metal (20 mm to 63 mm)	2.832	cum	1080.50	3059.98	M035
	Labour					
	Unskilled mazdoor for placing	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for spreading	0.5	nos	318.00	159.00	{SI-1}
	Unskilled mazdoor for loqht compaction	0.5	nos	318.00	159.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					4099.73	
	Add Overhead charge & C.P15%				614.96	
					4714.68	
						1664.79
	Rate per cum	Say Rs		1664.80	Per M ³	
7.6.4	Supplying and laying boulder in rock toe heal trench of the dam as per design and drawing including the cost of materials, royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.					
	Unit -Per Cum Taking Out put=2 832 Cum					
	Materials					
	Cost of boulder	2 832	cum	675.00	1911.60	M001
	Labour					
	Mason Gr II	0.25	nos	382.00	95.50	{S II-4}
	Unskilled mazdoor	5	nos	318.00	1590.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					3682.85	625.44
	Add Overhead charge & C.P@15%				552.43	

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					4235.28	
						1495.51
	Rate per cum	Say Rs		1495.50	Per M ³	
7.6.5	Supplying and laying sand filter on slope of the dam as per design and drawing, with watering and compaction including the cost of materials, royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E/I.					
	Unit.-Per Cum Taking Out put=2.832 Cum					
	Materials					
	Cost of sand	2.832	cum	494.00	1399.01	M004
	Labour					
	Unskilled mazdoor for carrying	3	nos	318.00	954.00	{SI-1}
	Unskilled mazdoor for spreading	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for watering and ramming	2	nos	318.00	636.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					3710.76	
	Add Overhead charge & C.P@15%				556.61	
					4267.37	
						1506.84
	Rate per cum	Say Rs		1506.80	Per M ³	
7.6.6	Supplying and laying gravel filter (size 5 mm to 15 mm) on slope of the dam as per design and drawing including cost of materials, royalty etc but excluding the cost of carriage all complete jobs per specification and direction of E / I.					
	Unit.-Per Cum Taking Out put=2.832 Cum					
	Materials					
	Cost of gravel filter (5 mm to 15 mm)	2.832	cum	815.00	2308.08	BCD-7754
	Labour					
	Unskilled mazdoor for carrying	3	nos	318.00	954.00	{SI-1}
	Unskilled mazdoor for spreading	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for light compaction	0.5	nos	318.00	159.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					4142.83	
	Add Overhead charge & C.P@15%				621.42	
					4764.25	
						1682.29
	Rate per cum	Say Rs		1682.30	Per M ³	
7.6.7	Supplying and laying good quality of stone filter (size 20 mm to 63 mm size) on slope of the dam as per design and drawing including the cost of materials, royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.					
	Unit.-Per Cum Taking Out put=2.832 Cum					
	Materials					
	Cost of stone metal (20 mm to 63 mm)	2.832	cum	1080.50	3059.98	M035
	Labour					
	Unskilled mazdoor for placing	3	nos	318.00	954.00	{SI-1}
	Unskilled mazdoor for spreading	2	nos	318.00	636.00	{SI-1}
	Unskilled mazdoor for light compaction	0.5	nos	318.00	159.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					4894.73	
	Add Overhead charge & C.P@15%				734.21	
					5628.93	
						1987.62
	Rate per cum	Say Rs		1987.60	Per M ³	
7.6.8.	Supplying and laying (properly as per design and drawing) riprap with good quality of boulder duly packed including the cost of materials, royalty etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.					
	Unit.-Per Cum Taking Out put=2.832 Cum					
	Materials					
	Cost of boulder	2.832	cum	675.00	1911.60	M-001
	Labour					
	Mason Gr II	0.25	nos	382.00	95.50	{S II- 4}
	Unskilled mazdoor	7	nos	318.00	2226.00	{SI-1}
	Mate	0.25	nos	343.00	85.75	{S II-2}
					4318.85	
	Add Overhead charge & C.P@15%				647.83	
					4966.68	
						1753.77
	Rate per cum	Say Rs		1753.80	Per M ³	

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7.7 TUNNEL WORK

Sr.No	Item	Rate	Unit
7.7.1	Excavation of Tunnel portion in hard rock by blasting with all lead and lift, including dressing providing temporary support (steel or timber) wherever necessary, removal of spoil to dump site by truck within 1 km. lead from portal face all complete as per specifications and direction of E/I.	#VALUE!	Per M ³
7.7.2	Providing shot crete in arch portion of tunnel including cost of wire mesh (150 mm x 150 mm) all complete as per specifications and direction of E/I.	#VALUE!	Per M ³
7.7.3	Providing arrangement by pumping and disposal of surface water from the area of under ground excavation all complete as per specifications and direction of E/I.	#VALUE!	Per H.P Per Hour
7.7.4	Supplying, fabricating and erection of steel portal including steel lagging in concrete in live and grade all complete as per specifications and direction of E/I.	103866.70	Per M.T
7.7.5	Grouting in tunnel per bag cement consumption all complete as per specifications and direction of E/I.	411.90	per bag of cement
7.7.6	Excavation of vertical shaft for (Intake structure) in hard rock with all lift and disposal of the same by truck upto 1 Km lead from shaft face all complete as per specifications and direction of E/I.	#VALUE!	Per M ³
7.7.7	Drilling holes upto 38 mm dia rock including supplying and fixing 25 mm dia rock bolts slotted at one end and threaded at the other and with bearing plates, bolts, nuts etc. complete including clearing holes before fixing rods as per drawing, specifications and direction of E/I.	#VALUE!	Per M ²

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7.7 TUNNEL WORK

Sl.No	Description	Quantity	Unit	Rate	Amount	Ref.
7.7.1	Excavation of Tunnel portion in hard rock by blasting with all lead and lift, including dressing providing temporary support (steel or timber) wherever necessary, removal of spoil to dump site by truck within 1 km. lead from portal face all complete as per specifications and direction of E/I.					
	Unit-Per Cum Taking Out put=1.0 Cum					
	Assuming					
	Formate for tunnel diameter	7	metre			
	Thickness of linings	0.5	metre			
	Length of Tunnel- as per requirement		metre			
	Excavated dia of tunnel					
	=Finished dia of tunnel+2 x thickness of lining+2x Aistance of pay lines =7.00+2x0.5+2x0.15 = 8.30 metre	8.3	metre			
	Sectional area of tunnel =22d ² /(7 x4) = 22/7 x(8.3) ² /4	54.13	sqm			
	Add for over break @ 20 %	10.83	sqm			
	Cross sectional area of tunnel	64.95	sqm			
	Quantity of excavation per metre length of tunnel	64.95	cum			
	Say	65	cum			
	Assume progress per face (This includes drilling, blasting, mucking, ribbing and packing etc. 0= 3 Metre per day	3	Mtr/day			
	Hence Quantity of excavation per day	195	cum			
	No of working shift of 8 hours.					
	Each.....	3	nos			
	Quantity of excavation	65	Cum (Borrow measure)			
	Cycle of operations					
	Drilling and shifting working platform	6	hours			
	Charging and blasting	1	hours			
	Defusing	1	hours			
	Mucking	4	hours			
	Rock bolting, rib erection and concreting	12	hours			
	(A) Direct labour					
	Junior formen	1	nos/shift	480.00	480.00	(SII 55)
	Sr. Formen Spl. Drilling	1	nos/shift	539.00	539.00	(SII 54)
	Supervisor (Diploma holder)	1	nos/shift	516.00	516.00	(SII 62)
	Electrician Gr I	1	nos/shift	405.00	405.00	(SII 57)
	Blaster	2	nos/shift	526.00	1052.00	(S I -54)
	Hole cleaner	2	nos/shift	325.00	650.00	(SII 30)
	Helper to Electrician	1	nos/shift	334.00	334.00	(SII 16)
	Unskilled mazdoor	12	nos/shift	318.00	3816.00	(SI-1)
	Semi skilled mazdoor	12	nos/shift	403.00	4836.00	(SII 70)
	Wiremen for Blasting	1	nos/shift	367.00	367.00	(SII 42)
	Rate of labour per cum = Total wage/Quantity of excavation per day				66.64	A
	(B). Machinery charges					
	SL no Equipment Nos Working hr/ day	Total Working hr/ day	Use rate per hr vide item no	Rate		
1	Drill jumbo 1 6	6	3.1	#VALUE!	#VALUE!	
2	Trolley 16 4	64	3.31	input	#VALUE!	
3	Jack hammer (48 nos) 10 5	50	3.2	INPUT	#VALUE!	
4	Scalling hammer 2 4	8	3.3	#VALUE!	#VALUE!	
5	Drill excavattors 2 1	2	3.32a	#VALUE!	#VALUE!	
6	Grinder 2 1	2	3.33	#VALUE!	#VALUE!	
7	Convey muckers (1 cyd) 1 5	5	3.9	#VALUE!	#VALUE!	
8	Battery Locomotive 4 5	20	3.17b	#VALUE!	#VALUE!	
9	D.8 Tractor Dozer 1 6	6	3.11a	#VALUE!	#VALUE!	
	Total Machinery charges				#VALUE!	
	Rate per cum = Total Machinery charges/Quantity of excavation per day				#VALUE!	B
	(C). Material charges					
	1. DRILLING AND BLASTING					
	(a) It is proposed that to obtain 3 mtr progress per day face metre deep holes will be drilled.					
	Gross section area of tunnel	54.11	Sqm			
	Assuming average spacing of hole 0.75 m c/ c					
	Area of rock Gross section per face = 54.11/0.562	96	nos			
	Total depth of drilling 96 x 3.3 = 316.80 metre					
	Cost of drill steel for 316.80 metre =	#VALUE!				
	Quantity of rock excavated per day	195	cum			
	Rate for drill steel per cum= Total cost of drill steel / Quantity of rock excavated				#VALUE!	

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(b) Explosives					
(i) Gelatine required per cum	1	Kg	976 21	976 21	
(ii) Detonators @ one per hole per face	96	nos	6 19	594 24	
(iii) Fuse coils @ one per hole per face	96	nos	15 00	1440 00	
Quantity of rock excavated per day	195	cum			
Hence Rate of explosive per cum= Cost of detonators+Fuse coils /Quantity of rock excavated				15 44	
(iii) Other consumable petty stores such as blasting batteries, galvano metres and blasting wires etc. 50 % of item (i)				488 11	
Total explosive charge =i+ii+iii				1479 75	
Total Drilling and blasting charge (a+b)				#VALUE!	C
(D) Charge for ventilator blowers					
Use rate of ventilation blower	#VALUE!				
Total blower charge/ shift= use rate/8	#VALUE!				
Rock excavated per shift=	65	cum			
Rate per cum=Total blower charge per shift / Rock excavated per shift	#VALUE!			#VALUE!	D
(E) Shop charge					
(i) Machine shop including foundry and smithy structural shop, steel metal shop, Air and water shop and foundry @ 40 % of machinery charges (B)				#VALUE!	E
(F) Electrical materials charges @ 10 % of item (C)				#VALUE!	F
G) Compressed air charge @ 20 % of item C				#VALUE!	G
(H) Water charge @ 4 % of item (C)				#VALUE!	H
(I) Carnage of excavated rocks by truck upto 1 km from portal face					
Average lead=575 M	575	M			
Truck capacity B MT =6 cum (swell factor 0.67)	6	Cum			
Net capacity 6 x 0.67 = 4.02 cum	4.02	cum			
Cycle time----	16	k m/hr			
(a) Hauling time @ 16 KM (Average)speed per hours =575x60x2/1000x16=4.31 minutes	4.31	minutes			
(b) Loading unloading turning and spolling time=60 minutes	60	minutes			
Total hauling cycle time=64.31 minutes	64.31	minutes			
No of trip per working hour = 60 / 64.31=0.93 trips	0.93	Trips			
Material carried=0.93x4.02 =3.74M ³	3.74	Cum			
Hourly use rate of truck	0	hr			
Rate per cum=Use rate of truck/3.74 =192.60 /3.74	0.00		Rs	0.00	
Constuction and maintenance of haul road Add @ 5 % of Item (b)			Rs	0.00	
Add 2 % for electric charge				0.00	
Total of A+B+C+D+E+F+G+H+I+J				#VALUE!	
Add Overhead charge & C.P.@15%				#VALUE!	
				#VALUE!	#VALUE!
Rate per cum	Say Rs		#VALUE!	Per M ³	
7.7.2 Providing shot crete in arch portion of tunnel including cost of wire mesh (150 mm x 150 mm) all complete including royalty as per specifications and direction of E/I.					
Unit -Per Cum					
Taking Out put=1.0 Cum					
A Materials					
Cement	0.034	cum	7582.35	257.80	M-1 P
Coarse aggregate	0.033	cum	1080.50	35.66	M-033
Sand	0.1	cum	494.00	49.40	M004
				342.86	A
(B) B. Batching and mixing charge per bag					
Use rate of Batching and mixing plant	617.00				PM20001
Batching and mixing plant capacity 26.76 cum (35 cuyd)	26.76	cum			
(Taking job management factor as 0.69)	0.69				
Rate of mass concrete per cum= Use rate/(26.76*0.69)	15.91				
Charge for mixing of materials per bag= Rate of mass concrete per cum/7.5				2.12	B
(C) Transport of concrete by 3.06 cum (4 cuyd) buckets hauled by 5 T Diesel Locomotive from batching and mixing plant to pick up point	3.06	cum			
Average lead= 1.0 Km	1.00	Km			
Hauling Cycle time					
Ideal production at Batching plant=57.34 cum (75 cuyd)	57.34	cum			
Actual production with 0.69 x 57.34=39.56 cum	39.56	cum			
i>Loading time of a Train =3.06 x2 x60/39.56 =9.28 minutes	9.28	minutes			
ii.spolling time and waiting time =	1.50	minutes			
iii.Turning and unloading time	9.28	minutes			
iv.Empty haul @6.00 K.M per hour =Average Leadx60/6	10.00	minutes			

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	v Loaded haul @ 6 00 K M per hour	=Average Leadx60/6	10 00	minutes			
	Total hauling cycle time=(i +ii+iii+iv+v)		40 06	minutes			
	No of trips in 50 cum in working		1.25				
	Output of one trian with 2 buckets per hr		7.65	cum			
	Use rate of Diesel Locomotive		#VALUE!				
	Use rate of concrete buckets 2.nos		172.00				PM64001
	Total use rate		#VALUE!				
	Transport rate off mass concrete per cum	= Total use rate/7 65	#VALUE!				
	Charge for transport of mix to site per bag= Transport Rate of mass concrete per cum / 7.5					#VALUE!	C
	(D). Placement charges						
	Use rate of shot crete Machine	input					
	Capacity		1	cum			
	Considering no of shots by shot creting Machine per hr		6				
	Output of per hr		6	cum			
	Use rate of shot crete Machine per bag of cement consumption with 80 % efficiency = Use rate of short crete machine per hour / 0.8 x 6 x 7 5					#VALUE!	D
	(E). Lighting, work shop charge and other miscelleneous item @ 100 % of use rate of shout crete machine per bag					#VALUE!	E
	Rate per bag of cement constructed=A+B+C+D+E					#VALUE!	
	Add Overhead charge & C.P@15%					#VALUE!	
						#VALUE!	
	Rate per cum	Say Rs			#VALUE!	Per M ³	
7.7.3	Providing arrangement by pumping and disposal of surface water from the area of under ground excavation all complete as per specifications and direction of E/I.						
		Unit - r H.P. Per Hour					
	(A) Pump charge						
	Use rate of --- H.P pump per hour		15	HP		#VALUE!	A
	(B) Pipe and Accessories						
	(a). Depreciation charge						
	i 250 mm dia pipe		3	Mtr	#VALUE!	#VALUE!	
	ii M.S Bends		5	nos	#VALUE!	#VALUE!	
	iii Foot valve		1	nos	#VALUE!	#VALUE!	
	iv Sluice valve		1	nos	#VALUE!	#VALUE!	
	v. Vacuum pumping set 5 H.P		1	nos	#VALUE!	#VALUE!	
	vi. Reflex valve		1	nos	#VALUE!	#VALUE!	
	Total					#VALUE!	
	Raled lift = 20000hrs						
	Depreciation charge per hr = 0.734 x total cost of material(0.75x20000)					#VALUE!	a
	(REF Report of committee on cost control of River vally project, Vol II Jan 81)						
	(b) Repair and maintenance charge						
	Total repair provision @ 50 % of Depreciation					#VALUE!	b
	Repair and maintenance charge per hour=						
	(c). P.O.L. charge						
	Energy consumed in 5 H.P vacum pumping set kwh		3.73	kwh	#VALUE!	#VALUE!	c
	Cost of 3.73 kwh @ Rs						
	(d) Labour charge						
	Plumber		1	nos	405.00	405.00	(SII- 32)
	Helper		1	nos	334.00	334.00	(SII 16)
	Mechanic Gr II		0.5	nos	456.00	228.00	(SII-44)
	Total					967.00	
	Labour charge per hr=Total labour charge/B					120.88	d
	Total charge of Pipe and Accessories=a+b+c+d					#VALUE!	B
	(C). Making sumps for placing pipe						
	Labour						
	Semi skilled mazdoor		4	nos	403.00	1612.00	(SII 70)
	Labour charge per hr= Labour charge/8					201.50	C
	(D). Misc. charge and making platform etc. for pumps						
	Add @ 10 % of the total charges A+B+C					#VALUE!	D
						#VALUE!	
	Rate per H P per Hr=(A+B+C+D)/15					#VALUE!	
	Add Overhead charge & C.P@15%					#VALUE!	
						#VALUE!	
	Rate per H P per hour	Say Rs			#VALUE!	Per H.P Per Hour	

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7.7.4	Supplying, fabricating and erection of steel portal including steel lagging in concrete in live and grade all complete as per specifications and direction of E/I					
	Unit - Per M T					
	Taking Out put=1.0 M T					
	(REF Report of committee on cost control of River vally project, Voi II Jan. 81 page)					
	A. Materials					
	1 025 M.T. cost of structural steel at project store (2.5 % wastage and incidental to work)	1 025	M T	57033 00	58458 83	(M-181)
	B. Fabrication					
	i. Making roller section 2.5 % of the cost of stock A. above				1461 47	
	ii Cutting 3 % Of A above				1753 7648	
	iii Bending of rolled section @ 6% of A above				3507.53	
	iv. Welding					
	a Cost of electricity including 20% reject @ 8 % of A. above				4676 71	
	b Labour and electric charge @ 10 % of A				5845 8825	
	c Handling of material during fabrication @ 5 % of A				2922 9413	
	d Temporary fixture @ 8 % of A				4676 71	
	Total welding charge				18122 24	
	Total of fabrication i to iv				24845 00	B
	C. Erection					
	Transport of material out of work shop operation, handling final matching and field welding etc @ 12 % of A				7015.06	C
	Total cost A+B+C				90318.88	
	Add Overhead charge & C.P@15%				13547 83	
					103866.72	
						103866 72
	Rate per M T	Say Rs		103866.70	per M T	
7.7.5	Grouting in tunnel per bag cement consumption all complete as per specifications and direction of E/I.					
	Unit - Bag of cement					
	Taking Out put -	1	Bags			
	(A) Cost of 1 05 bag of cement at site including 5 % wastage and incidental charge	0 0357	Cum	7582 35	270 69	
	(B) Grouting					
	i. Hourly use rate of grouting machine	525.00				PM60001
	Taking progress of grouting 6 bags of cement per hour	6	Bags			
	Cost of Grouting= use rate/6				87 50	
					358 19	
	Add Overhead charge & C.P@15%				53 73	
					411 92	
						411 92
		Say Rs		411.90	Per Bag of cement	
7.7.6	Excavation of vertical shaft for (Intake structure) in hard rock with all lift and disposal of the same by truck upto 1 Km lead from shaft face all complete as per specifications and direction of E/I.					
	Unit - Per Cum					
	Taking Out put=1.0 Cum					
	Assuming					
	Formate diameter of shaft	13	metre			
	Av Thickness of linings (Taking 1.5 mtr at bottom land 0.5 mtr at top as thickness of lining)including pay line of 0.15 mtr	1.15	metre			
	Excavated dia of vertical shaft = Finished dia of shaft +2 x thickness of lining+2x Aistance of pay lines =13.00+2x(1+0.15) = 15.30 metre	15 3	metre			
	Sectional area of shaft =22d ² /(7 x4) = 22/7 x(8.3) ² /4	183.93	sqm			
	Add for over break @ 10 %	18.39	sqm			
	Cross sectional area of shaft	202.32	sqm			
	Quantity of excavation per metre height of shaft	202 32	cum			
	Say	202	cum			
	Assume progress per face (This includes drilling, blasting, mucking, ribbing and packing etc. 0= 1 Metre per day	1	Mtr/day			
	Hence Quantity of excavation per day	202	cum			
	No of working shift of 8 hours.					
	Each	3	nos			
	Quantity of excavation	67.33	(Borrow measure)			
	Cycle of operations					
	Drilling and shifting working platform	2.5	hours			
	Charging and blasting	0.5	hours			
	Defusing	0.5	hours			
	Mucking	3	hours			
	Rock bolting, rib erection and concreting	1.5	hours			
	Total	8	hours			

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(A). Direct labour							
Sr. Formen Spl. Drilling	1	nos	539.00	539.00	(SII 54)		
Supervisor (Diploma holder)	1	nos	516.00	516.00	(SII 62)		
Electrician Gr II	2	nos	382.00	764.00	(SII 58)		
Blaster	3	nos	526.00	1578.00	(SI -54)		
Hole cleaner	5	nos	325.00	1625.00	(SII 30)		
Helper to Electrician	3	nos	334.00	1002.00	(SII 16)		
Unskilled mazdoor	24	nos	318.00	7632.00	(SI-1)		
Semi skilled mazdoor	24	nos	330.00	7920.00	(SII 69)		
Wiremen for Blasting	5	nos	367.00	1835.00	(SII 42)		
Stone men	1	nos	325.00	325.00	(SII 37)		
Total labour				23736.00			
Rate of labour per cum = Total wage/Quantity of excavation per day				352.51	A		
(B). Machinery charges							
SL no	Equipment	Nos	Working hr/ day	Total Working hr/ day	Use rate per hr vide item no	Rate	
1	D B Tractor Dozer	1	1	1	3.11a	input	#VALUE!
2	Convey mucker	20	3	60	3.9	#VALUE!	#VALUE!
3	Jack hammer (52 lb)	24	2.5	60	3.2	input	#VALUE!
4	Scaling hammer	3	1	3	3.3	#VALUE!	#VALUE!
5	Drill excavators	2	1/2	1	3.32	#VALUE!	#VALUE!
6	Grinder	1	1	1	3.33	#VALUE!	#VALUE!
7	30 T.Hoist	1	3	3	3.7b	1161.00	3483
8	Loader	1	3	3	3.35 a	1199.00	3597.00
Total Machinery charges							#VALUE!
Rate per cum = Total Machinery charges/Quantity of excavation per day							#VALUE!
(C). Material charges							
1. DRILLING AND BLASTING							
(a) It is proposed that to obtain 1 mtr progress per day 1.25mtr. deep holes will be drilled Gross section area of shaft 22x4 (13+1.25) ² / (7x4)				177	Sqm		
Assuming average spacing of hole 0.80 m c/c							
Area of Cross section per hole = 0.8x0.8				0.64	sqm		
No of hole required=Gross section area of shaft/Area of Cross section per hole				274.00		175.04	
Total depth of drilling				342.50			
Cost of drill steel for per metre =				INPUT			
Cost of drill steel for 342.5 metre =				#VALUE!			
Quantity of rock excavated per day				202.0	cum		
Rate for drill steel per cum= Total cost of drill steel / Quantity of rock excavated				#VALUE!		#VALUE!	
(b). Explosives							
(i) Gelatine required per cum				1	Kg	976.21	
(ii) Detonators @ one per hole per face				274	nos	6.19	
Fuse coils @ one per hole per face				274	nos	15.00	
Quantity of rock excavated per day				202	cum		
Hence Rate of explosive per cum= Cost of detonators+Fuse coils /Quantity of rock excavated						28.74	
(iii) Other consumable petty stores such as blasting batteries, galvanic metres and blasting wires etc. 50 % of item (i)						488.11	
Total explosive charge =i+ii+iii						1493.06	
1 Total explosive charge and blasting charge (a+b)						#VALUE!	
2.Provision of pipe lines for air and water for wet drilling rate per cum@ 4 % of 1						#VALUE!	
3 Timber for supports packing rate per cum @ 5 % of 1						#VALUE!	
4. Miscellaneous supplies such as safety hats, gunboots, rain coats, wire ropes, manila ropes, v-clampes, rubber gloves, shackles and artificial respirators rate per cum @ 4 % of 1						#VALUE!	
Total material charge 1+2 +3+4						#VALUE!	
(D). Charge for ventilator blowers.							
Use rate of ventilation blower				#VALUE!			
Total blower charge/ shift= use rate x8				#VALUE!			
Rock excavated per shift=				67.33	cum		
Rate per cum=Total blower charge per shift / Rock excavated per shift				#VALUE!		#VALUE!	
(E). Shop charge							
(i) Machine shop including foundry and smithy structural shop, steel metal shop, Air and water shop and foundry @ 40 % of machinery charges (B)						#VALUE!	
(F) Electrical materials charges @ 10 % of item (C)						#VALUE!	
(G) Trolley Track charge Per M3 @ 5% of (C)						#VALUE!	
(H). Compressed air charge @ 20 % of item C						#VALUE!	

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(I) Water charge @ 4 % of Item (C)				#VALUE!	I
(J) Carriage of excavated rocks by truck upto 1 km from portal face					
Average lead=575 M	575				
Truck capacity 8 MT =6 cum (swell factor0.67)	6				
Net capacity 6 x 0.67 = 4.02 cum	4.02				
Cycle time----	16				
(a) Hauling time @ 16 KM (Average)speed per hours =575x60x2/1000x16=4.31 minutes	4.31				
(b) Loading unloading turning and spooling time=60 minutes	60				
Total hauling cycle time=64.31 minutes	64.31				
No of trip per working hour = 60 / 64.31=0.93 trips	0.93				
Material carried=0.93x4.02 =3.74M ³	3.75				
Hourly use rate of truck	INPUT				
Total Rate per cum=Use rate of truck/3.74 =192.60 /3.74			Rs	#VALUE!	
Constuction and maintenance of haul road Add @ 5 % of Item (b)	5	%	Rs	#VALUE!	
Add 2 % for electric charge	2	%		#VALUE!	J
Total of A+B+C+D+E+F+G+H+I+J+K				#VALUE!	
Add Overhead charge & C.P@15%				#VALUE!	
				#VALUE!	#VALUE!
Rate per cum	Say Rs		#VALUE!	per cum	
7.7.7 Drilling holes upto 38 mm dia rock including supplying and fixing 25 mm dia rock bolts slotted at one end and threaded at the other and with bearing plates, bolts, nuts etc complete including clearing holes before fixing rods as per drawing, specifications and direction of E/I.					
	Unit -Per M				
	Taking Out put=1.0 M				
A. Drilling					
i. Cost of drilling use rate of Jack hammer	INPUT				
average rate of drilling 35 mm dia metre hole per hour	2.3	mtr			
Hence rate of drilling per metre= Use rate of Jack hammer/2.3	#VALUE!				
ii. Cost of drill rod per mtr of drilling	1	mtr	#VALUE!	#VALUE!	
B Supply and making the bolts					
i Rock bolt 25 mm dia metre	1	mtr	#VALUE!	#VALUE!	
ii Wastage in cutting 2.5 % of B (i)	2.5	%		#VALUE!	
Sub-Total				#VALUE!	
Grand Total				#VALUE!	
Add Overhead charge & C.P@15%				#VALUE!	
				#VALUE!	
Rate per metre	Say Rs		#VALUE!	per metre	#VALUE!

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7.8 MISCELLANEOUS

Sr.No	Item	Unit	Rate
7.8.1	Supplying, fitting and fixing in position mild steel trash rack and trash rack covering wherever needed in dam and allied works complete job as per drawing, specifications and direction of E/I.	#VALUE!	Per M.T
7.8.2	Supplying, fitting and fixing in position mild steel stop leg gates wherever needed in dam and allied works complete job as per drawing, specifications and direction of E/I.	#VALUE!	Per M.T
7.8.3	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 99 % purity) in expansion joints complete job as per drawing, specifications and direction of E/I.	1071.20	Per kg
7.8.4	Supplying, fitting and fixing rubber seal of (water stop) of approved quality for construction joints expansion joints complete job as per drawing, specifications and direction of E/I.	#VALUE!	Per Meter
7.8.5	Supplying, and fixing in position 25 mm thick Bituminous board (ShaliteX or equivalent) in expansion or construction joint in dam and its allied works all complete as per approved design, specifications and direction of E/I	#VALUE!	Per M ²
7.8.6	Supplying, and fixing Bitumen filter (Bitumen, cement and sand) in construction joints in dam and its allied works all complete as per approved design, specifications and direction of E/I	168.80	Per cm width Per cm depth Per 100 mtr length
7.8.7	Providing slope drain with boulder duly cement grouted in (1 : 10) over layers of sand, gravel filter as per approved design, specifications and direction of E/I	1079.60	Per Meter
7.8.8	Construction slope drain and cross drain and berm drain with cement plaster (1 : 3) including the cost of all materials as per specifications and direction of E/I	17053.70	Per Meter
7.8.9.1	Providing and driving steel sheet piles on specified alignment and upto designed levels including painting the sheet piles with two coats of anti-corrosive bitumen paint (portion of sheet pile inside concrete shell not be painted) including cost of sheet piles and hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile driving, measurement of sheet pile duly driven shall be taken only)	#VALUE!	Per M.T
7.8.9.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only)	#VALUE!	Per M.T
7.8.10	Unloading cement , light stacking materials steel materials from Railway wagon and stacking the same in Railway yard for verification within a distance of 150 mtr. From Railway track all complete job as per direction of E/I	152.40	Per M.T
7.8.11	Unloading heavy structural steel materials of all categories (Not required the use of crane) from Railway wagon and stacking the same in Railway yard for verification within a distance of 150 mtr. From Railway track all complete job as per direction of E/I	190.50	Per M.T

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7.8.12	Carriage of cement, steel and other materials from departmental godown to site or vice-versa by head load and stacking the same beyond 45 M and upto 165 M including the cost of all labours all complete as per direction of E/I.	228.60	Per M.T
7.8.13	Extra for each additional lead of 45 M or a part there of beyond the initial lead of 165 M as per direction of E/I.	68.60	Per M.T
7.8.14	Labour rate for reshuffling and restacking of cement bage including restacking in Godaown as per direction of E/I	9.10	Per bag

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7.8 MISCELLANEOUS

Sl.No.	Description	Quantity	Unit	Rate	Amount	Ref.
7.8.1	Supplying, fitting and fixing in position mild steel trash rack and trash rack covering wherever needed in dam and allied works complete job as per drawing, specifications and direction of E/I					
	Unit-Per M.T Taking Out put=1.0 M.T					
	(REF Report of committee on cost control of River vally project, Voi II Jan. 81)					
	A.Materials					
	i.Mild steel in shape of structurals such as beams, angle, flate, rods and plates(adopt average effective rate of all structurals)	1	M.T			
	Add wastage (During various operation and handling) @ 2.5 %	0.025	M.T			
	Sub-Total	1.025	M.T	57033.00	58458.83	M-181
	ii Acetylene	3.8	cum	input	#VALUE!	
	iii. Oxygen	16	cum	#VALUE!	#VALUE!	
	iv. M.S Electrodes	330	nos	input	#VALUE!	
	v. Miscellaneous items like oil and paints @ 2 % of the cost of mild steel /M.T				1169.18	
	Sub-Total (A)				#VALUE!	A
	B.Labour					
	i.Fabrication including cutting, welding and making @ 40 % of the cost of mild steel /				23383.53	
	ii Straightening and black smithy charges @ 15 % of the cost of mls steel / M.T				8768.82	
	iii. Miscellaneous labour charges i.e handling of job to different shops @ 3 % of cost of mild steel /M.T				1753.76	
	Sub-Total(B)				33906.12	B
	C. Transportation and erection charge					
	i.Transportation and positioning of the trash rack at site of work @ 10 % of cost of mild steel /M.T				5845.88	
	ii. Erection of embaded parts and trash rack @ 40 % of cost of mild steel /M.T				23383.53	
	Sub-Total(C)				29229.41	C
	Grand Total				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	
					#VALUE!	#VALUE!
	Rate per MT	Say Rs		#VALUE!	Per MT	
7.8.2	Supplying, fitting and fixing in position mild steel stop log gates wherever needed in dam and allied works complete job as per drawing, specifications and direction of E/I.					
	Unit-Per M.T Taking Out put=1.0 M.T					
	(REF Report of committee on cost control of River vally project, Voi II Jan. 81)					
	A.Materials					
	i.Mild steel in shape of structurals such as beams, angle, flate, rods and plates(adopt average effective rate of all structurals)	1	M.T			
	Add wastage (During various operation and handling) @ 2.5 %	0.025	M.T			
		1.025	M.T	input	#VALUE!	
	ii Acetylene	3.8	cum	input	#VALUE!	
	iii. Oxygen	8.6	cum	#VALUE!	#VALUE!	
	iv. M.S Electrodes	200	nos	input	#VALUE!	
	v. Gun metal in gate	12	Kg	#VALUE!	#VALUE!	
	vi. Rubber seal	2.5	metre	#VALUE!	#VALUE!	
	vii Miscellaneous materials as screw bolts, paints, black leads, crucible pattern wood and hard coke paints @ 5 % of the cost of mild steel /M.T				#VALUE!	
	Sub-Total (A)				#VALUE!	A
	B.Labour					
	i.Fabrication including cutting, welding and making @ 30 % of the cost of mild steel /				#VALUE!	
	ii Maching including Eurning, drilling, threading, boring and teeth cutting @ 20 % of cost of mild steel / M.T				#VALUE!	
	iii. Casting @ 20 % of the cost of mds steel / M.T				#VALUE!	
	iv. Black smithyand forging charges @ 15 % of the cost of mls steel / M.T				#VALUE!	
	v. Miscellaneous labour charges i.e handling of job to different shops @ 5 % of cost of mild steel /M.T				#VALUE!	
	Sub-Total(B)				#VALUE!	B
	C. Transportation and erection charge					
	i.Transportation and positioning of the trash rack at site of work @ 10 % of cost of mild steel /M.T				#VALUE!	
	ii. Erection of embaded parts and trash rack @ 15 % of cost of mild steel /M.T				#VALUE!	
	Sub-Total(C)				#VALUE!	C
	Grand Total				#VALUE!	
	Add Overhead charge & C.P@15%				#VALUE!	

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				#VALUE!	#VALUE!
Rate per MT		Say Rs		#VALUE!	Per MT
7.8.3	Supplying, fitting and fixing copper strip of 16 gauge of approved quality (with 99 % purity) in expansion joints complete job as per drawing, specifications and direction of E/I	Analysis same as item 5.8.1			
7.8.4	Supplying, fitting and fixing rubber seal of (water stop) of approved quality for construction joints expansion joints complete job as per drawing, specifications and direction of E/I	Analysis same as item 5.8.2			
7.8.5	Supplying, and fixing in position 25 mm thick Bituminous board (Shalltex or equivalent) in expansion or construction joint in dam and its allied works all complete as per approved design, specifications and direction of E/I	Analysis same as item 5.8.3			
7.8.6	Supplying, and fixing Bitumen filter (Bitumen, cement and sand) in construction joints in dam and its allied works all complete including royalty as per approved design, specifications and direction of E/I	Analysis same as item 5.8.4			
7.8.7	Providing slope drain with boulder duly cement grouted in (1 : 10) over layers of sand, gravel filter including royalty as per approved design, specifications and direction of E/I				
Unit -Per M					
Taking Out put=15.24 M		15.24	mtr		
Taking 15.24 mtr length of drain					
Materials					
Sand for filter 1.98 cum + for Grouting 1.42 cum		3.4	cum	494.00	1679.60 M004
Gravel		1.98		355.79	704.46 M-008
Boulder		4.39		675.00	2963.25 M-001
Cement		0.142		7582.35	1076.69 M-1 P
					6424.01 (A)
Labour					
ii. Labour for sand filter (vide item no 7.6.1)		1.98	cum	647.86	1282.77 (B)
(Labour For 2.832 cum)					
Unskilled mazdoor for placing		2	nos	318.00	636.00 (SI-1)
Unskilled mazdoor for spreading		1.5	nos	318.00	477.00 (SI-1)
Unskilled mazdoor for watering and ramming		2	nos	318.00	636.00 (SI-1)
Male		0.25	nos	343.00	85.75 (S II-2)
					1834.75 647.86
ii. Labour for Gravel filter (vide item no 7.5.2)		1.98	cum	367.14	726.94 (C)
(Labour For 2.832 cum)					
Unskilled mazdoor for placing		2	nos	318.00	636.00 (SI-1)
Unskilled mazdoor for spreading		0.5	nos	318.00	159.00 (SI-1)
Unskilled mazdoor for light compaction		0.5	nos	318.00	159.00 (SI-1)
Male		0.25	nos	343.00	85.75 (S II-2)
					1039.75 367.14
iii. Labour for boulder laying (vide item no 7.6.4)		4.39	cum	625.44	2745.69 (D)
(Labour For 2.832 cum)					
Mason Gr II		0.25	nos	382.00	95.5 (S II-4)
Unskilled mazdoor		5	nos	318.00	1590.00 (SI-1)
Male		0.25	nos	343.00	85.75 (S II-2)
					1771.25 625.44
iv. Labour for Earth work in foundation (vide item no 5.1.27)		22.65	cum	127.30	2883.24 (E)
v. Labour for grouting					
Unskilled mazdoor for carrying the soil		0.25	nos	318.00	79.50 (SI-1)
Unskilled mazdoor for dressing the slope		0.25	nos	318.00	79.50 (SI-1)
Male		0.25	nos	343.00	85.75 (S II-2)
					244.75 (F)
Total (A+B+C+D+E+F)					14307.40
Add Overhead charge & C.P On(A+B+C+D+F)@15%					2146.11
					16453.51
Rate per cum		Say Rs		1079.60	Per M
7.8.8	Construction slope drain and cross drain and berm drain with cement plaster (1 : 3) including the cost of all materials including royalty as per specifications and direction of E/I				
Unit -Per M					
Taking Out put=1.0 M					
1 Earth work (vide item no 5.1.27)		100	cum	146.40	14640.00
2. Supply and placing gravel or stone chips (20 mm to 40 mm)		0.42	cum	1987.60	834.79
3. Supply and placing of sand (vide item 7.6.5)		0.42	cum	1506.80	632.86
4 Supply and placing of Stone boulder(vide item 7.6.4)		0.46	cum	1495.50	687.93
5 Cement plaster (1 : 3) (vide item 7.5.4)		0.91	sqm	283.60	258.08

Per


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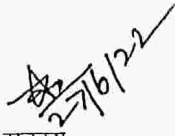
	Rate per meter	Say Rs		17053.70	Per mtr	17053.65	17053.65
Note:-	Rate analysis for Supply and placing gravel or stone chips (20 mm to 40 mm)						
	(Assuming 2.832 cum)						
	Materials						
	Cost of stone metal (20 mm to 40 mm)	2.832	cum	1080.50		3059.98	
	Labour						
	Unskilled mazdoor for placing	3	nos	318.00		954.00	(SI-1)
	Unskilled mazdoor for spreading	2	nos	318.00		636.00	(SI-1)
	Unskilled mazdoor for light compaction	0.5	nos	318.00		159.00	(SI-1)
	Material	0.25	nos	343.00		85.75	(SI-2)
						4894.73	
	Add Overhead charge & C.P.@15%					734.21	
						5628.93	
							1987.62
				Say Rs	1987.60	per Cum	
7.8.9.1	Providing and driving steel sheet piles on specified alignment and upto designed levels including painting the sheet piles with two coats of anti- corrosive bitumen paint (portion of sheet pile inside concrete shell not be painted) including cost of sheet piles and hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile driving, measurement of sheet pile duly driven shall be taken only)						
	Analysis same as item 5.8.5.1						
7.8.9.2	Labour rate for extracting steel sheet piles on specified alignment with hire charges of sheet pile driving plant etc. all complete as per specifications and direction of E/I . (For the purpose of payment of sheet pile extracting, measurement of sheet pile duly extracted shall be taken only)						
	Analysis same as item 5.8.5.2						
7.8.10	Unloading cement , light stacking materials steel materials from Railway wagon and stacking the same in Railway yard for verification within a distance of 150 mtr. From Railway track all complete job as per direction of E/I						
	Vide T.E.C no 54E dated 12.12.89						
	Unit -Per M.T						
	Taking Out put=48.0 M.T						
	(Assuming unloading one wagon Load 48.00 M.T)						
	Unskilled mazdoor	20.00	nos	318.00		6360.00	(SI-1)
						6360.00	
	Add Overhead charge & C.P.@15%					954.00	
						7314.00	
							152.38
	Rate per MT			Say Rs	152.40	Per M.T	
7.8.11	Unloading heavy structural steel materials of all categories (Not required the use of crane) from Railway wagon and stacking the same in Railway yard for verification within a distance of 150 mtr. From Railway track all complete job as per direction of E/I						
	Vide T.E.C no 54E dated 12.12.89						
	Unit -Per M.T						
	Taking Out put=48.0 M.T						
	(Assuming unloading one wagon Load 48.00 M.T)						
	Unskilled mazdoor	25.00	nos	318.00		7950.00	(SI-1)
						7950.00	
	Add Overhead charge & C.P.@15%					1192.50	
						9142.50	
							190.47
	Rate per MT			Say Rs	190.50	Per M.T	
7.8.12	Carriage of cement, steel and other materials from departmental godown to site or vice-versa by head load and stacking the same beyond 45 M and upto 165 M including the cost of all labours all complete as per direction of E/I.						
	Vide T.E.C no 104E dated 24.10.90						
	Unit -Per M.T						
	Taking Out put=4.0 M.T						
	(Applicable only for departmental work not for general contract work)						
	Considering 4 M.T						
	Unskilled mazdoor	2.50	nos	318.00		795.00	(SI-1)
						795.00	
	Add Overhead charge & C.P.@15%					119.25	
						914.25	
							228.56
	Rate per MT			Say Rs	228.60	Per M.T	
7.8.13	Extra for each additional lead of 45 M or a part there of beyond the initial lead of 165 M as per direction of E/I.						
	Vide T.E.C no 104E dated 24.10.90						
	Unit -Per M.T						
	Taking Out put=4.0 M.T						


Per

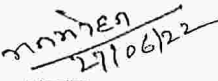
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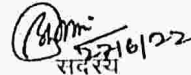
(Applicable only for departmental work not for general contract work)					
Considering 4 M.T					
Unskilled mazdoor	0.75	nos	318.00	238.50	{SI-1}
				238.50	
Add Overhead charge & C.P@15%				35.78	
				274.28	
					68.57
Rate per MT			Say Rs	68.60	Per M.T
7 8 14	Labour rate for reshuffling and restacking of cement bage including restacking in Godaown as per direction of E/I				
Vide T E C no 104E dated 24 10 90					
Unit-Per Bag					
Taking Out put=100 Bags					
(Applicable only for departmental work not for general contract work)					
Consider 100 bags (5 M.T)					
Unskilled labour for taking out cement bags, reshuffling properly in order to brock lumps and restacking the same in proper place					
	2.50	nos	318.00	795.00	
				795.00	
Add Overhead charge & C.P@15%				119.25	
				914.25	
					9 14
			Say Rs	9.10	Per bag



सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार,
पटना



सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति
-सह-अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार,
पटना

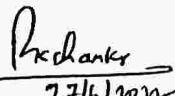

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति
-सह-अभियंता प्रमुख,
लघु जल संसाधन विभाग, बिहार,
पटना

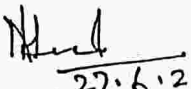

सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-मुख्य अभियंता, (असी०),
बिहार स्टेट पावर होल्डिंग
कंपनी लि०,
बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति
-सह-मुख्य अभियंता, (विद्युत)
भवन निर्माण विभाग, बिहार,
पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति
-सह-अभियंता प्रमुख,
तकनीकी परीक्षण कोषांग, निगरानी
विभाग, बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर
निर्धारण समिति
-सह-अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग,
बिहार, पटना


सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति
-सह-अभियंता प्रमुख, (मुख्यालय),
जल संसाधन विभाग, बिहार,
पटना


संयोजक
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(मुख्यालय)
पथ निर्माण विभाग, बिहार, पटना

SPECIFICATION

Annexure-I

SPECIFICATION OF OLD EMPTY CEMENT BAGS

Empty Cement Bag (Synthetic) should be old but in good condition of 1.2 cft capacity .

Annexure-II

SPECIFICATION OF NYLON CRATE (1mx1mx1m)

Nylon Crate of size one cubic meter (1mx1mx1m) with 20 cms. mesh of specification 1260/3/4/2 (i.e having 24 nos. of threads) of weight 165 Grams (\pm) 5 Grams.

Non-Woven Geo-Textile bag of size 1M×0.7M का राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा दर-अनुमोदन

अभियंता प्रमुख (मुख्यालय)-सह-अध्यक्ष, विभागीय अनुसूचित दर निर्धारण समिति, जल संसाधन विभाग, बिहार, पटना के द्वारा पत्र संख्या-2/क्रय-08-01-2012 (खंड-7)-714 दिनांक-29.12.2020 के माध्यम से जल संसाधन विभाग के विभागीय अनुसूचित दर निर्धारण समिति द्वारा निर्धारित जिओं बैग (1M×0.7M) के दर को राज्यस्तरीय अनुसूचित दर निर्धारण समिति की आज दिनांक-30.12.2020 को आहूत बैठक में अनुमोदन करने हेतु अनुरोध किया गया है।

राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा Non-Woven Geo Bag (1.0M×0.7M) की अनुमोदित दर एवं विशिष्टियाँ इस प्रकार है :-

Geo Bag of Size (1M×0.7M)

Type of polymer : Type of polymer Shall be Polypropylene/ Polyester.

Quality of Polymer : The virgin fibres with more than 70% UV resistance Shall be used as raw material for making Fabric and Geo bags. No recycled fiber Shall be allowed for making Geo Textile bags.

Type of Fiber: Staple Fiber

Bonding Mechanism- Needle-Punching

SL No	Properties	Unit	Requirements of Nonwoven Geo-Textile bags	राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित दर (exclusive GST, CP& overhead charge)
1	Wide width Tensile Strength, Min. (MD/CD)	kN/m	15	Rs. 83.06/-Per Bag (Rs Eighty Three and Paise Six) only
2	Elongation, Min. MD/CD	Percent	50	
3	Seam Strength, Percent of Original Fabric Strength, Min	Percent	≥65	
4	Abrasion Resistance, Retained Tensile strength in Machine direction and Cross Machine direction Min.		50%	
5	Trapezoidal tear strength, Min. MD/CD	N	340	
6	CBR Puncture Resistance, Min	N	3000	
7	Water Permeability at 100 mm Water Head, Min.	(l/m ² /s)	60	

Annexure-IV**SPECIFICATION OF NON WOVEN MEGA GEO BAG (2.0MX1.5M)**

Type of polymer : Type of polymer Shall be Polypropylene / Polyester.

Quality of Polymer : The virgin fibres with more than 70% UV resistance Shall be used as raw material for making Fabric and Geo bags. No recycled fiber Shall be allowed for making Geo Textile bags.

Type of Fiber : Staple Fiber

Bonding Mechanism: Needle – Punching

SL NO	Properties	Test method	Unit	Requirements Of Nonwoven Mega Geo bags
1	Wide width Tensile Strength, Min. (MD/CD)	IS 13162 (Part 5)	kN/m	24 24
2	Elongation, Min. MD/CD	IS 13162 (Part 5)	Percent	50
3	Seam Strength, Percent of Original Fabric Strength, Min.	IS15060/ ISO10321	Percent	≥65
4	Abrasion Resistance, Retained Tensile Strength in Machine direction and Cross Machine direction Min.	IS 14714		50%
5	Trapezoidal tear strength, Min. MD/CD	IS 14293/ ISO10321	N	600
6	CBR Puncture Resistance, Min.	IS 12236	N	4700
7	Water Permeability at 100 mm Water head, Min.	IS 14324	(1/m ² /s)	30
8	Apparent Opening Size (AOS), Max.	IS 14294	µm	75
9	Permittivity, Min.	IS 14324	S	1.00
10	Thickness under 2kPa, Min.	IS 13162 (Part 3)	Mm	4.0
11	Polymer Type, Polyester (PES) or Polypropylene (PP)	IS 667		Polyester (PES) Virgin type or Polypropylene (PP)
12	Mass, Min.	IS 14716	g/m ²	600
13	Volume of Filled Bag		m ³	0.75

Annexure-VSPECIFICATION OF P.P ROPE GABION (1.8MX1.8MX0.5M)

Properties	9 mm x 4 STRAND PP GABION ± 1 mm, 150 mm x150 mm mesh size
Size of Gabion	1.8 mx1.8mx0.5m With lid and Slings
Size of the Body & Border Rope	9 mmx4 Strand Having a weight of 42 gm/m \pm 8% as per IS 5175 :1992 (Re-affirmed 1997)
Material of Rope	Polypropylene (With Adequate UV Stabliser)
Mesh Opening	150 mm x 150 mm.
Tensile Strength	A. ROPE-1560 Kg Breaking Strength(Min.) as per IS 7071 (PART 4):1986 (Reaffirmed 1999) B. ROPE NET 10000 Kg/m Breaking Strength.
Structure of Rope	Four Strand Shroud Laid
Construction of Rope Net	Woven Joint at Intersection of Ropes

Annexure-VISPECIFICATION OF P.P ROPE GABION (1.8MX1.2MX0.5M)

Properties	9 mm x 4 STRAND PP GABION \pm 1mm, 150 mm x150 mm mesh size
Size of Gabion	1.8 mx1.2mx0.5m With lid and Slings
Size of the Body & Border Rope	9 mmx4 Strand Having a weight of 42 gm/m \pm 8% as per IS 5175 :1992 (Reaffirmed 1997)
Material of Rope	Polypropylene (With Adequate UV Stabiliser)
Mesh Opening	150 mm x 150 mm.
Tensile Strength	A. ROPE-1560 Kg Breaking Strength(Min.) as per IS 7071 (PART 4):1986 (Reaffirmed 1999) B. ROPE NET 10000 Kg/m Breaking Strength.
Structure of Rope	Four Strand Shroud Laid
Construction of Rope Net	Woven Joint at Intersection of Ropes

Annexure-VII

SPECIFICATION OF NEW EMPTY CEMENT BAGS

New Empty Cement Bags of 1.2 cft. Capacity (High-Density Polyethylene/ Polypropylene) with top open conforming to IS 11652 : 2000 Specification.

Basic Rate of Material (Mechanical)

Note:- These rate are exclusive of contractor's profit & overhead, carriage and all octroi (Vat, GST, and other taxes) but inclusive of Royalty.

Sl. No.	Item Code No. BCD SOR 2022	Name of item/material	Unit	Approved rate of BCD SOR 2022 (in Rs.)
1	2	3	4	5
1	364	Wire brush	each	20.00
2	365	Soft brush	each	20.00
3	969	Pulleys 25mm dia.	each	48.00
4	1002	Mild steel round bar 12mm dia. and below	quintal	5860.00
5	1003	Mild steel round bar above 12mm dia.	quintal	5860.00
6	1007A	STEEL JOIST (Structural Steel)		
	(i)	225 X 110	quintal	4950.00
	(ii)	350 X 140	quintal	4950.00
	(iii)	500 X 180	quintal	4950.00
7	1008	Flats upto 10mm in thickness	quintal	4850.00
8	1009	Flats exceeding 10mm in thickness	quintal	4950.00
9	1010	Mild steel plates	quintal	5400.00
10	1241	Oil/Fuel LPG (Commercial Cylinder)	kg	84.00
11	1545	G.I. pipes 15mm dia.	m	95.00
12	1546	G.I. pipes 20mm dia.	m	130.00
13	1547	G.I. pipes 25mm dia.	m	196.00
14	1548	G.I. pipes 32mm dia.	m	225.00
15	1549	G.I. pipes 40mm dia.	m	290.00

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Sl. No.	Item Code No. BCD SOR 2022	Name of Item/material	Unit	Approved rate of BCD SOR 2022 (in Rs.)
1	2	3	4	5
16	1550	G.I. pipes 50mm dia.	m	360.00
17	1551	G.I. pipes 65mm dia.	m	415.00
18	1552	G.I. pipes 80mm dia.	m	525.00
19	1940	C.I Sluice valve (with caps)class 1 : 100 mm dia	each	2450.00
20	1941	C.I Sluice valve (with caps)class 1 : 125 mm dia	each	2610.00
21	1942	C.I Sluice valve (with caps)class 1 : 150 mm dia	each	3650.00
22	1943	C.I Sluice valve (with caps)class 1 : 200 mm dia	each	7600.00
23	1944	C.I Sluice valve (with caps)class 1 : 250 mm dia	each	10980.00
24	1945	C.I Sluice valve (with caps)class 1 : 300 mm dia	each	15500.00
25	4013	Pulleys 40mm dia.	each	35.00
26	4255	MS pipe as per IS/1239 ISI MARKED C Class (heavy) 300 mm dia M.S pipe(7.1mm thick)	m	2106.00
27	4262	G.I. pipes 100 mm dia.	m	714.00
28	4263	G.I. pipes 150 mm dia.	m	1066.00
29	4273	NON RETURN cast Iron double flange as per ISI/5312 PN 1.6 rating complete with Bronze body & Wedge Stainless Steel spindle , Gland Packing, Rubber gasket 300 mm dia. Non Return Valve	each	43392.00
30	4290	Cast iron double flange strainer with stainless steel mesh, PN 1.6 rating complete with accessories as required. 25mm Air Release valve as per IS : 14845 ISI Marked	each	1350.00

19/09/22

19/09/22

19/09/22

19/9

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Sl. No.	Item Code No. BCD SOR 2022	Name of item/material	Unit	Approved rate of BCD SOR 2022 (in Rs.)
1	2	3	4	5
31	4347	Cost of Welding rod LS	each	120.00
32	5001	Oil/fuel Mobil Oil	litre	318.00
33	5772	Grease	kg	180.00
34	5773	Shuttering oil	litre	90.00

(सुनील कुमार)
सादरस्य

विभागीय अनुसूचित दर निर्धारण समिति
—सह—निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, बिहार, पटना

(शैलेंद्र)
सादरस्य

विभागीय अनुसूचित दर निर्धारण
समिति—सह—अभियंता प्रमुख
(वाढ नियंत्रण एवं जल निस्सारण)
जल संसाधन विभाग, बिहार, पटना।

(रवीन्द्र कुमार शंकर)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण
समिति—सह—अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, बिहार, पटना।

(कुमार जयंत प्रसाद)
सादरस्य

विभागीय अनुसूचित दर निर्धारण
समिति—सह— मुख्य अभियंता
(यांत्रिक)
जल संसाधन विभाग, बिहार, पटना

(ईश्वर चन्द्र ठाकुर)
सादरस्य

विभागीय अनुसूचित दर निर्धारण
समिति—सह—अभियंता प्रमुख (सिंचाई
सृजन)
जल संसाधन विभाग, बिहार, पटना।

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Basic Rate of Materials (Electrical)

Note:- These rates are exclusive of contractor's profit, Overheads, Carriage and any taxes etc but inclusive of Royalty.

Sl. No.	Item Code No. SOR BCD (Electrical) 2022	Description	Unit	Approved rate of SOR, BCD (Electrical) 2022
PVC INSULATED COPPER CONDUCTOR WIRES				
1	1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable	metre	12.94
2	1102	2.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable	metre	20.13
3	1103	4.0 sq mm ISI marked, FRLS PVC insulated single core copper conductor cable	metre	31.64
4	1104	6.0 sq mm ISI marked, FRLS PVC insulated single core copper conductor cable	metre	46.02
5	1105	10 sq mm ISI marked, FRLS PVC insulated single core copper conductor cable	metre	81.98
6	1105	16 sq mm ISI marked, FRLS PVC insulated single core copper conductor cable	metre	128.00
PVC CONDUIT AND ACCESSORIES				
7	1201	20 mm dia. ISI Marked, PVC Conduit	metre	14.30
8	1202	25 mm dia. ISI Marked, PVC Conduit	metre	20.40
9	1203	32 mm dia. ISI Marked, PVC Conduit	metre	21.10
10	1204	40 mm dia. ISI Marked, PVC Conduit	metre	49.20
11	1205	50 mm dia. ISI Marked, PVC Conduit	metre	75.00
12	1206	20 mm PVC Bends	each	5.25
13	1207	25 mm PVC Bends	each	7.25
14	1208	32 mm PVC Bends	each	12.10
15	1209	40 mm PVC Bends	each	23.10
16	1210	50 mm PVC Bends	each	39.60
17	1221	20 mm PVC Junction box, one way	each	13.65
18	1222	20 mm PVC Junction box, two way	each	14.53
19	1223	75 mm x 75 mm x 50 mm PVC box	each	29.70
WIRING SWITCHES AND ACCESSORIES				
20	1401	Ceiling rose, 2 pin, 6amp ISI marked	each	15.19
21	1403	S.P. 10 amps, One way modular switch, ISI marked	each	44.08
22	1404	S.P. 10 amps, two ways modular switch, ISI marked	each	73.53
23	1405	S.P. 15/16 amps, One way modular switch, ISI marked	each	67.16
24	1405	5 Pin 5/6 amps, Modular socket outlet, ISI marked	each	65.57
25	1407	6 Pin 15/16 amps, Modular socket outlet, ISI marked	each	105.24
26	1408	Modular bell push, ISI marked	each	62.36
27	1409	Stepped type modular fan regulator, (2 module)	each	230.87
28	1410	Telephone socket, outlet modular type	each	58.96
29	1411	T.V. Socket, outlet modular type	each	58.96
30	1420	S.P. 5/6 amps, One way switch, piano type ISI marked	each	10.66
31	1421	S.P. 5/6 amps, Two way switch, piano type ISI marked	each	17.91
32	1422	S.P. 15/16 amps, One way switch, piano type ISI marked	each	48.60
33	1423	3/5 pin 5/6 amps, Socket outlet, piano type ISI marked	each	21.16
34	1424	3/5 pin 15/16 amps, Socket outlet, piano type ISI marked	each	48.75
35	1425	6 pin, 15/16 amps, S/S combined	each	94.20
36	1426	Bell Push piano type	each	13.22
37	1427	Telephone Socket outlet piano type	each	22.04
38	1428	T.V. Socket outlet piano type	each	22.56
39	1433	Dign-Dong sound call bell	each	96.13
40	1434	Electronic musical call bell	each	142.20
Cable End Box				
41	1757	Cable end boxes for 6 way SPN DD DB	each	358.60
42	1758	Cable end boxes for 8 way SPN DD DB	each	431.25
43	1759	Cable end boxes for 10 way SPN DD DB	each	415.25
44	1760	Cable end boxes for 14 way SPN DD DB	each	484.00
45	1761	Cable end boxes for 4 way TPN DD DB	each	589.60
46	1762	Cable end boxes for 6 way TPN DD DB	each	651.75
47	1763	Cable end boxes for 8 way TPN DD DB	each	814.00


Sl. No.	Item Code No. SOR BCD (Electrical) 2022	Description	Unit	Approved rate of SOR, BCD (Electrical) 2022
		LED Luminaire		
48	2001	Wall mounted 4 ft. x 18 watt LED betten with polycarbonate housing and integrated electronic driver. Minimum efficacy 100 lm/w	each	318 50
49	2002	Wall mounted 2 ft. x 9 watt LED betten with polycarbonate housing and integrated electronic driver. Minimum efficacy 100 lm/w	each	249 90
50	2003	Wall /surface mounted mounted 4ft. X 20 watt LED betten PDC aluminium housing with polycarbonate diffuser and integrated electronic driver. Minimum efficacy 100 lm/w	each	339 00
51	2006	20/25 watt x 4 ft. aluminium extruded suspended type lighting system ensuring uniform and continous illumination including suspension system and electronic driver etc. Minimum efficacy 100 lm/w	each	1901 20
52	2007	35/40 watt x 4ft. Aluminium extruded suspended type lighting system ensuring uniform and continous illumination including suspension system and electronic driver etc. Minimum efficacy 100 lm/w	each	2242 24
53	2008	Recess mounted 5/7 watt LED downlighter with pressure die-cast aluminium housing and intergrated electronic driver. Minimum efficacy 100 lm/w	each	431 92
54	2009	Recess mounted 9/10 watt LED downlighter with pressure die-cast aluminium housing and intergrated electronic driver. Minimum efficacy 100 lm/w	each	578 20
55	2010	Recess mounted 12 watt LED downlighter with pressure die-cast aluminium housing and intergrated electronic driver. Minimum efficacy 100 lm/w	each	670 93
56	2011	Recess mounted 15 watt LED downlighter with pressure die-cast aluminium housing and intergrated electronic driver. Minimum efficacy 100 lm/w	each	775 18
57	2012	Recess mounted 18 watt LED downlighter with pressure die-cast aluminium housing and intergrated electronic driver. Minimum efficacy 100 lm/w	each	745 90
58	2013	Recess mounted 204 (1ft x 1 ft) watt LED downlighter with pressure die-cast aluminium housing and intergrated electronic driver. Minimum efficacy 100 lm/w	each	1266 74
59	2014	Surface mounted 90 watt LED downlighter with polycarbonate housing and integrated electronic driver. efficacy 100 lm/w	each	571 30
60	2015	Surface mounted 15 watt LED commercial type downlighter PDC aluminium housing with polycarbonate diffuser and integrated electronic driver. Minimum efficacy 100 lm/w	each	997 65
61	2016	Recess mounted 36 watt LED Flat panel luminaire (2ft x2ft) which provides soft-light and glare free symmetrical illumination suitable for armstrong/grid ceiling and integrated electronic driver. Minimum efficacy 100 lm/w	each	2273 60
62	2017	Surface mounted 36 watt LED flat panel luminaire (2ft x2ft) which provides soft-light and glare free symmetrical illumination suitable for armstrong/grid ceiling and integrated electronic driver. Minimum efficacy 100 lm/w	each	2744 00
63	2018	30 Watt LED street light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	1920 80
64	2019	45 watt LED street light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	3099 64
65	2020	70 watt LED street light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	4307 48
66	2021	90 watt LED street light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	5292 00
67	2022	120 watt LED street light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	6562 08
68	2023	30 Watt LED Flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	2229 50
69	2024	50 Watt LED Flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	2881 20
70	2025	70 Watt LED flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	5145 00
71	2026	100 watt LED flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	7056 00
72	2027	120 Watt LED Flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	7899 00

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Sl. No.	Item Code No. SOR BCD (Electrical) 2022	Description	Unit	Approved rate of SOR, BCD (Electrical) 2022
73	2028	150 Watt LED Flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	9947 00
74	2029	200 Watt LED flood light with pressure die-cast housing, toughened glass, IP 65 protection and complete with electronic driver etc. Minimum efficacy 100 lm/w	each	13426 00
75	2031	Decorative wall mounting bracket/fixture made with polycarbonate suitable for 9/10 watt LED lamp (without LED lamp)	each	548 80
76	2032	Decorative post top/gate light made up of high grade unbreakable polycarbonate material suitable for 7 watt LED lamp etc (without LED lamp)	each	485 49
77	2033	Decorative post top/gate light made up of high grade unbreakable polycarbonate material suitable for 20 watt LED lamp etc (without LED lamp)	each	788 90
		LED Lamps		
78	2101	3 Watt LED lamp	each	91 88
79	2102	5 Watt LED lamp	each	101 92
80	2103	7 Watt LED lamp	each	101 92
81	2104	9/10 Watt LED lamp	each	101 92
82	2105	12 Watt LED lamp	each	156 80
83	2106	15 Watt LED lamp	each	205 80
84	2107	20 Watt LED lamp	each	314 58
85	2125	70 Watt sodium lamp	each	182 41
86	2126	150 Watt sodium lamp	each	289 71
87	2127	250 Watt sodium lamp	each	311 17
88	2131	500 Watt Halogen lamp	each	52 58
89	2132	1000 Watt Halogen lamp	each	72 96
90	2133	70 Watt HPSV/MH ballast	each	531 14
91	2134	150 Watt HPSV/MH ballast	each	849 82
92	2135	250 Watt HPSV/MH ballast	each	1227 51
93	2136	400 Watt HPSV/MH ballast	each	1663 15
94	2137	70 to 400 Watt Igniters	each	99 66
		ARMoured LT CABLE		
95	2201	2 Core, 6 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	78 40
96	2202	2 core 10 sq. mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	93 53
97	2203	2 core 16 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	107 80
98	2204	4 Core 16 Sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	138 47
99	2205	3 5 Core 25 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	165 06
100	2206	3 5 Core 35 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	209 08
101	2207	3 5 core 50 sq XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	271 43
102	2208	3 5 core 70 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	368 63
103	2209	3 5 core 95 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	445 66
104	2210	3 5 core 120 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	556 62
105	2211	3 5 core 150 sq mm XLPE/PVC insulated PVC sheathed (Heavy duty) armoured electric cable with aluminium conductor	metre	658 41
		STREET LIGHT POLE/PANEL		
105	2301	4 Meter height Octagonal Hot-Dip Galvanized Street light poles with top dia (A/F) 70 mm & bottom dia (A/F) 130mm and made of 3 mm thick sheet, base plate dimension 220 x220x12mm including suitable size foundation bolts etc	each	8244 00
107	2302	5 Meter height Octagonal Hot-Dip Galvanized Street light poles with top dia (A/F) 70 mm & bottom dia (A/F) 130mm and made of 3 mm thick sheet, base plate dimension 220 x220x12mm including suitable size foundation bolts etc	each	11585 00

Sl. No.	Item Code No. SOR BCD (Electrical) 2022	Description	Unit	Approved rate of SOR, BCD (Electrical) 2022
108	2303	7 Meter height Octagonal Hot-Dip Galvanizd Street light poles with top dia (A/F) 70 mm & bottom dia (A/F) 130mm and made of 3 mm thick sheet, base plate dimension 220 x220x12mm including suitable size foundation bolts etc	each	12670 00
109	2304	8 Meter height Octagonal Hot-Dip Galvanizd Street light poles with top dia (A/F) 70 mm & bottom dia (A/F) 130mm and made of 3 mm thick sheet, base plate dimension 220 x220x12mm including suitable size foundation bolts etc	each	14325 00
110	2305	1000 mm long Hot dip galvanizd single arm bracket (for octagonal poles)	each	1615 00
111	2305	1000 mm long Hot dip galvanizd double arm bracket (for octagonal poles)	each	2365 00
112	2307	Backlite sheet with one No 6 amp. SP MCB and 16 sq. mm stud type connector (for octagonal poles)	each	640 00
		Panel & Other's		
113	2308	Pole Mounted Junction box/ fuse box for single phase core low wattage HPSV/LED type lighting system	each	469 26
114	2312	Digital multi meter, threephase	each	1000 00
115	2318	Pilot Lamp for Indicator, RYB	each	108 70
		Fan/Exhaust Fan		
116	2325	Regular/Standard make 1200 mm Sweep ceiling fan	each	1425 53
117	2326	Regular/Standard make 1400 mm Sweep ceiling fan	each	1556 25
118	2327	300 mm, 230 V, A.C. exhaust fan	each	1195 20
119	2328	375 mm 230V, A.C. exhaust fan	each	2998 00
120	2329	450 mm 230V, A.C. exhaust fan	each	3600 00
121	2330	400 mm 230 V, A.C. Wall/Cabin Fan	each	1900 00
122	2331	600 mm wall mounted air circulator fan, heavy duty	each	6200 00


(सुनील कुमार)
सदस्य सचिव

विभागीय अनुसूचित दर निर्धारण समिति
-सह-निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, बिहार, पटना


(शीलेन्द्र)
सदस्य

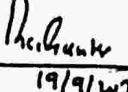
विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख
(वाट नियंत्रण एवं जल निरसारण)
जल संसाधन विभाग, बिहार, पटना।


(कुमार जयंत प्रसाद)
सदस्य

विभागीय अनुसूचित दर निर्धारण समिति
-सह- मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, बिहार, पटना

(ईश्वर चन्द्र ठाकुर)
सदस्य

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख (सिंचाई सृजन)
जल संसाधन विभाग, बिहार, पटना।


(रवीन्द्र कुमार शंकर)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, बिहार, पटना।

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List of Items of Mechanical Works

es are exclusive of GST and Labour cess & Inclusive overhead and C.P

Item Code No. BCD SOR 2022	Description	Unit	Rates
13.81.3	Applying Priming coat With ready mixed zinc chromate yellow primer of approved brand and manufacture on steel galvanised iron/steel works.	sqm	30.10
13.82.1	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade. New Steel work (two or more coats)	sqm	72.50
13.82B.1	Finishing with Epoxy paint (two or more coats) (at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete On Steel work	sqm	104.60
13.93.1	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade Two or more coats on new work	sqm	73.40
18.72.12	Providing and laying S&S Centrifugally Cast (Spun)/Ductile Iron Pipes conforming to I.S:8329 800 mm dia Ductile Iron Class K-7 Pipes	Meter	11000.00

(सुजात कुमार)
सदस्य सचिव

विभागीय अनुसूचित दर निर्धारण समिति
-सह-निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, बिहार, पटना

(शैलेन्द्र)
सदस्य

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख
(बाढ़ नियंत्रण एवं जल निस्सारण)
जल संसाधन विभाग, बिहार, पटना।

(कुमार जयंत प्रसाद)
सदस्य

विभागीय अनुसूचित दर निर्धारण समिति
-सह- मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, बिहार, पटना

(ईश्वर चन्द्र ठाकुर)
सदस्य

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख (सिंचाई सृजन)
जल संसाधन विभाग, बिहार, पटना।

(रवीन्द्र कुमार शर्मा)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण समिति
-सह-अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, बिहार, पटना।

Analysis of Rates

item No.	Description	unit	Qty.	Rate (Rs.)	Rate Code	Cost (Rs.)
13.81.3	Applying Priming coat With ready mixed zinc chromate yellow primer of approved brand and manufacture on steel galvanised iron/steel works.	Litre	0.540	120.00	(4202)	64.80
	Carriage of materials	1 time	0.520	2.12	(9999)	1.10
	Labour					
1869	Painter	per day	0.240	391.00	(0131)	93.84
	Coolie	per day	0.240	318.00	(0115)	76.32
	Brushes, Sand papers including sundries	1 time	10.790	2.12	(9999)	22.87
	Total					258.94
	Add for water charges @1%					2.59
	Total					261.53
	Add 15% for overheads & C.P.					39.23
	Cost of 10 Sq.m					300.76
	Cost of 1Sq.					30.08
	Say Rs. 30.10 per sq.m					



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Analysis of Rates

Item No.	Description	Unit	Qty.	Rate (Rs.)	Rate Code	Cost (Rs.)
13.82	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade.					
13.82.1	New Steel Work (two or more coats)					
	Details of cost for 10 sq.m.					
	Materials					
	Ready mix paint	Per Litre	1.250	182.36	(0843)	227.95
	Carriage	1 time	0.550	2.12	(9999)	1.17
	Labour					
	Painter	Per day	0.540	391.00	(0131)	211.14
	Coolie	Per day	0.540	318.00	(0115)	171.72
	Putty brushes sand paper etc.	1 time	2.600	2.12	(09999)	5.51
	Sundries	1 time	3.100	2.12	(09999)	6.57
	Total					624.06
	Add for water charges @1%					6.24
	Total					630.30
	Add 15% for overheads & C.P.					94.55
	Cost of 10 sq.m					724.85
	Cost of 1 sq.					72.48
	Say Rs. 72.50	Per sq.m.				




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Analysis of Rates

Item No.	Description	Unit	Qty.	Rate (Rs.)	Rate Code	Cost (Rs.)
13.82 B	Finishing with Epoxy paint (two or more coats(at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete					
13.82B.1	On Steel Work					
	Details of cost for 10 sq.m.					
	Primary Coat					
	Materials					
	Primer	Litre	0.750	70.00	(0821)	52.50
	Putty	1 time	1.050	2.12	(9999)	2.23
	Carriage	1 time	0.150	2.12	(9999)	0.32
	Labour					
	Painter	Per day	0.250	391.00	(0131)	97.75
	Beldar	Per day	0.250	306.00	(0114)	76.50
	Brushes, sand paper etc.	1 time	2.100	2.12	(9999)	4.45
	Sundries	1 time	4.100	2.12	(9999)	8.69
	Epoxy painting					
	Materials					
	Paint (Epoxy)	Litre	1.250	215.00	(0821)	268.75
	Carriage of material	1 time	0.550	2.12	(9999)	1.17
	Labour					
	Painter	Per day	0.540	391.00	(0131)	211.14
	Beldar	Per day	0.540	306.00	(0114)	165.24
	Putty Brushes sand paper etc.	1 time	2.600	2.12	(9999)	5.51
	Sundries	1 time	3.100	2.12	(9999)	6.57
	Total					900.82
	Add for water charges @1%					9.01
	Total					909.83
	Add 15% for overheads & C.P.					136.47
	Cost of 10 sq.m					1046.30
	Cost of 1 sq.					104.63
	Say Rs. 104.60 Per sq.m.					

Analysis of Rates

Item No.	Description	Unit	Qty.	Rate (Rs.)	Rate Code	Cost (Rs.)
13.93	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade					
13.93.1	Two or more coats on new work					
	Details of cost for 10 sq.m.					
	Materials					
	Enamel paint	Litre	1.160	175.00	(0833)	203.00
	Material for filling in holes and crackes (putty etc.)	L.S.	5.330	2.12	(9999)	11.30
	Carriage	L.S.	1.430	2.12	(9999)	3.03
	Labour					
	Painter	Per day	0.540	391.00	(0131)	211.14
	Coolie	Per day	0.540	318.00	(0115)	171.72
	Brushes, sand paper etc.	L.S.	6.760	2.12	(9999)	14.33
	Sundries	L.S.	8.060	2.12	(9999)	17.09
	Total					631.61
	Add for water charges @1%					6.32
	Total					637.93
	Add 15% for overheads & C.P.					95.69
	Cost of 10 sq.m					733.61
	Cost of 1 sq.					73.36
	Say Rs. 73.40	Per sq.m.				

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19/04/22

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Analysis of Rates

item No.	Description	unit	Qty.	Rate (Rs.)	Rate Code	Cost (Rs.)
18.72.12	Providing and laying S&S Centrifugally Cast (Spun)/Ductile Iron Pipes conforming to I.S:8329 800 mm dia Ductile Iron Class K-7 Pipes					
	Details of Cost for 10 Sq.m.					
	Material:					
	800 mm dia cast iron pipes (in 5.5m lengths)					
	Weight of 1 m pipe=243.510 kg.					
	Weight of 100 m pipe=243.510 x 10=2435.10 kg.					
	Ductile Iron Class K-7 pipe conforming to I.S. 8329-800 mm dia	Metre	10	9100.00	(7733)	91000 00
	Carriage of Cast Iron Pipes 800 mm dia Labour for laying	100 meter	10	5972.04	(2355)	597 20
	Rate as per Item No 18.23 of SH: water supply	quintal	24.35	148 26	(18.23)	3610 21 (A)
	Total					95207.42
	Add for water charges @1% except on A i e on					915 97
	Total					96123.39




698

Add 15% overheads & C.P except on A

13876.97

Cost of 10 meter

110000.36

Cost of 1 meter

11000.03

Say Rs. 11000.00 Per meter



(सुजीत कुमार)

सदस्य सचिव

विभागीय अनुसूचित दर निर्धारण समिति

-सह-निदेशक,

क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,

जल संसाधन विभाग, बिहार, पटना



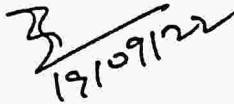
(कुमार जयंत प्रसाद)

सदस्य

विभागीय अनुसूचित दर निर्धारण समिति

-सह- मुख्य अभियंता (यांत्रिक)

जल संसाधन विभाग, बिहार, पटना



(शैलेन्द्र)

सदस्य

विभागीय अनुसूचित दर निर्धारण समिति

-सह-अभियंता प्रमुख

(वाढ नियंत्रण एवं जल निस्सरण)

जल संसाधन विभाग, बिहार, पटना।

(ईश्वर चन्द्र ठाकुर)

सदस्य

विभागीय अनुसूचित दर निर्धारण समिति

-सह-अभियंता प्रमुख (शिंचाई सृजन)

जल संसाधन विभाग, बिहार, पटना।



(रवीन्द्र कुमार शंकर)

अध्यक्ष

विभागीय अनुसूचित दर निर्धारण समिति

-सह-अभियंता प्रमुख, मुख्यालय,

जल संसाधन विभाग, बिहार, पटना।

List of Items of Electrical Works

Note : Rates are exclusive of GST and Labour cess & inclusive of Overhead and C.P.

Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
		<u>WIRING</u>		
1	1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with piano type switch, phenolic laminated sheet, suitable size M.S./ PVC box etc. as required.		
	1.1.1	Group A	Point	485.60
	1.1.2	Group B	Point	558.70
	1.1.3	Group C	Point	686.50
2	1.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with modular switch, modular plate, suitable size G.I. box as required.		
	1.3.1	Group A	Point	516.80
	1.3.2	Group B	Point	589.90
	1.3.3	Group C	Point	717.70
3	1.7	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required		
	1.7.1	2 x 1.5 sq. mm + 1 x 1.5 sq. mm earth wire	Meter	5818.35
	1.7.2	2 x 1.5 sq. mm + 1 x 2.5 sq. mm earth wire	Meter	7146.90
	1.7.3	2 x 4 sq. mm + 1 x 4 sq. mm earth wire	Meter	9273.60
	1.7.4	2 x 6 sq. mm + 1 x 6 sq. mm earth wire	Meter	12432.20
	1.7.5	2 x 10 sq. mm + 1 x 6 sq. mm earth wire	Meter	17044.70
	1.7.6	2 x 16 sq. mm + 1 x 6 sq. mm earth wire	Meter	23025.45
6	1.21	Supply and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.		
	1.21.1	20 mm	Meter	2836.60
		25 mm	Meter	3338.25

Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
	1.21.3	32 mm	Meter	3039.90
	1.21.4	40 mm	Meter	5818.30
5	1.22	Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.		
	1.22.1	75 mm x 75 mm 60 mm deep	Each	93.90
	1.22.2	100 mm x 100 mm 60 mm deep	Each	112.80
	1.22.3	150 mm x 75 mm 60 mm deep	Each	118.90
	1.22.4	150 mm x 150 mm 60 mm deep	Each	171.20
	1.22.5	180 mm x 100 mm 60 mm deep	Each	137.30
	1.22.6	200 mm x 150 mm 60 mm deep	Each	193.70
	1.22.7	200 mm x 250 mm 60 mm deep	Each	271.60
	1.22.8	200 mm x 300 mm 60 mm deep	Each	320.70
	1.22.9	250 mm x 300 mm 60 mm deep	Each	351.90
6	1.23	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.		
	1.23.1	5/6 amps. Switch	Each	28.10
	1.23.2	5/6 amps. Switch Two way	Each	35.50
	1.23.3	15/16 amps. Switch	Each	80.10
	1.23.4	3 Pin. 5/6 amps socket outlet	Each	40.30
	1.23.5	6 Pin. 15/16 amps socket outlet	Each	80.30
	1.23.6	Telephone socket outlet	Each	49.20
	1.23.7	TV Antenna Socket outlet	Each	49.80
	1.23.8	Bell push	Each	39.00
	1.23.9	Electronic step fan regulator, piano type	Each	191.20
7	1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.		
	1.24.1	10 amps. Switch	Each	74.80
	1.24.2	2 Way. 10 amps switch	Each	109.00
	1.24.3	15/16 amps switch	Each	101.60
	1.24.4	5 Pin. 5/6 amps socket outlet	Each	91.90
	1.24.5	6 Pin. 15/16 amps socket outlet	Each	145.90
	1.24.6	Telephone socket outlet	Each	92.10
	1.24.7	TV antenna socket outlet	Each	92.10
	1.24.8	Bell push	Each	96.10
	1.25	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	299.70

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Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
	1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box but excluding modular plate as required.	Each	23 20
8	1.27	Supplying and fixixing following size/ modules, GI box along with modular base and cover plate for modular switches in reess etc as required.		
	1.27.1	2 Module	Each	181.30
	1.27.2	3 Module	Each	211 50
	1.27.3	4 Module	Each	228 80
	1.27.4	6 Module	Each	269 80
	1.27.5	8 Module	Each	324 90
	1.27.6	12 Module	Each	402 75
9	1.33	Supplying and fixing 2 pin, 6 amp ceiling rose on the existing junction box/ wooden block including connection etc. as required.	Each	42 60
10	1.34	Supplying and fixing batten/ angle holder including connection etc. as required.	Each	54.10
11	1.37	Supplying and fixing Ding-Dong call bell suitable for single phase, 230 volts complete as required.	Each	129.40
12	1.38	Supplying and fixing electronic musical call suitable for single phase, 230 volts complete bell as required	Each	182 20
13	1.49	Numbering of ceiling fan/ exhaust fan/ fluorescent fittings as required	Each	2735.25
		SWITCHGEARS & DB'S		
14	2.1	Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.		
	2.1.1	16 Amp. double pole	Each	550.00
	2.1.2	32 Amp. double pole	Each	1147.10
	2.1.3	63 Amp. double pole	Each	2812.70
	2.1.4	32 Amp. TP&N	Each	1779 00
	2.1.5	63 Amp. TP&N	Each	3560.40
	2.1.6	100 Amp. TP&N	Each	6060 00
	2.1.7	200 Amp. TP&N	Each	10124 20
	2.1.8	320 Amp. TP&N	Each	15644 50
15	2.2	Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.		

Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
	2.2.1	63 Amp TP&N, HRC	Each	2268 20
	2.2.2	100 Amp TP&N, HRC	Each	4537 20
	2.2.3	200 Amp TP&N, HRC	Each	8519 50
	2.2.4	320 Amp TP&N, HRC	Each	12456 50
	2.2.5	400 Amp TP&N, HRC	Each	14828 10
	2.2.6	500 Amp TP&N, HRC	Each	24546 50
	2.2.7	800 Amp TP&N, HRC	Each	30650 50
16	2.5	Providing and fixing following capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc as required		
	2.5.1	63 Amps.	Each	2862 70
	2.5.2	100 Amps.	Each	3712 50
	2.5.3	200 Amps.	Each	7808 90
	2.5.4	300 Amps.	Each	9553 30
	2.5.5	400 Amps.	Each	15538 80
17	2.6	Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.		
	2.6.1	32 Amp. double pole	Each	1200 10
	2.6.2	63 Amp. double pole	Each	2219 50
	2.6.3	32 Amp. four pole	Each	1934 90
	2.6.4	63 Amp. four pole	Each	4140 00
	2.6.5	10 Amp. four pole	Each	7743 40
	2.6.6	200 Amp. four pole	Each	11725 60
	2.6.7	320 Amp. four pole	Each	15102 10
	2.6.8	400 Amp. four pole	Each	17374 60
18	2.8	Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)		
	2.8.1	4 way, single door	Each	848 50
	2.8.2	6 way, single door	Each	915 05
	2.8.3	8 way, single door	Each	981 80
	2.8.5	12 way, single door	Each	1249 10
	2.8.6	4 way, double door	Each	1001 60
	2.8.7	6 way, double door	Each	1378 00
	2.8.8	8 way, double door	Each	1498 05
	2.8.9	12 way, double door	Each	1902 10

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Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
19	2.12	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.		
			Each	166.70
	2.12.1	6/32 amps, single pole	Each	511.80
	2.12.2	6/32 amps, SPN	Each	724.60
	2.12.3	40 amps, Single pole and neutral	Each	820.05
	2.12.4	50/63 amps, Single pole and neutral	Each	1000.10
	2.12.5	6/32 amps, Tripole pole and neutral	Each	1422.90
	2.12.6	40 amps, TPN	Each	1503.70
	2.12.7	50/63 amps, Tripole pole and neutral	Each	
20	2.15	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
			Each	305.80
	2.15.1	40 Amps.	Each	352.20
	2.15.2	63 Amps.	Each	
21	2.16	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
			Each	682.10
	2.16.1	40 amps.	Each	740.80
	2.16.2	63 Amps.	Each	975.80
	2.16.3	100 Amps.	Each	
22	2.20	Providing and fixing M.V. danger notice plate of 200 mm x 150 mm, made of mild steel at least 2 mm thick, vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	164.00
23	2.21	Providing and fixing H.T. danger notice plate of 250 mm x 200 mm, made of mild steel at least 2 mm thick, vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	183.35
		EARTHING		
24	3.2	Earting with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal /coke and salt as required.	Each	4068.35

Sl. No.	Item Code No. SOR BCD (Electrical) 2022	Description	Unit	Rate
		<u>LED LUMINAIRES</u>		
25	5.14	Supplying and fixing following types LED street light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole / building including connection earthing the body etc. as required.		
	5.14.1	30 Watt	Each	2409.70
	5.14.2	45 Watt	Each	3778.90
	5.14.3	70 Watt	Each	5181.80
	5.14.4	90 Watt	Each	6325.30
	5.14.5	120 Watt	Each	7800.50
26	5.15	Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection erthing the body etc. as required.		
	5.15.1	30 Watt	Each	2768.20
	5.15.2	50 Watt	Each	3525.20
	5.15.3	70 Watt	Each	6154.60
	5.15.4	100 Watt	Each	8374.20
	5.15.5	120 Watt	Each	9341.70
	5.15.6	150 Watt	Each	11732.10
	5.15.7	200 Watt	Each	15773.00
		<u>MV/HT CABLE LAYING</u>		
27	7.1	Laying of one number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.		
	7.1.1	Upto 35 sq. mm	Meter	9815.30
	7.1.2	Above 35 sq. mm and upto 95 sq.mm	Meter	10546.70
	7.1.3	Above 95 sq. mm and upto 185 sq. mm	Meter	11278.10
	7.1.4	Above 185 sq. mm and upto 400 sq. mm	Meter	13472.30

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Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
		<u>POLE ERECTION & MISCELLANEOUS ITEM</u>		
28	8.12	Supply and erection of 4 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required. (but without pole foundation)		
	8.12.1	Single arm, 1000 mm.	Each	13575.90
	8.12.2	Double arm, 1000 mm.	Each	14447.10
29	8.13	Supply and erection of 6 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)		
	8.13.1	Single arm, 1000 mm	Each	17456.50
	8.13.2	Double arm, 1000 mm	Each	18327.60
30	8.14	Supply and erection of 7 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 155 mm, made of 3 mm thick sheet along with base plate of size 260 x 260 x 16 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)		
	8.14.1	Single arm, 1000 mm	Each	18837.40
	8.14.2	Double arm, 1000 mm	Each	19708.50

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Sl. No.	Item Code No. SOR BCD (Electrical)	Description	Unit	Rate
31	8.15	Supply and erection of 8 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 155 mm, made of 3 mm thick sheet along with base plate of size 260 x 260 x 16 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)		
	8.15.1	Single arm, 1000 mm	Each	20759.70
	8.15.2	Double arm, 1000 mm	Each	21630.80

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19/09/2022
(सुजीत कुमार)
सदस्य सचिव

विभागीय अनुसूचित दर निर्धारण समिति
-सह-निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, बिहार, पटना

[Signature]
19/09/22
(कुमार जयंत प्रसाद)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह-मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, बिहार, पटना

[Signature]
19/09/22
(शैलेन्द्र)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(बाढ़ नियंत्रण एवं जल निस्सरण)
जल संसाधन विभाग, बिहार, पटना।

(ईश्वर चन्द्र ठाकुर)
सदस्य

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख
(सिंचाई सृजन)
जल संसाधन विभाग, बिहार, पटना।

[Signature]
19/09/22

(रवीन्द्र कुमार शंकर)
अध्यक्ष

विभागीय अनुसूचित दर निर्धारण
समिति-सह-अभियंता प्रमुख, मुख्यालय,
जल संसाधन विभाग, बिहार, पटना।

Analysis of Rates

- 1.1 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with piano type switch, phenolic laminated sheet, suitable size M.S./ PVC box etc. as required.

1.1.1 Group A

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 1 Point				
	MATERIAL				
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 2 x 3 = 6 + 0.30 (Wastage @ 5%) = 6.30 m	Meter	6.30	12.94	81.52
1201	20 mm dia ISI marked, PVC conduit = 2.5 + 0.13 (Wastage @ 5%) = 2.63 m	Meter	2.63	14.30	37.61
1206	20 mm PVC bends	Each	1.00	5.25	5.25
1211	20 mm PVC couplers	Each	0.00	2.93	0.00
1216	20 mm iron staples/ saddles/ screws	Each	4.00	2.48	9.92
1801	Al. Alloy/cadium plated iron screws, 20 mm	Each	8.00	0.56	4.48
1843	Washers	Each	4.00	0.48	1.92
1223	75 mm x 75 mm x 50 mm PVC box	Each	1.00	29.70	29.70
1323	3 mm thick phenolic laminated sheet	Each	72.00	0.15	10.80
1221	20 mm PVC junction box, one way	Each	1.00	13.65	13.65
1420	S.P. 5/6 amps, one way switch, piano type ISI marked	Each	1.00	10.66	10.66
804	PVC fastener 40 mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of materials				213.12
	Cartage @ 1% of cost of materials				2.13
	LABOUR				
9001	Wireman	Day	0.20	367.00	73.40
9009	Mason, Grade 2	Day	0.10	382.00	38.20
9006	Khallasari	Day	0.30	318.00	95.40
	Total				422.25
	Add 15% for overheads & C.P.				63.34
	Total				485.59
	Say				485.60

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Analysis of Rates

- 1.1 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with piano type switch, phenolic laminated sheet, suitable size M.S./ PVC box etc. as required.

1.1.2 Group B

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 1 Point					
MATERIAL					
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 2 x 4 = 8 + 0.40 (Wastage @ 5%) = 8.40 m	Meter	8.40	12.94	108.70
1201	20 mm dia ISI marked, PVC conduit = 3.5 + 0.18 (Wastage @ 5%) = 3.68 m	Meter	3.68	14.30	52.62
1206	20 mm PVC bends	Each	1.00	5.25	5.25
1211	20 mm PVC couplers	Each	2.00	2.93	5.86
1216	20 mm iron staples/ saddles/ screws	Each	9.00	2.48	22.32
1801	Al. Alloy/cadium plated iron screws, 20 mm	Each	8.00	0.56	4.48
1843	Washers	Each	4.00	0.48	1.92
1223	75 mm x 75 mm x 50 mm PVC box	Each	1.00	29.70	29.70
1323	3 mm thick phenolic laminated sheet	Each	72.00	0.15	10.80
1221	20 mm PVC junction box, one way	Each	1.00	13.65	13.65
1420	S.P. 5/6 amps, one way switch, piano type ISI marked	Each	1.00	10.66	10.66
804	PVC fastener 40 mm long	Each	9.00	0.50	4.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					276.07
Cartage @ 1% of cost of materials					2.76
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9009	Mason, Grade 2	Day	0.10	382.00	38.20
9006	Khallasi	Day	0.30	318.00	95.40
Total					485.83
Add 15% for overheads & C.P.					72.87
Total					558.71
Say					558.70





299

Analysis of Rates

- 1.1 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with piano type switch, phenolic laminated sheet, suitable size M.S./ PVC box etc. as required.

1.1.3 Group C

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 1 Point					
MATERIAL					
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 2 x 5 = 10 + 0.50 (Wastage @ 5%) = 10.50 m	Meter	10.50	12.94	135.87
1201	20 mm dia ISI marked, PVC conduit = 4.5 + 0.23 (Wastage @ 5%) = 4.73 m	Meter	4.73	14.30	67.64
1206	20 mm PVC bends	Each	1.00	5.25	5.25
1211	20 mm PVC couplers	Each	2.00	2.93	5.86
1216	20 mm iron staples/ saddles/ screws	Each	9.00	2.48	22.32
1801	Al. Alloy/cadium plated iron screws, 20 mm	Each	8.00	0.56	4.48
1843	Washers	Each	4.00	0.48	1.92
1223	75 mm x 75 mm x 50 mm PVC box	Each	1.00	29.70	29.70
1323	3 mm thick phenolic laminated sheet	Each	72.00	0.15	10.80
1221	20 mm PVC junction box, one way	Each	1.00	13.65	13.65
1420	S.P. 5/6 amps, one way switch, piano type ISI marked	Each	1.00	10.66	10.66
804	PVC fastener 40 mm long	Each	9.00	0.50	4.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					318.26
Cartage @ 1% of cost of materials					3.18
LABOUR					
9001	Wireman	Day	0.30	367.00	110.10
9009	Mason, Grade 2	Day	0.10	382.00	38.20
9006	Khallas	Day	0.40	318.00	127.20
Total					596.94
Add 15% for overheads & C.P.					89.54
Total					686.48
Say					686.50




300

Analysis of Rates

- 1.3 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with modular switch, modular plate, suitable size G.I. box as required.

1.3.1 Group A

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 1 Point				
	MATERIAL				
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 2 x 3 = 6 + 0.30 (Wastage @ 5%) = 6.30 m	Meter	6.30	12.94	81.52
1201	20 mm dia ISI marked, PVC conduit = 2.5 + 0.13 (Wastage @ 5%) = 2.63 m	Meter	2.63	14.30	37.61
1206	20 mm PVC bends	Each	1.00	5.25	5.25
1211	20 mm PVC couplers	Each	0.00	2.93	0.00
1216	20 mm iron staples/ saddles/ screws	Each	4.00	2.48	9.92
1221	20 mm PVC Junction box, one way	Each	1.00	13.65	13.65
1301	Modular GI box for 2 module	Each	0.50	26.73	13.37
1414	Modular base and cover plate for module	Each	0.50	54.00	27.00
1403	S.P. 5/6 amps, one way modular switch, ISI marked	Each	1.00	44.08	44.08
1807	PVC fastener 40 mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of materials				240.01
	Cartage @ 1% of cost of materials				2.40
	LABOUR				
9001	Wireman	Day	0.20	367.00	73.40
9009	Mason, Grade 2	Day	0.10	382.00	38.20
9006	Khallas	Day	0.30	318.00	95.40
	Total				449.41
	Add 15% for overheads & C.P.				67.41
	Total				516.82
	Say				516.80

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Analysis of Rates

- 1.3 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with modular switch, modular plate, suitable size G.I. box as required.

1.3.2 Group B

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 1 Point					
MATERIAL					
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = $2 \times 4 = 8 + 0.40$ (Wastage @ 5%) = 8.40 m	Meter	8.40	12.94	108.70
1201	20 mm dia ISI marked, PVC conduit = $3.5 + 0.18$ (Wastage @ 5%) = 3.68 m	Meter	3.68	14.30	52.62
1206	20 mm PVC bends	Each	1.00	5.25	5.25
1211	20 mm PVC couplers	Each	2.00	2.93	5.86
1216	20 mm iron staples/ saddles/ screws	Each	9.00	2.48	22.32
1221	20 mm PVC Junction box, one way	Each	1.00	13.65	13.65
1301	Modular GI box for 2 module	Each	0.50	26.73	13.37
1414	Modular base and cover plate for module	Each	0.50	54.00	27.00
1403	S.P. 5/6 amps, one way modular switch, ISI marked	Each	1.00	44.08	44.08
1807	PVC fastener 40 mm long	Each	9.00	0.50	4.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					302.96
Cartage @ 1% of cost of materials					3.03
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9009	Mason, Grade 2	Day	0.10	382.00	38.20
9006	Khallasai	Day	0.30	318.00	95.40
Total					512.98
Add 15% for overheads & C.P.					76.95
Total					589.93
Say					589.90

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Analysis of Rates

- 1.3 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit with modular switch, modular plate, suitable size G.I. box as required.

1.3.3 Group C

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 1 Point				
	MATERIAL				
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 2 x 5 = 10 + 0.50 (Wastage @ 5%) = 10.50 m	Meter	10.50	12.94	135.87
1201	20 mm dia ISI marked, PVC conduit = 4.5 + 0.23 (Wastage @ 5%) = 4.73 m	Meter	4.73	14.30	67.64
1206	20 mm PVC bends	Each	1.00	5.25	5.25
1211	20 mm PVC couplers	Each	2.00	2.93	5.86
1216	20 mm iron staples/ saddles/ screws	Each	9.00	2.48	22.32
1221	20 mm PVC Junction box, one way	Each	1.00	13.65	13.65
1301	Modular GI box for 2 module	Each	0.50	26.73	13.37
1414	Modular base and cover plate for module	Each	0.50	54.00	27.00
1403	S.P. 5/6 amps, one way modular switch, ISI marked	Each	1.00	44.08	44.08
1807	PVC fastener 40 mm long	Each	9.00	0.50	4.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of materials				345.14
	Cartage @ 1% of cost of materials				3.45
	LABOUR				
9001	Wireman	Day	0.30	367.00	110.10
9009	Mason, Grade 2	Day	0.10	382.00	38.20
9006	Khallasi	Day	0.40	318.00	127.20
	Total				624.10
	Add 15% for overheads & C.P.				93.61
	Total				717.71
	Say				717.70

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Analysis of Rates

- 1.7 Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required .

1.7.1 2 x 1.5 sq. mm + 1 x 1.5 sq. mm earth wire

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 50 meters					
MATERIAL					
1101	1.5 sq. mm ISI marked, FRLS PVC insulated single core coper conductor cable = $50.5 \times 3 = 151.5 + 7.58$ (Wastage @ 5%) = 159.08 m	Meter	159.08	12.94	2058.50
1201	20 mm dia ISI marked, PVC conduit = $50.0 + 2.5$ (Wastage @ 5%) = 52.5 m	Meter	52.50	14.30	750.75
1206	20 mm PVC bends	Each	4.00	5.25	21.00
1211	20 mm PVC couplers	Each	15.00	2.93	43.95
1216	20 mm iron staples/ saddles/ screws	Each	85.00	2.48	210.80
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of maerials					3133.11
Cartage @ 1% of cost of materials					31.33
LABOUR					
9001	Wireman	Day	2.00	367.00	734.00
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	2.75	318.00	874.50
Total					5059.44
Add 15% for overheads & C.P.					758.92
Total					5818.35

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Analysis of Rates

- 1.7 Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required

1.7.2 2 x 1.5 sq. mm + 1 x 2.5 sq. mm earth wire

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 50 meters				
	MATERIAL				
1102	2.5 sq. mm ISI marked, FRLS PVC insulated single core coper conductor cable = $50.5 \times 3 = 151.5 + 7.58$ (Wastage @ 5%) = 159.08 m	Meter	159.08	20.13	3202.28
1201	20 mm dia ISI marked, PVC conduit = $50.0 + 2.5$ (Wastage @ 5%) = 52.5 m	Meter	52.50	14.30	750.75
1206	20 mm PVC bends	Each	4.00	5.25	21.00
1211	20 mm PVC couplers	Each	15.00	2.93	43.95
1216	20 mm iron staples/ saddles/ screws	Each	85.00	2.48	210.80
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of maerials				4276.89
	Cartage @ 1% of cost of materials				42.77
	LABOUR				
9001	Wireman	Day	2.00	367.00	734.00
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	2.75	318.00	874.50
	Total				6214.66
	Add 15% for overheads & C.P.				932.20
	Total				7146.86
	Say				7146.90




Analysis of Rates

- 1.7 Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required

1.7.3 2 x 4 sq. mm + 1 x 4 sq. mm earth wire

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 50 meters					
MATERIAL					
1103	4 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 50.5 x 3 = 151.5 + 7.58 (Wastage @ 5%) = 159.08 m	Meter	159.08	31.64	5033.29
1201	20 mm dia ISI marked, PVC conduit = 50.0 + 2.5 (Wastage @ 5%) = 52.5 m	Meter	52.50	14.30	750.75
1206	20 mm PVC bends	Each	4.00	5.25	21.00
1211	20 mm PVC couplers	Each	15.00	2.93	43.95
1216	20 mm iron staples/ saddles/ screws	Each	85.00	2.48	210.80
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					6107.90
Cartage @ 1% of cost of materials					61.08
LABOUR					
9001	Wireman	Day	2.00	367.00	734.00
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	2.75	318.00	874.50
Total					8063.98
Add 15% for overheads & C.P.					1209.60
Total					9273.58
Say					9273.60

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Analysis of Rates

- 1.7 Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required

1.7.4 2 x 6 sq. mm + 1 x 6 sq. mm earth wire

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 50 meters					
MATERIAL					
1104	6 sq. mm ISI marked, FRLS PVC insulated single core coper conductor cable = 50.5 x 3 = 151.5 + 7.58 (Wastage @ 5%) = 159.08 m	Meter	159.08	46.02	7320.86
1202	25 mm dia ISI marked, PVC conduit = 50.0 + 2.5 (Wastage @ 5%) = 52.5 m	Meter	52.50	20.40	1071.00
1207	25 mm PVC bends	Each	4.00	7.25	29.00
1212	25 mm PVC couplers	Each	15.00	4.23	63.45
1217	25 mm iron staples/ saddles/ screws	Each	85.00	3.47	294.95
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of maerials					8827.37
Cartage @ 1% of cost of materials					88.27
LABOUR					
9001	Wireman	Day	2.00	367.00	734.00
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallas	Day	2.75	318.00	874.50
Total					10810.65
Add 15% for overheads & C.P.					1621.60
Total					12432.24
Say					12432.20

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Analysis of Rates

- 1.7 Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required

1.7.5 2 x 10 sq. mm + 1 x 6 sq. mm earth wire

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 50 meters				
	MATERIAL				
1105	10 sq. mm ISI marked, FRLS PVC insulated single core coper conductor cable = $50.5 \times 2 = 101.00 + 5.05$ (Wastage @ 5%) = 106.05 m	Meter	106.05	81.98	8693.98
1104	6 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable = $50.5 \times 1 = 50.5 + 2.53$ (Wastage @ 5%) = 53.03 m	Meter	53.03	46.02	2440.44
1202	25 mm dia ISI marked, PVC conduit = $50.0 + 2.5$ (Wastage @ 5%) = 52.5 m	Meter	52.50	20.40	1071.00
1207	25 mm PVC bends	Each	4.00	4.25	17.00
1212	25 mm PVC couplers	Each	15.00	4.23	63.45
1217	25 mm iron staples/ saddles/ screws	Each	85.00	3.47	294.95
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of maerials				12628.93
	Cartage @ 1% of cost of materials				126.29
	LABOUR				
9001	Wireman	Day	2.25	367.00	825.75
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	3.00	318.00	954.00
	Total				14821.47
	Add 15% for overheads & C.P.				2223.22
	Total				17044.69
	Say				17044.70

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Analysis of Rates

- 1.7 Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required

1.7.6 2 x 16 sq. mm + 1 x 6 sq. mm earth wire

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 50 meters				
	MATERIAL				
1106	16 sq. mm ISI marked, FRLS PVC insulated single core copper conductor cable = 50.5 x 2 = 101.00 + 5.05 (Wastage @ 5%) = 106.05 m	Meter	106.05	128.00	13574.40
1104	6 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable = 50.5 x 1 = 50.5 + 2.53 (Wastage @ 5%) = 53.03 m	Meter	53.03	46.02	2440.44
1203	25 mm dia ISI marked, PVC conduit = 50.0 + 2.5 (Wastage @ 5%) = 52.5 m	Meter	52.50	21.10	1107.75
1208	32 mm PVC bends	Each	4.00	12.10	48.40
1213	32 mm PVC couplers	Each	15.00	7.80	117.00
1218	32 mm iron staples/ saddles/ screws	Each	85.00	5.20	442.00
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of materials				17778.10
	Cartage @ 1% of cost of materials				177.78
	LABOUR				
9001	Wireman	Day	2.25	367.00	825.75
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallas	Day	3.00	318.00	954.00
	Total				20022.13
	Add 15% for overheads & C.P.				3003.32
	Total				23025.45
	Say				23025.45




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Analysis of Rates

- 1.21 Supply and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.

1.21.1 20 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 50 meters					
MATERIAL					
1201	20 mm dia ISI marked, PVC conduit = 50.0 + 2.50 (Waste @ 5%) = 52.50 m	Meter	52.50	14.30	750.75
1206	20 mm PVC Bends	Each	4.00	5.25	21.00
1211	20 mm PVC Couplers	Each	15.00	2.93	43.95
1216	20 mm iron staples/ saddles/ screws	Each	85.00	2.48	210.80
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					1074.61
Cartage @ 1% of cost of materials					10.75
LABOUR					
9001	Wireman	Day	1.25	367.00	458.75
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallas	Day	2.00	318.00	636.00
Total					2466.61
Add 15% for overheads & C.P.					369.99
Total					2836.60
Say					2836.60




Analysis of Rates

1.21 Supply and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.

1.21.2 25 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for 50 meters				
	MATERIAL				
1202	25 mm dia ISI marked, PVC conduit = 50.0 + 2.50 (Waste @ 5%) = 52.50 m	Meter	52.50	20.40	1071.00
1207	25 mm PVC Bends	Each	4.00	7.25	29.00
1212	25 mm PVC Couplers	Each	15.00	4.23	63.45
1217	25 mm iron staples/ saddles/ screws	Each	85.00	3.47	294.95
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of maerials				1506.51
	Cartage @ 1% of cost of materials				15.07
	LABOUR				
9001	Wireman	Day	1.25	367.00	458.75
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	2.00	318.00	636.00
	Total				2902.83
	Add 15% for overheads & C.P.				435.42
	Total				3338.25
	Say				3338.25

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Analysis of Rates

1.21 Supply and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.

1.21.3 32 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 50 meters					
MATERIAL					
1203	32 mm dia ISI marked, PVC conduit = 50.0 + 2.50 (Waste @ 5%) = 52.50 m	Meter	52.50	21.10	1107.75
1208	32 mm PVC Bends	Each	4.00	12.10	48.40
1213	32 mm PVC Couplers	Each	15.00	7.80	117.00
1218	32 mm iron staples/ saddles/ screws	Each	85.00	5.20	442.00
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					1763.26
Cartage @ 1% of cost of materials					17.63
LABOUR					
9001	Wireman	Day	1.25	367.00	458.75
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	2.00	318.00	636.00
Total					3162.14
Add 15% for overheads & C.P.					474.32
Total					3636.46
Say					3636.50

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Analysis of Rates

1.21 Supply and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required.

1.21.4 40 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 50 meters					
MATERIAL					
1204	40 mm dia ISI marked, PVC conduit = 50.0 + 2.50 (Waste @ 5%) = 52.50 m	Meter	52.50	49.20	2583.00
1209	40 mm PVC Bends	Each	4.00	23.10	92.40
1214	40 mm PVC Couplers	Each	15.00	11.55	173.25
1219	40 mm iron staples/ saddles/ screws	Each	85.00	6.77	575.45
1807	PVC fastener 40mm long	Each	85.00	0.50	42.50
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					3472.21
Cartage @ 1% of cost of materials					34.72
LABOUR					
9001	Wireman	Day	1.50	367.00	550.50
9009	Mason, Grade 2	Day	0.75	382.00	286.50
9006	Khallasi	Day	2.25	318.00	715.50
Total					5059.43
Add 15% for overheads & C.P.					758.91
Total					5818.35
Say					5818.35




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Analysis of Rates

1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.1 75 mm x 75 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1307	75 mm x 75 mm 60 mm deep metal/ PVC box	Each	1.00	19.25	19.25
1323	3 mm thick phenolic laminated sheet	sq.cm.	64.00	0.15	9.60
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	2.00	0.56	1.12
1843	Washers	Each	2.00	0.48	0.96
1807	PVC fastener 40mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					37.54
Cartage @ 1% of cost of materials					0.38
LABOUR					
9001	Wireman	Day	0.020	367.00	7.34
9009	Mason, Grade 2	Day	0.040	382.00	15.28
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.060	318.00	19.08
Total					81.64
Add 15% for overheads & C.P.					12.25
Total					93.89
Say					93.90




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Analysis of Rates

1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.2 100 mm x 100 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1308	100 mm x 100 mm 60 mm deep metal/ PVC box	Each	1.00	27.00	27.00
1323	3 mm thick phenolic laminated sheet	sq.cm.	121.00	0.15	18.15
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	2.00	0.56	1.12
1843	Washers	Each	2.00	0.48	0.96
1807	PVC fastener 40mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					53.84
Cartage @ 1% of cost of materials					0.54
LABOUR					
9001	Wireman	Day	0.020	367.00	7.34
9009	Mason, Grade 2	Day	0.040	382.00	15.28
9005	Painter	Day	0.005	405.00	2.03
9006	Khallas	Day	0.060	318.00	19.08
Total					98.10
Add 15% for overheads & C.P.					14.72
Total					112.82
Say					112.80

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Analysis of Rates

1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.3 150 mm x 75 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1309	150 mm x 75 mm 60 mm deep metal/ PVC box	Each	1.00	30.00	30.00
1323	3 mm thick phenolic laminated sheet	sq.cm.	136.00	0.15	20.40
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	2.00	0.56	1.12
1843	Washers	Each	2.00	0.48	0.96
1807	PVC fastener 40mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					59.09
Cartage @ 1% of cost of materials					0.59
LABOUR					
9001	Wireman	Day	0.020	367.00	7.34
9009	Mason, Grade 2	Day	0.040	382.00	15.28
9005	Painter	Day	0.005	405.00	2.03
9006	Khallas	Day	0.060	318.00	19.08
Total					103.41
Add 15% for overheads & C.P.					15.51
Total					118.92
Say					118.90

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Analysis of Rates

- 1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.4 150 mm x 150 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1322	150 mm x 150 mm 60 mm deep metal/ PVC box	Each	1.00	40.20	40.20
1323	3 mm thick phenolic laminated sheet	sq.cm.	256.00	0.15	38.40
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	4.00	0.56	2.24
1843	Washers	Each	4.00	0.48	1.92
1807	PVC fastener 40mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					90.37
Cartage @ 1% of cost of materials					0.90
LABOUR					
9001	Wireman	Day	0.030	367.00	11.01
9009	Mason, Grade 2	Day	0.050	382.00	19.10
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.080	318.00	25.44
Total					148.85
Add 15% for overheads & C.P.					22.33
Total					171.18
Say					171.20




Analysis of Rates

1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.5 180 mm x 100 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1310	180 mm x 100 mm 60 mm deep metal/ PVC box	Each	1.00	35.50	35.50
1323	3 mm thick phenolic laminated sheet	sq.cm.	205.00	0.15	30.75
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	2.00	0.56	1.12
1843	Washers	Each	2.00	0.48	0.96
1807	PVC fastener 40mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of maerials				74.94
	Cartage @ 1% of cost of materials				0.75
	LABOUR				
9001	Wireman	Day	0.020	367.00	7.34
9009	Mason, Grade 2	Day	0.040	382.00	15.28
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.060	318.00	19.08
	Total				119.41
	Add 15% for overheads & C.P.				17.91
	Total				137.33
	Say				137.30




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Analysis of Rates

- 1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.6 200 mm x 150 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1312	200 mm x 150 mm 60 mm deep metal/ PVC box	Each	1.00	47.60	47.60
1323	3 mm thick phenolic laminated sheet	sq.cm.	336.00	0.15	50.40
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	4.00	0.56	2.24
1843	Washers	Each	4.00	0.48	1.92
1807	PVC fastener 40mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
	Total cost of maerials				109.77
	Cartage @ 1% of cost of materials				1.10
	LABOUR				
9001	Wireman	Day	0.030	367.00	11.01
9009	Mason, Grade 2	Day	0.050	382.00	19.10
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.080	318.00	25.44
	Total				168.44
	Add 15% for overheads & C.P.				25.27
	Total				193.71
	Say				193.70




Analysis of Rates

- 1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.7 200 mm x 250 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1313	200 mm x 250 mm 60 mm deep metal/ PVC box	Each	1.00	69.00	69.00
1323	3 mm thick phenolic laminated sheet	sq.cm.	557.00	0.15	83.55
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	4.00	0.56	2.24
1843	Washers	Each	4.00	0.48	1.92
1807	PVC fastener 40mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	2.00	5.61	11.22
Total cost of materials					169.93
Cartage @ 1% of cost of materials					1.70
LABOUR					
9001	Wireman	Day	0.030	367.00	11.01
9009	Mason, Grade 2	Day	0.060	382.00	22.92
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.090	318.00	28.62
Total					236.20
Add 15% for overheads & C.P.					35.43
Total					271.63
Say					271.60

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Analysis of Rates

1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.8 200 mm x 300 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1314	200 mm x 300 mm 60 mm deep metal/ PVC box	Each	1.00	95.50	95.50
1323	3 mm thick phenolic laminated sheet	sq.cm.	662.00	0.15	99.30
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	4.00	0.56	2.24
1843	Washers	Each	4.00	0.48	1.92
1807	PVC fastener 40mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	2.00	5.61	11.22
	Total cost of materials				212.18
	Cartage @ 1% of cost of materials				2.12
	LABOUR				
9001	Wireman	Day	0.030	367.00	11.01
9009	Mason, Grade 2	Day	0.060	382.00	22.92
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.090	318.00	28.62
	Total				278.88
	Add 15% for overheads & C.P.				41.83
	Total				320.71
	Say				320.70

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Analysis of Rates

- 1.22 Supplying and fixing metal/ PVC box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.

1.22.9 250 mm x 300 mm 60 mm deep

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1315	250 mm x 300 mm 60 mm deep metal/ PVC box	Each	1.00	105.00	105.00
1323	3 mm thick phenolic laminated sheet	sq.cm.	835.00	0.15	125.25
1801	Al. Alloy/ Cadium plated iron screws, 20 mm	Each	4.00	0.56	2.24
1843	Washers	Each	4.00	0.48	1.92
1807	PVC fastener 40mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	2.00	5.61	11.22
Total cost of materials					247.63
Cartage @ 1% of cost of materials					2.48
LABOUR					
9001	Wireman	Day	0.030	367.00	11.01
9009	Mason, Grade 2	Day	0.060	382.00	22.92
9005	Painter	Day	0.005	405.00	2.03
9006	Khallasi	Day	0.090	318.00	28.62
Total					314.68
Add 15% for overheads & C.P.					47.20
Total					361.88
Say					361.90

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Analysis of Rates

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.1 5/6 amps. Switch

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1420	S.P. 5/6 amps, one way, piano type ISI marked.	Each	1.00	10.66	10.66
	Total cost of materials				10.66
	Cartage @ 1% of cost of materials				0.11
	LABOUR				
9001	Wireman	Day	0.02	367.00	7.34
9006	Khallasi	Day	0.02	318.00	6.36
	Total				24.47
	Add 15% for overheads & C.P.				3.67
	Total				28.14
	Say				28.10

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.2 5/6 amps. Switch Two way

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1421	S.P. 5/6 amps, two way, piano type ISI marked.	Each	1.00	17.91	17.91
	Total cost of materials				17.91
	Cartage @ 1% of cost of materials				0.18
	LABOUR				
9001	Wireman	Day	0.02	367.00	7.34
9006	Khallasi	Day	0.02	318.00	6.36
	Total				31.79
	Add 15% for overheads & C.P.				4.77
	Total				36.56
	Say				36.60

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Analysis of Rates

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.3 15/16 amps. Switch

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1422	S.P. 15/16 amps, one way, piano type ISI marked.	Each	1.00	48.60	48.60
	Total cost of materials				48.60
	Cartage @ 1% of cost of materials				0.49
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				69.64
	Add 15% for overheads & C.P.				10.45
	Total				80.08
	Say				80.10

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.4 3 Pin, 5/6 amps socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1423	3 Pin, 5/6 amps socket outlet, piano type ISI marked.	Each	1.00	21.16	21.16
	Total cost of materials				21.16
	Cartage @ 1% of cost of materials				0.21
	LABOUR				
9001	Wireman	Day	0.02	367.00	7.34
9006	Khallasi	Day	0.02	318.00	6.36
	Total				35.07
	Add 15% for overheads & C.P.				5.26
	Total				40.33
	Say				40.30

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Analysis of Rates

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.5 6 Pin, 15/16 amps socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1424	6 pin 15/16 socket outlet, piano type ISI marked	Each	1.00	48.75	48.75
	Total cost of materials				48.75
	Cartage @ 1% of cost of materials				0.49
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				69.79
	Add 15% for overheads & C.P.				10.47
	Total				80.26
	Say				80.30

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.6 Telephone socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1427	Telephone socket outlet piano type	Each	1.00	22.04	22.04
	Total cost of materials				22.04
	Cartage @ 1% of cost of materials				0.22
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				42.81
	Add 15% for overheads & C.P.				6.42
	Total				49.23
	Say				49.20

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Analysis of Rates

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.7 TV Antenna Socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1428	TV Antenna socket outlet piano type	Each	1.00	22.56	22.56
	Total cost of materials				22.56
	Cartage @ 1% of cost of materials				0.23
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				43.34
	Add 15% for overheads & C.P.				6.50
	Total				49.84
	Say				49.80

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.8 Bell push

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1426	Bell push, piano type	Each	1.00	13.22	13.22
	Total cost of materials				13.22
	Cartage @ 1% of cost of materials				0.13
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				33.90
	Add 15% for overheads & C.P.				5.09
	Total				38.99
	Say				39.00




Analysis of Rates

1.23 Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.

1.23.9 Electronic step fan regulator, piano type

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1435	Electronic step fan regulator, piano type	Each	1.00	144.25	144.25
	Total cost of materials				144.25
	Cartage @ 1% of cost of materials				1.44
LABOUR					
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				166.24
	Add 15% for overheads & C.P.				24.94
	Total				191.18
	Say				191.20

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Analysis of Rates

1.24 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.

1.24.1 10 amps. Switch

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1403	S.P.. 10 amps, one way, modular switch, ISI marked	Each	1.00	44.08	44.08
	Total cost of maerials				44.08
	Cartage @ 1% of cost of materials				0.44
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				65.07
	Add 15% for overheads & C.P.				9.76
	Total				74.83
	Say				74.80

1.24 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.

1.24.2 2 Way, 10 amps switch

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1404	S.P.. 10 amps, two way, modular switch, ISI marked	Each	1.00	73.53	73.53
	Total cost of maerials				73.53
	Cartage @ 1% of cost of materials				0.74
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				94.82
	Add 15% for overheads & C.P.				14.22
	Total				109.04
	Say				109.00

Analysis of Rates

- 1.24 Supplying and fixing following modular switch/
socket on the existing modular plate & switch
box including connections but excluding
modular plate etc. as required.

1.24.3 15/16 amps switch

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1405	S.P.. 15/16 amps, one way, modular switch, ISI marked	Each	1.00	67.16	67.16
	Total cost of materials				67.16
	Cartage @ 1% of cost of materials				0.67
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				88.38
	Add 15% for overheads & C.P.				13.26
	Total				101.64
	Say				101.60

- 1.24 Supplying and fixing following modular switch/
socket on the existing modular plate & switch
box including connections but excluding
modular plate etc. as required.

1.24.4 5 Pin, 5/6 amps socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1406	5 Oub, 5/6 amps modular socket outlet, ISI marked	Each	1.00	65.57	65.57
	Total cost of materials				65.57
	Cartage @ 1% of cost of materials				0.66
	LABOUR				
9001	Wireman	Day	0.02	367.00	7.34
9006	Khallasi	Day	0.02	318.00	6.36
	Total				79.93
	Add 15% for overheads & C.P.				11.99
	Total				91.91
	Say				91.90

Analysis of Rates

1.24 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.

1.24.5 6 Pin, 15/16 amps socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1407	6 Pin, 15/16 amps, modular socket outlet, ISI marked	Each	1.00	105.24	105.24
	Total cost of maerials				105.24
	Cartage @ 1% of cost of materials				1.05
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				126.84
	Add 15% for overheads & C.P.				19.03
	Total				145.87
	Say				145.90

1.24 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.

1.24.6 Telephone socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1410	Telephone socket outlet modular type, ISI marked	Each	1.00	58.96	58.96
	Total cost of maerials				58.96
	Cartage @ 1% of cost of materials				0.59
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				80.10
	Add 15% for overheads & C.P.				12.01
	Total				92.11
	Say				92.10

Analysis of Rates

- 1.24 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.

1.24.7 TV antenna socket outlet

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1411	TV Antenna socket outlet, modular type, ISI marked	Each	1.00	58.96	58.96
	Total cost of materials				58.96
	Cartage @ 1% of cost of materials				0.59
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				80.10
	Add 15% for overheads & C.P.				12.01
	Total				92.11
	Say				92.10

- 1.24 Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.

1.24.8 Bell push

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1408	Modular bell push, ISI marked	Each	1.00	62.36	62.36
	Total cost of materials				62.36
	Cartage @ 1% of cost of materials				0.62
	LABOUR				
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
	Total				83.53
	Add 15% for overheads & C.P.				12.53
	Total				96.06
	Say				96.10

Analysis of Rates

- 1.25 Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1409	Stepped type Modular Fan regulator (2 module)	Each	1.00	230.87	<u>230.87</u>
	Total cost of materials				<u>230.87</u>
	Cartage @ 1% of cost of materials				2.31
	LABOUR				
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	<u>12.72</u>
	Total				<u>260.58</u>
	Add 15% for overheads & C.P.				<u>39.09</u>
	Total				<u>299.67</u>
	Say				299.70

- 1.26 Supplying and fixing modular blanking plate on the existing modular plate & switch box but excluding modular plate as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1412	Modular blanking plate	Each	1.00	13.22	<u>13.22</u>
	Total cost of materials				<u>13.22</u>
	Cartage @ 1% of cost of materials				0.13
	LABOUR				
9001	Wireman	Day	0.01	367.00	3.67
9006	Khallasi	Day	0.01	318.00	<u>3.18</u>
	Total				<u>20.20</u>
	Add 15% for overheads & C.P.				<u>3.03</u>
	Total				<u>23.23</u>
	Say				23.20

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Analysis of Rates

1.27 Supplying and fixing following size/ modules,
GI box along with modular base and cover
plate for modular switches in reess etc as
required.

1.27.1 2 Module

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1301	Modular GI box for 2 module	Each	1.00	26.73	26.73
1414	Modular base and cover plate for 2 module	Each	1.00	54.00	54.00
1807	PVC fastener 40 mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of maerials					87.34
Cartage @ 1% of cost of materials					0.87
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9009	Mason, Grade 2	Day	0.06	382.00	22.92
9006	Khallasi	Day	0.10	318.00	31.80
Total					157.61
Add 15% for overheads & C.P.					23.64
Total					181.26
Say					181.30




Analysis of Rates

1.27 Supplying and fixing following size/ modules,
GI box along with modular base and cover
plate for modular switches in reess etc as
required.

1.27.2 3 Module

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1302	Modular GI box for 3 module	Each	1.00	36.23	36.23
1415	Modular base and cover plate for 3 module	Each	1.00	70.53	70.53
1807	PVC fastener 40 mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of maerials					113.37
Cartage @ 1% of cost of materials					1.13
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9009	Mason, Grade 2	Day	0.06	382.00	22.92
9006	Khallasi	Day	0.10	318.00	31.80
Total					183.90
Add 15% for overheads & C.P.					27.59
Total					211.49
Say					211.50




Analysis of Rates

1.27 Supplying and fixing following size/ modules,
GI box along with modular base and cover
plate for modular switches in reess etc as
required.

1.27.3 4 Module

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1303	Modular GI box for 4 module	Each	1.00	44.55	44.55
1416	Modular base and cover plate for 4 module	Each	1.00	77.14	77.14
1807	PVC fastener 40 mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of materials					128.30
Cartage @ 1% of cost of materials					1.28
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9009	Mason, Grade 2	Day	0.06	382.00	22.92
9006	Khallasi	Day	0.10	318.00	31.80
Total					198.98
Add 15% for overheads & C.P.					29.85
Total					228.83
Say					228.80

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Analysis of Rates

1.27 Supplying and fixing following size/ modules,
GI box along with modular base and cover
plate for modular switches in reess etc as
required.

1.27.4 6 Module

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1304	Modular GI box for 6 module	Each	1.00	59.99	59.99
1417	Modular base and cover plate for 6 module	Each	1.00	96.98	96.98
1807	PVC fastener 40 mm long	Each	2.00	0.50	1.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of maerials					163.58
Cartage @ 1% of cost of materials					1.64
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9009	Mason, Grade 2	Day	0.06	382.00	22.92
9006	Khallasi	Day	0.10	318.00	31.80
Total					234.62
Add 15% for overheads & C.P.					35.19
Total					269.81
Say					269.80

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Analysis of Rates

1 27 Supplying and fixing following size/ modules,
GI box along with modular base and cover
plate for modular switches in reess etc as
required.

1.27.5 8 Module

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1305	Modular GI box for 8 module	Each	1.00	77.81	77.81
1418	Modular base and cover plate for 8 module	Each	1.00	125.63	125.63
1807	PVC fastener 40 mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	5.61
Total cost of maerials					211.05
Cartage @ 1% of cost of materials					2.11
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9009	Mason, Grade 2	Day	0.06	382.00	22.92
9006	Khallasi	Day	0.10	318.00	31.80
Total					282.56
Add 15% for overheads & C.P.					42.38
Total					324.94
Say					324.90




Analysis of Rates

1.27 Supplying and fixing following size/ modules,
GI box along with modular base and cover
plate for modular switches in reess etc as
required.

1.27.6 12 Module

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1306	Modular GI box for 12 module	Each	1.00	95.63	95.63
1419	Modular base and cover plate for 12 module	Each	1.00	174.80	174.80
1807	PVC fastener 40 mm long	Each	4.00	0.50	2.00
1858	Cement, paint, sand etc.	L.S.	1.00	5.61	<u>5.61</u>
Total cost of maerials					278.04
Cartage @ 1% of cost of materials					2.78
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9009	Mason, Grade 2	Day	0.06	382.00	22.92
9006	Khallasi	Day	0.10	318.00	<u>31.80</u>
Total					350.22
Add 15% for overheads & C.P.					<u>52.53</u>
Total					402.75
Say					402.75




Analysis of Rates

- 1.33 Supplying and fixing 2 pin, 6 amp ceiling rose on the existing junction box/ wooden block including connection etc. as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1401	Ceiling rose, 2 pin, 6 amps ISI marked	Each	1.00	15:19	15.19
1801	al. alloy/ cadmium plated iron screws, 20 mm	Each	2.00	0.56	1.12
Total cost of materials					16.31
Cartage @ 1% of cost of materials					0.16
LABOUR					
9001	Wireman	Day	0.03	367.00	11.01
9006	Khallasi	Day	0.03	318.00	9.54
Total					37.02
Add 15% for overheads & C.P.					5.55
Total					42.58
Say					42.60

- 1.34 Supplying and fixing batten/ angle holder including connection etc. as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1429	Batten/angle holder	Each	1.00	17.74	17.74
1801	al. alloy/ cadmium plated iron screws, 20 mm	Each	3.00	0.56	1.68
Total cost of materials					19.42
Cartage @ 1% of cost of materials					0.19
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					47.01
Add 15% for overheads & C.P.					7.05
Total					54.07
Say					54.10

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Analysis of Rates

- 1.37 Supplying and fixing Ding-Dong call bell suitable for single phase, 230 volts complete as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1433	Ding-Dong call bell	Each	1.00	96.13	96.13
1801	al. alloy/ cadmium plated iron screws, 20 mm	Each	3.00	0.56	1.68
	Total cost of materials				97.81
	Cartage @ 1% of cost of materials				0.98
	LABOUR				
9001	Wireman	Day	0.02	367.00	7.34
9006	Khallas	Day	0.02	318.00	6.36
	Total				112.49
	Add 15% for overheads & C.P.				16.87
	Total				129.36
	Say				129.40

- 1.38 Supplying and fixing electronic musical call suitable for single phase, 230 volts complete bell as required

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1434	Electronic musical Call bell	Each	1.00	142.20	142.20
1801	al. alloy/ cadmium plated iron screws, 20 mm	Each	2.00	0.56	1.12
	Total cost of materials				143.32
	Cartage @ 1% of cost of materials				1.43
	LABOUR				
9001	Wireman	Day	0.02	367.00	7.34
9006	Khallas	Day	0.02	318.00	6.36
	Total				158.45
	Add 15% for overheads & C.P.				23.77
	Total				182.22
	Say				182.20

Analysis of Rates

1.49 Numbering of ceiling fan/ exhaust fan/
fluorescent fittings as required

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1867	Paint	Litre	1.00	207.40	207.40
Total cost of materials					207.40
Cartage @ 1% of cost of materials					2.07
LABOUR					
9005	Painter	Day	3.00	405.00	1215.00
9006	Khallasi	Day	3.00	318.00	954.00
Total					2378.47
Add 15% for overheads & C.P.					356.77
Total					2735.25
Say					2735.25




Analysis of Rates

- 2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.1 16 Amp, double pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1601	16 Amps, double pole, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	376.53	376.53
1811	25 mm x 3 mm bolts & nuts	Each	4.00	2.61	10.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of maerials					405.73
Cartage @ 1% of cost of materials					4.06
LABOUR					
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallasi	Day	0.10	318.00	31.80
Total					478.29
Add 15% for overheads & C.P.					71.74
Total					550.03
Say					550.00

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Analysis of Rates

- 2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.2 32 Amp, double pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1602	32 Amps, double pole, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	890.55	890.55
1811	25 mm x 3 mm bolts & nuts	Each	4.00	2.61	10.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					919.75
Cartage @ 1% of cost of materials					9.20
LABOUR					
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallasi	Day	0.10	318.00	31.80
Total					997.45
Add 15% for overheads & C.P.					149.62
Total					1147.06
Say					1147.10




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Analysis of Rates

- 2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.3 63 Amp, double pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1603	63 Amps, double pole, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	2300.60	2300.60
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of maerials				2353.80
	Cartage @ 1% of cost of materials				23.54
	LABOUR				
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallasi	Day	0.10	318.00	31.80
	Total				2445.84
	Add 15% for overheads & C.P.				366.88
	Total				2812.71
	Say				2812.70

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Analysis of Rates

- 2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewireable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.4 32 Amp, TP&N

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1604	32 Amps, TP&N, sheet metal switch disconnecter fuse unit, rewireable type	Each	1.00	1434.60	1434.60
1811	25 mm x 3 mm bolts & nuts	Each	4.00	2.61	10.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					1463.80
Cartage @ 1% of cost of materials					14.64
LABOUR					
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallas	Day	0.10	318.00	31.80
Total					1546.94
Add 15% for overheads & C.P.					232.04
Total					1778.98
Say					1779.00

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Analysis of Rates

- 2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.5 63 Amp, TP&N

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1605	63 Amps, TP&N, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	2924.00	2924.00
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					2977.20
Cartage @ 1% of cost of materials					29.77
LABOUR					
9001	Wireman	Day	0.13	367.00	47.71
9006	Khallasasi	Day	0.13	318.00	41.34
Total					3096.02
Add 15% for overheads & C.P.					464.40
Total					3560.43
Say					3560.40

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Analysis of Rates

2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.6 100 Amp, TP&N

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1606	100 Amps, TP&N, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	5076.00	5076.00
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					5129.20
Cartage @ 1% of cost of materials					51.29
LABOUR					
9001	Wireman	Day	0.13	367.00	47.71
9006	Khallas	Day	0.13	318.00	41.34
Total					5269.54
Add 15% for overheads & C.P.					790.43
Total					6059.97
Say					6060.00




Analysis of Rates

- 2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.7 200 Amp, TP&N

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1607	200 Amps, TP&N, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	8548.00	8548.00
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					8601.20
Cartage @ 1% of cost of materials					86.01
LABOUR					
9001	Wireman	Day	0.17	367.00	62.39
9006	Khallasi	Day	0.17	318.00	54.05
Total					8803.66
Add 15% for overheads & C.P.					1320.55
Total					10124.21
Say					10124.20

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Analysis of Rates

2.1 Providing and fixing following capacity double pole/ TP&N sheet metal switch disconnecter fuse unit in the existing metal panel board with rewirable type fuses including drilling holes in metal panel, making connections etc. as required.

2.1.8 320 Amp, TP&N

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1608	320 Amps, TP&N, sheet metal switch disconnecter fuse unit, rewirable type	Each	1.00	13280.40	13280.40
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				13333.60
	Cartage @ 1% of cost of materials				133.34
	LABOUR				
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasi	Day	0.20	318.00	63.60
	Total				13603.94
	Add 15% for overheads & C.P.				2040.59
	Total				15644.53
	Say				15644.50




Analysis of Rates

- 2.2 Providing and fixing following capacity double pole/ TP &N sheet metal switch disconnecter fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.1 63 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1609	63 Amps, TP&N, sheet metal switch disconnecter fuse unit, HRC type	Each	1.00	1811.45	1811.45
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					1864.65
Cartage @ 1% of cost of materials					18.65
LABOUR					
9001	Wireman	Day	0.13	367.00	47.71
9006	Khallas	Day	0.13	318.00	41.34
Total					1972.35
Add 15% for overheads & C.P.					295.85
Total					2268.20
Say					2268.20




Analysis of Rates

- 2.2 Providing and fixing following capacity double pole/ TP-&N sheet metal switch disconnecter fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.2 100 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1610	100 Amps, TP&N, sheet metal switch disconnecter fuse unit, HRC type	Each	1.00	3790.80	3790.80
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					3844.00
Cartage @ 1% of cost of materials					38.44
LABOUR					
9001	Wireman	Day	0.13	367.00	47.71
9006	Khallasi	Day	0.13	318.00	41.34
Total					3971.49
Add 15% for overheads & C.P.					595.72
Total					4567.21
Say					4567.20

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Analysis of Rates

2.2 Providing and fixing following capacity double pole/ TP &N sheet metal switch disconnecter fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.3 200 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1611	200 Amps, TP&N, sheet metal switch disconnecter fuse unit, HRC type	Each	1.00	7166.50	7166.50
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earthing thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					7219.70
Cartage @ 1% of cost of materials					72.20
LABOUR					
9001	Wireman	Day	0.17	367.00	62.39
9006	Khallas	Day	0.17	318.00	54.06
Total					7408.35
Add 15% for overheads & C.P.					1111.25
Total					8519.60
Say					8519.60

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Analysis of Rates

2.2 Providing and fixing following capacity double pole/ TP &N sheet metal switch disconnecter fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.4 320 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1612	320 Amps, TP&N, sheet metal switch disconnecter fuse unit, HRC type	Each	1.00	10530.86	10530.86
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				10584.06
	Cartage @ 1% of cost of materials				105.84
	LABOUR				
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
	Total				10826.90
	Add 15% for overheads & C.P.				1624.04
	Total				12450.94
	Say				12450.90

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Analysis of Rates

2.2 Providing and fixing following capacity double pole/ TP &N sheet metal switch disconnector fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.5 400 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1613	400 Amps, TP&N, sheet metal switch disconnector fuse unit, HRC type	Each	1.00	12543.58	12543.58
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of maerials					12596.78
Cartage @ 1% of cost of materials					125.97
LABOUR					
9001	Wireman	Day	0.25	367.00	91.75
9006	Khallasi	Day	0.25	318.00	79.50
Total					12894.00
Add 15% for overheads & C.P.					1934.10
Total					14828.10
Say					14828.10




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Analysis of Rates

- 2.2 Providing and fixing following capacity double pole/ TP & N sheet metal switch disconnecter fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.6 500 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1614	500 Amps, TP&N, sheet metal switch disconnecter fuse unit, HRC type	Each	1.00	20910.76	20910.76
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					20963.96
Cartage @ 1% of cost of materials					209.64
LABOUR					
9001	Wireman	Day	0.25	367.00	91.75
9006	Khallasi	Day	0.25	318.00	79.50
Total					21344.85
Add 15% for overheads & C.P.					3201.73
Total					24546.58
Say					24546.60

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Analysis of Rates

2.2 Providing and fixing following capacity double pole/ TP &N sheet metal switch disconnecter fuse unit in the existing metal panel board with ISI marked HRC fuses including drilling holes in metal panel, making connections etc. as required.

2.2.7 800 Amp TP&N, HRC

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1615	800 Amps, TP&N, sheet metal switch disconnecter fuse unit, HRC type	Each	1.00	26174.54	26174.54
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/ PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				26227.74
	Cartage @ 1% of cost of materials				262.28
	LABOUR				
9001	Wireman	Day	0.25	367.00	91.75
9006	Khallasi	Day	0.25	318.00	79.50
	Total				26661.27
	Add 15% for overheads & C.P.				3999.19
	Total				30660.46
	Say				30660.50




Analysis of Rates

2.5 Providing and fixing following capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.

2.5.1 63 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1501	63 amps, busbar chamber, heavy duty, three phase with neutral (Copper strip)	Each	1.00	2070.92	2070.92
1814	38 mm x 7 mm bolts & nuts	Each	4.00	6.12	24.48
1872	G.I. Earth stud with nut	Each	2.00	7.37	14.74
1857	Earthing thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					2125.58
Cartage @ 1% of cost of materials					21.26
LABOUR					
9001	Wireman	Day	0.50	367.00	183.50
9006	Khallasi	Day	0.50	318.00	159.00
Total					2489.34
Add 15% for overheads & C.P.					373.40
Total					2862.74
Say					2862.70




Analysis of Rates

- 2.5 Providing and fixing following capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.

2.5.2 100 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1502	100 amps, busbar chamber, heavy duty, three phase with neutral (Copper strip)	Each	1.00	2802.58	2802.58
1814	38 mm x 7 mm bolts & nuts	Each	4.00	6.12	24.48
1872	G.I. Earth stud with nut	Each	2.00	7.37	14.74
1857	Earthing thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					2857.24
Cartage @ 1% of cost of materials					28.57
LABOUR					
9001	Wireman	Day	0.50	367.00	183.50
9006	Khallasi	Day	0.50	318.00	159.00
Total					3228.31
Add 15% for overheads & C.P.					484.25
Total					3712.56
Say					3712.60

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Analysis of Rates

2.5 Providing and fixing following capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.

2.5.3 200 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1502	200 amps, busbar chamber, heavy duty, three phase with neutral (Copper strip)	Each	1.00	5990.25	5990.25
1814	38 mm x 7 mm bolts & nuts	Each	4.00	6.12	24.48
1872	G.I. Earth stud with nut	Each	2.00	7.37	14.74
1857	Earthing thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					6044.91
Cartage @ 1% of cost of materials					60.45
LABOUR					
9001	Wireman	Day	1.00	367.00	367.00
9006	Khallas	Day	1.00	318.00	318.00
Total					6790.36
Add 15% for overheads & C.P.					1018.55
Total					7808.91
Say					7808.90

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Analysis of Rates

2.5 Providing and fixing following capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.

2.5.4 300 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1504	300 amps, busbar chamber, heavy duty, three phase with neutral (Copper strip)	Each	1.00	7492.09	7492.09
1814	38 mm x 7 mm bolts & nuts	Each	4.00	6.12	24.48
1872	G.I. Earth stud with nut	Each	2.00	7.37	14.74
1857	Earthing thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				7546.75
	Cartage @ 1% of cost of materials				75.47
	LABOUR				
9001	Wireman	Day	1.00	367.00	367.00
9006	Khallasi	Day	1.00	318.00	318.00
	Total				8307.22
	Add 15% for overheads & C.P.				1246.08
	Total				9553.30
	Say				9553.30

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Analysis of Rates

2.5 Providing and fixing following capacity busbar chamber with 4 strips of suitable size made of copper, heavy duty, complete with all accessories including connections, earthing the body etc. as required.

2.5.5 400 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1505	400 amps, busbar chamber, heavy duty, three phase with neutral (Copper strip)	Each	1.00	12053.24	12053.24
1814	38 mm x 7 mm bolts & nuts	Each	4.00	6.12	24.48
1872	G.I. Earth stud with nut	Each	2.00	7.37	14.74
1857	Earthing thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				12107.90
	Cartage @ 1% of cost of materials				121.08
	LABOUR				
9001	Wireman	Day	2.00	367.00	734.00
9005	Khallasi	Day	2.00	318.00	636.00
	Total				13598.98
	Add 15% for overheads & C.P.				2039.85
	Total				15638.83
	Say				15638.80




Analysis of Rates

- 2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.1 32 Amp, double pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1509	32 amps, double pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	936.19	936.19
1811	25 mm x 3 mm bolts & nuts	Each	4.00	2.61	10.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					965.39
Cartage @ 1% of cost of materials					9.65
LABOUR					
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallasi	Day	0.10	318.00	31.80
Total					1043.54
Add 15% for overheads & C.P.					156.53
Total					1200.08
Say					1200.10

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Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.2 63 Amp, double pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1510	63 amps, double pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	1814.19	1814.19
1811	25 mm x 3 mm bolts & nuts	Each	4.00	2.61	10.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					1843.39
Cartage @ 1% of cost of materials					18.43
LABOUR					
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallasi	Day	0.10	318.00	31.80
Total					1930.32
Add 15% for overheads & C.P.					289.55
Total					2219.87
Say					2219.90




Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.3 32 Amp, four pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1511	32 amps, four pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	1568.88	1568.88
1811	25 mm x 3 mm bolts & nuts	Each	4.00	2.61	10.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of maerials				1598.08
	Cartage @ 1% of cost of materials				15.98
	LABOUR				
9001	Wireman	Day	0.10	367.00	36.70
9006	Khallasi	Day	0.10	318.00	31.80
	Total				1682.56
	Add 15% for overheads & C.P.				252.38
	Total				1934.94
	Say				1934.90

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Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.4 63 Amp, four pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1512	63 amps, four pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	3423.00	3423.00
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				3476.20
	Cartage @ 1% of cost of materials				34.76
	LABOUR				
9001	Wireman	Day	0.13	367.00	47.71
9006	Khallasi	Day	0.13	318.00	41.34
	Total				3600.01
	Add 15% for overheads & C.P.				540.00
	Total				4140.01
	Say				4140.00

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Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.5 10 Amp, four pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1513	100 amps, four pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	6525.38	6525.38
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of materials					6578.58
Cartage @ 1% of cost of materials					65.79
LABOUR					
9001	Wireman	Day	0.13	367.00	47.71
9006	Khallasasi	Day	0.13	318.00	41.34
Total					6733.42
Add 15% for overheads & C.P.					1010.01
Total					7743.43
Say					7743.40




Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.6 200 Amp, four pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1514	200 amps, four pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	9926.70	9926.70
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	<u>15.44</u>
Total cost of materials					9979.90
Cartage @ 1% of cost of materials					99.80
LABOUR					
9001	Wireman	Day	0.17	367.00	62.39
9006	Khallas	Day	0.17	318.00	<u>54.06</u>
Total					10196.15
Add 15% for overheads & C.P.					<u>1529.42</u>
Total					11725.57
Say					11725.60

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Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.7 320 Amp, four pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1515	320 amps, four pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	12813.43	12813.43
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
	Total cost of materials				12866.63
	Cartage @ 1% of cost of materials				128.67
	LABOUR				
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
	Total				13132.30
	Add 15% for overheads & C.P.				1969.84
	Total				15102.14
	Say				15102.10




Analysis of Rates

2.6 Providing and fixing following capacity double pole/ four pole OFF-load changeover switches with side handle operation, in sheet enclosure in existing metal board, including drilling holes in metal panel, making connections etc. as required.

2.6.8 400 Amp, four pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1516	400 amps, four pole, OFF-load changeover switch in sheet enclosure with side handle	Each	1.00	14736.02	14736.02
1813	38 mm x 10 mm bolts & nuts	Each	4.00	8.61	34.44
1809	Rubber/PVC bushes	Each	4.00	0.83	3.32
1857	Earting thimbles and solder	L.S.	1.00	15.44	15.44
Total cost of maerials					14789.22
Cartage @ 1% of cost of materials					147.89
LABOUR					
9001	Wireman	Day	0.25	367.00	91.75
9006	Khallasi	Day	0.25	318.00	79.50
Total					15108.36
Add 15% for overheads & C.P.					2266.25
Total					17374.62
Say					17374.60

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Analysis of Rates

2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, dm bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.1 4 way, single door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1730	4 way, SPN, single door, MCB DB	Each	1.00	561.33	561.33
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earthing thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of materials					593.06
Cartage @ 1% of cost of materials					5.93
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasi	Day	0.20	318.00	63.60
Total					737.79
Add 15% for overheads & C.P.					110.67
Total					848.46
Say					848.50




Analysis of Rates

- 2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.2 6 way, single door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1731	6 way, SPN, single door, MCB DB	Each	1.00	618.66	618.66
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earting thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of maerials					650.39
Cartage @ 1% of cost of materials					6.50
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasi	Day	0.20	318.00	63.60
Total					795.69
Add 15% for overheads & C.P.					119.35
Total					915.05
Say					915.05




Analysis of Rates

2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with finned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.3 8 way, single door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1732	8 way, SPN, single door, MCB DB	Each	1.00	676.14	676.14
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earthing thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of materials					707.87
Cartage @ 1% of cost of materials					7.08
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallas	Day	0.20	318.00	63.60
Total					853.75
Add 15% for overheads & C.P.					128.06
Total					981.81
Say					981.80




Analysis of Rates

2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.5 12 way, single door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1734	12 way, SPN, single door, MCB DB	Each	1.00	906.24	906.24
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earting thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of maerials					937.97
Cartage @ 1% of cost of materials					9.38
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasi	Day	0.20	318.00	63.60
Total					1086.15
Add 15% for overheads & C.P.					162.92
Total					1249.07
Say					1249.10




Analysis of Rates

2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.6 4 way, double door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1735	4 way, SPN, double door, MCB DB	Each	1.00	693.16	693.16
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earting thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of maerials					724.89
Cartage @ 1% of cost of materials					7.25
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasi	Day	0.20	318.00	63.60
Total					870.94
Add 15% for overheads & C.P.					130.64
Total					1001.58
Say					1001.60




Analysis of Rates

2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.7 6 way, double door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1736	6 way, SPN, double door, MCB DB	Each	1.00	1017.25	1017.25
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earthing thimbles and solder	L.S.	1.00	5.61	<u>5.61</u>
Total cost of materials					1048.98
Cartage @ 1% of cost of materials					10.49
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasi	Day	0.20	318.00	<u>63.60</u>
Total					1198.27
Add 15% for overheads & C.P.					<u>179.74</u>
Total					1378.01
Say					1378.00





Analysis of Rates

2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with finned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.8 8 way, double door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1737	8 way, SPN, double door, MCB DB	Each	1.00	1120.60	1120.60
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earting thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of maerials					1152.33
Cartage @ 1% of cost of materials					11.52
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasi	Day	0.20	318.00	63.60
Total					1302.65
Add 15% for overheads & C.P.					195.40
Total					1498.05
Say					1498.05




Analysis of Rates

- 2.8 Supplying and fixing following way single pole & neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)

2.8.9 12 way, double door

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1739	12 way, SPN, double door, MCB DB	Each	1.00	1468.47	1468.47
1805	Steel fastener 6 mm x 75 mm	Each	4.00	6.53	26.12
1858	Earting thimbles and solder	L.S.	1.00	5.61	5.61
Total cost of maerials					1500.20
Cartage @ 1% of cost of materials					15.00
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9009	Mason, Grade - 2	Day	0.12	382.00	45.84
9006	Khallasasi	Day	0.20	318.00	63.60
Total					1654.00
Add 15% for overheads & C.P.					248.10
Total					1902.10
Say					1902.10




Analysis of Rates

- 2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.1 6/32 amps, single pole

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1701	6 amps to 32 amps rating, SP MCB, "C" curve, 10 KA breaking capacity	Each	1.00	116.38	116.38
Total cost of materials					116.38
Cartage @ 1% of cost of materials					1.16
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					144.94
Add 15% for overheads & C.P.					21.74
Total					166.69
Say					166.70

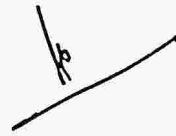



Analysis of Rates

2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.2 6/32 amps, SPN

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1702	6 amps to 32 amps rating, SPN MCB, "C" curve, 10 KA breaking capacity	Each	1.00	413.50	413.50
Total cost of materials					413.50
Cartage @ 1% of cost of materials					4.14
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasasi	Day	0.04	318.00	12.72
Total					445.04
Add 15% for overheads & C.P.					66.76
Total					511.79
Say					511.80

Analysis of Rates

2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.3 40 amps, Single pole and neutral

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1703	40 amps rating, SPN MCB, "C" curve, 10 KA breaking capacity	Each	1.00	596.74	596.74
Total cost of materials					596.74
Cartage @ 1% of cost of materials					5.97
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					630.11
Add 15% for overheads & C.P.					94.52
Total					724.62
Say					724.60





Analysis of Rates

2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.4 50/63 amps, Single pole and neutral

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1704	50/63 amps rating, SPN MCB, "C" curve, 10 KA breaking capacity	Each	1.00	678.90	678.90
Total cost of materials					678.90
Cartage @ 1% of cost of materials					6.79
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					713.09
Add 15% for overheads & C.P.					106.96
Total					820.05
Say					820.05




Analysis of Rates

2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.5 6/32 amps, Tripole pole and neutral

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1708	6/32 amps rating, TPN MCB, "C" curve, 10 KA breaking capacity	Each	1.00	833.90	833.90
Total cost of materials					833.90
Cartage @ 1% of cost of materials					8.34
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					869.64
Add 15% for overheads & C.P.					130.45
Total					1000.08
Say					1000.10

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Analysis of Rates

2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.6 40 amps, TPN

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1709	40 amps rating, TPN MCB, "C" curve, 10 KA breaking capacity	Each	1.00	1197.95	1197.95
Total cost of materials					1197.95
Cartage @ 1% of cost of materials					11.98
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					1237.33
Add 15% for overheads & C.P.					185.60
Total					1422.93
Say					1422.90





Analysis of Rates

- 2.12 Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MB DB complete with connections, testing and commissioning etc. as required.

2.12.7 50/63 amps, Tripole pole and neutral

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1710	50/63 amps rating, TPN MCB, "C" curve, 10 KA breaking capacity	Each	1.00	1267.50	1267.50
Total cost of materials					1267.50
Cartage @ 1% of cost of materials					12.68
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
Total					1307.58
Add 15% for overheads & C.P.					196.14
Total					1503.71
Say					1503.70




Analysis of Rates

2.15 Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.

2.15.1 40 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
1711	40 amps, 2 pole isolator	Each	1.00	236.19	236.19
	Total cost of materials				236.19
	Cartage @ 1% of cost of materials				2.36
	LABOUR				
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallasi	Day	0.04	318.00	12.72
	Total				265.95
	Add 15% for overheads & C.P.				39.89
	Total				305.84
	Say				305.80





Analysis of Rates

- 2.15 Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.

2.15.2 63 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1712	63 amps, 2 pole isolator	Each	1.00	276.12	276.12
Total cost of materials					276.12
Cartage @ 1% of cost of materials					2.76
LABOUR					
9001	Wireman	Day	0.04	367.00	14.68
9006	Khallas	Day	0.04	318.00	12.72
Total					306.28
Add 15% for overheads & C.P.					45.94
Total					352.22
Say					352.20

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Analysis of Rates

2.16 Supplying and fixing following rating, four pole,
415 volts, isolator in the existing MCB DB
complete with connections, testing and
commissioning etc. as required.

2.16.1 40 amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1713	40 amps, 4 pole isolator	Each	1.00	533.02	533.02
Total cost of materials					533.02
Cartage @ 1% of cost of materials					5.33
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9006	Khallasi	Day	0.08	318.00	25.44
Total					593.15
Add 15% for overheads & C.P.					88.97
Total					682.12
Say					682.10





Analysis of Rates

2.16 Supplying and fixing following rating, four pole,
415 volts, isolator in the existing MCB DB
complete with connections, testing and
commissioning etc. as required.

2.16.2 63 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1714	63 amps, 4 pole isolator	Each	1.00	583.55	583.55
Total cost of materials					583.55
Cartage @ 1% of cost of materials					5.84
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9006	Khallas	Day	0.08	318.00	25.44
Total					644.19
Add 15% for overheads & C.P.					96.63
Total					740.81
Say					740.80

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Analysis of Rates

2.16 Supplying and fixing following rating, four pole,
415 volts, isolator in the existing MCB DB
complete with connections, testing and
commissioning etc. as required.

2.16.3 100 Amps.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1715	100 amps, 4 pole isolator	Each	1.00	785.90	785.90
Total cost of materials					785.90
Cartage @ 1% of cost of materials					7.86
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9006	Khallasi	Day	0.08	318.00	25.44
Total					848.56
Add 15% for overheads & C.P.					127.28
Total					975.84
Say					975.80




Analysis of Rates

- 2.20 Providing and fixing M.V. danger notice plate of 200 mm x 150 mm, made of mild steel at least 2 mm thick, vitreous enameled white on both sides, and with inscription in single red colour on front side as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1856	200 mm x 150 mm M.V. danger notice plate	Each	1.00	57.02	57.02
1815	15 mm long x 6 mm dia G.I. bolts and nuts	Each	6.00	4.99	29.94
Total cost of materials					86.96
Cartage @ 1% of cost of materials					0.87
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9006	Khallasi	Day	0.08	318.00	25.44
Total					142.63
Add 15% for overheads & C.P.					21.39
Total					164.02
Say					164.00

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Analysis of Rates

221 Providing and fixing H.T. danger notice plate of 250 mm x 200 mm, made of mild steel at least 2 mm thick, vitreous enameled white on both sides, and with inscription in single red colour on front side as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Ra.)
Details of cost for one each.					
MATERIAL					
1855	250 mm x 200 mm H.T. danger notice plate	Each	1.00	73.66	73.66
1815	15 mm long x 6 mm dia G.I. bolts and nuts	Each	6.00	4.99	29.94
Total cost of materials					103.60
Cartage @ 1% of cost of materials					1.04
LABOUR					
9001	Wireman	Day	0.08	367.00	29.36
9006	Khallasari	Day	0.08	318.00	25.44
Total					159.44
Add 15% for overheads & C.P.					23.92
Total					183.35
Say					183.35




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Analysis of Rates

- 3.2 Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal /coke and salt as required.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
1912	40 mm dia G.I. pipe, medium class = 4.50 + 0.23 (wastage @ 5%) = 4.73 m	Metre	4.73	283.93	1342.99
1845	CI/MS Cover plate hinged to frame with locking arrangement.	Each	1.00	4.28	4.28
1846	40 mm to 20 mm reducer	Each	1.00	89.10	89.10
1841	Funnel	Each	1.00	22.57	22.57
1842	G.I. nuts and through bolts with washer	Each	1.00	42.77	42.77
1864	Charcoal	kg.	64.00	8.00	512.00
1866	Salt	kg.	5.00	8.00	40.00
RCD/M1	Common burnt clay F.P.S. (non modular)				
1	bricks class designation 100A	Each	50.00	6.07	303.50
1870	Cement	tonne	0.01	5156.00	51.56
1869	Fine sand	cum	0.03	143.32	4.30
Total cost of materials					2413.07
Cartage @ 1% of cost of materials					24.13
LABOUR					
9001	Wireman	Day	0.50	367.00	183.50
9006	Khallas	Day	0.50	318.00	159.00
9009	Mason, Grade 2	Day	0.20	382.00	76.40
9011	Beldar/Coolie 0.2 + 0.25	Day	1.20	318.00	381.60
9018	Drilling of 46 Nos. 12 mm dia holes on G.I. Pipe	L.S.	1.00	300.00	300.00
Total					3537.70
Add 15% for overheads & C.P.					530.65
Total					4068.35
Say					4068.35

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Analysis of Rates

- 5.14 Supplying and fixing following types LED street light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole / building including connection earthing the body etc. as required.

5.14.1 30 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2018	LED type 30 watt street light die cast aluminium housing for ingress protection IP65 & complete with all accessories etc.	Each	1.00	1920.80	1920.80
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of materials					1938.98
Cartage @ 1% of cost of materials					19.39
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
Total					2095.37
Add 15% for overheads & C.P.					314.31
Total					2409.68
Say					2409.70

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Analysis of Rates

- 5.14 Supplying and fixing following types LED street light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole / building including connection earthing the body etc. as required.

5.14.2 45 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2019	LED type 45 watt street light die cast aluminium housing for ingress protection IP65 & complete with all accessories etc.	Each	1.00	3099.64	3099.64
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of materials					3117.82
Cartage @ 1% of cost of materials					31.18
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
Total					3286.00
Add 15% for overheads & C.P.					492.90
Total					3778.90
Say					3778.90

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Analysis of Rates

b.14 Supplying and fixing following types LED street light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole / building including connection earthing the body etc. as required.

5.14.3 70 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2020	LED type 70 watt street light die cast aluminium housing for ingress protection IP65 & complete with all accessories etc.	Each	1.00	4307.48	4307.48
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of materials					4325.66
Cartage @ 1% of cost of materials					43.26
LABOUR					
9001	Wiroman	Day	0.20	367.00	73.40
9006	Khallasl	Day	0.20	318.00	63.60
Total					4505.92
Add 15% for overheads & C.P.					675.89
Total					5181.80
Say					5181.80




Analysis of Rates

5.14 Supplying and fixing following types LED street light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole / building including connection earthing the body etc. as required.

5.14.4 90 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2021	LED type 90 watt street light die cast aluminium housing for ingress protection IP65 & complete with all accessories etc.	Each	1.00	5292.00	5292.00
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of materials					5310.18
Cartage @ 1% of cost of materials					53.10
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasī	Day	0.20	318.00	63.60
Total					5500.28
Add 15% for overheads & C.P.					825.04
Total					6325.32
Say					6325.30




Analysis of Rates

5.14 Supplying and fixing following types LED street light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole / building including connection earthing the body etc. as required.

5.14.5 120 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2022	LED type 120 watt street light die cast aluminium housing for ingress protection IP65 & complete with all accessories etc.	Each	1.00	6562.08	6562.08
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of materials					6580.26
Cartage @ 1% of cost of materials					65.80
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasí	Day	0.20	318.00	63.60
Total					6783.06
Add 15% for overheads & C.P.					1017.46
Total					7800.52
Say					7800.50

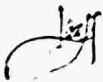



Analysis of Rates

- 5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection crthing the body etc. as required.

5.15.1 30 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2023	LED type 30 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	2229.50	2229.50
1813	38 mm x 10 mm bolis and nuts	Each	2.00	8.61	17.22
1843	Washwer	Each	2.00	0.48	0.96
Total cost of maerials					2247.68
Cartage @ 1% of cost of materials					22.48
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
Total					2407.16
Add 15% for overheads & C.P.					361.07
Total					2768.23
Say					2768.20




Analysis of Rates

- 5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection earthing the body etc. as required.

5.15.2 50 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2024	LED type 50 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	2881.20	2881.20
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.95
Total cost of materials					2899.38
Cartage @ 1% of cost of materials					28.99
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
Total					3065.37
Add 15% for overheads & C.P.					459.81
Total					3525.18
Say					3525.20




Analysis of Rates

- 5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection erthing the body etc. as required.

5.15.3 70 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2025	LED type 70 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	5145.00	5145.00
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washwer	Each	2.00	0.48	0.96
Total cost of maerials					5163.18
Cartage @ 1% of cost of materials					51.63
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasasi	Day	0.20	318.00	63.60
Total					5351.81
Add 15% for overheads & C.P.					802.77
Total					6154.58
Say					6154.60




Analysis of Rates

- 5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection erthing the body etc. as required.

5.15.4 100 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2026	LED type 100 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	7056.00	7056.00
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washwer	Each	2.00	0.48	0.96
Total cost of maerials					7074.18
Cartage @ 1% of cost of materials					70.74
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasi	Day	0.20	318.00	63.60
Total					7281.92
Add 15% for overheads & C.P.					1092.29
Total					8374.21
Say					8374.20

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Analysis of Rates

5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection earthing the body etc. as required

5.15.5 120 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
	Details of cost for one each.				
	MATERIAL				
2027	LED type 120 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	7889.00	7889.00
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
	Total cost of materials				7907.18
	Cartage @ 1% of cost of materials				79.07
	LABOUR				
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallas	Day	0.20	318.00	63.60
	Total				1218.49
	Add 15% for overheads & C.P.				1399.15
	Total				9341.74
	Say				9341.70





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Analysis of Rates

5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection erthing the body etc. as required.

5.15.6 150 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2028	LED type 150 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	9947.00	9947.00
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of maerials					9965.18
Cartage @ 1% of cost of materials					99.65
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasasi	Day	0.20	318.00	63.60
Total					10201.83
Add 15% for overheads & C.P.					1530.27
Total					11732.11
Say					11732.10

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Analysis of Rates

- 5.15 Supplying and fixing following types LED Flood light with minimum efficacy 100 lm/w in die cast aluminium housing, toughened glass, IP 65 protection and complete with electronic driver etc. on pole/ building including connection erthing the body etc. as required.

5.15.7 200 Watt

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for one each.					
MATERIAL					
2029	LED type 200 watt Flood light with die cast aluminium housing for ingress protection I 65 & complete with all accessories etc.	Each	1.00	13426.00	13426.00
1813	38 mm x 10 mm bolts and nuts	Each	2.00	8.61	17.22
1843	Washer	Each	2.00	0.48	0.96
Total cost of maerials					13444.18
Cartage @ 1% of cost of materials					134.44
LABOUR					
9001	Wireman	Day	0.20	367.00	73.40
9006	Khallasi	Day	0.20	318.00	63.60
Total					13715.62
Add 15% for overheads & C.P.					2057.34
Total					15772.97
Say					15773.00

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Analysis of Rates

- 7.1 Laying of one number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.

7.1.1 Upto 35 sq. mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 100 Meters					
MATERIAL					
RCD/103A	Common burnt clay F.P.S. (non modular) bricks class designation 100A = 874 + 44 (Wastage @ 5%) = 918 Nos.	Each	918.00	6.07	5572.26
1869	Fine sand	cum	8.76	143.32	1255.48
Total cost of materials					6827.74
Cartage @ 1% of cost of materials					68.28
LABOUR					
9001	Wireman	Day	1.00	367.00	367.00
9006	Khallas	Day	4.00	318.00	1272.00
Total					8535.02
Add 15% for overheads & C.P.					1280.25
Total					9815.27
Say					9815.30




405

Analysis of Rates

7.1 Laying of one number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.

7.1.2 Above 35 sq. mm and upto 95 sq.mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 100 Meters					
MATERIAL					
RCD/100A	Common burnt clay F.P.S. (non modular) bricks class designation 100A = 874 + 44 (Wastage @ 5%) = 918 Nos.	Each	918.00	6.07	5572.26
1869	Fine sand	cum	8.76	143.32	1255.48
Total cost of maerials					6827.74
Cartage @ 1% of cost of materials					68.28
LABOUR					
9001	Wireman	Day	1.00	367.00	367.00
9006	Khallasi	Day	6.00	318.00	1908.00
Total					9171.02
Add 15% for overheads & C.P.					1375.65
Total					10546.67
Say					10546.70




Analysis of Rates

- 7.1 Laying of one number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.

7.1.3 Above 95 sq. mm and upto 185 sq. mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 100 Meters					
MATERIAL					
RCD/100A	Common burnt clay F.P.S. (non modular) bricks class designation 100A = 874 + 44 (Wastage @ 5%) = 918 Nos.	Each	918.00	6.07	5572.26
1869	Fine sand	cum	8.76	143.32	1255.48
Total cost of materials					6827.74
Cartage @ 1% of cost of materials					68.28
LABOUR					
9001	Wireman	Day	1.00	367.00	367.00
9006	Khallas	Day	8.00	318.00	2544.00
Total					9807.02
Add 15% for overheads & C.P.					1471.05
Total					11278.07
Say					11278.10




Analysis of Rates

7.1 Laying of one number PVC insulated and PVC sheathed /XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.

7.1.4 Above 185 sq. mm and upto 400 sq. mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for 100 Meters					
MATERIAL					
RCD/100A	Common burnt clay F.P.S. (non modular) bricks class designation 100A = 874 + 44 (Wastage @ 5%) = 918 Nos.	Each	918.00	6.07	5572.26
1869	Fine sand	cum	8.76	143.32	1255.43
Total cost of materials					6827.74
Cartage @ 1% of cost of materials					68.28
LABOUR					
9001	Wireman	Day	1.00	367.00	367.00
9006	Khallasi	Day	14.00	318.00	4452.00
Total					11715.02
Add 15% for overheads & C.P.					1757.25
Total					13472.27
Say					13472.30

Analysis of Rates

8.12 Supply and erection of 4 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required. (but without pole foundation)

8.12.1 Single arm, 1000 mm.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2301	4 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	8244.00	8244.00
2305	1000 mm long hot dip galvanized single arm bracket for octagonal pole	Each	1.00	1615.00	1615.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					10499.00
Cartage @ 1% of cost of materials					104.99
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallas	Day	3.00	318.00	954.00
Total					11805.16
Add 15% for overheads & C.P.					1770.77
Total					13575.93
Say					13575.90

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Analysis of Rates

- 8.12 Supply and erection of 4 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required. (but without pole foundation)

8.12.2 Double arm, 1000 mm.

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2301	4 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	8244.00	8244.00
2306	1000 mm long hot dip galvanized double arm bracket for octagonal pole	Each	1.00	2365.00	2365.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					11249.00
Cartage @ 1% of cost of materials					112.49
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallasari	Day	3.00	318.00	954.00
Total					12592.66
Add 15% for overheads & C.P.					1884.40
Total					14447.06
Say					14447.10

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Analysis of Rates

8.13 Supply and erection of 6 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)

8.13.1 Single arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2302	6 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	11585.00	11585.00
2305	1000 mm long hot dip galvanized single arm bracket for octagonal pole	Each	1.00	1615.00	1615.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					13840.00
Cartage @ 1% of cost of materials					138.40
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallas	Day	3.00	318.00	954.00
Total					15179.57
Add 15% for overheads & C.P.					2276.94
Total					17456.51
Say					17456.50




Analysis of Rates

S.13 Supply and erection of 6 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)

S.13.1 Single arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2302	6 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	11585.00	11585.00
2305	1000 mm long hot dip galvanized single arm bracket for octagonal pole	Each	1.00	1615.00	1615.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					13840.00
Cartage @ 1% of cost of materials					138.40
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallas	Day	3.00	318.00	954.00
Total					15179.57
Add 15% for overheads & C.P.					2276.94
Total					17456.51
Say					17456.50

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Analysis of Rates

8.13 Supply and erection of 6 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 130 mm, made of 3 mm thick sheet along with base plate of size 220 x 220 x 12 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)

8.13.2 Double arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2302	6 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	11585.00	11585.00
2306	1000 mm long hot dip galvanized double arm bracket for octagonal pole	Each	1.00	2365.00	2365.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					14590.00
Cartage @ 1% of cost of materials					145.90
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallasi	Day	3.00	318.00	954.00
Total					15937.07
Add 15% for overheads & C.P.					2390.56
Total					18327.63
Say					18327.60





Analysis of Rates

- 8.14 Supply and erection of 7 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 155 mm, made of 3 mm thick sheet along with base plate of size 260 x 260 x 16 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)

8.14.1 Single arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2303	7 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	12670.00	12670.00
2305	1000 mm long hot dip galvanized single arm bracket for octagonal pole	Each	1.00	1615.00	1615.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					14925.00
Cartage @ 1% of cost of materials					149.25
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallas	Day	3.33	318.00	1058.94
Total					16380.36
Add 15% for overheads & C.P.					2457.05
Total					18837.41
Say					18837.40

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413

Analysis of Rates

- 8.14 Supply and erection of 7 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 155 mm, made of 3 mm thick sheet along with base plate of size 260 x 260 x 16 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)

8.14.2 Double arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2303	7 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	12670.00	12670.00
2306	1000 mm long hot dip galvanized double arm bracket for octagonal pole	Each	1.00	2365.00	2365.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					15675.00
Cartage @ 1% of cost of materials					156.75
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallasi	Day	3.33	318.00	1058.94
Total					17137.86
Add 15% for overheads & C.P.					2570.68
Total					19708.54
Say					19708.50

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414

Analysis of Rates

8.15 Supply and erection of 8 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 155 mm, made of 3 mm thick sheet along with base plate of size 260 x 260 x 16 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)

8.15.1 Single arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2303	8 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required.	Set	1.00	14325.00	14325.00
2305	1000 mm long hot dip galvanized single arm bracket for octagonal pole	Each	1.00	1615.00	1615.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					16580.00
Cartage @ 1% of cost of materials					165.80
LABOUR					
9009	Mason Grade 2	Day	0.33	382.00	126.06
9002	Lineman	Day	0.33	367.00	121.11
9006	Khallasi	Day	3.33	318.00	1058.94
Total					18051.91
Add 15% for overheads & C.P.					2707.79
Total					20759.70
Say					20759.70

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Analysis of Rates

- 8.15 Supply and erection of 8 metre height Hot-Dip galvanized octagonal street light pole with following arm with top dia A/F 70 mm and bottom dia A/F 155 mm, made of 3 mm thick sheet along with base plate of size 260 x 260 x 16 mm, small door opening for junction box mounting including 6A 'C' series SP MCB, connector, and suitable size foundation bolts with template as required (but without pole foundation)


8.15.2 Double arm, 1000 mm

Code No.	Description	Unit	Qty.	Rate	Amount (Rs.)
Details of cost for One No.					
MATERIAL					
2304	8 mtr. Height hot dip galvanised octagonal pole with 130 mm bottom A/F & 70 mm top A/F made up of 3 mm thick sheet along with base plate of size 200 x 200 x 12 mm thick and foundation bolts with template as required	Set	1.00	14325.00	14325.00
2305	1000 mm long hot dip galvanized double arm bracket for octagonal pole	Each	1.00	2355.00	2355.00
2307	Backlite sheet with one No. 6 amp SP MCB and 16 sq. mm stud type connector	Each	1.00	640.00	640.00
Total cost of materials					17320.00
Cartage @ 1% of cost of materials					173.30

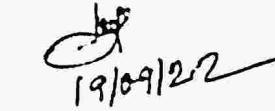
416

LABOUR

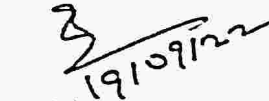
922	Mason Grade 2	Day	0 33	382.00	126.06
922	Lineman	Day	0.33	367.00	121.11
922	Khallasi	Day	3 33	318.00	1058.94
	Total				18809.41
	Add 15% for overheads & C.P.				2821.41
	Total				21630.82
	Say				21630.80


 (सुजाता कुमार)
 सदस्य सचिव

विभागीय अनुसूचित दर निर्धारण समिति
 -सह-निदेशक,
 क्रय नंडार एवं सामग्री प्रबंधन निदेशालय,
 जल संसाधन विभाग, बिहार, पटना


 (कुमार जयंत प्रसाद)
 सदस्य

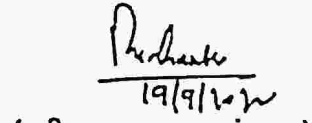
विभागीय अनुसूचित दर निर्धारण
 समिति-सह- मुख्य अभियंता (यांत्रिक)
 जल संसाधन विभाग, बिहार, पटना


 (शैलेन्द्र)
 सदस्य

विभागीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख
 (बाढ नियंत्रण एवं जल निस्सारण)
 जल संसाधन विभाग, बिहार, पटना।

(ईश्वर चन्द्र ठाकुर)
 सदस्य

विभागीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख
 (सिंचाई सृजन)
 जल संसाधन विभाग, बिहार, पटना।

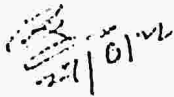

 (रवीन्द्र कुमार शंकर)
 अध्यक्ष

विभागीय अनुसूचित दर निर्धारण
 समिति-सह-अभियंता प्रमुख, मुख्यालय,
 जल संसाधन विभाग, बिहार, पटना।

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2022

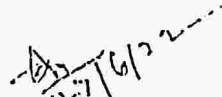
Corregendum No.-1 to Electrical Materials for preparation of Electrical Schedule Rate-2022, Building Construction Department, Bihar.

Code No.	Description	Unit	Corrected Rate (Rs.)
2012	Recess mounted 18 watt LED downlighter with pressure die-cast aluminium housing and integrated electronic driver. Minimum efficacy 100 lm/w	Each	775.18


27/6/22

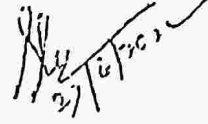
सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह-अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।


27/6/22

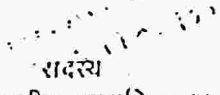
सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह-अभियंता प्रमुख, प्राचीन कार्य विभाग, बिहार, पटना।


27/6/22

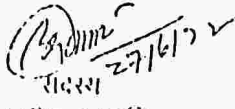
सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह-अभियंता प्रमुख, लघु जल संसाधन विभाग, बिहार, पटना।


27/6/22

सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह- मुख्य अभियंता (असैनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि०, बिहार, पटना।


27/6/22

सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह- मुख्य अभियंता (विद्युत) भवन निर्माण विभाग, बिहार, पटना।


27/6/22

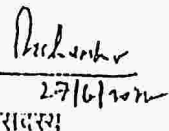
सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह- अभियंता प्रमुख, तकनीकी परीक्षा कक्षा, निगरानी विभाग, बिहार, पटना।


27/6/22

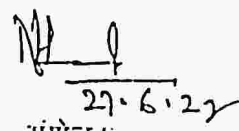
सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह-अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।


27/6/22

सदस्य

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह- अभियंता प्रमुख, मुख्यालय जल संसाधन विभाग, बिहार, पटना।


27.6.22

संयोजक

राज्य स्तरीय अनुसूचित दर निर्धारण समिति- राह- अभियंता प्रमुख (मुख्यालय), पथ निर्माण विभाग, बिहार, पटना।

10.0 SPECIFICATION10.1 Point Wiring (Other than socket outlets points) :-

Unless and otherwise specified, there shall be no linear measurement for point wiring for light points, fan points, exhaust fan points and call bell points. Points measured on unit basis by counting and these points shall be classified as under according to the type of building.

10.1.1 Residential Buildings :-

- (a) Group 'A' for 4th grade, 3rd grade, 2nd grade residential quarters, Flat, Hostel etc.
- (b) Group 'B' for 1st grade and above type of residential quarters, Barracks, Bungalow type quarters, Circuit House etc.

10.1.2 Non Residential Buildings :-

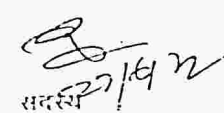
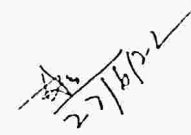
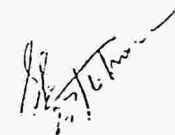
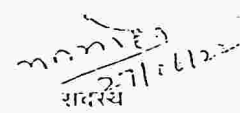
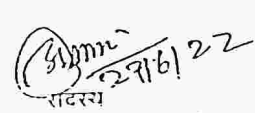
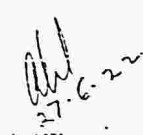
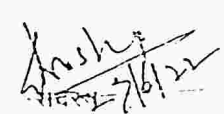
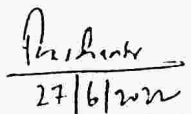
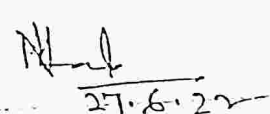
Group 'C' for all Non-residential buildings such as offices, Hospitals, High Court, Educational institution, libraries, laboratories, prisoner ward and Honourable Governor Honourable chief justice house, Honourable chief minister house etc.

10.1.3 For any other type buildings :-

Any kind of building classification and to change the categorization of building is empowered to the 'Chief Electrical Engineer'.

10.2 Point wiring for socket outlets points:-

- (a) The 6 amp. Socket point and power point (16 amp) wiring shall be measured on linear basis, from the respective tapping point of live cable, namely switch box, another socket point outlet, or the sub-distribution board as the case may be, up to the socket outlet.
- (b) The G.i./ PVC box with cover, switch, socket outlet and other accessories shall be measured and paid as a separate item.

 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।	 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना।	 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, लघु जल संसाधन विभाग, बिहार, पटना।
 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-मुख्य अभियंता (असी), बिहार स्टेट पावर होल्डिंग्स कंपनी लिमिटेड, बिहार, पटना।	 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-मुख्य अभियंता (विद्युत), भवन निर्माण विभाग, बिहार, पटना।	 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, तकनीकी परीक्षण कोष, निगरानी विभाग, बिहार, पटना।
 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, लोक रक्षात्मक अभियंत्रण विभाग, बिहार, पटना।	 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, मुख्यालय जल संसाधन विभाग, बिहार, पटना।	 सदस्य राज्यस्तरीय अनुसूचित दर निर्धारण समिति-राह-अभियंता प्रमुख, (मुख्यालय), पथ निर्माण विभाग, बिहार, पटना।

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0.3 APPROVED BRAND

S.No.	Electrical Materials & Accessories	Approved Brand Name
1	FRLS PVC insulated copper conductor	Havells/ Polycab/ RR Kabel/ KEI/ Anchor (Panasonic)/ Capital
2	PVC/XLPE Insulated Armoured Cable with aluminium conductor	Havells/ Polycab/ KEI/ RR Kabel/ Paraflex
3	PVC Conduit and Accessories	AKG/ Malhotra/ Anchor/ Norpack/ Great White/ Precision Pipes/ Energypipe
4	Modular type Switches and Accessories	Havells (Coral)/ Anchor (Roma plus, Woods)/ Legrand (Lyncus)/ Gold Medal (Nixon)/ ABB (IVIE)/ Great white (Trivo)/ Polycab (Ievana)/ L&T (Entice)
5	Piano type Switches and Accessories	Anchor/ HPL/ Havells/ Cona/ GM/ Great white
6	MCCB & ON-Load Changeover switches	Legrand/ Siemens/ Schneider/ ABB/ L&T
7	MCB, MCB DB's, RCCB & Isolator	Legrand/ ABB/ Polycab/ L & T (Exora)/ Anchor (Panasonic)/ Siemens/ Schneider Electric
8	Rewireable Main switch, Off Load Changeover Switches, Busbar Chamber & Porcelain fuse link.	Havells/ HPL/ Capital/ L & T/ C & S/ Anchor (Panasonic)
9	Ceiling Fan, Wall Fan & Exhaust Fan	Crompton/ Orient /Havells / Bajaj/ Usha/ Polar/ Polycab
10	LED Luminaire/Fixture, LED driver & Lamp	Philips/ Havells/ Bajaj/ Jaquar/ Polycab/ Lighting Technology/ Panasonic
11	Octagonal Street Light Pole	Bajaj/ Volmont/ Transrail
12	Chemical Earthing	OBO/ Techno Power/ ABB/ Earthing Solutions
13	Panel Manufactures (CPRI approved)	Microcosmic/ Shree Mahavira Industries/ Reshmi Panel/ JMD Electrotech/ Aravika Engineering works/ SPC/ CPRI approved manufactures
14	Digital meter (Ammeter, Voltmeter & Multimeter)	Legrand/ ABB/ L&T

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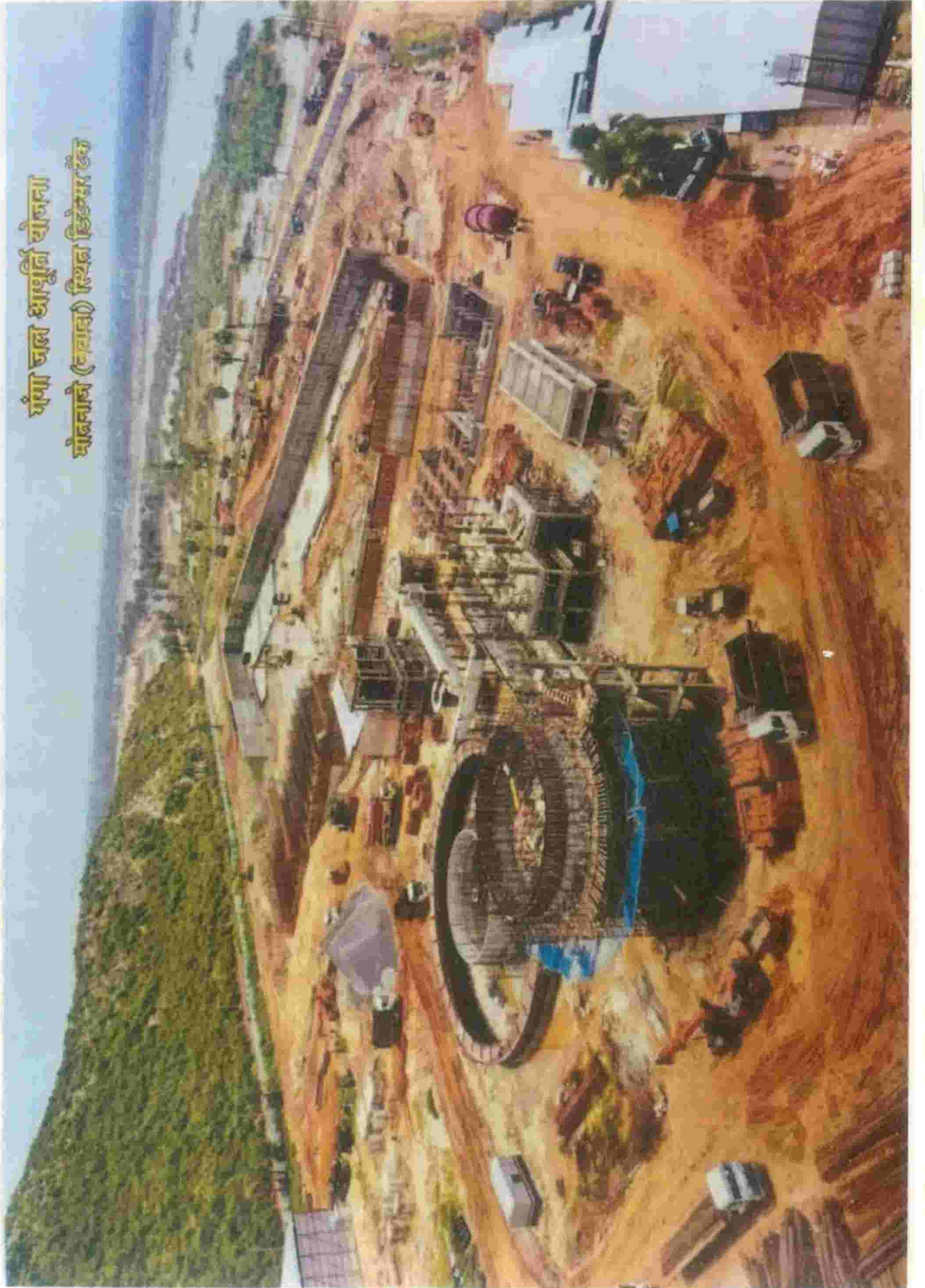
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यंया जल आपूर्ति योजना
योजनाचे (बांधणे) स्थल डिसेम्बर २०१६



श्री गणेशाय नमः