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WATER RESOURCES DEPARTMENT

SCHEDULE OF RATE

EFFECTIVE FROM : 01.10.2014

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प्रस्तावना

बिहार लोक निर्माण संहिता की कंडिका 103 के संशोधन के आलोक में बिहार सरकार पथ निर्माण विभाग द्वारा निर्गत संकल्प–सह–पठित ज्ञापांक–01/बी– 12–2003–5762 (एस0)डब्लू0ई0, पटना दिनांक 05.06.2006 की कंडिका 2(iii) में यह प्रावधान किया गया है कि अनुसूचित दर, विश्लेषण तथा सामग्रियों का दर निर्धारण पथ निर्माण विभाग के संयोजन में गठित राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा किया जायेगा ।

इसके अनुपालन में जल संसाधन विभाग द्वारा विभागीय अनुसूचित दर निर्धारण समिति का गठन किया गया है, जिसके सदस्य निम्न प्रकार से है–

1. ई0 राम पुकार रंजन,
   अभियंता प्रमुख(मध्य)–सह–अध्यक्ष विभागीय अनुसूचित दर निर्धारण समिति ।
2. ई0 राजेश कुमार,
   अभियंता प्रमुख (उत्तर)–सह–सदस्य विभागीय अनुसूचित दर निर्धारण समिति।
3. ई0 सतीश कुमार कर्ण,
   मुख्य अभियंता(यांत्रिक)–सह–सदस्य विभागीय अनुसूचित दर निर्धारण समिति।
4. ई0 दीना नाथ शर्मा
   निदेशक, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय–सह–संयोजक, विभागीय अनुसूचित दर निर्धारण समिति ।

अद्यतन श्रम दर मशीनी एवं सामग्रियों के दर पर अनुसूचित दर को अद्यतन कर अनुमोदन हेतु राज्य स्तरीय अनुसूचित दर निर्धारण समति को भेजने का निर्णय लिया गया ।

तद्नुसार जल संसाधन विभाग, पटना बिहार द्वारा अनुसूचित दर/दर विश्लेषण का सप्तम संस्करण पूर्व प्रकाशित संस्करणों के दर विश्लेषण के आधार पर तैयार किया गया है । श्रम एवं नियोजन विभाग, बिहार सरकार के पत्रांक 254 दिनांक 26.08.2014 द्वारा न्यूनतम मजदूरी के दरों में पुनरीक्षण के फलस्वरूप वर्ष 2014–15 के लिये अनुसूचित दरों के पुनरीक्षण हेतु श्रम दरों का निर्धारण किया गया है । समय–समय पर राज्य स्तरीय अनुसूचित दरों के पुनरीक्षण हेतु श्रम दरों का निर्धारण किया गया है । समय–समय पर राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित विभिन्न निर्माण सामग्रियों/ मशीनों के अद्यतन पुनरीक्षित दरों का समावेश अनुसूचित दर पुस्तिका में किया गया है । जिन निर्माण सामग्रियों/ मशीनों के लिये पुनरीक्षित दर प्राप्त नहीं हुआ है उनके लिये पूर्व का अनुमोदित दर ही लिया गया है ।

राज्य स्तरीय अनुसूचित दर निर्धारण समिति के पत्रांक 108(अनु0) दिनांक 19.09.07 द्वारा निर्गत निर्णय के आलोक में जल संसाधन विभाग, पटना के लिए अनुसूचित दर/ दर विश्लेषण तैयार करने में निम्नलिखित प्रक्रिया अपनायी गयी है–

जल संसाधन विभाग, पटना के विभागीय अनुसूचित दर निर्धारण समिति की दिनांक 16.8.2007 की बैठक में Government of India, Ministry of Irrigation के द्वारा प्रकाशित "Report of Committee on Cost- Control of River valley Projects- Vol.-II (Jan. 1981) के प्रावधानों के अनुरूप Over Head & Contractors Profit के रूप में Analysis of Rate में

Prime Cost का 20% (बीस प्रतिशत) प्रावधान करने का निर्णय लिया गया । उक्त आलोक में राज्य स्तरीय अनुसूचित दर निर्धारण समिति के पत्रांक 108 (अनु0) दिनांक 19.9.07 द्वारा निर्गत निर्णय के कम में Contractors Over Head & Profit (20% of Prime cost) के अन्तर्गत Contractors Profit के अतिरिक्त निम्नलिखित Elements सम्मिलित है –

i. Enabling Work such as Ramps, Work Sheds, Water Supply, Electrification Arrangements, Plant Foundation and Erection etc.
ii. Emoluments of managerial land clerical staff
iii. General establishment watch and ward, sanitary and mess etc.
iv. Local conveyance
v. Traveling expenses
vi. Medical and sanitation
vii. Social Welfare
viii. Office expenses and
iv. Share of head Office expenses

2. जल संसाधन विभाग के Valley/ irrigation & Flood Control से संबंधित कार्य मदों के दर विश्लेषण में Prime Cost के लिए तकनीकी परीक्षक कोषांग के Chapter-8,9 एवं 10 के Format को अपनाया गया है ।
3. Prime cost में राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अधिसूचित निर्माण सामग्री दर एवं Plant & Machinary के Usage Rate को अपनाया गया है।
4. Carriage of Material के लिए MOSRT & H Based पथ निर्माण विभाग (राष्ट्रीय उच्च पथ सहित) के लिए लागू अद्यतन अनुसूचित दर के Chapter-I को अपनाया गया है ।
5. श्रमदर को राज्य स्तरीय अनुसूचित दर निर्धारण समिति का दिनांक 30.07. 2014 को आहूत बैठक की कार्यवाही के अनुसार Prime Cost में लिया गया है। (Schedule I&II)
6. यदि जल संसाधन विभाग द्वारा पथ निर्माण, भवन निर्माण, लोक स्वास्थ्य अभियंत्रण विभाग, विद्युत कार्य आदि कराया जाता है तो क्रमशः संबंधित विभाग यथा पथ निर्माण विभाग, भवन निर्माण विभाग, लोक स्वास्थ्य अभियंत्रण विभाग, विद्युत बोर्ड में लागू दर एवं दर विश्लेषण काजल संसाधन विभाग द्वारा हुबहु पालन किया जायेगा ।
7. सक्षम पदाधिकारी निर्माण कार्य क्षेत्र के जोन के अनुसार ही सीमेंट/ ईंट/ बालू के निर्धारित दर का प्रयोग करेंगे ।
8. रॉयलटी (Royality) का प्रावधान खनन विभाग की अधिसूचना संख्या– पटना 244, 45, 250 दिनांक 27.01.2012 के अनुसार किया गया है ।
9. राज्य स्तरीय अनुसूचित दर निर्धारण समिति के पत्रांक 108 (अनु0) दिनांक 19.09.07 के निर्णय में VAT को Contractors Over Head & Profit (20% of Prime Cost) के अन्तर्गत Contractors Profit में सम्मिलित नहीं किया गया है । यह क्रमांक 1 में घोषित Elements के बाहर है ।
10. प्रस्तुत अनुसूचित दर पुस्तिका में सिमेंट पर VAT 13.5% की दर से लिया गया है, अन्य सामग्रियों पर VAT की दर पुराने दर के आधार पर ही लेकर गणना की गई है । संबंधित पदाधिकारी अपने परिक्षेत्र के वाणिज्य कर पदाधिकारी से संपर्क कर वर्तमान में लागू VAT के अनुसार दर विश्लेषण में उसका प्रावधान/ कटौती करेंगे ।
11. विश्लेषित दर में सभी तरह के Taxes, Royality, Contractors Over Head & Profit (20% of Prime Cost) शामिल है ।

12. The maximum lead to be considered as per TEC Norms is as follows-
    i. For local sand 3km with 1km kuchcha
    ii. For bricks 8km with 1km Kuchcha
    iii. For Coarse sand, stone metal, Stone Chips, moorum, bitumen as per actual lead without provisions of Kuchcha lead.

13. इस दर विश्लेषण पुस्तिका में Stone Boulder, मेटल, ग्रेवेल, चिप्स, बालू, मुरम का दर श्रोत पर लिया गया है । सक्षम पदाधिकारी उस क्षेत्र के लिए अनुमोदित खदान से कार्य–स्थल या Plant site से इसके Carriage का प्रावधान करेंगे ।

14. राज्य स्तरीय अनुसूचित दर निर्धारण समिति के पत्रांक 37 (अनु0) दिनांक 13.5.10 के आलोक में अनुसूचित दर के प्रत्येक मद में श्रमिक कल्याण कोष के लिये 1% (एक प्रतिशत) राशि का अतिरिक्त प्रावधान करते हुए दर विश्लेषण किया गया है ।

15. दिनांक 19.06.2007 को सम्पन्न विभागीय अनुसूचित दर निर्धारण समिमि की बैठक में लिये गये निर्णयानुसार चूँकि यांत्रिक साधन से मिट्टी ढुलाई कर कार्य कराने में ट्रक द्वारा ढुलाई कर कार्य कराना सर्वाधिक मंहगा पड़ता है, अतः जल संसाधन विभाग अन्तर्गत यांत्रिक साधन से मिट्टी कार्य ट्रक द्वारा नहीं किये जाय ।

16. अगर यांत्रिक साधन से मिट्टी कार्य कराने की आवश्यकता हो तो सक्षम पदाधिकारी की अनुमति प्राप्त कर यांत्रिक साधन द्वारा विकल्प के रूप में टिपर से मिट्टी कार्य कराये जाय ।

17. मद संख्या 6.7.3 का दर पूर्व में प्रावधानित रू0 45985.20 Per M^3 जो सामग्री का मूल्य अधिक अंकित होने के कारण गलत हो गया था इसे वर्तमान पुस्त में सुधारकर दिया गया है जिसकी राशि रू0 766.10 है ।

18. वर्तमान में निविदायें Finished Rate (सामग्री आपूर्ति सहित) पर किया जाता है, जिसमें overhead charge 5% एवं संवेदक लाभ 10(दस) प्रतिशत, कुल 15 प्रतिशत दिए जाने के प्रावधान के तहत वर्तमान अनुसूचित दर पुस्तिका तैयार किया गया है।

क. परिस्थितिवश अभी भी विभागीय सामग्री निर्माण कार्य में लगे संवेदक को निर्गत करना पड़ सकता है (अगर सामग्री विभाग के पास उपलब्ध हो) यदि Finished rate की निविदा के विरूद्ध संवेदक को विभाग द्वारा निर्माण सामग्री निर्गत किया जाता है तो वैसी स्थिति में वसूली (Recovery) सामग्री के दर पर 18(अठारह) प्रतिशत शामिल कर प्रावधानित किया जाय, ताकि विभागीय सामग्री पर सामग्री की सुरक्षा के विरूद्ध संवेदक को मात्र 2(दो) प्रतिशत का ही संवेदक लाभ प्राप्त हो सके।

ख. श्रम दर की निविदा में निर्माण में लगे संवेदकों को विभागीय सामग्री पर कोई संवेदक लाभ देय नहीं होगा ।

ग. यदि परिस्थितिवश निर्माण सामग्रियों की आपूर्ति ली जाती है तो सामग्री आपूर्ति की निविदा में सामग्री के दर पर मात्र 10(दस) प्रतिशत संवेदक लाभ का प्रावधान किया जाये ।

प्रथम संस्करण के प्रकाशन के पश्चात् कुछ क्षेत्रीय पदाधिकारियों द्वारा नहर के तल/गाद सफाई कार्य पर लगने वाले रायल्टी के संबंध में आपत्तियाँ प्राप्त हुई थी जिसके आलोक में खान एवं भूतत्व विभाग को वस्तु स्थिति की सूचना देते हुये

उनसे रायल्टी के संबंध में पृच्छा की गई थी । खान एवं भूतत्व विभाग से प्राप्त पत्रांक 250/ एम0 पटना दिनांक 27.01.2012 के अनुसार नहर की सफाई करने में हटायी गई मिट्टी की मात्रा पर वर्तमान दर 22 रू0 घनमीटर की दर से स्वामित्व देय है ।

जियो बैग का व्यवहार विभाग में बड़े पैमाने पर कटाव निरोधक कार्यों में किया जा रहा है । जल संसाधन विभाग द्वारा खाली सिमेंट बैग, नायलन क्रेट, जियो बैग एवं पी0पी0 रोप गैवियन की आपूर्ति हेतु उत्पादनकर्त्ताओं से बाढ़ वर्ष 2013 के पूर्व में आमंत्रित की गई निविदा में प्राप्त न्यूनतम दर, जो विभागीय क्रय समिति द्वारा अनुमोदित है लिया गया है ।

प्रस्तावित अनुसूचित दर का प्रारूप सभी विभागीय पदाधिकारियों के अवलोकन हेतु विभागीय वेवसाईट पर उपलब्ध कराते हुये अनुरोध है कि किसी भी त्रूटि/ कमी को दस दिनों के अंदर विभागीय अनुसूचित दर निर्धारण समिति की जानकारी में लाया जाय । अगर किसी मद का दर अनुसूचित दर पुस्तिका में दर्शाये गये दर से कम आता है तो कम दर व्यवहार में लाते हुए इसकी जानकारी विभागीय अनुसूचित दर निर्धारण समिति को दी जाय ।

जल संसाधन विभाग का अनुसूचित दर पुस्त (दर विश्लेषण सहित) प्रकाशित करने में जिन पदाधिकारियों का सहयोग रहा है समिति उन सभी पदाधिकारियों के प्रति आभार व्यक्त करती है ।

यह अनुसूचित दर दिनांक **01.10.2014** से प्रभावी होगा ।

09/01/15

(राम पुकार रंजन)
अभियंता प्रमुख(मध्य)–सह–अध्यक्ष,
विभागीय अनुसूचित दर निर्धारण
समिति, जल संसाधन विभाग,बिहार

राज्यस्तरीय अनुसूचित दर निर्धारण समिति की

विभिन्न बैठक, प्रस्तावना एवं अनुमोदन

(V)

राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित निर्माण सामग्री, श्रम दर एवं Plant & Machinery के Usage Rate के आधार पर तैयार किए अनुसूचित दर पुस्तिका के सप्तम संस्करण का दिनांक 24-12-2014 को विभागीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदन ।

राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा श्रम दर, निर्माण सामग्रियों एवं Plant & Machinery के दर में हुए पुनरीक्षण के आलोक में पथ निर्माण विभाग (राष्ट्रीय उच्च पथ सहित) के लिये लागू अनुसूचित दर के पुनरीक्षण के लिए दिनांक 30.07.2014 की बैठक में निर्माण सामग्री, श्रम दर एवं Plant & Machinery के Usage rate के लिए Input की स्वीकृति दी गयी । उपरोक्त के आधार पर जल संसाधन विभाग के लिए दिनांक 01.10.2014 से प्रभावी अनुसूचित दर पुस्त (दर विश्लेषण सहित) के सप्तम संस्करण में आवश्यक संशोधन एवं पुनरीक्षण के पश्चात् इसका अनुमोदन किया जाता है। अनुसूचित दर तैयार करने में निम्नलिखित प्रक्रिया अपनाई गई है :-

1. विश्लेषित दरों में सभी तरह के Taxes, Royalty शामिल है।

2. Royalty का प्रावधान खनन विभाग की अधिसुचना सं०-244, 245 तथा 250 दिनांक 27.01.2012 के अनुसार किया गया है जो निम्न है -

स्वामित्व (रॉयल्टी)

क्रम संख्या	खनिज का नाम	प्रति घन मीटर दर (रूपये में)
1.	(क) किसी भी नाम से यथा परिभाषित बोल्डर, ग्रेवल शिंगल अथवा पत्थर (ख) नीलामी द्वारा बंदोबस्त पत्थर	100-00 नीलामी की दशा में नीलामी की राशि

2.	(क) निर्माण प्रयोजन में व्यवहृत साधारण बालू (ख) नीलाम घाटों का साधारण बालू	50-00 नीलामी की दशा में नीलामी की राशि
3.	ईंट बनाने की मिट्टी (400 मानक ईंट के समतुल्य)	11-60 (एस.मो.स. 244 दिनांक 27.01.2012 द्वारा प्रख्यापित)
4.	साधारण मिट्टी जिसका उपयोग रानीगंज खपड़ा वाणिज्यिक कार्यो यथा बांध, सड़क भवन आदि के निर्माण या उसे समतल करने अथवा अन्य. वाणिज्यिक कार्यों के लिए किया जाता हो ।	22-00
5.	निर्माण सामग्री के रूप मे व्यवहृत चूनै के विनिर्माण के लिए भट्टे में काम आनेवाला लाईम शेल चूना पत्थर और कंकड़ तथा बटन के विनिर्माण में व्यवहृत लाइम शेल ।	110-00
6.	मोरम	55-00
7.	केवल गोला मिल (बॉल मिल) के प्रयोजनार्थ अवहृत केल्सेडोनी गुटिका (पेवल)	73-00
8.	कंकड़युक्त पहाड़ी मिट्टी (ग्रेडुलर अर्थ)	55-00
9.	भवन निर्माण के प्रयोजनार्थ या सड़क बनाने के काम में आनेवाला क्लार्टचाईट	73-00
10.	रेह मिट्टी	26-00
11.	शोरा (साल्ट मीटर)	29-00
12.	स्लेट और शेल जब उनका उपयोग भवन निर्माण सामंग्री के रूप में किया जाय	73-00
13.	मुल्तानी मिट्टी (फूलर्स अर्थ)	95-00

(vii)

14.	चक्की (ग्राइनडिंग) पत्थर सहित घरेलू वर्तन बनाने के काम में आनेवाला पत्थर	36-00
15.	प्रति सैकड़ा स्टोन सेट्स तथा पत्थर ईंट (स्टोन ब्रिक्स)	73-00
16.	पत्थर चूर्ण (स्टोन डस्ट)	विक्रय मूल्य की 10 प्रतिशत राशि
17.	ग्रेनाईट (सजावट पत्थर के रूप में उपयोग होने पर) प्रति सैकड़ा (1) 60 से.मी. से अधिक के ब्लॉक के लिए । (2) 60 से मी. से कम के ब्लॉक के लिये	 545-00 273-00
18.	अन्य सभी खनिज	विक्रय मूल्य का 25 प्रतिशत राशि

टिप्पणी-1 बिहार लघु खनिज समानुदान नियमावली, 1972 या अन्यथा में किसी विरूद्ध बात के अन्तर्विष्ट होते हुए भी, नीलामी की राशि के समतुल्य से अधिक पत्थर का उत्खनन एवं प्रेषित किये जोन पर बंदोवस्तधारी अधिक उत्खनित पत्थर की मात्रा के लिये अतिरिक्त स्वामिस्व (रॉयलटी) का भुगतान करेगा ।

टिप्पणी -2 नीलामी की राशि के समतुल्य बालू की मात्रा से अधिक बालू के निकाले जाने और प्रेषित किये जाने पर बंदोबस्तधारी अधिक निकाले गए बालू की मात्रा के लिए अतिरिक्त स्वामित्व (रॉयलटी) का भुगतान करेगा ।

3. श्रमिक कल्याण कोष हेतु 1% (एक प्रतिशत) सेस की कटौती एंव संबंधित श्रम संसाधन विभाग, बिहार सरकार के पत्रांक-4984 दिनांक 01.10.2008 एवं संयोजक सह अभियंता प्रमुख (पथ निर्माण विभाग) का पत्रांक-37 (अनु०)

(VIII)

पटना दिनांक 13.05.2014 के द्वारा दिये गये निर्देश का अनुपालन करने की जिम्मेवारी क्षेत्रीय पदाधिकारियों की होगी । क्षेत्रीय पदाधिकारियों का दायित्व होगा की उनके अधीन चल रहे निर्माण कार्यों के लिये उपकर की राशि नियमित रूप से वसूलकर उसे निम्नलिखित पत्ते पर ससमय भेजना सुनिश्चित करेंगे :-

संयुक्त श्रमायुक्त सह सचिव,

बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड

विकास भवन, नया सचिवालय, बेली रोड, पटना ।

अनुसूचित दर पुस्त के दर विश्लेषण में 1% (एक प्रतिशत) सेस की राशि को सम्मिलित किया गया है।

4. विभागीय पत्रांक 1/पी.एम.सी./विविध/629/2003 पार्ट-1-293 दिनांक 27.03.2014 के आलोक में विभागीय अनुसूचित दर निर्धारण समिति द्वारा लिए गए निर्णय के तहत सभी प्रकार के कार्यों के लिए तैयार किये गये दरों में कान्ट्रैक्टर ओवर हेड चार्ज 5% एवं कान्ट्रेक्टर प्रोफिट (सी.पी.) 10% यानि कुल 15% सम्मिलित है।

5. मद संख्या 6.7.3 की दर पूर्व S.O.R. में टंकण भूलवश ₹ 45985.20 Per M^2 प्रावधानित हो गया था। इसे वर्तमान पुस्त में सुधार किया गया है जो ₹ 766.10 Per M^2 है।

बैठक में बाढ़ सामग्रियों के दर पर समीक्षोपरान्त निर्णय लिया गया कि वर्ष 2013 में विभागीय अनसूचित दर समिति द्वारा अनुशंसित दर जो राज्यस्तरीय अनुसूचित दर पुस्तिका में सन्निहित की जाय । साथ ही त्वरित कार्रवाई करते हुए बाढ़ सामग्रियों के मूल निर्माणकर्ताओं से दर प्राप्त कर एवं इसका तार्किक, तकनीकी विश्लेषण तथा समीक्षा विभागीय अनुसूचित दर निर्धारण समिति से

कराते हुए राज्य स्तरीय अनुसूचित दर समिति से अनुमोदन प्राप्त करने की कार्रवाई की जाय एवं विभागीय अनुसूचित दर पुस्तिका में समावेश किया जाय ।

24/12/14
सदस्य सचिव
विभागीय अनुसूचित दर निर्धारण
समिति-सह-निदेशक,
क्रय भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, पटना ।

24/12/14
सदस्य
विभागीय अनुसूचित दर निर्धारण
समिति-सह
मुख्य अभियंता (यांत्रिक)
जल संसाधन विभाग, पटना

24.12.14
सदस्य
विभागीय अनुसूचित दर निर्धारण
समिति-सह
अभियंता प्रमुख (उ०)
जल संसाधन विभाग, पटना

24/12/14
अध्यक्ष
विभागीय अनुसूचित दर निर्धारण
समिति-सह
अभियंता प्रमुख (मध्य)
जल संसाधन विभाग, पटना

(X)

पत्रांक-1/पी०एम०सी०/विविध/884/2012...../

बिहार सरकार

जल संसाधन विभाग

प्रेषक,

ई0 एस0 के0 चटर्जी
संयुक्त सचिव (अभियंत्रण)।

सेवा में,

सभी मुख्य अभियंता(यांत्रिक सहित)
जल संसाधन विभाग, बिहार ।

पटना, दिनांक...../2014

विषय- निविदित दर की न्यूनतम सीमा निर्धारित करने के संबंध में।

प्रसंग- बिहार सरकार पथ निर्माण विभाग,पटना का पत्रांक प्र0-6/द0बि0-नियम-03-08/2006अंश-2046(एस)दिनांक 06.03.2014 एवं विभागीय पत्रांक 1/पी०एम०सी०/विविध/629/2003 पार्ट-1- 293 दिनांक 27.03.2014

महाशय,

उपर्युक्त विषय के संदर्भ में निदेशानुसार सूचित करना है कि पथ निर्माण विभाग के प्रासंगिक पत्र के क्रम में जल संसाधन विभाग द्वारा पत्रांक 1/पी०एम०सी०/विविध/629/2003 पार्ट-1 293, दिनांक 27.03.2014 जल संसाधन विभाग के अंतर्गत सभी मुख्य अभियंता (यांत्रिक सहित) को अनुपालन हेतु निर्गत किया गया है।

उक्त पत्र आदेश निर्गत की तिथि से लागू माना जायेगा।

विश्वासभाजन
ह०/-
(एस0के0चटर्जी)
संयुक्त सचिव(अभियंत्रण)

ज्ञापांक- 296 पटना, दिनांक 28/03/2014-

प्रतिलिपि सभी अधीक्षण अभियंता, योजना एवं मोनिटरिंग अंचल-1, पटना/अधीक्षण अभियंता, उइनदस्ता अंचल, जल संसाधन विभाग, पटना को प्रासंगिक पत्र की छाया प्रति के साथ सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

अनु०:-यथोक्त।

28/3/2014
(एस0के0चटर्जी)
संयुक्त सचिव(अभियंत्रण)

पत्रांक - 1/पी०एम०सी०/विविध/629/2003 पार्ट-1...293.../

बिहार सरकार

जल संसाधन विभाग

प्रेषक - ई० सुमीर कुमार चटर्जी,
संयुक्त सचिव (अभियन्त्रण)
जल संसाधन विभाग, बिहार, पटना ।

सेवा में,
सभी मुख्य अभियन्ता (यांत्रिक सहित),
जल संसाधन विभाग, बिहार

पटना, दिनांक - 27/3/2014

विषय - SBD आधारित ₹ 200.00 लाख से अधिक लागत वाले कार्यों के लिए निविदित दर की न्यूनतम सीमा निर्धारित करने के संबंध में ।

प्रसंग - पथ निर्माण विभाग, बिहार सरकार, पटना का पत्रांक-प्र०-6/द०बि०-नियम-03-08/2006 अंश 2046 (एस), पटना, दिनांक 06.03.2014 ।

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र (छाया-प्रति संलग्न) द्वारा पथ निर्माण विभाग, बिहार सरकार, पटना के पत्रांक 9049 (एस) दिनांक 26.11.2013 (छाया-प्रति संलग्न) में संशोधन करते हुए प्रतिशत दर (In percentage rate tender) पद्धति में प्राप्त की जाने वाली सभी प्रकार की निविदाओं में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र की दर (राशि) से 10 प्रतिशत कम तक निर्धारित किये जाने और 10 प्रतिशत से ज्यादा कम दर उद्धृत रहने वाली निविदाएँ अमान्य माने जाने का निर्णय संसूचित है ।

अतएव प्रासंगिक पत्र में निहित प्रावधान के अनुपालन के क्रम में निदेशानुसार सूचित करना है कि जल संसाधन विभाग के अन्तर्गत नये अनुसूचित दर का प्रकाशन होने तक ₹ 200.00 लाख से अधिक लागत वाले कार्यों के लिए निविदा आमन्त्रण के पूर्व कार्य के परिमाण विपत्र की कुल लागत राशि से ओभरहेड चार्ज के रुप में अनुमान्यता के तहत 5 % (पाँच प्रतिशत) राशि घटाकर परिमाण विपत्र की राशि आकलित की जाय एवं तदनुसार निविदा आमंत्रण की कार्रवाई की जाय । इसके फलस्वरुप सम्वेदक को सम्पादित कार्य का भुगतान तैयार किये गये विपत्र के abstract of cost में अनुमान्य कटौतियों एवं सम्वेदक द्वारा उद्धृत प्रतिशत दर के सामंजन के उपरान्त 5 % (पाँच प्रतिशत) की राशि घटाकर सम्वेदक को भुगतेय राशि की गणना की जायेगी ।

SBD आधरित कार्यों के सम्बन्ध में इस संदर्भ में पूर्व में निर्गत सभी विभागीय निदेश इस हद तक संशोधित समझे जाएगें ।

उपर्युक्त निदेश का अनुपालन दृढ़तापूर्वक सुनिश्चित किया जाय ।

अनुलग्नक - यथावत् ।

विश्वासभाजन
27/3/2014
(सुमीर कुमार चटर्जी)
संयुक्त सचिव (अभियन्त्रण)

(XII)

बिहार सरकार
पथ निर्माण विभाग

पत्रांक–प्र०–6 / द०वि०–नियम–03–08 / 2006 (अंश)– /पटना, दिनांक.....
2046(5) 6-3-14

प्रेषक,

प्रत्यय अमृत
सचिव

सेवा में,

प्रधान सचिव / सचिव
जल संसाधन विभाग / ग्रामीण कार्य विभाग / लोक स्वास्थ्य अभियंत्रण विभाग / भवन निर्माण विभाग / योजना एवं विकास विभाग / लघु एवं सिंचाई विभाग / नगर विकास विभाग

विषय – निविदित दर की न्यूनतम सीमा निर्धारित करने के संबंध में।

महाशय,

उपर्युक्त विषय के संबंध में निदेशानुसार सूचित करना है कि तकनीकी परीक्षक कोषांग, निगरानी विभाग, बिहार का पत्रांक–1 / स्था०–10 / 2013–363 त०प०को० दिनांक–11.04.2013 द्वारा मंत्रिमंडल निगरानी विभाग के पत्रांक–462 दिनांक–30.03.1982 के भाग–1 / कंडिका–14 एवं पत्रांक–2347 दिनांक–31.12.1983 की कंडिका–6 (ग) को विलोपित किया गया तथा निविदित दर की अधिसीमा निर्धारित करने हेतु पथ निर्माण विभाग को अग्रेतर कार्रवाई किया जाना था।

2. उक्त परिपेक्ष्य में पथ निर्माण विभाग के पत्रांक–9049 (एस) अनु० दिनांक–26.11.2013 द्वारा SBD आधारित कार्यों के लिए प्रतिशत दर निविदा (percentage rate tender) पद्धति में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र से 10 प्रतिशत कम रहने पर निविदा का निष्पादन विकास आयुक्त की अध्यक्षता में गठित प्राधिकृत समिति से अनुमोदन (Concurrence) प्राप्त कर निविदा निष्पादन का निर्णय लिया गया था।

3. परिमाण विपत्र की राशि से निविदित दर 10 प्रतिशत के कम रहने पर निविदाओं के निष्पादन में उत्पन्न हो रही कठिनाईयाँ एवं निविदा की प्रक्रिया सभी कार्य विभागों में समरूप रखने हेतु राज्य सरकार द्वारा पुनः समीक्षा की गई।

4. समीक्षोपरांत प्रतिशत दर (inpercentage rate tender) पद्धति में प्राप्त की जाने वाली सभी प्रकार की निविदाओं में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र की दर (राशि) से 10 प्रतिशत कम तक निर्धारित की जाती है। 10 प्रतिशत से ज्यादा कम दर उद्धृत रहने वाले निविदाएं अमान्य मानी जायेगी।

4.1 उक्त प्रावधान सभी कार्य विभागों में समान रूप से लागू किया जायेगा।

5. विभागीय पत्रांक–9049 (एस) दिनांक–26.11.2013 को इस हद तक संशोधित समझा जाय।

विश्वासभाजन

(प्रत्यय अमृत)

(xiii)

ज्ञापांक–प्र०–6/द०बि०–नियम–03–08/2006 (अंश)– 2046(3) /पटना, दिनांक 6-3-14

प्रतिलिपि:– प्रधान सचिव, वित्त विभाग, बिहार, पटना/प्रधान सचिव, मंत्रिमंडल (निगरानी) विभाग, बिहार, पटना को सूचनार्थ एवं आवश्यक कार्रवाई हेतु समर्पित।

(प्रत्यय अमृत)

ज्ञापांक–प्र०–6/द०बि०–नियम–03–08/2006 (अंश)– 2046(3) /पटना, दिनांक 6-3-14

प्रतिलिपि:– सभी मुख्य अभियंता/सभी अधीक्षण अभियंता/सभी कार्यपालक अभियंता (सभी उपभाग), पथ निर्माण विभाग, को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

(प्रत्यय अमृत)

ज्ञापांक–प्र०–6/द०बि०–नियम–03–08/2006 (अंश)– 2046(3) /पटना, दिनांक 6-3-14

प्रतिलिपि:– अधीक्षण अभियंता (अनुश्रवण), पथ निर्माण विभाग को Soft Copy की प्रति के विभागीय Website पर upload करने हेतु प्रेषित।

(प्रत्यय अमृत)

(XIV)

भ.ज.(ग)/(3)

बिहार सरकार
पथ निर्माण विभाग

पत्रांक–प्र06/द0बि0 नियम–03–08/2006(अंश)

दिनांक 9049 (5)वां 26-11-13

प्रेषक,

प्रत्यय अमृत
सचिव।

सेवा में,

सभी प्रधान सचिव/सचिव
विभागाध्यक्ष/प्रमण्डलीय आयुक्त।

विषयः SBD आधारित कार्यों में निविदित दर की न्यूनतम सीमा के संबंध में।

प्रसंगः तकनीकी परीक्षक कोषांग, निगरानी विभाग, बिहार का पत्रांक–1/स्था0–10/2013–363 त0प0को0 दिनांक 11.04.2013।

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र के आलोक में निदेशानुसार सूचित करना है कि Standard Bidding Document के दिशा निर्देश Section-3 की कंड़िका–12A में प्रावधान है कि Percentage rate tender विधि में प्रतिशत में उद्धृत दर 15 प्रतिशत से कम रहने की स्थिति में Bid को रद्द किया जाएगा।

7744 4/12/13

2. उल्लेखनीय है कि मंत्रिमंडल (निगरानी) विभाग के पत्रांक–462 दिनांक 30.03.1982 के अनुलग्नक भाग–1, कंड़िका–14 में निम्न प्रावधान अंकित है।

"Bill of Quantity में वर्णित राशि से 15 प्रतिशत से कम की निविदा दर अमान्य होगी। इस शर्त्त को निविदा/ Quotation के नोटिस में स्पष्ट करना होगा।"

3. इसी प्रकार मंत्रिमंडल (निगरानी) विभाग के पत्रांक–2347 दिनांक 31.12.1983 की कंड़िका–6(ग) में निम्न प्रावधान है :–

"अब से न्यूनतम 15 प्रतिशत को विभागीय समानों को छोड़कर गणना किया जाए। जिसे नीचे वर्णित formula के अनुसार जो गणना आती है उससे कम की राशि अमान्य मानी जाएगी। इसका स्पष्ट उल्लेख गणना कर Notice में किया जाएगा।"

न्यूनतम प्रतिशत जिससे कम दर मान्य नहीं होगा।

$$= \frac{(क–ख)}{क} \times 15$$

(XV)

जहाँ "क" कार्य की पूरी राशि

"ख" विभाग द्वारा निर्गत की जाने वाली सामग्रियों की राशि।

4. निगरानी विभाग के प्रासंगिक पत्र द्वारा उपर्युक्त कंड़िका 2 एवं 3 के प्रावधान को विलोपित किया गया है तथा निविदित दर की अधिसीमा निर्धारित करने हेतु पथ निर्माण विभाग को अग्रत्तर कार्रवाई किया जाना है।

5. उक्त के आलोक में राज्य सरकार द्वारा सम्यक विचारोपरांत निम्नांकित निर्णय लिया गया है :–

5.1 SBD आधारित कार्यों के लिए प्रतिशत दर (In percentage rate tender) पद्धति में निविदित दर 10 प्रतिशत से कम रहने पर पथ निर्माण विभाग के संकल्प संख्या 12180 (एस) दिनांक 30.10.2006 (प्रतिलिपि संलग्न) के अनुरूप निविदा का निष्पादन विकास आयुक्त की अध्यक्षता में गठित प्राधिकृत समिति से concurrence प्राप्त कर किया जाएगा। विभाग द्वार निर्गत की जानी वाली सामग्रियों के मामले में उक्त कंड़िका–2 में अंकित विधि से प्रतिशत का आकलन किया जाएगा।

5.2 उक्त प्रावधान सभी विभागों में समान रूप से लागू माना जाएगा।

अनु0–यथोक्त।

विश्वासभाजन

(प्रत्यय अमृत)

ज्ञापांक: प्र06/द0बि0 नियम–03–08/2006(अंश) दिनांक 9049 (5) 26-11-13

प्रतिलिपि सभी मुख्य अभियंता/सभी अधीक्षण अभियंता/सभी कार्यपालक अभियंता (सभी उपभाग) पथ निर्माण विभाग को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।

(प्रत्यय अमृत)

ज्ञापांक: प्र06/द0बि0 नियम–03–08/2006(अंश) दिनांक 9049 (5) 26-11-13

प्रतिलिपि अधीक्षण अभियंता (अनुश्रवण), पथ निर्माण विभाग को Soft copy की प्रति के साथ विभागीय website पर upload करने हेतु प्रेषित।

(प्रत्यय अमृत)
25/11/2013

(XVI)

पत्रांक 1/पी.एम.सी./विविध/884/2012.....892...../

बिहार सरकार

जल संसाधन विभाग

प्रेषक,

सुशील कुमार सिंह
संयुक्त सचिव (प्रबंधन)

सेवा में,

सभी मुख्य अभियंता (याँत्रिक सहित)
जल संसाधन विभाग, बिहार

पटना, दिनांक-.....28/10...../2014.

विषय - रू0 200.00 लाख (दो सौ लाख) से कम की निविदाओं में न्यूनतम अधिसीमा निर्धारण के संबंध में।

प्रसंग- पथ निर्माण विभाग का पत्रांक प्र0 6/द0 बि0 नियम 03/08/06 (अंश)-1260(S) दिनांक 13.02.2014, जल संसाधन विभाग का पत्रांक- 1/पी.एम.सी./विविध/623/2003-पार्ट-I-249 दिनांक 14.03.2014 एवं पथ निर्माण विभाग का पत्रांक प्र06/द0बि0-नियम-03-08/2006(अंश)-2046(S) दिनांक 06.03.2014

महाशय,

निदेशानुसार उपर्युक्त विषय के संदर्भ में कहना है कि पथ निर्माण विभाग के पत्रांक 2046 दिनांक 06.03.2014 द्वारा प्रतिशत दर (In percentage rate tender) पद्धति में प्राप्त की जाने वाली सभी प्रकार की निविदाओं में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र की दर (राशि) से 10 प्रतिशत कम तक निर्धारित की गई एवं 10% से ज्यादा कम दर उद्धृत रहने वाली निविदाएँ अमान्य माने जाने का प्रवधान लागू किया गया है। इस पत्र में पथ निर्माण विभाग के पत्रांक 1260(S) दिनांक 13.02.2014 के संदर्भ में कुछ नहीं लिखा गया, जिसके चलते उत्पन्न भ्रम की स्थिति में पथ निर्माण विभाग से इस संबंध में परामर्श प्राप्त किया गया। पथ निर्माण विभाग द्वारा यह परामर्श दिया गया है कि पथ निर्माण विभाग के पत्रांक-2046(S) दिनांक 06.03.2014 में निहित प्रवधान के आलोक में F2 एकरारनामा के कार्य से संबंधित पथ निर्माण विभाग के पत्रांक-1260(S) दिनांक 13.02.2014 को जारी रखना उचित नहीं है एवं उक्त परिपत्र के साथ-साथ पूर्व में निर्गत अन्य सभी परिपत्रो (यदि कोई हो तो) का संसोधन अपेक्षित है ।

पथ निर्माण विभाग से प्राप्त मन्तव्य के आलोक में रू0 200.00 लाख (दो सौ लाख) से कम लागत (अर्थात् नन एस.बी.डी./F2 एकरारनामा) से संबंधित निविदाओ में पथ निर्माण विभाग के पत्रांक 2046(S) दिनांक 06.03.2014 की कन्डिका-4 के आलोक में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र की दर (राशि) से 10 प्रतिशत कम अथवा 10 प्रतिशत से ज्यादा कम दर उद्धृत रहने वाली निविदाएँ

अमान्य किये जाने का प्रावधान जल संसाधन विभाग के पत्रांक-293 दिनांक 27.03.2014 में निर्गत प्रावधान के साथ लागू रहेगा ।

यह आदेश इस पत्र की निर्गत की तिथि से प्रभावी माना जायेगा एवं इस संदर्भ में पूर्व में निर्गत सभी परिपत्र इस हद तक संशोधित माने जायेगे ।

विश्वासभाजन

ह०/-

(सुशील कुमार सिंह)
संयुक्त सचिव (प्रबंधन)

ज्ञापांक- 892 /पटना, दिनांक- 28/10 /2014.

प्रतिलिपि सभी अधीक्षण अभियंता, योजना एवं मोनिटरिंग अंचल, पटना/ उप सचिव, कमाण्ड क्षेत्र विकास निदेशालय, पटना/ अधीक्षण अभियंता, उइनद्स्ता अंचल को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।

2- प्रभारी कम्प्यूटर कोषांग को विभागीय वेबसाईट पर शीघ्र अधिष्ठापित करने हेतु प्रेषित ।

28/10/14

(सुशील कुमार सिंह)
संयुक्त सचिव (प्रबंधन)

9.1.15

9/1/15 AE

(XVIII)

पत्रांक 1/पी.एम.सी./विविध/884/2012...../

बिहार सरकार

जल संसाधन विभाग

प्रेषक,

सुशील कुमार सिंह
संयुक्त सचिव (प्रबंधन)

सेवा में,

सभी मुख्य अभियंता (याँत्रिक सहित)
जल संसाधन विभाग, बिहार

पटना, दिनांक-...../2014

विषय - रू0 200.00 लाख (दो सौ लाख) से कम की निविदाओं में न्यूनतम अधिसीमा निर्धारण के संबंध में।

प्रसंग - पत्रांक- 1/पी.एम.सी./विविध/884/2012-892 दिनांक 28.10.2014

महाशय,

निदेशानुसार उपर्युक्त विषयक प्रासंगिक पत्र के संदर्भ में कहना है कि पथ निर्माण विभाग से प्राप्त मन्तव्य के आलोक में रू0 200.00 लाख (दो सौ लाख) से कम लागत (अर्थात् नन एस.बी.डी./F2 एकरारनामा) से संबंधित निविदाओ में पथ निर्माण विभाग के पत्रांक 2046(S) दिनांक 06.03.2014 की कन्डिका-4 के आलोक में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र की दर (राशि) से 10 प्रतिशत कम अथवा 10 प्रतिशत से ज्यादा कम दर उद्धृत रहने वाली निविदाएँ अमान्य किये जाने का प्रावधान जल संसाधन विभाग के पत्रांक-293 दिनांक 27.03.2014 में निहित प्रावधान के साथ लागू किये जाने से संबंधित आदेश प्रासंगिक पत्र पत्रांक-892 दिनांक 28.10.2014 द्वारा निर्गत किया गया है ।

उक्त संदर्भ में स्पष्ट करना है कि रू0 200.00 लाख (दो सौ लाख) से कम लागत (अर्थात् नन एस.बी.डी./F2 एकरारनामा) से संबंधित निविदाओ में निविदित दर की न्यूनतम अधिसीमा परिमाण विपत्र की दर (राशि) से 10 प्रतिशत कम तक होगी एवं 10 प्रतिशत से ज्यादा कम दर उद्धृत रहने वाली निविदाएँ अमान्य किये जाने का प्रावधान जल संसाधन विभाग के पत्रांक 293 दिनांक 27.03.2014 में निहित शर्त के साथ लागू रहेगा ।

विश्वासभाजन

ह0/-
(सुशील कुमार सिंह)
संयुक्त सचिव (प्रबंधन)

ज्ञापांक- 919 /पटना, दिनांक- 06/11 /2014.

प्रतिलिपि सभी अधीक्षण अभियंता, योजना एवं मोनिटरिंग अंचल, पटना/ उप सचिव, कमाण्ड क्षेत्र विकास निदेशालय, पटना/ अधीक्षण अभियंता, उइनदस्ता अंचल को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित ।

2- प्रभारी कम्प्यूटर कोषांग को विभागीय वेबसाईट पर शीघ्र अधिष्ठापित करने हेतु प्रेषित ।

06/11/14

(सुशील कुमार सिंह)
संयुक्त सचिव (प्रबंधन)

Node-2/Rahman/J.S.letter

(XIX)

जिला खनन कार्यालय,पटना

पत्रांक:-----163---/एम0, पटना, दिनांक- 06.02.12

प्रेषक,

सहायक निदेशक
जिला खनन कार्यालय,
पटना।

सेवा में,

मद्य जिला स्थित सभी कार्य विक्रय एवं कार्यकारी एजेन्सियां

शीघ्र परिदेशना अभिलेख एवं अभिलेख रूप प्रमंडल लिहाज रत्न पुल निगेशा निज लि देखा रत्न घर, पटना

विषय:- निर्माण कार्य में संवेदकों द्वारा व्यवहृत लघु खनिजों यथा-ईंट, बालू, गिट्टी, मिट्टी तथा अन्य की मात्रा पर देय स्वामित्व के अतिरिक्त खनिज का मूल्य एवं अन्य कर (Tax) आदि की वसूली के संबंध में।

प्रसंग:- विभागीय अधिसूचना संख्या-244, 245 एवं 250/एम0,पटना,दिनांक-27.01.2012 तथा पत्रांक-1731/एम0, पटना, दिनांक-01.08.2011एवं अपीलस्तरीय का कार्यालय पत्रांक- 17-/एम0, पटना, दिनांक-06.01.2012.

महाशय,

उपर्युक्त विषयक विभागीय स्तर से समय-समय पर निर्गत विभिन्न प्रसंग में वर्णित पत्रों की छाया प्रति संलग्न प्रसंग हेतु इस पत्र के साथ संलग्न कर इसवार्य एवं आवश्यक कार्यार्थ एतद् द्वारा प्रेषित की जा रही है। विभागीय अधिसूचना संख्या-244, 245 एवं 250/एम0,पटना,दिनांक-27.01.2012 द्वारा विभिन्न खनिजों का स्वामित्व दर को राज्य सरकार ने संशोधित करने की कृपा की है। संशोधित नई स्वामित्व दर अधिसूचना के निर्गत होने की तिथि-27.01.2012 से प्रभावी हो चुका है। अतएव वर्णित अधिसूचना का अवलोकन कर संशोधित नई स्वामित्व दर के संबंध में पूर्ण रूपेण ज्ञान करने की कृपा की जाय। पूर्व में प्रेषित विभागीय पत्रांक-1731/एम0, पटना, दिनांक-01.08.2011(छाया प्रति संलग्न) के आलोक में पुनः सूचित करना है कि प्रसंगित पत्र द्वारा विभागीय मन्शा में स्पष्ट रूप से सूचित किया जा चुका है कि "निर्माण कार्य में संवेदकों के द्वारा व्यवहृत निर्धारित लघु खनिजों को खरीदी बिक्री लघु खनिज (अनुज्ञप्ति नियमावली,1972 के नियम-40(8)में उल्लेखित अधिकृत/प्राधिकृत/संवेदक या उप गुट्टाधारी के की जाती है,जो कि नियमावली के नियम-40(10) के अनुपालन में संवेदक प्रपत्र एम0 तथा एम0 में अपना शपथ पत्र विपत्र के साथ कार्य विभाग में दाखिल करेंगे। कार्य विभाग प्रपत्र एम0 तथा एम0 में दाखिल शपथ पत्र का सत्यापन जिला से संबंधित खनन कार्यालय से करायेंगे। यदि एम0 तथा एम0 का शपथ-पत्र असत्य पाया जाता है या संवेदक एम0 तथा एम0 में शपथ पत्र विपत्र के साथ दाखिल नहीं करते हैं,तो निदा लघु खनिज अनुज्ञप्ति नियमावली,1972 के नियम-40(8) के अन्तर्गत लघु खनिज पर देय स्वामित्व के अतिरिक्त खनिज का मूल्य एवं अन्य कर आदि की कटौती उनके विपत्र से करते विभाग के संगत शीर्ष में संग्रहित कार्य विभाग जमा कर देंगे।"

विभागीय स्तर से निर्गत विभिन्न पत्रावली में निहित उल्लेखित प्रावधान के अनुपालनार्थ एवं सरकारी राजस्व हित में प्रेषित उपर्युक्त प्रावधानों का अनुपालन कतिपय कार्यों आपके स्तर से कार्यान्वित अब तक सुनिश्चित नहीं की जा रही है। फलतः सरकारी खनन राजस्व की भारी क्षति होने से इंकार नहीं किया जा सकता है। यह राजस्व हित में काफी चिन्तनीय एवं दुर्भाग्य पूर्ण है। यहाँ यह भी उल्लेखनीय है कि महालेखाकार अंकेक्षण ने वित्तीय वर्ष-2009.10 के अंकेक्षण के दौरान उपर्युक्त अवांछ्य का भागालि दर्ज की है।

अतएव उपर्युक्त वर्णित परिप्रेक्ष्य में पुनः अनुरोध है कि संलग्न प्रासंगिक अधिसूचनाओं/पत्रों में निहित निर्देशों का राजस्व हित में दृढ़ता से अनुपालन सुनिश्चित कराने की कृपा करें। यहाँ यह भी उल्लेखनीय है कि आपके स्तर से संवेदकों के विपत्र में कटौतीकृत एवं संग्रहित स्वामित्व की राशि के शपथ खनिजवार मात्रा एवं कटौतीकृत राशि का संवेदकवार विवरणी भी उपलब्ध कराने की कृपा की जाय,ताकि व्यवहृत मात्रा के विरुद्ध कटौतीकृत स्वामित्व की राशि की अनुमान्यता की समीक्षा अंकेक्षणकर्त्ता के स्तर से सुनिश्चित किया जा सके। साथ ही अंकेक्षण भागालि के अनुपालन में वित्तीय वर्ष-2009.10 से वर्तमान तक संवेदकों के विपत्र से कटौतीकृत एवं संग्रहित खनन स्वामित्व की राशि,जिसके विरुद्ध संवेदक ने प्रपत्र-एम0 तथा एम0 में शपथ पत्र दाखिल नहीं किया है,से संबंधित वैसे सभी मामलों में कटौतीकृत स्वामित्व के संग्रहित खनिज का मूल्य की कटौती संबंधित संवेदकों के विपत्रों सुनिश्चित कर विभागीय संगत शीर्ष में अति शीघ्र जमा कराने की कृपा किया जाय। राज्य के खनन राजस्व एवं कार्यहित में कृपया इसका सर्वोच्च प्राथमिकता के आधार पर अनुपालन सुनिश्चित कराने की कृपा की जाय।

अनु0-यथोपरि।

विश्वासभाजन,

सहायक निदेशक,
जिला खनन कार्यालय,
पटना।

RCD/SOR_9th edition_April 2014

बिहार सरकार

खान एवं भूतत्व विभाग

अधिसूचना

पटना, दिनांक- 27/1/12

एस0ओ0सं0- 245 /540, बिहार लघु खनिज समनुदान नियमावली, 1972 के नियम 26(क) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुये राज्य के अन्तर्गत स्थित विभिन्न क्षेत्रों में असैनिक निर्माण कार्य की स्थिति, जनसंख्या स्थिति, औद्योगिक निर्माण कार्य की स्थिति, शहरीकरण की अवस्था एवं औद्योगिक विकास की गति को ध्यान में रखते हुये बिहार के राज्यपाल के पूर्व की अधिसूचना एस0ओ0सं0 27 दिनांक 24.3.2001 का संशोधन करते हैं एवं विभिन्न क्षेत्रों को श्रेणियों में विभाजित करते हुये प्रत्येक स्थायी चिमनी एवं बंगला ईंट भट्ठों के लिये ईंटों की संख्या और उस पर ईंट भट्ठा मालिकों / ईंट मिट्टी हटाने वालों द्वारा प्रति भट्ठा प्रति वर्ष राज्य सरकार को देय समेकित स्वामित्व की राशि निर्धारित करते हैं जो निम्नलिखित तालिका में दिखाई गई है:-

तालिका

क्रमांक	क्षेत्र की श्रेणी	जिला का नाम तथा क्षेत्र	क्षमता स्तंभ 3 में दिखाये गये क्षेत्र में स्थित प्रति स्थायी चिमनी अथवा बंगला ईंट भट्ठा के निर्मित ईंट	स्वामित्व - प्रति भट्ठा प्रति वर्ष देय स्वामित्व की राशि जो स्तंभ 4 में निर्धारित ईंट की संख्या पर देय है (रूपये में)
1	2	3	4	5
1	I	पटना, मुजफ्फरपुर, भागलपुर, गया, दरभंगा जिलों का शहरी क्षेत्र	45 लाख ईंट	130500/-रू0
2	II	अन्य शहरी क्षेत्र	35 लाख ईंट	101500/-रू0
3	III	ग्रामीण क्षेत्र	25 लाख ईंट	72500/-रू0
4	IV	बंगला भट्ठा	1 (एक लाख) ईंट	4350/-रू0

2- यह अधिसूचना निर्गत की तिथि से प्रवृत्त होगी ।

टिप्पणी I- समेकित स्वामित्व का भुगतान दो किस्तों में किया जायेगा, यथा:-

(i) प्रथम किस्त - कुल देय स्वामित्व राशि का 50 प्रतिशत भट्ठा आरंभ करने के पूर्व, तथा

(ii) द्वितीय किस्त :- कुल राशि का शेष 50 प्रतिशत 31 मार्च के पूर्व ।

(iii) भट्ठेदारों द्वारा कुल देय स्वामित्व का भुगतान अगर एक मुश्त कर दिया जाता है तो कुल भुगतेय स्वामित्व पर 5 प्रतिशत की छूट दी जायेगी ।

टिप्पणी II- "शहरी क्षेत्र" से अभिप्रेत किसी नगर निगम या नगरपालिका या अधिसूचित क्षेत्र समिति की स्थानीय सीमा के भीतर के क्षेत्रों से है और, यथास्थिति, उस नगर निगम या नगरपालिका या अधिसूचित क्षेत्र समिति की सीमा रेखा से चार किलोमीटर की बाहरी दूरी की भीतर पड़ने वाले क्षेत्र भी इसमें शामिल हैं ।

टिप्पणी III- अव्यवसायिक, व्यक्तिगत उपयोग हेतु बंगला भट्ठा में निर्मित ईंट / ईंट मिट्टी पर कोई स्वामित्व भुगतेय नहीं होगा ।

4/बी0मु020-22/09

बिहार राज्यपाल के आदेश से,

27.1.12

सरकार के संयुक्त सचिव ।

एस0ओ0सं0- 245 /एम0, पटना, दिनांक- 27/1/12 का अंग्रेजी में निम्नलिखित अनुवाद बिहार राज्यपाल के प्राधिकार से इसके द्वारा प्रकाशित किया जाता है जिसे भारतीय संविधान के अनुच्छेद 348 के खण्ड (3) के अधीन अंग्रेजी भाषा में इसका प्राधिकृत पाठ समझा जायेगा ।

4/बी0मु020-22/09

बिहार राज्यपाल के आदेश से,

27.1.12

सरकार के संयुक्त सचिव ।

S.O. No. 245 /M, 27-1-12- In exercise of the powers conferred by rule 26(A) of the Bihar Minor Mineral Concession Rules, 1972 and having regard to position of Civil Construction, work position of Industrial Construction, position of situated population, position of Urbanisation and pace of industrial growth in different areas of the State, the Governor of Bihar is pleased to amend the previous notification S.O. No. 27 dated 24 March 2001 and reclassify such areas to determine the number of bricks per fixed kiln and Bangla Bhatta and consolidated amount of royalty to be paid thereon by brick kiln owner/brick earth remover per kiln per annum to the State Government for different areas as shown in the table below:-

(XXIII)

अधिसूचना

पटना, दिनांक 27/1/12

एस0 ओ0 सं0 250 एम0,खान एवं खनिज (विकास एवं विनियमन) अधिनियम,1957 (अधिनियम सं0 67,1957) की धारा–15 के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए बिहार राज्यपाल बिहार लघु खनिज समनुदान नियमावली,1972 के नियम 26 (1) (क) और (ख) की क्रमशः अनुसूची I एवं II में निम्नलिखित संशोधन करते है जो तुरंत प्रवृत्त होगा :–

संशोधन

उक्त नियमावली में,

1. विद्यमान अनुसूची I, निम्नलिखित द्वारा प्रतिस्थापित की जायेगी, यथा:–

अनुसूची I

[नियम 26 (1) (क) द्रष्टव्य]

अनिवार्य लगान

अवधि	अनिवार्य लगान की दर (रूपये में)
1	2
पट्टा की सम्पूर्ण अवधि के लिएप्रति वर्ष की दर	30,000 रू0 प्रति एकड़ प्रति वर्ष

2. विद्यमान अनुसूची II निम्नलिखित द्वारा प्रतिस्थापित की जायेगी :–

अनुसूची II

[नियम 26 (1) (ख) द्रष्टव्य]

स्वामित्व (रॉयल्टी)

क्रम संख्या	खनिज का नाम	प्रति घन मीटर दर (रूपये में)
1	2	3
1	(क) किसी भी नाम से यथा परिभाषित बोल्डर,ग्रेवेल शिंगिल्स अथवा पत्थर (ख) नीलामी द्वारा बंदोबस्त पत्थर	100–00 नीलामी की दशा में नीलामी की राशि
2	(क) निर्माण प्रयोजनों में व्यवहृत साधारण बालू (ख) नीलाम घाटों का साधारण बालू	50–00 नीलामी की दशा में नीलामी की राशि
3	ईंट बनाने की मिट्टी (400 मानक ईंट के समतुल्य)	11–60(इस0 ओ0 सं0 244,दिनांक 27–01–12 द्वारा प्रख्यापित)
4	साधारण मिट्टी–मिट्टी जिसका उपयोग खपड़ा,खपरैल मकान, बना बांध, सड़क,पथन आदि के निर्माण या उसे समतल करने अथवा अन्य वाणिज्यिक कार्यों के लिए किया जाता हो।	22–00

5	निर्माण सामग्री के रूप में व्यवहृत चूने के विनिर्माण के लिए घट्ठे में काम आनेवाला लाईम शेल,चूना पत्थर और कंकड़ तथा बटन के विनिर्माण में व्यवहृत लाईम शेल।	110-00
6	मोरम	55-00
7	केवल गोला मिल (बॉल मिल) के प्रयोजनार्थ व्यवहृत केल्सेडोनी गुटिका (पेबल्स)।	73-00
8	कंकड़युक्त पहाड़ी मिट्टी (ब्रैकुलर अर्थ)	55-00
9	भवन निर्माण के प्रयोजनार्थ या सड़क बनाने के काम में आनेवाला क्वार्टजाईट	73-00
10	रेह मिट्टी	26-00
11	शोरा (साल्ट पीटर)	29-00
12	स्लेट और शेल जब उनका उपयोग भवन निर्माण सामग्री के रूप में किया जाय	73-00
13	मुल्तानी मिट्टी (फुलर्स अर्थ)	95-00
14	चक्की (ग्राइन्डिंग) पत्थर सहित घरेलू बर्तन बनाने के काम में आनेवाला पत्थर	36-00
15	प्रति सैकड़ा स्टोन सेट्स तथा पत्थर ईट (स्टोन ब्रिक्स)	73-00
16	पत्थर चूर्ण (स्टोन डस्ट)	विक्रय मूल्य की 10 प्रतिशत राशि.
17	ग्रेनाईट (सजावट पत्थर के रूप में उपयोग होने पर) प्रति सैकड़ा (i) 60 से0 मी0 से अधिक के ब्लॉक के लिये । (ii) 60 से0 मी0 से कम के ब्लॉक के लिये ।	 545-00 273-00
18	अन्य सभी खनिज	विक्रय मूल्य का 25 प्रतिशत राशि

टिप्पणी I- बिहार लघु खनिज समानुदान नियमावली,1972 या अन्यथा में किसी विरुद्ध बात के अन्तर्विष्ट होते हुए भी, नीलामी की राशि के समतुल्य से अधिक पत्थर का उत्खनन एवं प्रेषित किये जाने पर, बंदोबस्तधारी अधिक उत्खनित पत्थर की मात्रा के लिए अतिरिक्त स्वामित्व (रॉयल्टी) का भुगतान करेगा।

टिप्पणी II नीलामी की राशि के समतुल्य बालू की मात्रा से अधिक बालू के निकाले जाने और प्रेषित किये जाने पर, बंदोबस्तधारी अधिक निकाले गए बालू की मात्रा के लिए अतिरिक्त स्वामित्व (रॉयल्टी) का भुगतान करेगा।

12/वी0/मु0 70-2/03
बिहार राज्यपाल के आदेश से
27/1/17
सरकार के उप सचिव

(XXIV)

बिहार सरकार

राज्य स्तरीय अनुसूचित दर निर्धारण समिति

पथ निर्माण विभाग, बिहार, पटना।

पत्रांक – मु0 नि0 (पथ) - 38(3130) पटना/दिनांक - 13/05/10

प्रेषक,

रामध्यान राम,
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख–सह–अपर आयुक्त–सह–
विशेष सचिव, पथ निर्माण विभाग, बिहार, पटना।

सेवा में,

सभी मुख्य अभियंता(राष्ट्रीय उच्च पथ सहित), पथ निर्माण विभाग, बिहार, पटना।
सभी अधीक्षण अभियंता(राष्ट्रीय उच्च पथ सहित), पथ निर्माण विभाग, बिहार, पटना।
प्रबंध निदेशक, बिहार राज्य पुल निर्माण निगम, बिहार, पटना।
प्रबंध निदेशक, बिहार राज्य पथ विकास निगम, बिहार, पटना।
सभी कार्यपालक अभियंता(राष्ट्रीय उच्च पथ सहित), पथ निर्माण विभाग, बिहार, पटना।

विषयः– बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड में प्रत्येक योजनाओं के लागत का 1 % (एक प्रतिशत) "सेस" के रूप में जमा करने के संबंध में ।

प्रसंगः– पथ निर्माण विभाग, बिहार का पत्रांक 746(E) We पटना, दिनांक – 25.02.2010 ।

महाशय,

वित्त विभाग, बिहार सरकार द्वारा लिये गये निर्णय के आलोक में विभिन्न निर्माण कार्यों के विपत्रों से 1% (एक प्रतिशत) की राशि की कटौती श्रमिक कल्याण कोष हेतु सेस के रूप में की जानी है ।

उक्त आलोक में कराये जानेवाले योजनाओं के प्राक्कलन के सृजन हेतु प्रयुक्त प्रत्येक मद के दर में वर्णित सेस हेतु 1 % (एक प्रतिशत) की राशि का अतिरिक्त प्रावधान श्रमिक कल्याण कोष के लिये करते हुए दर विश्लेषण करना सुनिश्चित करें ।

अनु0:– 1. प्रसंगाधीन पत्र की छाया प्रति ।
2. श्रम संसाधन विभाग का पत्रांक 4984 पटना दिनांक–01.10.08 ।

विश्वासभाजन

13.5.10

(रामध्यान राम)
संयोजक,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख–सह–अपर आयुक्त–सह–
विशेष सचिव, पथ निर्माण विभाग, बिहार, पटना

(XXV)

अभियंता प्रमुख–सह–अपर आयुक्त–सह–विशेष सचिव का कार्यालय,
पथ निर्माण विभाग बिहार, पटना

प्रत्रांकः– प्र.6/नियम–10/2008 746(E)W पटना, दिनांक 25/2/2010

प्रेषक,

अभियंता प्रमुख–सह–अपर आयुक्त–सह–विशेष सचिव
पथ निर्माण विभाग,बिहार, पटना।

सेवा में,

सभी मुख्य अभियंता, पथ निर्माण विभाग।
सभी अधीक्षण अभियंता, पथ निर्माण विभाग।
सभी कार्यपालक अभियंता, पथ निर्माण विभाग।
अधीक्षण अभियंता,
मुख्यालय निरूपण अंचल।

विषयः बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड में प्रत्येक योजनाओं की लागत का एक प्रतिशत "सेस" के रूप में जमा करने के संबंध में।

महाशय,

उपर्युक्त विषयक संयुक्त श्रमायुक्त–सह–सचिव, बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड, पटना के पत्र संख्या–बीएसी0डब्लू0सी0–14/2008–श्र.स.–4984 दिनांक 01.10.09 (सानुलग्नक प्रति संलग्न) से प्राप्त प्रस्ताव की समीक्षा विभागीय उच्चस्तरीय तकनीकी समिति द्वारा की गयी और समिति की अनुशंसा के आलोक में सरकार के निर्णयानुसार कहना है कि:–

1) भवन तथा अन्य सन्निर्माण कर्मकार(नियोजन तथा सेवाशर्त्त विनियमन) अधिनियम, 1996 के निर्देशों के अनुपालनार्थ निर्माण कार्यों के संवेदक के विपत्रों से देय 1% (एक प्रतिशत) सेस के निमित निर्माण कार्य के प्राक्कलन में कार्य मूल्य का 1% (एक प्रतिशत) की दर से "सेस" की राशि जोड़कर प्राक्कलन का प्रावैधिक स्वीकृति अथवा प्रशासनिक स्वीकृति प्रदान की जाय तथा 1% सेस का भुगतान कल्याण बोर्ड को करना भी सुनिश्चित किया जाय।।

2) प्रस्ताव में महाधिवक्ता, बिहार तथा वित्त विभाग का परामर्श प्राप्त है।

अनु0–यथोक्त।

विश्वासभाजन

24.2.2010

(रामध्यान राम)
अभियंता प्रमुख–सह–अपर आयुक्त –सह–विशेष सचिव
पथ निर्माण विभाग,बिहार,पटना।

कृ0पृ0उ0

24/2/10

(XXVII)

ज्ञापांक: प्र.6/नियम–10/2008 पटना, दिनांक

प्रतिलिपि महालेखाकार बिहार, बीरचंद पटेल पथ, पटना को सूचना एवं आवश्यक कार्रवाई हेतु प्रेषित।

अभियंता प्रमुख–सह–अपर आयुक्त –सह–विशेष सचिव
पथ निर्माण विभाग,बिहार,पटना।

ज्ञापांक: प्र.6/नियम–10/2008 पटना, दिनांक

प्रतिलिपि सभी प्रधान सचिव/सचिव, सभी विभाग/सभी प्रमंडलीय आयुक्त/सभी जिलाधिकारी/अभियंता प्रमुख, सभी कार्य विभाग/ अध्यक्ष, बिहार राज्य पुल निर्माण निगम, बिहार, पटना/ अध्यक्ष, बिहार राज्य पथ विकास निगम, बिहार, पटना को सूचना एवं आवश्यक कार्रवाई हेतु प्रेषित।

अभियंता प्रमुख–सह–अपर आयुक्त –सह–विशेष सचिव
पथ निर्माण विभाग,बिहार,पटना।

ज्ञापांक: प्र.6/नियम–10/2008 पटना, दिनांक

प्रतिलिपि संयुक्त श्रमायुक्त–सह–सचिव, बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड, श्रम संसाधन विभाग, बिहार, पटना को सूचनार्थ समर्पित।

अभियंता प्रमुख–सह–अपर आयुक्त –सह–विशेष सचिव
पथ निर्माण विभाग,बिहार,पटना।

(XXVII)

संचिका सं0–बी0सी0डब्लू0सी0–14/2008, श्र0सं0– 4984
बिहार सरकार
श्रम संसाधन विभाग

प्रेषक,

राजेन्द्र प्रसाद मण्डल,
संयुक्त श्रमायुक्त–सह–सचिव,
बिहार भवन एवं अन्य सन्निमार्ण कर्मकार कल्याण बोर्ड,पटना ।

सेवा में,
अभियंता प्रमुख–सह–सचिव,
पथ निर्माण विभाग,बिहार,पटना।

पटना, दिनांक–01-10-08

विषयः– अर्द्ध सरकारी पत्र संख्या– बी0सी0डब्लू0सी0 01/2008–922 ,दिनांक–21.02.08 की प्रति उपलब्ध कराने के संबंध में।

महाशय,

उपर्युक्त विषयांतर्गत आपके पत्र के आलोक में प्रधान सचिव, श्रम संसाधन विभाग के अर्द्धसरकारी पत्र सं0–बी0सी0डब्लू0सी0–01/2008–922,दिनांक–21.02.08 की प्रति एवं भारत सरकार के राजपत्र में प्रकाशित सेस संग्रह संबंधी अधिसूचना की प्रति संलग्न कर आपके आवश्यक कार्यार्थ भेजी जा रही है।

अनुलग्नकः यथोक्त।

विश्वासभाजन,

(राजेन्द्र प्रसाद मण्डल)
संयुक्त श्रमायुक्त–सह–सचिव,
बिहार भवन एवं अन्य सन्निमार्ण
कर्मकार कल्याण बोर्ड,पटना।

(XXVIII)

Vyas Ji, IAS
Principal Secretary

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sclab-bih@nic.in

बिहार सरकार
श्रम संसाधन विभाग
विकास भवन, पटना 800015, बिहार
Government of Bihar
Department of Labour Resources
Vikas Bhawan, Patna - 800015, Bihar

अई सरकारी पत्र सं० -श्रं॰ सं॰ डब्लू॰ एफ॰-01/2015 पटना-33 पटना दिनांक 21/2/2

प्रिय महाशय,

निर्माण श्रमिकों के संबंध में वर्ष 1996 में निम्नलिखित दो केन्द्रीय अधिनियम प्रभावशील हैं :–

(i) भवन तथा अन्य सन्निर्माण कर्मकार (नियोजन तथा सेवा शर्त्त विनियमन) अधिनियम,1996 तथा

(ii) भवन तथा अन्य सन्निर्माण कर्मकार कल्याण उपकार अधिनियम, 1996.

2. उक्त द्वितीय अधिनियम के तहत नियम भी केन्द्र सरकार द्वारा ही बनाया गया है, जबकि प्रथम अधिनियम के अन्तर्गत नियम बिहार सरकार द्वारा 7.9.2005 के असाधारण अंक राजपत्र में प्रकाशित किये भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड का गठन भी राज्य सरकार द्वारा दिनांक 18.2.08 की प्रकाशित अधिसूचना द्वारा कर दिया है ।

3. उक्त द्वितीय अधिनियम के धारा 3 के तहत् निर्माण कार्यो की लागत का एक प्रतिशत की दर से उपकर लिए जाने का प्रावधान किया गया है, जो उपरोक्त कल्याण बोर्ड को भेजा जाएगा । बोर्ड द्वारा इसका उपयोग निमार्ण श्रमिकों के कल्याण की विभिन्न गतिविधियों के संचालन में किया जाएगा । (केन्द्र सरकार की अधिसूचना संलग्न)

4. निर्माण कार्य कराने वाले शासकीय विभागों, सार्वजनिक उपक्रमों,स्थानीय निकायों,संविधिक प्राधिकारियों के जानकारी के लिये यह स्पष्ट करना है कि बिहार भवन एवं अन्य सन्निर्माण कर्मकार (नियोजन तथा सेवा शर्त्ते विनियमन) नियमावली,2005 तथा कल्याण बोर्ड के गठन के साथ प्रदेश उक्त दोनों अधिनियमों के कार्यान्वयन किया जाना है। तदनुसार निवेदन है कि आप के विभाग तथा उसके अधीन आनेवाले सार्वजनिक उपक्रमों तथा संविधिक प्राधिकारियों (मुख्य ठेकेदार तथा ठेकेदार, यदि कोई हो) के तहत संचालित होने वाले निर्माण कार्यों में कृपया उक्त अधिनियमों / नियमों का पालन सूनिश्चित करने का कष्ट करें । इस संबंध में निम्नलिखित विन्दु ध्यान देने योग्य है :–

(i) विभाग / सार्वजनिक उपक्रम / संविधिक प्राधिकारिय के कार्यो में निर्माण श्रमिकों को नियोजित करने वाले सभी ठेकेदार अपनी–अपनी स्थापनाओं को उक्त प्रथम अधिनियम की धारा –7 के तहत अविलम्ब पंजीकृत करा लें, और भविष्य में आरम्भ होने वाले सभी निर्माण कार्यो के मामले में भी इसी प्रकार का पंजीयन कराते रहें । इस प्रयोजन के लिए प्रदेश के सभी श्रम अधीक्षकों को पंजीयन पदाधिकारी नियुक्त किया गया है । बिहार भवन और अन्य सन्निर्माण कर्मकार (नियोजन तथा सेवा शर्ते विनियमन) नियमावली, 2005 के निमय 27के अनुसार निबंधन हेतु विहित शुल्क देय होगी ।

(ii) प्रत्येक नवीन निर्माण कार्य आरंभ होने के न्यूनतम 30 दिन पूर्व नियोजक उक्त प्रथम अधिनियम की धारा 46 के तहत् तदविषयक लिखित नोटिस संबंधित "निरीक्षक" को देय,और आरम्भ होने से अधिकतम 30 दिना में " उपकर निर्धारण अधिकारी " को भी विहित प्रपत्र में सूचना दें ।

(iii) उक्त अधिनियम के अध्याय 6 एवं 7 तथा उसके तहत् बने राज्य नियमावली के भाग 3 तथा 4 में निर्माण श्रमिकों की कार्य दशाओं और स्वास्थ्य तथा सुरक्षा के बारे में विस्तृत प्रावधानों का समुचित पालन हो ।

(iv) आपके विभाग, अधीनस्थ सार्वजनिक उपक्रमों तथा सांविधिक प्राधिकारियों द्वारा निर्माण कार्यों के लिये भविष्य में जो निविदा प्रपत्र तथा अनुबंध के प्रारूप का उपयोग किया जाय । उनमें कंडिका 1 में उल्लेखित अधिनियमों के पालन की शर्तें का विशिष्ठ उल्लेख कर दिया जाना उपयुक्त होगा ।

(v) महत्वपूर्ण

ऊपर कंडिका 1 में उल्लेखित द्वितीय अधिनियम (भवन तथा अन्य सन्निर्माण कर्मकार कल्याण उपकर अधिनियम,1996) के तहत निर्माण कार्यों पर देय उपकर की दर, भारत सरकार की अधिसूचना दिनांक 26.9.1996 द्वारा, निर्माण लागत का एक प्रतिशत निर्धारित किया गया है । इस अधिनियम के तहत बने केन्द्रीय नियमों के नियम 4 (3) के अनुसार शासकिय विभागों और सार्वजनिक उपक्रमों के निर्माण कार्यों पर लगने वाला उपकर ऐसे विभागों / उपक्रमों द्वारा नियत दर से कार्य के लिये भुगतान किये गये बिलों से कटा जाना और इस प्रकार काटे जाने के 30 दिनों की अवधि में कल्याण बोर्ड को क्रोस्ड डीमान्ड ड्राफ्ट द्वारा भेजा जाना अपेक्षित है ।

तदनुसार कृपया अपने विभाग और अधीनस्थ उपक्रमों के सभी संबंधित अधिकारियों को अविलम्ब निर्देश दे कि उनके अधीन चल रहें निर्माण कार्यों के लिये उपकर की राशि नियमित रूप से वसूल कर उसे निम्नलिखित पते पर भेजे।

संयुक्त श्रमायुक्त सह सचिव,
बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड,
विकास भवन, नया सचिवालय, बेली रोड, पटना ।

5. मैं, अभारी हाऊगा यदि पत्र के प्रसंग में की गई कार्रवाई से आप मुझे अवगत करा दें और इसे विषय पर अधीनस्थ अधिकारियों, सार्वजनिक उपक्रमों तथा संविधिक प्रधिकारियों को जारी निर्देशो की एक–एक प्रति मुझे तथा श्रमायुक्त सह अध्यक्ष, बिहार भवन एवं अन्य सन्निर्माण कर्मकार कल्याण बोर्ड, विकास भवन पटना को भेज देने की कृपा करें। इस पत्र के साथ निम्न सूचनाएँ संलग्नकी जाती है ।

1. संलग्न अधिसूचना ।
2. कल्याण बोर्ड के संबंध में संक्षिप्त टिप्पणी
3. सेस संग्रह से संबंधित केन्द्र सरकार की अधिसूचना ।

भवदीय

(व्याख्या)

परिशिष्ट–1

EXTRACT FROM THE GAZETTE OF INDIA: PART II, SEC. 3, SUB-SEC. (ii)

Appeared on page No. 3[cc]
Dated 2-12-1996

श्रम मंत्रालय

MINISTRY OF LABOUR

अधिसूचना

नई दिल्ली, 26 सितम्बर, 1996

का. आ. 2898—केन्द्रीय सरकार, एतद् द्वारा भवन एवं अन्य संनिर्माण कर्मकार उपकर अधिनियम, 1996 (1996 का 22) की धारा 3 की उपधारा (1) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए भारत सरकार के श्रम मंत्रालय की अधिसूचना सं. का. आ. 1767, दिनांक 17 मई, 1996 की अधिक्रमण करते हुए भवन और अन्य संनिर्माण कर्मकार (नियोजन तथा सेवा की शर्तों का विनियमन) अधिनियम, 1996 (1996 का 27) के प्रयोजनों के लिए निर्माण कार्य कुल संविदा मूल्य के 1 प्रतिशत की दर से उपकर लगाने का निर्णय करती है।

[सं. ई. एल-20101/9/95-आर डब्ल्यू (पार्ट-I)]
डी. के. त्रिखा, श्रम एवं नियोजन सलाहकार

NOTIFICATION

New Delhi, the 26th September, 1996

S.O. 2898.—In exercise of powers conferred by sub-section (1) of section 3 of the Building and Other Construction Workers' Welfare Cess Act, 1996 (22 of 1996) and in supersession of the notification of the Government of India in the Ministry of Labour No. S.O. 1767 dated the 17th May, 1996, the Central Government hereby specifies a cess for the purposes of the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 (27 of 1996), at the rate of 1 per cent. of the cost of construction incurred by an employer.

[F. No. S-20101/9/95-RW(Part-I)]
D. K. TRIKHA, Labour & Employment Adviser

Schedule :- M2

Date:- 14.03.14

List of Rates of Ordinary Portland Cement approved by State Level Schedule Rate Committee for the year 2014- 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Rates are exclusive of Excise Duty,Cess etc, but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				In figure (Rs.)	In words
1	2	3	4	5	6
1	Ordinary Portland Cement	Per bag of 50 kg.	Patna	273.10	Rupees Two Hundred Seventy Three and Paise Ten Only
	(O.P.C - 33 Grade)		Muzaffarpur	276.90	Rupees Two Hundred Seventy Six and Paise Ninety Only
			Darbhanga	286.00	Rupees Two Hundred Eighty Six and Paise Zero Only
			Bhagalpur	286.00	Rupees Two Hundred Eighty Six and Paise Zero Only
			Munger	286.00	Rupees Two Hundred Eighty Six and Paise Zero Only
			Saharsa	295.40	Rupees Two Hundred Ninety Five and Paise Forty Only
			Purnea	295.40	Rupees Two Hundred Ninety Five and Paise Forty Only
			Gaya	258.50	Rupees Two Hundred Fifty Eight and Paise Fifty Only
			Saran	276.90	Rupees Two Hundred Seventy Six and Paise Ninety Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

14/3/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह– अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

14.3.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह– अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना।

14/3/14
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–परियोजना संयोजक नल जल्प प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना।

14/3/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–मुख्य अभियंता (असै0) , बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

14/03/14
सदस्य,
सदस्य, राज्य स्तरीय अनुसूचित दर निर्धारण समिति, मुख्य अभियंता ऊर्जा विभाग, बिहार, पटना।

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

14/3/14
सदस्य,
सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

14/03/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

14.3.2014
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

(XXXI)

Schedule:- M6

Approved new rate of Steel - Wire Rod in Coil by State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Date:- 14.03.14

Rates are inclusive of Excise Duty, Cess etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charge.

Sl. No.	Name & Description of Materials	Unit	Approved Rates (in Rs.)	
			In figure (Rs.)	In words
1	2	3	4	5
	Wire Rod in Coil			
1	5.5 mm	Per MT.	43550.00	Rupees Forty Three Thousand Five Hundred Fifty and Paise Zero Only
2	6.0 mm	Per MT.	43400.00	Rupees Forty Three Thousand Four Hundred and Paise Zero Only
3	6.5 mm	Per MT.	43250.00	Rupees Forty Three Thousand Two Hundred Fifty and Paise Zero Only
4	7.0 mm	Per MT.	43050.00	Rupees Forty Three Thousand Fifty and Paise Zero Only
5	8.0 mm	Per MT.	42900.00	Rupees Forty Two Thousand Nine Hundred and Paise Zero Only
6	10.0 mm	Per MT.	43550.00	Rupees Forty Three Thousand Five Hundred Fifty and Paise Zero Only
7	12.0/12.7 mm	Per MT.	43550.00	Rupees Forty Three Thousand Five Hundred Fifty and Paise Zero Only

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

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–मुख्य अभियंता (असै०), बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड, 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, ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति –सह–मुख्य अभियंता ऊर्जा विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–परियोजना सायोजक नल कूप प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना।

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

संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

(XXXII)

Schedule:- M9

Approved new rate of Steel Angles by State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Date:- 14.03.14

Rates are inclusive of Excise Duty, Cess etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charge.

Sl. No.	Name & Description of Materials	Unit	Approved Rates (in Rs.)	
			In figure (Rs.)	In words
1	2	3	4	5
	STEEL ANGLES			
1	75 x 75 x 6	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
2	80 x 80 x 8 /10/12	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
3	90 x 90 x 6/8	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
4	100 x 100 x 8/10/12	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
5	110 x 110 x 8/10/12	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
6	130 x 130 x 10/12	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
7	150 x 150 x 12/16/20	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only
8	200 x 200 x 16/18/20	Per MT.	42475.00	Rupees Forty Two Thousand Four Hundred Seventy Five and Paise Zero Only

14/3/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह– अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

14/3-14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह– अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना।

14/3/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–परियोजना संयोजक नल एवं प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना।

14/03/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–मुख्य अभियंता (अर्थ) , बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

14/03/14
सदस्य,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति –सह–मुख्य अभियंता ऊर्जा विभाग, बिहार, पटना।

14/03/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–अभियंता प्रमुख, तकनीकी परीक्षण कोषांग, निगरानी विभाग, बिहार, पटना।

14/03/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

14.3.2014
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

(XXXIII)

RCD/SOR_9th edition_Aug...

Schedule - P&M / MORTH - 1A

Dt.:- 14.03.14

Approved Usages Rates of Plants and Machinery. The Usages charges for the machines include ownership charges, cost of repair & maintenance including replacement of tyre and running and operating charges which includes crew, fuel & lubricants. These rates are for the preparation of Schedule of Rates only.

Sl. No.	Description of Machine	Activity	Output of Machine	Output	Unit	Rate
P&M-001	Air Compressor	General Purpose	capacity in cfm.	170/250	hour	436.00
P&M-002	Batching and Mixing Plant (a) 30 cum capacity	Concrete Mixing	cum/hour	20	hour	2513.00
P&M-003	Batching and Mixing Plant (b) 15 - 20 cum capacity	Concrete Mixing	cum/hour	13	hour	1633.00
P&M-004	Bitumen Pressure Distributor	Applying bitumen tack coat	sqm/hour	1750	hour	1459.00
P&M-005	Bitumen Boiler oil fired	Bitumen Spraying	capacity in litre	1500	hour	270.00
P&M-006	Concrete Paver Finisher with 40 HP Motor	Paving of concrete surface	cum / hour	20	hour	1330.00
P&M-007	Concrete Pump of 45 & 30 cum capacity	Pumping of concrete	cum / hour	33 / 22	hour	348.00
P&M-008	Concrete Bucket	For Pouring concrete	capacity in cum	1	hour	22.00
P&M-009	Concrete Mixer (a) 0.4/0.28 cum	Concrete Mixing	cum/hour	2.5	hour	67.00
P&M-010	Concrete Mixer (b) 1 cum	Concrete Mixing	cum/hour	7.5	hour	201.00
P&M-011	Crane (a) 80 tonnes	Lifting Purpose			hour	1740.00
P&M-012	Cranes b) 35 tonnes	Lifting Purpose			hour	1161.00
P&M-013	Cranes c) 3 tonnes	Lifting Purpose			hour	486.00
P&M-014	Dozer D - 80 - A 12	Spreading /Cutting / Clearing	cum/hour	300/ 150/250	hour	5062.00
P&M-015	Dozer D - 50 - A 15	Spreading /Cutting / Clearing	cum/hour	200/ 120/150	hour	3001.00
P&M-016	Emulsion Pressure Distributor	Applying emulsion tack coat	sqm/hour	1750	hour	1088.00
P&M-017	Front End loader 1 cum bucket capacity	Soil loading / Aggregate loading	cum/hour	60 /25	hour	1199.00
P&M-018	Generator (a) 125 KVA	Genration of electric Energy	KVA	100	hour	2333.00
P&M-019	Generator(b) 63 KVA	Genration of electric Energy	KVA	50	hour	961.00
P&M-020	GSB Plant 50 cum	Producing GSB	cum/hour	40	hour	1414.00
P&M-021	Hotmix Plant - 120 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	40	hour	45194.00
P&M-022	Hotmix Plant - 100 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	30	hour	34330.00
P&M-023	Hotmix Plant - 60 to 90 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	25	hour	28891.00
P&M-024	Hotmix Plant - 40 to 60 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	17	hour	20147.00
P&M-025	Hydraulic Chip Spreader	Surface Dressing	sqm/hour	1500	hour	3585.00
P&M-026	Hydraulic Excavator of 1 cum bucket	Soil Ordinary/Soil Marshy / Soil Unsuitable	cum/hour	60 /60 /60	hour	1771.00
P&M-027	Integrated Stone Crusher 100THP	Crushing of Spalls	TPH	100	hour	11790.00
P&M-028	Integrated Stone Crusher 200 THP	Crushing of Spalls	TPH	200	hour	24802.00
P&M-029	Kerb Casting Machine	Kerb Making	Rm/hour	80	hour	422.00
P&M-030	Mastic Cooker	Mastic Wearing coat	capacity in tonne	1	hour	84.00
P&M-031	Mechanical Broom Hydraulic	Surface Cleaning	sqm/hour	1250	hour	470.00

P&M-032	Motor Grader 3.35 mtr blade	Clearing /Spreading /GSB /WBM	cum/hour	200/200/50/50	hour	2567.00
P&M-033	Mobile slurry seal equipment	Mixing and laying slurry seal	sqm/hour	2700	hour	1372.00
P&M-034	Paver Finisher Hydrostatic with sensor control 100 TPH	Paving of DBM/ BM/SDC/ Premix	cum/hour	40	hour	3152.00
P&M-035	Paver Finisher Mechanical 100 TPH	Paving of WMM /Paving of DLC	cum/hour	40/30	hour	1235.00
P&M-036	Piling Rig with Bantonite Pump	0.75 m dia to 1.2 m dia Boring attachment	Rm/hour	2 to 3	hour	7434.00
P&M-037	Pneumatic Road Roller	Rolling of Asphalt Surface	cum/hour	25	hour	1693.00
P&M-038	Pneumatic Sinking Plant	Pneumatic Sinking of wells	cum/hour	1.5 to 2.00	hour	5674.00
P&M-039	Pot Hole Repair Machine	Repair of potholes	cum/hour	4	hour	1233.00
P&M-040	Prestressing Jack with Pump & access	Stressing of steel wires/stands			hour	175.00
P&M-041	Ripper	Scarifying	cum/hour	60	hour	39.00
P&M-042	Rotavator	Scarifying	cum/hour	25	hour	24.00
P&M-043	Road marking machine	Road marking	Sqm/hour	100	hour	127.00
P&M-044	Smooth Wheeled Roller 8 tonne	Soil Compaction /BM Compaction	cum/hour	70/25	hour	671.00
P&M-045	Tandem Road Roller	Rolling of Aspalt Surface	cum/hour	30	hour	1557.00
P&M-046	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix etc.	Capacity in cum	5.5	km	33.00
P&M-047	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix etc.	Capacity in cum	5.5	tonne.k	7.68
P&M-048	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix etc.	Capacity in cum	5.5	hour	882.00
P&M-049	Transit Mixer 4.0/4.5 cum	Transportation of Concrete Mix to site	cum/hour	4.5	hour	1265.00
P&M-050	Transit Mixer 4/4.5 cum	Transportation of Concrete Mix to site	cum/hour	4.5	tonne.k	6.50
P&M-051	Transit Mixer 3.0 cum	Transportation of Concrete Mix to site	cum/hour	3	hour	1161.00
P&M-052	Transit Mixer 3.0 cum	Transportation of Concrete Mix to site	cum/hour	3	tonne.k	8.60
P&M-053	Tractor	Pulling	capacity in HP	50	hour	494.00
P&M-054	Tractor with Rotevator	Rate of Tractor + Rotevator			hour	516.00
P&M-055	Tractor with Ripper	Rate of Tractor 6+ Ripper			hour	532.00
P&M-056	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	km	30.00
P&M-057	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	hour	841.00
P&M-058	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	tonne.k	3.22
P&M-059	Vibratory Roller 8 tonne	Earth or soil / GSB / WBM	cum/hour	100/60/60	hour	1795.00
P&M-060	Water Tanker	Water Transport	capacity in KL	6	hour	166.00
P&M-061	Water Tanker	Water Transport	capacity in KL	6	km	33.35
P&M-062	Wet Mix Plant 60 TPH	Wet Mix	cum/hour	25	hour	1639.00
Sl. No.	**Description of Machine**				**Unit**	**Rate**
P&M-063	Air compressor with pneumatic chisel attachment for cutting hard clay				hour	844.00
P&M-064	Batch type cold mixing plant 100-120 TPH capacity producing an average output of 75 tonne per hour				hour	3374.00

P&M-065	Belt conveyor system	hour	211.00
P&M-066	Boat to carry atleast 20 persons	hour	7084.00
P&M-067	Cement concrete batch mix plant @ 175 cum per hour (effective output)	hour	3036.00
P&M-068	Cement concrete batch mix plant @ 75 cum per hour	hour	1265.00
P&M-069	Cold milling machine @ 20 cum per hour	hour	1161.00
P&M-070	Crane 5 tonne capacity	hour	1161.00
P&M-071	Crane 10 tonne capacity	hour	1161.00
P&M-072	Crane 15 tonne capacity	hour	1161.00
P&M-073	Crane 20 tonne capacity	hour	1740.00
P&M-074	Crane 40 T capacity	hour	1740.00
P&M-075	Crane with grab 0.75 cum capacity	hour	211.00
P&M-076	Compressor with guniting equipment along with accessories	hour	1639.00
P&M-077	Drum mix plant for cold mixes of appropriate capacity but not less than 75 tonnes/hour.	hour	158.00
P&M-078	Epoxy Injection gun	hour	506.00
P&M-079	Generator 33 KVA	hour	1716.00
P&M-080	Generator 100 KVA	hour	3272.00
P&M-081	Generator 250 KVA	hour	input
P&M-082	Induction, deinduction and erection of plant and equipment including all components and accessories for pneumatic method of well sinking.	hour	317.00
P&M-083	Joint Cutting Machine with 2-3 blades (for rigid pavement)	day	1161.00
P&M-084	Jack for Lifting 40 tonne lifting capacity.	hrs	7434.00
P&M-085	Piling rig Including double acting pile driving hammer (Hydraulic rig)	hour	422.00
P&M-086	Plate compactor	hour	input
P&M-087	Snow blower equipment 140 HP @ 600 cum per hour	hour	106.50
P&M-088	Texturing machine (for rigid pavement)	hour	3374.00
P&M-089	Truck Trailor 30 tonne capacity	t.km	3.22
P&M-090	Truck Trailor 30 tonne capacity	hour	input
P&M-091	Tunnel Boring machine	hour	input
P&M-092	Vibrating Pile driving hammer complete with power unit and accessories.	hour	2479.00
P&M-093	Wet Mix Plant 100 TPH	hour	2479.00
P&M-094	Wet Mix Plant 75 TPH	hour	2479.00

Note:- (*) - marked item rates approved separately.

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–परियोजना संयोजक नलें कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–मुख्य अभियंता (असैनिक).
बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति
–सह–मुख्य अभियंता, ऊर्जा विभाग, बिहार, पटना

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

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना

सदस्य, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना

संयोजक, राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख
पथ निर्माण विभाग, बिहार, पटना

Schedule - P&M / MORTH - 1B

Approved Usages Rates of Plants and Machinery available with department. The Usages charges for the machines include ownership charges, cost of repair & maintenance including replacement of tyre and running and operating charges which includes crew, fuel & lubricants. These rates are for departmental use only.

Dt.:- 14.03.2014

Sl. No.	Description of Machine	Activity	Output of Machine	Output	Unit	Rate
01	Wet Mix Macadam Paver Finisher	Paving of WMM/Paving of DLC	cum/hour		hour	1431.00
02	Tipping Truck (14 cum output)	Transportation of soil, GSB, WMM, Hotmix etc.	capacity in cum		hour	2031.00
03	Vibratory Earth Compactor		cum/hour		hour	1620.00
04	Generator 6.5 KVA	Genration of electric Energy	KVA		hour	210.00
05	Tractor - 25 HP	Carriage	25 HP Capacity	2.25 cum	hour	440.00

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

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–मुख्य अभियंता (अरीनिक),
बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड, 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,
ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण
समिति –सह–मुख्य अभियंता,
ऊर्जा विभाग, बिहार, पटना

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

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संचालक, नलकूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना

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

परियोजना, राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख
पथ निर्माण विभाग, बिहार, पटना

(xxxvii)

Schedule - HMP1

Dt.:- 14.03.2014

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

Sr. No.	P& M Code	Machinery	Unit	Quantity	Rate	Cost
1	P&M-024	Batch mix HMP 40-60 TPH @ 37.4 tonne per hour actual output	hour	6.000	20147.00	120882.00
2	P&M-031	Mechanical broom hydraulic @ 1250 sqm per hour	hour	2.200	470.00	1034.00
3	P&M-035	Paver finisher Mechanical	hour	6.000	1235.00	7410.00
		OR				
3	P&M-034	Sensor Paver Finisher	hour	6.000	3152.00	18912.00
4	P&M-018	Generator 125 KVA	hour	6.000	2333.00	13998.00
5	P&M-017	Front end loader 1 cum bucket capacity	hour	6.000	1199.00	7194.00
6	P&M-044	Smooth wheeled Roller 8-10 tonnes for initial break down rolling	hour	12.00x0.65*	671.00	5233.80
7	P&M-059	Vibratory Roller 8 tonnes for intermediate rolling	hour	6.00x0.65*	1795.00	7000.50
	Total cost of usages charge using Paver Finisher (Mechanical) in Rupees					162752.30
	and					
	Total cost of usages charge using Paver Finisher (Sensor) in Rupees					174254.30

Output of Plant = 17*2.2*6 = 224.4 MT per day

(a) Cost per MT with Mechanical Paver finisher (with 0.0 km Lead) = 162752.3 / 224.4 = 725.30
Say 725.00 Rupees / MT

and

(b) Cost per MT with Sensor Paver finisher (with 0.0 km Lead) = 174254.3 / 224.4 = 776.50
Say 777.00 Rupees / MT

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

(i) **For carriage of Mix by Tipper @ Rs. 7.70 per t-km 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.**

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–परियोजना संयोजक, नल जल प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता (अर्थ) बिहार स्टेट पावर होल्डिंग कंपनी लि., बिहार, पटना।

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह– मुख्य अभियंता ऊर्जा 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– मुख्य अभियंता, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

संयोजक, संज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

Schedule - WMP1

Dt.:-14.03.2014

पथ निर्माण विभाग में उपलब्ध Wet Mix Macadam(WMM) Plant एवं अन्य संलग्न यंत्रों--संयंत्रों से तैयार किये जा रहे Production/Carriage/ Laying/Compaction का Usage Charge Per MT की पुनरीक्षित दर गणना

Sr. No.	P& M Code	Machinery	Unit	Quantity	Rate	Cost
1	P&M-094	Wet Mix Macadam Plant 75 TPH @ 68.75 tonne per hour actual output	hour	6.000	2479.00	14874.00
2	P&M-031	Mechanical broom hydraulic @ 1250 sqm per hour	hour	2.200	470.00	1034.00
3	-	WMM Paver finisher	hour	6.000	1431.00	8586.00
4	P&M-080	Generator 100 KVA	hour	6.000	1716.00	10296.00
5	P&M-017	Front end loader 1 cum bucket capacity	hour	6.000	1199.00	7194.00
6	P&M-044	Smooth wheeled Roller 8-10 tonnes for initial break down rolling	hour	6.00x0.65*	671.00	2616.90
7	P&M-059	Vibratory Roller 8 tonnes for intermediate rolling	hour	6.00x0.65*	1795.00	7000.50
8	-	Vibratory Earth Compactor	hour	6.00x0.65*	1620.00	6318.00
			Total cost in Rupees			57919.4

Output of Plant = 31.25*2.2*6 = 412.5 MT per day

Cost per MT (with 0.0 km Lead) 57919.4 / 412.5 = 140.40

Say 140.00 Rupees / MT

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

For carriage of Mix by Tipper @ Rs.7.70per t-km will be charged extra as per Lead from the Government Hot Mix Plant.

The cost of Labour at plant site & laying at Paver site will be arranged by the Contractor.

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह– अधियंता 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–परियोजना संयोजक नल जल प्रमाग, लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता (अर्स), बिहार स्टेट पावर होल्डिंग कंपनी लि., बिहार, पटना।

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति –सह– मुख्य अभियंता ऊर्जा विभाग, बिहार, पटना।

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

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

सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

संयोजक, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

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Schedule :- M11

ıte of Bricks & Bricks related materials by State Level Schedule Rate Committee for the year 2014-15

ion of Schedule of Rates only)-Material should conform to relevant BIS/IRC/MORT & H Specifications.

clusive of all taxes with royality but exclusive of VAT/Sales Tax and overhead charges and contractor's profit

urce)

	Materials	Unit	Approved Rates (in Rs.)	
			in figure (Rs.)	in words
	A Bricks			
	or urban Patna	Nos/1000	5992.61	Rupees Five Thousand Nine Hundred Ninety Two and Paise Sixty One Only
	For Darbhanga,Bhagalpur, nger & Muzaffarpur	Nos/1000	5057.70	Rupees Five Thousand Fifty Seven and Paise Seventy Only
	) For Gaya & Saran	Nos/1000	4784.36	Rupees Four Thousand Seven Hundred Eighty Four and Paise Thirty Six Only
	) For Saharsa	Nos/1000	5194.91	Rupees Five Thousand One Hundred Ninety Four and Paise Ninety One Only
	) For Purnea	Nos/1000	5469.31	Rupees Five Thousand Four Hundred Sixty Nine and Paise Thirty One Only
	ii) For rural Patna	Nos/1000	4969.63	Rupees Four Thousand Nine Hundred Eighty Nine and Paise Sixty Three Only
	00 B Bricks			
	) For urban Patna	Nos/1000	5561.85	Rupees Four Thousand Six Hundred Forty Five and Paise Two Only
	(ii) For Darbhanga, Bhagalpur, Munger & Muzaffarpur	Nos/1000	4645.02	#VALUE!
	(iii) For Gaya & Saran	Nos/1000	4371.68	Rupees Four Thousand Three Hundred Seventy One and Paise Sixty Eight Only
	(iv) For Saharsa	Nos/1000	4784.36	Rupees Four Thousand Seven Hundred Eighty Four and Paise Thirty Five Only
	(v) For Purnea	Nos/1000	5057.70	Rupees Five Thousand Fifty Seven and Paise Seventy Only
	(vi) For rural Patna	Nos/1000	4559.94	Rupees Four Thousand Five Hundred Fifty Nine and Paise Ninety Four Only
	Brick Tiles (300mmx150mmx50mm)			
	(i) For urban Patna and rural Patna	Nos/1000	5992.61	Rupees Five Thousand Nine Hundred Ninety Two and Paise Sixty One Only
	(ii) For Saharsa, Bhagalpur, Darbhanga & Muzaffarpur	Nos/1000	6019.20	Rupees Six Thousand Nineteen and Paise Twenty Only
	(iii) For Purnea	Nos/1000	6294.67	Rupees Six Thousand Two Hundred Ninety Four and Paise Sixty Seven Only
	(iv) For other places	Nos/1000	5743.70	Rupees Five Thousand Seven Hundred Forty Three and Paise Seventy Only
4	**Picket Jhama Bricks**			
	(i) For urban Patna	Nos/1000	5134.28	Rupees Five Thousand One Hundred Thirty Four and Paise Twenty Eight Only
	(ii) For Darbhanga, Bhagalpur, Munger & Muzaffarpur	Nos/1000	4234.47	Rupees Four Thousand Two Hundred Thirty Four and Paise Forty Seven Only
	(iii) For Gaya & Saran	Nos/1000	3956.87	Rupees Three Thousand Nine Hundred Fifty Six and Paise Eighty Seven Only
	(iv) For Purnea	Nos/1000	4645.02	Rupees Four Thousand Six Hundred Forty Five and Paise Two Only
	(v) For Saharsa	Nos/1000	4371.68	Rupees Four Thousand Three Hundred Seventy One and Paise Sixty Eight Only
	(vi) For rural Patna	Nos/1000	4139.81	Rupees Four Thousand One Hundred Thirty Nine and Paise Eighty One Only
5	**Brick Bats**			
	(i) For urban Patna	Per m^3	1056.48	Rupees One Thousand Fifty Six and Paise Forty Eight Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1013.94	Rupees One Thousand Thirteen and Paise Ninety Four Only
	(iii) For other places	Per m^3	970.33	Rupees Nine Hundred Seventy and Paise Thirty Three Only
	(iv) For rural Patna	Per m^3	1012.87	Rupees One Thousand Twelve and Paise Eighty Seven Only
6	**Jhama Metals**			
	(a) 63 mm to 40 mm size			
	(i) For urban Patna	Per m^3	1255.37	Rupees One Thousand Two Hundred Fifty Five and Paise Thirty Seven Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1202.19	Rupees One Thousand Two Hundred Two and Paise Nineteen Only
	(iii) For other places	Per m^3	1177.72	Rupees One Thousand One Hundred Seventy Seven and Paise Seventy Two Only
	(iv) For rural Patna	Per m^3	1226.66	Rupees One Thousand Two Hundred Twenty Six and Paise Sixty Six Only
	(b) 40 mm to 20 mm size			
	(i) For urban Patna	Per m^3	1397.80	Rupees One Thousand Three Hundred Ninety Seven and Paise Ninety Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1340.46	Rupees One Thousand Three Hundred Forty and Paise Forty Six Only
	(iii) For other places	Per m^3	1301.11	Rupees One Thousand Three Hundred One and Paise Eleven Only
	(iv) For rural Patna	Per m^3	1355.35	Rupees One Thousand Three Hundred Fifty Five and Paise Thirty Five Only
	(c) 20 mm and down			
	(i) For urban Patna	Per m^3	1599.86	Rupees One Thousand Five Hundred Ninety Nine and Paise Ninety Eight Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1535.10	Rupees One Thousand Five Hundred Thirty Five and Paise Ten Only

	(iii) For other places	Per m^3	1479.79	Rupees One Thousand Four Hundred Seventy Nine and Paise Seventy Nine Only
	(iv) For rural Patna	Per m^3	1544.67	Rupees One Thousand Five Hundred Forty Four and Paise Sixty Seven Only
7	Surkhi			
	(i) For urban Patna	Per m^3	1657.41	Rupees One Thousand Six Hundred Fifty Seven and Paise Forty One Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1589.34	Rupees One Thousand Five Hundred Eighty Nine and Paise Thirty Four Only
	(iii) For other places	Per m^3	1535.10	Rupees One Thousand Five Hundred Thirty Five and Paise Ten Only
	(iv) For rural Patna	Per m^3	1599.98	Rupees One Thousand Five Hundred Ninety Nine and Paise Ninety Eight Only

Note :- For Sr. No. 1 - 4 royality has been included as Rs. 29 per 1000 Nos. and for Sr. No. 5 - 7 as Rs. 11.6 per cum.

14/3/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना

14.3.14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना

14/3/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना

14/03/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण,
समिति–सह–मुख्य अभियंता (असै0), बिहार
स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

14/03/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता,
ऊर्जा विभाग, बिहार, पटना

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

14/03/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण
विभाग, बिहार, पटना

14/03/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना

14.3.2014
संयोजक,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति–
सह–अभियंता प्रमुख
पथ निर्माण विभाग, बिहार, पटना

Schedule - M / MORTH - 1

Date:- 14.03.2014

If Approved Rates of Stone Materials for the Preparation of Schedule of rates only, by State level schedule committee (Materials Should conform to relevant B.I.S, MORD and MORT&H Specifications). The rates are exclusive of excise duty, royality and cess but exclusive of VAT and Contractors profit. "Rates are at source"

No.	Description of materials	Unit	Approved Rates (In Rs.)	Remarks
001	Stone Boulder of size 150 mm and below at Crusher Plant	cum	295.21	Including Royality @ Rs. 100.0 per Cum
-002	Supply of quarried stone 150 - 200 mm size for Hand Broken at site	cum	295.21	Including Royality @ Rs. 100.0 per Cum
I-003	Boulder with minimum size of 300 mm for Pitching at Site	cum	295.21	Including Royality @ Rs. 100.0 per Cum
A-004	Coarse sand i) Quarry Koilwar/Sone sand	cum	133.69	Including Royality @ Rs. 50.0 per Cum
M-005	Coarse sand ii) at dorigani Equivalent to Koilwar/ Sone sand	cum	133.69	Including Royality @ Rs. 50.0 per Cum
M-006	Fine sand at Site	cum	114.02	Including Royality @ Rs. 50.0 per Cum
M-007	Moorum at Site	cum	128.05	Including Royality @ Rs. 55.0 per Cum
M-008	Gravel/Quarry spall at Site	Cum	295.21	Including Royality @ Rs. 100.0 per Cum
M-009	Granular Material or hard murrum for GSB works at Site	Cum	128.07	Including Royality @ Rs. 50.0 per Cum
M-010	Granular Material or hard murrum for GSB works at Mixing Plant	Cum	128.07	Including Royality @ Rs. 50.0 per Cum
M-011	Fly ash conforming to IS: 3812 (Part II & I) at HMP Plant / Batching Plant / Crushing Plant	Cum	0.00	Nil
M-012	Filter media/Filter Material as per Table 300-3 (MORT&H Specification)	Cum	393.61	Including Royality @ Rs. 50.0 per Cum
M-013	Close graded Granular sub-base Material 53 mm to 9.5 mm	cum	496.64	Including Royality @ Rs. 50.0 per Cum
M-014	Close graded Granular sub-base Material 37.5 mm to 9.5 mm	cum	473.93	Including Royality @ Rs. 50.0 per Cum
M-015	Close graded Granular sub-base Material 26.5 mm to 9.5 mm	cum	531.97	Including Royality @ Rs. 50.0 per Cum
M-016	Close graded Granular sub-base Material 9.5 mm to 4.75 mm	cum	510.99	Including Royality @ Rs. 50.0 per Cum
M-017	Close graded Granular sub-base Material 9.5 mm to 2.36 mm	cum	396.00	Including Royality @ Rs. 50.0 per Cum
M-018	Close graded Granular sub-base Material 4.75mm to 2.36 mm	cum	196.43	Including Royality @ Rs. 50.0 per Cum
M-019	Close graded Granular sub-base Material 4.75mm to 75 micron mm	cum	182.53	Including Royality @ Rs. 50.0 per Cum
M-020	Close graded Granular sub-base Material 2.36 mm	cum	182.53	Including Royality @ Rs. 50.0 per Cum
M-021	Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve.	cum	93.02	Including Royality @ Rs. 10.0% of price
M-022	Coarse graded Granular sub-base Material 2.36 mm & below	cum	182.28	Including Royality @ Rs. 100.0 per Cum
M-023	Coarse graded Granular sub-base Material 4.75mm to 75 micron mm		182.28	Including Royality @ Rs. 100.0 per Cum
M-024	Coarse graded Granular sub-base Material 4.75 mm to 2.36 mm	cum	196.19	Including Royality @ Rs. 100.0 per Cum
M-025	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm	cum	510.74	Including Royality @ Rs. 100.0 per Cum
M-026	Coarse graded Granular sub-base Material 26.5 mm to 4.75 mm	cum	482.81	Including Royality @ Rs. 100.0 per Cum
M-027	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm	cum	531.73	Including Royality @ Rs. 100.0 per Cum
M-028	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm	cum	473.68	Including Royality @ Rs. 100.0 per Cum

Schedule - M / MORTH - 1

Datet:- 14.03.2014

List of Approved Rates of Stone Materials for the Preparation of Schedule of rates only, by State level schedule rate committee (Materials Should conform to relevant B.I.S, MORD and MORT&H Specifications). The rates are inclusive of excise duty, royality and cess but exclusive of VAT and Contractors profit. "Rates are at source"

Sl. No.	Description of materials	Unit	Approved Rates (in Rs.)	Remarks
M-029	Coarse graded Granular sub-base Material 53 mm to 26 .5mm	cum	443.03	Including Royalty @ Rs. 100.0 per Cum
M-030	Aggregates below 5.6 mm	cum	196.19	Including Royalty @ Rs. 100.0 per Cum
M-031	Aggregates 22.4 mm to 2.36 mm	cum	509.98	Including Royalty @ Rs. 100.0 per Cum
M-032	Aggregates 22.4 mm to 5.6 mm	cum	509.98	Including Royalty @ Rs. 100.0 per Cum
M-033	Aggregates 45 mm to 2.8 mm	cum	455.20	Including Royalty @ Rs. 100.0 per Cum
M-034	Aggregates 45 mm to 22.4 mm	cum	463.03	Including Royalty @ Rs. 100.0 per Cum
M-035	Aggregates 53 mm to 2.8 mm	cum	455.20	Including Royalty @ Rs. 100.0 per Cum
M-036	Aggregates 53 mm to 22.4 mm	cum	443.03	Including Royalty @ Rs. 100.0 per Cum
M-037	Aggregates 63 mm to 2.8 mm	cum	413.90	Including Royalty @ Rs. 100.0 per Cum
M-038	Aggregates 63 mm to 45 mm	cum	413.79	Including Royalty @ Rs. 100.0 per Cum
M-039	Aggregates 90 mm to 45 mm	cum	383.68	Including Royalty @ Rs. 100.0 per Cum
M-040	Aggregates 10 mm to 5 mm	cum	510.74	Including Royalty @ Rs. 100.0 per Cum
M-041	Aggregates 11.2 mm to 0.09 mm	cum	335.10	Including Royalty @ Rs. 100.0 per Cum
M-042	Aggregates 13.2 mm to 0.09 mm	cum	454.34	Including Royalty @ Rs. 100.0 per Cum
M-043	Aggregates 13.2 mm to 5.6 mm	cum	592.37	Including Royalty @ Rs. 100.0 per Cum
M-044	Aggregates 13.2 mm to 10 mm	cum	619.65	Including Royalty @ Rs. 100.0 per Cum
M-045	Aggregates 20 mm to 10 mm	cum	619.65	Including Royalty @ Rs. 100.0 per Cum
M-046	Aggregates 25 mm to 10 mm	cum	590.85	Including Royalty @ Rs. 100.0 per Cum
M-047	Aggregates 19 mm to 6 mm	cum	509.98	Including Royalty @ Rs. 100.0 per Cum
M-048	Aggregates 37.5 mm to 19 mm	cum	463.03	Including Royalty @ Rs. 100.0 per Cum
M-049	Aggregates 37.5 mm to 25 mm	cum	463.03	Including Royalty @ Rs. 100.0 per Cum
M-050	Aggregates 6 mm nominal size	cum	395.64	Including Royalty @ Rs. 100.0 per Cum
M-051	Aggregates 10 mm nominal size	cum	592.37	Including Royalty @ Rs. 100.0 per Cum
M-052	Aggregates 13.2/12.5 mm nominal size	cum	619.65	Including Royalty @ Rs. 100.0 per Cum
M-053	Aggregates 20 mm nominal size	cum	531.73	Including Royalty @ Rs. 100.0 per Cum
M-054	Aggregates 25 mm nominal size	cum	507.27	Including Royalty @ Rs. 100.0 per Cum
M-055	Aggregates 40 mm nominal size	cum	426.61	Including Royalty @ Rs. 100.0 per Cum

14/3/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

14.3.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

14/3/14
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार पटना।

14.3.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण,
समिति–सह–मुख्य अभियंता (अर्डी), बिहार
स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

14/3/14
सदस्य,
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति–सह–मुख्य अभियंता,
ऊर्जा विभाग, बिहार, पटना।

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

14/3/2014
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, लोक स्वास्थ्य
अभियंत्रण विभाग, बिहार, पटना।

14/3/2014
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

14.3.2014
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

Schedule - M / MORTH - 1A

List of Approved Rates of Construction Materials for the Preparation of Schedule of rates only, by State lavel schedule rate committee (Materials Should conform to relevant B.I.S. , MORD and MORT&H Specifications). The rates are inclusive of excise duty, royallty and cess but exclusive of VAT and Contractors profit

Sl. No.	Description	Unit	Rate
M-056	AC pipe 100 mm dia	metre	47.06
M-057	Acrylic polymer bonding coat	litre	input
M-058	Alluminium Paint	litre	123.80
M-059	Aluminium alloy plate 2mm Thick	sqm	9045.90
M-060	Aluminium alloy/galvanised steel	tonne	36183.60
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	8442.84
M-062	Road Stud with Micro Prismatic lens reflectors(with shank)	each	173.62
M-063	Barbed wire	kg	53.32
M-064	Bearing (Cost of parts)	nos	input
M-065	Bearing (Cast steel rocker bearing assembly of 250 tonne)	nos	76425.53
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,)	cubic cm	0.60
M-067	Bearing (Forged steel roller bearing of 250 tonne)	nos	45855.31
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	nos	input
M-069	Bearing (PTFE sliding plate bearing assembly of 80 tonnes)	nos	input
M-070	Bearing (Supply of sliding plate bearing of 80 tonne)	nos	30879.00
M-071	Bentonite	kg	3.340
M-072	Binding wire	kg	54.24
M-073	Bitumen (Cationic Emulsion) Packed Ex- Paharpur (M.S)	tonne	44425.72
M-074	Bitumen (60-70 grade) Packed Ex- Barauni	tonne	52066.80
M-075	Bitumen (80-100 grade) Packed Ex- Barauni	tonne	51151.50
M-076	Bitumen (Cutback) Packed Ex- Barauni	tonne	52066.80
M-077	Bitumen (emulsion) Packed Ex- Paharpur (M.S)	tonne	44425.72
M-078	Bitumen (modified graded) Packed Ex - Barauni (CRMB - 55)	tonne	52593.20
M-079	Brick 100A for - Patna Urban, Darbhanga, Bhagalpur, Munger, Muzzarfarpur, Gaya, Patna, Saran, Saharsa, Purnea	each	5.99
M-080	C.I. shoes for the pile	kg	47.06
M-081	Cement - OPC 43 Grade at Patna	tonne	5550.00
M-082	Cold twisted bars (HYSD Bars) - Fe 500	tonne	44696.87
M-083	Collar for joints 300 mm dia	nos	input
M-084	Compressible Fibre Board(20mm thick)	sqm	842.89
M-085	Connectors/ Staples	each	input
M-086	Copper Plate(12m long x 250mmwide)	kg	684.96
M-087	Corrosion resistant Structural steel	tonne	43326.51
M-088	Corrugated sheet, 3 mm thick, "Thrie" beam section railing	kg	48.63
M-089	Credit for excavated rock found suitable for use	cum	135.66
M-090	Curing compound	litre	126.27
M-091	Delineators from ISI certified firm as per the standard drawing given in IRC - 79	each	814.90
M-092	Earth Cost or compensation for earth taken from private land	cum	23.65
M-093	Elastomeric slab seal expansion joint assembly manufactured by using chloroprene, elastomer for elastomeric slab unit conforming to	metre	27070.42

(XXXXV)

Sl. No.	Description	Unit	Rate
M-094	Electric Detonators @ 1 detonator for 1/2 gelatin stick of 125 gms each	100 nos	631.1
M-095	Epoxy compound with accessories for preparing epoxy mortar	kg	552.40
M-096	Epoxy mortar	kg	757.66
M-097	Epoxy primer	kg	12.63
M-098	Epoxy resin-hardner mix for prime coat	kg	670.84
M-099	Flag of red color cloth 600 x 600 mm	each	47.35
M-100	Flowering Plants	each	31.57
M-101	Galvanised MS flat clamp	nos	14.87
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	94.58
M-103	Galvanised structural steel plate 200 mm wide, 6 mm thick, 24 m long	kg	43.29
M-104	Gelatin 80%	kg	677.29
M-105	Geo grids	sqm	input
M-106	Geomembrane	sqm	input
M-107	Geonets	sqm	108.52
M-108	Geotextile	sqm	84.84
M-109	Geotextile filter fabric	sqm	84.84
M-110	GI bolt 10 mm Dia	nos	15.00
M-111	Grouting pump with agitator	hour	157.84
M-112	Grass (Doob)	kg	4.09
M-113	Grass (Fine)	kg	4.09
M-114	HDPE pipes 75mm dia	metre	213.08
M-115	HDPE pipes 90mm dia	metre	213.08
M-116	Hedge plants	each	31.57
M-117	Helical pipes 600mm diameter	metre	Input
M-118	Hot applied thermoplastic compound (Sp. Gravity - 2.10)	litre	205.35
M-119	HTS strand	tonne	66566.75
M-120	Joint Sealant Compound	kg	25.25
M-121	Jute netting, open weave, 2.5 cm square opening for seeding and Mulching	sqm	39.46
M-122	LDO for steam curing	litre	input
M-123	M.S. Clamps	nos	32.07
M-124	M.S. Clamps	kg	58.05
M-125	M.S.shoes @ 35 Kg per pile of 15 m	kg	22.20

Sl. No.	Description	Unit	Rate
M-126	Mild Steel bars	tonne	43321.42
M-127	Modular strip/box seal expansion joint including anchorage catering to a horizontal movement beyond 70 mm and upto 140mm assembly	metre	29832.70
M-128	Modular strip/box seal expansion joint catering to a horizontal movement beyond 140mm and upto 210mm box/box seal joint	metre	input
M-129	Nipples 12mm	nos	input
M-130	Nuts and bolts	kg	58.03
M-131	Paint	litre	229.18
M-132	Pavement Marking Paint	litre	229.18
M-133	Paving Fabric	sqm	input
M-134	Perforated geosynthetic pipe 150 mm dia	metre	26.91
M-135	Perforated pipe of cement concrete, internal dia 100 mm	metre	113.64
M-136	Pesticide	kg	71.97
M-137	Pipes 200 mm dia, 2.5 m long for drainage	metre	173.62
M-138	Plastic sheath, 1.25 mm thick for dowel bars	sqm	15.78
M-139	Plastic tubes 50 cm dia, 1.2 m high	nos	input
M-140	Polymer braids	metre	input
M-141	Pre moulded Joint filler,25 mm thick for expansion joint	sqm	986.53
M-142	Pre-coated stone chips of 13.2 mm nominal size	cum	620.14
M-143	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
M-144	Pre-moulded asphalt filler board	sqm	986.53
M-145	Pre-packed cement based polymer concrete of strength 45 Mpa at 28 days	kg	input
M-146	Primer	kg	12.63
M-147	Quick setting compound	kg	input
M-148	Random Rubble Stone	cum	295.70
M-149	RCC Pipe NP 4 heavy duty non presure pipe 1000 mm dia	metre	2958.68
M-150	RCC Pipe NP 4 heavy duty non presure pipe 1200 mm dia	metre	4206.31
M-151	RCC Pipe NP 4 heavy duty non presure pipe 300 mm dia	metre	541.83
M-152	Reflectorising glass beads	kg	66.74
M-153	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Copper Strips)	metre	input
M-154	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Galvanised carbon steel strips)	metre	input
M-155	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Glass reinforced polymer/fibre reinforced polymer/polymeric strips)	metre	input
M-156	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Stainless steel strips)	metre	input
M-157	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Aluminium strips)	metre	input
M-158	Rivets	each	7.50
M-159	Sand bags (Cost of sand and Empty cement bag)	nos	7.08
M-160	Sapling 2 m high 25 mm dia	each	23.68
M-161	Scrap tyres of size 900 x 20	nos	78.92
M-162	Seeds	kg	31.57
M-163	Selected earth (Including royality @ Rs. 22.0 per cum & compensation @ Rs. 1.65 per cum)	cum	23.65
M-164	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	15.78
M-165	Sheathing duct	metre	86.81

Sl. No.	Description	Unit	Rate
M-166	Shrubs	each	15.78
M-167	Sludge / Farm yard manure @ 0.18 cum per 100 sqm at site of work for turfing	cum	710.30
M-168	Sodium vapour lamp	each	input
M-169	Square Rubble Coursed Stone	cum	295.69
M-170	Steel circular hollow pole of standard specification for street lighting to mount light at 5 m height above deck level	each	input
M-171	Steel circular hollow pole of standard specification for street lighting to mount light at 9 m height above road level	each	input
M-172	Steel drum 300 mm dia 1.2 m high/empty bitumen drum	nos	120.00
M-173	Steel helmet and cushion block on top of pile head during driving.	kg	39.52
M-174	Steel pipe 25 mm external dia as per IS:1239	metre	123.54
M-175	Steel pipe 50 mm external dia as per IS:1239	metre	221.11
M-176	Steel wire rope 20 mm	kg	38.57
M-177	Steel wire rope 40 mm	kg	38.57
M-178	Strip seal expansion join	metre	8398.35
M-179	Structural Steel	tonne	42913.88
M-180	Super plastisizer admixture IS marked as per 9103-1999	kg	157.84
M-181	Synthetic Geogrids as per clause 3102.8 and approved design and specifications.	sqm	input
M-182	Through and bond stone	each	11.30
M-183	Tie rods 20mm diameter	nos	input
M-184	Tiles size 300 x 300 mm and 25 mm thick	each	39.46
M-185	Timber	cum	43723.07
M-186	Traffic cones with 150 mm reflective sleeve	nos	input
M-187	Tube anchorage set complete with bearing plate, permanent wedges etc	nos	47.35
M-188	Unslaked lime	tonne	3084.04
M-189	Water	KL	236.76
M-190	Water based cement paint	litre	116.64
M-191	Welded steel wire fabric	kg	37.34
M-192	Wire mesh 50mm x 50mm size of 3mm wire	kg	37.34
M-193	Wooden ballies 2" Dia for bracing (Sal)	each	25.25
M-194	Wooden ballies 8" Dia and 9 m long (9 m @ Rs. 67.86.00/m) - Sal	each	610.86
M-195	Wooden packing	cum	input
M-196	Wooden staff for fastening of flag 25 mm dia, 1.0 m long	each	31.57
M-197	Bitumen (30/40 grade) Ex-Patna Packed	tonne	57779.20

Sl. No.	Description		Unit	Rate
M-198	Fly Ash Brick conforming to IS: 3812 (Part I & II) (Excluding the carrige cost* of Fly Ash from point of production to Kiln site) (*Carrige cost of fly ash is same as sand)(cost of 1000nos. is Rs. 5800)		each	5.80
M-199	Paver Block (Excluding VAT)			
	(i) M -35 Grade and 60 mm thickness	(a) White	sqm	469.43
		(b) Red	sqm	477.86
		(c) Yellow	sqm	492.87
	(ii) M-40 Grade and 80mm thickness	(a) White	sqm	538.77
		(b) Red	sqm	552.83
		(c) Yellow	sqm	570.63
M-200	Kerb-Stone Block- M30 Grade (Size375mm x 300mm x150mm)		each	78.23
M-201	Autoclaved Aerated Concrete(AAC) Block		each	2180.36

14/3/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना

14.3.14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना

14/3/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति
–सह–पदेयोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना

14/3/14
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण,
समिति–सह–मुख्य अभियंता (आर्थो), बिहार
स्टेट हाउसिंग कॉपरेशन लिमिटेड, बिहार, पटना।

14/3/2014
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता,
ऊर्जा विभाग, बिहार, पटना

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

14/3/2014
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख, लोक स्वास्थ्य
अभियंत्रण विभाग, बिहार, पटना

14/3/2014
सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना

14.3.2014
संयोजक,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति–
सह–अभियंता प्रमुख
पथ निर्माण विभाग, बिहार, पटना

बिहार सरकार, (XXXXIV)
राज्य स्तरीय अनुसूचित दर निर्धारण समिति,
पथ निर्माण विभाग, बिहार, पटना ।

पत्रांक:- मु0नि0(पथ)47/2014, 30 (अनु0) /दिनांक-06.08.14

प्रेषक,

अधीक्षण अभियन्ता,
मुख्यालय निरूपण अंचल,
पथ निर्माण विभाग, बिहार, पटना ।

सेवा में,

1. अभियन्ता प्रमुख,
ग्रामीण कार्य विभाग-सह-सदस्य राज्य अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
2. अभियन्ता प्रमुख,
जल संसाधन विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
3. अभियन्ता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
4. अभियन्ता प्रमुख,
तकनीकीपरीक्षण कोषांग, निगरानी विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
5. अभियन्ता प्रमुख,
भवन निर्माण विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
6. परियोजना संयोजक,
नलकूप प्रभाग, लघु जल संसाधन विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
7. मुख्य अभियन्ता (औनिक),
बिहार स्टेट पावर होल्डिंग कंपनीलिमिटेड-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।
8. मुख्य अभियन्ता,
उर्जा विभाग-सह-सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना ।

विषय:- राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा दि0-30.07.2014 की बैठक में लिये गये निर्णयानुसार श्रम दर, बिटुमेन, इस्पात, स्टील, सीमेंट एवं कोर्स सैंड एट डोरीगंज इक्वीभेलेंट टू कोईलवर सोन सैंड दर की सूची के प्रेषण के संबंध में ।

महाशय,

उपर्युक्त विषय के संबंध में कहना है कि दिनांक-30.07.2014 की बैठक में राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित श्रम दर, बिटुमेन,

कृ0 पृ0 30

अम्लसन, स्टील, सीमेंट एवं कोर्स सैंड एट डोरीगंज इक्वीभेलेंट टू कोईलवर सोन सैंड की पुनरीक्षित दर की सूचीअनुसूची । एवं 2, "एम ।", "एम3ए", "एम3बी", "एम4", "एम5", "एम10ए" की स्वीकृति संबंधित सूची आवश्यक कार्रवाई हेतु संलग्न की जा रही है ।

अनु0-निर्णय की छाया प्रति संलग्न ।

विश्वास भाजन,
ह0/-
(रमा कान्त प्रसाद),
अधीक्षण अभियन्ता,
मुख्यालय निरूपण अंचल,
पथ निर्माण विभाग, बिहार,
पटना ।

बिहार सरकार,
जल संसाधन विभाग ।

ज्ञापांक:-02/क्रय-08-01/2012(पार्ट)-254 पटना, दिनांक- 26-8-14

प्रतिलिपि:-अनुलग्नक की प्रति के साथ सभी मुख्य अभियन्ता/सभी अधीक्षण अभियन्ता, मोनिटरिंग अंचल/उप निदेशक, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय/सहायक अभियन्ता, क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय, जल संसाधन विभाग को सूचनार्थ एवं आवश्यक कार्रवाई हेतु समर्पित ।

26/8/14

अनु0-यथोक्त ।

(दीना नाथ शर्मा),
निदेशक,
क्रय, भंडार एवं सामग्री प्रबंधन निदेशालय,
जल संसाधन विभाग, पटना ।

दिनांक–30.07.2014 को आहूत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक की कार्यवाही में लिये गये निर्णय :–

1. <u>श्रम दर को अद्यतन करने के संबंध में</u> – श्रम संसाधन विभाग, बिहार की अधिसूचना सं0–1704 दिनांक–19.06.2014 के आलोक में पथ निर्माण कार्यो में प्रयुक्त 72 प्रकार के विभिन्न कर्मियों तथा बाँध निर्माण एवं सिंचाई कार्यो के लिए प्रयुक्त 71 प्रकार के कर्मियों के न्यूनतम दैनिक श्रम दर का अनुमोदन सदस्यों द्वारा सर्वसम्मति से पूर्णविचारोपरान्त अनुसूची–1 एवं 2 के अनुसार करने का निर्णय लिया गया। यह दर भवन निर्माण, ग्रामीण कार्य विभाग, लोक स्वास्थ्य विभाग एवं अन्य कार्य विभाग के अंतर्गत कराये जाने वाले निर्माण कार्यो के उपयोग में लाया जा सकता है।
2. <u>बिटूमेन एवं इमल्सन के दर को अद्यतन करने के संबंध में</u> – राष्ट्रीयकृत तेल कम्पनियों से बिटूमेन एवं इमल्सन के बढ़े दर को न्यूनतम दर के आधार पर संलग्न सूची (Schedule-M4) के अनुसार करने का निर्णय लिया गया।
3. <u>स्टील के दर को अद्यतन करने के संबंध में</u>–स्टील निर्माता के विभिन्न कंपनियों से प्राप्त निर्माण सामग्रियों यथा G.C.Sheet, wire rod in coil, Steel channel, Steel angles एवं TMT Bars आदि के बढ़े हुए/घटे हुए दर को न्यूनतम दर के आधार पर संलग्न सूची (Schedule M5, ~~M6, M8, M9~~ एवं M10A) के अनुसार दर को अद्यतन करने का निर्णय लिया गया।
4. <u>सिमेंट के दर को अद्यतन करने के संबंध में</u>– सिमेंट निर्माता के विभिन्न कंपनियों से प्राप्त विभिन्न प्रकार के सिमेंट यथा OPC-43Grade, OPC-33 Grade, Portland Pozzolana Cement (PPC), Portland Slag एवं Cement (P.S.C) आदि के बढ़े हुए/घटे हुए दर को न्यूनतम दर के आधार पर संलग्न सूची (Schedule "M1", ~~"M2"~~ & "M3A" एवं "M3B") के अनुसार दर को अद्यतन करने का निर्णय लिया गया।
5. , Coarse Sand at Dorigaj equivalent to Koilwar Sone Sand (Schedules M005) के दर Price Index के आधार पर संलग्न सूची के अनुसार अद्यतन करने का निर्णय लिया गया।
6. सिंचाई विभाग से प्राप्त प्रस्ताव जो Non Scheduled Item से संबंधित है, को Basic rate के आधार पर निर्धारण कर पुनः प्रस्ताव को समर्पित करने का अनुरोध किया गया।
7. बैठक में यह सहमति बनी कि प्रत्येक तीन माह पर ईंट के दर को अद्यतन किया जायेगा।

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–परियोजना संयोजक, नलकूप प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता (असैनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि0, बिहार, पटना

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता, ऊर्जा विभाग, बिहार, पटना

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, तकनीकी परीक्षण कोषांग, निगरानी विभाग, बिहार, पटना

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना

30/07/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

(LII)

SCHEDULE - I Date:- 30.07.2014

Approved Schedule of Rates for labour engaged in construction & maintenance of Roads

Sl. No.	Category of Employees	Minimum Rates of wages per day as per					
		Lab. Deptt. Noti. No. 2787 /28.09.11	Lab. Deptt. Noti. No. 562 /21.03.12	Lab. Deptt. Noti. No. 531 /05.10.12	Lab. Deptt. Noti. No. 268 /03.04.13	Lab. Deptt. Noti. No. 3303 /04.10.13	Lab. Deptt. Noti. No. 1704 /19.06.14
1	2	3	4(1.0517 x col.3)	5(1.0331 x col.4)	6(1.064X col.5)	7(1.0447X col.6)	8(1.0591X col.7)
1	Unskilled labour	144.00	151.00	157.00	168.00	176.00	184.00
2	Sweeper	144.00	151.00	157.00	168.00	176.00	184.00
3	Mistry	144.00	151.00	157.00	168.00	176.00	184.00
4	Cleaner	144.00	151.00	157.00	168.00	176.00	184.00
5	Helper	144.00	151.00	157.00	168.00	176.00	184.00
6	Khalsi/Chainman	144.00	151.00	157.00	168.00	176.00	184.00
7	Marker	184.00	194.00	200.00	213.00	223.00	236.00
8	Fitter grade-I	199.00	209.00	216.00	230.00	240.00	254.00
	Fitter grade-II	175.00	184.00	190.00	202.00	211.00	223.00
9	Turner	175.00	184.00	190.00	202.00	211.00	223.00
10	Mechanic grade-I	225.00	237.00	245.00	261.00	273.00	289.00
	Mechanic grade-II	209.00	220.00	227.00	242.00	253.00	268.00
11	Electrician grade-I	185.00	195.00	201.00	214.00	224.00	237.00
	Electrician grade-II	175.00	184.00	190.00	202.00	211.00	223.00
12	Lineman/Wireman	169.00	178.00	184.00	196.00	205.00	217.00
13	Chargeman	209.00	220.00	227.00	242.00	253.00	268.00
14	Foreman	247.00	260.00	269.00	286.00	299.00	317.00
15	Welder grade-I	220.00	231.00	239.00	254.00	265.00	281.00
	Welder grade-II	185.00	195.00	201.00	214.00	224.00	237.00
16	Glazier	164.00	172.00	178.00	189.00	197.00	209.00
17	Carpenter	175.00	184.00	190.00	202.00	211.00	223.00
18	Head Carpenter	196.00	206.00	213.00	227.00	237.00	251.00
19	Checker	177.00	186.00	192.00	204.00	213.00	226.00
20	Hammerman	153.00	161.00	166.00	177.00	185.00	196.00
21	Tin smith	199.00	209.00	216.00	230.00	240.00	254.00
22	Tin plate maker	209.00	220.00	227.00	242.00	253.00	268.00
23	Black Smith	175.00	184.00	190.00	202.00	211.00	223.00
24	Head black smith	196.00	206.00	213.00	227.00	237.00	251.00
25	Tile layer	155.00	163.00	168.00	179.00	187.00	198.00
26	Thatcher	155.00	163.00	168.00	179.00	187.00	198.00
27	Plumber	185.00	195.00	201.00	214.00	224.00	237.00
28	Grader	177.00	186.00	192.00	204.00	213.00	226.00
29	Road binder	164.00	172.00	178.00	189.00	197.00	209.00
30	Mason	175.00	184.00	190.00	202.00	211.00	223.00
31	Head Mason	196.00	206.00	213.00	227.00	237.00	251.00
32	Stone layer	175.00	184.00	190.00	202.00	211.00	223.00
33	Tarman	153.00	161.00	166.00	177.00	185.00	196.00
34	Fireman	155.00	163.00	168.00	179.00	187.00	198.00
35	Grinder	175.00	184.00	190.00	202.00	211.00	223.00
36	Gas cutter	184.00	194.00	200.00	213.00	223.00	236.00
37	Rigger	177.00	186.00	192.00	204.00	213.00	226.00
38	Sarang	209.00	220.00	227.00	242.00	253.00	268.00
39	Chipper-cum-rivetter	184.00	194.00	200.00	213.00	223.00	236.00
40	Tractor operator	209.00	220.00	227.00	242.00	253.00	268.00
41	Dozer operator grade-I	247.00	260.00	269.00	286.00	299.00	317.00
	Dozer operator grade-II	220.00	231.00	239.00	254.00	265.00	281.00
42	Dumper operator	210.00	221.00	228.00	243.00	254.00	269.00
43	Viberator Operator	163.00	171.00	177.00	188.00	196.00	208.00
44	Pump driver grade-I	185.00	195.00	201.00	214.00	224.00	237.00
	Pump driver grade-II	175.00	184.00	190.00	202.00	211.00	223.00
45	Dragline operator grade-I	247.00	260.00	269.00	286.00	299.00	317.00
	Dragline operator grade-II	220.00	231.00	239.00	254.00	265.00	281.00
46	Concrete mixer operator	185.00	195.00	201.00	214.00	224.00	237.00
	Concrete mixer operator	175.00	184.00	190.00	202.00	211.00	223.00

SCHEDULE - I

Date:- 30.07.2014

Approved Schedule of Rates for labour engaged in construction & maintenance of Roads

Sl. No.	Category of Employees	Minimum Rates of wages per day as per					
		Lab. Deptt. Noti. No. 2787 /28.09.11	Lab. Deptt. Noti. No. 562 /21.03.12	Lab. Deptt. Noti. No. 531 /05.10.12	Lab. Deptt. Noti. No. 268 /03.04.13	Lab. Deptt. Noti. No. 3303 /04.10.13	Lab. Deptt. Noti. No. 1704 /19.06.14
1	2	3	4(1.0517 x col.3)	5(1.0331 x col.4)	6(1.064X col.5)	7(1.0447X col.6)	8(1.0591X col.7)
47	Compressor operator grade-	185.00	195.00	201.00	214.00	224.00	237.00
	Compressor operator grade-	175.00	184.00	190.00	202.00	211.00	223.00
48	Earth excavator						
	(a) For every 110 cu. ft for	144.00	151.00	157.00	168.00	174.00	186.00
	(b) For every 100 cu. ft for	144.00	151.00	157.00	168.00	174.00	186.00
	(c) For every 90 cu. ft for	144.00	151.00	157.00	168.00	174.00	186.00
49	Truck driver	209.00	220.00	227.00	242.00	253.00	268.00
50	Car/Jeep driver	184.00	194.00	200.00	213.00	223.00	236.00
51	Crane operator grade-I	247.00	260.00	269.00	286.00	299.00	317.00
	Crane operator grade-II	220.00	231.00	239.00	254.00	265.00	281.00
52	Winch operator	185.00	195.00	201.00	214.00	224.00	237.00
53	Road roller driver	252.00	265.00	274.00	292.00	305.00	323.00
54	Blaster	243.00	256.00	264.00	281.00	294.00	311.00
55	Painter grade-I	185.00	195.00	201.00	214.00	224.00	237.00
56	Polisher	155.00	163.00	168.00	179.00	187.00	198.00
57	Peon / Darvan / Choukidar	153.00	161.00	166.00	177.00	185.00	196.00
58	Clerk / Typist / Typist clerk	173.00	182.00	188.00	200.00	209.00	221.00
59	Time keeper	173.00	182.00	188.00	200.00	209.00	221.00
60	Store Assistant/Storeman	187.00	197.00	204.00	217.00	227.00	240.00
61	Store head	178.00	187.00	193.00	205.00	214.00	227.00
62	Material chaser	178.00	187.00	193.00	205.00	214.00	227.00
63	Mate and Road mate	155.00	163.00	168.00	179.00	187.00	198.00
64	Munshi	163.00	171.00	177.00	188.00	196.00	208.00
65	Work Supervisor	164.00	172.00	178.00	189.00	197.00	209.00
66	Amin	173.00	182.00	188.00	200.00	209.00	221.00
67	Surveyer	177.00	186.00	192.00	204.00	213.00	226.00
68	Supervisory diploma holder	237.00	249.00	257.00	273.00	285.00	302.00
69	Supervisory non-diploma	175.00	184.00	190.00	202.00	211.00	223.00
70	Any other category of semi-skilled workers not mentioned above	150.00	158.00	163.00	173.00	184.00	192.00
71	Any other category of skilled workers not mentioned above	183.00	192.00	198.00	211.00	225.00	234.00
72	Highly skilled labour	223.00	235.00	243.00	259.00	273.00	285.00

Note :- The above rates has been calculated as 1.0591% increase in labour dept. notification no. 1704 dt. 19.06.2014 i.e (1.0591 * column 7).

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर-निर्धारण समिति
–सह–अभियंता प्रमुख, भवन निर्माण विभाग,
बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नलकूप प्रभाग, लघु
जल संसाधन विभाग, बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0),
बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड,
बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–मुख्य अभियंता,
उर्जा विभाग, बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह –अभियंता प्रमुख, तकनीकी
परीक्षण कोषांग, निगरानी विभाग,
बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, लोक स्वास्थ्य
अभियंत्रण विभाग, बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

(LIV)

SCHEDULE - II

Dt:- 30.07.2014

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. Noti. No. 2787 /28.09.11	Lab. Deptt. Noti. No. 562/ 21.03.12	Lab. Deptt. Noti. No. 531/ 05.10.12	Lab. Deptt. Noti. No. 268/ 03.04.13	Lab. Deptt. Noti. No. 3303/ 04.10.13	Lab. Deptt. Noti. No. 1704/ 19.06.14
1	2	3	4(1.0517xcol 3)	5(1.0331xcol 4)	6(1.064xcol.5)	7(1.0447xcol.6)	8(1.0591xcol.7)
1	Unskilled labour	144.00	151.00	157.00	168.00	176.00	184.00
2	Mate	158.00	166.00	171.00	182.00	190.00	201.00
3	Head Mason	196.00	206.00	213.00	227.00	237.00	251.00
4	Mason	175.00	184.00	190.00	202.00	211.00	223.00
5	Printer Class-I	185.00	195.00	201.00	214.00	224.00	237.00
6	Printer Class-II	175.00	184.00	190.00	202.00	211.00	223.00
7	Head Carpenter	196.00	206.00	213.00	227.00	237.00	251.00
8	Carpenter	175.00	184.00	190.00	202.00	211.00	223.00
9	Head black smith	196.00	206.00	213.00	227.00	237.00	251.00
10	Black Smith	175.00	184.00	190.00	202.00	211.00	223.00
11	Glazier	155.00	163.00	168.00	179.00	187.00	198.00
12	Stone Dresser	185.00	195.00	201.00	214.00	224.00	237.00
13	Water Carrier	144.00	151.00	157.00	168.00	174.00	186.00
14	Fitter Class-I	199.00	209.00	216.00	230.00	240.00	254.00
15	Fitter Class-II	175.00	184.00	190.00	202.00	211.00	223.00
16	Helper	153.00	161.00	166.00	177.00	185.00	196.00
17	Hammer man	153.00	161.00	166.00	177.00	185.00	196.00
18	Bellowman	144.00	151.00	157.00	168.00	174.00	186.00
19	Road Roller Driver	252.00	265.00	274.00	292.00	305.00	323.00
20	Concrete Mixer Operator, Class-I	185.00	195.00	201.00	214.00	224.00	237.00
21	Concrete Mixer Operator, Class-II	175.00	184.00	190.00	202.00	211.00	223.00
22	Stone Crusher Driver, Class-I	185.00	195.00	201.00	214.00	224.00	237.00
23	Stone Crusher Driver, Class-II	175.00	184.00	190.00	202.00	211.00	223.00
24	Truck Driver	209.00	220.00	227.00	242.00	253.00	268.00
25	Compresser Operator, Class-I	185.00	195.00	201.00	214.00	224.00	237.00
26	Compresser Operator, Class-II	175.00	184.00	190.00	202.00	211.00	223.00
27	Pump Driver, Class-I	185.00	195.00	201.00	214.00	224.00	237.00
28	Pump Driver, Class-II	175.00	184.00	190.00	202.00	211.00	223.00
29	Concrete Mixer Attendant	153.00	161.00	166.00	177.00	185.00	196.00
30	Cleaner or Oilman	148.00	156.00	161.00	171.00	179.00	190.00
31	TarBoiler Man	175.00	184.00	190.00	202.00	211.00	223.00
32	Plumber	185.00	195.00	201.00	214.00	224.00	237.00
33	Thatcher	155.00	163.00	168.00	179.00	187.00	198.00
34	Khalasi / Chainman	155.00	163.00	168.00	179.00	187.00	198.00
35	Sweeper	148.00	156.00	161.00	171.00	179.00	190.00
36	Watchamn	148.00	156.00	161.00	171.00	179.00	190.00
37	Stone Breaker	148.00	156.00	161.00	171.00	179.00	190.00
38	Work Sarker	164.00	172.00	178.00	189.00	197.00	209.00
39	Time Keeper	173.00	182.00	188.00	200.00	209.00	221.00
40	Welder, Grade-I	220.00	231.00	239.00	254.00	265.00	281.00
41	Welder, Grade-I	185.00	195.00	201.00	214.00	224.00	237.00
42	Wireman/Lineman	169.00	178.00	184.00	196.00	205.00	217.00
43	Mechanic, Grade-I	225.00	237.00	245.00	261.00	273.00	289.00
44	Mechanic, Grade-II	209.00	220.00	227.00	242.00	253.00	268.00
45	Sarang	209.00	220.00	227.00	242.00	253.00	268.00
46	Drill Operator	175.00	184.00	190.00	202.00	211.00	223.00
47	Tractor Operator	209.00	220.00	227.00	242.00	253.00	268.00
48	Gauge Reader-cum-silt Observer	153.00	161.00	166.00	177.00	185.00	196.00
49	Crane Operator, Grade-I	247.00	260.00	269.00	286.00	299.00	317.00
50	Crane Operator, Grade-II	220.00	231.00	239.00	254.00	265.00	281.00
51	Dragline / Scraper / Showel Operator	247.00	260.00	269.00	286.00	299.00	317.00
52	Dragline/Scraper/Showel Operator	220.00	231.00	239.00	254.00	265.00	281.00
53	Dumper Operator	210.00	221.00	228.00	243.00	254.00	269.00
54	Foreman	247.00	260.00	269.00	286.00	299.00	317.00

(LV)

SCHEDULE - II

Dt:- 30.07.2014

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. Noti. No. 2787 /28.09.11	Lab. Deptt. Noti. No. 562/ 21.03.12	Lab. Deptt. Noti. No. 531/ 05.10.12	Lab. Deptt. Noti. No. 268/ 03.04.13	Lab. Deptt. Noti. No. 3303/ 04.10.13	Lab. Deptt. Noti. No. 1704/ 19.06.14
1	2	3	4(1.0517xcol 3)	5(1.0331xcol 4)	6(1.064xcol.5)	7(1.0447xcol.6)	8(1.0591xcol.7)
55	Junior Forman	220.00	231.00	239.00	254.00	265.00	281.00
56	Chargeman	210.00	221.00	228.00	243.00	254.00	269.00
57	Electrician, Grade-I	185.00	195.00	201.00	214.00	224.00	237.00
58	Electrician, Grade-II	175.00	184.00	190.00	202.00	211.00	223.00
59	Electrician, Grade-III	153.00	161.00	166.00	177.00	185.00	196.00
60	Turner	175.00	184.00	190.00	202.00	211.00	223.00
61	Compounder	175.00	184.00	190.00	202.00	211.00	223.00
62	Superviser / (Diploma holder)	237.00	249.00	257.00	273.00	285.00	302.00
63	Surveyer / Supervisor	175.00	184.00	190.00	202.00	211.00	223.00
64	Blue Printer	153.00	161.00	166.00	177.00	185.00	196.00
65	Tracer	153.00	161.00	166.00	177.00	185.00	196.00
66	Vibrator Operator	163.00	171.00	177.00	188.00	196.00	208.00
67	Clerk / Typist / Typist Clerk	173.00	182.00	188.00	200.00	209.00	221.00
68	Earth Excavator,						
	(a) For every 110 cubic feet of soft	144.00	151.00	157.00	168.00	174.00	186.00
	(b) For every 100 cubic feet of hard	144.00	151.00	157.00	168.00	174.00	186.00
	(c) For every 90 cubic feet of highly	144.00	151.00	157.00	168.00	174.00	186.00
69	Any other category of semi-skilled workers not mentioned above	153.00	161.00	164.00	175.00	184.00	192.00
70	Any other category of skilled workers not mentioned above	183.00	192.00	200.00	214.00	225.00	234.00
71	Highly skilled labour	223.00	235.00	243.00	260.00	273.00	285.00

Note :- The above rates has been calculated as 1.0591% increase in labour dept. notification no. 1704 dt. 19.06.2014 i.e (1.0591 * column 7).

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, भवन निर्माण विभाग,
बिहार, पटना।

30.7.14
संदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक, नलकूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0),
बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड,
बिहार, पटना।

30/7/14
संदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–मुख्य अभियंता,
उर्जा विभाग, बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह –अभियंता प्रमुख,
तकनीकी परीक्षण कोषांग, निगरानी विभाग,
बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख लोक स्वास्थ्य
अभियंत्रण विभाग, बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

राज्यस्तरीय अनुसूचित दर निर्धारण समिति की दिनांक– 30.07.2014 की बैठक में निर्माण कार्यो (सड़के, बाँध तथा सिंचाई कार्य) में नियोजित विभिन्न श्रेणी के मजदूरों का संशोधित न्यूनतम दैनिक मजदूरी के अनुमोदन हेतु लिये गये निर्णय :–

जनवरी 2013 से जून 2013 तक का औसत मूल्य सूचकांक श्रम संसाधन विभाग, बिहार सरकार के अधिसूचना सं0–3303 दिनांक–04.10.13 के अनुसार 5147.27 है। जूलाई 2013 से दिसम्बर 2013 तक का औसत मूल्य सूचकांक 5451.58 है।

सूचकांक में वृद्धि =5451.58 – 5147.27= 304.31

सूचकांक में प्रतिशत वृद्धि=304.31/5147.27x100 = 5.91%

जनवरी 2013 से जून 2013 तक का औसत मूल्य सूचकांक पर आधारित न्यूनतम श्रम दर की सूची अनुसूची '1' एवं '2' के स्तम्भ–7 पर अंकित है। इसी स्तंभ के अंकित दर में = 5.91% की वृद्धि करनी है। तद्नुसार स्तंभ '8' में न्यूनतम श्रम दर की गणना कर अंकित कर दी गई है।

श्रम संसाधन विभाग, बिहार सरकार की अधिसूचना संख्या–1704, दिनांक–19.06.2014 के आलोक में अनुसूचित दर पुनरीक्षण हेतु उपरोक्त वृद्धि को सम्मिलित करते हुए निर्माण कार्यो, सड़के, बाँध निर्माण तथा सिंचाई कार्यो में नियोजित दैनिक मजदूरों के न्यूनतम दैनिक मजदूरी में संशोधन के लिए संलग्न अनुसूची–1 तथा 2 के स्तंभ '8' के अनुसार राज्यस्तरीय अनुसूचित दर निर्धारण समिति द्वारा सहमति प्रदान की जाती है। यह दर भवन निर्माण , ग्रामीण कार्य, लोक स्वास्थ्य अभियंत्रण विभाग एवं अन्य कार्य विभाग के अंतर्गत कराये जाने वाले समरूप कार्यो के उपयोग में भी लाया जायेगा। विशेष जानकारी हेतु श्रम संसाधन विभाग, बिहार सरकार की अधिसूचना सं0–1704 दिनांक–19.06.2014 द्रष्टव्य। उक्त श्रम दर दिनांक–19.06.2014 से लागू समझा जायेगा।

अनु0–1 एवं 2

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–परियोजना संयोजक, नलकूप प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंत्रा (असैनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि0, बिहार, पटना

30/07/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता, ऊर्जा विभाग, बिहार, पटना

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, तकनीकी परीक्षण कोषांग, निगरानी विभाग, बिहार, पटना

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना

30/07/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

Schedule :- M4

Dtd. 30.07.14

List of Rates of Different Grades of Bitumen approved by State Level Schedule Rate Committee for the year 2014 - 15 for the preparation of Schedule of Rate only. Materials should confirm to relevant BIS/IRC/MORT&H Specifications.

Rates are inclusive of Excise Duty etc. but exclusive of VAT/Sales Tax , Contractor's profit and Overhead charges.

Sl. No.	Name & Description of Material	Unit	Approved Rate (in Rs.)	
			in figure(Rs.)	in words
1	2	3	4	5
1	Bitumen Grade VG-40(30/40)Packed			
	(iv)Ex. Patna	Per MT	55924.50	Rupees Fifty Five Thousand Nine Hundred Twenty Four and Paise Fifty Only
	(v)Ex. Muzaffarpur	Per MT	56210.50	Rupees Fifty Six Thousand Two Hundred Ten and Paise Fifty Only
	(vi) Ex. Gaya	Per MT	55698.50	Rupees Fifty Five Thousand Six Hundred Ninety Eight and Paise Fifty Only
2	Bitumen Grade VG-30(60/70) Packed			
	(i)Ex.Barauni	Per MT	52579.400	Rupees Fifty Two Thousand Five Hundred Seventy Nine and Paise Forty Only
	(ii) Ex. Gaya	Per MT	52449.00	Rupees Fifty Two Thousand Four Hundred Forty Nine and Paise Zero Only
	(vi) Ex. Patna	Per MT	52675.00	Rupees Fifty Two Thousand Six Hundred Seventy Five and Paise Zero Only
	(vii) Ex. Muzaffarpur	Per MT	52961.00	Rupees Fifty Two Thousand Nine Hundred Sixty One and Paise Zero Only
3	Bitumen Grade VG-10(80/100) Packed			
	(i) Ex. Barauni	Per MT	51664.10	Rupees Fifty One Thousand Six Hundred Sixty Four and Paise Ten Only
	(ii) Ex. Gaya	Per MT	51533.60	Rupees Fifty One Thousand Five Hundred Thirty Three and Paise Sixty Only
	(vi) Ex. Patna	Per MT	51759.60	Rupees Fifty One Thousand Seven Hundred Fifty Nine and Paise Sixty Only
	(vii) Ex. Muzaffarpur	Per MT	52045.70	Rupees Fifty Two Thousand Forty Five and Paise Seventy Only
4	Bitumen Grade VG-30(60/70) Bulk			
	(ii) Ex. Barauni	Per MT		
5	Bitumen Grade VG-10(80/100) Bulk			
	(ii) Ex. Barauni	Per MT	47339.00	Rupees Forty Seven Thousand Three Hundred Thirty Nine and Paise Zero Only
6	Modified Graded Bitumen			
	(i) CRMB-50 Packed Ex. Barauni	Per MT		
	(ii) CRMB-50 Packed Ex. Muzaffarpur	Per MT	54059.00	Rupees Fifty Four Thousand Fifty Nine and Paise Zero Only
	(iii) CRMB-50 Packed Ex. Gaya	Per MT	53547.40	Rupees Fifty Three Thousand Five Hundred Forty Seven and Paise Forty Only
	(vi) CRMB-50 Packed Ex. Patna	Per MT	53773.40	Rupees Fifty Three Thousand Seven Hundred Seventy Three and Paise Forty Only
	(vi) CRMB-55 Packed Ex. Barauni	Per MT	53632.10	Rupees Fifty Three Thousand Six Hundred Thirty Two and Paise Ten Only
	(viii) CRMB-55 Packed Ex. Gaya	Per MT	55172.20	Rupees Fifty Five Thousand One Hundred Seventy Two and Paise Twenty Only
	(ix) CRMB-55 Packed Ex. Patna	Per MT	55398.20	Rupees Fifty Five Thousand Three Hundred Ninety Eight and Paise Twenty Only
	(x) CRMB-55 Packed Ex. Muzaffarpur	Per MT	55684.20	Rupees Fifty Five Thousand Six Hundred Eighty Four and Paise Twenty Only
	(xi) CRMB-60 Packed Ex. Barauni	Per MT		
	(xiii) CRMB-60 Packed Ex. Patna	Per MT	55318.10	Rupees Fifty Five Thousand Three Hundred Eighteen and Paise Ten Only
	(xiv) CRMB-60 Packed Ex. Muzaffarpur	Per MT	55604.10	Rupees Fifty Five Thousand Six Hundred Four and Paise Ten Only
	(xv) CRMB-60 Packed Ex. Gaya	Per MT	55092.10	Rupees Fifty Five Thousand Ninety Two and Paise Ten Only
7	Emulsion			
	(i) Packed MS Grade (Paharpur)	Per MT	43555.70	Rupees Forty Three Thousand Five Hundred Fifty Five and Paise Seventy Only

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग बिहार पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (अरौ०) , बिहार स्टेट पावर
होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

30/07/14
सदस्य,
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति –सह– मुख्य अभियंता ऊर्जा विभाग
बिहार पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,तकनीकी परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह– अभियंता प्रमुख, लोक स्वास्थ्य
अभियंत्रण विभाग, बिहार, पटना।

30/07/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
जल संरक्षण विभाग, पटना।

30.7.2014
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

Schedule :- M3B

Date:- 30.07.14

List of Rates of Portland Slag Cement received from different Companies for the approval of State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H

Rates are inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				in figure (Rs.)	in words
1	2	3	4	5	6
1	Portland Slag Cement (P.S.C)	Per bag of 50 kg.	Patna	286.30	Rupees Two Hundred Eighty Six and Paise Thirty Only
			Muzaffarpur	291.10	Rupees Two Hundred Ninety One and Paise Ten Only
			Darbhanga	294.70	Rupees Two Hundred Ninety Four and Paise Seventy
			Bhagalpur	288.20	Rupees Two Hundred Eighty Eight and Paise Twenty
			Munger	275.10	Rupees Two Hundred Seventy Five and Paise Ten Only
			Saharsa	287.20	Rupees Two Hundred Eighty Seven and Paise Twenty
			Purnea	287.20	Rupees Two Hundred Eighty Seven and Paise Twenty
			Gaya	274.00	Rupees Two Hundred Seventy Four and Paise Zero Only
			Saran	286.30	Rupees Two Hundred Eighty Six and Paise Thirty Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

30/7/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0), बिहार स्टेट
पावर होल्डिंग कंपनी लिमिटेड, बिहार,

30.7.14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

30.7.14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण
समिति, मुख्य अभियंता ऊर्जा विभाग,
बिहार, पटना।

30/07/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

30/7/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, तकनीकी परीक्षण, कोषांग,
निगरानी विभाग, बिहार, पटना।

30.7.2014
संयोजक
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

Rate of Coarse Sand at Doriganj equivalent to Koilwar Sone Sand (Schedules M005)

Price Index of R.B.I in May 2014	168.10
Price Index in April 2013	166.20
Difference	1.90
% Variation=	1.143%
Previous Approved rate	257.50/m3
Previous rate excluding Royalty=Rs. 257.50-Rs. 50.00=	207.50/m3
Increased in rate as per R.B.I Index=Rs. 207.50x0.01143=	Rs. 2.37
Current rate of Coarse Sand with Royalty =(Rs.207.50+Rs. 2.37+Rs.50)=	259.87/m3

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति- सह–परियोजना संयोजक, नलकूप प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना

सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता (असैनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि0, बिहार, पटना

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता, ऊर्जा विभाग, बिहार, पटना

30/7/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख,(पु.) तकनीकी परीक्षण कोषांग, निगरानी विभाग, बिहार, पटना

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना

30/07/14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक
राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख, पथ निर्माण विभाग, बिहार, पटना।

Schedule :-- M5

Dtd. 30.07.14

Approved new rate of G.C. Sheet by State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

* Rates are inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charges.

Sl. No.	Name & Description of Materials	Unit	Approved Rates (in Rs.)	
			in figure (Rs.)	in words
1	2	3	4	5
	G. C. Sheet in mm			
1	0.50	Per MT.	56000.00	Rupees Fifty Six Thousand and Paise Zero Only
2	0.40	Per MT.	71904.76	Rupees Seventy One Thousand Nine Hundred Four and Paise Seventy Six Only
3	0.35	Per MT.	73419.04	Rupees Seventy Three Thousand Four Hundred Nineteen and Paise Four Only

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–परियोजना सयोजक नल कूप प्रभाग
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
सह–मुख्य अभियंता (ऊर्जा) बिहार स्टेट पावर
[illegible] लिमिटेड बिहार, पटना।

30/7/14
सदस्य,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता ऊर्जा विभाग,
बिहार, पटना।

30/7/14
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, तकनीकी परीक्षण प्रकोष्ठ
निगरानी विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

30.7.14
सर्वेक्षक,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
स्वास्थ्य अभियंत्रण विभाग, बिहार,पटना।

(LX)

Schedule :-- M10A

Approved new rate of Steel - TMT BARS (Fe500) State Level Schedule Rate Committee for the year 2014- 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications. *Dtd. 30.07.14*

Rates are inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charges .

Sl. No.	Name & Description of Materials	Unit	Approved Rates (in Rs.)	
			in figure (Rs.)	In words
1	2	3	4	5
	STEEL TMT BARS			
1	TMT Fe - 500 -8 mm	Per MT.	49700.00	Rupees Forty Nine Thousand Seven Hundred and Paise Zero Only
2	TMT Fe - 500 -10 mm	Per MT.	48700.00	Rupees Forty Eight Thousand Seven Hundred and Paise Zero Only
3	TMT Fe - 500 -12 mm	Per MT.	48200.00	Rupees Forty Eight Thousand Two Hundred and Paise Zero Only
4	TMT Fe- 500 -16 mm	Per MT.	48475.00	Rupees Forty Eight Thousand Four Hundred Seventy Five and Paise Zero Only
5	TMT Fe - 500 -20 mm	Per MT.	48000.00	Rupees Forty Eight Thousand and Paise Zero Only
6	TMT Fe - 500 -25 mm	Per MT.	48000.00	Rupees Forty Eight Thousand and Paise Zero Only
7	TMT Fe - 500 -28 mm	Per MT.	48000.00	Rupees Forty Eight Thousand and Paise Zero Only
8	TMT Fe - 500 -32 mm	Per MT.	48000.00	Rupees Forty Eight Thousand and Paise Zero Only

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–परियोजना संयोजक नल कूप प्रभाग
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य
राज्यस्तरीय अनुमूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0) , बिहार स्टेट
पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

30/07/14
सदस्य,
राज्य स्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता ऊर्जा विभाग,
बिहार, पटना।

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, तकनीकी परीक्षण कोषांग
निगरानी विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण स्वास्थ्य अभियंत्रण विभाग, बिहार,पटना।

(LXI)

Schedule :- M1

Date:- 30.07.14

List of Rates of Ordinary Portland Cement approved by State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Rates are inclusive of Excise Duty ,Cess etc. but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				in figure (Rs.)	in words
1	2	3	4	5	6
1	Ordinary Portland Cement	Per bag of 50 kg.	Patna	273.10	Rupees Two Hundred Seventy Three and Paise Ten Only
	(O.P.C - 43 Grade)		Muzaffarpur	277.10	Rupees Two Hundred Seventy Seven and Paise Ten Only
			Darbhanga	279.50	Rupees Two Hundred Seventy Nine and Paise Fifty Only
			Bhagalpur	278.10	Rupees Two Hundred Seventy Eight and Paise Ten Only
			Munger	270.70	Rupees Two Hundred Seventy and Paise Seventy Only
			Saharsa	279.50	Rupees Two Hundred Seventy Nine and Paise Fifty Only
			Purnea	279.50	Rupees Two Hundred Seventy Nine and Paise Fifty Only
			Gaya	258.60	Rupees Two Hundred Fifty Eight and Paise Sixty Only
			Saran	268.80	Rupees Two Hundred Sixty Eight and Paise Eighty Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

30/7/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

30.7.14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

30/7/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0) , बिहार स्टेट
पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

30.7.14
सदस्य
राज्य स्तरीय अनुसूचित दर निर्धारण समिति,
मुख्य अभियंता ऊर्जा विभाग,
बिहार, पटना।

30/7/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख तकनीकी परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना।

30.7.2014
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता,
लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

30.7.2014
संयोजक
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
जल संसाधन विभाग, बिहार, पटना।

30.7.2014
संयोजक
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

Schedule :- M3A

List of Rates of Portland Pozolana Cement received from different Companies for the approval of State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Date:- 30.07.14

Rates are inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				in figure (Rs.)	in words
1	2	3	4	5	6
i	Portland Pozolana Cement (P.P.C)	Per bag of 50 kg.	Patna	251.10	Rupees Two Hundred Fifty One and Paise Ten Only
			Muzaffarpur	259.00	Rupees Two Hundred Fifty Nine and Paise Zero Only
			Darbhanga	261.60	Rupees Two Hundred Sixty One and Paise Sixty Only
			Bhagalpur	255.50	Rupees Two Hundred Fifty Five and Paise Fifty Only
			Munger	248.60	Rupees Two Hundred Forty Eight and Paise Sixty Only
			Saharsa	263.70	Rupees Two Hundred Sixty Three and Paise Seventy Only
			Purnea	261.60	Rupees Two Hundred Sixty One and Paise Sixty Only
			Gaya	220.80	Rupees Two Hundred Twenty and Paise Eighty Only
			Saran	251.10	Rupees Two Hundred Fifty One and Paise Ten Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

30/7/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–
अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0) , बिहार स्टेट पावर
होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

30.7.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–मुख्य अभियंता,
जन स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

30.7.14
सदस्य,
सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

30/7/14
सदस्य,
सदस्य, राज्य स्तरीय अनुसूचित दर निर्धारण
समिति, मुख्य अभियंता ऊर्जा विभाग,
बिहार, पटना।

30/07/14
सदस्य,
सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
जल ससाधन विभाग, बिहार, पटना।

सदस्य,
सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

30/7/14
सदस्य
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, भूतकनीकी परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना।

संयोजक 30.7.2014
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख,
पथ निर्माण विभाग, बिहार, पटना।

(LXIII)

(LXIV)

बिहार सरकार

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

पत्रांकः– मु0नि0(पथ)47 / 2014 45 (अनु0) /दिनांकः– 18/11/14

प्रेषक,

अधीक्षण अभियंता,
मुख्यालय निरूपण अंचल,
पथ 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,
   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,
   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. परियोजना सयोजक,
   नलकूप प्रभाग, लघु जल संसाधन विभाग सह सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति, बिहार, पटना।
7. मुख्य अभियंता (असैनिक)
   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।

विषयः–राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा दिनांक–12.11.2014 की बैठक में लिये गये निर्णयानुसार बिटुमेन, स्टील, सीमेंट एवं ईंट एवं ईंट से संबंधित निर्माण सामग्रियों के दर की सूची के प्रेषण के संबंध में।

महाशय,

उपर्युक्त विषय के सबध में कहना है कि दिनांक–12.11.2014 की बैठक में राज्य स्तरीय अनुसूचित दर निर्धारण समिति द्वारा अनुमोदित बिटुमेन, स्टील, सीमेंट एवं ईंट एवं ईंट से संबंधित निर्माण सामग्रियों की पुर्नरीक्षित दर की सूची "M1", "M3A", "M3B", "M4", "M5", "M10A" एवं "M11" की स्वीकृति संबंधित सूची आवश्यक कार्रवाई हेतु संलग्न की जा रही है।

अनु0–निर्णय की छाया प्रति संलग्न।

विश्वासभाजन
18.11.2014

अधीक्षण अभियंता,
मुख्यालय निरूपण अंचल,
पथ निर्माण विभाग, बिहार, पटना।
18/11/14

Date:- 12.11.14

Schedule :- M1

List of Rates of Ordinary Portland Cement approved by State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Rates are inclusive of Excise Duty ,Cess etc. but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				in figure (Rs.)	in words
1	2	3	4	5	6
1	Ordinary Portland Cement	Per bag of 50 kg.	Patna	295.20	Rupees Two Hundred Ninety Five and Paise Twenty Only
	(O.P.C - 43 Grade)		Muzaffarpur	295.20	Rupees Two Hundred Ninety Five and Paise Twenty Only
			Darbhanga	295.20	Rupees Two Hundred Ninety Five and Paise Twenty Only
			Bhagalpur	290.70	Rupees Two Hundred Ninety and Paise Seventy Only
			Munger	290.70	Rupees Two Hundred Ninety and Paise Seventy Only
			Saharsa	295.20	Rupees Two Hundred Ninety Five and Paise Twenty Only
			Purnea	295.20	Rupees Two Hundred Ninety Five and Paise Twenty Only
			Gaya	279.50	Rupees Two Hundred Seventy Nine and Paise Fifty Only
			Saran	290.50	Rupees Two Hundred Ninety and Paise Fifty Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

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–परियोजना संयोजक नल जल प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0), बिहार स्टेट
पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

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

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, तूकनोकी 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,(मध्य)
जल संसाधन विभाग, बिहार, पटना।

संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख–सह– अपर आयुक्त–सह–विशेष सचिव,
पथ निर्माण विभाग, बिहार, पटना।

(LXV)

Schedule :- M3A

Date:- 12.11.14

List of Rates of Portland Pozolana Cement received from different Companies for the approval of State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC:MORT & H Specifications.

Rates are inclus ve of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge.

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				in figure (Rs.)	in words
1	2	3	4	5	5
1	Portland Pozolana Cement (P.P.C)	Per bag of 50 kg	Patna	264.30	Rupees Two Hundred Sixty Four and Paise Thirty Only
			Muzaffarpur	268.70	Rupees Two Hundred Sixty Eight and Paise Seventy Only
			Darbhanga	268.70	Rupees Two Hundred Sixty Eight and Paise Seventy Only
			Bhagalpur	264.30	Rupees Two Hundred Sixty Four and Paise Thirty Only
			Munger	261.70	Rupees Two Hundred Sixty One and Paise Seventy Only
			Saharsa	268.70	Rupees Two Hundred Sixty Eight and Paise Seventy Only
			Purnea	268.70	Rupees Two Hundred Sixty Eight and Paise Seventy Only
			Gaya	232.40	Rupees Two Hundred Thirty Two and Paise Forty Only
			Saran	264.30	Rupees Two Hundred Sixty Four and Paise Thirty Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

(LXVI)

12/11/14

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

12.11.14

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

सदस्य,
सदस्य, राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–परियोजना संयोजक राज्य लघु जल संसाधन विभाग, पटना।

12.11.2014

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0), बिहार स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

12/11/14

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

12/11/14

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

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख,(मध्य)
जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–तकनीकी परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना।

12/11/14

संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख सह– अपर आयुक्त–सह–विशेष सचिव,
पथ निर्माण विभाग, बिहार, पटना।

Schedule :- M3B

Date:- 12.11.14

List of Rates of Portland Slag Cement received from different Companies for the approval of State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Rates are Inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax @ 13.5%, contractor's profit & overhead charge

Sl. No.	Name & Description of Material	Unit	Zones	Approved Rate (in Rs.)	
				in figure (Rs.)	in words
1	2	3	4	5	6
1	Portland Slag Cement (P.S.C)	Per bag of 50 kg.	Patna	290.70	Rupees Two Hundred Ninety and Paise Seventy Only
			Muzaffarpur	295.20	Rupees Two Hundred Ninety Five and Paise Twenty Only
			Darbhanga	290.70	Rupees Two Hundred Ninety and Paise Seventy Only
			Bhagalpur	292.70	Rupees Two Hundred Ninety Two and Paise Seventy Only
			Munger	279.40	Rupees Two Hundred Seventy Nine and Paise Forty Only
			Saharsa	290.70	Rupees Two Hundred Ninety and Paise Seventy Only
			Purnea	290.70	Rupees Two Hundred Ninety and Paise Seventy Only
			Gaya	278.20	Rupees Two Hundred Seventy Eight and Paise Twenty Only
			Saran	286.30	Rupees Two Hundred Eighty Six and Paise Thirty Only

Note:- The above rate of cement is exclusive of 13.5% VAT.

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

12.11.14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0) , बिहार स्टेट
पावर होल्डिंग कंपनी लिमिटेड, बिहार।

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति,
मुख्य अभियंता(विद्युत) भवन निर्माण विभाग,
बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,(मध्य)
जल संसाधन विभाग, बिहार, पटना।

12.11.2014
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, तकनीकी परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना।

12/11/14
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख–सह– अपर आयुक्त–सह–विशेष सचिव,
पथ निर्माण विभाग, बिहार, पटना।

(LXVII)

Schedule :- M4

List of Rates of Different Grades of Bitumen approved by State Level Schedule Rate Committee for the year 2014 - 15 for the preparation of Schedule of Rate only. Materials should confirm to relevant BIS/IRC/MORT&H Specifications. Dtd. 12.11.14

Rates are inclusive of Excise Duty etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charges.

Sl. No.	Name & Description of Material	Unit	Approved Rate (in Rs.)	
			in figure(Rs.)	in words
1	2	3	4	5
1	Bitumen Grade VG-40(30/40)Packed			
	(iv)Ex. Patna	Per MT	—	—
	(v)Ex. Muzaffarpur	Per MT	—	—
	(vi) Ex. Gaya	Per MT	—	—
2	Bitumen Grade VG-30(60/70) Packed			
	(i)Ex.Barauni	Per MT	—	—
	(ii) Ex. Gaya	Per MT	—	—
	(vi) Ex. Patna	Per MT	53132.60	Rupees Fifty Three Thousand One Hundred Thirty Two and Paise Sixty Only
	(vii) Ex. Muzaffarpur	Per MT	53418.70	Rupees Fifty Three Thousand Four Hundred Eighteen and Paise Seventy Only
3	Bitumen Grade VG-10(80/100) Packed			
	(i) Ex. Barauni	Per MT	—	—
	(ii) Ex. Gaya	Per MT	—	—
	(vi) Ex. Patna	Per MT	52217.30	Rupees Fifty Two Thousand Two Hundred Seventeen and Paise Thirty Only
	(vii) Ex. Muzaffarpur	Per MT	52503.30	Rupees Fifty Two Thousand Five Hundred Three and Paise Thirty Only
4	Bitumen Grade VG-30(60/70) Bulk			
	(ii) Ex. Barauni	Per MT	—	—
5	Bitumen Grade VG-10(80/100) Bulk			
	(ii) Ex. Barauni	Per MT	—	—
6	Modified Graded Bitumen			
	(i) CRMB-50 Packed Ex. Barauni	Per MT	—	—
	(ii) CRMB-50 Packed Ex. Muzaffarpur	Per MT	—	—
	(iii) CRMB-50 Packed Ex. Gaya	Per MT	—	—
	(vi) CRMB-50 Packed Ex. Patna	Per MT	—	—
	(vi) CRMB-55 Packed Ex. Barauni	Per MT	—	—
	(viii) CRMB-55 Packed Ex. Gaya	Per MT	—	—
	(ix) CRMB-55 Packed Ex. Patna	Per MT	54242.50	Rupees Fifty Four Thousand Two Hundred Forty Two and Paise Fifty Only
	(x) CRMB-55 Packed Ex. Muzaffarpur	Per MT	—	—
	(xi) CRMB-60 Packed Ex. Barauni	Per MT	—	—
	(xiii) CRMB-60 Packed Ex. Patna	Per MT	—	—
	(xiv) CRMB-60 Packed Ex. Muzaffarpur	Per MT	—	—
	(xv) CRMB-60 Packed Ex. Gaya	Per MT	—	—
7	Emulsion			
	(i) Packed MS Grade (Paharpur)	Per MT	—	—

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–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै0) , बिहार स्टेट पावर
होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

सदस्य,
अन्य स्तरीय अनुसूचित दर निर्धारण समिति, 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,(मध्य)
जल संसाधन विभाग, बिहार, पटना।

संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख–सह– अपर आयुक्त–सह–विशेष सचिव

Schedule :-- M5

Dtd. 12.11.14

Approved new rate of G.C. Sheet by State Level Schedule Rate Committee for the year 2014 - 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Rates are inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charges.

Sl. No.	Name & Description of Materials	Unit	Approved Rates (in Rs.)	
			in figure (Rs.)	in words
1	2	3	4	5
	G. C. Sheet in mm			
1	0.63	Per MT.	53714.28	Rupees Fifty Three Thousand Seven Hundred Fourteen and Paise Twenty Eight Only
2	0.50	Per MT.	55428.57	Rupees Fifty Five Thousand Four Hundred Twenty Eight and Paise Fifty Seven Only
3	0.40	Per MT.	—	—
4	0.35	Per MT.	—	—

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना।

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (असै०) , बिहार स्टेट पावर
होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
लोक स्वास्थ्य अभियंत्रण विभाग, बिहार,पटना।

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह– अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना।

12/11/14
सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति, मुख्य
अभियंता(विद्युत) भवन निर्माण विभाग,
बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,(मध्य)
जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण
समिति–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

12.XI.2014
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख तकनीकी परीक्षण कोषांग,
निगरानी विभाग, बिहार, पटना।

12/11/14
संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख– सह– अपर आयुक्त–सह–विशेष सचिव,
पथ निर्माण विभाग, बिहार, पटना।

(LXIX)

Schedule :-- M10A

Dtd. 12.11.14

Approved new rate of Steel - TMT BARS (Fe500) State Level Schedule Rate Committee for the year 2014- 15 (for Preparation of Schedule of Rate only) - Materials should conform to relevant BIS/IRC/MORT & H Specifications.

Rates are inclusive of Excise Duty,Cess etc. but exclusive of VAT/Sales Tax, Contractor's profit and Overhead charges .

Sl. No.	Name & Description of Materials	Unit	Approved Rates (in Rs.)	
			in figure (Rs.)	in words
1	2	3	4	5
	STEEL TMT BARS			
1	TMT Fe - 500 -8 mm	Per MT.	48250.00	Rupees Forty Eight Thousand Two Hundred Fifty and Paise Zero Only
2	TMT Fe - 500 -10 mm	Per MT.	47250.00	Rupees Forty Seven Thousand Two Hundred Fifty and Paise Zero Only
3	TMT Fe - 500 -12 mm	Per MT.	46750.00	Rupees Forty Six Thousand Seven Hundred Fifty and Paise Zero Only
4	TMT Fe- 500 -16 mm	Per MT.	47238.09	Rupees Forty Seven Thousand Two Hundred Thirty Eight and Paise Nine Only
5	TMT Fe - 500 -20 mm	Per MT.	47200.00	Rupees Forty Seven Thousand Two Hundred and Paise Zero Only
6	TMT Fe - 500 -25 mm	Per MT.	47200.00	Rupees Forty Seven Thousand Two Hundred and Paise Zero Only
7	TMT Fe - 500 -28 mm	Per MT.	47200.00	Rupees Forty Seven Thousand Two Hundred and Paise Zero Only
8	TMT Fe - 500 -32 mm	Per MT.	47200.00	Rupees Forty Seven Thousand Two Hundred and Paise Zero Only

(LXX)

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–वरियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना।

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–मुख्य अभियंता (अरुo) बिहार स्टेट पावर
होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

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

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख, तकनीकी परीक्षण कोषांग,
निरीक्षण 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,(मध्य)
जल संसाधन विभाग, बिहार, पटना।

संयोजक,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति
–सह–अभियंता प्रमुख–सह– अपर आयुक्त–सह–विशेष सचिव,
पथ निर्माण विभाग, बिहार, पटना।

Schedule :- M11

Approved rate of Bricks & Bricks related materials by State Level Schedule Rate Committee for the year 2014-15
(for preparation of Schedule of Rates only)-Material should conform to relevant BIS/IRC/MORT & H Specifications.
Rates are inclusive of all taxes with Royalty but exclusive of VAT/Sales Tax and Overhead charges and Contractor's profit (Rates at source)

S. N.	Materials	Unit	Approved Rates (in Rs.)	
			in figure (Rs.)	in words
1	100 A Bricks			
	(i) For urban Patna	Nos/1000	6269.80	Rupees Six Thousand Two Hundred Sixty Nine and Paise Eighty Only
	(ii) For Darbhanga,Bhagalpur, Munger & Muzaffarpur	Nos/1000	5291.43	Rupees Five Thousand Two Hundred Ninety One and Paise Forty Three Only
	(iii) For Gaya & Saran	Nos/1000	5005.39	Rupees Five Thousand Five and Paise Thirty Nine Only
	(iv) For Saharsa	Nos/1000	5435.02	Rupees Five Thousand Four Hundred Thirty Five and Paise Two Only
	(v) For Purnea	Nos/1000	5722.18	Rupees Five Thousand Seven Hundred Twenty Two and Paise Eighteen Only
	(vi) For rural Patna	Nos/1000	5220.20	Rupees Five Thousand Two Hundred Twenty and Paise Twenty Only
2	100 B Bricks			
	(i) For urban Patna	Nos/1000	5019.02	Rupees Five Thousand Eight Hundred Nineteen and Paise Two Only
	(ii) For Darbhanga, Bhagalpur, Munger & Muzaffarpur	Nos/1000	4859.57	Rupees Four Thousand Eight Hundred Fifty Nine and Paise Fifty Seven Only
	(iii) For Gaya & Saran	Nos/1000	4573.53	Rupees Four Thousand Five Hundred Seventy Three and Paise Fifty Three Only
	(iv) For Saharsa	Nos/1000	5005.39	Rupees Five Thousand Five and Paise Thirty Nine Only
	(v) For Purnea	Nos/1000	5291.43	Rupees Five Thousand Two Hundred Ninety One and Paise Forty Three Only
	(vi) For rural Patna	Nos/1000	4770.54	Rupees Four Thousand Seven Hundred Seventy and Paise Fifty Four Only
3	Brick Tiles (300mmx150mmx50mm)			
	(i) For urban Patna and rural Patna	Nos/1000	6269.80	Rupees Six Thousand Two Hundred Sixty Nine and Paise Eighty Only
	(ii) For Saharsa, Bhagalpur, Darbhanga & Muzaffarpur	Nos/1000	6297.62	Rupees Six Thousand Two Hundred Ninety Seven and Paise Sixty Two Only
	(iii) For Purnea	Nos/1000	6585.90	Rupees Six Thousand Five Hundred Eighty Five and Paise Ninety Only
	(iv) For other places	Nos/1000	6009.32	Rupees Six Thousand Nine and Paise Thirty Two Only
4	Picket Jhama Bricks			
	(i) For urban Patna	Nos/1000	5371.57	Rupees Five Thousand Three Hundred Seventy One and Paise Fifty Seven Only
	(ii) For Darbhanga, Bhagalpur, Munger & Muzaffarpur	Nos/1000	4429.94	Rupees Four Thousand Four Hundred Twenty Nine and Paise Ninety Four Only
	(iii) For Gaya & Saran	Nos/1000	4139.44	Rupees Four Thousand One Hundred Thirty Nine and Paise Forty Four Only
	(iv) For Purnea	Nos/1000	4854.57	Rupees Four Thousand Eight Hundred Fifty Nine and Paise Fifty Seven Only
	(v) For Saharsa	Nos/1000	4573.53	Rupees Four Thousand Five Hundred Seventy Three and Paise Fifty Three Only
	(vi) For rural Patna	Nos/1000	4330.88	Rupees Four Thousand Three Hundred Thirty and Paise Eighty Eight Only
5	Brick Bats			
	(i) For urban Patna	Per m^3	1105.05	Rupees One Thousand One Hundred Five and Paise Five Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1060.53	Rupees One Thousand Sixty and Paise Fifty Three Only
	(iii) For other places	Per m^3	1014.89	Rupees One Thousand Fourteen and Paise Eighty Nine Only
	(iv) For rural Patna	Per m^3	1059.41	Rupees One Thousand Fifty Nine and Paise Forty One Only
6	Jhama Metals			
	(a) 63 mm to 40 mm size			
	(i) For urban Patna	Per m^3	1313.18	Rupees One Thousand Three Hundred Thirteen and Paise Eighteen Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1257.53	Rupees One Thousand Two Hundred Fifty Seven and Paise Fifty Three Only
	(iii) For other places	Per m^3	1231.92	Rupees One Thousand Two Hundred Thirty One and Paise Ninety Two Only
	(iv) For rural Patna	Per m^3	1283.14	Rupees One Thousand Two Hundred Eighty Three and Paise Fourteen Only
	(b) 40 mm to 20 mm size			
	(i) For urban Patna	Per m^3	1462.34	Rupees One Thousand Four Hundred Sixty Two and Paise Thirty Four Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1402.23	Rupees One Thousand Four Hundred Two and Paise Twenty Three Only
	(iii) For other places	Per m^3	1361.05	Rupees One Thousand Three Hundred Sixty One and Paise Five Only
	(iv) For rural Patna	Per m^3	1417.81	Rupees One Thousand Four Hundred Seventeen and Paise Eighty One Only
	(c) 20 mm and down			
	(i) For urban Patna	Per m^3	1673.81	Rupees One Thousand Six Hundred Seventy Three and Paise Eighty One Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1605.91	Rupees One Thousand Six Hundred Five and Paise Ninety One Only

	(iii) For other places	Per m^3	1548.03	Rupees One Thousand Five Hundred Forty Eight and Paise Three Only
	(iv) For rural Patna	Per m^3	1615.93	Rupees One Thousand Six Hundred Fifteen and Paise Ninety Three Only
7	Surkhi			
	(i) For urban Patna	Per m^3	1733.91	Rupees One Thousand Seven Hundred Thirty Three and Paise Ninety One Only
	(ii) For Purnea, Saharsa, Bhagalpur, Munger & Darbhanga	Per m^3	1662.67	Rupees One Thousand Six Hundred Sixty Two and Paise Sixty Seven Only
	(iii) For other places	Per m^3	1605.91	Rupees One Thousand Six Hundred Five and Paise Ninety One Only
	(iv) For rural Patna	Per m^3	1673.81	Rupees One Thousand Six Hundred Seventy Three and Paise Eighty One Only

Note :- For Sr. No. 1 - 4 royality has been included as Rs. 29 per 1000 Nos. and for Sr. No. 5 - 7 as Rs. 11.6 per cum.

12/11/14

सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
भवन निर्माण विभाग, बिहार, पटना

12.11.14

सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,
ग्रामीण कार्य विभाग, बिहार, पटना

सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति
–सह–परियोजना संयोजक नल कूप प्रभाग,
लघु जल संसाधन विभाग, बिहार, पटना

सदस्य,
राज्यस्तरीय अनुसूचित दर निर्धारण समिति,
–सह–मुख्य अभियंता (अप्लै0), बिहार
स्टेट पावर होल्डिंग कंपनी लिमिटेड, बिहार, पटना।

12/11/14

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

12.11.2014

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

सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख, लोक स्वास्थ्य अभियंत्रण
विभाग, बिहार, पटना

सदस्य,
राज्यस्तरीय अनूसूचित दर निर्धारण
समिति–सह–अभियंता प्रमुख,(मध्य)
जल संसाधन विभाग, बिहार, पटना

12/11/14

संयोजक,
राज्यस्तरीय अनूसूचित दर निर्धारण समिति–
सह–अभियंता प्रमुख–सह–अपर आयुक्त–सह–विशेष
सचिव,
पथ निर्माण विभाग, बिहार, पटना

1178

दिनांक–12.11.2014 को आहूत राज्य स्तरीय अनुसूचित दर निर्धारण समिति की बैठक की कार्यवाही में लिये गये निर्णय :–

1. <u>बिटूमेन एवं इमल्सन के दर को अद्यतन करने के संबंध में</u> – जिन ग्रेडों के बिटुमेन के दर मात्र एक ही कंपनी से प्राप्त हुई थी उसको छोड़ अन्य ग्रेडों के बिटूमेन के बढ़े दर को न्यूनतम दर के आधार पर संलग्न सूची (Schedule-M4) के अनुसार अनुमोदित किया गया। शेष बचे बिटूमेन के अद्यतन दर के साथ उनके द्वारा निर्माण की जाती है अथवा नहीं इसकी सूचना तेल कंपनियों से माँग करने की सहमति बनी।
2. <u>स्टील के दर को अद्यतन करने के संबंध में</u>–स्टील निर्माता के विभिन्न कंपनियों से प्राप्त लौह सामग्रियों यथा G.C.Sheet और TMT Bars आदि के बढ़े हुए/घटे हुए दर को न्यूनतम दर के आधार पर संलग्न सूची (Schedule M5, M10A) के अनुसार अनुमोदित किया गया। शेष बचे सामग्रियों जिनका दर मात्र एक ही कम्पनी से प्राप्त हुई थी उसकी अद्यतन दर के साथ उनके द्वारा निर्माण की जाती है अथवा नहीं इसकी सूचना की मांग कंपनियों से करने की सहमति बनी।
3. <u>सिमेंट के दर को अद्यतन करने के संबंध में</u>– सिमेंट निर्माता के विभिन्न कंपनियों से प्राप्त विभिन्न प्रकार के सिमेंट यथा OPC-43Grade, Portland Pozzolana Cement (PPC), Portland Slag ,Cement आदि के बढ़े हुए/घटे हुए दर को न्यूनतम दर के आधार पर संलग्न सूची (Schedule "M1", "M3A" एवं "M3B") के अनुसार दर को अद्यतन करने का निर्णय लिया गया। OPC-33Grade सिमेंट जिसका दर मात्र एक कम्पनी कल्याणपुर से प्राप्त थी उसके संबंध में संसूचित कंपनियो से जानकारी माग करने की सहमति बनी कि उनके द्वारा उक्त सिमेंट का निर्माण किया जाता है अथवा नहीं।
4. <u>ईंट एवं ईंट से संबंधित निर्माण सामग्रियों का दर पुनरीक्षण</u> :–
   Govt of India, office of the economic advisor द्वारा निर्गत Bricks & Tiles के Price Index के आधार पर ईंट के दर में संशोधन करने का निर्णय लिया गया। माह दिसम्बर 2013 का WPI 204.40 था एवं माह सितम्बर 2014 का WPI 213.90 है। इस प्रकार इन मदों में बढ़ोत्तरी 4.48% करने का निर्णय लिया गया।
5. <u>Steel Procurement के संबंध में</u> :– Steel Procurement के संबंध में चर्चा की गई। चर्चा के दौरान ऐसी सहमति बनी कि स्टील का Procurement, Steel के main Producer यथा SAIL ,VIZAG और TATA से की जाय एवं इन्ही तीन कंपनियों से प्राप्त दर को SOR में सम्मिलित किया जाय।

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–परियोजना संयोजक, नलकूप प्रभाग, लघु जल संसाधन विभाग, बिहार, पटना
सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–मुख्य अभियंता (असैनिक) बिहार स्टेट पावर होल्डिंग कंपनी लि0, 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, लोक स्वास्थ्य अभियंत्रण विभाग, बिहार, पटना।	सदस्य राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख,(मध्य) जल संसाधन विभाग, बिहार, पटना।	संयोजक राज्य स्तरीय अनुसूचित दर निर्धारण समिति–सह–अभियंता प्रमुख–सह–अपर आयुक्त–सह–विशेष सचिव, पथ निर्माण विभाग, बिहार, पटना।

CHAPTER ---I

Rate revised as per Labour Department Notification no. 254 dt. 26.08.2014

Schedule-I

LABOUR RATE FOR CONSTRUCTION/ MAINTENANCE OF ROAD OR IN BUILDING

Sl No	Category of Employee	Lab. Dept. Noti. No. 531 dt. 5.10.12	Lab. Dept. Noti. No. 268/03.04.13	Lab. Dept. Noti. No. 3314/04.10.13	Lab. Dept. Noti. No. 1704/19.06.14
1	2	3	4(1.064xcol.3)	5(1.0447xcol.4)	6(1.0591xcol.5)
1	Unskilled labour	157.00	168.00	176.00	184.00
2	Sweeper	157.00	168.00	176.00	184.00
3	Mistry	157.00	168.00	176.00	184.00
4	Cleaner	157.00	168.00	176.00	184.00
5	Helper	157.00	168.00	176.00	184.00
6	Khalasi/Chainman	157.00	168.00	176.00	184.00
7	Marker	200.00	213.00	223.00	236.00
8	Fitter grade I	216.00	230.00	240.00	254.00
	Fitter grade II	190.00	202.00	211.00	223.00
9	Turner	190.00	202.00	211.00	223.00
10	Mechanic grade I	245.00	261.00	273.00	289.00
	Mechanic grade II	227.00	242.00	253.00	268.00
11	Electrician grade I	201.00	214.00	224.00	237.00
	Electrician grade II	190.00	202.00	211.00	223.00
12	Lineman/Wireman	184.00	196.00	205.00	217.00
13	Chargeman	227.00	242.00	253.00	268.00
14	Foreman	269.00	286.00	299.00	317.00
15	Welder grade I	239.00	254.00	265.00	281.00
	Welder grade II	201.00	214.00	224.00	237.00
16	Glazier	178.00	189.00	197.00	209.00
17	Carpenter	190.00	202.00	211.00	223.00
18	Head Carpenter	213.00	227.00	237.00	251.00
19	Checker	192.00	204.00	213.00	226.00
20	Hammerman	166.00	177.00	185.00	196.00
21	Tin Smith	216.00	230.00	240.00	254.00
22	Tin plate maker	227.00	242.00	253.00	268.00
23	Black Smith	190.00	202.00	211.00	223.00
24	Head Black Smith	213.00	227.00	237.00	251.00
25	Tile Layer	168.00	179.00	187.00	198.00
26	Thatcher	168.00	179.00	187.00	198.00
27	Plumber	201.00	214.00	224.00	237.00
28	Grader	192.00	204.00	213.00	226.00
29	Road Binder	178.00	189.00	197.00	209.00
30	Mason	190.00	202.00	211.00	223.00
31	Head Mason	213.00	227.00	237.00	251.00
32	Stone Layer	190.00	202.00	211.00	223.00
33	Tarman	166.00	177.00	185.00	196.00
34	Fireman	168.00	179.00	187.00	198.00
35	Grinder	190.00	202.00	211.00	223.00
36	Gas Cutter	200.00	213.00	223.00	236.00
37	Rigger	192.00	204.00	213.00	226.00
38	Sarang	227.00	242.00	253.00	268.00
39	Chipper Cum-Rivetter	200.00	213.00	223.00	236.00

40	Tractor Operator	227.00	242.00	253.00	268.00
41	Dozer Operator grade I	269.00	286.00	299.00	317.00
	Dozer Operator grade II	239.00	254.00	265.00	281.00
42	Dumper Operator	228.00	243.00	254.00	269.00
43	Vibrator Operator	177.00	188.00	196.00	208.00
44	Pump Driver grade I	201.00	214.00	224.00	237.00
	Pump Driver grade II	190.00	202.00	211.00	223.00
45	Dragline Operator Grade I	269.00	286.00	299.00	317.00
	Dragline Operator Grade II	239.00	254.00	265.00	281.00
46	Concrete Mixer Operator Grade I	201.00	214.00	224.00	237.00
	Concrete Mixer Operator Grade II	190.00	202.00	211.00	223.00
47	Compressor Operator Grade I	201.00	214.00	224.00	237.00
	Compressor Operator Grade II	190.00	202.00	211.00	223.00
48	Earth Excavater			0.00	0.00
(a)	For every 110 cu. Ft. for soft earth	157.00	168.00	174.00	186.00
(b)	For every 100 cu. Ft. for hard earth	157.00	168.00	174.00	186.00
(c)	For every 90 cu. Ft. for highly hard earth	157.00	168.00	174.00	186.00
49	Truck Driver	227.00	242.00	253.00	268.00
50	Car /Jeep Driver	200.00	213.00	223.00	236.00
51	Crane Operater grade I	269.00	286.00	299.00	317.00
	Crane Operater grade II	239.00	254.00	265.00	281.00
52	Winch Operator	201.00	214.00	224.00	237.00
53	Road Roller Driver	274.00	292.00	305.00	323.00
54	Blaster	264.00	281.00	294.00	311.00
55	Painter grade-I	201.00	214.00	224.00	237.00
56	Polisher	168.00	179.00	187.00	198.00
57	Peon /Darvan /Choukidar	166.00	177.00	185.00	196.00
58	Clerk /Typist /Typist clerk	188.00	200.00	209.00	221.00
59	Time Keeper	188.00	200.00	209.00	221.00
60	Store Assistant / Storeman	204.00	217.00	227.00	240.00
61	Store head	193.00	205.00	214.00	227.00
62	Material Chaser	193.00	205.00	214.00	227.00
63	Mate and Road Mate	168.00	179.00	187.00	198.00
64	Munshi	177.00	188.00	196.00	208.00
65	Work Supervisor	178.00	189.00	197.00	209.00
66	Amin	188.00	200.00	209.00	221.00
67	Surveyer	192.00	204.00	213.00	226.00
68	Supervisor Diploma Holder	257.00	273.00	285.00	302.00
69	Supervisor Non-Diploma Holder	190.00	202.00	211.00	223.00
70	Any Other Category of Semi Skilled Worker not mentioned above	163.00	173.00	184.00	192.00
71	Any Other Category of Skilled Worker not mentioned above	198.00	211.00	225.00	234.00
72	Highly Skilled Labour	243.00	259.00	273.00	285.00

Note: The above rates has been calculated as 1.0591% increase in labour dept. notification no.1704 dt. 19.06.2014 i.e. *i.0591xcol.5)

SCHEDULE - 2

LABOUR RATE FOR CONSTRUCTION/ MAINTENANCE OF DAM AND IRRIGATION

Sl. No.	Category of Employee	Lab. Dept. Noti. No. 531 dt. 5.10.12	Lab. Dept. Noti. No. 268 dt. 3.4.13	Lab. Dept. Noti. No. 3314/04.10.13	Lab. Dept. Noti. No. 1704/19.06.2014
1	2	3	4 (1.064*col.3)	5 (1.0447xcol.4)	6(1.0591xcol.5)
1	Unskilled labour	168.00	176.00	176.00	184.00
2	Mate	182.00	190.00	198.00	201.00
3	Head Mason	227.00	237.00	237.00	251.00
4	Mason	202.00	211.00	211.00	223.00
5	Printer Class-I	214.00	225.00	225.00	237.00
6	Printer Class-II	202.00	211.00	211.00	223.00
7	Head Carpenter	227.00	237.00	237.00	251.00
8	Carpenter	202.00	211.00	211.00	223.00
9	Head Black Smith	227.00	237.00	237.00	251.00
10	Black Smith	202.00	211.00	211.00	223.00
11	Glazier	179.00	187.00	187.00	198.00
12	Stone dresser	214.00	225.00	225.00	237.00
13	Water carrier	168.00	176.00	176.00	186.00
14	Fitter Class-I	230.00	240.00	240.00	254.00
15	Fitter Class-II	202.00	211.00	211.00	223.00
16	Helper	177.00	185.00	185.00	196.00
17	Hammerman	177.00	185.00	185.00	196.00
18	Bellowman	168.00	176.00	176.00	186.00
19	Road Roller Driver	292.00	305.00	305.00	323.00
20	Concrete Mixer Operator, Class-I	214.00	225.00	225.00	237.00
21	Concrete Mixer Operator, Class-II	202.00	211.00	211.00	223.00
22	Stone crusher driver, Class-I	214.00	225.00	225.00	237.00
23	Stone crusher driver, Class-II	202.00	211.00	211.00	223.00
24	Truck Driver	242.00	253.00	253.00	268.00
25	Compressor Operator, Class-I	214.00	225.00	225.00	237.00
26	Compressor Operator, Class-II	202.00	211.00	211.00	223.00
27	Pump Driver, Class-I	214.00	225.00	225.00	237.00
28	Pump Driver, Class-II	202.00	211.00	211.00	223.00
29	Concrete mixer attendent	177.00	185.00	185.00	196.00
30	Cleaner or Oilman	171.00	179.00	179.00	190.00
31	Tar Boiler man	202.00	211.00	211.00	223.00
32	Plumber	214.00	225.00	225.00	237.00
33	Thatcher	179.00	187.00	187.00	198.00
34	Khalasi/Chainman	179.00	187.00	187.00	198.00
35	Sweeper	171.00	179.00	179.00	190.00
36	Watchman	171.00	179.00	179.00	190.00
37	Stone breaker	171.00	179.00	179.00	190.00
38	Work Sarkar	189.00	198.00	198.00	209.00
39	Time Keeper	200.00	209.00	209.00	221.00
40	Welder, Grade I	254.00	265.00	265.00	281.00
41	Welder, Grade II	214.00	225.00	225.00	237.00
42	Wireman/Lineman	196.00	205.00	205.00	217.00
43	Mechnanic, grade I	261.00	273.00	273.00	289.00
44	Mechnanic, grade II	242.00	253.00	253.00	268.00
45	Sarang	242.00	253.00	253.00	268.00
46	Drill operator	202.00	211.00	211.00	223.00
47	Tractor Operator	242.00	253.00	253.00	268.00
48	Gauge reader cum silt observer	177.00	185.00	185.00	196.00
49	Crane Operater, Grade-I	286.00	299.00	299.00	317.00

50	Crane Operater, Grade-II	254.00	265.00	265.00	281.00
51	Dragline/Scraper/Showel Operator Grade-	286.00	299.00	299.00	317.00
52	Dragline/Scraper/Shoval Operator Grade-I	254.00	265.00	265.00	281.00
53	Dumper Operator	243.00	254.00	254.00	269.00
54	Foreman	283.00	296.00	296.00	317.00
55	Junior Foreman	254.00	265.00	265.00	281.00
56	Chargeman	243.00	254.00	254.00	269.00
57	Electrican, Grade I	214.00	225.00	225.00	237.00
58	Electrican, Grade II	202.00	211.00	211.00	223.00
59	Electrican, Grade III	177.00	185.00	185.00	196.00
60	Turner	202.00	211.00	211.00	223.00
61	Compounder	202.00	211.00	211.00	223.00
62	Supervisor/ (Diploma Holder)	273.00	285.00	285.00	302.00
63	Surveyer/Supervisor	202.00	211.00	211.00	223.00
64	Blue printer	177.00	185.00	185.00	196.00
65	Tracer	177.00	185.00	185.00	196.00
66	Vibrator Operator	188.00	196.00	196.00	208.00
67	Clerk /Typist /Typist clerk	200.00	209.00	209.00	221.00
68	Earth Excavator		0.00	0.00	0.00
	(a) For every 110 cubic feet of soft earth	168.00	176.00	176.00	186.00
	(b) For every 100 cubic feet of hard earth	168.00	176.00	176.00	186.00
	(c) For every 90 cubic feet of highly hard ea	168.00	176.00	176.00	186.00
69	Any Other Category of Semi Skilled Workers not mentioned above	175.00	183.00	183.00	192.00
70	Any Other Category of Skilled Worker not mentioned above	214.00	225.00	225.00	234.00
71	Highly Skilled Labour	260.00	272.00	272.00	285.00
Note: The above rates has been calculated as 1.0591% increase in labour dept. notification no. 1704 dt. 19.06.2014 i.e. *1.0591xcol.5)					

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
1	**(i) Ordinary Portland Cement (OPC Grade 43) (Unit- Per bag of 50 kg) approved by State Level Committee (for prepration of Schdule of rate only)-Materials should confirm to relevant BIS/IRC/MORT& H Specifications.The rates are inclusive of Excise Duty, cess ,VAT/Sales Tax etc. but exclusive of Contractor's profit**									
										Per M^3
	(M-1) Patna Urban	INPUT →	273.10	0	**273.10**		**273.10**	**13.50**	310.00	**9118.00**
	Patna	Per bag	273.10	0	273.10		273.10	13.50	310.00	9118.00
	Muzafferpur	Per bag	277.10	0	277.10		277.10	13.50	315.00	9265.00
	Darbhanga	Per bag	279.50	0	279.50		279.50	13.50	317.00	9324.00
	Bhagalpur	Per bag	278.10	0	278.10		278.10	13.50	316.00	9294.00
	Munger	Per bag	270.70	0	270.70		270.70	13.50	307.00	9029.00
	Saharsa	Per bag	279.50	0	279.50		279.50	13.50	317.00	9324.00
	Purnea	Per bag	279.50	0	279.50		279.50	13.50	317.00	9324.00
	Gaya	Per bag	258.60	0	258.60		258.60	13.50	294.00	8647.00
	Saran	Per bag	268.80	0	268.80		268.80	13.50	305.00	8971.00
	(i) Ordinary Portland Cement (OPC Grade 33) (Unit- Per bag of 50 kg) approved by State Level Committee for prepration of Schdule of rate only-Materials should confirm to relevant BIS/IRC/MORT& H Specifications.The rates are inclusive of Excise Duty, cess ,VAT/Sales Tax etc. but exclusive of Contractor's profit									
										Per M^3
	(M-2)	INPUT →	267.90	0	**267.90**		**267.90**	**13.50**	**304.00**	**8941.00**
	Patna	Per bag	273.10	0	273.10		273.10	13.50	310.00	9118.00
	Muzaffarpur	Per bag	276.90	0	276.90		276.90	13.50	314.00	9235.00
	Darbhanga	Per bag	286.00	0	286.00		286.00	13.50	325.00	9559.00
	Bhagalpur	Per bag	286.00	0	286.00		286.00	13.50	325.00	9559.00
	Munger	Per bag	286.00	0	286.00		286.00	13.50	325.00	9559.00
	Saharsa	Per bag	295.40	0	295.40		295.40	13.50	335.00	9853.00
	Purnea	Per bag	295.40	0	295.40		295.40	13.50	335.00	9853.00
	Gaya	Per bag	258.40	0	258.40		258.40	13.50	293.00	8618.00

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	Saran	Per bag	276.90	0	276.90		276.90	13.50	314.00	9235.00
	(iii) Portland Pozolana Cement (Unit- Per bag of 50 kg) approved by State Level Committee for prepration of Schdule of rate only-Materials should confirm to relevant BIS/IRC/MORT& H Specifications. The rates are inclusive of Excise Duty, cess, VAT/Sales Tax etc. but exclusive of Contractor's profit									
										Per M^3
	(M-3A)	INPUT →	263.50	0	**263.50**		**263.50**	**13.50**	**299.00**	**8794.00**
	Patna	Per bag	251.10	0	251.10		251.10	13.50	285.00	8382.00
	Muzaffarpur	Per bag	259.00	0	259.00		259.00	13.50	294.00	8647.00
	Darbhanga	Per bag	261.60	0	261.60		261.60	13.50	297.00	8735.00
	Bhagalpur	Per bag	255.50	0	255.50		255.50	13.50	290.00	8529.00
	Munger	Per bag	248.60	0	248.60		248.60	13.50	282.00	8294.00
	Saharsa	Per bag	263.70	0	263.70		263.70	13.50	299.00	8794.00
	Purnea	Per bag	261.60	0	261.60		261.60	13.50	297.00	8735.00
	Gaya	Per bag	220.80	0	220.80		220.80	13.50	251.00	7382.00
	Saran	Per bag	251.10	0	251.10		251.10	13.50	285.00	8382.00
	(iv) Portland Slag Cement (Unit- Per bag of 50 kg) approved by State Level Committee for prepration of Schdule of rate only-Materials should confirm to relevant BIS/IRC/MORT& H Specifications. The rates are inclusive of Excise Duty, cess, VAT/Sales Tax etc. but exclusive of Contractor's profit									
										Per M^3
	(M-3B)	INPUT →	277.80	0	**277.80**		**277.80**	**13.50**	**315.00**	**9265.00**
	Patna	Per bag	286.30	0	286.30		286.30	13.50	325.00	9559.00
	Muzaffarpur	Per bag	291.10	0	291.10		291.10	13.50	330.00	9706.00
	Darbhanga	Per bag	294.70	0	294.70		294.70	13.50	334.00	9824.00
	Bhagalpur	Per bag	288.20	0	288.20		288.20	13.50	327.00	9618.00
	Munger	Per bag	275.10	0	275.10		275.10	13.50	312.00	9176.00
	Saharsa	Per bag	287.20	0	287.20		287.20	13.50	326.00	9588.00
	Purnea	Per bag	287.20	0	287.20		287.20	13.50	326.00	9588.00
	Gaya	Per bag	274.00	0	274.00		274.00	13.50	311.00	9147.00
	Saran	Per bag	286.30	0	286.30		286.30	13.50	325.00	9559.00

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
2	**White Cement (Per 50 Kg bag)**	Per bag	485.00	0	485.00		485.00	13.50	550.48	16190.00
3	**Iron and steel materials**									
	(A) Plate (size in mm)									
	i. 5	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	ii. 6 and 7	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	iii. 8 and 10	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	iv. 12	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	v. Over 12 up to 20	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	vi Over 20 up to 36	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	vii Over 36 up to 45	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	viii. Over 45 up to 63	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	ix. Chequered plates 5 to 10	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	(B) Angle size in mm Approved by State Level S.R.Committee -Materials should confirm to relevant BIS/IRC/MORT & H Specification (inclusive of Excise Duty, Cess, Sales tax /VAT etc.but exclusive of C.P. and overhead charge)									
	I. 50x50x6 and	Per M.T	44600.00	0	44600.00		44600.00	5	46830.00	
	ii. 60x60x6	Per M.T	44600.00	0	44600.00		44600.00	5	46830.00	
	iii. 65x65x6	Per M.T	44600.00	0	44600.00		44600.00	5	46830.00	
	iv. 75x75x6	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	v. 80x80x8 /10 /12	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	vi. 90x90x6/8	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	M-9
	vii.100x100x 8 /10 /12	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	viii.110 x110 x8 /10 /12	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	ix. 130 x130 x10 /12	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	x. 150x150x12 /16/20	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	xi 200 x200 x16 /18 /20	Per M.T	42475.00	0	42475.00		42475.00	5	44599.00	
	xii. Any other angles including unequal angles not listed	Per M.T	**INPUT**	0	#VALUE!		#VALUE!	5	#VALUE!	M-179
	(C) Joist size in mm Approved by State Level S.R.Committee -Materials should confirm to relevant BIS/IRC/MORT & H Specification (inclusive of Excise Duty, Cess, Sales tax /VAT etc.but exclusive of C.P. and overhead charge)									
	i. 125 x 70	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	ii..150 x 75	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	iii.175 x 85	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	iv. 200x100	Per M.T	36046.00	0	36046.00		36046.00	5	37848.00	
	v. 225x110	Per M.T	36046.00	0	36046.00		36046.00	5	37848.00	
	vi. 250x125	Per M.T	36598.00	0	36598.00		36598.00	5	38428.00	M-7
	vii. 300x140	Per M.T	36598.00	0	36598.00		36598.00	5	38428.00	
	viii. 350x140	Per M.T	37723.00	0	37723.00		37723.00	5	39609.00	
	ix.400x140	Per M.T	38826.00	0	38826.00		38826.00	5	40767.00	
	x. 450 x 150	Per M.T	39842.00	0	39842.00		39842.00	5	41834.00	
	xi. 500x180	Per M.T	40858.00	0	40858.00		40858.00	5	42901.00	
	xii. 600x210	Per M.T	43908.00	0	43908.00		43908.00	5	46103.00	
	(D) Channel size in mm Approved by State Level S.R.Committee -Materials should confirm to relevant BIS/IRC/MORT & H Specification (inclusive of Excise Duty, Cess, Sales tax /VAT etc.but exclusive of C.P. and overhead charge)									
	i. 75x40	Per M.T	47200.00	0	47200.00		47200.00	5	49560.00	
	ii. 100 x 50	Per M.T	43600.00	0	43600.00		43600.00	5	45780.00	
	iii.125 x 65	Per M.T	42950.00	0	42950.00		42950.00	5	45098.00	
	iv.150 x 75	Per M.T	42850.00	0	42850.00		42850.00	5	44993.00	
	v.175x75	Per M.T	39050.00	0	39050.00		39050.00	5	41003.00	M-8
	vi.200 x 75	Per M.T	48700.00	0	48700.00		48700.00	5	51135.00	
	vii.250 x 82	Per M.T	44124.00	0	44124.00		44124.00	5	46330.00	
	viii.300 x 90	Per M.T	44469.00	0	44469.00		44469.00	5	46692.00	
	ix.400 x 100	Per M.T	45770.00	0	45770.00		45770.00	5	48059.00	
	(E) G.C sheets thickness in mm Approved by State Level S.R.Committee -Materials should confirm to relevant BIS/IRC/MORT & H Specification (inclusive of Excise Duty, Cess, Sales tax /VAT etc.but exclusive of C.P. and overhead charge)									
	i. 0.80	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	ii. 0.63	Per M.T	53714.28	0	53714.28		53714.28	5	56400.00	
	iii. 0.50	Per M.T	56000.00	0	56000.00		56000.00	5	58800.00	M-5
	iv. 0.40	Per M.T	71904.46	0	71904.46		71904.46	5	75500.00	
	v. 0.35	Per M.T	73419.04	0	73419.04		73419.04	5	77090.00	
	(F) G.C.I sheets (Tata Shakti sheet) in mm									
	i. 0.25 x 800 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	ii. 0.30 x 800 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	iii. 0.35 x 800 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	iv. 0.40 x 800 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	v. 0.45 x 840 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	vi. 0.50 x 840 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	vii.0.55 x 840 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	viii.0.60 x 840 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	ix. 0.60 x 840 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	x. 0.30 x 910 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	xi. 0.35 x 910 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	xii.0.40 x 910 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	xiii.0.45 x1220 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	xiv.0.50 x1220 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	xv.0.60 x1220 x 1830 to 4270	Per M^2	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	(G) (a). Wire rods conforming to I.S ; 2062 /84. 6mm dia (I) R/R GRA	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	(II) W/R SWR	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	(b) Round bars conforming to I.S. 432 diameter in mm									
	i. 6 mm	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	i. Above 6mm upto 12mm dia	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	ii. 14mm to 50mm dia	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
	(H) Steel T.M.T bars (Fe500) Approved by State Level S.R.Committee									
	i. T.M.T. Fe -500-8 mm	Per M.T	49700.00	0	49700.00		49700.00	5	52185.00	
	ii. T.M.T. Fe -500-10 mm	Per M.T	48700.00	0	48700.00		48700.00	5	51135.00	
	iii. T.M.T. Fe -500-12 mm	Per M.T	48200.00	0	48200.00		48200.00	5	50610.00	

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	iv. T.M.T. Fe - 500-16mm	Per M.T	48475.00	0	48475.00		48475.00	5	50898.75	M-10 A
	v. T.M.T.Fe-500-20 mm	Per M.T	48000.00	0	48000.00		48000.00	5	50400.00	
	vi. T.M.T.Fe-500-25 mm	Per M.T	48000.00	0	48000.00		48000.00	5	50400.00	
	vii. T.M.T.Fe-500-28 mm	Per M.T	48000.00	0	48000.00		48000.00	5	50400.00	
	viii. T.M.T. Fe-500-32 mm	Per M.T	48000.00	0	48000.00		48000.00	5	50400.00	
	ix. T.M.T. Fe-500-36 mm	Per M.T	44350.00	0	44350.00		44350.00	5	46567.50	
	(J) Wire Rod									
	(i) 5.5mm	Per M.T	43550.00	0	43550.00		43550.00	5	45728.00	M-6
	(ii)6.0 mm	Per M.T	43400.00	0	43400.00		43400.00	5	45570.00	
	(iii) 6.5 mm	Per M.T	43250.00	0	43250.00		43250.00	5	45413.00	
	(iv) 7.0 mm	Per M.T	43050.00	0	43050.00		43050.00	5	45203.00	
	(v) 8.00 mm	Per M.T	42900.00	0	42900.00		42900.00	5	45045.00	
	(vi)10.0 mm	Per M.T	43550.00	0	43550.00		43550.00	5	45728.00	
	(vii)12.0/12.7 mm	Per M.T	43550.00	0	43550.00		43550.00	5	45728.00	
	K.Average rate of steel in shape of structurals such as beams, Angles,flats, rods , plate etc.	Per M.T		0	#VALUE!		#VALUE!	5	#VALUE!	M-179
4	**Approved rate of Bricks & Bricks related materials approved by State level schedule rate committee (for prepration of schedule of rate only)- Materials should conform to relevant BIS/IRC/MORT & H specifications. Rate sare inclusive of all taxes with royality but exclusive of VAT/Sales Tax and overhead charges and contractors's profit (Rates at source)**									
	(i) 100A	**INPUT →**		**0**	5963.61	29.00	5992.61	5	6290.79	**Insert rate of Distt**
	Patna Urban	Per %0 nos	5963.61	0	5963.61	29.00	5992.61	5	6290.79	M11
	Patna rural	Per %0 nos	4960.63	0	4960.63	29.00	4989.63	5	5237.66	
	Muzaffarpur	Per %0 nos	5028.70	0	5028.70	29.00	5057.70	5	5309.14	
	Darbhanga	Per %0 nos	5028.70	0	5028.70	29.00	5057.70	5	5309.14	
	Bhagalpur	Per %0 nos	5028.70	0	5028.70	29.00	5057.70	5	5309.14	
	Munger	Per %0 nos	5028.70	0	5028.70	29.00	5057.70	5	5309.14	
	Saharsa	Per %0 nos	5165.91	0	5165.91	29.00	5194.91	5	5453.21	

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	Purnea	Per %0 nos	5440.31	0	5440.31	29.00	5469.31	5	5741.33	
	Gaya	Per %0 nos	4755.36	0	4755.36	29.00	4784.36	5	5022.13	
	Saran	Per %0 nos	4755.36	0	4755.36	29.00	4784.36	5	5022.13	
	(ii) 100B	INPUT		0	0.00	0.00	0.00	5	0.00	Insert rate of Distt
	Patna Urban	Per %0 nos	5532.85	0	5532.85	29.00	5561.85	5	5838.49	
	Patna rural	Per %0 nos	4530.94	0	4530.94	29.00	4559.94	5	4786.49	
	Muzafferpur	Per %0 nos	4616.02	0	4616.02	29.00	4645.02	5	4875.82	
	Darbhanga	Per %0 nos	4616.02	0	4616.02	29.00	4645.02	5	4875.82	
	Bhagalpur	Per %0 nos	4616.02	0	4616.02	29.00	4645.02	5	4875.82	
	Munger	Per %0 nos	4616.02	0	4616.02	29.00	4645.02	5	4875.82	M11
	Saharsa	Per %0 nos	4755.36	0	4755.36	29.00	4784.36	5	5022.13	
	Purnea	Per %0 nos	5028.70	0	5028.70	29.00	5057.70	5	5309.14	
	Gaya	Per %0 nos	4342.68	0	4342.68	29.00	4371.68	5	4588.81	
	Saran	Per %0 nos	4342.68	0	4342.68	29.00	4371.68	5	4588.81	
	(iii).Bricks Tiles (300mmx150mmx50mm)	INPUT		0	5992.61	29.00	6021.61	5	6321.24	Insert rate of Distt
	Patna Urban	Per %0 nos	5992.61	0	5992.61	29.00	6021.61	5	6321.24	
	Patna rural	Per %0 nos	5963.61	0	5992.61	29.00	6021.61	5	6321.24	
	Muzafferpur	Per %0 nos	5990.20	0	5990.20	29.00	6019.20	5	6318.71	
	Darbhanga	Per %0 nos	5990.20	0	5990.20	29.00	6019.20	5	6318.71	
	Bhagalpur	Per %0 nos	5990.20	0	5990.20	29.00	6019.20	5	6318.71	
	Munger	Per %0 nos	5714.70	0	5714.70	29.00	5743.70	5	6029.44	M11
	Saharsa	Per %0 nos	5990.20	0	5990.20	29.00	6019.20	5	6318.71	
	Purnea	Per %0 nos	6265.67	0	6265.67	29.00	6294.67	5	6607.95	
	Gaya	Per %0 nos	5714.70	0	5714.70	29.00	5743.70	5	6029.44	
	Saran	Per %0 nos	5714.70	0	5714.70	29.00	5743.70	5	6029.44	
	(iv). Picket Jhama Brick	INPUT		0	0.00	0.00	0.00	5	0.00	Insert rate of Distt
	Patna Urban	Per %0 nos	5105.28	0	5105.28	29.00	5134.28	5	5389.54	

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	Patna rural	Per %0 nos	4110.81	0	4110.81	29.00	4139.81	5	4345.35	
	Muzafferpur	Per %0 nos	4205.47	0	4205.47	29.00	4234.47	5	4444.74	
	Darbhanga	Per %0 nos	4205.47	0	4205.47	29.00	4234.47	5	4444.74	
	Bhagalpur	Per %0 nos	4205.47	0	4205.47	29.00	4234.47	5	4444.74	
	Munger	Per %0 nos	4205.47	0	4205.47	29.00	4234.47	5	4444.74	M11
	Saharsa	Per %0 nos	4342.60	0	4342.60	29.00	4371.60	5	4588.73	
	Purnea	Per %0 nos	4616.02	0	4616.02	29.00	4645.02	5	4875.82	
	Gaya	Per %0 nos	3929.87	0	3929.87	29.00	3958.87	5	4155.36	
	Saran	Per %0 nos	3929.87	0	3929.87	29.00	3958.87	5	4155.36	
5	Bangla Bhatta(9 3/4" x 4 3/4" x 2 3/4") (248 mmx 121 mmx 70 mm)at Bhattas site									
	i. 100 B	Per 0/oo nos	INPUT	#REF!	#VALUE!	20.00	#VALUE!	#REF!	#VALUE!	
	ii. Jhama Brick	Per 0/oo nos	INPUT	#REF!	#VALUE!	20.00	#VALUE!	#REF!	#VALUE!	
	Note :- Areas where bricks manufactured are of less size the rate may be derived reduction in the rate in item (4) and (5) in proportion to the volume of bricks founding to nearest rupees five.									
6	Stone Bricks (250 mmx125 mm x100 mm)	Per %0 nos	INPUT	#REF!	#VALUE!	500	#VALUE!	#REF!	#VALUE!	
7	Brick Bats at Kiln Site Approved by State Level S.R.Committee. The rate are inclusive of all taxes with Royality and Exclusive of Contractor's profit, VAT/Sales Tax & over head (Rates at sources).									
		INPUT		0	0	0.00	0.00	5	0.00	Insert rate of Distt
	Patna Urban	Per M^3	1044.88	0	1044.88	11.60	1056.48	5	1108.72	
	Patna rural	Per M^3	1001.27	0	1001.27	11.60	1012.87	5	1062.93	
	Muzafferpur	Per M^3	958.73	0	958.73	11.60	970.33	5	1018.27	
	Darbhanga	Per M^3	1002.34	0	1002.34	11.60	1013.94	5	1064.06	
	Bhagalpur	Per M^3	1002.34	0	1002.34	11.60	1013.94	5	1064.06	
	Munger	Per M^3	1002.34	0	1002.34	11.60	1013.94	5	1064.06	M11
	Saharsa	Per M^3	1002.34	0	1002.34	11.60	1013.94	5	1064.06	
	Purnea	Per M^3	1002.34	0	1002.34	11.60	1013.94	5	1064.06	
	Gaya	Per M^3	958.73	0	958.73	11.60	970.33	5	1018.27	
	Saran	Per M^3	958.73	0	958.73	11.60	970.33	5	1018.27	

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
8	Jhama metal Approved by State Level S.R.Committee . The rate are inclusive of all taxes with Royality but Exclusive of Contractor's profit, VAT/Sales Tax & over head (Rates at sources).									
	(a) 63mm to 40mm size	INPUT →	0.00	0	0	0.00	0	5	0.00	Insert rate of Distt
	Patna Urban	Per M^3	1248.77	0	1248.77	11.60	1260.37	5	1322.81	
	Patna rural	Per M^3	1215.06	0	1215.06	11.60	1226.66	5	1287.41	
	Muzafferpur	Per M^3	1166.12	0	1166.12	11.60	1177.72	5	1236.03	
	Darbhanga	Per M^3	1190.59	0	1190.59	11.60	1202.19	5	1261.72	
	Bhagalpur	Per M^3	1190.59	0	1190.59	11.60	1202.19	5	1261.72	
	Munger	Per M^3	1190.59	0	1190.59	11.60	1202.19	5	1261.72	M11
	Saharsa	Per M^3	1190.59	0	1190.59	11.60	1202.19	5	1261.72	
	Purnea	Per M^3	1190.59	0	1190.59	11.60	1202.19	5	1261.72	
	Gaya	Per M^3	1166.12	0	1166.12	11.60	1177.72	5	1236.03	
	Saran	Per M^3	1166.12	0	1166.12	11.60	1177.72	5	1236.03	
	(b) 40mm to20 size	INPUT →	0.00	0	0.00	0.00	0	5	0.00	Insert rate of Distt
	Patna Urban	Per M^3	1386.30	0	1386.30	11.60	1397.90	5	1467.22	
	Patna rural	Per M^3	1343.75	0	1343.75	11.60	1355.35	5	1422.54	
	Muzafferpur	Per M^3	1289.51	0	1289.51	11.60	1301.11	5	1365.59	
	Darbhanga	Per M^3	1328.86	0	1328.86	11.60	1340.46	5	1406.90	M11
	Bhagalpur	Per M^3	1328.86	0	1328.86	11.60	1340.46	5	1406.90	
	Munger	Per M^3	1328.86	0	1328.86	11.60	1340.46	5	1406.90	
	Saharsa	Per M^3	1328.86	0	1328.86	11.60	1340.46	5	1406.90	
	Purnea	Per M^3	1328.86	0	1328.86	11.60	1340.46	5	1406.90	
	Gaya	Per M^3	1289.51	0	1289.51	11.60	1301.11	5	1365.59	
	Saran	Per M^3	1289.51	0	1289.51	11.60	1301.11	5	1365.59	
	(c) 20mm & down	INPUT	0.00	0	0.00	0.00	0.00	5	0.00	Insert rate of Distt

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	Patna Urban	Per M^3	1588.38	0	1588.38	11.60	1599.98	5	1679.40	
	Patna rural	Per M^3	1533.07	0	1533.07	11.60	1544.67	5	1621.32	
	Muzafferpur	Per M^3	1468.89	0	1468.89	11.60	1480.49	5	1553.93	
	Darbhanga	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	
	Bhagalpur	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	
	Munger	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	M11
	Saharsa	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	
	Purnea	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	
	Gaya	Per M^3	1468.89	0	1468.89	11.60	1480.49	5	1553.93	
	Saran	Per M^3	1468.89	0	1468.89	11.60	1480.49	5	1553.93	
9	Surkhi	INPUT	0.00	0	0.00	0.00	0.00	5	0.00	Insert rate of Distt
	Patna Urban	Per M^3	1645.81	0	1645.81	11.60	1657.41	5	1739.70	
	Patna rural	Per M^3	1588.38	0	1588.38	11.60	1599.98	5	1679.40	
	Muzafferpur	Per M^3	1432.40	0	1432.40	11.60	1444.00	5	1515.62	
	Darbhanga	Per M^3	1577.76	0	1577.76	11.60	1589.36	5	1668.25	
	Bhagalpur	Per M^3	1577.76	0	1577.76	11.60	1589.36	5	1668.25	
	Munger	Per M^3	1577.76	0	1577.76	11.60	1589.36	5	1668.25	M11
	Saharsa	Per M^3	1577.76	0	1577.76	11.60	1589.36	5	1668.25	
	Purnea	Per M^3	1577.76	0	1577.76	11.60	1589.36	5	1668.25	
	Gaya	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	
	Saran	Per M^3	1523.50	0	1523.50	11.60	1535.10	5	1611.28	
10	Random rubble Stone	Per M^3	179.60	0	179.60	63.00	242.60	5	251.58	M-148
	Rough dressed stone boulder masonary work	Per M^3	179.60	0	179.60	63.00	242.60	5	251.58	
	Ashlar stone masonary	Per M^3	179.60	0	179.60	63.00	242.60	5	251.58	
	Stone Boulder of size 150 mm and below at Cruser Plant	Per M^3	195.21	0	195.21	100.00	295.21	5	304.97	M-001
	Supply of quarried stone 150 - 200 mm size for Hand	Per M^3	195.21	0	195.21	100.00	295.21	5	304.97	M-002

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Boulder with minimum size of 300 mm for Pitching	Per M^3	195.21	0	195.21	100.00	295.21	5	304.97	M-003
	Coarse sand (i) Quarry Koilwar / Stone sand	Per M^3	209.87	0	209.87	50.00	259.87	5	270.36	M-004
	Coarse sand (i) At Doriganj equivalent to Koilwar/ Sone sand	Per M^3	209.87	0	209.87	50.00	259.87	5	270.36	M-005
	Fine sand at site	Per M^3	64.02	0	64.02	50.00	114.02	5	117.22	M-006
	Moorum at site	Per M^3	78.05	0	78.05	50.00	128.05	5	131.95	M-007
	Gravel/ Quarry spall at site	Per M^3	245.21	0	245.21	55.00	300.21	5	312.47	M-008
	River bed material (30% sand And 70% quarry spall)	Per M^3		0	0.00	0.00	0.00	5	0.00	M-006 & M-008
11	Granular Material or hard murrum for GSB works	Per M^3	78.07	0	78.07	50.00	128.07	5	131.97	M-009
	Granular Material or hard murrum for GSB works site at Mixing Plant		78.07	0	78.07	50.00	128.07	5	131.97	M-010
12	Fly ash conforming to IS: 3812 (Part II & I)	Per M^3	0.00	0	0.00	0.00	0.00	5	0.00	M-011
	Filter media/ Filter Material as per 300-3 (MoRT&H specification)	Per M^3	293.61	0	293.61	100.00	393.61	5	408.29	M-012
13	Coarse graded Granular sub-base Material 53 mm to 9.5 mm	Per M^3	396.64	0	396.64	100.00	496.64	5	516.47	M-013
	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm	Per M^3	373.93	0	373.93	100.00	473.93	5	492.63	M-014
	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm	Per M^3	431.97	0	431.97	100.00	531.97	5	553.57	M-015
	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm	Per M^3	410.99	0	410.99	100.00	510.99	5	531.54	M-016
	Coarse graded Granular sub-base Material 9.5 mm to 2.36 mm	Per M^3	296.00	0	296.00	100.00	396.00	5	410.80	M-017

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Coarse graded Granular sub-base Material 4.75mm to 2.36 mm	Per M^3	106.25	0	106.25	100.00	206.25	5	211.56	M-018
	Coarse graded Granular sub-base Material 4.75mm to 75 micron	Per M^3	82.53	0	82.53	100.00	182.53	5	186.66	M-019
	Coarse graded Granular sub-base Material 2.36 mm	Per M^3	82.53	0	82.53	100.00	182.53	5	186.66	M-020
	Stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve.	Per M^3	83.02	0	83.02	10.00	93.02	5	97.17	M-021
	Coarse graded Granular sub-base Material 2.36 mm & below	Per M^3	52.28	0	52.28	100.00	152.28	5	154.89	M-022
	Coarse graded Granular sub-base Material 4.75mm to 75 micron mm	Per M^3	82.28	0	82.28	100.00	182.28	5	186.39	M-023
	Coarse graded Granular sub-base Material 4.75 mm to 2.36mm	Per M^3	96.19	0	96.19	100.00	196.19	5	201.00	M-024
	Coarse graded Granular sub-base Material 9.5 mm to 4.75 mm	Per M^3	410.74	0	410.74	100.00	510.74	5	531.28	M-025
	Coarse graded Granular sub-base Material 26.5 mm to 4.75 mm	Per M^3	382.81	0	382.81	100.00	482.81	5	501.95	M-026
	Coarse graded Granular sub-base Material 26.5 mm to 9.5 mm	Per M^3	431.73	0	431.73	100.00	531.73	5	553.32	M-027
	Coarse graded Granular sub-base Material 37.5 mm to 9.5 mm	Per M^3	473.68	0	473.68	100.00	573.68	5	597.36	M-028
	Coarse graded Granular sub-base Material 53 mm to 26 .5mm	Per M^3	343.03	0	343.03	100.00	443.03	5	460.18	M-029
14	Aggregates below 5.6 mm	Per M^3	96.19	0	96.19	100.00	196.19	5	201.00	M-030
	Aggregates 22.4 mm to 2.36 mm	Per M^3	409.98	0	409.98	100.00	509.98	5	530.48	M-031
	Aggregates 22.4 mm to 5.6 mm	Per M^3	409.98	0	409.98	100.00	509.98	5	530.48	M-032
	Aggregates 45 mm to 2.8 mm	Per M^3	355.20	0	355.20	100.00	455.20	5	472.96	M-033
	Aggregates 45 mm to 22.4 mm	Per M^3	363.03	0	363.03	100.00	463.03	5	481.18	M-034
	Aggregates 53 mm to 2.8 mm	Per M^3	355.20	0	355.20	100.00	455.20	5	472.96	M-035

CHAPTER ---II

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	Aggregates 53 mm to 22.4 mm (Grade III)	Per M^3	343.03	0	343.03	100.00	443.03	5	460.18	M-036
	Aggregates 63 mm to 2.8 mm	Per M^3	313.90	0	313.90	100.00	413.90	5	429.60	M-037
	Aggregates 63 mm to 45 mm (Grade II)	Per M^3	313.79	0	313.79	100.00	413.79	5	429.48	M-038
	Aggregates 90 mm to 45 mm (Grade I)	Per M^3	283.68	0	283.68	100.00	383.68	5	397.86	M-039
	Aggregates 10 mm to 5 mm	Per M^3	410.74	0	410.74	100.00	510.74	5	531.28	M-040
	Aggregates 11.2 mm to 0.09 mm (Key aggregate Type B)	Per M^3	235.10	0	235.10	100.00	335.10	5	346.86	M-041
	Aggregates 13.2 mm to 0.09 mm (Key aggregate Type A)	Per M^3	354.34	0	354.34	100.00	454.34	5	472.06	M-042
	Aggregates 13.2 mm to 5.6 mm	Per M^3	492.37	0	492.37	100.00	592.37	5	616.99	M-043
	Aggregates 13.2 mm to 10 mm	Per M^3	519.65	0	519.65	100.00	619.65	5	645.63	M-044
	Aggregates 20 mm to 10 mm	Per M^3	519.65	0	519.65	100.00	619.65	5	645.63	M-045
	Aggregates 25 mm to 10 mm	Per M^3	490.85	0	490.85	100.00	590.85	5	615.39	M-046
	Aggregates 19 mm to 6 mm	Per M^3	409.98	0	409.98	100.00	509.98	5	530.48	M-047
	Aggregates 37.5 mm to 19 mm (Grade IV)	Per M^3	363.03	0	363.03	100.00	463.03	5	481.18	M-048
	Aggregates 37.5 mm to 25 mm	Per M^3	363.03	0	363.03	100.00	463.03	5	481.18	M-049
	Aggregates 6 mm nominal size	Per M^3	295.64	0	295.64	100.00	395.64	5	410.42	M-050
	Aggregates 10 mm nominal size	Per M^3	492.37	0	492.37	100.00	592.37	5	616.99	M-051
	Aggregates 13.2/12.5 mm nominal size	Per M^3	519.65	0	519.65	100.00	619.65	5	645.63	M-052
	Aggregates 20 mm nominal size	Per M^3	431.73	0	431.73	100.00	531.73	5	553.32	M-053
	Aggregates 25 mm nominal size	Per M^3	407.27	0	407.27	100.00	507.27	5	527.63	M-054
	Aggregates 40 mm nominal size	Per M^3	326.61	0	326.61	100.00	426.61	5	442.94	M-055
	A.C Pipe 100 mm dia	meter	47.00	0	47.00	0.00	47.00	0	49.35	M-056
	Acrylic Polymer bonding coat	liter		0					Input	M-057
	Alluminium Paint	liter	123.80	0	123.80	0.00	123.80	0	123.80	M-058
	Alluminium alloy plate 2mm thick	Sqm	9046.00	0	9046.00	0.00	9046.00	0	9046.00	M-059
	Alluminium alloy /galvanised steel	tonne	36183.60	0	36183.60	0.00	36183.60	0	36183.60	M-060

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1	2	3	4	5	6	7	8	9	10	11
	Alluminium sheeting fixed with encapsulated lens type reflective sheeting including 2% towards lettering, cost of angle Iron, cost of drilling holes, nuts, bolt etc. and signs as applicable	Sqm	8442.82	0	8442.82	0.00	8442.82	0	8442.82	M-061
	Aluminium studs 100 X 100 mm fitted with lense reflectors	nos	173.62	0	173.62	0.00	173.62	0	173.62	M-062
	Barbed wire	kg	53.32	0	53.32	0.00	53.32	0	53.32	M-063
	Bearing(Cost of parts)	nos							Input	M-064
	Bearing (Cast steel rocker bearing assembly of 250 tonne)	nos	76425.53	0	76425.53	0.00	76425.53	0	76425.53	M-065
	Bearing (Elastomeric bearing assembly consisting of 7 internal layers of elastomers bonded to 6 nos. internal reinforcing steel laminates by the process of vulcanisation)	nos	0.60	0	0.60	0.00	0.60	0	0.60	M-066
	Bearing (Forged steel roller bearing of 250 tonne)	nos	45855.31	0	45855.31	0.00	45855.31	0	45855.31	M-067
	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	nos							Input	M-068
	Bearing (PTFE sliding plate bearing assembly of 80 tonnes)	nos							Input	M-069
	Bearing (Supply of sliding plate bearing of 80 tonnes)	nos	30879.00	0	30879.00	0.00	30879.00	0	30879.00	M-070
	Bentonite	kg	3.34	0	3.34	0.00	3.34	0	3.34	M-071
	Blinding wire	kg	54.24	0	54.24	0.00	54.24	0	54.24	M-072
	Bitumen (Cationic Emulsion) Ex- Ulberia (M.S) Packed	tonne	44425.72	0	44425.72	0.00	44425.72	0	44425.72	M-073
	Bitumen (60-70 grade) Ex- Barauni Packed	tonne	52066.80	0	52066.8	0.00	52066.80	0	52066.80	M-074
	Bitumen (80-100 grade) Ex- Barauni Packed	tonne	51151.50	0	51151.5	0.00	51151.50	0	51151.50	M-075

CHAPTER ---II

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
	Bitumen (Cutback) Ex- Barauni Packed(60/70)	tonne	52066.80	0	52066.8	0.00	52066.80	0	52066.80	M-076
	Bitumen (emulsion) Ex- Ulberia (M.S) Packed	tonne	44425.72	0	44425.72	0.00	44425.72	0	44425.72	M-077
	Bitumen (modified graded) Ex - Barauni (CRMB - 55) Packed	tonne	52593.20	0	52593.2	0.00	52593.20	0	52593.20	M-078
	Brick - Patna Urban	each	5.990	0	5.99	0.00	5.99	0	5.99	M-079
	Darbhanga, Bhagalpur, Munger, Muzaffarpur	each	5.990	0	5.99	0.00	5.99	0	5.99	
	Gaya, Saran	each	5.990	0	5.99	0.00	5.99	0	5.99	
	Patna Rural	each	5.990	0	5.99	0.00	5.99	0	5.99	
	Saharsa	each	5.990	0	5.99	0.00	5.99	0	5.99	
	Purnea	each	5.990	0	5.99	0.00	5.99	0	5.99	
	C.I.shoes for the pile	kg	47.06	0	47.06	0.00	47.06	0	47.06	M-080
	Cement - OPC 43 Grade at Patna	tonne	5550.00	0	5550	0.00	5550.00	0	5550.00	M-081
	Cold twisted bars (HYSD Bars)	tonne	44696.87	0	44696.87	0.00	44696.87	0	44696.87	M-082
	Coller for joints 300 mm dia	nos	VALUE	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-083
	Compressible Fibre Board(20mm thick)	sqm	842.89	0	842.89	0.00	842.89	0	842.89	M-084
	Connectors/ Staples	each	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-085
	Copper Plate(12m long x 250mmwide)	kg	684.96	0	684.96	0.00	684.96	0	684.96	M-086
	Corrosion resistant Structural steel	tonne	43326.51	0	43326.51	0.00	43326.51	0	43326.51	M-087
	Corrugated sheet, 3 mm thick, "Thrie" beam section railing	kg	48.63	0	48.63	0.00	48.63	0	48.63	M-088
	Credit for excavated rock found suitable for use	cum	135.66	0	135.66	0.00	135.66	0	135.66	M-089
	Curing compound	litre	126.27	0	126.27	0.00	126.27	0	126.27	M-090
	Delineators from ISI certified firm as per the standard drawing given in IRC - 79	each	814.90	0	814.9	0.00	814.90	0	814.90	M-091
	Earth Cost or compensation for earth taken from private land	cum	23.65	0	23.65	0.00	23.65	0	23.65	M-092
	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	27070.42	0	27070.42	0.00	27070.42	0	27070.42	M-093

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1	2	3	4	5	6	7	8	9	10	11
	Electric Detonators @ 1 detonator for 1/2 gelatin stick of 125 gms each	100 nos	631.38	0	631.38	0.00	631.38	0	631.38	M-094
	Epoxy compound with accessories for preparing epoxy mortar	kg	552.46	0	552.46	0.00	552.46	0	552.46	M-095
	Epoxy mortar	kg	757.66	0	757.66	0.00	757.66	0	757.66	M-096
	Epoxy primer	kg	12.63	0	12.63	0.00	12.63	0	12.63	M-097
	Epoxy resin-hardner mix for prime coat	kg	670.84	0	670.84	0.00	670.84	0	670.84	M-098
	Flag of red color cloth 600 x 600 mm	each	47.35	0	47.35	0.00	47.35	0	47.35	M-099
	Flowering Plants	each	31.57	0	31.57	0.00	31.57	0	31.57	M-100
	Galvanised MS flat clamp	nos	14.87	0	14.87	0.00	14.87	0	14.87	M-101
	Galvanised steel wire crates of mesh size 100 mm x 100 mm woven with 4mm dia. GI wire in rolls of required size.	sqm	94.58	0	94.58	0.00	94.58	0	94.58	M-102
	Galvanised structural steel plate 200 mm wide, 6 mm thick, 24 m long	kg	43.29	0	43.29	0.00	43.29	0	43.29	M-103
	Gelatin 80%	kg	677.29	0	677.29	0.00	677.29	0	677.29	M-104
	Geo grids	sqm	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-105
	Geomembrane	sqm	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-106
	Geonets	sqm	108.52	0	108.52	0.00	108.52	0	108.52	M-107
	Geotextile	sqm	84.84	0	84.84	0.00	84.84	0	84.84	M-108
	Geotextile filter fabric	sqm	84.84	0	84.84	0.00	84.84	0	84.84	M-109
	GI bolt 10 mm Dia	nos	15.00	0	15	0.00	15.00	0	15.00	M-110
	Grouting pump with agitator	hour	157.84	0	157.84	0.00	157.84	0	157.84	M-111
	Grass (Doob)	kg	4.09	0	4.09	0.00	4.09	0	4.09	M-112
	Grass (Fine)	kg	4.09	0	4.09	0.00	4.09	0	4.09	M-113
	HDPE pipes 75mm dia	metre	213.08	0	213.08	0.00	213.08	0	213.08	M-114
	HDPE pipes 90mm dia	metre	213.08	0	213.08	0.00	213.08	0	213.08	M-115
	Hedge plants	each	31.57	0	31.57	0.00	31.57	0	31.57	M-116
	Helical pipes 600mm diameter	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-117

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Hot applied thermoplastic compound (Sp. Gravity - 2.10)	litre	205.35	0	205.35	0.00	205.35	0	205.35	M-118
	HTS strand	tonne	66566.75	0	66566.75	0.00	66566.75	0	66566.75	M-119
	Joint Sealant Compound	kg	25.25	0	25.25	0.00	25.25	0	25.25	M-120
	Jute netting, open weave, 2.5 cm square opening for seeding and Mulching	sqm	39.46	0	39.46	0.00	39.46	0	39.46	M-121
	LDO for steam curing	litre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-122
	M.S. Clamps	nos	32.07	0	32.07	0.00	32.07	0	32.07	M-123
	M.S. Clamps	kg	58.05	0	58.05	0.00	58.05	0	58.05	M-124
	M.S.shoes @ 35 Kg per pile of 15 m	kg	22.20	0	22.2	0.00	22.20	0	22.20	M-125
	Mild Steel bars	tonne	43321.42	0	43321.42	0.00	43321.42	0	43321.42	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	29832.70	0	29832.7	0.00	29832.70	0	29832.70	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	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-128
	Nipples 12mm	nos	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-129
	Nuts and bolts	kg	58.03	0	58.03	0.00	58.03	0	58.03	M-130
	Paint	litre	229.18	0	229.18	0.00	229.18	0	229.18	M-131

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Pavement Marking Paint	litre	229.18	0	229.18	0.00	229.18	0	229.18	M-132
	Paving Fabric	sqm	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-133
	Perforated geosynthetic pipe 150 mm dia	metre	26.91	0	26.91	0.00	26.91	0	26.91	M-134
	Perforated pipe of cement concrete, internal dia 100 mm	metre	113.64	0	113.64	0.00	113.64	0	113.64	M-135
	Pesticide	kg	71.97	0	71.97	0.00	71.97	0	71.97	M-136
	Pipes 200 mm dia, 2.5 m long for drainage	metre	173.62	0	173.62	0.00	173.62	0	173.62	M-137
	Plastic sheath, 1.25 mm thick for dowel bars	sqm	15.78	0	15.78	0.00	15.78	0	15.78	M-138
	Plastic tubes 50 cm dia, 1.2 m high	nos	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-139
	Polymer braids	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-140
	Pre moulded Joint filler,25 mm thick for expansion joint.	sqm	986.53	0	986.53	0.00	986.53	0	986.53	M-141
	Pre-coated stone chips of 13.2 mm nominal size	cum	620.14	0	620.14	0.00	620.14	0	620.14	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	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-143
	Pre-moulded asphalt filler board	sqm	986.53	0	986.53	0.00	986.53	0	986.53	M-144
	Pre-packed cement based polymer concrete of strength 45 Mpa at 28 days	kg	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-145
	Primer	kg	12.63	0	12.63	0.00	12.63	0	12.63	M-146
	Quick setting compound	kg	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-147
	Random Rubble Stone	cum	295.70	0	295.7	0.00	295.70	0	295.70	M-148
	RCC Pipe NP 4 heavy duty non presure pipe 1000 mm dia	metre	2958.68	0	2958.68	0.00	2958.68	0	2958.68	M-149
	RCC Pipe NP 4 heavy duty non presure pipe 1200 mm dia	metre	4206.31	0	4206.31	0.00	4206.31	0	4206.31	M-150
	RCC Pipe NP 4 heavy duty non presure pipe 300 mm dia	metre	541.83	0	541.83	0.00	541.83	0	541.83	M-151
	Reflectorising glass beads	kg	66.74	0	66.74	0.00	66.74	0	66.74	M-152

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Copper Strips)	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-153
	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Galvanised carbon steel strips)	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-154
	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Glass reinforced polymer/fibre reinforced polymer/polymeric strips)	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-155
	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. (Stainless steel strips)	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-156
	Reinforcement strips 60 mm wide 5 mm thick as per clause 3102. Aluminium strips)	metre	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-157
	Rivets	each	7.50	0	7.5	0.00	7.50	0	7.50	M-158
	Sand bags (Cost of sand and Empty cement bag)	nos	7.08	0	7.08	0.00	7.08	0	7.08	M-159
	Sapling 2 m high 25 mm dia	each	23.68	0	23.68	0.00	23.68	0	23.68	M-160
	Scrap tyres of size 900 x 20	nos	78.92	0	78.92	0.00	78.92	0	78.92	M-161
	Seeds	kg	31.57	0	31.57	0.00	31.57	0	31.57	M-162
	Selected earth (Including royality @ Rs. 22.0 per cum & compensation @ Rs. 1.10 per cum)	cum	23.65	0	23.65	0.00	23.65	0	23.65	M-163
	Separation Membrane of impermeable plastic sheeting 125 micron thick	sqm	15.78	0	15.78	0.00	15.78	0	15.78	M-164
	Sheathing duct	metre	86.81	0	86.81	0.00	86.81	0	86.81	M-165
	Shrubs	each	15.78	0	15.78	0.00	15.78	0	15.78	M-166
	Sludge / Farm yard manure @ 0.18 cum per 100 sqm at site of work for turfing	cum	710.30	0	710.3	0.00	710.30	0	710.30	M-167
	Sodium vapour lamp	each	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-168
	Square Rubble Coursed Stone	cum	295.69	0	295.69	0.00	295.69	0	295.69	M-169
	Steel circular hollow pole of standard specification for street lighting to mount light at 5 m height above deck level	each	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-170

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Steel circular hollow pole of standard specification for street lighting to mount light at 9 m height above road level	each	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-171
	Steel drum 300 mm dia 1.2 m high/empty bitumen drum	nos	120.00	0	120	0.00	120.00	0	120.00	M-172
	Steel helmet and cushion block on top of pile head during driving.	kg	39.52	0	39.52	0.00	39.52	0	39.52	M-173
	Steel pipe 25 mm external dia as per IS:1239	metre	123.54	0	123.54	0.00	123.54	0	123.54	M-174
	Steel pipe 50 mm external dia as per IS:1239	metre	221.11	0	221.11	0.00	221.11	0	221.11	M-175
	Steel wire rope 20 mm	kg	38.57	0	38.57	0.00	38.57	0	38.57	M-176
	Steel wire rope 40 mm	kg	38.57	0	38.57	0.00	38.57	0	38.57	M-177
	Strip seal expansion join	metre	8398.35	0	8398.35	0.00	8398.35	0	8398.35	M-178
	Structural Steel average rate	tonne	42913.88	0	42913.88	0.00	42913.88	0	42913.88	M-179
	Super plastisizer admixture IS marked as per 9103-1999	kg	157.84	0	157.84	0.00	157.84	0	157.84	M-180
	Synthetic Geogrids as per clause 3102.8 and approved design and specifications.	sqm	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-181
	Through and bond stone	each	11.30	0	11.3	0.00	11.30	0	11.30	M-182
	Tie rods 20mm diameter	nos	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-183
	Tiles size 300 x 300 mm and 25 mm thick	each	39.46	0	39.46	0.00	39.46	0	39.46	M-184
	Timber	cum	43723.07	0	43723.07	0.00	43723.07	0	43723.07	M-185
	Traffic cones with 150 mm reflective sleeve	nos	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-186
	Tube anchorage set complete with bearing plate, permanent wedges etc	nos	47.35	0	47.35	0.00	47.35	0	47.35	M-187
	Unslaked lime	tonne	3084.04	0	3084.04	0.00	3084.04	0	3084.04	M-188
	Water	KL	236.76	0	236.76	0.00	236.76	0	236.76	M-189
	Water based cement paint	litre	116.64	0	116.64	0.00	116.64	0	116.64	M-190
	Welded steel wire fabric	kg	37.34	0	37.34	0.00	37.34	0	37.34	M-191

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

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1	2	3	4	5	6	7	8	9	10	11
	Wire mesh 50mm x 50mm size of 3mm wire	kg	37.34	0	37.34	0.00	37.34	0	37.34	M-192
	Wooden ballies 2" Dia for bracing	each	25.25	0	25.25	0.00	25.25	0	25.25	M-193
	Wooden ballies 8" Dia and 9 m long (9 m @ Rs. 43.00/m)	each	610.86	0	610.86	0.00	610.86	0	610.86	M-194
	Wooden packing	cum	input	0	#VALUE!	0.00	#VALUE!	0	#VALUE!	M-195
	Wooden staff for fastening of flag 25 mm dia, 1.0 m long	each	31.57	0	31.57		31.57	0	31.57	M-196
15	Fine sand at site	Per M^3	64.02	0	64.02	50.00	114.02	5	117.22	M-006
16	**Sone Sand or equivalent coarse sand** (F.M. grater than 2) at source									
	i) Quarry Koliwar/ Sone sand	Per M^3	209.87	0	209.87	50.00	259.87	5	270.36	M-004
	(ii) Doriganj equivalent to Koliwar/Sone sand	Per M^3	209.87	0	209.87	50.00	259.87	5	270.36	M-005
	Fine Sand / Local sand screened at source (F.M. up to 1.5)	Per M^3	61.00	0	61.00	50.00	111.00	5	114.05	M-006
17	Moorum at site	Per M^3	78.05	0	78.05	55.00	**133.05**	5	136.95	M-007
18	**Seasonal Sal wood Scantling**	Per M^3	24400.00	0	24400.00		24400.00	5	25620.00	1199
19	**Local Wood**							5		Previous T.E.C
	i. Scantling	Per M^3	9800.00	0	9800.00		9800.00	5	10290.00	
	ii. Planks 25 mm to 40 mm	Per M^3	9946.42	0	9946.42		9946.42	5	10444.00	
	iii. Planks 12 mm to 20 mm	Per M^3	10303.57	0	10303.57		10303.57	5	10819.00	
20	**Bamboo**							5		
	i. 75 mm dia 6m long to 8m long	Each	49.11	0	49.11		49.11	5	52.00	
	ii. 100 mm dia 6m long to 8m long	Each	58.04	0	58.04		58.04	5	61.00	
	iii. 50 mm dia Hill Bamboo	Each	40.18	0	40.18		40.18	5	42.00	approved rate
21	**Sal Ballah Post**							5		
	i.50 mm dia	Per m	25.00	0	25.00		25.00	5	26.25	M-193
	ii. 100 mm dia	Per m	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	Previous T.E.C
	iii. 125 mm dia	Per m	28.57	0	28.57		28.57	5	30.00	
	iv.150 mm dia	Per m	38.39	0	38.39		38.39	5	40.00	approved rate
	v. 200 mm dia	Per m	**67.86**	0	67.86		67.86	5	71.00	M-194

CHAPTER ---II

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
22	**i. G.I wire 3.15mm dia (IS 4826/79)**	Per Kg	64.00	0	64.00		64.00	0	64.00	
	ii. Black annealled 3.15mm dia (IS 280/78)	Per Kg	60.500	0	60.50		60.50	0	61.00	
23	**i. Annealled wire (20 to 25 gauge)**	Per Kg	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	ii. Black annealled (20 to 25 gauge)	Per Kg	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
24	**Galvanised steel Barbed wire**	Per M.T	5638.80	0	5638.80		5638.80	13.5	6400.00	1029
25	**Welded mesh (8 to 10 SWG) 100 to 125 mm square size**	Per M^2	94.44	0	94.44		94.44	5	99.00	T.E.C
26	**Iron Nails**							5		
	i. 125mm and below	Per Kg.	40.00	0	40.00		40.00	5	42.00	1219
	ii. Above 125mm	Per Kg.	40.00	0	40.00		40.00	5	42.00	1219
	iii. Glass clip of wire	Per % nos	12.96	0	12.96		12.96	5	14.00	Previous T.E.C
27	Screw (N.F)							5		
	i. 75 mm size	Per % nos	106.48	0	106.48		106.48	5	112.00	
	ii. 60 mm size	Per % nos	84.26	0	84.26		84.26	5	88.00	
	iii. 50 mm size	Per % nos	67.59	0	67.59		67.59	5	71.00	
	iv. 40 mm size to 30 mm size	Per % nos	31.48	0	31.48		31.48	5	33.00	
	v. Below 30 mm to 12 mm size	Per % nos	28.70	0	28.70		28.70	5	30.00	approved rate
28	**BITUMEN Approved by State Level S.R.Committee for prepration of Schdule of Rate only. Mterials should confirm to relevant BIS/IRC/MORT & H Specifications. Rates are inclusive of Excise Duty, cess etc. but exclusive of VAT/Sales Tax, Contractor's Profit and overhead charges.**									
	1. Bitumen Grade VG-40 (30/40) Packed									M-4
	(i) Ex. Haldia	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(ii) Ex. Barauni	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(iii) Ex. Giddha	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(iv)Ex. Patna	Per M.T	57774.20	0	57774.20		57774.20	5	60663.00	
	(v)Ex. Gaya	Per M.T	57553.30	0	57553.30		57553.30	5	60431.00	
	(Vi)Ex. Muzaffarpur	Per M.T	58065.30	0	58065.30		58065.30	5	60969.00	
	2. Bitumen Grade (VG-30) 60/70 Packed									
	(i) Ex. Barauni	Per M.T	52066.80	0	52066.80		52066.80	5	54670.00	

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1	2	3	4	5	6	7	8	9	10	11
	(ii) Ex. Gaya	Per M.T	53903.30	0	53903.30		53903.30	5	56598.00	
	(iii)Ex. Haldia	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(iv) Ex. Gidha	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(V) Ex. Patna	Per M.T	54129.20	0	54129.20		54129.20	5	56836.00	
	(Vi) Ex. Muzaffarpur	Per M.T	53499.00	0	53499.00		53499.00	5	56174.00	
	3. Bitumen Grade (VG-10) 80/100 Packed									
	(i) Ex. Barauni	Per M.T	51151.50	0	51151.50		51151.50	5	53709.00	
	(ii) Ex. Gaya	Per M.T	52987.90	0	52987.90		52987.90	5	55637.00	
	(iii)Ex. Haldia	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(iv) Ex. Gidha	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(Vi) Ex. Patna	Per M.T	53213.90	0	53213.90		53213.90	5	55875.00	
	(Vii) Ex. Muzaffarpur	Per M.T	53499.90	0	53499.90		53499.90	5	56175.00	
	4. Bitumen Grade 30/40 Packed									
	(i) Ex.Patna	Per M.T	57779.00	0	57779.00		57779.00	5	60668.00	
	5. Bitumen Grade (VG-30) 60/70 Bulk									
	(i) Ex. Haldia	Per M.T	VALUE	0	#VALUE!		#VALUE!	5	#VALUE!	
	(ii) Ex. Barauni	Per M.T	48519.20	0	48519.20		48519.20	5	50945.00	
	6. Bitumen Grade 80/100 Bulk (VG-10)									
	(i) Ex. Haldia	Per M.T	43755.40	0	43755.40		43755.40	5	45943.00	
	(ii) Ex. Barauni	Per M.T	47339.00	0	47339.00		47339.00	5	49706.00	
	7. Bitumen Emulsion									
	(i) M.S.Packed Ex. Uluberia	Per M.T	31190.00	0	31190.00		31190.00	13.5	35401.00	
	(ii) M.S. Bulk Ex. Haldia	Per M.T	28639.30	0	28639.30		28639.30	13.5	32506.00	
	8. Modified Graded Bitumen		0.00							
	(i) CRMB-50 Packed Ex. Patna	Per M.T	53580.00	0	53580.00		53580.00	13.5	60813.00	
	(ii) CRMB-50 Packed Ex. Gaya	Per M.T	53354.00	0	53354.00		53354.00	13.5	60557.00	
	(iii) CRMB-55 Packed Ex. Barauni	Per M.T	52593.20	0	52593.20		52593.20	13.5	59693.00	
	(iv) CRMB-55 Packed Ex.-Haldia	Per M.T.	VALUE	0	#VALUE!		#VALUE!	13.5	#VALUE!	
	(v) CRMB-55 Packed Ex.-Gaya	Per M.T.	52759.10	0	52759.10		52759.10	13.5	59882.00	
	(vi) CRMB-55 Packed Ex.Patna	Per M.T	52985.00	0	52985.00		52985.00	13.5	60138.00	

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1	2	3	4	5	6	7	8	9	10	11
	(vii) CRMB-55 Packed Ex.Muzaffarpur	Per M.T	53271.10	0	53271.10		53271.10	13.5	60463.00	
	(viii) CRMB-60 Packed Ex.-Patna	Per M.T.	53362.00	0	53362.00		53362.00	13.5	60566.00	
	(ix) CRMB-60 Packed Ex.-Muzaffarpur	Per M.T.	53648.68	0	53648.68		53648.68	13.5	60891.00	
	(x) CRMB-50 Bulk Ex. Haldia	Per M.T	44087.20	0	44635.24		44635.24	13.5	50661.00	
	(xi) CRMB-55 Bulk Ex. Haldia	Per M.T	43686.70	0	42312.50		42312.50	13.5	48025.00	
	(xii) CRMB-60 Bulk Ex. Haldia	Per M.T	43995.60	0	35836.30		35836.30	13.5	40674.00	
	9. Emulsion (HINCOL)									
	(i) RS1 Ex.-Rukunpura (HINCOL)	Per M.T.	INPUT	0	#VALUE!		#VALUE!	13.5	#VALUE!	
	(ii) MS Ex.- Rukunpura (HINCOL)	Per M.T	INPUT	0	#VALUE!		#VALUE!	13.5	#VALUE!	
	(iii) SS Ex.-Rukunpura (HINCOL)	Per M.T	INPUT	0	#VALUE!		#VALUE!	13.5	#VALUE!	
	(iv) ss (IS-8887) Ex.Rukunpura (HINCOL)	Per M.T	INPUT	0	#VALUE!		#VALUE!	13.5	#VALUE!	
29	Shailterx Board (for use as per expansion joint)	Per M.T								
	i.25 mm thick	Per M^2	537.96	0	537.96		537.96	13.5	611.00	Previous T.E.C
	ii.12 mm thick	Per M^2	307.41	0	307.41		307.41	13.5	349.00	
	iii.18 mm thick	Per M^2	450.93	0	450.93		450.93	13.5	512.00	
30	Shailterx Primer	Per Lt	37.04	0	37.04		37.04	13.5	42.00	
31	Bitumen Paint	Per Lt	33.04	0	33.04		33.04	13.5	38.00	
32	i. Ciko Powder / Impermoo water proofing compound	Per Kg	19.44	0	19.44		19.44	13.5	22.00	
	ii. Liquid	Per Lt	90.74	0	90.74		90.74	13.5	103.00	approved rate
33	M.S.Rivet	Per Kg	35.00	0	35.00		35.00	13.5	40.00	1020
34	Narial coir string	Per Kg	31.48	0	31.48		31.48	5	33.00	Previous T.E.C
35	Narial rope 20 mm to 25 mm dia	Per Kg	39.81	0	39.81		39.81	5	42.00	
	Narial rope above 25 mm dia	Per Kg	48.15	0	48.15		48.15	5	51.00	
36	Sutali	Per Kg	22.22	0	22.22		22.22	5	23.00	
37	Sabey string	Per Kg	16.67	0	16.67		16.67	5	18.00	
38	Oxalic Acid	Per Kg	60.19	0	60.19		60.19	5	63.00	
39	Iron clamp (460 mm x 40 mm x 6 mm)	Per Kg	22.00		22.00		22.00	5	23.00	approved rate
40	Rolling shutter of 80x1.2mm laths	Per M^2	843.00	0	843.00		843.00	5	885.00	7,045
41	Shalimar tarfelt BH(Type III,group I)IS 1322-1992roll of 20mx1m	Each	787.04	0	787.04		787.04	13.5	826.00	Previous T.E.C approved rate

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1	2	3	4	5	6	7	8	9	10	11
42	Empty plastic cement bag (Specification as Annex-III)	Per % nos	257.00	0	257.00		257.00	5	270.00	WRD app.
43	Limpmat washer	Per % nos	20.00	0	20.00		20.00	13.5	23.00	1207
44	Bitumen washer	Per % nos	18.00	0	18.00		18.00	13.5	20.00	1208
45	i. 25 mm x 6 mm nuts and bolts	Per dozen	44.44	0	44.44		44.44	5	47.00	
	ii. 16 mm x 3.75 mm nuts and bolts	Per dozen	50.00	0	50.00		50.00	5	53.00	
	iii. 10 mm x 3.75 mm nuts and bolts	Per dozen	30.11	0	30.11		30.11	5	32.00	
46	i. Fly proof wire netting (18 gauge wire with 12-16 nos mesh	Per sqm	86.11	0	86.11		86.11	13.5	98.00	
	ii. Fly proof wire netting (Light gauge)	Per sqm	62.96	0	62.96		62.96	13.5	71.00	
47	Steel drum 300 mm dia 1.2 m. high/empty bitumen drum	Each	120.00	0	120.00		120.00	0	120.00	M-172
48	Coal (steam)	Per quintal	300.00	0	300.00		300.00	5	315.00	370
49	Boat spike (300-400 mm long)	Per Kg	98.15	0	98.15		98.15	5	103.00	Previous T.E.C
50	Slaked stone lime	Per quintal	315.38	0	315.38	31.54	346.92	5	363.00	
51	Unslaked lime	Per tonne	3084.04	0	3084.04		3084.04	0	3084.00	M-188
52	Particle Board Exterior									
	i. 12 mm	Per M^2	258.00	0	258.00		258.00	13.5	293.00	341
	ii. 25 mm	Per M^2	425.93	0	425.93		425.93	13.5	483.00	
53	NP_2 RCC Hume pipe with coller as per I.S 458-1971									
	i. 100 mm dia	Per M	110.19	0	110.19		110.19	13.5	125.00	
	ii. 150 mm dia	Per M	117.59	0	117.59		117.59	13.5	133.00	
	iii. 200 mm dia	Per M	137.04	0	137.04		137.04	13.5	156.00	
	iv. 250 mm dia	Per M	167.59	0	167.59		167.59	13.5	190.00	
	v. 300 mm dia	Per M	219.44	0	219.44		219.44	13.5	249.00	
	vi. 450 mm dia	Per M	305.56	0	305.56		305.56	13.5	347.00	
	vii. 600 mm dia	Per M	467.59	0	467.59		467.59	13.5	531.00	
	viii.700 mm dia	Per M	509.26	0	509.26		509.26	13.5	578.00	
	ix. 800 mm dia	Per M	625.00	0	625.00		625.00	13.5	709.00	
	x. 900 mm dia	Per M	787.96	0	787.96		787.96	13.5	894.00	Previous T.E.C
	xi.1000 mm dia	Per M	936.11	0	936.11		936.11	13.5	1062.00	approved rate
	xii.1200 mm dia	Per M	1272.22	0	1272.22		1272.22	13.5	1444.00	
	xiii.1400 mm dia	Per M	1546.30	0	1546.30		1546.30	13.5	1755.00	

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1	2	3	4	5	6	7	8	9	10	11
54	NP_3 RCC Hume pipe with coller as per I.S 458-1971									
	1. 300 mm dia	Per M	345.37	0	345.37		345.37	13.5	392.00	
	ii. 450 mm dia	Per M	621.30	0	621.30		621.30	13.5	705.00	
	vii. 600 mm dia	Per M	768.52	0	768.52		768.52	13.5	872.00	
	iii.700 mm dia	Per M	1051.85	0	1051.85		1051.85	13.5	1194.00	
	iv.800 mm dia	Per M	1263.89	0	1263.89		1263.89	13.5	1435.00	
	vi. 1000 mm dia	Per M	1886.11	0	1886.11		1886.11	13.5	2141.00	
	vii..1200 mm dia	Per M	2680.56	0	2680.56		2680.56	13.5	3042.00	
	viii..1400 mm dia	Per M	2970.37	0	2970.37		2970.37	13.5	3371.00	
55	NP_4 RCC Hume pipe with coller Heavy dutty non pressure pipe									
	300 mm dia	Per M	541.83	0	541.83		541.83	0	542.00	M-151
	1000 mm dia	Per M	2958.68	0	2958.68		2958.68	0	2959.00	M-149
	1200 mm dia	Per M	4206.31	0	4206.31		4206.31	0	4206.00	M-150
56	(a) 100 mm dia C.A. pipe	Per M	33.33	0	33.33		33.33		33.00	Previous T.E.C
57	(b) 100 mm dia bend	Each	30.56	0	30.56		30.56		31.00	approved rate
58	**(i) Analysis of rate of brick khoa (63 mm to 40 mm size)**									
	i. 100 B Bricks	800			5840.00		4672.00			
	ii. Unskilled mazdoor	3			184.00		552.00			
							5224.00		1895.93	
		Hence rate per M^3 Rs			1896.00	Per M^3				
	Patna Urban	Per M^3	1167.00	0	1846.00		1846.00	0	1846.00	
	Patna	Per M^3	970.40	0	1549.00		1549.00	0	1549.00	
	Muzzafferpur	Per M^3	985.70	0	1573.70		1573.70	0	1574.00	
	Darbhanga	Per M^3	985.70	0	1573.70		1573.70	0	1574.00	
	Bhagalpur	Per M^3	985.70	0	1573.70		1573.70	0	1574.00	
	Munger	Per M^3	985.70	0	1573.70		1573.70	0	1574.00	
	Saharsa	Per M^3	1010.50	0	1615.30		1615.30	0	1615.00	
	Purnea	Per M^3	1058.80	0	1696.00		1696.00	0	1696.00	
	Gaya	Per M^3	937.10	0	1492.00		1492.00	0	1492.00	

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1	2	3	4	5	6	7	8	9	10	11
	Saran	Per M^3	937.10	0	1492.00		1492.00	0	1492.00	
	(ii) Analysis of rate of brick khoa (40 mm to 20 mm size)									
	i. 100 B Bricks	850			5561.85		4727.57			
	ii. Unskilled mazdoor	4			184.00		736.00			
							5463.57		1929.23	
		Hence rate per M^3 Rs			1929.00	Per M^3				
	Patna Urban	Per M^3	1930.60	0	1288.00		1288.00	0	1288.00	
	Patna Rural	Per M^3	1629.66	0	1629.66		1629.66	0	1629.66	
	Muzzafferpur	Per M^3	1655.22	0	1655.22		1655.22	0	1655.22	
	Darbhanga	Per M^3	1655.22	0	1655.22		1655.22	0	1655.22	
	Bhagalpur	Per M^3	1655.22	0	1655.22		1655.22	0	1655.22	
	Munger	Per M^3	1655.22	0	1655.22		1655.22	0	1655.22	
	Saharsa	Per M^3	1697.07	0	1697.07		1697.07	0	1697.07	
	Purnea	Per M^3	1779.17	0	1779.17		1779.17	0	1779.17	
	Gaya	Per M^3	1573.12	0	1573.12		1573.12	0	1573.12	
	Saran	Per M^3	1573.12	0	1573.12		1573.12	0	1573.12	
	(iii) Analysis of rate of brick khoa (20 mm and down)									
	i. 100 B Bricks	900			5561.85		5005.67			
	ii. Unskilled mazdoor	5			184.00		920.00			
							5925.67		2093.88	
		Hence rate per M^3 Rs			2093.88	Per M^3				
	Patna Urban	Per M^3	2093.88	0	2093.88		2093.88	0	2093.88	
	Patna	Per M^3	1775.25	0	1775.25		1775.25	0	1775.25	
	Muzzafferpur	Per M^3	1802.30	0	1802.30		1802.30	0	1802.30	
	Darbhanga	Per M^3	1802.30	0	1802.30		1802.30	0	1802.30	
	Bhagalpur	Per M^3	1802.30	0	1802.30		1802.30	0	1802.30	
	Munger	Per M^3	1802.30	0	1802.30		1802.30	0	1802.30	
	Saharsa	Per M^3	1846.62	0	1846.62		1846.62	0	1846.62	

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1	2	3	4	5	6	7	8	9	10	11
	Purnea	Per M^3	1933.54	0	1933.54		1933.54	0	1933.54	
	Gaya	Per M^3	1715.38	0	1715.38		1715.38	0	1715.38	
	Saran	Per M^3	1715.38	0	1715.38		1715.38	0	1715.38	
59	Earth cost or compensation for earth taken from private land With Royality	Cum	23.65		23.65		23.65	0	23.65	M-092
60	Sludge/Farmeyard manure @0.18 cum per 100 sqm at site of work for turfing	Cum	710.30		710.30		710.30	0	710.30	M-167
61	Seed	Kg	31.57		31.57		31.57	0	31.57	M-162
62	Jute netting, open weave, 2.5 cm square opening	Sqm	39.46		39.46		39.46	5	41.43	M-121
63	perforated geosynthetic pipe 150 mm dia.	Per M	26.91		26.91		26.91	13.5	30.54	M-134
64	P.C.C (1:1:2) pipes	Per M	INPUT		#VALUE!		#VALUE!	13.5	#VALUE!	
65	Earthen ware pipe	Per M	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
66	Pressure release valves(Vertical non return valve)	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
67	Pocket valve (non return pocket valve)	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
68	Safety valve	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
69	SafetyLadder	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
70	Reflex valve	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
71	Foot valve	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
72	Sluice valve	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
73	Burnt clay pipe of internal dia 30 mm . External dia 31.75 mm									
	(a). 100 mm long	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
	(b) 222mm long	Each	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
74	Jute	Per Kg	**23.00**	0	23.00		23.00	0	23.00	
75	Nuts and bolts 16 mm dia x 225mm long	nos	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
76	Nuts and bolts 16 mm dia x 375mm long	nos	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
77	Nuts and bolts 16 mm dia x 450 mm long	nos	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
78	Rock bolt 25 mm dia metre	Per mtr	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
79	M.S Clamp	nos	32.07	0	32.07		32.07	5	34.00	M-123
	M.S Clamp	kg	58.05	0	58.05		58.05	5	61.00	M-124

CHAPTER ---II

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by .... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
80	**G.I.Socket Plain of the following sizes**									
	i.15 mm	Each	8.00	0	8.00		8.00	5	8.00	
	ii.20 mm	Each	11.00	0	11.00		11.00	5	12.00	Previous T.E.C
	iii. 25 mm	Each	15.00	0	15.00		15.00	5	16.00	
	iv. 32 mm	Each	20.00	0	20.00		20.00	5	21.00	
	v. 40 mm	Each	27.00	0	27.00		27.00	5	28.00	
	vi. 50 mm	Each	38.00	0	38.00		38.00	5	40.00	
	vii. 65 mm	Each	51.00	0	51.00		51.00	5	54.00	
	viii. 80 mm	Each	79.00	0	79.00		79.00	5	83.00	
	ix. 100 mm	Each	120.00	0	120.00		120.00	5	126.00	
	x. 125 mm	Each	154.00	0	154.00		154.00	5	162.00	
	xi. 150 mm	Each	176.00	0	176.00		176.00	5	185.00	
81	**G.I. pipe (ISI mark)**									
	i.15 mm	Each	**52.00**	0	52.00		52.00	5	55.00	
	ii.20 mm	Each	**70.00**	0	70.00		70.00	5	74.00	
	iii. 25 mm	Each	**86.00**	0	86.00		86.00	5	90.00	approved rate
	iv. 32 mm dia medium class	Each	**INPUT**	0	#VALUE!		#VALUE!	5	#VALUE!	sl.no.23
	v. 40 mm	Each	**208.00**	0	208.00		208.00	5	218.00	1549
	vi. 50 mm	Each	**153.00**	0	153.00		153.00	5	161.00	Previous T.E.C approved rate
	vii. 65 mm medium class	Each	**INPUT**	0	#VALUE!		#VALUE!	5	#VALUE!	sl.no.26
	viii. 80 mm	Each	**INPUT**	0	#VALUE!		#VALUE!	5	#VALUE!	sl. No.25
	ix. 100 mm	Each	**315.00**	0	315.00		315.00	5	331.00	Previous T.E.C
	x. 125 mm	Each	**430.00**	0	430.00		430.00	5	452.00	
	xi. 150 mm	Each	0.00		0.00		0.00	5	0.00	approved rate
82	Nuts and bolts	Kg	**58.03**	0	58.03		58.03	5	61.00	M-130
83	M.S pipe 250 mm dia	mtr	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
84	M.S Bends	Each	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
85	Rubber seal	metre	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
86	Copper seal (250mm X 1.6mm.)	Kg	684.96	0	684.96		684.96	5	719.00	M-086

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royality	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Rovality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
87	Sheet Pile	Per M.T	INPUT	0	#VALUE!		#VALUE!	5	#VALUE!	
88	Synthetic Geotextile	Sqm	**84.84**	0	84.84		84.84	5	89.00	M-108
89	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	nos	INPUT		#VALUE!		#VALUE!	0	#VALUE!	
90	Supplying palm leaves 100 nos	% no	15.78		15.78		15.78	0	15.78	M-166
91	Fuel (wood)	Kg	3.21		3.21		3.21	0	3.21	761
92	Gelatin 80%	Kg	**677.29**		677.29		677.29	0	677.29	M-104
93	Detonator 100 nos	nos	**631.38**		631.38		631.38	0	631.38	M-094
94	Blasting Material Blasting Fuse (Fuse wire)	nos	10.00		10.00		10.00	5	10.50	326
95	Cardium compound	kg	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
96	Petrol	lit	**71.52**		71.52		71.52		71.52	
97	Diesel	lit	**58.04**		58.04		58.04		58.04	At Patna
98	M-oil	lit	**200.00**		200.00		200.00		200.00	
99	Grease	Kg	INPUT		#VALUE!		#VALUE!		#VALUE!	
100	K-oil	lit	19.00		19.00		19.00		19.00	0771
101	Engine oil	lit	INPUT		#VALUE!		#VALUE!		#VALUE!	
102	Hydraulic oil	lit	INPUT		#VALUE!		#VALUE!		#VALUE!	
103	Check Transmission oil	lit	INPUT		#VALUE!		#VALUE!		#VALUE!	
104	Filter oil	lit	INPUT		#VALUE!		#VALUE!		#VALUE!	
105	Gear oil	lit	INPUT		#VALUE!		#VALUE!		#VALUE!	
106	Oil/Fuel Linssed oil (Double boiled)	lit	80.00		80.00		80.00		80.00	0818
107	Electric Charge	K.W.H	INPUT		#VALUE!		#VALUE!		#VALUE!	
108	Air compressor	Per hour	436.00		436.00		436.00		436.00	P&M-001
109	Nylon Crate (Specification as per Annex.-IV)	Each	35.24		35.24		35.24	5	37.00	Approved rate of W.R.D
110	Slotted pins and wedges 10 mm dia and 60 mm long	nos	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
111	Tube and nuts 26 no. 25 mm dia and above	nos	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
112	Acetylene	cum	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
113	Oxygen	cum	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
114	M.S Electrodes	nos	INPUT		#VALUE!		#VALUE!	13.5	#VALUE!	

CHAPTER ---II

LIST OF APPROVED BASIC RATES AT SOURCE OF CONSTRUCTION MATERIALS FOR THE YEAR 2014-2015

Sl.No	NAME OF MATERIALS	UNIT	Basic rate without Tax & Royalty	Enhanced by ..... % as per R.B.I.Price index	Revised rate without VAT & Royality Enhanced by.... % as per R.B.I.Price	Royality	Revised Rate with Royality and without VAT	VAT IN %(In Rate witout Royality)	Revised Rate with ALL TAXES & ROYALITY	Refrance
1	2	3	4	5	6	7	8	9	10	11
115	Gun metal in gate	Kg	INPUT		#VALUE!		#VALUE!	5	#VALUE!	
116	Cost of water	/Kl	236.76		236.76		236.76	0	236.76	M-189
117	Bolts 20 mm dia 25 cm long	nos	20.00		20.00		20.00	5	21.00	
118	Geo Bags of size 1m. X 0.7 m. of 300 GSM Needle punched, staple fiber, high alongation non oven Geo Textile) Volume: 0.07 cum, wt. of filled bag- 126kg, stitch- Min. 15 stitches/ 100mm (Specification as per Annex.-II)	nos.	94.29		94.29		94.29	5	99.00	Approved rate of W.R.D
119	Geo Bags of size 2m. X 1.5 m. of 600 GSM (Non oven) Volume: 0.75 cum, wt. of filled bg- 1250kg, stitch- Min. 15 stitches/ 100mm (Specification as per Annex.-I)	nos.	620.00		620.00		620.00	5	651.00	Approved rate of W.R.D
120	Binding Wire	Kg	54.24		54.24		54.24	0	54.24	M-72
121	Fly ash bricks	Per %0 nos	5606.00		5606		5606	5	5886.30	confirming to IS:12849)
122	P.P. Rope Gabion of size 1.80m x 1.80m x 0.50m (Specification as per Annex.- VI)	nos.	1827.00		1827.00		1827.00	5	1918.00	Approved rate of W.R.D
123	P.P. Gabion of size 1.80m x 1.20m x 0.50m (Specification as per Annex.- V)	nos.	1255.00		1255.00		1255.00	5	1318.00	Approved rate of W.R.D

Use Rate of Machine

Use Rate of Machine (Used in W.R.D)

Sl No	Description of machine	Activity	Unit	Rate	Ref
1	2	3	4	5	6
3.1	Drill Jumbo	Number of holes drilled simultaneously	Per hr	INPUT	
3.2	Jack hammer (52 lb)	Drilling	Per hr	844.00	P&M-063
3.3	Scalling hammer	Drilling	Per hr	INPUT	
3.4	Diamond core drilling machine and diesel pump.	Core samples	Per hr	INPUT	
3.5	Wagon Drill	Drilling	Per hr	INPUT	
3.6	Pneumatic Breakers (85 Lb or 38.6 Kg)		Per hr	844.00	P&M-063
3.7	Hoist winch 30T		Per hr	1161.00	P&M-084
3.8	Shot crete Machine	Pumping of Concrete	Per hr	348.00	P&M-007
3.9	Convey muckers (1.5 cubic yard 42 " wide conveyor) or 1.15 cum	Transporting	Per hr	IINPUT	P&M-065
3.10	Shovel (Diesel) 2 cum 262 H.P	Excavation	Per hr	INPUT	
	Shovel (Electric) 5 cum 350 H.P		Per hr	INPUT	
3.11	D.8 Tractor Dozer (Push Plate)H.P 270	Spreading/ cutting/ cleaning	Per hr	5062.00	P&M-014
b	D.9 Tractor Dozer H.P 385		Per hr	INPUT	
c	BD 50 Bulldozer with suitable diesel engine	Spreading, cutting clearing	Per hr	3001.00	P&M-015
d	BD 80 Bulldozer with suitable diesel engine	Spreading, cutting clearing	Per hr	5062.00	P&M-014
3.12	Dumper or Tipper(7 T) 4.5 cum	Trasportation of soil, GSB,WMM,Hotmix etc	Per hr	INPUT	
b	Dumper or Tipper(10 T) 5 cum		Per hr	882.00	P&M-048
c	Dumper (15 T)		Per hr	INPUT	
d	Rear Dumper(35 T) 17 cum		Per hr	INPUT	
3.13	Batching and mixing plant (35 cu.yd/hr)or 30 cum	Cocrete Mixing	Per hr	2513.00	P&M-002
b	Batching and mixing plant (15- 20 cum)		Per hr	1633.00	P&M-003
3.14	Ventilation blower (20000cfm)		Per hr	INPUT	
3.15	Pump	Pumping, water supply, sewage, dredging e			
(i)	Disel				
a	5 H.P		Per hr	INPUT	
b	10 H.P		Per hr	INPUT	
c	15 H.P		Per hr	INPUT	
d	20 H.P		Per hr	INPUT	
e	25 H.P		Per hr	INPUT	
f	30 H.P		Per hr	INPUT	
(ii)	Electric Pump				
g	5 H.P		Per hr	INPUT	
h	10 H.P		Per hr	INPUT	
I	15 H.P		Per hr	INPUT	
j	20 H.P		Per hr	INPUT	
k	30 H.P		Per hr	INPUT	
l	40 H.P		Per hr	INPUT	
m	50 H.P		Per hr	INPUT	
(iii)	Vacaum pumping set 5 H.P		Per hr	INPUT	
3.16	Roller				
a	Smooth drum(8-10 MT)	Soil, BM Compaction	Per hr	671.00	P&M-044
b	Vibratory Roller 8 tonne	Earth/ Soil GSB WMM Compaction	Per hr	1795.00	P&M-059
c	Pneumatic Road rollers	Rolling of Aspalt Surface Compaction	Per hr	1693.00	P&M-037
d	Sheep foot roller	Compaction of Earth	Per hr	INPUT	
	Sheep foot roller Drawn by Tractor		Per hr	INPUT	P&M-053+Sheep foot roller
3.17	Locomotives				
a	Diesel Locomotives		Per hr	INPUT	
b	Battery Locomotive (For 12 cubic yard capacity muckurcar)		Per hr	INPUT	
3.18	Grouting machine		Per hr	211.00	P&M-076
3.19	Air Compressor.	General Purpose			
	A. Diesel compressors				
	210 cfm		Per hr	436.00	P&M-001
	300 cfm.		Per hr	INPUT	
	500 cfm		Per hr	INPUT	
	B.Electric compressors				
	500 cfm		Per hr	INPUT	
	1500 cfm Staionery		Per hr	INPUT	
3.20	Crane 10 tonne capacity	Lifting purpose	Per hr	1161.00	P&M-071
3.21	Muck car (12 cubic yard)	Transporting	Per hr	INPUT	
3.22	Concrete vibrator		Per hr	162.14	Approved Rate in W.R.D (cost of Machine By T.E.C)
3.23	Scraper Motorised Push Loaded upto 10 cuyds		Per hr	INPUT	
3.24	Motor Grader 3.35 mtr. Blade	Clearing /Spreading / GSB/WMM	Per hr	2567.00	P&M-032
3.25	Concrete mixer				
	(i). Concrete mixer 0.4/0.28 cum	Concrete Mixing	Per hr	67.00	P&M-009
	(ii). 1cum.	Concrete Mixing	Per hr	201.00	P&M-010
3.26	Truck 5.5 cum per 10 tonnes	Material Transport	Per hr	841.00	P&M-057
3.27	a. Farm Tractor with Ripper	Loosen the hard earth and other material	Per hr	479.00	P&M-041+1B05
	b Tractor 25 H.P		Per hr	440.00	P&M-1B 05
	c.Ripper		Per hr	39.00	P&M-041
3.28	Tractor 25 H.P with Leveller/Bucket (Rajasthani)	Excavation of Earth	Per hr	440.00	P&M-1B05
3.29a	Water Tanker 6kl	Water Transport	Per hr	166.00	P&M-060
b	Water Tanker 6kl(With Tractor)		Per hr	606.00	(P&M-060)+(P&M-1 B05)
3.30	Concrete buckets 3.06 cum 4 cuyd		Per hr	22.00	P&M-008
3.31	Trolley	Transporting	Per hr	INPUT	P&M-065
3.32	Drill extractors (Compressed air)		Per hr	INPUT	
3.33	Grinder		Per hr	INPUT	
3.34	Sheet Pile Driving plant	Sheet Pile Driving	Per hr	INPUT	
3.35	Loader				
a	Front End loader 1 cum bucket capacity	Soil, Aggregate loading	Per hr	1199.00	P&M-017
b	Overhead loader 1cu. Yd or 0.768 cum		Per hr	INPUT	
3.36	Pneumatic concrete placer (1 Cubic yard) or 0.768 cum	Placing Concrete	Per hr	INPUT	
3.37	Draglines (Diesel) 2 cum 262 H.P (Crane with grab)	In well Shinking, Excavators	Per hr	1740.00	P&M-075
3.38	Hydraulic excavators (Diesel) 1.25cu.yd 0.96 cum	Excavators	Per hr	1771.00	P&M-026
3.39	Wet Mix Plant (Soil Stabilization Plant) 60 TPH	Stabilization Wet Mix	Per hr	1639.00	P&M-062
3.40	Agitaing car 4cu.yd or 3.07 cum		Per hr	INPUT	
3.41	Generator set				
a	250 KVA	Generation of Electric Energy	Per hr	3272.00	P&M-081
b	125 KVA	Generation of Electric Energy	Per hr	2333.00	P&M-018

d	63 KVA	Generation of Electric Energy	Per hr	961.00	P&M-019
e	33 KVA	Generation of Electric Energy	Per hr	506.00	P&M-079
f	6.5 KVA	Generation of Electric Energy	Per hr	210.00	1B-04
3.42	Crushing & Processing Plant				
a	Integrated Stone Crusher 100 TPH	Crushing of Spoil	Per hr	11790.00	P&M-027
b	Integrated Stone Crusher 200 TPH		Per hr	24802.00	P&M-028
3.43	40 quintal capacity boat	Transportation in River	Per day	191.00	Approved Rate in S.R(Saharsa
b	100 quintal capacity boat		Per day	252.70	Approved Rate in S.R(Saharsa
c	100 quintal capacity boat (Moter Fitted)		Per day		
d	Boat to carry atleast 20 persons		Per hr.	211.00	P&M-066
3.44	Bullock cart	Transportation	Per day	136.60	Approved Rate in S.R(Saharsa
3.45	Transit Mixer 4.0/4.5 cum	Transportation of concrete mix to site	Per hr	1265.00	P&M-049
b	Transit Mixer 3.0 cum	Transportation of concrete mix to site	Per hr	1161.00	P&M-051

CHAPTER ---III

Use Rate of Machine

Use Rate of Machine (Approved by State Level S.R.Committee)

R.C.D. S.R Sl. No.	Description of Machine	Activity	Output of Machine	Output	Unit	Rate
1	2	3	4	5	6	7
P&M-001	Air Compressor	General Purpose	capacity in cfm	170/250	hour	436.00
P&M-002	Batching and Mixing Plant (a) 30 cum capacity	Concrete Mixing	cum/hour	20	hour	2513.00
P&M-003	Batching and Mixing Plant (b) 15 - 20 cum capacity	Concrete Mixing	cum/hour	13	hour	1633.00
P&M-004	Bitumen Pressure Distributor	Applying bitumen tack coat	sqm/hour	1750	hour	1459.00
P&M-005	Bitumen Boiler oil fired	Bitumen Spraying	capacity in litre	1500	hour	270.00
P&M-006	Concrete Paver Finisher with 40 HP Motor	Paving of concrete surface	cum / hour	20	hour	1330.00
P&M-007	Concrete Pump of 45 & 30 cum capacity	Pumping of concrete	cum / hour	33 / 22	hour	348.00
P&M-008	Concrete Bucket	For Pouring concrete	capacity in cum	1	hour	22.00
P&M-009	Concrete Mixer (a) 0.4/0.28 cum	Concrete Mixing	cum/hour	2.5	hour	67.00
P&M-010	Concrete Mixer (b) 1 cum	Concrete Mixing	cum/hour	7.5	hour	201.00
P&M-011	Crane (a) 80 tonnes	Lifting Purpose			hour	1740.00
P&M-012	Cranes b) 35 tonnes	Lifting Purpose			hour	1161.00
P&M-013	Cranes c) 3 tonnes	Lifting Purpose			hour	486.00
P&M-014	Dozer D - 80 - A 12	Spreading /Cutting / Clearing	cum/hour	300/ 150/250	hour	5062.00
P&M-015	Dozer D - 50 - A 15	Spreading /Cutting / Clearing	cum/hour	200/ 120/150	hour	3001.00
P&M-016	Emulsion Pressure Distributor	Applying emulsion tack coat	sqm/hour	1750	hour	1088.00
P&M-017	Front End loader 1 cum bucket capacity	Soil loading / Aggregate loading	cum/hour	60 /25	hour	1199.00
P&M-018	Generator (a) 125 KVA	Genration of electric Energy	KVA	100	hour	2333.00
P&M-019	Generator(b) 63 KVA	Genration of electric Energy	KVA	50	hour	961.00
P&M-020	GSB Plant 50 cum	Producing GSB	cum/hour	40	hour	1414.00
P&M-021	Hotmix Plant - 120 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	40	hour	45194.00
P&M-022	Hotmix Plant - 100 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	30	hour	34330.00
P&M-023	Hotmix Plant - 60 to 90 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	25	hour	28891.00
P&M-024	Hotmix Plant - 40 to 60 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	17	hour	20147.00
P&M-025	Hydraulic Chip Spreader	Surface Dressing	sqm/hour	1500	hour	3585.00
P&M-026	Hydraulic Excavator of 1 cum bucket	Soil Ordinary/Soil Marshy / Soil Unsuitable	cum/hour	60 /60 /60	hour	1771.00
P&M-027	Integrated Stone Crusher 100THP	Crushing of Spalls	TPH	100	hour	11790.00
P&M-028	Integrated Stone Crusher 200 HP	Crushing of Spalls	TPH	200	hour	24802.00
P&M-029	Kerb Casting Machine	Kerb Making	Rm/hour	80	hour	422.00
P&M-030	Mastic Cooker	Mastic Wearing coat	capacity in tonne	1	hour	84.00
P&M-031	Mechanical Broom Hydraulic @1250 sqm per hour	Surface Cleaning	sqm/hour	356	hour	470.00
P&M-032	Motor Grader 3.35 mtr blade	Clearing /Spreading /GSB /WBM	cum/hour	200/200/50/50	hour	2567.00
P&M-033	Mobile slurry seal equipment	Mixing and laying slurry seal	sqm/hour	2700	hour	1372.00
P&M-034	Paver Finisher Hydrostatic with sensor control 100 TPH	Paving of DBM/ BM/SDC/ Premix	cum/hour	40	hour	3152.00
P&M-035	Paver Finisher Mechanical 100 TPH	Paving of WMM /Paving of DLC	cum/hour	40/30	hour	1235.00
P&M-036	Piling Rig with Bantonite Pump	0.75 m dia to 1.2 m dia Boring attachment	Rm/hour	2 to 3	hour	7434.00
P&M-037	Pneumatic Road Roller	Rolling of Asphalt Surface	cum/hour	25	hour	1693.00
P&M-038	Pneumatic Sinking Plant	Pneumatic Sinking of wells	cum/hour	1.5 to 2.00	hour	5674.00
P&M-039	Pot Hole Repair Machine	Repair of potholes	cum/hour	4	hour	1233.00

P&M-040	Prestressing Jack with Pump & access	Stressing of steel wires/stands			hour	175.00
P&M-041	Ripper	Scarifying	cum/hour	60	hour	39.00
P&M-042	Rotavator	Scarifying	cum/hour	25	hour	24.00
P&M-043	Road marking machine	Road marking	Sqm/hour	100	hour	127.00
P&M-044	Smooth Wheeled Roller 8 tonne	Soil Compaction /BM Compaction	cum/hour	70/25	hour	671.00
P&M-045	Tandem Road Roller	Rolling of Aspalt Surface	cum/hour	30	hour	1557.00
P&M-046	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix	Capacity in cum	5.5	hour	33.00
P&M-047	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix	Capacity in cum	5.5	tonne.km	7.68
P&M-048	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix	Capacity in cum	5.5	hour	882.00
P&M-049	Transit Mixer 4.0/4.5 cum	Transportation of Concrete Mix to site	cum/hour	4.5	hour	1265.00
P&M-050	Transit Mixer 4/4.5 cum	Transportation of Concrete Mix to site	cum/hour	4.5	tonne.km	6.50
P&M-051	Transit Mixer 3.0 cum	Transportation of Concrete Mix to site	cum/hour	3	hour	1161.00
P&M-052	Transit Mixer 3.0 cum	Transportation of Concrete Mix to site	cum/hour	3	tonne.km	8.60
P&M-053	Tractor-25 HP	Pulling	capacity in HP	50	hour	494.00
P&M-054	Tractor with Rotevator	Rate of Tractor + Rotevator			hour	516.00
P&M-055	Tractor with Ripper	Rate of Tractor + Ripper			hour	532.00
P&M-056	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	km	30.00
P&M-057	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	hour	841.00
P&M-058	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	tonne.km	3.22
P&M-059	Vibratory Roller 8 tonne	Earth or soil / GSB / WBM	cum/hour	100/60/60	hour	1795.00
P&M-060	Water Tanker	Water Transport	capacity in KL	6	hour	166.00
P&M-061	Water Tanker	Water Transport	capacity in KL	6	km	33.35
P&M-062	Wet Mix Plant 60 TPH	Wet Mix	cum/hour	25	hour	1639.00
Sl. No.	Description of Machine				Unit	Rate
P&M-063	Air compressor with pneumatic chisel attachment for cutting hard clay.				hour	844.00
P&M-064	Batch type cold mixing plant 100-120 TPH capacity producing an average output of 75 tonne per hour				hour	3374.00
P&M-065	Belt conveyor system				hour	IINPUT
P&M-066	Boat to carry atleast 20 persons				hour	211.00
P&M-067	Cement concrete batch mix plant @ 175 cum per hour (effective output)				hour	7084.00
P&M-068	Cement concrete batch mix plant @ 75 cum per hour				hour	3036.00
P&M-069	Cold milling machine @ 20 cum per hour				hour	1265.00
P&M-070	Crane 5 tonne capacity				hour	1161.00
P&M-071	Crane 10 tonne capacity				hour	1161.00
P&M-072	Crane 15 tonne capacity				hour	1161.00
P&M-073	Crane 20 tonne capacity				hour	1161.00
P&M-074	Crane 40 T capacity				hour	1740.00
P&M-075	Crane with grab 0.75 cum capacity				hour	1740.00
P&M-076	Compressor with guniting equipment along with accessories				hour	211.00
P&M-077	Drum mix plant for cold mixes of appropriate capacity but not less than 75 tonnes/hour.				hour	1639.00
P&M-078	Epoxy Injection gun				hour	158.00
P&M-079	Generator 33 KVA				hour	506.00
P&M-080	Generator 100 KVA				hour	1716.00
P&M-081	Generator 250 KVA				hour	3272.00
P&M-082	Induction, deinduction and erection of plant and equipment including all components and accessories for pneumatic method of well sinking.				hour	INPUT
P&M-083	Joint Cutting Machine with 2-3 blades (for rigid pavement)				hour	317.00
P&M-084	Jack for Lifting 40 tonne lifting capacity.				day	1161.00
P&M-085	Piling rig Including double acting pile driving hammer (Hydraulic rig)				hrs	7434.00
P&M-086	Plate compactor				hour	422.00

P&M-087	Snow blower equipment 140 HP @ 600 cum per hour	hour	INPUT
P&M-088	Texturing machine (for rigid pavement)	hour	106.50
P&M-089	Truck Trailor 30 tonne capacity	hour	3374.00
P&M-090	Truck Trailor 30 tonne capacity	t.km	3.22
P&M-091	Tunnel Boring machine	hour	INPUT
P&M-092	Vibrating Pile driving hammer complete with power unit and accessories.	hour	INPUT
P&M-093	Wet Mix Plant 100 TPH	hour	2479.00
P&M-094	Wet Mix Plant 75 TPH @68.75 tonne per hour actual output	hour	2479.00

CHAPTER ---III

CALCULATION OF HIRE CHARGES OF MACHINE

3.22 Vibrator

A	**Depreciation charge**					
	Capital cost of machine					21840.00
	Life of machine		5 Year			
	Rated life of machine		8000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1600 hrs			
	Depreciation of machine /hr = 0.9x Cost of Machine/Tated life of Machines					2.46 **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %			3.69 **B**
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		1.50 lit		58.04	87.06
	b.Lubricant and grease waste etc 25% of above F		25 %			21.77
	c.Sundries and miseellenceous supplies at site					
	@ 10 % of R/M(B)		10 %			0.37
	Total charge					109.19 **C**
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Driver	1	30	208.00		6240.00
	Total Direct labour charge					6240.00
	Direct labour charge per hr					46.80
	Hourly use rate					162.14 Per hr
		Say Rs.	162.14			

3.28 Tractors

A	**Depreciation charge**					
	Capital cost of machine					425000.00
	Life of machine		5 Year			
	Rated life of machine		12000 hrs			
	Working Hours per year (Rated life in hrs/yr)		2400 hrs			
	Depreciation of machine /hr = 0.9x Cost of Machine/Tated life of Machines					31.88 **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %			47.81 **B**
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		2.75 lit		58.04	159.61
	b.Lubricant and grease waste etc 25% of above F		25 %			39.90
	c.Sundries and miseellenceous supplies at site					
	@ 10 % of R/M(B)		10 %			4.78
	Total charge					204.29 **C**
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Driver	1	30	268.00		8040.00
	ii.Helper	1	30	196.00		5880.00
	Total Direct labour charge					13920.00
	Direct labour charge per hr					69.60
	Hourly use rate					353.58 Per hr
	Hire charge of Tractor per day					2828.65 Per day

3.34 Sheet Pile Driving plant

A	**Depreciation charge**					
	Capital cost of machine				INPUT	
	Life of machine		10 Year			
	Rated life of machine		15000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1500 hrs			
	Depreciation of machine /hr = 0.9x Cost of Machine/Tated life of Machines				#VALUE!	**A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		50 %		#VALUE!	**B**
C	**Running charges (P.O.L)**					
	a.Fuel Compressed air		400 /100cfm		436.00	1744.00
	b.Lubricant and grease waste etc 25% of above F		25 %			436.00
	c.Sundries and miseellenceous supplies at site					
	@ 10 % of R/M(B)		10 %		#VALUE!	
	Total charge				#VALUE!	**C**
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	

i.Operator Gr I	1	30	234.00	7020.00	
ii.Helper	1	30	184.00	5520.00	
iii.Formen	1/8	30	317.00	1188.75	
Iv.Mechanic	1/4	30	289.00	2167.50	
v.Chokidar	1/4	30	190.00	1425.00	
Total Direct labour charge				17321.25	
Direct labour charge per hr				138.57	**D**
Hourly use rate				#VALUE!	Per hr

Usage Rate of Plant And Machinery

TABULATION OF OPERATING & MAINTENANCE CREW ADOPTED IN THE HOURLY USE RATE OF EQUIPMENT

Sl.No	Name of Equipment	Operation & Maintenance crew required for the operational of the M/C																
		Fore-man	Operator	Mechanic	Helper	Watchman	Electrician	Supervisior	Driver	Cablemen	Beldar	Cleaner	Chargeman	Fitter	Grea-ser	Khalasi	Tar man	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
3.1	Drill Jumbo	1/8	2	1/4	4	1/4												
3.2	Jack hammer (52 lb)		1	1/8	1/2	1/8		1/5										
3.3	Scalling hammer		1		1/2	1/10		1/3										
3.4	Diamond core drilling machine and diesel pump.	1/8	2	1/4	3	1/4												
3.5	Wagon Drill	1/8	1	1/8	1	1/4		1/4										
3.6	Paving Breakers (85 Lb or 38.6 Kg)																	
3.7	Hoist winch (30 T)		1	1/8	1/2	1/8												
3.8	Shot crete Machine	1/8	1	1/2	1	1/4												
3.9	Convey muckers (1.5 cubic yard 42 " wide conveyor)	1/8	1	1/6	1	1/4												
3.10	Shovel (Diesel) 2 cum 262 H.P	1/4	1	1/2	1	1/4		1										
	Shovel (Electric) 5 cum 350 H.P	1/4	1	1/2	1	1/4	1/2	1		2								
3.11	D.8 Tractor Dozer (Push Plate)H.P 270	1/4		1/4	1	1/4			1									
	D.9 Tractor Dozer H.P 385	1/4		1/4	1	1/4			1									
3.12	Dumper /Tipper (7 T) 4.5 cum		1	1/8		1/6						1						
	Dumper (15 T)	1/8	1	1/6	1	1/6												
	Rear Dumper(35 T) 17 cum	1/4	1	1/4	1	1/4												
3.13	Batching and mixing plant (25-35 cum)	1/2	2	1/2		1					6							
3.14	Ventilation blower (20000cfm)		1/4	1/4	1/2													
3.15	Pump																	
	Disel																	
	5 H.P		1															
	10 H.P																	
	15 H.P																	
	20 H.P																	
	25 H.P																	
	30 H.P																	
	Electric Pump																	
	5 H.P																	
	10 H.P																	
	15 H.P		1	1/4			1/8											
	20 H.P																	
	30 H.P																	
	40 H.P																	
	50 H.P		1	1/4	1		1/6											
	Vacaum pumping set																	
	5 H.P		1															
3.16	Roller																	
	Smooth drum(8-10 MT)																	
	Vibratory roller	1/8	1	1/4	1	1/8												

	Pneumatic tyred rollers	1/8	1	1/4	1	1/8												
	Drawn Sheep foot roller																	
	D-4 Tractor (drawn by) For Sheep foot roller	1/8		1/6	1/2				1									
3.17	Locomotives																	
	Diesel Locomotives	1/8	1	1/4	1	1/4												
	Battery Locomotive	1/8	1	1/4	1	1/4												
3.18	Grouting machine	1/8	1	1/6	1	1/6												
3.19	Air Compressor.																	
	A. Diesel compressors																	
	210 cfm	1/8	1	1/4	1	1/4												
	300 cfm.	1/8	1	1/4	1	1/4												
	500 cfm	1/8	1	1/4	1	1/4												
	B.Electric compressors																	
	500 cfm	1/8	1	1/4	1	1/4	1/2											
	1500 cfm Staionery	1/8	1	1/3	1	1/4	1/2											
3.20	Crane																	
	Moible Crawler Mounted Upto 10 T	1/4	1	1/4	1	1/4		1/4						1				
3.21	Muck / Car (12 cubic yard)																	
3.22	Concrete vibrator		1															
3.23	Scraper Motorised Push Loaded Upto 10 cuyds	1/4	1	1/4	1	1/4												
3.24	GRADER 115 hp	1/8	1	0	1	1/2												
3.25	Concrete mixer																	
3.26	Diesel Truck				1				1									
3.27	Ripper																	
3.28	Tractors				1				1									
3.29	Water Tanker 6kl				1				1									
3.30	Concrete buckets																	
3.31	Trolley																	
3.32	Drill extractors (electrical)	1/8	1	1/8	1	1/4	1/4	1/4										
	Compressed air	1/8	1	1/8	1	1/4		1/4										
3.33	Grinder	1/8	1	1/8	1	1/4												
3.34	Pile Driving plant	1/8	1	1/4	1	1/4												
3.35	Loader																	
	Front end loader 2cu.yd	1/8	1	1/4	1	1/2												
	Overhead loader 1cu. yd	1/8	1	1/4	1	1/6												
3.36	Pneumatic concrete placer (1 Cubic yard)	1/8	1	1/6	1	1/6												
3.37	Draglines (Diesel) 2 cum 262 H.P	1/4	1	1/2	1	1/4		1										
	Draglines (Electric) 5 cum 350 H.P	1/4	1	1/2	1	1/4	1/2	1		1								
3.38	Hydraulic excavators (Diesel)1.25cu.yd or 0.96 cum	1/4	1	1/4	1	1/4												
	Hydraulic excavators (Diesel)0.3 cum	1/4	1	1/4	1	1/4												
3.39	Wet Mix Plant (Soil Stabilization Plantr) 60 TPH	1/4	2	1/4	2	1/4						2						
	Wet Mix Plant (Soil Stabilization Plantr) 110 HP	1/4	2	1/4	2	1/4						2						
3.40	Agitating car 4cu.yd	1/8	1/2	1/4	1/2	1/6												

3.41	Generator set																	
	250 KVA		1	1/4		1/6	1/4			1								
	125 KVA		1	1/4		1/6	1/4			1								
	63 KVA		1	1/4		1/6	1/4			1								
	32 KVA		1	1/4		1/6	1/4			1								
3.42	Crushing & Processing Plant																	
	Integrated Stone Crusher 100 TPH	1	2	1/4		1												
	Integrated Stone Crusher 200 TPH	1	2	1/4		1						15						
3.43	40 quintal capacity boat		2									20						
	100 quintal capacity boat		2															
	100 quintal capacity boat (Moter Fitted)		1															
3.44	Bullock cart		1		1													
3.45	Transit Mixer 4.0/4.5 cum	1/8	1	1/4	1	1/6												
	Transit Mixer 3.0 cum	1/8	1	1/4	1	1/6												

TABULATION OF COST & LIFE OF MACHINES , FUEL CONSUMPTION ADOPTED IN THE HOURLY USE RATE OF EQUIPMEN & ADOPTED USE RATE

Sl No	Description of machine		Cost of	Life of Machine		Repair provision in X%		Fuel consumption per hours		Output of machine		Hourly use rate(By calculation)		Adopted Use Rate of Machine vide P.W.D.S.R.	
	Machine	Activity	machine	Year	In Hours	Major	Engine Horse Power	Quty	Unit	Output	Unit	Rates	Unit	Rate	Ref
1	2	3	4	5	6	7	8	9	10	13	14	11	12	15	16
3.1	Drill Jumbo	Number of holes drilled simultaneou	IINPUT	10	12000	60		0				#VALUE!	Per hr	#VALUE!	
3.2	Jack hammer (52 lb)	Drilling	IINPUT	10	10000	60		100	cfm	2.3 M	35mmhole/hr	#VALUE!	Per hr	**844.00**	P&M-063
3.3	Scalling hammer	Drilling	IINPUT	10	10000	60		100	cfm			#VALUE!	Per hr	#VALUE!	
3.4	Diamond core drilling machine and diesel pump.	Core samples	IINPUT	8	8000	80	32.25	3.55	lit/hr	0.5	mtr/hour	#VALUE!	Per hr	#VALUE!	
3.5	Wagon Drill	Drilling	IINPUT	8	8000	80		400.00	cfm	0.2	mtr/hour	#VALUE!	Per hr	#VALUE!	
3.6	Pneumatic Breakers (85 Lb or 38.6 Kg)		IINPUT	10	10000	60		100.00	cfm				Per hr	**844.00**	P&M-063
3.7	Hoist winch 30T		IINPUT	**12**	**15000**	**120**		0	lit/hr			#VALUE!	Per hr	**1161.00**	P&M-084
3.8	Shot crete Machine	Pumping of Concrete	IINPUT	10	15000	80		600	cfm	33/22	cum/hour	#VALUE!	Per hr	**348.00**	P&M-007
3.9	Convey muckers (1.5 cubic yard 42 " wide conveyor) or 1.15 cum	Transportin g	IINPUT	10	15000	100	165	123.09	KWH	76.5	cum/hour	#VALUE!	Per hr	#VALUE!	P&M-065
3.10	Shovel (Diesel) 2 cum 262 H.P	Excavation	IINPUT	12	15000	150	262	28.55	lit/hr	100	cum/hour	#VALUE!	Per hr	#VALUE!	
	Shovel (Electric) 5 cum 350 H.P		IINPUT	20	40000	150	350	175.36	KWH	28.08		#VALUE!	Per hr		
3.11	D.8 Tractor Dozer (Push Plate)H.P 270	Spreading	IINPUT	10	12000	100	270	29.42	lit/hr	300	cum/hour	#VALUE!	Per hr	**5062.00**	P&M-014
b	D.9 Tractor Dozer H.P 385		IINPUT	10	12000	100	385	41.95	lit/hr			#VALUE!	Per hr	#VALUE!	
c	BD 50 Bullcozer with suitable diesel engine	Spreading, cutting clearing	IINPUT	10	12000	100	50	5.45	lit/hr	200 100 150	cum/hour		Per hr	**3001.00**	P&M-015
d	BD 80 Bullcozer with suitable diesel engine	Spreading, cutting clearing	IINPUT	10	12000	100	80	8.72	lit/hr	300 150 250	cum/hour		Per hr	**5062.00**	P&M-014
3.12	Dumper or Tipper(7 T) 4.5 cum	Trasportatio	IINPUT	8	10000	140	110	11.99	lit/hr			#VALUE!	Per hr	#VALUE!	
b	Dumper or Tipper(10 T) 5.5 cum	n of soil,	IINPUT	8	10000	140		0.00	lit/hr				Per hr	**882.00**	P&M-048
c	Dumper (15 T)	GSB,WMM,	IINPUT	8	10000	140	200	21.79	lit/hr	25.22	cum/hour	#VALUE!	Per hr	#VALUE!	
d	Rear Dumper(35 T) 17 cum	Hotmix etc	IINPUT	10	12000	140	560	61.02	lit/hr			#VALUE!	Per hr	#VALUE!	
3.13	Batching and mixing plant (35 cu.yd/hr)or 27 cum	Cocrete Mixing	IINPUT	18	30000	75	80	59.68	kwh	27	cum/hour	#VALUE!	Per hr	**2513.00**	P&M-002
b	Batching and mixing plant (15- 20 cum)		IINPUT							13	cum/hour		Per hr	**1633.00**	P&M-003
3.14	Ventilation blower (20000cfm)		IINPUT	12	58000	80	20	14.92	kwh			#VALUE!	Per hr	#VALUE!	
3.15	Pump	Pumping,													
(i)	Disel														
a	5 H.P		IINPUT	8	10000	100	5	0.61	lit/hr			#VALUE!	Per hr	#VALUE!	
b	10 H.P		IINPUT	8	10000	100	10	1.21	lit/hr			#VALUE!	Per hr	#VALUE!	
c	15 H.P		IINPUT	8	10000	100	15	1.82	lit/hr			#VALUE!	Per hr	#VALUE!	
d	20 H.P		IINPUT	8	10000	100	20	2.42	lit/hr			#VALUE!	Per hr	#VALUE!	
e	25 H.P		IINPUT	8	10000	100	25	3.03	lit/hr			#VALUE!	Per hr	#VALUE!	
f	30 H.P		IINPUT	8	10000	100	30	3.63	lit/hr			#VALUE!	Per hr	#VALUE!	
(ii)	Electric Pump														
g	5 H.P		IINPUT	12	20000	70	5	3.73	kwh			#VALUE!	Per hr	#VALUE!	

h	10 H.P		IINPUT	12	20000	70	10	7.46	kwh			#VALUE!	Per hr	#VALUE!	
j	15 H.P		IINPUT	12	20000	70	15	11.19	kwh			#VALUE!	Per hr	#VALUE!	
j	20 H.P		IINPUT	12	20000	70	20	14.92	kwh			#VALUE!	Per hr	#VALUE!	
k	30 H.P		IINPUT	12	20000	70	30	22.38	kwh			#VALUE!	Per hr	#VALUE!	
l	40 H.P		IINPUT	12	20000	70	40	29.84	kwh			#VALUE!	Per hr	#VALUE!	
m	50 H.P		IINPUT	12	20000	70	50	37.3	kwh			#VALUE!	Per hr	#VALUE!	
(iii)	Vacaum pumping set 5 H.P		IINPUT	12	20000	50	5	3.73	kwh			#VALUE!	Per hr	#VALUE!	
3.16	Roller														
a	Smooth drum(8-10 MT)	Soil, BM Compaction	IINPUT	8	12000	80		3	lit/hr				Per hr	**671.00**	P&M-044
b	Vibratory roller	Earth/ Soil GSB WMM	IINPUT	8	8000	150	62	7.51	lit/hr				Per hr	**1795.00**	P&M-059
c	Pneumatic Road rollers	Rolling of Aspalt	IINPUT	8	10000	80	60	7.26	lit/hr				Per hr	**1693.00**	P&M-037
d	Sheep foot roller	Compaction										#VALUE!	Per hr	#VALUE!	
	Sheep foot roller Drawn by Tractor	of Earth	IINPUT	8	10000	70							Per hr	#VALUE!	053+Sheep foot
3.17	Locomotives														
a	Diesel Locomotives		IINPUT	10	16000	120	98	10.79	lit/hr			#VALUE!	Per hr	#VALUE!	
b	Battery Locomotive (For 12 cubic yard capacity muckurcar)		IINPUT	22	40000	120						#VALUE!	Per hr	#VALUE!	
3.18	Grouting machine		IINPUT	10	10000	80		200	cfm			#VALUE!	Per hr	**211.00**	P&M-076
3.19	Air Compressor.	General													
	A. Diesel compressors														
	210 cfm		IINPUT	8	10000	100	61.50	6.77	lit/hr			#VALUE!	Per hr	**436.00**	P&M-001
	300 cfm.		IINPUT	10	10000	100	94.30	10.38	lit/hr			#VALUE!	Per hr	**#VALUE!**	
	500 cfm		IINPUT	10	12000	100	148.00	16.13	lit/hr			#VALUE!	Per hr	#VALUE!	
	B.Electric compressors														
	500 cfm		IINPUT	12	20000	80		90.00	kwh			#VALUE!	Per hr	#VALUE!	
	1500 cfm Staionery		IINPUT	20	30000	80		240.00	kwh			#VALUE!	Per hr	#VALUE!	
3.20	Crane 10 tonne capacity	Lifting purpose	IINPUT	10	12000	120			lit/hr			#VALUE!	Per hr	**1161.00**	P&M-071
3.21	Muck car (12 cubic yard)	Transportin g	IINPUT	20	30000	50						#VALUE!	Per hr	#VALUE!	
3.22	Concrete vibrator		**21840**	5	8000	150		1.5	lit/hr			162.10	Per hr	**162.10**	Approved Rate in W.R.D (cost of Machine By T.E.C)
3.23	Scraper Motorised Push Loaded upto 10 cuyds		IINPUT	8	9000	150	165	17.98	lit/hr			#VALUE!	Per hr	#VALUE!	
3.24	GRADER 115 hp	Clearing Spreading GSB WMM	IINPUT	10	12000	150	115	12.53	lit/hr	200 200 50 50	Per hour	#VALUE!	Per hr	**2567.00**	P&M-032
3.25	Concrete mixer		IINPUT									#VALUE!			
	(I). Concrete mixer 0.4/0.28 cum	Concrete	IINPUT	5	8000	80		5	lit/hr	0.40	cum/hour	#VALUE!	Per hr	**67.00**	P&M-009
	(ii). 10/7 (0.20 cum) cft. Capacity fitting drum type concrete mixer etc. radiator cooled diseal engine.	Concrete Mixing	IINPUT	5	8000	80		4.5	lit/hr	2.5	cum/hour	#VALUE!	Per hr	**67.00**	P&M-009

3.26	Truck 5.5 cum per 10 tonnes	Material Transport	IINPUT	10	12000	150		3.2	lit/hr	8t/4.8cum	Tone,cum	#VALUE!	Per hr	841.00	P&M-057
3.27	a. Farm Tractor with Ripper	Loosen the	IINPUT							150	cum/hour	#VALUE!	Per hr	532.00	P&M-055
	b Tractor 50H.P	hard earth and other	IINPUT	5	12000	150	50	6.05	lit/hr		cum/hour	#VALUE!	Per hr	494.00	P&M-053
	c.Ripper	material	IINPUT	10	12000	100		nil				#VALUE!	Per hr	39.00	P&M-041
3.28	Tractor 30H.P with Leveller/Bucket	Excavation of Earth	INPUT	5	12000	150	30	2.75	lit/hr			440.00	Per hr	440.00	P&M-1B05
3.29a	Water Tanker 6kl	Water	IINPUT	10	16000	100							Per hr	166.00	P&M-060
b	Water Tanker 6kl(With Tractor) 50 HP												Per hr	660.00	(P&M-060)+ (P&M-041)
3.30	Concrete buckets 3.06 cum 4 cuyd		IINPUT	10	15000	50							Per hr	22.00	P&M-008
3.31	Trolley	Transportin g	IINPUT	10	15000	50							Per hr	IINPUT	P&M-065
3.32	Drill extractors (Compressed air)		IINPUT	8	8000	80		400	cfm			#VALUE!	Per hr	#VALUE!	
3.33	Grinder		IINPUT	8	8000	80		400	cfm			#VALUE!	Per hr	#VALUE!	
3.34	Sheet Pile Driving plant	Sheet Pile Driving	IINPUT	10	15000	50		400	cfm			#VALUE!	Per hr	#VALUE!	
3.35	Loader														
a	Front end loader 2cu.yd or 1.54cum	Soil, Aggregate loading	IINPUT	10	15000	150	130	12.79	lit/hr	60 /25	cum/hour	#VALUE!	Per hr	1199.00	P&M-017
b	Overhead loader 1cu. Yd or 0.768 cum		IINPUT	16	20000	70	160	119.36	kwh			#VALUE!	Per hr	#VALUE!	
3.36	Pneumatic concrete placer (1 Cubic yard) or 0.768 cum	Placing Concrete	IINPUT	10	10000	120		200	Cfm			#VALUE!	Per hr	#VALUE!	
3.37	Draglines (Diesel) 2 cum 262 H.P (Crane with grab)	In well Shinking,	IINPUT	12	15000	150	262	28.55	lit/hr			#VALUE!	Per hr	1740.00	P&M-075
3.38	Hydraulic excavators (Diesel)1.25cu.yd 0.96 cum	Excavators	IINPUT	10	12000	150	103.5	11.28			0.768	#VALUE!	Per hr	1771.00	P&M-026
3.39	Wet Mix Plant (Soil Stabilization Plant) 60 TPH	Stabilization Wet Mix	IINPUT	10	12000	150	38.5	4.19	lit/hr	25	cum/hour		Per hr	1639.00	P&M-062
3.40	Agitating car 4cu.yd or 3.07 cum		IINPUT	10	10000	120	5	5.33	kwh			#VALUE!	Per hr	#VALUE!	
3.41	Generator set														
a	250 KVA	Generation of Electric Energy	IINPUT	15	30000	120		0.00	lit/hr				Per hr	3272.00	P&M-081
b	125 KVA		IINPUT	15	30000	120		0.00	lit/hr	100	KVA		Per hr	2333.00	P&M-018
c	100 KVA		IINPUT	15	30000	120		0.00	lit/hr				Per hr	1716.00	P&M-080
d	63 KVA		IINPUT	15	30000	120		0.00	lit/hr				Per hr	961.00	P&M-019
e	33 KVA		IINPUT	10	20000	100		0.00	lit/hr	50	KVA		Per hr	506.00	P&M-079
3.42	Crushing & Processing Plant														
a	Integrated Stone Crusher 100 TPH	Crushing of Spoil	IINPUT	12	18000	80		400	kwh	100	TPH	#VALUE!	Per hr	11790.00	P&M-027
b	Integrated Stone Crusher 200 TPH		IINPUT	12	18000	80		800	kwh	200	TPH	#VALUE!	Per hr	24802.00	P&M-028

3.43	40 quintal capacity boat	Transportation in River	IINPUT	**8**	**35000**	**150**		nil				#VALUE!	Per day	**191.00**	**Approved Rate in S.R(Sahar sa Zone)**
b	100 quintal capacity boat		IINPUT	**8**	**35000**	**150**		nil				#VALUE!	Per day	**252.70**	**Approved Rate in S.R(Sahar sa Zone)**
c	100 quintal capacity boat (Moter Fitted)		IINPUT	**8**	**35000**	**150**	5	0.54	lit/hr			#VALUE!	Per day	**#VALUE!**	
d	Boat to carry atleast 20 persons		IINPUT											**211.00**	P&M-066
3.44	Bullock cart	Transportation	IINPUT	**8**	**40000**	**50**							Per day	**136.60**	**Approved Rate in S.R(Sahar sa Zone)**
3.45	Transit Mixer 4.0/4.5 cum	Transportation of concrete mix to site	IINPUT	10	10000	120		0	lit/hr	4.5	cum/hour		Per hr	**1265**	P&M-049
b	Transit Mixer 3.0 cum		IINPUT	10	10000	120		0	lit/hr	3	cum/hour		Per hr	**1161.00**	P&M-050

Use Rate of Machine

Use Rate of Machine (Used in W.R.D.)

Sl No	Description of Machine	Activity	Unit	Rate	Ref
1	2	3	4	5	6
3.1	Drill Jumbo	Number of holes drilled simultaneously	Per hr.	INPUT	
3.2	Jack hammer (52 lb)	Drilling	Per hr.	844.00	P & M-063
3.3	Scalling hammer	Drilling	Per hr.	INPUT	
3.4	Diamond core drilling machine and diesel pump.	Core samples	Per hr.	INPUT	
3.5	Wagon Drill	Drilling	Per hr.	INPUT	
3.6	Pneumatic Breakers (85 Lb or 38.6 Kg)		Per hr.	844.00	P & M-063
3.7	Hoist winch 30T		Per hr.	1161.00	P & M-084
3.8	Shot crete Machine	Pumping of Concrete	Per hr.	348.00	P & M-007
3.9	Convey muckers (1.5 cubic yard 42 " wide conveyor) or 1.15 cum	Transporting	Per hr.	INPUT	P & M-065
3.10	Shovel (Diesel) 2 cum 262 H.P	Excavation	Per hr.	INPUT	
	Shovel (Electric) 5 cum 350 H.P		Per hr.	INPUT	
3.11	D.8 Tractor Dozer (Push Plate)H.P 270	Spreading	Per hr.	5062.00	P & M-014
b	D.9 Tractor Dozer H.P 385		Per hr.	INPUT	
c	BD 50 Bulldozer with suitable diesel engine	Spreading, cutting clearing	Per hr.	3001.00	P & M-015
d	BD 80 Bulldozer with suitable diesel engine	Spreading, cutting clearing	Per hr.	5062.00	P & M-014
3.12	Dumper or Tipper(7 T) 4.5 cum	Trasportation of soil, GSB,WMM,Hotmix etc	Per hr.	INPUT	
b	Dumper or Tipper(10 T) 5.5 cum		Per hr.	882.00	P & M-048
c	Dumper (15 T)		Per hr.	INPUT	
d			Per hr.	INPUT	
3.13	Batching and mixing plant (35 cu.yd/hr)or 27 cum	Cocrete Mixing	Per hr.	2513.00	P & M-002
b	Batching and mixing plant (15- 20 cum)		Per hr.	1633.00	P & M-003
3.14	Ventilation blower (20000cfm)		Per hr.	INPUT	
3.15	Pump	Pumping, water supply, sewage, dredging etc			
(i)	Disel				
a	5 H.P		Per hr.	INPUT	
b	10 H.P		Per hr.	INPUT	
c	15 H.P		Per hr.	INPUT	
d	20 H.P		Per hr.	INPUT	
e	25 H.P		Per hr.	INPUT	
f	30 H.P		Per hr.	INPUT	
(ii)	Electric Pump				
g	5 H.P		Per hr.	INPUT	
h	10 H.P		Per hr.	INPUT	
i	15 H.P		Per hr.	INPUT	
j	20 H.P		Per hr.	INPUT	
k	30 H.P		Per hr.	INPUT	
l	40 H.P		Per hr.	INPUT	
m	50 H.P		Per hr.	INPUT	
(iii)	Vacaum pumping set 5 H.P		Per hr.	INPUT	
3.16	Roller		Per hr.	INPUT	
a	Smooth drum(8-10 MT)	Soil, BM Compaction	Per hr.	440.00	P&M-044
b	Vibratory roller	Earth/ Soil GSB WMM Compaction	Per hr.	1798.00	P&M-059
c	Pneumatic Road rollers	Rolling of Aspalt Surface Compaction	Per hr.	1693.00	P&M-037
d	Sheep foot roller	Compaction of Earth	Per hr.	INPUT	
	Sheep foot roller Drawn by Tractor		Per hr.	INPUT	P&M-053+Sheep foot roller
3.17	Locomotives		Per hr.		
a	Diesel Locomotives		Per hr.	INPUT	
b	Battery Locomotive (For 12 cubic yard capacity muckurcar)		Per hr.	INPUT	
3.18	Grouting machine		Per hr.	211.00	P&M-076
3.19	Air Compressor.	General Purpose	Per hr.	INPUT	
	A. Diesel compressors		Per hr.	INPUT	
	210 cfm		Per hr.	436.00	P&M-001
	300 cfm.		Per hr.	INPUT	
	500 cfm		Per hr.	INPUT	
	B.Electric compressors		Per hr.		
	500 cfm		Per hr.	INPUT	

	1500 cfm Staionery		Per hr.	INPUT	
3.20	Crane 10 tonne capacity	Lifting purpose	Per hr.	1161.00	P&M-071
3.21	Muck car (12 cubic yard)	Transporting	Per hr.	INPUT	
3.22	Concrete vibrator		Per hr.	162.10	Approved Rate in W.R.D (cost of Machine By T.E.C)
3.23	Scraper Motorised Push Loaded upto 10 cuyds		Per hr.	INPUT	
3.24	GRADER 115 hp	Clearing Spreading GSB WMM	Per hr.	2567.00	P&M-032
3.25	Concrete mixer		Per hr.	-	
	(I). Concrete mixer 0.4/0.28 cum	Concrete Mixing	Per hr.	67.00	P&M-009
	(ii). 10/7 (0.20 cum) cft. Capacity fitting drum type concrete	Concrete Mixing	Per hr.	67.00	P&M-009
3.26	Truck 5.5 cum per 10 tonnes	Material Transport	Per hr.	841.00	P&M-057
3.27	a. Farm Tractor with Ripper	Loosen the hard earth and other material	Per hr.	532.00	P&M-055
	b Tractor 50H.P		Per hr.	494.00	P&M-053
	c.Ripper		Per hr.	39.00	P&M-041
3.28	Tractor 30H.P with Leveller/Bucket (Rajasthani)	Excavation of Earth	Per hr.	440.00	Approved Rate in W.R.D
3.29a	Water Tanker 6kl	Water Transport	Per hr.	166.00	P&M-060
b	Water Tanker 6kl(With Tractor)		Per hr.	660.00	(P&M-060)-(P&M-041)
3.30	Concrete buckets 3.06 cum 4 cuyd		Per hr.	22.00	P&M-008
3.31	Trolley	Transporting	Per hr.	INPUT	P&M-065
3.32	Drill extractors (Compressed air)		Per hr.	INPUT	
3.33	Grinder		Per hr.	INPUT	
3.34	Sheet Pile Driving plant	Sheet Pile Driving	Per hr.	INPUT	
3.35	Loader		Per hr.		
a	Front end loader 2cu.yd or 1.54cum	Soil, Aggregate loading	Per hr.	1199.00	P&M-017
b	Overhead loader 1cu. Yd or 0.768 cum		Per hr.	INPUT	
3.36	Pneumatic concrete placer (1 Cubic yard) or 0.768 cum	Placing Concrete	Per hr.	INPUT	
3.37	Draglines (Diesel) 2 cum 262 H.P (Crane with grab)	In well Shinking, Excavators	Per hr.	1740.00	P&M-075
3.38	Hydraulic excavators (Diesel)1.25cu.yd 0.96 cum	Excavators	Per hr.	1771.00	P&M-026
3.39	Wet Mix Plant (Soil Stabilization Plant) 60 TPH	Stabilization Wet Mix	Per hr.	1639.00	P&M-062
3.40	Agitating car 4cu.yd or 3.07 cum		Per hr.	INPUT	
3.41	Generator set		Per hr.		
a	250 KVA	Generation of Electric Energy	Per hr.	3272.00	P&M-081
b	125 KVA		Per hr.	2333.00	P&M-018
c	100 KVA		Per hr.	1716.00	P&M-080
d	63 KVA		Per hr.	961.00	P&M-019
e	33 KVA		Per hr.	506.00	P&M-079
3.42	Crushing & Processing Plant		Per hr.		
a	Integrated Stone Crusher 100 TPH	Crushing of Spoil	Per hr.	11790.00	P&M-027
b	Integrated Stone Crusher 200 TPH		Per hr.	24802.00	P&M-028
3.43	40 quintal capacity boat	Transportation in River	Per hr.	191.00	Approved
b	100 quintal capacity boat		Per hr.	252.70	Rate in S.R(Saharsa Zone)
c	100 quintal capacity boat (Moter Fitted)		Per hr.	0.00	
d	Boat to carry atleast 20 persons		Per hr.	211.00	P&M-066
3.44	Bullock cart	Transportation	Per hr.	136.60	Approved Rate In S.R (Saharsa Zone)
3.45	Transit Mixer 4.0/4.5 cum	Transportation of concrete mix to site	Per hr.	1265	P&M-049
b	Transit Mixer 3.0 cum		Per hr.	1161.00	P&M-051

CHAPTER ---III

Machine Related Material

Sl.No	Material	Cost	Unit	Life of Material	Approved Rate	Unit
1	Jumbo drill steel	IINPUT	per mtr		IINPUT	per mtr
2a.	Jack Hammer drill rod	IINPUT	per mtr	130	IINPUT	per mtr
2b.	Jack Hammer drill bit	IINPUT	per mtr	130	IINPUT	per mtr
3	For Diamond core drilling machine	IINPUT				
3a	Diamond bit for N x size (53 mm to 75 mm)(Internal dia To External dia) 'D'	IINPUT	per mtr	10	IINPUT	per mtr
3b	Diamond bit for (Bxsize (41mm to 59 mm)(Internal dia To External dia) 'T'	IINPUT	per mtr	10	IINPUT	per mtr
3c	Tungaton Carbide bit	IINPUT	per mtr	20	IINPUT	per mtr
3d	(NxSize) Reaming shell 'S'	IINPUT	per mtr	50	IINPUT	per mtr
3e	(BxSize) Reaming shell 'TK'	IINPUT	per mtr	50	IINPUT	per mtr
3f	Reaming shell 'N'	IINPUT	per mtr	100	IINPUT	per mtr
3g	Core box(wooden 3m longx0.85 mtr widex 0.15 mtr deep with longitudinal compartment to acccomodate 5 rows of 3 mtr long cores. i.e total 15 m	IINPUT	Each		IINPUT	Each
4	Wagon Drill(Steel) equipment required with Wagon drill	IINPUT				
4a	Shank adopter	IINPUT	per mtr	460	IINPUT	per mtr
4b	Coupling sleeves	IINPUT	per mtr	460	IINPUT	per mtr
4c	Extension rod 1 x 3.00metre	IINPUT	per mtr	460	IINPUT	per mtr
4d	Extension rod 1 x 2.50 metre	IINPUT	per mtr	460	IINPUT	per mtr
4e	Extension rod 1 x 2.00 metre	IINPUT	per mtr	460	IINPUT	per mtr
4f	Extension rod 1 x 1.50 metre	IINPUT	per mtr	460	IINPUT	per mtr
4g	Extension rod 1 x 1.00 metre	IINPUT	per mtr	460	IINPUT	per mtr
4h	Cost of 4 point drill bit	IINPUT	per mtr	130	IINPUT	per mtr

CHAPTER ---III

Use Rate of Machine (Approved by State Level S.R.Committee)

R.C.D. S.R Sl. No.	Description of Machine	Activity	Output of Machine	Output	Unit	Rate
1	2	3	4	5	6	7
P&M-001	Air Compressor	General Purpose	capacity in cfm	170/250	hour	436
P&M-002	Batching and Mixing Plant (a) 30 cum capacity	Concrete Mixing	cum/hour	20	hour	2513
P&M-003	Batching and Mixing Plant (b) 15 - 20 cum capacity	Concrete Mixing	cum/hour	13	hour	1633
P&M-004	Bitumen Pressure Distributor	Applying bitumen tack coat	sqm/hour	1750	hour	1459
P&M-005	Bitumen Boiler oil fired	Bitumen Spraying	capacity in litre	1500	hour	270
P&M-006	Concrete Paver Finisher with 40 HP Motor	Paving of concrete surface	cum / hour	20	hour	1330
P&M-007	Concrete Pump of 45 & 30 cum capacity	Pumping of concrete	cum / hour	33 / 22	hour	348
P&M-008	Concrete Bucket	For Pouring concrete	capacity in cum	1	hour	22
P&M-009	Concrete Mixer (a) 0.4/0.28 cum	Concrete Mixing	cum/hour	2.5	hour	67
P&M-010	Concrete Mixer (b) 1 cum	Concrete Mixing	cum/hour	7.5	hour	201
P&M-011	Crane (a) 80 tonnes	Lifting Purpose			hour	1740
P&M-012	Cranes b) 35 tonnes	Lifting Purpose			hour	1161
P&M-013	Cranes c) 3 tonnes	Lifting Purpose			hour	486
P&M-014	Dozer D - 80 - A 12	Spreading /Cutting / Clearing	cum/hour	300/ 150/250	hour	5062
P&M-015	Dozer D - 50 - A 15	Spreading /Cutting / Clearing	cum/hour	200/ 120/150	hour	3001
P&M-016	Emulsion Pressure Distributor	Applying emulsion tack coat	sqm/hour	1750	hour	1088
P&M-017	Front End loader 1 cum bucket capacity	Soil loading / Aggregate loading	cum/hour	60 /25	hour	1199
P&M-018	Generator (a) 125 KVA	Genration of electric Energy	KVA	100	hour	2333
P&M-019	Generator(b) 63 KVA	Genration of electric Energy	KVA	50	hour	961
P&M-020	GSB Plant 50 cum	Producing GSB	cum/hour	40	hour	1414
P&M-021	Hotmix Plant - 120 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	40	hour	45194
P&M-022	Hotmix Plant - 100 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	30	hour	34330
P&M-023	Hotmix Plant - 60 to 90 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	25	hour	28891
P&M-024	Hotmix Plant - 40 to 60 TPH capacity	DBM/BM/SDC/ Premix	cum/hour	17	hour	20147
P&M-025	Hydraulic Chip Spreader	Surface Dressing	sqm/hour	1500	hour	3585
P&M-026	Hydraulic Excavator of 1 cum bucket	Soil Ordinary/Soil Marshy / Soil Unsuitable	cum/hour	60 /60 /60	hour	1771
P&M-027	Integrated Stone Crusher 100THP	Crushing of Spalls	TPH	100	hour	11790
P&M-028	Integrated Stone Crusher 200 HP	Crushing of Spalls	TPH	200	hour	24802
P&M-029	Kerb Casting Machine	Kerb Making	Rm/hour	80	hour	422
P&M-030	Mastic Cooker	Mastic Wearing coat	capacity in tonne	1	hour	84
P&M-031	Mechanical Broom Hydraulic	Surface Cleaning	sqm/hour	1250	hour	470
P&M-032	Motor Grader 3.35 mtr blade	Clearing /Spreading /GSB /WBM	cum/hour	200/200/50/50	hour	2567
P&M-033	Mobile slurry seal equipment	Mixing and laying slurry seal	sqm/hour	2700	hour	1372
P&M-034	Paver Finisher Hydrostatic with sensor control 100 TPH	Paving of DBM/ BM/SDC/ Premix	cum/hour	40	hour	3157

P&M-035	Paver Finisher Mechanical 100 TPH	Paving of WMM /Paving of DLC	cum/hour	40/30	hour	1235
P&M-036	Piling Rig with Bantonite Pump	0.75 m dia to 1.2 m dia Boring attachment	Rm/hour	2 to 3	hour	7434
P&M-037	Pneumatic Road Roller	Rolling of Asphalt Surface	cum/hour	25	hour	1693
P&M-038	Pneumatic Sinking Plant	Pneumatic Sinking of wells	cum/hour	1.5 to 2.00	hour	5674
P&M-039	Pot Hole Repair Machine	Repair of potholes	cum/hour	4	hour	1233
P&M-040	Prestressing Jack with Pump & access	Stressing of steel wires/stands			hour	175
P&M-041	Ripper	Scarifying	cum/hour	60	hour	39.00
P&M-042	Rotavator	Scarifying	cum/hour	25	hour	24
P&M-043	Road marking machine	Road marking	Sqm/hour	100	hour	127
P&M-044	Smooth Wheeled Roller 8 tonne	Soil Compaction /BM Compaction	cum/hour	70/25	hour	671
P&M-045	Tandem Road Roller	Rolling of Aspalt Surface	cum/hour	30	hour	1557
P&M-046	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix etc.	Capacity in cum	5.5	1274	33
P&M-047	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix etc.	Capacity in cum	5.5	tonne.km	7.68
P&M-048	Tipper - 5 cum	Transportation of soil, GSB, WMM, Hotmix etc.	Capacity in cum	5.5	hour	882
P&M-049	Transit Mixer 4.0/4.5 cum	Transportation of Concrete Mix to site	cum/hour	4.5	hour	1265
P&M-050	Transit Mixer 4/4.5 cum	Transportation of Concrete Mix to site	cum/hour	4.5	tonne.km	6.5
P&M-051	Transit Mixer 3.0 cum	Transportation of Concrete Mix to site	cum/hour	3	hour	1161
P&M-052	Transit Mixer 3.0 cum	Transportation of Concrete Mix to site	cum/hour	3	tonne.km	8.6
P&M-053	Tractor	Pulling	capacity in HP	50	hour	494
P&M-054	Tractor with Rotevator	Rate of Tractor + Rotevator			hour	516
P&M-055	Tractor with Ripper	Rate of Tractor 6+ Ripper			hour	532
P&M-056	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	km	30
P&M-057	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	hour	841
P&M-058	Truck 5.5 cum per 10 tonnes	Material Transport	capacity/cum	4.5	tonne.km	3.22
P&M-059	Vibratory Roller 8 tonne	Earth or soil / GSB / WBM	cum/hour	100/60/60	hour	1795
P&M-060	Water Tanker	Water Transport	capacity in KL	6	hour	166
P&M-061	Water Tanker	Water Transport	capacity in KL	6	km	33.35
P&M-062	Wet Mix Plant 60 TPH	Wet Mix	cum/hour	25	hour	1639

Sl. No.	Description of Machine	Unit	Rate
P&M-063	Air compressor with pneumatic chisel attachment for cutting hard clay.	hour	844
P&M-064	Batch type cold mixing plant 100-120 TPH capacity producing an average output of 75 tonne per hour	hour	3374
P&M-065	Belt conveyor system	hour	INPUT
P&M-066	Boat to carry atleast 20 persons	hour	211
P&M-067	Cement concrete batch mix plant @ 175 cum per hour (effective output)	hour	7084
P&M-068	Cement concrete batch mix plant @ 75 cum per hour	hour	3036
P&M-069	Cold milling machine @ 20 cum per hour	hour	1265
P&M-070	Crane 5 tonne capacity	hour	1161
P&M-071	Crane 10 tonne capacity	hour	1161
P&M-072	Crane 15 tonne capacity	hour	1161

P&M-073	Crane 20 tonne capacity	hour	1161
P&M-074	Crane 40 T capacity	hour	1740
P&M-075	Crane with grab 0.75 cum capacity	hour	1740
P&M-076	Compressor with guniting equipment along with accessories	hour	211
P&M-077	Drum mix plant for cold mixes of appropriate capacity but not less than 75 tonnes/hour.	hour	1639
P&M-078	Epoxy Injection gun	hour	158
P&M-079	Generator 33 KVA	hour	506
P&M-080	Generator 100 KVA	hour	1716
P&M-081	Generator 250 KVA	hour	3272
P&M-082	Induction, deinduction and erection of plant and equipment including all components and accessories for pneumatic method of well sinking.	hour	INPUT
P&M-083	Joint Cutting Machine with 2-3 blades (for rigid pavement)	hour	317
P&M-084	Jack for Lifting 40 tonne lifting capacity.	day	1161
P&M-085	Piling rig Including double acting pile driving hammer (Hydraulic rig)	hrs	7434
P&M-086	Plate compactor	hour	422
P&M-087	Snow blower equipment 140 HP @ 600 cum per hour	hour	INPUT
P&M-088	Texturing machine (for rigid pavement)	hour	106.5
P&M-089	Truck Trailor 30 tonne capacity	hour	3374
P&M-090	Truck Trailor 30 tonne capacity	t.km	3.22
P&M-091	Tunnel Boring machine	hour	INPUT
P&M-092	Vibrating Pile driving hammer complete with power unit and accessories.	hour	INPUT
P&M-093	Wet Mix Plant 100 TPH	hour	2479
P&M-094	Wet Mix Plant 75 TPH	hour	2479

CALCULATION OF HIRE CHARGES OF MACHINE

3.1 Drill Jumbo

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		10 Year			
	Rated life of machine		12000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1200 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines		0			#VALUE! A
B	**Repaire and Maintenance charge** % of					
	Depreciation of machine /hr		60 %			#VALUE! B
C	**Running charges (P.O.L)**					
	a.Fuel		0			0.00
	b.Lubricant and grease waste etc 25% of above Fuel		25 %			0.00
	c.Sundries and miseellenceous supplies at site	@ 10				
	% of R/M(B)		10 %			#VALUE!
	Total charge					#VALUE! C

D	**Labour charge**				
Direct labour charge	Nos	Days	Rate	Amount	
i.Operator Gr I	2	30	223.00	13380.00	
ii.Helper	4	30	196.00	23520.00	
iii.Formen	1/8	30	317.00	1188.75	
iv.Mechanic	1/4	30	289.00	2167.50	
v.Chokidar	1/4	30	190.00	1425.00	
Total Direct labour charge				41681.25	
Direct labour charge per hr=					
Total labour charge/Working hr in year				416.81	D
Hourly use rate				#VALUE!	Per hr

3.2 Jack hammer (52 lb)

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		10 Year			
	Rated life of machine		10000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1000 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of					
	Depreciation of machine /hr		60 %			#VALUE! B
C	**Running charges (P.O.L)**					
	a.Fuel compressed air		100 /100cfm	436.00	436.00	
	b.Lubricant and grease waste etc 25% of		25 %		109.00	
	c.Sundries and miseellenceous supplies at site	@ 10 **%** of R/M(B)	10 %		#VALUE!	
	d.Pneumatic rubber hose pipe 38 mm with fitting per 100 working hrs		15 mtr	46.80	7.02	
	Total charge				#VALUE! C	

D	**Labour charge**				
Direct labour charge	Nos	Days	Rate	Amount	
i.Operator Gr I	1	30	223.00	6690.00	
ii.Helper	1/2	30	196.00	2940.00	
iii.Mechanic	1/8	30	289.00	1083.75	
iv.Chokidar	1/8	30	190.00	712.50	
v. Supervisor	1/5	30	166.00	996.00	
Total Direct labour charge				11426.25	Per hr
Direct labour charge per hr=					
Total labour charge/Working hr in year				137.12	D
Hourly use rate				#VALUE!	

3.2a Jack Hammer drill rod

9/1/15

	Cost of m drill rod at site		per mtr		IINPUT	Per mtr
	Economic life		130 mtr			
	Use rate of drill rod				#VALUE!	
3.2b	**b.Jack Hammer drill bit**					
	Cost of bit				IINPUT	
	Economic life		130 mtr			
	Use rate of drill bit				#VALUE!	Per mtr

3.3 Scalling hammer

A	**Depreciation charge**				
	Capital cost of machine			IINPUT	
	Life of machine	10 Year			
	Rated life of machine	10000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1000 hrs			
	Depreciation of machine /hr = 0.9x				
	Cost of Machine/Tated life of Machines			#VALUE!	**A**
B	**Repaire and Maintenance charge** % of				
	Depreciation of machine /hr	60 %		#VALUE!	**B**
C	**Running charges (P.O.L)**				
	a.Fuel compressed air	100 /100cfm	436.00	436.00	
	b.Lubricant and grease waste etc 25% of	25 %		109.00	
	c.Sundries and miseellenceous supplies				
	at site @ 10 % of R/M(B)	10 %		#VALUE!	
	Total charge			#VALUE!	**C**
D	**Labour charge**				

Direct labour charge	Nos	Days	Rate	Amount
i.Operator Gr I	1	30	223.00	6690.00
ii.Helper	1/2	30	196.00	2940.00
iii.Chokidar	1/10	30	190.00	570.00
iv. Supervisor	1/8	30	223.00	836.25
Total Direct labour charge				10200.00
Direct labour charge per hr				122.40 **D**
Hourly use rate				#VALUE! Per hr

3.4 Diamond core drilling machine and diesel pump.

A	**Depreciation charge**				
	Capital cost of machine			IINPUT	
	Life of machine	8 Year			
	Rated life of machine	8000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1000 hrs			
	Depreciation of machine /hr = 0.9x				
	Cost of Machine/Tated life of Machines			#VALUE!	**A**
B	**Repaire and Maintenance charge** % of				
	Depreciation of machine /hr	80 %		#VALUE!	**B**
C	**Running charges (P.O.L)**				
	a.Fuel:-Diesel				
	(2/3x0.5x0.6xH.Px4.54/8.26)	3.55 lit	58.04	206.03	
	b.Lubricant and grease waste etc 25% of	25 %		51.51	
	c.Sundries and miseellenceous supplies				
	at site @ 10 % of R/M(B)	10 %		#VALUE!	
	Total charge			#VALUE!	**C**
D	**Labour charge**				

(a) Direct labour charge	Nos	Days	Rate	Amount
1 For Drilling Machine				
i.Operator Gr I	2	30	223.00	13380.00
ii.Helper	3	30	196.00	17640.00
iii.Formen	1/8	30	317.00	1188.75
iv.Mechanic	1/4	30	289.00	2167.50
v.Chokidar	1/4	30	190.00	1425.00
Total Direct labour charge				35801.25
Direct labour charge per hr				429.62 **D**

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Hourly use rate #VALUE! Per hr

3.5 Wagon Drill

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		8 Year			
	Rated life of machine		8000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1000 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		80 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	a.Fuel Compressed air		400 /100cfm	436.00	1744.00	
	b.Lubricant and grease waste etc 25% of		25 %		436.00	
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)		10 %		#VALUE!	
	Total charge				#VALUE!	C

D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator Gr I	1	30	223.00	6690.00	
	ii.Helper	1	30	196.00	5880.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/8	30	289.00	1083.75	
	v.Chokidar	1/4	30	190.00	1425.00	
	iv. Supervisor	1/4	30	223.00	1672.50	
	Total Direct labour charge				17940.00	
	Direct labour charge per hr				215.28	D
	Hourly use rate				#VALUE!	

3.7 Hoist winch 30T

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		12 Year			
	Rated life of machine		15000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1250 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		120 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	a.Fuel Diesel		0.00 lit	58.04	0.00	
	b.Lubricant and grease waste etc 25% of		25 %		0.00	
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)		10 %		#VALUE!	
	Total charge				#VALUE!	C

D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator Gr I	1	30	223.00	6690.00	
	ii.Helper	0	30	196.00	0.00	
	iii.Formen	0	30	156.00	0.00	
	iv.Mechanic	0	30	289.00	0.00	
	v.Chokidar	0	30	190.00	0.00	
	iv. Supervisor	0	30	0.00	0.00	
	Total Direct labour charge				6690.00	
	Direct labour charge per hr				64.22	D
	Hourly use rate				#VALUE!	

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3.8 Shot crete Machine

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		10 Year			
	Rated life of machine		15000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1500 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		80 %			#VALUE! B
C	**Running charges (P.O.L)**					
	a.Fuel Compressed air		600.00 /100cfm		436.00	2616.00
	b.Lubricant and grease waste etc 25% of		25 %			654.00
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! C

D	**Labour charge**				
(a)	Direct labour charge	Nos	Days	Rate	Amount
	i.Operator Gr I	1	30	223.00	6690.00
	ii.Helper	1	30	196.00	5880.00
	iii.Formen	1/8	30	317.00	1188.75
	iv.Mechanic	1/2	30	289.00	4335.00
	v.Chokidar	1/4	30	190.00	1425.00
	Total Direct labour charge				19518.75
	Direct labour charge per hr				156.15 D
	Hourly use rate				#VALUE!

3.9 Convey muckers (1.5 cubic yard42 "wide converyor 165 H.P)

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		10 Year			
	Rated life of machine		15000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1500 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		100 %			#VALUE! B
C	**Running charges (P.O.L)**					
	a.Electtrical energy charge (H.Px0.746)		123.09 KWH		#VALUE!	#VALUE!
	b.Lubricant and grease waste etc 25% of		25 %			#VALUE!
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! C

D	**Labour charge**				
(a)	Direct labour charge	Nos	Days	Rate	Amount
	i.Operator Gr I	1	30	223.00	6690.00
	ii.Helper	1	30	196.00	5880.00
	iii.Formen	1/8	30	317.00	1188.75
	iv.Mechanic	1/6	30	289.00	1445.00
	v.Chokidar	1/4	30	190.00	1425.00
	Total Direct labour charge				16628.75
	Direct labour charge per hr				133.03 D
	Hourly use rate				#VALUE! Per hr

3.10 Shovel (Diesel) 2 cum 262 H.P

A	**Depreciation charge**		
	Capital cost of machine		IINPUT
	Life of machine	12 Year	
	Rated life of machine	15000 hrs	

	Working Hours per year (Rated life in hrs/yr)		1250 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150.00 %			#VALUE! B
C	**Running charges (P.O.L)**					
	a.Fuel Diesel (2/3x0.5xh.Px0.6x4.546/8.26)		28.55 lit		58.04	1656.88
	b.Lubricant and grease waste etc 25% of		25 %			414.22
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! C
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator Gr I	1	30	223.00	6690.00	
	ii.Helper	1	30	196.00	5880.00	
	iii.Formen	1/4	30	317.00	2377.50	
	iv.Mechanic	1/2	30	289.00	4335.00	
	v.Chokidar	1/4	30	190.00	1425.00	
	iv. Supervisor	1	30	223.00	6690.00	
	Total Direct labour charge				27397.50	
	Direct labour charge per hr				263.02 D	
	Hourly use rate				#VALUE! Per hr	

Shovel (Electric) 5 cum 350 H.P

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		20 Year			
	Rated life of machine		40000 hrs			
	Working Hours per year (Rated life in hrs/yr)		2000 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %			#VALUE! B
C	**Running charges (P.O.L)**					
	H.P motor =350					
	Electric energy required=350x0.746=261 KWH					
	Electric energy for 40 kv .A.C. control @ 0.80					
	Power factor=40x0.80=32 KWH					
	Total Electric energy required=261+32=-293					
	KWH Assuming diversity factor @ 60 %					
	energy required=0.6x293=175.86 KWH					
	a.Electtrical energy charge		175.86 KWH		#VALUE!	#VALUE!
	b.Lubricant and grease waste etc 25% of		25 %			#VALUE!
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			0.00
	Total charge					#VALUE! C
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator Gr I	1	30	223.00	6690.00	
	ii.Helper	1	30	196.00	5880.00	
	iii.Formen	1/4	30	317.00	2377.50	
	iv.Mechanic	1/2	30	289.00	4335.00	
	v.Chokidar	1/4	30	190.00	1425.00	
	vi. Electrician	1/2	30	237.00	3555.00	
	vii. Cableman	2	30	87.00	5220.00	
	viii.Supervisor	1	30	223.00	6690.00	
	Total Direct labour charge				36172.50	
	Direct labour charge per hr				217.04 D	
	Hourly use rate				#VALUE! Per hr	

3.11 D.8 Tractor Dozer (Push Plate) 270 H.P

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		10 Year			
	Rated life of machine		12000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1200 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of					
	Depreciation of machine /hr		100 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	Rated H.P=270					
	Consumption of diesel oil= 0.5xB.H.P x0.6/8.26					
	Gallons / hr =0.04 BHP					
	gallons / hr					
	Actual consumption adoped= 65 % or 2/3 of above					
	=0.026 BHPx4.546 litres/hr=					
	a.Fuel Diesel		29.42 lit	58.04	1707.47	
	b.Lubricant and grease waste					
	Hydraulic oil		0.25 lit	#VALUE!	#VALUE!	
	Petrol		1 lit	71.52	71.52	
	Lubricant oil		0.75 lit	200.00	150.00	
	Filter oil		0.6 lit	#VALUE!	#VALUE!	
	Gear oil		0.25 lit	#VALUE!	#VALUE!	
	Grease		0.5 kg	#VALUE!	#VALUE!	
	Cardium compound		200 gm	#VALUE!	#VALUE!	
	c.Sundries and miseellenceous supplies					
	at site @ 15 % of R/M(B)		15 %		#VALUE!	
	Total charge				#VALUE!	C
D	**Labour charge**					

(a) Direct labour charge	Nos	Days	Rate	Amount
i.Operator	1	30	223.00	6690.00
ii.Helper	1	30	196.00	5880.00
iii.Formen	1/4	30	317.00	2377.50
iv.Mechanic	1/4	30	289.00	2167.50
v.Chokidar	1/4	30	190.00	1425.00
Total Direct labour charge				18540.00
Direct labour charge per hr				185.40 D
Hourly use rate				#VALUE! Per hr

D.9 Tractor Dozer 385 H.P

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		10 Year			
	Rated life of machine		12000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1200 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of					
	Depreciation of machine /hr		100 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	Rated H.P=385					
	Consumption of diesel oil= 0.5xB.H.P x0.6/8.26					
	Gallons / hr =0.04 BHP					
	gallons / hr					
	Actual consumption adoped= 65 % or 2/3 of above					
	=0.026 BHPx4.546 litres/hr					
	a.Fuel Diesel		41.95 lit	58.04	2434.73	
	b.Lubricant and grease waste					
	Hydraulic oil		0.25 lit	#VALUE!	#VALUE!	
	Petrol		1 lit	71.52	71.52	
	Lubricant oil		0.75 lit	200.00	150.00	
	Filter oil		0.6 lit	#VALUE!	#VALUE!	
	Gear oil		0.25 lit	#VALUE!	#VALUE!	

	Grease	0.5 kg		#VALUE!	#VALUE!
	Cardium compound	200 gm		#VALUE!	#VALUE!
	c.Sundries and miseellenceous supplies				
	at site @ 15 % of R/M(B)	15 %			#VALUE!
	Total charge				#VALUE! **C**
D	**Labour charge**				
(a)	Direct labour charge	Nos	Days	Rate	Amount
	i.Operator Gr I	1	26	223.00	5798.00
	ii.Helper	1	26	196.00	5096.00
	iii.Formen	1/4	26	317.00	2060.50
	iv.Mechanic	1/4	26	289.00	1878.50
	v.Chokidar	1/4	26	190.00	1235.00
	Total Direct labour charge				16068.00
	Direct labour charge per hr				160.68 **D**
	Hourly use rate				#VALUE! Per hr

3.12 Dumper or Tipper(7 T) 4.5 cum

A	**Depreciation charge**				
	Capital cost of machine				IINPUT
	Life of machine	8 Year			
	Rated life of machine	10000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1250 hrs			
	Depreciation of machine /hr = 0.9x				
	Cost of Machine/Tated life of Machines				#VALUE! **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	140 %			#VALUE! B
C	**Running charges (P.O.L)**				
	H.P motor =110				
	a.Diesel (2/3X0.5XHPx0.6x4.546/8.26)	11.99 lit		58.04	695.64
	b.Lubricant and grease waste etc 25% of	25 %			173.91
	c.Sundries and miseellenceous supplies				
	at site @ 10 % of R/M(B)	10 %			#VALUE!
	Total charge				#VALUE! **C**
D	**Labour charge**				
(a)	Direct labour charge	Nos	Days	Rate	Amount
	i.Driver	1	30	323.00	9690.00
	ii.Cleaner	1	30	190.00	5700.00
	iv.Mechanic	1/8	30	289.00	1083.75
	v.Chokidar	1/6	30	190.00	950.00
	Total Direct labour charge				17423.75
	Direct labour charge per hr				167.27
	Hourly use rate				#VALUE! Per hr

Dumper or Tipper(15 T)

Rear Dumper 35 T

A	**Depreciation charge**				
	Capital cost of machine				IINPUT
	Life of machine	8 Year			
	Rated life of machine	10000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1250 hrs			
	Depreciation of machine /hr = 0.9x				
	Cost of Machine/Tated life of Machines				#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	140 %			#VALUE! B
C	**Running charges (P.O.L)**				
	H.P motor =200				
	a.Diesel (2/3X0.5XHPx0.6x4.546/8.26)	21.79 lit		58.04	1264.79
	b.Lubricant and grease waste etc 25% of	25 %			316.20
	c.Sundries and miseellenceous supplies				
	at site @ 10 % of R/M(B)	10 %			#VALUE!

	Total charge					#VALUE! C
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator	1	30	223.00	6690.00	
	ii.Helper	1	30	196.00	5880.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/6	30	289.00	1445.00	
	v.Chokidar	1/6	30	190.00	950.00	
	Total Direct labour charge				16153.75	
	Direct labour charge per hr				155.08 D	
	Hourly use rate				#VALUE! Per hr	

Dumper or Tipper(35 T)

A	**Depreciation charge**		
	Capital cost of machine		IINPUT
	Life of machine	10 Year	
	Rated life of machine	12000 hrs	
	Working Hours per year (Rated life in hrs/yr)	1200 hrs	
	Depreciation of machine /hr = 0.9x		
	Cost of Machine/Tated life of Machines		#VALUE! A
B	**Repaire and Maintenance charge** % of		
	Depreciation of machine /hr	140 %	#VALUE! B
C	**Running charges (P.O.L)**		
	H.P motor =560		
	a.Diesel (2/3X0.5XHPx0.6x4.546/8.26)	61.02 lir 58.04	3541.42
	b.Lubricant and grease waste etc25% of above Fuel	25 %	885.36
	c.Sundries and miseellenceous supplies		
	at site @ 10 % of R/M(B)		#VALUE!
	Total charge		#VALUE! C

D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator	**1**	30	223.00	6690.00	
	ii.Helper	**1**	30	196.00	5880.00	
	iii.Formen	**1/4**	30	317.00	2377.50	
	iv.Mechanic	**1/4**	30	289.00	2167.50	
	v.Chokidar	**1/4**	30	190.00	1425.00	
	Total Direct labour charge				18540.00	
	Direct labour charge per hr				185.40 D	
	Hourly use rate				#VALUE! Per hr	

3.13 Batching and mixing plant (35cu.yd/hr)

A	**Depreciation charge**			
	Capital cost of machine			IINPUT
	Life of machine	18 Year		
	Rated life of machine	30000 hrs		
	Working Hours per year (Rated life in hrs/yr)	1666.67 hrs		
	Depreciation of machine /hr = 0.9x			
	Cost of Machine/Tated life of Machines			#VALUE! A
B	**Repaire and Maintenance charge** % of			
	Depreciation of machine /hr	100 %		#VALUE! B
C	**Running charges (P.O.L)**			
	a.Electtrical energy charge	59.68 KWH	#VALUE!	#VALUE!
	b.Lubricant and grease waste etc 25% of	25 %		#VALUE!

c.Sundries and miseellenceous supplies

at site	@ 10 % of R/M(B)	10 %		#VALUE!	
Total charge				#VALUE!	C

D Labour charge

(a) Direct labour charge	Nos	Days	Rate	Amount	
i.Operator Gr I	2	30	223.00	13380.00	
ii.Beldar	6	30	281.00	50580.00	
iii.Formen	- 1/2	30	317.00	-4755.00	
iv.Mechanic	1/2	30	289.00	4335.00	
v.Chokidar	1	30	190.00	5700.00	
Total Direct labour charge				69240.00	
Direct labour charge per hr				498.53	D
Hourly use rate				#VALUE!	Per hr

3.14 Ventilation blower (20000cfm)

A Depreciation charge

Capital cost of machine		IINPUT	
Life of machine	12 Year		
Rated life of machine	58000 hrs		
Working Hours per year (Rated life in hrs/yr)	4833.33 hrs		
Depreciation of machine /hr =	0.9x		
Cost of Machine/Tated life of Machines		#VALUE!	A
B Repaire and Maintenance charge % of Depreciation of blower /hr	80 %	#VALUE!	B
C Running charges (P.O.L)			
H.P motor =20			
a.Electtrical energy charge	14.92 KWH	#VALUE!	#VALUE!
b.Lubricant and grease waste etc 25% of	25 %		#VALUE!
c.Sundries and miseellenceous supplies			
at site @ 10 % of R/M(B)	10 %		#VALUE!
Total charge			#VALUE! C

D Labour charge

(a) Direct labour charge	Nos	Days	Rate	Amount	
i.Operator	1/4	30	223.00	1672.50	
ii.Helper	1/4	30	281.00	2107.50	
iii.Mechanic	1/2	30	289.00	4335.00	
Total Direct labour charge				8115.00	
Direct labour charge per hr				20.15	D
Hourly use rate				#VALUE!	Per hr

3.15 Plump

(I). DIESEL PUMP

	5 H.P	10H.P	15H.P	20H.P	25H.P
Capital cost	IINPUT	IINPUT	IINPUT	IINPUT	IINPUT
Life in year	8 Years				
Rated life	10000 hrs				
Annual operational hours	1250 hrs				
Annual operational days	300.00 Days				
Depreciation of machine /hr = 0.9x					
A Cost of Machine/Tated life of Machines	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
B Major & Minor repair @ 100 % of depreciation 80 %	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
C Operation charge					

	Nos	Days	Rate	Amount					
Operator ----x26 per month .	1.00	30	#REF!	#REF!					
Annual operational hours	1250.00 hr				0.01	0.01	0.01	0.01	0.01
D Fuel									
i.H.S.D ---- lit / hr					0.61	1.21	1.82	2.42	3.03
				58.04	35.13	70.27	105.40	140.53	175.67
ii. Lubricant, cotton waste etc 10 % of (i)	10 %				3.51	7.03	10.54	14.05	17.57
					38.65	77.29	115.94	154.59	193.23
Hourly use rate (A+B+C+D)					#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

(II). ELECTRIC PUMP						**5 H.P**	**10H.P**	**15HP**	**20H.P**	**30H.P**
Capital cost						IINPUT	IINPUT	IINPUT	IINPUT	IINPUT
Life in year		12 Years								
Rated life		20000 hrs								
a. Depreciation /hr						#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
Major & Minor repair @ --- % of										
b. depreciation		70 %				#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!
c Labour charge			**Upto 15 H.P**					**Above 15 H.P**		
	Nos	Days	Rate	Amount	Nos	Days	Rate	Amount		
Operator	1	30	#REF!	#REF!		1	#REF!	#REF!		
Mechanic	1/4	30	289.00	2167.5		1/4	289.00	2167.50		
Electrician	1/8	30	#REF!	#REF!		1/6	#REF!	#REF!		
Helper						1	0.00	0.00		
				#REF!				#REF!		
Rated life in hrs/yr	1666.67			#REF!		#REF!	#REF!	#REF!	#REF!	#REF!
d Running charges (P.O.L)			Unit =	3.73		7.46	11.19	14.92	22.38	
			Rate =	#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!	
a.Electtrical energy charge			Amount =	#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!	
b.Lubricant and grease waste etc 25% of above Fuel		25 %		#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!	
c.Sundries and miseellenceous supplies at site @ 10 % of R/M(B)		10 %		#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!	
Total charge				#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!	
Hire charge of Electric Pump Per /hour (a+b+c+d)			Per hour	#VALUE!		#VALUE!	#VALUE!	#VALUE!	#VALUE!	

(iii). 5 H.P vacaum pumping set

A	Capital cost of machine			IINPUT	
	Life of machine	12 Year			
	Rated life of machine	20000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1666.67 hrs			
	a. Depreciation of machine /hr			#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of blower /hr	50 %		#VALUE!	B
C	**Running charges (P.O.L)** H.P motor =20				
	a.Electtrical energy charge	3.73 KWH	#VALUE!	#VALUE!	
	b.Lubricant and grease waste etc 25% of above Fuel	25 %		#VALUE!	
	c.Sundries and miseellenceous supplies at site @ 10 % of R/M(B)	10 %		#VALUE!	
	Total charge			#VALUE!	C
D	**Labour charge**				

(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator	1	26	#REF!	#REF!	
	Direct labour charge per hr				#REF!	D
	Hourly use rate				#VALUE!	Per hr

3.16 Roller

Sheep foot roller

A	Capital cost of machine			IINPUT	
	Life of machine	8 Year			
	Rated life of machine	10000 hrs			
	Working Hours per year	1250 hrs			
	a. Depreciation of machine /hr			#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	70 %		#VALUE!	B
	Hourly use rate of Sheep foot roller			**#VALUE!**	Per hr

3.17 Locomotives

1 Diesel Locomotives

A Depreciation charge

Capital cost of machine					IINPUT	
Life of machine		10 Year				
Rated life of machine		16000 hrs				
Working Hours per year (Rated life in hrs/yr)		1600 hrs				
Depreciation of machine /hr =	0.9x					
Cost of Machine/Tated life of Machines					#VALUE!	A
B Repaire and Maintenance charge % of Depreciation of machine /hr		120 %			#VALUE!	B
C Running charges (P.O.L) H.P motor =110						
a.Diesel		10.79 lit		58.04	626.08	
b.Lubricant and grease waste etc 25% of above Fuel		25 %			156.52	
c.Sundries and miseellenceous supplies						
at site @ 10 % of R/M(B)		10 %			#VALUE!	
Total charge					#VALUE!	C

D Labour charge

(a) Direct labour charge	Nos	Days	Rate	Amount	
i.Driver	1	30	236.00	7080.00	
ii.Helper	1	30	184.00	5520.00	
iii.Formen	1/8	30	317.00	1188.75	
iv.Mechanic	1/4	30	289.00	2167.50	
v.Chokidar	1/4	30	190.00	1425.00	
Total Direct labour charge				17381.25	
Direct labour charge per hr				130.36	
Hourly use rate				#VALUE!	Per hr

2 Battery Locomotive

A Depreciation charge

Capital cost of machine					IINPUT	
Life of machine		22 Year				
Rated life of machine		40000 hrs				
Working Hours per year (Rated life in hrs/yr)		1818.18 hrs				
Depreciation of machine /hr =	0.9x					
Cost of Machine/Tated life of Machines					#VALUE!	A
B Repaire and Maintenance charge % of Depreciation of machine /hr		120 %			#VALUE!	B
Sundries and miseellenceous supplies						
at site @ 10 % of R/M(B)		10 %			#VALUE!	C

D Labour charge

(a) Direct labour charge	Nos	Days	Rate	Amount	
i.Driver	1	30	236.00	7080.00	
ii.Helper	1	30	184.00	5520.00	
iii.Formen	1/8	30	317.00	1188.75	
iv.Mechanic	1/4	30	289.00	2167.50	
v.Chokidar	1/4	30	190.00	1425.00	
Total Direct labour charge				17381.25	
Direct labour charge per hr				114.72	
Hourly use rate				#VALUE!	Per hr

3.18 Grouting machine

A Depreciation charge

Capital cost of machine	IINPUT
Life of machine	10 Year
Rated life of machine	10000 hrs
Working Hours per year (Rated life in hrs/yr)	1000 hrs

	Depreciation of machine /hr = 0.9x						
	Cost of Machine/Tated life of Machines					#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	80 %				#VALUE!	B
C	**Running charges (P.O.L)**						
	H.P motor =110						
	a.Fuel Compressed air	200.00 /100cfm		436.00		872.00	
	b.Lubricant and grease waste etc 25% of	25 %				218.00	
	c.Sundries and miseellenceous supplies						
	at site @ 10 % of R/M(B)	10 %				#VALUE!	
	Total charge					#VALUE!	C
D	**Labour charge**						
(a)	**Direct labour charge**	Nos	Days	Rate	Amount		
	i.Driver	1	30	236.00	7080.00		
	ii.Helper	1	30	184.00	5520.00		
	iii.Formen	1/8	30	317.00	1188.75		
	iv.Mechanic	1/6	30	289.00	1445.00		
	v.Chokidar	1/6	30	190.00	950.00		
	Total Direct labour charge				16183.75		
	Direct labour charge per hr				194.21		
	Hourly use rate				#VALUE!	Per hr	

3.19 Air Compressor.

A. Diesel compressors

	1.Diesel Air compressor ....cfm		**210cfm**	**300cfm**	**500cfm**
A	**Depreciation charge**				
	Capital cost of machine		IINPUT	IINPUT	IINPUT
	Life of machine	8 Year			
	Rated life of machine	10000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1250 hrs			
	Depreciation of machine /hr = 0.9x				
	Cost of Machine/Tated life of Machines		#VALUE! A	#VALUE!	#VALUE!
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	100 %	#VALUE! B	#VALUE!	#VALUE!
C	**Running charges (P.O.L)**				
	H.P motor =110				
	a.Dieset	6.77 lit	58.04 392.90	10.38 602.45	16.13 935.95
	b.Lubricant and grease waste etc 25% of	25 %	98.22	150.61	233.99
	c.Sundries and miseellenceous supplies				
	at site @ 10 % of R/M(B)	10 %	#VALUE!	#VALUE!	#VALUE!
	Total charge		#VALUE! C	#VALUE!	#VALUE!
D	**Labour charge**				
(a)	Direct labour charge	Nos Days Rate	Amount	Amount	Amount
	i.Driver	1 30 236.00	7080.00	7080.00	7080.00
	ii.Helper	1 30 184.00	5520.00	5520.00	5520.00
	iii.Formen	1/8 30 317.00	1188.75	1188.75	1188.75
	iv.Mechanic	1/4 30 289.00	2167.50	2167.50	2167.50
	v.Chokidar	1/4 30 190.00	1425.00	1425.00	1425.00
	Total Direct labour charge		17381.25	17381.25	17381.25
	Direct labour charge per hr		166.86 D	166.86	166.86
	Hourly use rate		#VALUE! Per hr	#VALUE! Per hr	#VALUE!

B.Electric compressors

1.Electric Air compressor 500 cfm

A	**Depreciation charge**		
	Capital cost of machine		IINPUT
	Life of machine	12 Year	
	Rated life of machine	20000 hrs	
	Working Hours per year (Rated life in hrs/yr)	1666.67 hrs	
	Depreciation of machine /hr = 0.9x		
	Cost of Machine/Tated life of Machines		#VALUE! A

B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		80 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Electtrical energy charge		90.00 KWH	#VALUE!	#VALUE!	
	b.Lubricant and grease waste etc 25% of		25 %		#VALUE!	
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)		10 %		#VALUE!	
	Total charge				#VALUE!	C
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Driver	1	30	236.00	7080.00	
	ii.Helper	1	30	184.00	5520.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/4	30	289.00	2167.50	
	v.Elctrician	1/2	30	237.00	3555.00	
	vi.Chokidar	1/4	30	190.00	1425.00	
	Total Direct labour charge				20936.25	
	Direct labour charge per hr				150.74	
	Hourly use rate				#VALUE!	Per hr

2.Electric Air compressor 1500 cfm

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		8 Year			
	Rated life of machine		8000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1000 hrs			
	Depreciation of machine /hr = 0.9x					
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Electtrical energy charge		240.00 KWH	#VALUE!	#VALUE!	
	b.Lubricant and grease waste etc 25% of		25 %		#VALUE!	
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)		10 %		#VALUE!	
	Total charge				#VALUE!	C
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Driver	1	30	236.00	7080.00	
	ii.Helper	1	30	184.00	5520.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/3	30	289.00	2890.00	
	v.Elctrician	1/2	30	237.00	3555.00	
	vi.Chokidar	1/4	30	190.00	1425.00	
	Total Direct labour charge				21658.75	
	Direct labour charge per hr				259.91	
	Hourly use rate				#VALUE!	Per hr

3.20 **Crane**

Crawler Mounted 10 T

A	**Depreciation charge**				
	Capital cost of machine			IINPUT	
	Life of machine	10 Year			
	Rated life of machine	12000 hrs			
	Working Hours per year (Rated life in hrs/yr)	1200 hrs			
	Depreciation of machine /hr = 0.9x				
	Cost of Machine/Tated life of Machines			#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	120 %		#VALUE!	B

C	**Running charges (P.O.L)**						
	H.P motor =110						
	a.i.Diesel			3.50 lit		58.04	203.14
	ii.Petrol			8.00 lit		71.52	572.16
	b.Lubricant and grease waste etc 25% of			25 %			193.83
	c.Sundries and miseellenceous supplies						
	at site	@ 10 % of R/M(B)		10 %			#VALUE!
	Total charge						#VALUE! **C**
D	**Labour charge**						
(a)	Direct labour charge		Nos	Days	Rate		Amount
	i.Driver		1	30	236.00		7080.00
	ii.Helper		1	30	184.00		5520.00
	iii.Formen		1/4	30	317.00		2377.50
	iv.Mechanic		1/4	30	289.00		2167.50
	v.Chokidar		1/4	30	190.00		1425.00
	vi.Supervisor		1/4	31	223.00		1728.25
	Total Direct labour charge						18570.00
	Direct labour charge per hr						185.70
	Hourly use rate						#VALUE! Per hr

3.21 Muck / car (12 cubic yard)

A	**Depreciation charge**						
	Capital cost of machine						IINPUT
	Life of machine			20 Year			
	Rated life of machine			30000 hrs			
	Working Hours per year (Rated life in hrs/yr)			1500 hrs			
	Depreciation of machine /hr =	0.9x					
	Cost of Machine/Tated life of Machines						#VALUE! **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr			150 %			#VALUE! B
C	**Running charges (P.O.L)**						
	Sundries and miseellenceous supplies						
	at site	@ 10 % of R/M(B)		10 %			#VALUE!
	Total charge						#VALUE! **C**
	Hourly use rate						#VALUE! Per hr

3.22 Vibrator

A	**Depreciation charge**						
	Capital cost of machine						21840.00
	Life of machine			5 Year			
	Rated life of machine			8000 hrs			
	Working Hours per year (Rated life in hrs/yr)			1600 hrs			
	Depreciation of machine /hr =	0.9x					
	Cost of Machine/Rated life of Machines						2.46 **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr			150 %			3.69 B
C	~~**Running charges (P.O.L)**~~						
	H.P motor =~~110~~ **10**						
	a.Diesel			1.50 lit		58.04	87.06
	b.Lubricant and grease waste etc 25% of			25 %			21.77
	c.Sundries and miseellenceous supplies						
	at site	@ 10 % of R/M(B)		10 %			0.37
	Total charge						109.19 **C**
D	**Labour charge**						
(a)	Direct labour charge		Nos	Days	Rate		Amount
	i.Vibrator Operator		1	30	208.00		6240.00
	Total Direct labour charge						6240.00
	Direct labour charge per hr						46.80
	Hourly use rate						162.14 Per hr

9/11/15

3.23 Scraper

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		8 Year			
	Rated life of machine		9000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1125 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %			#VALUE! B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		17.98 lit		58.04	1043.46
	b.Lubricant and grease waste etc 25% of		25 %			260.86
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! C

D	**Labour charge**				
(a)	Direct labour charge	Nos	Days	Rate	Amount
	i.Driver	1	30	236.00	7080.00
	ii.Helper	1	30	184.00	5520.00
	iii.Formen	1/4	30	317.00	2377.50
	iv.Mechanic	1/4	30	289.00	2167.50
	v.Chokidar	1/4	30	190.00	1425.00
	Total Direct labour charge				18570.00
	Direct labour charge per hr				198.08
	Hourly use rate				#VALUE! Per hr

3.24 GRADER 110 hp

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		10 Year			
	Rated life of machine		12000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1200 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %			#VALUE! B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		12.53 lit		58.04	727.26
	b.Lubricant and grease waste etc 25% of		25 %			181.81
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! C

D	**Labour charge**				
(a)	Direct labour charge	Nos	Days	Rate	Amount
	i.Driver	1	30	236.00	7080.00
	ii.Helper	1	30	184.00	5520.00
	iii.Formen	1/8	30	317.00	1188.75
	iv.Mechanic	0	30	289.00	0.00
	v.Chokidar	1/2	30	190.00	2850.00
	Total Direct labour charge				16638.75
	Direct labour charge per hr				166.39
	Hourly use rate				#VALUE! Per hr

3.28 Tractors

A	**Depreciation charge**		
	Capital cost of machine		INPUT
	Life of machine	5 Year	

	Rated life of machine	12000 hrs				
	Working Hours per year (Rated life in hrs/yr)	2400 hrs				
	Depreciation of machine /hr = 0.9x					
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	150 %			#VALUE!	B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel	2.75 lit		58.04	159.72	
	b.Lubricant and grease waste etc 25% of	25 %			39.93	
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)	10 %			#VALUE!	
	Total charge				#VALUE!	C
D	**Labour charge**					

(a) Direct labour charge	Nos	Days	Rate	Amount
i.Driver	1	30	292.00	8760.00
ii.Helper	1	30	171.00	5130.00
Total Direct labour charge				13890.00
Direct labour charge per hr				69.45
Hourly use rate				#VALUE! Per hr
Hire charge of Tractor per day				#VALUE! Per day

3.32 Drill extractors (Compressed air)

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine	8 Year				
	Rated life of machine	8000 hrs				
	Working Hours per year (Rated life in hrs/yr)	1000 hrs				
	Depreciation of machine /hr = 0.9x					
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	80 %			#VALUE!	B
C	**Running charges (P.O.L)**					
	a.Fuel Compressed air	400 /100cfm		436.00	1744.00	
	b.Lubricant and grease waste etc 25% of	25 %			436.00	
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)	10 %			#VALUE!	
	Total charge				#VALUE!	C
D	**Labour charge**					

(a) Direct labour charge	Nos	Days	Rate	Amount
i.Operator Gr I	1	30	223.00	6690.00
ii.Helper	1	30	281.00	8430.00
iii.Formen	1/8	30	317.00	1188.75
iv.Mechanic	1/8	30	289.00	1083.75
v.Chokidar	1/4	30	190.00	1425.00
iv. Supervisor	1/4	30	223.00	1672.50
Total Direct labour charge				20490.00
Direct labour charge per hr				245.88 D
Hourly use rate				#VALUE!

3.33 Grinder

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine	8 Year				
	Rated life of machine	8000 hrs				
	Working Hours per year (Rated life in hrs/yr)	1000 hrs				
	Depreciation of machine /hr = 0.9x					
	Cost of Machine/Tated life of Machines				#VALUE!	A

B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		80 %			#VALUE! **B**
C	**Running charges (P.O.L)**					
	a.Fuel Compressed air		400 /100cfm		436.00	1744.00
	b.Lubricant and grease waste etc 25% of		25 %			436.00
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)		10 %			#VALUE!
	Total charge					#VALUE! **C**
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator Gr I	1	30	223.00	6690.00	
	ii.Helper	1	30	281.00	8430.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/8	30	289.00	1083.75	
	v.Chokidar	1/4	30	190.00	1425.00	
	Total Direct labour charge				18817.50	
	Direct labour charge per hr				225.81 **D**	
	Hourly use rate				#VALUE!	

3.34 Sheet Pile Driving Plant

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		10 Year			
	Rated life of machine		15000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1500 hrs			
	Depreciation of machine /hr = 0.9x					
	Cost of Machine/Rated life of Machines				INPUT	**A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		50 %			#VALUE! **B**
C	**Running charges (P.O.L)**					
	a.Fuel Compressed air		400 /100cfm		436.00	1744.00
	b.Lubricant and grease waste etc 25% of		25 %			436.00
	c.Sundries and miseellenceous supplies					
	at site @ 10 % of R/M(B)		10 %			#VALUE!
	Total charge					#VALUE! **C**
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Operator Gr I	1	30	223.00	6690.00	
	ii.Helper	1	30	281.00	8430.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/4	30	289.00	2167.50	
	v.Chokidar	1/4	30	190.00	1425.00	
	Total Direct labour charge				19901.25	
	Direct labour charge per hr				159.21 **D**	
	Hourly use rate				#VALUE!	

3.35 Loader

A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		10 Year			
	Rated life of machine		15000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1500 hrs			
	Depreciation of machine /hr = 0.9x					
	Cost of Machine/Tated life of Machines				#VALUE!	**A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %			#VALUE! B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		12.79 lit		58.04	742.52
	b.Lubricant and grease waste etc 25% of		25 %			185.63

c.Sundries and miseellenceous supplies

	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! **C**
D	**Labour charge**					
(a)	Direct labour charge		Nos	Days	Rate	Amount
	i.Driver		1	30	292.00	8760.00
	ii.Helper		1	30	171.00	5130.00
	iii.Formen		1/8	30	317.00	1188.75
	iv.Mechanic		1/4	30	289.00	2167.50
	v.Chokidar		1/2	30	190.00	2850.00
	Total Direct labour charge					20096.25
	Direct labour charge per hr					160.77
	Hourly use rate					#VALUE! Per hr

Overhead loader 1cu. yd

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		16 Year			
	Rated life of machine		20000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1250 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		70 %			#VALUE! B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		119.36 lit		58.04	6927.65
	b.Lubricant and grease waste etc 25% of		25 %			1731.91
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! **C**
D	**Labour charge**					
(a)	Direct labour charge		Nos	Days	Rate	Amount
	i.Driver		1	30	292.00	8760.00
	ii.Helper		1	30	171.00	5130.00
	iii.Formen		1/8	30	317.00	1188.75
	iv.Mechanic		1/4	30	289.00	2167.50
	v.Chokidar		1/6	30	190.00	950.00
	Total Direct labour charge					18196.25
	Direct labour charge per hr					174.68
	Hourly use rate					#VALUE! Per hr

3.36 Pneumatic concrete placer (1 CUBIC YARD)

A	**Depreciation charge**					
	Capital cost of machine					IINPUT
	Life of machine		10 Year			
	Rated life of machine		10000 hrs			
	Working Hours per year (Rated life in hrs/yr)		1000 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines					#VALUE! **A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		120 %			#VALUE! B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Fuel Compressed air		200.00 /100cfm		436.00	872.00
	b.Lubricant and grease waste etc 25% of		25 %			218.00
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %			#VALUE!
	Total charge					#VALUE! **C**
D	**Labour charge**					

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		Nos	Days	Rate	Amount	
(a)	Direct labour charge					
	i.Driver	1	30	292.00	8760.00	
	ii.Helper	1	30	171.00	5130.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/6	30	289.00	1445.00	
	v.Chokidar	1/6	30	190.00	950.00	
	Total Direct labour charge				17473.75	
	Direct labour charge per hr				209.69	
	Hourly use rate				#VALUE!	Per hr

3.37 Draglines 2 cum 262 H.P

A	**Depreciation charge**			
	Capital cost of machine		IINPUT	
	Life of machine	12 Year		
	Rated life of machine	15000 hrs		
	Working Hours per year (Rated life in hrs/yr)	1250 hrs		
	Depreciation of machine /hr = 0.9x			
	Cost of Machine/Tated life of Machines		#VALUE!	**A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	150 %	#VALUE!	B
C	**Running charges (P.O.L)**			
	H.P motor =110			
	a.Diesel	28.55 lit	58.04	1656.88
	b.Lubricant and grease waste etc 25% of	25 %		414.22
	c.Sundries and miseellenceous supplies			
	at site @ 10 % of R/M(B)	10 %	#VALUE!	
	Total charge		#VALUE!	**C**

		Nos	Days	Rate	Amount	
D	**Labour charge**					
(a)	Direct labour charge					
	i.Driver	1	30	292.00	8760.00	
	ii.Helper	1	30	171.00	5130.00	
	iii.Formen	1/4	30	317.00	2377.50	
	iv.Mechanic	1/2	30	289.00	4335.00	
	v.Chokidar	1/4	30	190.00	1425.00	
	Total Direct labour charge				22027.50	
	Direct labour charge per hr				211.46	
	Hourly use rate				#VALUE!	Per hr

3.38 Hydraulic excavators (Diesel)1.25cu.yd

A	**Depreciation charge**			
	Capital cost of machine		IINPUT	
	Life of machine	10 Year		
	Rated life of machine	12000 hrs		
	Working Hours per year (Rated life in hrs/yr)	1200 hrs		
	Depreciation of machine /hr = 0.9x			
	Cost of Machine/Tated life of Machines		#VALUE!	**A**
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	150 %	#VALUE!	B
C	**Running charges (P.O.L)**			
	H.P motor =110			
	a.Diesel	11.28 lit	58.04	654.53
	b.Lubricant and grease waste etc 25% of	25 %		163.63
	c.Sundries and miseellenceous supplies			
	at site @ 10 % of R/M(B)	10 %	#VALUE!	
	Total charge		#VALUE!	**C**

		Nos	Days	Rate	Amount
D	**Labour charge**				
(a)	Direct labour charge				
	i.Driver	1	30	292.00	8760.00
	ii.Helper	1	30	171.00	5130.00
	iii.Formen	1/4	30	317.00	2377.50

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iv.Mechanic	1/4	30	289.00	2167.50	
v.Chokidar	1/4	30	190.00	1425.00	
Total Direct labour charge				19860.00	
Direct labour charge per hr				198.60	
Hourly use rate				#VALUE!	Per hr

3.40 Agitating car 4cu.yd

A	**Depreciation charge**		
	Capital cost of machine		IINPUT
	Life of machine	10 Year	
	Rated life of machine	10000 hrs	
	Working Hours per year (Rated life in hrs/yr)	1000 hrs	
	Depreciation of machine /hr = 0.9x		
	Cost of Machine/Tated life of Machines		#VALUE! A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr	120 %	#VALUE! B
C	**Running charges (P.O.L)**		
	H.P motor =110		
	a.Diesel	5.33 lit	58.04 309.27
	b.Lubricant and grease waste etc 25% of	25 %	77.32
	c.Sundries and miseellenceous supplies		
	at site @ 10 % of R/M(B)	10 %	#VALUE!
	Total charge		#VALUE! C

D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Driver	1	30	292.00	4380.00	
	ii.Helper	1	30	171.00	2565.00	
	iii.Formen	1/8	30	317.00	1188.75	
	iv.Mechanic	1/4	30	289.00	2167.50	
	v.Chokidar	1/6	30	190.00	950.00	
	Total Direct labour charge				11251.25	
	Direct labour charge per hr				135.02	
	Hourly use rate				#VALUE!	Per hr

3.42 Crushing & Processing Plant

	Integrated Stone Crusher .... TPH		100 TPH				200TPH	
A	**Depreciation charge**							
	Capital cost of machine				IINPUT			IINPUT
	Life of machine		12 Year					
	Rated life of machine		8000 hrs					
	Working Hours per year (Rated life in hrs/yr)		666.67 hrs					
	Depreciation of machine /hr = 0.9x							
	Cost of Machine/Tated life of Machines				#VALUE! A			#VALUE!
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		80 %		#VALUE! B			#VALUE!
C	**Running charges (P.O.L)**							
	H.P motor =110							
	a.Diesel		400.00 lit		58.04 23216.00	800.00	58.04	46432
	b.Lubricant and grease waste etc 25% of		25 %		5804.00			11608.00
	c.Sundries and miseellenceous supplies							
	at site @ 10 % of R/M(B)		10 %		#VALUE!			#VALUE!
	Total charge				#VALUE! C			#VALUE!

D	**Labour charge**							
(a)	Direct labour charge	Nos	Days	Rate	Amount			
	i.Driver	2	30	292.00	17520.00	2		17520
	ii.Helper	1	30	171.00	5130.00	1		5130
	iii.Formen	1	30	317.00	9510.00	1		9510
	iv.Mechanic	1/4	30	289.00	2167.50	1/4		2167.5
	v.Chokidar	1	30	190.00	5700.00	1		5700
	vi.Beldar	15	30	281.00	126450.00	20		168600

Total Direct labour charge		40027.50	208627.5
Direct labour charge per hr		720.50	3755.30
Hourly use rate		#VALUE! Per hr	#VALUE!

3.43 Boat

		40 quintal capacity boat					**100 quintal capacity boat**
A	**Depreciation charge**						
	Capital cost of machine				IINPUT		IINPUT
	Life of machine		8 Year				
	Rated life of machine		35000 hrs				
	Working Hours per year (Rated life in hrs/yr)		4375 hrs				
	Depreciation of machine /hr =	0.9x					
	Cost of Machine/Tated life of Machines				#VALUE!	A	#VALUE!
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %		#VALUE!	B	#VALUE!
C	**Running charges**						
	c.Sundries and miseellenceous supplies						
	at site	@ 10 % of R/M(B)	10 %		#VALUE!	C	#VALUE!
D	**Labour charge**						
(a)	Direct labour charge	Nos	Days	Rate	Amount		
	Driver		2	30 #REF!	#REF!		#REF!
	Total Direct labour charge				#REF!		#REF!
	Direct labour charge per hr				#REF!	D	#REF!
	Hourly use rate				#VALUE!	Per hr	#VALUE!
					#VALUE!	Per day	#VALUE!

	100 quintal capacity boat (Pump Fitted)					
A	**Depreciation charge**					
	Capital cost of machine				IINPUT	
	Life of machine		8 Year			
	Rated life of machine		35000 hrs			
	Working Hours per year (Rated life in hrs/yr)		4375 hrs			
	Depreciation of machine /hr =	0.9x				
	Cost of Machine/Tated life of Machines				#VALUE!	A
B	**Repaire and Maintenance charge** % of Depreciation of machine /hr		150 %		#VALUE!	B
C	**Running charges (P.O.L)**					
	H.P motor =110					
	a.Diesel		0.54 lit	58.04	31.62	
	b.Lubricant and grease waste etc 25% of		25 %		7.90	
	c.Sundries and miseellenceous supplies					
	at site	@ 10 % of R/M(B)	10 %		#VALUE!	
	Total charge				#VALUE!	C
D	**Labour charge**					
(a)	Direct labour charge	Nos	Days	Rate	Amount	
	i.Driver		1	30 #REF!	#REF!	
	Direct labour charge per hr				#REF!	
	Hourly use rate				#VALUE!	Per hr
					#VALUE!	**Per day**

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CHAPTER --IV

Carriage of Materials (By Tractor)

Loading and unloading of Stone Boulder/ Stone

4.1 **aggregates/ Sand/ Kankar/ Moorum**

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 Tractor at loading point	1	min			
ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour	5	min			
Total	6	min			
a) Labour					
Mate	0.030	no	201.00	6.03	
Mazdoor for loading and unloading	0.720	no	184.00	132.48	
b) Machinery					
Tractor 3.60 tonnes capacity	0.100	hour	494.00	49.40	
Front end-loader 1 cum bucket capacity @ 25 cum/hour	0.083	hour	1199.00	99.52	
				287.43	
Add Overhead charge & C.P	15	%		43.11	
				330.54	146.91
	Say		146.90	cum	

Note:- Unloading will be done manually.

4.2 **Loading and Unloading of stone Boulder by manuals Means**

Unit = cum

Taking output = 2.25 cum

(a) Labour					
Mate	0.050	no	201.00	10.05	
Mazdoor for loading and unloading	0.310	no	184.00	57.04	
b) Machinery					
Tractor 3.60 tonnecapacity	0.310	hour	494.00	153.14	
				220.23	
Add Overhead charge & C.P	15	%		33.03	
				253.26	112.56
	Say		112.60	per cum	X_a

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	0.030	no	201.00	6.03	
Mazdoor for loading and unloading	0.720	no	184.00	132.48	
b) Machinery					
Tractor 3.60 tonne capacity	0.720	hour	494.00	355.68	
				494.19	
Add Overhead charge & C.P	15	%		74.13	
				568.32	157.87
	Say		157.90	t.km	X_b

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 3.6 tonnes load and lead 10 km= 36 t.km

a). **Surface road**

Speed with load : 15 km / hour

Speed with returning empty : 25 km / hour

(a) Machinery					
Tractor 3.6 tonne capacity					
Time taken for onward haulage with load	0.667	hour	494.00	329.50	
Time taken for empty return trip	0.400	hour	494.00	197.60	
				527.10	
Add Overhead charge & C.P	15	%		79.06	

				606.16	16.84
	Say		16.80 t.km		**Hsb**

b). **Unsurface Graveled road**

Speed with load : 12 km / hour
Speed with returning empty : 20 km / hour

(a) Machinery

Tractor 3.6 tonnes capacity

Time taken for onward haulage with load	0.833 hour	494.00	411.50	
Time taken for empty return trip	0.500 hour	494.00	247.00	
			658.50	
Add Overhead charge & C.P	15 %		98.78	
			757.28	21.04
	Say	21.00 t.km		H_{ub}

c). **Katcha Track and Track in River Bed / Nallah Bed and Choe Bed**

Speed with load : 10 km / hour
Speed with returning empty : 15 km / hour

(a) Machinery

Tipper 10 tonnes or 5.5 cum capacity

Time taken for onward haulage	1.000 hour	494.00	494.00	
Time taken for empty return trip	0.667 hour	494.00	329.50	
			823.50	
Add Overhead charge & C.P	15 %		123.52	
			947.02	26.31
	Say	26.30 t.km		H_{kb}

Carriage of Material (By Tipper)

4.1 **Loading by Front end loader and unloading by tipping**
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 = 5.5 cum
Time required for

i)	Positioning of tipper at loading point	1	min			
ii)	Loading by front end loader 1 cum bucket capacity @	13	min			
iii)	Maneuvering, reversing, dumping and turning for	2	min			
iv)	Waiting time, unforeseen contingencies etc	4	min			
Total		20	min			
a)	**Machinery**					
Tipper 5.5 cum capacity (For running of 20 min)		0.330		882.00	291.06	
Front end-loader 1 cum bucket capacity @ 25 cum/hour		0.330		1199.00	395.67	
					686.73	
Add Overhead charge & C.P		15	%		103.01	
					789.74	143.59
		Say			143.60	cum

Note:- Unloading will be by tipping

4.2 **Loading by Manuals Means**
Loading and Unloading of stone Boulder by manuals Means

Unit = cum
Taking output = 5.5 cum

(a) Labour					
Mate	0.110	no	201.00	22.11	
Mazdoor for loading and unloading	0.750	no	184.00	138.00	
b) Machinery					
Tipper 5.5 cum capacity	0.750	hour	882.00	661.50	
				821.61	
Add Overhead charge & C.P	15	%		123.24	
				944.85	171.79
	Say			171.80 per cum	**X_a**

Note:- Unloading will be by tipping

4.3 **Loading and Unloading of Cement or Steel By manual Means and Stacking**
Unit = tonne
Taking output = 10 tonnes

(a) Labour					
Mate	0.080	no	201.00	16.08	
Mazdoor for loading and unloading	2.000	no	184.00	368.00	
b) Machinery					
Truck 10 tonne capacity	2.000	hour	841.00	1682.00	
				2066.08	
Add Overhead charge & C.P	15	%		309.91	
				2375.99	237.60
	Say			237.60 t.km	**X_b**

4.4 **Cost of Haulage Excluding Loading, Unloading**
Cost of Haulage of materials by Tipper Excluding cost of Loading, Unloading and Stacking
Unit =t.km or cum.km
Taking output 10 tones or 5.5 cum load and lead 10 km= 100 t.km or 55 cum.km

a). **Surface road**
Speed with load : 25 km / hour
Speed with returning empty : 35 km / hour
(a) Machinery
Tipper 10 tonne or 5.5 cum capacity

Time taken for onward haulage with load	0.400	hour	882.00	352.80	
Time taken for empty return trip	0.290	hour	882.00	255.78	
				608.58	
Add Overhead charge & C.P	15	%		91.29	
				699.87	7.00
	Say			7.00 t.km	**Hsb**
				699.87	**12.72**
	Say			12.70 cum.km	**Has**

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b). **Unsurface Graveled road**

Speed with load : 20 km / hour
Speed with returning empty : 30 km / hour
(a) Machinery
Tipper 10 tonnes or 5.5 cum capacity

Time taken for onward haulage	0.500 hour	882.00	441.00	
Time taken for empty return trip	0.330 hour	882.00	291.06	
			732.06	
Add Overhead charge & C.P	15 %		109.81	
			841.87	8.42
	Say		8.40 t.km	H_{ub}
			841.87	**15.31**
	Say		15.30 cum.km	H_{ua}

c). **Katcha Track and Track in River Bed / Nallah Bed and Choe Bed**

Speed with load : 10 km / hour
Speed with returning empty : 15 km / hour
(a) Machinery
Tipper 10 tonnes or 5.5 cum capacity

Time taken for onward haulage	1.000 hour	882.00	882.00	
Time taken for empty return trip	0.670 hour	882.00	590.94	
			1472.94	
Add Overhead charge & C.P	15 %		220.94	
			1693.88	16.94
	Say		16.90 t.km	H_{kb}
			1693.88	**30.80**
	Say		30.80 cum.km	H_{ka}

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CARRIAGE OF MATERIAL BY TIPPER OF 5.5 CUM CAPACITY INCLUDING OVER HEAD CHARGES & C.P

Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 5.5 cum x X_a)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of 5.5 cum capacity (Tipper capacity 5.5 Cum x H)			Lead In KM			Carriage of Cost =[(5.5Hs.Ls+5.5Hu.Lu+5.5Hk.Lk)+5.5 X_{tipper}	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$5.5X_a$	H_{Sa}	H_{ua}	H_{ka}	$5.5H_{Sa}$	$5.5H_{Ua}$	$5.5H_{Ka}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Lime, Moorum, Rubbish	M^3	6	1	6	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
2	Earth	M^3	6	0.8	4.8	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
3	Manur or Sludge	M^3	6	0.92	5.52	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
4	Excavated Rock (120lbs)	M^3	6	0.67	4.02	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
5	Stone metal (above 50 mm)	M^3	5.4	0.85	4.59	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
6	Boulder	M^3	6	0.80	4.8	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
7	Stone chips / Sand / Stone Agg	M^3	5.4	0.924	4.99	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
8	Soling stone	M^3	5	0.85	4.25	986.15	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!

CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVER HEAD CHARGES & C.P

Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 8 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of in t capacity (8 x H)			Lead in KM			Cost of Carriage =[(8Hsb.Ls+8Hub.Lu+8Hkb.Lk)+8 X_b	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$8X_b$	H_{Sb}	Hub	H_{Kb}	$8H_{Sb}$	$8H_{Ub}$	$8H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Cement, Steel, Stone CC pipe	M.T	8	1	8	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
2	Brick ($9^{3/4}x4^{3/4}x2^{3/4}$)	Per %0	2000	1	2000	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
3	G.I. Crate (3x1.5x0.75)	Per %	80	1	80	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
4	Bitumen, Tar, Steam, Coal	MT	8	1	8	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
5	R.C.C hume, A.C. pipe																
	100 mm dia	mtr	290	1	290	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	125 mm dia	mtr	200	1	200	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	150 mm dia	mtr	180	1	180	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	200 mm dia	mtr	100	1	100	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	250 mm dia	mtr	75	1	75	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	300 mm dia	mtr	60	1	60	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	350 mm dia	mtr	47.5	1	47.5	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	400 mm & 450 dia	mtr	32.5	1	32.5	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	500 mm & 600 mm dia	mtr	15	1	15	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	700 mm & 800 mm dia	mtr	12.5	1	12.5	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	900mm & 1000 mm dia	mtr	10	1	10	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	1100 & 1200 m dia	mtr	7.5	1	7.5	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
6	Bamboo																
	75 mm to 100 mm dia	Per %	280	1	280	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	50 mm to 75 mm dia	Per %	300	1	300	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
7	E.C bag 30000 nos	Per %0	30000	1	30000	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
8	Timber	Cum	9.6	1	9.6	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	Sal ballah av.6m length																
	100 mm dia	Nos	125	1	125	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	125 mm dia	Nos	80	1	80	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!

CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVER HEAD CHARGES & C.P

Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 8 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of in t capacity (8 x H)			Lead In KM			Cost of Carriage =((8Hsb.Ls+8Hub.Lu+8Hkb.Lk)+8 X_b	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$8X_b$	H_{Sb}	Hub	H_{Kb}	$8H_{Sb}$	$8H_{Ub}$	$8H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	150 mm dia	Nos	60	1	60	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	175 mm dia	Nos	45	1	45	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	200 mm dia	Nos	25	1	25	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	225 mm dia	Nos	20	1	20	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
10	S.W.Pipe 60 cm length																
	100 mm dia	Mtr	480	1	480	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	150 mm dia	Mtr	240	1	240	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	200 mm dia	Mtr	135	1	135	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	230 mm dia	Mtr	105.6	1	105	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	250 mm dia	Mtr	84	1	84	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	300 mm dia	Mtr	67.2	1	67.2	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	350 mm dia	Mtr	48	1	48	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	400 mm dia	Mtr	33.6	1	33.6	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	450 mm dia	Mtr	26.4	1	26.4	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	500 mm dia	Mtr	24	1	24	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	600 mm dia	Mtr	19.2	1	19.2	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
11	Tiles (Manglore / Mosaic)	Per %0	3200	1	3200	1983.20	7.30	8.80	17.70	58.40	70.40	141.60	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
12	Brick Tiles(300x150x50mm)	Per %0	1760	1	1760	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
13	Steel and C.I pipe					1983.20											
	100 mm dia	Mtr	292.8	1	292.8	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	125 mm dia	Mtr	219.6	1	219.6	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	150 mm dia	Mtr	183	1	183	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	200 mm dia	Mtr	109.8	1	109.8	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	250 mm dia	Mtr	80.52	1	80.52	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	300 mm dia	Mtr	62.22	1	62.22	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!

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CARRIAGE OF MATERIAL BY TIPPER OF 10 Tonnes CAPACITY INCLUDING OVER HEAD CHARGES & C.P

Sr No	Name Of Materials	Unit	Gross Tipper Capacity Per Trip	(For Void) Multiplying Factor	Net Tipper capacity (Payable Quantity) Per Trip	Cost of Loading,Unloading & Stacking Per Trip of Tipper (Tipperr capacity 8 t x X_b)	Cost of Haulage Per cum			Cost of Haulage Per Tipper of in t capacity (8 x H)			Lead in KM			Cost of Carriage =[(8Hsb.Ls+8Hub.Lu+8Hkb.Lk)+8 X_b	Per Unit Rate =(col 17 / Net Payable capacity)
							For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed	For Surface Road	For Unsurfaced Graveted Road	For Kacha Track & Track in River Bed / Nallah Bed & Choe Bed		
						$8X_b$	H_{Sb}	Hub	H_{Kb}	$8H_{Sb}$	$8H_{Ub}$	$8H_{Kb}$	L_S	L_U	L_K		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	350 mm dia	Mtr	43.92	1	43.92	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	400 mm dia	Mtr	32.94	1	32.94	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	500 mm dia	Mtr	25.62	1	25.62	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	600 mm dia	Mtr	18.3	1	18.3	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	700 mm & 800 mm dia	Mtr	15.00	1	15	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	900mm & 1000 mm dia	Mtr	10.00	1	10	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!
	1100mm & 1200mm dia	Mtr	7.50	1	7.5	1983.20	13.30	16.00	32.10	73.15	88.00	176.55	INPUT	INPUT	INPUT	#VALUE!	#VALUE!

CHAPTER ---V

CANAL EMBANKMENT AND STRUCTURE

5.1 EARTH WORK

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.	2.90	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 and levelling all complete as per specifications and direction of E/I.	1.70	Per M^2
5.1.3	Jungle clearance and weeding out shurbs including small tree upto 0.50 mtr girth and removal as per specifications and direction of E/I.	5.20	Per M^2
5.1.4	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)		
	(a) Girth above 0.50 metre but upto 0.75 metre	171.60	Each
	(b) Girth above 0.75 metre but upto 1.50 metre	343.20	Each
	(c) Girth above 1.5 metre but upto2.50 metre	621.70	Each
	(d) Girth above 2.50 metre but upto 4.00 metre	1007.00	Each
	(e) Girth above 4.00 metre	1457.10	Each
5.1.5	Up.rooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 metre but upto 0.75 metre	106.90	Each
	(b) Girth above 0.75 metre but upto 1.50 metre	106.90	Each
	(c) Girth above 1.5 metre but upto2.50 metre	142.50	Each
	(d) Girth above 2.50 metre but upto 4.00 metre	213.72	Each
	(e) Girth above 4.00 metre	267.10	Each
5.1.6	Earth work in excavation of canals and dhars carring minimum full supply discharge above 28 cumecs (1000 cusecs) in odinary soil (vide clasification 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 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.	112.70	Per M^3
5.1.7	Earth work in excavation of canals and dhars carring minimum full supply discharge between28 cumecs (1000 cusecs) and 8.5 cumecs (300 cusecs) in odinary soil (vide clasification of soil item A) andmaking 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 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.	94.40	Per M^3
5.1.8	Earth work in excavation of canals and dhars carring minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in odinary soil (vide clasification of soil item A) andmaking 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 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.	90.60	Per M^3
5.1.9	Earth work in filling for the maintaenance of canals having minimum full supply discharge upto 28 cumecs (1000 cusecs) and flood embankment in odinary soil (vide clasification 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.	90.60	Per M^3

5.1.10	Extra for earth work in hard soil (vide clasification of soil item B) all complete as per specifications and direction of E/I.	15.10	Per M^3
5.1.11	Extra for earth work in marshy, slushy and daldal soil (vide clasification of soil item F) all complete as per specifications and direction of E/I.	22.64	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 mtr and lift of 1.5 mtrincluding 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 conccerned Chief Engineer)	387.90	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 10 mtr and lift of 1.5 mtrincluding dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	258.80	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 mtr and lift of 1.5 mtrincluding 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 conccerned Chief Engineer)	398.50	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 30mtr and lift of 1.5 mtrincluding dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	269.50	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 mtrincluding dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.	648.30	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 mtr and lift of 1.5 mtrincluding 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.	659.00	Per M^3
5.1.16	Earth work in excavation of water course in odinary soil with all lead and lift including clod breaking ,rough dressing all complete as per specifications and direction of E/I.	90.60	Per M^3
5.1.17	Earth work in maintaenance of canals having discharge less than 28 cumecs (1000 cusecs) in odinary soil (vide clasification of soil item A) including clod breaking and rough dressing of soil with all leads and lift all complete as per specifications and direction of E/I.	90.60	Per M^3
5.1.18	Earth work in bed clearance or desilting of canals carring full supply discharge of 28 cumecs (1000 cusecs) or more in dead courses of river etc, in odinary soil and removing the excaveted earth in proper profile in spoils etc.with an initial lead of 30 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.	92.00	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 as per specifications and direction of E/I.	90.60	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 (5Cusecs) and renovation of pynes etc. in ordinary soil and disposalof excavated earth etc.including rough dressing .with all lead and lift all complete as per specifications and direction of E/I.	90.60	Per M^3
5.1.21	Earth work in leap cutting in side slopes and bed of canal in ordinary soil with initial lead of 30 mtr and lift of 1.5 mtr including the cost of formation of sub grade of canal lining profiling, levelling ,controlling of slopes and fine dressing ,sisposal of excavated earth and nominal dewatering if any all complete as per approved design , specifications and direction of E/I.	86.10	Per M^3
5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.	7.55	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 odinary 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.	90.60	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 odinary soil in proper profile (vide clasification of soil item A) obtained from borrow area or any other source free from logs,roots or any other ingradients etc. with initial lead of 30 mtr and initial lift of 1.5 mtr 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)**	101.60	Per M^3
5.1.25	Earth work in filling in canal banks (canals discharge upto 28 cumecs)as well as special repairs of canal banks in odinary soil in proper profile (vide clasification of soil item A) obtained from borrow area or any other source free from logs,roots or any other ingradients etc. with initial lead of 30 mtr and initial lift of 1.5 mtr including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225mm, thick all complete as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)	94.40	Per M^3
5.1.26	Deleted		
5.1.27	Earth work in excavation of foundation trenches in odinary soil (vide clasification of soil item A) and disposal of excavated earth so obtained to a distance upto 50 mtr and average lift of 1.5 mtr including levelling , ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.	85.60	Per M^3
5.1.28	Earth work in excavationof foundation trenches in soft rock or ordinary rock (vide classification of soil item C) with initial lead of 300 mtr and lift of 1.5 mtrincluding 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 conccerned Chief Engineer)	398.50	Per M^3
5.1.29	Earth work in excavation of foundation trenches in proper section in hard rock (vide clasification of soil item D) (non- blasting zone) with chisel and hammer with. disposal of excavated rock to a distance up to 30 mtr lifts of 1.5 mtr. in proper stack including levelling, dressing of foundation trenches all complete as per specifications and direction of E/I.	311.20	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 1.5 including levelling, dressing of foundation trenches all complete as per specifications and direction of E/I.	656.90	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 finaly dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable prpfile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.	65.40	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 finaly dressed with semi -pervious or suitable earth obtained after cutting of borrow pits within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.	73.00	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 upto 25 mtr beyound the initial lead of 30 mtr as per specifications and direction of E/I.	7.50	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 upto 25 mtr beyound the initial lead of 30 mtr as per specifications and direction of E/I.	11.30	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 upto 1 Mtr over the initial lift of 1.5 Mtr. as per specification and direction of E/I.	7.50	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) fo each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. as per specification and direction of E/I.	11.30	Per M^3
5.1.35	Earth work in back filling of structures in layers not exceeding 150 mm thick with pervious or semi-pervious or suitable soil from borrow pits free from logs, roots or any other ingradients by manual excavated and carriage by truck with all lift including watering, ramming, fully compacted and finaly dressed, complete job as per specifications and direction of E/I.		
5.1.35	Deleted		
5.1.36	Trimming and fine dressing the side slopes of canal (for 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.	15.10	Per % M^3
5.1.37	Providing corase clean local sand in filling in foundation trenches including ramming, watering, royalty and all other taxes complete job as per specifications and direction of E/I.	211.60	Per M^3
5.1.38	Watering and consolidation of earth laid in 150 mm to 225 mm layers by mannual 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.	46.10	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 minmum 95 % of dry density includingsprinking the required quanting of water making arragement for supply and carriage of water with all leads and lifts, finishing the surfaceas 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
5.1.40	Close timbering in trenches including strutting, shoring and packing cavaties(whereve required)depth not exceding 1.5 mtr, complete as per specifications and direction of E/I (measurement to be taken of the face area timbred).	45.60	Per M^2
5.1.41	Close timbering in trenches including strutting, shoring and packing cavaties(whereve required)depth not exceding 1.5 mtr, but upto 3.0 mtrcomplete as per specifications and direction of E/I. (measurement to be taken of the face area timbred).	48.70	Per M^2
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 mtr including the cost of watering the grass surface till it acquires greennessas per specifications and direction of E/I.	1520.40	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.	320.60	Per % M^2
5.1.43	Jungle clearence in borrow area, building premises;flanks, slope of existing road and canal etc,embankment by removing the jungle , bushes from top including weedind out shurbs including roots and levelling complete job as per specifications and direction of E/I.	1.70	Per M^2
5.1.44	Earth work by tractor (Rajashani) with bucket (Doli) with spreader (Tractor leveller 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 odinary 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 .... metre (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**	47.00	Per M^3
5.1.44.2	**For C.G To C.G Lead 30 M**	51.90	Per M^3
5.1.44.3	**For C.G to C.G Lead 55 M**	58.20	Per M^3
5.1.44.4	**For C.G to C.G Lead 80 M**	63.20	Per M^3
5.1.44.5	**For C.G to C.G Lead 100 M**	66.40	Per M^3
	NOTE :- Add Royality of Earth Rs 22.00 Where needed without overhead charge & C.P		
5.1.45	Deleted		

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5.1.46	Earth work by Mechanical means with help of Excavtor, Tipper and Spreader in canal or flood embankment or dhar a!l 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 odinary 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)		
5.1.46.1	Beyond 150M but upto 1/2 K.M	126.60	Per M^3
5.1.46.2	Beyond 1/2 K.M but upto 1 K.M	153.20	Per M^3
5.1.46.3	Beyond 1.00 K.M but upto 1.50 K.M	184.40	Per M^3
5.1.46.4	Beyond 1.50 K.M but upto 2.00K.M	215.70	Per M^3
5.1.46.5	Beyond 2.0 K.M but upto 2.50 K.M	247.00	Per M^3
5.1.46.6	Beyond 2.50 K.M but upto 3.00 K.M	278.40	Per M^3
	NOTE :- Add Royality of Earth Rs 22.00 Where needed without overhead charge & C.P		
5.1.47	Earth work by excavtor and spreader or tractor- leveller in lower level canal or flood embankment or dhar (Like, Minor, Sub -minor, Jamindari bundh, Pynes etc where tipper iS not neaded) 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 odinary 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 job as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth) **NOTE :- Add Royality of Earth Rs 22.00 Where needed without overhead charge & C.P**	56.02	Per M^3

CHAPTER ---V

CANAL EMBANKMENT AND STRUCTURE

5.1 EARTH WORK

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.

Unit :- Per M^2

Taking Out put:-	92.94 Sqm				
Unskilled mazdoor for levelling and ploughing	0.50 nos		184.00	92.00	
Unskilled mazdoor for removing grass roots and levelling	0.75 nos		184.00	138.00	
				230.00	
Add Overhead charge & C.P	15 %			34.50	
				264.50	
Add cess	1 %			2.645	
				267.15	2.87
	Say	Rs	2.90	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 and levelling all complete as per specifications and direction

Unit :- Per M^2

Taking Out put:-	92.94 Sqm				
Unskilled mazdoor for levelling and ploughing	0.75 nos		184.00	138.00	
				138.00	
Add Overhead charge & C.P	15 %			20.70	
				158.70	
Add cess	1 %			1.59	
				160.29	1.72
	Say	Rs	1.70	Per M^2	

5.1.3 Jungle clearance and weeding out shurbs including small tree upto 0.50 mtr girth and removal as per specifications and direction of E/I.

Unit :- Per M^2

Taking Out put:-	92.94 Sqm				
Unskilled mazdoor for cutting shrubs and trees	1.50 nos		184.00	276.00	
Unskilled mazdoor for collecting and removing shrubs and weeds and tree.	0.75 nos		184.00	138.00	
				414.00	
Add Overhead charge & C.P	15 %			62.10	
				476.10	
Add cess	1 %			4.76	
				480.86	5.17
	Say	Rs	5.20	Per M^2	

5.1.4 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)

Unit :- Each

(a) Girth above 0.50 metre but upto 0.75 metre					
Carpenter Gr II	0.25 nos		223.00	55.75	
Unskilled mazdoor	0.50 nos		184.00	92.00	
				147.75	
Add Overhead charge & C.P	15 %			22.16	
				169.91	
Add cess	1 %			1.70	
				171.61	171.61
	Say	Rs	171.60	Each	
(b) Girth above 0.75 metre but upto 1.50 metre					
Carpenter Gr II	0.50 nos		223.00	111.50	
Unskilled mazdoor	1 nos		184.00	184.00	
				295.50	
Add Overhead charge & C.P	15 %			44.33	
				339.83	
Add cess	1 %			3.40	

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					343.22	343.22
	Say		Rs	343.20	Each	
	(c) Girth above 1.5 metre but upto2.50 metre					
	Carpenter Gr II	0.75 nos		223.00	167.25	
	Unskilled mazdoor	2 nos		184.00	368.00	
					535.25	
	Add Overhead charge & C.P	15 %			80.29	
					615.54	
	Add cess	1 %			6.16	
					621.69	621.69
	Say		Rs	621.70	Each	
	(d) Girth above 2.50 metre but upto 4.00 metre					
	Carpenter Gr II	1 nos		223.00	223.00	
	Unskilled mazdoor	3.50 nos		184.00	644.00	
					867.00	
	Add Overhead charge & C.P	15 %			130.05	
					997.05	
	Add cess	1 %			9.97	
					1007.02	1007.02
	Say		Rs	1007.00	Each	
	(e) Girth above 4.00 metre					
	Carpenter Gr II	1.50 nos		223.00	334.50	
	Unskilled mazdoor	5 nos		184.00	920.00	
					1254.50	
	Add Overhead charge & C.P	15 %			188.18	
					1442.68	
	Add cess	1 %			14.43	
					1457.10	1457.10
	Say		Rs	1457.10	Each	
5.1.5	Up rooting of stumps and their removal, away from the work site as per specifications and direction of E/I.					
	Unit :- Each					
	(a) Girth above 0.50 metre but upto 0.75 metre					
	Unskilled mazdoor	0.50 nos		184.00	92.00	
					92.00	
	Add Overhead charge & C.P	15 %			13.80	
					105.80	
	Add cess	1 %			1.06	
					106.86	106.86
	Say		Rs	106.90	Each	
	(b) Girth above 0.75 metre but upto 1.50 metre					
	Unskilled mazdoor	0.50 nos		184.00	92.00	
					92.00	
	Add Overhead charge & C.P	15 %			13.80	
					105.80	
	Add cess	1 %			1.06	
					106.86	106.86
	Say		Rs	106.90	Each	
	(c) Girth above 1.5 metre but upto2.50 metre					
	Unskilled mazdoor	0.67 nos		184.00	122.67	
					122.67	
	Add Overhead charge & C.P	15 %			18.40	
					141.07	
	Add cess	1 %			1.41	
					142.48	142.48
	Say		Rs	142.50	Each	
	(d) Girth above 2.50 metre but upto 4.00 metre					
	Unskilled mazdoor	1 nos		184.00	184.00	
					184.00	
	Add Overhead charge & C.P	15 %			27.60	
					211.60	
	Add cess	1 %			2.12	
					213.72	213.72

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		Say	Rs	213.72	Each	
	(e) Girth above 4.00 metre					
	Unskilled mazdoor	1.25 nos		184.00	230.00	
					230.00	
	Add Overhead charge & C.P	15 %			34.50	
					264.50	
	Add cess	1 %			2.65	
					267.15	267.15
		Say	Rs	267.10	Each	
5.1.6	Earth work in excavation of canals and dhars carring minimum full supply discharge above 28 cumecs (1000 cusecs) in odinary soil (vide clasification 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 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting	5 nos		184.00	920.00	
	Unskilled mazdoor for carring	6 nos		184.00	1104.00	
	Unskilled mazdoor for clod breaking	0.75 nos		184.00	138.00	
	Mate	0.25 nos		201.00	50.25	
					2212.25	
	Add Overhead charge & C.P	15 %			331.84	
					2544.09	
	Add cess	1 %			25.44	
					2569.53	90.73
	Add Royality on Earth					22.00
						112.73
		Say	Rs	112.70	Per M^3	
5.1.7	Earth work in excavation of canals and dhars carring minimum full supply discharge between28 cumecs (1000cusecs) and 8.5 cumecs(300 cusecs) in odinary soil (vide clasification of soil item A) andmaking 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 15 mtr and lift of 1.5 mtr 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 M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting, carring	9.09 nos		184.00	1672.56	
	Add extra wage of 1/2 no unskilled labour per 28.32 M^3	0.5 nos		184.00	92.00	
					1764.56	
	Add Overhead charge & C.P	15 %			264.68	
					2029.24	
	Add cess	1 %			20.29	
					2049.54	72.37
	Add Royality on Earth					22.00
						94.37
		Say	Rs	94.40	Per M^3	
5.1.8	Earth work in excavation of canals and dhars carring minimum full supply discharge between 8.5 cumecs (300 cusecs) and 0.14 cumecs (5 cusecs) in odinary soil (vide clasification of soil item A) andmaking 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 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.					
A	**AS per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)**					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting, carring	9.09 nos		184.00	1672.56	
					1672.56	
	Add Overhead charge & C.P	15 %			250.88	
					1923.44	
	Add cess	1 %			19.23	
					1942.68	68.60
	Add Royality on Earth					22.00

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90.60

Say Rs 90.60 Per M^3

5.1.9 Earth work in filling for the maintaenance of canals having minimum full supply discharge upto 28 cumecs (1000 cusecs) and flood embankment in odinary soil (vide clasification 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 M^3

Taking Out put:- 28.32 Cum

Unskilled mazdoor for cutting, carring	9.09 nos	184.00	1672.56	
			1672.56	
Add Overhead charge & C.P	15 %		250.88	
			1923.44	
Add cess	1 %		19.23	
			1942.68	68.60
Add Royality on Earth				22.00
				90.60

Say Rs 90.60 Per M^3

5.1.10 Extra for earth work in hard soil (vide clasification of soil item B) all complete as per specifications and direction of E/I.

Unit :- Per M^3

Taking Out put:- 28.32 Cum

Unskilled mazdoor for cutting	2 nos	184.00	368.00	
			368.00	
Add Overhead charge & C.P	15 %		55.20	
			423.20	
Add cess	1 %		4.23	
			427.43	15.09

Say Rs 15.10 Per M^3

5.1.11 Extra for earth work in marshy, slushy and daldal soil (vide clasification of soil item F) all complete as per specifications and direction of E/I.

Unit :- Per M^3

Taking Out put:- 28.32 Cum

Unskilled mazdoor for cutting	1.5 nos	184.00	276.00	
Unskilled mazdoor for carring	1.5 nos	184.00	276.00	
			552.00	
Add Overhead charge & C.P	15 %		82.80	
			634.80	
Add cess	1 %		6.35	
			641.15	22.64

Say Rs 22.64 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 mtr and lift of 1.5 mtrincluding 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 conccerned Chief Engineer)

Unit :- Per M^3

Taking Out put:- 10 Cum

Labour			
Hammer man	2.75 nos	196.00	539.00
Unskilled mazdoor for all work	6.50 nos	184.00	1196.00
Mason Gr I	0.33 nos	251.00	82.83
Blaster	0.33 nos	237.00	78.21
Materials			
Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.			
Special Gelatin	2.00 Kg	677.29	1354.58
Detonator	10 100 nos.	631.38	63.14
Fuse coil	1 nos	10.50	10.50
Tools and Plants			
Cost of hire charge of compressor, drilling equipment and other accessories			15.00
			3339.26

Add Overhead charge & C.P	15 %			500.89	
				3840.15	
Add cess	1 %			38.40	
				3878.55	387.85
	Say		Rs 387.90	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 10 mtr and lift of 1.5 mt rincluding dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.

Unit :- Per M^3

Taking Out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for all work	8.50 nos	184.00	1564.00	
Mason Gr I	0.50 nos	251.00	125.50	
			2228.50	
Add Overhead charge & C.P	15 %		334.28	
			2562.78	
Add cess	1 %		25.63	
			2588.40	258.84
	Say	Rs 258.80	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 mtr and lift of 1.5 mtrincluding 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 conccerned Chief Engineer)

Unit :- Per M^3

Taking Out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for all work	7.00 nos	184.00	1288.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.33 nos	237.00	78.21	
Materials				
Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
Special Gelatin	2.00 Kg	677.29	1354.58	
Detonator	10 nos	6.31	63.10	
Fuse coil	1 nos	10.40	10.40	
Tools and Plants				
Cost of hire charge of compressor, drilling equipment and other accessories			15.00	
			3431.12	
Add Overhead charge & C.P	15 %		514.67	
			3945.79	
Add cess	1 %		39.46	
			3985.25	398.52
	Say	Rs 398.50	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 30mtr and lift of 1.5 mtrincluding dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.

Unit :- Per M^3

Taking Out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for all work	9.00 nos	184.00	1656.00	
Mason Gr I	0.50 nos	251.00	125.50	
			2320.50	
Add Overhead charge & C.P	15 %		348.08	
			2668.58	
Add cess	1 %		26.69	
			2695.26	269.53
	Say	Rs 269.50	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 mtrincluding dressing , making the sides in profile and dressing the bed in proper grade etc. all complete as per specifications and direction of E/I.

Unit :- Per M^3

Taking Out put:-	10 Cum			
Labour				
Hammer man	10.50 nos	196.00	2058.00	
Unskilled mazdoor for all work	10.00 nos	184.00	1840.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.67 nos	237.00	158.00	
Materials				
Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
Special Gelatin	2.00 Kg	677.29	1354.58	
Detonator	10 nos	6.31	63.10	
Fuse coil	1 nos	10.40	10.40	
Tools and Plants				
Cost of hire charge of compressor, drilling equipment and other accessories			15.00	
			5581.91	
Add Overhead charge & C.P	15 %		837.29	
			6419.20	
Add cess	1 %		64.19	
			6483.39	648.34
Say		Rs 648.30	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 mtr and lift of 1.5 mtrincluding 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.

Unit :- Per M^3

Taking Out put:-	10 Cum			
Labour				
Hammer man	10.50 nos	196.00	2058.00	
Unskilled mazdoor for all work	10.50 nos	184.00	1932.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.67 nos	237.00	158.00	
Materials				
Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
Special Gelatin	2.00 Kg	677.29	1354.58	
Detonator	10 nos	6.31	63.10	
Fuse coil	1 nos	10.40	10.40	
Tools and Plants				
Cost of hire charge of compressor, drilling equipment and other accessories			15.00	
			5673.91	
Add Overhead charge & C.P	15 %		851.09	
			6525.00	652.50
Add cess	1 %		65.25	
			6590.25	659.02
Say		Rs 659.00	Per M^3	

5.1.16 Earth work in excavation of water course in odinary soil with all lead and lift including clod breaking ,rough dressing 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 M^3

Taking Out put:-	28.32 Cum			
Unskilled mazdoor for cutting, carring	9.09 nos	184.00	1672.56	
			1672.56	
Add Overhead charge & C.P	15 %		250.88	
			1923.44	
Add cess	1 %		19.23	
			1942.68	68.60
Add Royality on Earth				22.00

						90.60
		Say	Rs	90.60	Per M^3	
5.1.17	Earth work in maintaenance of canals having discharge less than 28 cumecs (1000 cusecs) in odinary soil (vide clasification of soil item A) including clod breaking and rough dressing of soil with all leads and lift all complete as per specifications and direction of **AS per labour deptt. Norms (Vide T.E.C no 63 dt 7.10.94)**					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting, carring	9.09 nos		184.00	1672.56	
					1672.56	
	Add Overhead charge & C.P	15 %			250.88	
					1923.44	
	Add cess	1 %			19.23	
					1942.68	68.60
	Add Royality on Earth					22.00
						90.60
		Say	Rs	90.60	Per M^3	
5.1.18	Earth work in bed clearance or desilting of canals carring full supply discharge of 28 cumecs (1000 cusecs) or more in dead courses of river etc, in odinary soil and removing the excaveted earth in proper profile in spoils etc.with an initial lead of 30 mtr and lift of 1.5 mtr all complete as per specifications and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting	5 nos		184.00	920.00	
	Unskilled mazdoor for carring	4 nos		184.00	736.00	
	Mate	0.25 nos		201.00	50.25	
					1706.25	
	Add Overhead charge & C.P	15 %			255.94	
					1962.19	
	Add cess	1 %			19.62	
					1981.81	69.98
	Add Royality on Earth					22.00
						91.98
		Say	Rs	92.00	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 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 M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting, carring	9.09 nos		184.00	1672.56	
					1672.56	
	Add Overhead charge & C.P	15 %			250.88	
					1923.44	
	Add cess	1 %			19.23	
					1942.68	68.60
	Add Royality on Earth					22.00
						90.60
		Say	Rs	90.60	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 (5Cusecs) and renovation of pynes etc. in ordinary soil and disposalof excavated earth etc.including rough dressing .with all lead 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 M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting, carring	9.09 nos		184.00	1672.56	
					1672.56	
	Add Overhead charge & C.P	15 %			250.88	
					1923.44	
	Add cess	1 %			19.23	
					1942.68	68.60

	Add Royality on Earth					22.00
						90.60
		Say		Rs	90.60	Per M^3
5.1.21	Earth work in lip cutting in side slopes and bed of canal in ordinary soil with initial lead of 30 mtr and lift of 1.5 mtr including the cost of formation of sub grade of canal lining profiling, levelling ,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.					
		Unit :- Per M^3				
		Taking Out put:-	28.32 Cum			
	Unskilled mazdoor for cutting		4 nos		184.00	736.00
	Unskilled mazdoor for carring		4 nos		184.00	736.00
	Unskilled mazdoor for contolling slope and fine dressing		2 nos		184.00	368.00
	Skilled mazdoor		0.25 nos		234.00	58.50
	Mate		1 nos		201.00	201.00
						2099.50
	Add Overhead charge & C.P		15 %			314.93
						2414.43
	Add cess		1 %			24.14
						2438.57 86.11
		Say		Rs	86.10	Per M^3
5.1.22	Extra for wet earth all complete as per specifications and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:-	28.32 Cum			
	Unskilled mazdoor		1.0 nos		184.00	184.00
						184.00
	Add Overhead charge & C.P		15 %			27.60
						211.60
	Add cess		1 %			2.12
						213.72 7.55
		Say		Rs	7.55	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 odinary 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.					
	AS per labour deptt .Norms (Vide T.E.C no 63 dt 7.10.94)					
		Unit :- Per M^3				
		Taking Out put:-	28.32 Cum			
	Unskilled mazdoor for cutting, carring		9.09 nos		184.00	1672.56
						1672.56
	Add Overhead charge & C.P		15 %			250.88
						1923.44
	Add cess		1 %			19.23
						1942.68 68.60
	Add Royality on Earth					22.00
						90.60
		Say		Rs	90.60	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 odinary soil in proper profile (vide clasification of soil item A) obtained from borrow area or any other source free from logs,roots or any other ingradients etc. with initial lead of 30 mtr and initial lift of 1.5 mtr 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)					
		Unit :- Per M^3				
		Taking Out put:-	28.32 Cum			
	Unskilled mazdoor for cutting		9 nos		184.00	1656.00
	Skilled mazdoor		1 nos		234.00	234.00
	Mate		0.25 nos		201.00	50.25
						1940.25
	Add Overhead charge & C.P		15 %			291.04
						2231.29

	Add cess	1 %			22.31	
					2253.60	79.58
	Add Royality on Earth					22.00
						101.58
		Say		Rs 101.60	Per M^3	
5.1.25	Earth work in filling in canal banks (canals discharge upto 28 cumecs)as well as special repairs of canal banks in odinary soil in proper profile (vide clasification of soil item A) obtained from borrow area or any other source free from logs,roots or any other ingradients etc. with initial lead of 30 mtr and initial lift of 1.5 mtr including breaking the clods to maximum 60 mm.cube ,placing the earth in layers not exceeding 225mm, thick all complete 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 7.10.94)					
	Unit :- Per M^3					
	Taking Out put:-	28.32 Cum				
	Unskilled mazdoor for cutting, carring	9.09 nos		184.00	1672.56	
	Add extra wage of 1/2 no unskilled labour per 28.32 M^3	0.5 nos		184.00	92.00	
					1764.56	
	Add Overhead charge & C.P	15 %			264.68	
					2029.24	
	Add cess	1 %			20.29	
					2049.54	72.37
	Add Royality on Earth					22.00
						94.37
		Say		Rs 94.40	Per M^3	
5.1.26	Deleted					
5.1.27	Earth work in excavation of foundation trenches in odinary soil (vide clasification of soil item A) and disposal of excavated earth so obtained to a diustance upto 50 mtr and average lift of 1.5 mtr including levelling , ramming the foundation trenches, removing the roots of shrubs etc. all complete as per specifications and direction of E/I.					
	Unit :- Per M^3					
	Taking Out put:-	28.32 Cum				
	Unskilled mazdoor for cutting and carrying etc.	11.0 nos		184.00	2024.00	
	Head mason	0.25 nos		251.00	62.75	
					2086.75	
	Add Overhead charge & C.P	15 %			313.01	
					2399.76	
	Add cess	1 %			24.00	
					2423.76	85.58
		Say		Rs 85.60	Per M^3	
5.1.28	Earth work in excavationof foundation trenches in soft rock or ordinary rock (vide classification of soil item C)with initial lead of 300 mtr and lift of 1.5 mtrincluding 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 conccerned Chief Engineer)					
	Unit :- Per M^3					
	Taking Out put:-	10 Cum				
	Labour					
	Hammer man	2.75 nos		196.00	539.00	
	Unskilled mazdoor for all work	7.00 nos		184.00	1288.00	
	Mason Gr I	0.33 nos		251.00	82.83	
	Blaster	0.33 nos		237.00	78.21	
	Materials					
	Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00 Kg		677.29	1354.58	
	Detonator	10 nos		6.31	63.10	
	Fuse coil	1 nos		10.40	10.40	
	Tools and Plants					
	Cost of hire charge of compressor, drilling equpment and other accessories				15.00	

Add Overhead charge & C.P	15 %			3431.12 514.67	
Add cess	1 %			3945.79 39.46	
				3985.25	398.52
	Say		Rs 398.50	Per M^3	

5.1.29 Earth work in excavation of foundation trenches in proper section in hard rock (vide clasification of soil item D) (non- blasting zone) with chisel and hammer with. disposal of excavated rock to a distance up to 30 mtr lifts of 1.5 mtr. in proper stack including levelling, dressing of foundation trenches all complete as per specifications and direction of E/I.

Unit :- Per M^3

	Taking Out put:- 10 Cum			
Labour				
Hammer man	2.25 nos	196.00	441.00	
Skilled mazdoor for all work	2.25 nos	234.00	526.50	
Unskilled mazdoor	7 nos	184.00	1288.00	
~~Blackemith~~	1.00 nos	223.00	223.00	
Mate	1.00 nos	201.00	201.00	
			2679.50	
Add Overhead charge & C.P	15 %		401.93	
			3081.43	
Add cess	1 %		30.81	
			3112.24	311.22
	Say	Rs 311.20	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 1.5 including levelling, dressing of foundation trenches all complete as per specifications and direction of E/I.

Unit :- Per M^3

	Taking Out put:- 10 Cum			
Labour				
Hammer man	10.50 nos	196.00	2058.00	
Unskilled mazdoor for all work	10.50 nos	184.00	1932.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.67 nos	237.00	158.00	
Materials				
Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
Special Gelatin	2.00 Kg	677.29	1354.58	
Detonator	10 nos	4.50	45.00	
Fuse coil	1 nos	10.40	10.40	
Tools and Plants				
Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
			5655.81	
Add Overhead charge & C.P	15 %		848.37	
			6504.18	
Add cess	1 %		65.04	
			6569.22	656.92
	Say	Rs 656.90	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 finaly dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable prpfile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.

Unit :- Per M^3

	Taking Out put:- 28.32 Cum			
Unskilled mazdoor for cutting .	4.5 nos	184.00	828.00	
Unskilled mazdoor for carrying .	4 nos	184.00	736.00	
Head mason	0.125 nos	251.00	31.38	
			1595.38	
Add Overhead charge & C.P	15 %		239.31	
			1834.68	

	Add cess	1 %			18.35	
					1853.03	65.43
		Say	Rs	65.40	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 finaly dressed with semi -pervious or suitable earth obtained after cutting of borrow pits within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting .	5.5 nos		184.00	1012.00	
	Unskilled mazdoor for carrying .	4 nos		184.00	736.00	
	Head mason	0.125 nos		251.00	31.38	
					1779.38	
	Add Overhead charge & C.P	15 %			266.91	
					2046.28	
	Add cess	1 %			20.46	
					2066.74	72.98
		Say	Rs	73.00	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 upto 25 mtr beyound the initial lead of 30 mtr as per specifications and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor	1 nos		184.00	184.00	
	Add Overhead charge & C.P	15 %			27.60	
					211.60	
	Add cess	1 %			2.12	
					213.72	7.55
		Say	Rs	7.50	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 upto 25 mtr beyound the initial lead of 30 mtr as per specifications and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor	1.5 nos		184.00	276.00	
	Add Overhead charge & C.P	15 %			41.40	
					317.40	
	Add cess	1 %			3.17	
					320.57	11.32
		Say	Rs	11.30	Per M^3	
5.1.34.1	Extra for earth work for ordinary or hard soil(vide classification of soil item-A and B) fo each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. as per specification and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting	1 nos		184.00	184.00	
	Add Overhead charge & C.P	15 %			27.60	
					211.60	
	Add cess	1 %			2.12	
					213.72	7.55
		Say	Rs	7.50	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) fo each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. as per specification and direction of E/I.					
		Unit :- Per M^3				
		Taking Out put:- 28.32 Cum				
	Unskilled mazdoor for cutting	1.5 nos		184.00	276.00	
	Add Overhead charge & C.P	15 %			41.40	
					317.40	11.21
	Add cess	1 %			3.17	
					320.57	11.32
		Say	Rs	11.30	Per M^3	

5.1.35 Deleted

5.1.36 Trimming and fine dressing the side slope of canal (for preparation of soil of lining for 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 M^2

Taking Out put:-	100 Sqm				
Mason Gr II	0.25 nos		223.00	55.75	
Unskilled mazdoor for cutting slope	3 nos		184.00	552.00	
Unskilled mazdoor for carrying the spoils	2 nos		184.00	368.00	
Unskilled mazdoor for making the seat of lining to proper profile	1.5 nos		184.00	276.00	
Mate	0.25 nos		201.00	50.25	
				1302.00	
Add Overhead charge & C.P	15 %			195.30	
				1497.30	
Add cess	1 %			14.97	
				1512.27	15.12
Say		Rs	15.10	Per M^2	

5.1.37 Providing corase clean local sand in filling in foundation trenches including ramming, watering ,royalty and all other taxes complete job as per specifications and direction of E/I.

Unit :- Per M^3

Taking Out put:-	2.832 cum				
Unskilled mazdoor for cutting	1 nos		184.00	184.00	
Sand	2.832 M^2		117.22	331.97	
				515.97	
Add Overhead charge & C.P	15 %			77.40	
				593.37	
Add cess	1 %			5.93	
				599.30	211.62
Say		Rs	211.60	Per M^3	

5.1.38 Watering and consolidation of earth laid in 150 mm to 225 mm layers by mannual 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 M^3

Taking Out put:-	28.32 cum				
Unskilled mazdoor	3 nos		184.00	552.00	
Bhisti for carriage of water and sprikling	3 nos		186.00	558.00	
Cost of water				15.00	
				1125.00	
Add Overhead charge & C.P	15 %			168.75	
				1293.75	
Add cess	1 %			12.94	
				1306.69	46.14
Say		Rs	46.10	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 minmum 95 % of dry density including sprinking the required quanting of water making arragement for supply and carriage of water with all leads and lifts, finishing the surfaceas 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 M^3

Taking Out put:-	28.32 cum				
Bhisti for carriage of water and sprikling	3 nos		186.00	558.00	
Cost of water				15.00	
Hire charge of sheep foot roller assuming 1450 cum to be rolled in 8 hr vide item no 3.16	0.16	hr	**#VALUE!**	#VALUE!	
				#VALUE!	
Add Overhead charge & C.P	15 %			#VALUE!	

	Add cess	1 %			#VALUE! #VALUE! #VALUE!	#VALUE!
		Say	Rs	#VALUE!	Per M^3	
5.1.40	Close timbering in trenches including strutting, shoring and packing cavaties(whereve required)depth not exceding 1.5 mtr, complete as per specifications and direction of E/I (measurement to be taken of the face area timbred).					
		Unit :- Per M^2				
	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 0.38= 3.42 cum	3.42 cum		10444.00	35718.48	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2 Cum		10444.00	12532.80	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51 mtr		30.00	1530.00	
					49781.28	
	Carriage					
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				497.81	
	Total				50279.09	
	Deduct credit for materials75 % of the cost of material				37335.96	
					12943.13	a
	This can be used four times Therfore cost per use a/4				3235.78	A
	Labour					
	Carpenter Gr II	0.5 nos		223.00	111.50	
	Unskilled mazdoor	1 nos		184.00	184.00	
					295.50	B
	Total A+B				3531.28	
	Add Overhead charge & C.P	15 %			529.69	
					4060.98	
	Add cess	1 %			40.61	
					4101.59	45.57
		Say	Rs	45.60	Per Sqm	
5.1.41	Close timbering in trenches including strutting, shoring and packing cavaties(whereve required)depth not exceding 1.5 mtr, but upto 3.0 mtrcomplete as per specifications and direction of E/I. (measurement to be taken of the face area timbred).					
		Unit :- Per M^2				
	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 0.38= 3.42 cum	3.42 cum		10444.00	35718.48	
	100 mm x100 mm					
	Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2 Cum		10444.00	12532.80	
	Balli struts					
	Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51 mtr		30.00	1530.00	
					49781.28	
	Carriage					
	Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				497.81	
	Total				50279.09	
	Deduct credit for materials75 % of the cost of material				37335.96	
					12943.13	a
	This can be used four times Therfore cost per use a/4				3235.78	A
	Labour					
	Carpenter Gr II	0.75 nos		223.00	167.25	
	Unskilled mazdoor	2 nos		184.00	368.00	
					535.25	B
	Total A+B				3771.03	
	Add Overhead charge & C.P	15 %			565.65	
					4336.69	48.19
	Add cess	1 %			43.37	
					4380.06	48.67
		Say	Rs	48.70	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 mtr including the cost of watering the grass surface till it acquires greennessas per specifications and direction of E/I.

Unit :- Per M^2

Taking Out put:-	100 Sqm				
Unskilled mazdoor for cutting	1.5 nos		184.00	276.00	
Unskilled mazdoor for carring	1.5 nos		184.00	276.00	
Unskilled mazdoor for dressing, placing turf and ramming	1 nos		184.00	184.00	
Bhisti for carriage of water and sprikling	3 nos		186.00	558.00	
Cost of watering till the growth				15.00	
				1309.00	
Add Overhead charge & C.P	15 %			196.35	
				1505.35	
Add cess	1 %			15.05	
				1520.40	1520.40
Say		Rs	1520.40	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.

Unit :- Per M^2

Taking Out put:-	100 Sqm				
Unskilled mazdoor for carring	1.50 nos		184.00	276.00	
				276.00	
Add Overhead charge & C.P	15 %			41.40	
				317.40	
Add cess	1 %			3.17	
				320.57	320.57
Say		Rs	320.60	Per % M^2	

5.1.43 Jungle clearence in borrow area, building premises, flanks, slope of existing road and canal etc, embankment by removing the jungle, bushes from top including weedind out shurbs including roots and levelling complete job as per specifications and direction of E/I.

Unit :- Per M^2

Taking Out put:-	92.94 Sqm				
Unskilled mazdoor for carring	0.75 nos		184.00	138.00	
				138.00	
Add Overhead charge & C.P	15 %			20.70	
				158.70	
Add cess	1 %			1.59	
				160.29	1.72
Say		Rs	1.70	Per M^2	

5.1.44. Earth work by tractor (Rajasthani) with bucket (Doli) with spreader (Tractor leveller 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 ..... metre (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 teken as lead)

	Lead in K.M (L)	Speed (km/hr) (V)	Time for loading, Unloading etc (hr) (t) = 1 minute	Spacing of Dhalas (km) (S)	Capacity Per Trip cub metre (e)	Haulage Path (Distance travelled in one cycle) = 2(L+S)	Time of run per trip = 2(L+S)/ V	Time per cycle (hr) V +t	No of trips N =8V (2L+2S+V6)	Output per day with 80% efficiency = 0.80xNxe	Use Rate of Tractor Per Day (Tr.)	Cost per Cubic Metre = Tr/No	Proportional Cost of Dhala	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) =3000/300	Add for finishing and dressing =one mazdoor/100M3	Total cost (12+14+15+16+17)	Add Overhead charge & C.P(%)	Rate Per M3	Cess@1%	Total Rate Per m3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
5.1.44.1	For C.G to C.G Lead 15 M (L=0.015 K.M)	5.000	0.017	0.030	0.60	0.090	0.018	0.035	230.548	110.663	2220.075	20.062	0.100	2.006	6.852	10.000	1.110	40.430	15	46.50	0.465	47.00
5.1.44.2	For C.G To C.G Lead 30 M (L=0.030 K.M)	5.670	0.017	0.040	0.60	0.140	0.025	0.041	193.277	92.773	2220.075	23.930	0.100	2.393	6.852	10.000	1.110	44.685	15	51.40	0.514	51.90
5.1.44.3	For C.G to C.G Lead 55 M (L=0.055 K.M)	6.330	0.017	0.050	0.60	0.210	0.033	0.050	160.400	76.992	2220.075	28.835	0.100	2.884	6.852	10.000	1.110	50.081	15	57.60	0.576	58.20
5.1.44.4	For C.G to C.G Lead 80 M (L=0.080 K.M)	7.000	0.017	0.060	0.60	0.280	0.040	0.057	141.093	67.725	2220.075	32.781	0.100	3.278	6.852	10.000	1.110	54.421	15	62.60	0.626	63.20
5.1.44.5	For C.G to C.G Lead 100 M (L=0.100 K.M)	7.670	0.017	0.070	0.60	0.340	0.044	0.061	131.086	62.921	2220.075	35.283	0.100	3.528	6.852	10.000	1.110	57.174	15	65.70	0.657	66.40

NOTE :- Add Royality of Earth Rs 22.00 Where needed without overhead charge & C.P

5.1.45 Deleted

5.1.46 Earth work by Mechinical means with help of Excavtor, 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 gredients, desilting of canal

	Lead in K.M (L)	Cost of cutting & Loading by Excavator one M3 capacity= Use rate of Excavator / Capacity of Excavator =1050/60	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) = 60D/V	Loading Time one minute Per M3	Unloading & Turnaing 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 m3 capacity = (Tr.)	Carriage Cost per M3 = Tr/ Q	Add for spreading cost = (Use rate of D-80 Dozer Per hr / Capacity of D-80 Dozer per hr 300 cum) =3000/300	Add 5 % for haul road maintenance, 5 % for processing and 2 % for extra labour for finishing = 12 % of colum (2+12+13)	Total Cost per M3 col (2+12+13+14)	Add Overhead charge & C.P(%)	Rate Per M3	Cess @1%	Total Rate Per m3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
5.1.46.1	Beyond 150M but upto 1/2 K.M	29.32	10	0.65	3.90	5.50	3.30	12.70	3.94	17.32	882.00	50.92	16.87	11.68	108.98	15	125.30	1.253	126.60
5.1.46.2	Beyond 1/2 K.M but upto 1 K.M	29.32	10	1.50	9.00	5.50	3.30	17.80	2.81	12.36	882.00	71.36	16.87	14.13	131.88	15	151.70	1.517	153.20
5.1.46.3	Beyond 1.00 K.M but upto 1.50 K.M	29.32	10	2.50	15.00	5.50	3.30	23.80	2.10	9.24	882.00	95.42	16.87	17.02	158.82	15	182.60	1.826	184.40
5.1.46.4	Beyond 1.50 K.M but upto 2.00K.M	29.32	10	3.50	21.00	5.50	3.30	29.80	1.68	7.38	882.00	119.47	16.87	19.90	185.76	15	213.60	2.136	215.70
5.1.46.5	Beyond 2.0 K.M but upto 2.50 K.M	29.32	10	4.50	27.00	5.50	3.30	35.80	1.40	6.15	882.00	143.53	16.87	22.79	212.71	15	244.60	2.446	247.00
5.1.46.6	Beyond 2.50 K.M but upto 3.00 K.M	29.32	10	5.50	33.00	5.50	3.30	41.80	1.20	5.26	882.00	167.68	16.87	25.68	239.65	15	275.60	2.756	278.40

NOTE :- Add Royality of Earth Rs 22.00 Where needed without overhead charge & C.P

5.1.47 Earth work by excavtor and spreader or tractor- leveller in lower level canal or flood embankment or dhar (Like, Minor, Sub -minor, Jamindari bundh, Pynes etc where tipper is not neaded) 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 odinary 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 job as per specifications and direction of E/I. (mode of measurement-sectional measurement of compacted earth)

Unit:- Per M^3

(A) Cost of cutting, loading , unloading & placing by excavator 1 M^3					
Use rate of Excavator	1771	Per hour			
Output of Excavator per hrour	60	Cum			
Cost				29.52	
(B) Cost of spreading by D-80 Dozer					
Use rate of D-80 Dozer	5062	Per hour			
Output of D-80 Dozer per hrour	300	Cum			
Cost				16.87	
(C) For dressing & finishing one labour for 100 M^3					
Unskilled labour	0.01	no	184.00	1.84	
				48.23	
Add Overhead charge & C.P	15	%		7.23	
				55.46	
Add Cess	1	%		0.55	
				56.02	56.02
Say		Rs	56.02	Per M^3	

NOTE :- Add Royality of Earth Rs 22.00 Where needed without overhead charge & C.P

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5.2 CANAL LINING

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	72.58	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	988.63	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 drianage pipes, fixing bolts, curring and placing in position all complete as per specification and direction of E/I		
	Patna Urban	966.78	Each
	Patna	INPUT	Each
	Muzaffarpur	INPUT	Each
	Darbhanga	INPUT	Each
	Bhagalpur	INPUT	Each
	Munger	INPUT	Each
	Saharsa	INPUT	Each
	Purnea	INPUT	Each
	Gaya	INPUT	Each
	Saran	INPUT	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 all taxes and royalty etc. all complete as per specification and direction of E/I		
	Patna Urban	511.70	Per M^2
	Patna	510.40	Per M^2
	Muzaffarpur	513.40	Per M^2
	Darbhanga	514.10	Per M^2
	Bhagalpur	513.80	Per M^2
	Munger	503.40	Per M^2
	Saharsa	514.10	Per M^2
	Purnea	521.30	Per M^2
	Gaya	498.70	Per M^2
	Saran	502.60	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 stagging, curring etc. all taxes and royalty etc. all complete as per specification and direction of E/I		
	Patna Urban	981.50	Per M^2
	Patna	981.50	Per M^2
	Muzaffarpur	983.60	Per M^2
	Darbhanga	984.50	Per M^2
	Bhagalpur	984.00	Per M^2
	Munger	962.40	Per M^2
	Saharsa	984.50	Per M^2
	Purnea	1002.00	Per M^2
	Gaya	956.60	Per M^2
	Saran	961.50	Per M^2
5.2.6	Supplying and laying jhama khoa filter of 20 to 25 mm size in under drainage of canal lining including royalty, all taxes etc. . all complete as per specification and direction of E/I		
	Patna Urban	1817.40	Per M^3

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Patna	1765.50	Per M^3
Muzaffarpur	1699.30	Per M^3
Darbhanga	1747.30	Per M^3
Bhagalpur	1747.30	Per M^3
Munger	1747.30	Per M^3
Saharsa	1747.30	Per M^3
Purnea	1747.30	Per M^3
Gaya	1699.30	Per M^3
Saran	1699.30	Per M^3

5.2.7 Supplying and laying stone metal graded filter of size 53 mm to22.5 mm size in slope and bed of canal below lining including royalty, all taxes etc. . all complete as per specification and direction of E/I (where depth of cutting is more than 6 mtr) — 860.10 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) iun slope and bed of the canal, below lining including the cost of watering, compaction,including royalty, all taxes etc. . all complete as per specification and direction of E/I (where depth of cutting is more than 6 mtr, 20 fit) — 862.90 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 bylaying 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 . all taxes and royalty etc. all complete as per specification and direction of E/I

Patna Urban	750.30	Per M^2
Patna	750.30	Per M^2
Muzaffarpur	750.80	Per M^2
Darbhanga	753.40	Per M^2
Bhagalpur	753.00	Per M^2
Munger	741.80	Per M^2
Saharsa	753.40	Per M^2
Purnea	760.60	Per M^2
Gaya	735.90	Per M^2
Saran	740.90	Per M^2

5.2.10 Providing 10 mm thick vertical joints at suitable intervals, filled with bituminous materials of approved quality including royalty all taxes and royalty etc. all complete as per specification and direction of E/I

5.2.10.1 For canal side slope per 30.50 mtr — 95.50 Per Mtr

5.2.10.2 For canal bed for 30.50 mtr — 91.90 Per Mtr

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 — 154.50 Per Mtr

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 all taxes etc. as per specification and direction of E/I — #VALUE! Per Mtr

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 all taxes etc. as per specification and direction of E/I — #VALUE! Per Mtr

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 embeded in cement concrete (1:3:6) all complete as per specification and direction of E/I

Patna Urban	#VALUE!	Each
Patna	#VALUE!	Each
Muzaffarpur	#VALUE!	Each
Darbhanga	#VALUE!	Each
Bhagalpur	#VALUE!	Each
Munger	#VALUE!	Each
Saharsa	#VALUE!	Each
Purnea	#VALUE!	Each
Gaya	#VALUE!	Each

	Saran	#VALUE!	Each
5.2.17	Providing safety ladder in lined section of canal with M.S rod embeded in cement concrete (1:3:6) in accordance with I.S.S 3812-1966 including royalty, all taxes etc. all complete as per specification and direction of E/I		
		#VALUE!	Each
	Patna Urban	#VALUE!	Each
	Patna	#VALUE!	Each
	Muzaffarpur	#VALUE!	Each
	Darbhanga	#VALUE!	Each
	Bhagalpur	#VALUE!	Each
	Munger	#VALUE!	Each
	Saharsa	#VALUE!	Each
	Purnea	#VALUE!	Each
	Gaya	#VALUE!	Each
	Saran	#VALUE!	Each
5.2.18	Laying of 600 mm x 525 mmx 55 mm, 600 mm x450 mmx55 mm, 600 mmx425 mmx55 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, all taxes etc. but excluding the cost of precast slabs all complete as per specification and direction of E/I		
	Patna Urban	251.05	Per M^2
	Patna	INPUT	Per M^2
	Muzaffarpur	INPUT	Per M^2
	Darbhanga	INPUT	Per M^2
	Bhagalpur	INPUT	Per M^2
	Munger	INPUT	Per M^2
	Saharsa	INPUT	Per M^2
	Purnea	INPUT	Per M^2
	Gaya	INPUT	Per M^2
	Saran	INPUT	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 and all other taxes complete job as per specification and direction of E/I		
	Patna Urban	5251.10	Per M^3
	Patna	INPUT	
	Muzaffarpur	INPUT	
	Darbhanga	INPUT	
	Bhagalpur	INPUT	
	Munger	INPUT	
	Saharsa	INPUT	
	Purnea	INPUT	
	Gaya	INPUT	
	Saran	INPUT	
5.2.20	Providing 30 mm internal dia burnt clay pipe for providing holes in concrete section of slab, cross and lonitudinal sleepers including sand packing in holes in lining work of canals all complete job as per specification and direction of E/I		
		#VALUE!	Per M^2

5.2 CANAL LINING

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 M^2

Taking Out put:-	9.3 Sqm			
(Assuming 9.3 sqm area with 75 mm thickness sand layer)				
Cost of local sand as per design and specification	0.70 cum	117.22	82.05	
Skilled labour	0.167 nos	234.00	39.08	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Unskilled mazdoor watering and ramming	1 nos	184.00	184.00	
			581.13	
Add Overhead charge & C.P	15 %		87.17	
			668.30	
Add Cess	1 %		6.68	
			674.99	72.58
Say	**Rs**	**72.58**	**Per M^2**	

5.2.2 Providing filter of stone chips 20 mm and down well graded as per design tor lined canal, rains including hand packing etc . all complete as per specification and direction of E/I

Unit :- Per M^3

Taking Out put:-	2.832 cum			
Stone chips (M-040+M-045)/2	2.832 cum	588.45	1666.50	
Skilled mazdoor for screening and grading filter	2 nos	234.00	468.00	
Unskilled mazdoor for laying and hand packing	1.5 nos	184.00	276.00	
			2410.50	
Add Overhead charge & C.P	15 %		361.58	
			2772.08	
Add Cess	1 %		27.72	
			2799.80	988.63
Say	**Rs**	**988.60**	**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 drianage pipes, fixing bolts, curring and placing in position all complete as per specification and direction of E/I

Unit :- Each

Volume of one intake well				
$22/7(0.650)^2x0.75=0.025$				
$22/7\{(0.65)^2-(0.5)^2\}x0.42=0.0652$				
Total = 0.077 cum				
P.C.C (1:2:4) vide item 5.3.4	0.077 cum	4457.30	343.21	
Detail of side shuttering= 22/7x0.65x0.495+22/7x0.50x0.42=1.67 sqm				
Shuttering vide item 5.3.18				
	1.67 sqm	242.60	405.14	
Bolts 20 mm dia 25 cm long	4 nos	21.00	84.00	
			832.35	
Add Overhead charge & C.P	15 %		124.85	
			957.21	
Add Cess	1 %		9.57207215	
			966.78	966.78
Say	**Rs**	**966.80**	**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 all taxes and royalty etc. all complete as per specification and direction of E/I

Unit :- Per M^2

	Taking Out put:-	9.3 Sqm		
i.	**Brick tiles 1 st class including 5 % wastage**	198 nos	6321.24	1251.61
ii.	**Volum of (1:5) mortar**			
	(a). Base course 10 mm thick 10/1000x9.3=0.0930			
	(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= 0.117			
	Add 20% extra for undulation of sub grade and wastage of morter etc.= 0.023		Patna R	
	Total 0.140 cum			
	Cement	0.028 cum	9118.00	255.30
	Sand	0.140 cum	270.36	37.85
	Mason Gr I	1.5 nos	251.00	376.50
	Unskilled mazdoor	3 nos	184.00	552.00
iii.	**Volum 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	9118.00	638.26
	Sand	0.210 cum	270.36	56.78
	Mason Gr I	1.5 nos	251.00	376.50
	Unskilled mazdoor	3 nos	184.00	552.00
				4096.80
	Add Overhead charge & C.P	15 %		614.52

				4711.32	
	Add Cess	1 %		47.11	
				4758.43	511.66
		Say Rs	**511.70**	**Per M²**	**S**

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 stagging, curring etc. all taxes and royalty etc. all complete as per specification and direction of E/I

Unit :- Per M²

	Taking Out put:- (Assuming 9.3 sqm3.05x3.05 mtr)	9.3 Sqm			
	A. Bottom layer of tile lining				
ii.	Brick tiles	198 nos	6321.24	1251.61	
	Volum 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				
ii.					
	Cement	0.028 cum	9118.00	255.30	
	Sand	0.140 cum	270.36	37.85	
	Mason Gr I	0.5 nos	251.00	125.50	
	Unskilled mazdoor	3 nos	184.00	552.00	
	Total			2222.26	
iii.	Add 25 % For working in slope			555.57	
				2777.83	(A)
	B. Top layer of linging volume of (1:3) motar 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 Total=0.211				
	Add10 % wastage=0.021 Total=0.232 cum				
			Patna U		
	Brick tiles	198 nos	6321.24	1251.61	
	Cement	0.077 cum	9118.00	702.09	
	Sand	0.232 cum	270.36	62.72	
	Mason Gr I	1.5 nos	251.00	376.50	
	Unskilled mazdoor	3 nos	184.00	552.00	
	Total			2944.92	
	Add 25 % on labour for working in slope			232.13	
				3177.04	(B)
	C. Labour for laying tiles including morter jointing				
	Mason Gr I	2 nos	251.00	502.00	
	Unskilled mazdoor	4 nos	184.00	736.00	
	Total			1238.00	
	Add 25 % on labour for working in slope			309.50	
	Total			1547.50	(C)
	D. Cost of scaffolding				
	Add 10 % of cost of cement, sand and bricks tiles			356.12	(D)
	Total			7858.48	
	Add Overhead charge & C.P	15 %		1178.77	
				9037.26	
	Add Cess	1 %		90.37	
				9127.63	981.47
		Say Rs	**981.50**	**Per M²**	**S**

5.2.6 Supplying and laying jhama metal filter of 20 to 25 mm size in under drainage of canal lining including royalty, all taxes etc. . all complete as per specification and direction of E/I

Unit :- Per M³

			Patna U	
	Taking Out put:-	2.832 cum		
	Jhama khoa	2.832 cum	1467.22	4155.15
	Unskilled mazdoor	1.5 nos	184.00	276.00
				4431.15
	Add Overhead charge & C.P	15 %		664.67
				5095.83
	Add Cess	1 %		50.96
				5146.78
		Say Rs	**1817.40**	**Per M²**

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 taxes etc. . all complete as per specification and direction of E/I (where depth of cutting is more than 6 mtr)

Unit :- Per M³

	Taking Out put:-	2.832 cum		
	Stone metal	2.832 cum	397.86	1126.75
	Mate	0.25 nos	201.00	50.25
	Unskilled mazdoor for carrying metal	3.5 nos	184.00	644.00
	Unskilled mazdoor for spreading	1.5 nos	184.00	276.00
				2097.00
	Add Overhead charge & C.P	15 %		314.55
				2411.55
	Add Cess	1 %		24.12

				2435.67	860.05
		Say Rs	860.10	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, all taxes etc. . all complete as per specification and direction of E/I (where depth of cutting is more than 6 mtr, 20 fit)

Unit :- Per M^3

Taking Out put:-	2.832 cum			
Sand	2.832 cum	270.36	765.67	
Mate	0.25 nos	201.00	50.25	
Unskilled mazdoor for carrying and placing	3.5 nos	184.00	644.00	
Unskilled mazdoor for spreading	1.5 nos	184.00	276.00	
Unskilled mazdoor for loading and ramming	2 nos	184.00	368.00	
			2103.92	
Add Overhead,charge & C.P	15 %		315.59	
			2419.51	
Add Cess	1 %		24.20	
			2443.70	862.89
	Say Rs	862.90	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 bylaying 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 . all taxes and royalty etc. all complete as per specification and direction of E/I

Unit :- Per M^2 Patna U

Taking Out put:-	9.3 Sqm			
A. Bottom layer of tile lining				
Brick tiles	198 nos	6321.24	1251.61	
B. Volum 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	9118.00	255.30	
ii.Sand	0.140 cum	270.36	37.85	
iii. Labour for laying tiles including morter jointing				
Mason Gr I	1.5 nos	251.00	376.50	
Unskilled mazdoor	3 nos	184.00	552.00	
iv.Labour charge for 10 mm thick base course				
Mason Gr I	1.5 nos	251.00	376.50	
Unskilled mazdoor	3 nos	184.00	552.00	
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				
Stone chips	0.38 cum	588.45	223.61	
Cement	0.095 cum	9118.00	866.21	
Sand	0.190 cum	270.36	51.37	
Mason Gr I	0.25 nos	251.00	62.75	
Mason Gr Ii	1.75 nos	223.00	390.25	
Unskilled mazdoor	5.5 nos	184.00	1012.00	
Total			6007.95	
Add Overhead charge & C.P	15 %		901.19	
			6909.15	
Add Cess	1 %		69.09	
			6978.24	750.35
	Say Rs	**750.30**	**Per M^2**	**S**

5.2.10 Providing 10 mm thick vertical joints at suitable intervals, filled with bitumeneous materials of approved quality including royalty all taxes and royalty etc. all complete as per specification and direction of E/I

Unit :- Per M

Taking Out put:-	30.50 mtr			
5.2.10.1 For canal side slope per 30.50 mtr				
Volume of bituman 30.5 x10x130/1000=0.04 cum@1440 kg per cum=0.04x1440=57.6 kg				
Bitumen	57.6 kg	56.60	1939.97	
Semi Skilled labour	2 nos	192.00	384.00	
Unskilled mazdoor	1 nos	184.00	184.00	
			2507.97	
Add Overhead charge & C.P	15 %		376.20	
			2884.17	
Add Cess	1 %		28.84	
			2913.01	95.51
	Say Rs	**95.50**	**Per M**	
5.2.10.2 For canal bed for 30.50 mtr				
Volume of bituman 30.5 x10x80/(1000x1000)=0.0244 cum@1440 kg per cum=0.0244x1440=35.13 kg				
Bitumen	35.13 kg	56.60	1988.29	
Semi Skilled labour	1.5 nos	192.00	288.00	
Unskilled mazdoor	0.75 nos	184.00	138.00	
			2414.29	
Add Overhead charge & C.P	15 %		362.14	
			2776.43	
Add Cess	1 %		27.76	
			2804.20	91.94
	Say Rs	**91.90**	**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

Unit :- Per M

Taking Out put:-	1 mtr			
Cost of pipe	1 mtr	133.00	133.00	
			133.00	
Add Overhead charge & C.P	15 %		19.95	
			152.95	
Add Cess	1 %		1.53	
			154.48	154.48
	Say Rs	**154.50**	**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 all taxes etc. as per specification and direction of E/I

Unit :- Per M

Taking Out put:-	1.22 mtr			
Taking pipe length as 1.22 mtr				
Cost of 150 mm dia P.C.C.pipe	1.22 mtr	#VALUE!	#VALUE!	
Cost of laying @ 10% of above			#VALUE!	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	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 all taxes etc. as per specification and direction of E/I

Unit :- Per M

Taking Out put:-	0.61 mtr			
Taking pipe length as 0.61 mtr				
Cost of 150 mm dia P.C.C.pipe	0.61 mtr	#VALUE!	#VALUE!	
Cost of laying @ 10% of above			#VALUE!	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	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	#VALUE!	#VALUE!	
Cost of laying @ 10% of above			#VALUE!	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	Say Rs	**#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

Unit :- Each

Cost of pocket valves	1 nos	#VALUE!	#VALUE!	
Cost of laying @ 10% of above			#VALUE!	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	Say Rs	**#VALUE!**	**Each**	

5.2.16 Providing safety valve in lined section of canal with M.S rod embeded 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	INPUT	#VALUE!	
Providing M.S bars **Vide item no 5.3.22**				
10 mm dia	25 kg	#VALUE!	#VALUE!	
25 mm dia	40.63 kg	#VALUE!	#VALUE!	
Cost of safety valve	1 nos	#VALUE!	#VALUE!	
			#VALUE!	
Add Overhead charge & C.P (Safty valve only)	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	Say Rs	**#VALUE!**	**Each**	

5.2.17 Providing safety ladder in lined section of canal with M.S rod embeded in cement concrete (1:3:6) in accordance with I.S.S 3812-1966 including royalty, all taxes etc. 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	INPUT	#VALUE!	
Providing M.S bars Vide item no 5.3.22				
10 mm dia	25 kg	#VALUE!	#VALUE!	
25 mm dia	40.63 kg	#VALUE!	#VALUE!	
Cost of safety ladder	1 nos	#VALUE!	#VALUE!	
			#VALUE!	
Add Overhead charge & C.P (Safty ladder only)	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	Say Rs	**#VALUE!**	**Each**	

5.2.18 **Laying of 600 mm x 525 mmx 55 mm, 600 mm x450 mmx55 mm, 600 mmx425 mmx55 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, all taxes etc. but excluding the cost of precast slabs all complete as per specification and direction of E/I**

Unit :- Per M^2

Taking Out put:-	9.3 Sqm			
~~Laying of precast slab~~				
Mason Gr II	0.5 nos	223.00	111.50	
Unskilled mazdoor	1 nos	184.00	184.00	
Jointing pre cast slab				
Cement	0.006 cum	9118.00	54.71	
Sand	0.018 cum	270.36	4.87	
Mason Gr II	3 nos	223.00	669.00	
Unskilled mazdoor	3 nos	184.00	552.00	
Bhisti	1.5 nos	186.00	279.00	
Flush pointing of joints				
Cement	0.003 cum	9118.00	27.35	
Sand	0.010 cum	270.36	2.70	
Mason Gr II	0.25 nos	223.00	55.75	
Unskilled mazdoor	0.25 nos	184.00	46.00	
Bhisti	0.125 nos	186.00	23.25	
			2010.13	
Add Overhead charge & C.P	15 %		301.52	
			2311.65	
Add Cess	1 %		23.12	
			2334.77	251.05
	Say Rs	**251.10**	**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 and all other taxes complete job as per specification and direction of E/I**

Unit :- Per M^3

	Taking Out put:-	2.832 cum			
A.	**Materials**				
	Stone chips	2.66 M^3	645.63	1717.38	
	Sand	1.330 M^3	270.36	359.58	
	Cement	0.443 M^3	9118.00	4039.27	
B.	**HIRE CHARGES OF MACHINE**				
	(i)Concrete mixer (10 H.P) To be calculated taking 2 cum of concrete per hr) for 1.42 hr	1.42 hr	**67.00**	95.14	
	(ii) Vibrator	1.42 hr	**162.10**	230.18	
C.	**Shuttering**				
	I. Form work for curved portion for 2.832 cum of concrete assuming 14 sqm Vide item no 10.3.18	14 sqm	242.60	3396.40	
D.	**Labour**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	2 nos	223.00	446.00	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
	Total			12803.46	
	Add Overhead charge & C.P	15 %		1920.52	
				14723.98	
	~~Add Cess~~	1 %		147.24	
				14871.22	5251.14
		Say Rs	**5251.10**	**Per M^3**	

5.2.20 **Providing 30 mm internal dia burnt clay pipe for providing holes in concrete section of slab, cross and lonitudinal 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		
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	#VALUE!	#VALUE!
(b) 225 mm long	222 nos	#VALUE!	#VALUE!

ii. Sand	0.07 cum	270.36	18.93	
Labour				
Head mason	1 nos	251.00	251.00	
Mason Gr II	0.5 nos	223.00	111.50	
Unskilled mazdoor	1 nos	184.00	184.00	
Unskilled mazdoor for sand packing	1 nos	184.00	184.00	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
	Say Rs	**#VALUE!**	**Per M²**	

5.3. CONCRETE WORK

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 coarsegranular sand of requisite F.M in lug slab, cross and logitudinal sleepers for lining of canals including cost of form work and its removal, curing, royalty and all other taxes etc all complete job as per specifications and direction of E/I.

Patna Urban	5663.10	Per M^3
Patna	5663.10	Per M^3
Muzaffarpur	5689.80	Per M^3
Darbhanga	5700.50	Per M^3
Bhagalpur	5695.10	Per M^3
Munger	5646.90	Per M^3
Saharsa	5700.50	Per M^3
Purnea	5700.50	Per M^3
Gaya	5577.50	Per M^3
Saran	5663.10	Per M^3

5.3.2 Providing and laying P.C.C. or R.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 and all taxes 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.

Patna Urban	3195.30	Per M^3
Patna	3195.30	Per M^3
Muzaffarpur	3215.80	Per M^3
Darbhanga	3224.10	Per M^3
Bhagalpur	3219.90	Per M^3
Munger	3182.90	Per M^3
Saharsa	3224.10	Per M^3
Purnea	3224.10	Per M^3
Gaya	3129.60	Per M^3
Saran	3195.30	Per M^3

5.3.3 Providing and laying P.C.C. or R.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 and all taxes 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.

Patna Urban	3588.30	Per M^3
Patna	3588.30	Per M^3
Muzaffarpur	3615.00	Per M^3
Darbhanga	3625.70	Per M^3
Bhagalpur	3620.20	Per M^3
Munger	3572.10	Per M^3
Saharsa	3625.70	Per M^3
Purnea	3625.70	Per M^3
Gaya	3502.70	Per M^3
Saran	3588.30	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., royalty and all taxes 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.

Patna Urban	4457.30	Per M^3
Patna	4457.30	Per M^3
Muzaffarpur	4495.70	Per M^3
Darbhanga	4511.10	Per M^3
Bhagalpur	4503.30	Per M^3
Munger	4434.00	Per M^3
Saharsa	4511.10	Per M^3
Purnea	4511.10	Per M^3
Gaya	4334.20	Per M^3
Saran	4457.30	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 and all taxes 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.

Patna Urban	5075.80	Per M^3
Patna	5075.80	Per M^3
Muzaffarpur	5124.80	Per M^3
Darbhanga	5144.40	Per M^3
Bhagalpur	5134.50	Per M^3
Munger	5046.20	Per M^3
Saharsa	5144.40	Per M^3
Purnea	5144.40	Per M^3
Gaya	4919.00	Per M^3
Saran	5075.80	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 and all taxes 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.

Patna Urban	6515.30	Per M^3
Patna	6515.30	Per M^3
Muzaffarpur	6587.60	Per M^3
Darbhanga	6616.70	Per M^3
Bhagalpur	6601.90	Per M^3
Munger	6471.50	Per M^3
Saharsa	6616.70	Per M^3
Purnea	6616.70	Per M^3
Gaya	6283.50	Per M^3
Saran	6515.30	Per M^3

5.3.7 Providing and laying P.C.C. or R.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 and all taxes 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.

Patna Urban	3218.20	Per M^3
Patna	3218.20	Per M^3
Muzaffarpur	3238.70	Per M^3
Darbhanga	3246.90	Per M^3
Bhagalpur	3242.70	Per M^3
Munger	3205.80	Per M^3
Saharsa	3246.90	Per M^3
Purnea	3246.90	Per M^3
Gaya	3152.50	Per M^3
Saran	3218.20	Per M^3

5.3.8 Providing and laying P.C.C. or R.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 and all taxes 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.

Patna Urban	3611.10	Per M^3
Patna	3611.10	Per M^3
Muzaffarpur	3637.80	Per M^3
Darbhanga	3648.50	Per M^3
Bhagalpur	3643.10	Per M^3
Munger	3595.00	Per M^3
Saharsa	3648.50	Per M^3
Purnea	3648.50	Per M^3
Gaya	3525.50	Per M^3
Saran	3611.10	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 qraded 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 and all taxes 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.

Patna Urban	4480.10	Per M^3
Patna	4480.10	Per M^3
Muzaffarpur	4518.60	Per M^3
Darbhanga	4534.00	Per M^3
Bhagalpur	4526.10	Per M^3
Munger	4456.90	Per M^3
Saharsa	4534.00	Per M^3
Purnea	4534.00	Per M^3
Gaya	4357.10	Per M^3
Saran	4480.10	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 qraded 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 and all taxes 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.

Patna Urban	5098.70	Per M^3
Patna	5098.70	Per M^3
Muzaffarpur	5147.70	Per M^3
Darbhanga	5167.30	Per M^3
Bhagalpur	5157.30	Per M^3
Munger	5069.10	Per M^3
Saharsa	5167.30	Per M^3
Purnea	5167.30	Per M^3
Gaya	4941.90	Per M^3
Saran	5098.70	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) superstructure of various components of canal or embankment structures with approved quality of qraded 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 and all taxes etc excluding cost of form work as well reinforcement, its cutting, bendi g, binding and placing complete job as per specifications and direction of E/I.

Patna Urban	6490.20	Per M^3
Patna	6490.20	Per M^3
Muzaffarpur	6561.90	Per M^3
Darbhanga	6590.70	Per M^3
Bhagalpur	6576.10	Per M^3
Munger	6446.80	Per M^3
Saharsa	6590.70	Per M^3
Purnea	6590.70	Per M^3
Gaya	6260.50	Per M^3
Saran	6490.20	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 and all taxes 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.

Patna Urban	4480.40	Per M^3
Patna	4480.40	Per M^3
Muzaffarpur	4518.80	Per M^3
Darbhanga	4534.20	Per M^3
Bhagalpur	4526.40	Per M^3
Munger	4457.20	Per M^3
Saharsa	4534.20	Per M^3
Purnea	4534.20	Per M^3
Gaya	4357.40	Per M^3
Saran	4480.40	Per M^3

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 and all taxes 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.

Patna Urban	5098.70	Per M^3
Patna	5098.70	Per M^3
Muzaffarpur	5147.70	Per M^3
Darbhanga	5167.30	Per M^3
Bhagalpur	5157.30	Per M^3
Munger	5069.10	Per M^3
Saharsa	5167.30	Per M^3
Purnea	5167.30	Per M^3
Gaya	4941.90	Per M^3
Saran	5098.70	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 and all taxes 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.

Patna Urban	4383.50	Per M^3
Patna	4383.50	Per M^3
Muzaffarpur	4421.90	Per M^3
Darbhanga	4437.30	Per M^3
Bhagalpur	4429.50	Per M^3
Munger	4360.30	Per M^3
Saharsa	4437.30	Per M^3
Purnea	4437.30	Per M^3
Gaya	4260.90	Per M^3
Saran	4383.50	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 and all taxes 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.

Patna Urban	5007.00	Per M^3
Patna	5007.00	Per M^3
Muzaffarpur	5056.00	Per M^3
Darbhanga	5075.60	Per M^3
Bhagalpur	5065.60	Per M^3
Munger	4977.40	Per M^3
Saharsa	5075.60	Per M^3
Purnea	5075.60	Per M^3
Gaya	4850.10	Per M^3
Saran	5007.00	Per M^3

5.3.16 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 (asper 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 and all taxes complete job as per specifications and direction of E/I.

Patna Urban	4269.20	Per M^3
Patna	4269.20	Per M^3
Muzaffarpur	3517.20	Per M^3
Darbhanga	3525.40	Per M^3
Bhagalpur	3521.20	Per M^3
Munger	3484.30	Per M^3
Saharsa	3525.40	Per M^3
Purnea	3525.40	Per M^3
Gaya	3431.00	Per M^3
Saran	4269.20	Per M^3

5.3.17 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 (asper 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 and all taxes complete job as per specifications and direction of E/I.

Patna Urban	4688.80	Per M^3
Patna	4688.80	Per M^3

	Muzafferpur	4715.90	Per M^3
	Darbhanga	4726.80	Per M^3
	Bhagalpur	4721.30	Per M^3
	Munger	4672.30	Per M^3
	Saharsa	4726.80	Per M^3
	Purnea	4726.80	Per M^3
	Gaya	4601.80	Per M^3
	Saran	4688.80	Per M^3
5.3.18	Providing shuttering including strutting. Proping etc. and its removal aftor use in foundation as per specifications and direction of E/I.	242.60	Per M^2
5.3.19	Providing shuttering including strutting. Proping etc. and its removal after use in various components of canal structure or embankment structure as per specifications and direction of E/I.	242.60	Per M^2
5.3.20	Providing centering including strutting. Proping etc. and removing after use in deck slab as per specifications and direction of E/I.	339.60	Per M^2
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.		
	(a).Dia of bar 6 mm	#REF!	Per M.T
	(B).Dia of bar above 6 mm to 12 mm	#REF!	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	#REF!	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.		
(a)	T.M.T. GRADE -FE 415- 8 mm	#REF!	Per M.T
(b).	T.M.T. GRADE -FE 415- 10 mm	#REF!	Per M.T
(c).	T.M.T. GRADE -FE 415- 12 mm	#REF!	Per M.T
(d).	T.M.T. GRADE FE 415- 16mm	#REF!	Per M.T
(e).	T.M.T. GRADE FE415- 20 mm	#REF!	Per M.T
(f).	T.M.T. GRADE FE415- 25 mm	#REF!	Per M.T
(g).	T.M.T. GRADE FE415- 28 mm	#REF!	Per M.T
(h).	T.M.T. GRADE FE415-32 mm	#VALUE!	Per M.T
(i)	T.M.T. GRADE -FE 500- 8 mm	#REF!	Per M.T
(j)	T.M.T. GRADE -FE 500- 10 mm	#REF!	Per M.T
(k)	T.M.T. GRADE -FE 500- 12 mm	#REF!	Per M.T
(l)	T.M.T. GRADE FE-500- 16mm	#REF!	Per M.T
(m)	T.M.T. GRADE FE 500- 20 mm	#REF!	Per M.T
(n)	T.M.T. GRADE FE 500- 25 mm	#REF!	Per M.T
(o)	T.M.T. GRADE FE 500- 28 mm	#REF!	Per M.T
(p)	T.M.T. GRADE FE 500- 32 mm	#REF!	Per M.T
(q)	T.M.T. GRADE FE 500-36 mm	#REF!	Per M.T

5.3. CONCRETE WORK

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 logitudinal sleepers for lining of canals including cost of form work and its removal, curing, royalty and all other taxes etc all complete job as per specifications and direction of E/I.

Unit :- Per M^3

		Taking Out put:-	2.832 cum			
A.	**Materials**					
	Stone chips **(20 mm & down))**		2.66 M^3	645.63	1717.38	
	Sand		1.330 M^3	270.36	359.58	
	Cement		0.443 M^3	9118.00	4039.27	
B.	**HIRE CHARGES OF MACHINE**					
	(i)Concrete mixer		1.42 hr	**67.00**	95.14	
	(ii) Vibrator vide		1.42 hr	**162.10**	230.18	
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	242.60	4512.36	
D.	**Labour**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1.5 nos	223.00	334.50	
	Unskilled mazdoor		12 nos	184.00	2208.00	
	Bhisti		1 nos	186.00	186.00	
	Total				13807.92	
	Add Overhead charge & C.P		15 %		2071.19	
					15879.11	
	Add Cess		1 %		158.79	
					16037.90	5663.10
			Say Rs	**5663.10**	**Per M^3**	

5.3.2 Providing and laying P.C.C. or R.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 and all taxes 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 M^3

		Taking Out put:-	2.832 cum			
A.	**MATERIALS**					
	Stone metal Gr III		2.718 M^3	460.18	1250.77	
	Sand		1.368 M^3	270.36	369.86	
	Cement		0.34 M^3	9118.00	3100.12	
B.	**LABOUR**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1 nos	223.00	223.00	
	Unskilled mazdoor		12 nos	184.00	2208.00	
	Bhisti		1 nos	186.00	186.00	
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		**67.00**		95.83	
	(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		**162.10**		231.85	
	Total				7790.93	
	Add Overhead charge & C.P		15 %		1168.64	
					8959.57	
	Add Cess		1 %		89.60	
					9049.17	3195.33
			Say Rs	**3195.30**	**Per M^3**	

5.3.3 Providing and laying P.C.C. or R.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 and all taxes 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 M^3

		Taking Out put:-	2.832 cum		
A.	**MATERIALS**				
	Coarse aggregates Gr IV **approved quality of aggregate as per Design)**	**(Rate of**	2.66 M^3	481.18	1279.94
	Sand		1.330 M^3	270.36	359.58
	Cement		0.443 M^3	9118.00	4039.27
B.	**LABOUR**				
	Head mason		0.5 nos	251.00	125.50
	Mason Gr II		1 nos	223.00	223.00
	Unskilled mazdoor		12 nos	184.00	2208.00
	Bhisti		1 nos	186.00	186.00

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	67.00			
	(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	162.10		95.83	
	Total			231.85	
	Add Overhead charge & C.P	15 %		8748.98	
				1312.35	
				10061.33	
	Add Cess	1 %		100.61	
				10161.94	3588.26
		Say Rs	**3588.30**	**Per M³**	

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 qraded 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 and all taxes 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 M³

Taking Out put:- 2.832 cum

			Unit-per M³		
A.	**MATERIALS**				
	Coarse aggregates (20 mm To 10 mm) **(Rate of approved quality of aggregate as per Design)**	2.548 M³	645.63	1645.07	
	Sand	1.274 M³	270.36	344.44	
	Cement	0.637 M³	9118.00	5808.17	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	67.00			
	(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	162.10		95.83	
	Total			231.85	
	Add Overhead charge & C.P	15 %		10867.86	
				1630.18	
				12498.04	
	Add Cess	1 %		124.98	
				12623.02	4457.28
		Say Rs	**4457.30**	**Per M³**	

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 qraded 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 and all taxes 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 M³

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 M³	645.63	1572.76	
	Sand	1.218 M³	270.36	329.30	
	Cement	0.812 M³	9118.00	7403.82	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	67.00			
	(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	162.10		95.83	
	Total			231.85	
	Add Overhead charge & C.P	15 %		12376.06	
				1856.41	
				14232.47	
	Add Cess	1 %		142.32	
				14374.80	5075.85
		Say Rs	**5075.80**	**Per M³**	

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 and all taxes 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 M^3

		Taking Out put:-	2.832 cum			
			Unit-per M^3			
A.	**MATERIALS**					
	Coarse aggregates (20 mm To 10 mm)					
	(Rate of approved quality of aggregate as per Design)					
			2.40 M^3	645.63	1549.52	
	Sand		1.20 M^3	270.36	324.44	
	Cement		1.2 M^3	9118.00	10941.6	
B.	**LABOUR**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1 nos	223.00	223.00	
	Unskilled mazdoor		12 nos	184.00	2208.00	
	Bhisti		1 nos	186.00	186.00	
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		**67.00**		95.83	
	(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		**162.10**		231.85	
	Total				15885.74	
	Add Overhead charge & C.P		15 %		2382.86	
					18268.60	
	Add Cess		1 %		182.69	
					18451.28	6515.28
			Say Rs	**6515.30**	**Per M^3**	

5.3.7 Providing and laying P.C.C. or R.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 and all taxes 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 M^3

		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	460.18	1250.77	
	Sand		1.368 M^3	270.36	369.86	
	Cement		0.34 M^3	9118.00	3100.12	
B.	**LABOUR**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1.25 nos	223.00	278.75	
	Unskilled mazdoor		12 nos	184.00	2208.00	
	Bhisti		1 nos	186.00	186.00	
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		**67.00**		95.83	
	(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		**162.10**		231.85	
	Total				7846.68	
	Add Overhead charge & C.P		15 %		1177.00	
					9023.69	
	Add Cess		1 %		90.24	
					9113.92	3218.19
			Say Rs	**3218.20**	**Per M^3**	

5.3.8 Providing and laying P.C.C. or R.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 and all taxes 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 M^3

		Taking Out put:-	2.832 cum		
A.	**MATERIALS**				
	Coarse aggregates Gr IV	**(Cost of**			
	coarse aggregate as per Design)		2.66 M^3	481.18	1279.94
	Sand		1.33 M^3	270.36	359.58
	Cement		0.443 M^3	9118.00	4039.27

B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1.25 nos	223.00	278.75	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	**67.00**		95.83	
	(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	**162.10**		231.85	
	Total			8804.73	
	Add Overhead charge & C.P	15 %		1320.71	
				10125.44	
	Add Cess	1 %		101.25	
				10226.70	3611.12
		Say Rs	**3611.10**	**Per M³**	

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 and all taxes 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 M³

Taking Out put:- 2.832 cum

A.	**MATERIALS**				
	Coarse aggregates (20 mm to 10 mm) **coarse aggregate as per Design)**	**(Cost of**			
		2.548 M³	645.63	1645.07	
	Sand	1.274 M³	270.36	344.44	
	Cement	0.637 M³	9118.00	5808.17	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1.25 nos	223.00	278.75	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	**67.00**		95.83	
	(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	**162.10**		231.85	
	Total			10923.61313	
	Add Overhead charge & C.P	15 %		1638.54	
				12562.16	
	Add Cess	1 %		125.62	
				12687.78	4480.15
		Say Rs	**4480.10**	**Per M³**	

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 and all taxes 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 M³

Taking Out put:- 2.832 cum

A.	**MATERIALS**				
	Coarse aggregates (20 mm to 10 mm) **coarse aggregate as per Design)**	**(Cost of**			
		2.436 M³	645.63	1572.76	
	Sand	1.218 M³	270.36	329.30	
	Cement	0.812 M³	9118.00	7403.82	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1.25 nos	223.00	278.75	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	**67.00**		95.83	
	(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	**162.10**		231.85	
	Total			12431.81	
	Add Overhead charge & C.P	15 %		1864.77	
				14296.58	
	Add Cess	1 %		142.97	
				14439.55	5098.71
		Say Rs	5098.70	Per M³	

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 qraded 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 and all taxes 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 M^3

	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	645.63	1535.96	
	Sand		1.189 M^3	270.36	321.46	
	Cement		1.189 M^3	9118.00	10841.30	
B.	**LABOUR**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1.25 nos	223.00	278.75	
	Unskilled mazdoor		12 nos	184.00	2208.00	
	Bhisti		1 nos	186.00	186.00	
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		**67.00**		95.83	
	(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		**162.10**		231.85	
	Total				15824.66	
	Add Overhead charge & C.P		15 %		2373.70	
					18198.35	
	Add Cess		1 %		181.98	
					18380.34	6490.23
			Say Rs	**6490.20**	**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 and all taxes 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 M^3

	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	645.63	1645.717243	
	Sand		1.274 M^3	270.36	344.44	
	Cement		0.637 M^3	9118.00	5808.17	
B.	**LABOUR**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1.25 nos	223.00	278.75	
	Unskilled mazdoor		12 nos	184.00	2208.00	
	Bhisti		1 nos	186.00	186.00	
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		**67.00**		95.83	
	(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		**162.10**		231.85	
					10924.26	
	Add Overhead charge & C.P		15 %		1638.64	
					12562.90	
	Add Cess		1 %		125.63	
					12688.53	4480.41
			Say Rs	**4480.40**	**Per M^3**	

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 and all taxes 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 M^3

	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	645.63	1572.76	
	Sand		1.218 M^3	270.36	329.30	
	Cement		0.812 M^3	9118.00	7403.82	
B.	**LABOUR**					
	Head mason		0.5 nos	251.00	125.50	
	Mason Gr II		1.25 nos	223.00	278.75	
	Unskilled mazdoor		12 nos	184.00	2208.00	

9/1/15

	Bhisti		1 nos	186.00	186.00	
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		67.00		95.83	
	(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		162.10		231.85	
					12431.81	
	Add Overhead charge & C.P		15 %		1864.77	
					14296.58	
	Add Cess		1 %		142.97	
					14439.55	5098.71
			Say Rs	**5098.70**	**Per M³**	

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 and all taxes 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 M³

	Taking Out put:-	2.832 cum			
A.	**MATERIALS**				
	Coarse aggregates (10 mm to 8 mm) **(Cost of coarse aggregate as per Design)**	2.548 M³	531.28	1353.69	
	Sand	1.274 M³	270.36	344.44	
	Cement	0.637 M³	9118.00	5808.17	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	67.00		95.83	
	(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	162.10		231.85	
				10687.99	
	Add Overhead charge & C.P	15 %		1603.20	
				12291.18	
	Add Cess	1 %		122.91	
				12414.09	4383.51
		Say Rs	**4383.50**	**Per M³**	

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 and all taxes 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 M³

	Taking Out put:-	2.832 cum			
A.	**MATERIALS**				
	Coarse aggregates (10 mm to 8 mm) **(Cost of coarse aggregate as per Design)**	2.435 M³	531.28	1293.66	
	Sand	1.217 M³	270.36	329.03	
	Cement	0.812 M³	9118.00	7403.82	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
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	67.00		95.83	
	(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	162.10		231.85	
				12208.19	
	Add Overhead charge & C.P	15 %		1831.23	
				14039.42	
	Add Cess	1 %		140.39	
				14179.81	5007.00
		Say Rs	**5007.00**	**Per M³**	

5.3.16 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 (asper 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 and all taxes complete job as per specifications and direction of E/I.

Unit :- Per M^3

	Taking Out put:-	2.832 cum			
A.	**MATERIALS**				
	Coarse aggregates Gr III (Cost of **coarse aggregate as per Design)**	2.720 M^3	460.18	1251.69	
	Sand	1.360 M^3	270.36	367.69	
	Cement	0.34 M^3	9118.00	3100.12	
B.	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
	Unskilled mazdoor for placing blocks in position	4 nos	184.00	736.00	
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	**67.00**		95.83	
	(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	**162.10**		231.85	
D	**SHUTTERING CHARGES**				
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000	0.51 M^3	10444.00	5339.495	
	Add 1 % for cost of nails and spikes			53.39	
	LABOUR				
	Carpenter Gr II	3 nos.	223.00	669.00	
	Unskilled mazdoor	8 nos.	184.00	1472.00	
	Assuming 4 uses to calculate			7533.89	
	Cost of shuttering for 2.832 cum total cost/4			1883.47	
	Total			10409.16	
	Add Overhead charge & C.P	15 %		1561.37	
				11970.54	
	Add Cess	1 %		119.71	
				12090.24	4269.15
		Say Rs	**4269.20**	**Per M^3**	

5.3.17 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 (asper 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 and all taxes complete job as per specifications and direction of E/I.

Unit :- Per M^3

	Taking Out put:-	2.832 cum			
A	**MATERIALS**				
	Coarse aggregates Gr IV (Cost of **coarse aggregate as per Design)**	2.66 M^3	481.18	1279.94	
	Sand	1.33 M^3	270.36	359.58	
	Cement	0.45 M^3	9118.00	4103.10	
B	**LABOUR**				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
	Unskilled mazdoor for placing blocks in position	4 nos	184.00	736.00	
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	**67.00**		95.83	
	(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	**162.10**		231.85	
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	5339.50		
	Add 1 % for cost of nails and spikes		53.39		
	LABOUR				
	Carpenter Gr II 3 nos @	3	Rs 669.00		
	Unskilled mazdoor 8 nos @	8	Rs 1472.00		
	Assuming 4 uses to calculate		7533.88995		
	Cost of shuttering for 2.832 cum total cost/4			1883.47	
	Total			11432.28	
	Add Overhead charge & C.P	15 %		1714.84	
				13147.12	
	Add Cess	1 %		131.47	
				13278.59	4688.77
		Say Rs	**4688.80**	**Per M^3**	

5.3.18 Providing shuttering including strutting. Proping etc. and its removal after use in foundation as per specifications and direction of E/I.

Unit :- Per M^2

	Taking Out put:-	9.3 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 lock wood planks	0.37 cum	10444.00	3864.28	
	Add cost for strutting and proping @ 10 % of above			386.43	
	Total cost of wood			4250.71	
	Assuming 4 uses to calculate	4 use			
	Cost of shuttering for 2.832 cum total cost/4			1062.68	
	Add 1 % for cost of nails and spikes of total cost of wood			42.51	
				1105.18	A
B	**LABOUR**				
	Carpenter Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	2.5 nos	184.00	460.00	
				794.50	B
C	**Carriage of matterials**				
	Cost of the carriage of materials from Godowm and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals			42.51	C
	TOTAL cost per 9.3 sqm =A+B+C			1942.19	
	Add Overhead charge & C.P	15 %		291.33	
				2233.52	
	Add Cess	1 %		22.34	
				2255.86	242.57
		Say Rs	**242.60**	**Per M^2**	

5.3.19 Providing shuttering including strutting. Proping 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 M^2

	Taking Out put:-	9.3 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 lock wood planks	0.37 cum	10444.00	3864.28	
	Add cost for strutting and proping @ 10 % of above			386.43	
	Total cost of wood			4250.71	
	Assuming 4 uses to calculate	4 use			
	Cost of shuttering for 2.832 cum total cost/4			1062.68	
	Add 1 % for cost of nails and spikes of total cost of wood			42.51	
				1105.18	A
B	**LABOUR**				
	Carpenter Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	2.5 nos	184.00	460.00	
				794.50	B
C	**Carriage of matterials**				
	Cost of the carriage of materials from Godowm and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals			42.51	C
	TOTAL cost per 9.3 sqm =A+B+C			1942.19	
	Add Overhead charge & C.P	15 %		291.33	
				2233.52	
	Add Cess	1 %		22.34	
				2255.86	242.57
		Say Rs	**242.60**	**Per M^2**	

5.3.20 Providing centering including strutting. Proping etc. and removing after use in deck slab as per specifications and direction of E/I.

Unit :- Per M^2

	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 =0.85				
	Add 5 % for wastages =0.04				
	=0.89	0.89 cum	10444.00		
	Assuming 4 uses to calculate				
	Cost of planks per use =0.89 x rate of local wood /4			2323.79	
	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	285.48 mtr	40.00		
	(Assuming sal bullah to be used 10 times for centerins				
	=285.48 x Rate per Mtr / 10			1141.92	
	c. Salwood scanting required (75 mm x 63 mm size) =0.311 cum				
		0.311 cum	25620.00		
	(Assuming 10 uses)				
	Cost per use =0.311 x Rate per Mtr/10			796.78	
				4262.49	
	Add 1 % for cost of nails and spikes			42.62	
				4305.12	(A)
B.	**LABOUR**				
	Carpenter Gr II	4 nos	223.00	892.00	
	Unskilled mazdoor	7 nos	184.00	1288.00	

C.	**Carriage of matterials**			2180.00	(B)
	Cost of the carriage of materials from Godowm and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals (A)			42.62	(C)
	TOTAL cost per 22.326 sqm =A+B+C			6527.74	
	Add Overhead charge & C.P	15 %		979.16	
				7506.90	
	Add Cess	1 %		75.07	
				7581.97	339.60
		Say Rs	**339.60**	**Per M²**	

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

(a).Dia of bar 6mm

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#VALUE!	#VALUE!	A
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	B
	Totalof A+B			#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	

(b).Dia of bar above 6 mm to 12 mm

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#VALUE!	#VALUE!	A
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	B
	Totalof A+B			#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	

(c).Dia of bar above 14 mm to 50 mm

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#VALUE!	#VALUE!	A
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	B
	Totalof A+B			#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	**#REF!**	**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

(a). **T.M.T. GRADE -FE- 415- 8 mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	

(b). **T.M.T. GRADE -FE- 415- 10 mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	**#REF!**	**Per M.T**	

(c). **T.M.T. GRADE -FE- 415-12 mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	**#REF!**	**Per M.T**	

(d). **T.M.T. GRADE FE-415-16mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	**#REF!**	**Per M.T**	

(e). **T.M.T. GRADE FE 415-20 mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	**#REF!**	**Per M.T**	

(f). **T.M.T. GRADE FE- 415-25 mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	**#REF!**	**Per M.T**	

(g). **T.M.T. GRADE FE 415-28 mm**

(Assuming 1 MT)

(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!

			Say Rs	#REF!	Per M.T	
(h).	**T.M.T. GRADE FE 415-32 mm**					
		(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)		1.05 M.T	INPUT	#VALUE!	
(B).	i. Annealed wire		14 Kg	#REF!	#REF!	
	ii Black smith Gr II		9 nos	223.00	2007.00	
	iii. Head black smith		1 nos	251.00	251.00	
	iv. Skilled mazdoor		8 nos	234.00	1872.00	
	v Unskilled mazdoor		2 nos	184.00	368.00	
					#VALUE!	
	Add Overhead charge & C.P		15 %		#VALUE!	
					#VALUE!	
	Add Cess		1 %		#VALUE!	
					#VALUE!	#VALUE!
			Say Rs	**#VALUE!**	**Per M.T**	
(i).	**T.M.T. GRADE -FE-500-8 mm**					
		(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)		1.05 M.T	52185.00	54794.25	
(B).	i. Annealed wire		14 Kg	#REF!	#REF!	
	ii Black smith Gr II		9 nos	223.00	2007.00	
	iii. Head black smith		1 nos	251.00	251.00	
	iv. Skilled mazdoor		8 nos	234.00	1872.00	
	v Unskilled mazdoor		2 nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P		15 %		#REF!	
					#REF!	
	Add Cess		1 %		#REF!	
					#REF!	#REF!
			Say Rs	#REF!	Per M.T	
(j).	**T.M.T. GRADE -FE-500-10 mm**					
		(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)		1.05 M.T	51135.00	53691.75	
(B).	i. Annealed wire		14 Kg	#REF!	#REF!	
	ii Black smith Gr II		9 nos	223.00	2007.00	
	iii. Head black smith		1 nos	251.00	251.00	
	iv. Skilled mazdoor		8 nos	234.00	1872.00	
	v Unskilled mazdoor		2 nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P		15 %		#REF!	
					#REF!	
	Add Cess		1 %		#REF!	
					#REF!	#REF!
			Say Rs	**#REF!**	**Per M.T**	
(k).	**T.M.T. GRADE -FE-500-12 mm**					
		(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)		1.05 M.T	50610.00	53140.50	
(B).	i. Annealed wire		14 Kg	#REF!	#REF!	
	ii Black smith Gr II		9 nos	223.00	2007.00	
	iii. Head black smith		1 nos	251.00	251.00	
	iv. Skilled mazdoor		8 nos	234.00	1872.00	
	v Unskilled mazdoor		2 nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P		15 %		#REF!	
					#REF!	
	Add Cess		1 %		#REF!	
					#REF!	#REF!
			Say Rs	**#REF!**	**Per M.T**	
(l).	**T.M.T. GRADE FE-500-16mm**					
		(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)		1.05 M.T	50898.75	53443.69	
(B).	i. Annealed wire		14 Kg	#REF!	#REF!	
	ii Black smith Gr II		9 nos	223.00	2007.00	
	iii. Head black smith		1 nos	251.00	251.00	
	iv. Skilled mazdoor		8 nos	234.00	1872.00	
	v Unskilled mazdoor		2 nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P		15 %		#REF!	
					#REF!	
	Add Cess		1 %		#REF!	
					#REF!	#REF!
			Say Rs	**#REF!**	**Per M.T**	
(m).	**T.M.T. GRADE FE-500-20 mm**					
		(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)		1.05 M.T	50400.00	52920.00	
(B).	i. Annealed wire		14 Kg	#REF!	#REF!	
	ii Black smith Gr II		9 nos	223.00	2007.00	
	iii. Head black smith		1 nos	251.00	251.00	
	iv. Skilled mazdoor		8 nos	234.00	1872.00	
	v Unskilled mazdoor		2 nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P		15 %		#REF!	
					#REF!	
	Add Cess		1 %		#REF!	
					#REF!	#REF!

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(n).	**T.M.T. GRADE FE-500-25 mm**				
		(Assuming 1 MT)			
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	[illegible]	52920.00	
(B).	i. Annealed wire	14 Kg	[illegible]	#REF!	
	ii Black smith Gr II	9 nos	[illegible]	2007.00	
	iii. Head black smith	1 nos	[illegible]	251.00	
	iv. Skilled mazdoor	8 nos	[illegible]	1872.00	
	v Unskilled mazdoor	2 nos	[illegible]	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		[illegible]	Per M.T	
(o).	**T.M.T. GRADE FE-500-28 mm**				
		(Assuming 1 MT)			
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	[illegible]	52920.00	
(B).	i. Annealed wire	14 Kg	[illegible]	#REF!	
	ii Black smith Gr II	9 nos	[illegible]	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		#REF!	Per M.T	
(p).	**T.M.T. GRADE FE-500-32 mm**				
		(Assuming 1 MT)			
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	50400.00	52920.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		#REF!	Per M.T	
(q).	**T.M.T. GRADE FE-500-36 mm**				
		(Assuming 1 MT)			
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	[illegible]	46895.88	
(B).	i. Annealed wire	14 Kg	[illegible]	#REF!	
	ii Black smith Gr II	9 nos	[illegible]	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	[illegible]	1872.00	
	v Unskilled mazdoor	2 nos	[illegible]	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		[illegible]	Per M.T	

5. 4 MASONARY WORK

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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4802.40	Per M^3
Patna	4305.70	Per M^3
Muzaffarpur	4356.30	Per M^3
Darbhanga	3669.40	Per M^3
Bhagalpur	4359.60	Per M^3
Munger	4329.20	Per M^3
Saharsa	4431.00	Per M^3
Purnea	4566.90	Per M^3
Gaya	4150.00	Per M^3
Saran	4204.10	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4624.30	Per M^3
Patna	4127.60	Per M^3
Muzaffarpur	4175.20	Per M^3
Darbhanga	4180.80	Per M^3
Bhagalpur	4177.90	Per M^3
Munger	4152.90	Per M^3
Saharsa	4177.90	Per M^3
Purnea	4384.60	Per M^3
Gaya	3981.50	Per M^3
Saran	4026.00	Per M^3

5.4.3 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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4478.10	Per M^3
Patna	3981.40	Per M^3
Muzaffarpur	4026.50	Per M^3
Darbhanga	4031.10	Per M^3
Bhagalpur	4028.80	Per M^3
Munger	4008.10	Per M^3
Saharsa	4028.80	Per M^3
Purnea	4235.00	Per M^3
Gaya	3843.00	Per M^3
Saran	3879.70	Per M^3

5.4.4 Providing brick flat soling with designation 100A bricks joints filled with coarse sand of approved quality including royaltyand all taxes, all complete as per approved design,specifications and direction of E/I

Patna Urban	4371.60	Per M^3
Patna	3874.90	Per M^3
Muzaffarpur	3918.30	Per M^3
Darbhanga	3922.20	Per M^3
Bhagalpur	3920.20	Per M^3
Munger	3902.70	Per M^3
Saharsa	3920.20	Per M^3
Purnea	4126.10	Per M^3
Gaya	3742.10	Per M^3
Saran	3773.20	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4877.90	Per M^3
Patna	4381.20	Per M^3
Muzaffarpur	4431.80	Per M^3
Darbhanga	4431.80	Per M^3
Bhagalpur	4435.10	Per M^3
Munger	4404.70	Per M^3
Saharsa	4435.10	Per M^3
Purnea	4642.40	Per M^3
Gaya	4225.40	Per M^3
Saran	4279.50	Per M^3

5.4.6 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 including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4699.80	Per M^3
Patna	4203.10	Per M^3
Muzaffarpur	4250.70	Per M^3
Darbhanga	4256.20	Per M^3
Bhagalpur	4253.40	Per M^3
Munger	4228.40	Per M^3
Saharsa	4253.40	Per M^3
Purnea	4460.10	Per M^3
Gaya	4057.00	Per M^3
Saran	4101.40	Per M^3

5.4.7 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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4553.50	Per M^3
Patna	4057.00	Per M^3
Muzaffarpur	4102.00	Per M^3
Darbhanga	4106.60	Per M^3
Bhagalpur	4104.20	Per M^3
Munger	4083.60	Per M^3
Saharsa	4104.20	Per M^3
Purnea	4310.40	Per M^3
Gaya	3918.50	Per M^3
Saran	3955.20	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4447.10	Per M^3
Patna	3950.40	Per M^3
Muzaffarpur	3993.80	Per M^3
Darbhanga	3997.70	Per M^3
Bhagalpur	3995.70	Per M^3
Munger	3978.20	Per M^3
Saharsa	3995.70	Per M^3
Purnea	4201.50	Per M^3
Gaya	3817.60	Per M^3
Saran	3848.70	Per M^3

5.4.9 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2328.80	Per M^3
Patna	2328.80	Per M^3
Muzaffarpur	2349.90	Per M^3
Darbhanga	2358.30	Per M^3
Bhagalpur	2354.00	Per M^3

Munger	2316.00	Per M^3
Saharsa	2354.00	Per M^3
Purnea	2358.30	Per M^3
Gaya	2261.10	Per M^3
Saran	2328.80	Per M^3

5.4.10 Providing rough dressed random rubble stone masonary 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 and all taxes etc complete job as per specification and direction of E / I.

Patna Urban	2074.70	Per M^3
Patna	2074.70	Per M^3
Muzaffarpur	2091.60	Per M^3
Darbhanga	2098.40	Per M^3
Bhagalpur	2095.00	Per M^3
Munger	2064.50	Per M^3
Saharsa	2095.00	Per M^3
Purnea	2098.40	Per M^3
Gaya	2020.70	Per M^3
Saran	2074.70	Per M^3

5.4.11 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	1916.90	Per M^3
Patna	1916.90	Per M^3
Muzaffarpur	1931.10	Per M^3
Darbhanga	1936.80	Per M^3
Bhagalpur	1933.90	Per M^3
Munger	1908.20	Per M^3
Saharsa	1933.90	Per M^3
Purnea	1936.80	Per M^3
Gaya	1871.30	Per M^3
Saran	1916.90	Per M^3

5.4.12 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2423.10	Per M^3
Patna	2423.10	Per M^3
Muzaffarpur	2444.20	Per M^3
Darbhanga	2452.70	Per M^3
Bhagalpur	2448.30	Per M^3
Munger	2410.30	Per M^3
Saharsa	2448.30	Per M^3
Purnea	2452.70	Per M^3
Gaya	2355.50	Per M^3
Saran	2423.10	Per M^3

5.4.13 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2169.10	Per M^3
Patna	2169.10	Per M^3
Muzaffarpur	2186.00	Per M^3
Darbhanga	2192.70	Per M^3
Bhagalpur	2189.30	Per M^3
Munger	2158.90	Per M^3
Saharsa	2189.30	Per M^3
Purnea	2192.70	Per M^3
Gaya	2115.00	Per M^3

	Saran	2169.10	Per M^3
5.4.14	Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.		
	Patna Urban	2011.20	Per M^3
	Patna	2011.20	Per M^3
	Muzaffarpur	2025.40	Per M^3
	Darbhanga	2031.10	Per M^3
	Bhagalpur	2028.20	Per M^3
	Munger	2002.60	Per M^3
	Saharsa	2028.20	Per M^3
	Purnea	2031.10	Per M^3
	Gaya	1965.60	Per M^3
	Saran	2011.20	Per M^3
5.4.15	Providing rough dressed coarse rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.		
	Patna Urban	2423.10	Per M^3
	Patna	2423.10	Per M^3
	Muzaffarpur	2444.20	Per M^3
	Darbhanga	2452.70	Per M^3
	Bhagalpur	2448.30	Per M^3
	Munger	2410.30	Per M^3
	Saharsa	2448.30	Per M^3
	Purnea	2452.70	Per M^3
	Gaya	2355.50	Per M^3
	Saran	2423.10	Per M^3
5.4.16	Providing rough dressed coarse rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.		
	Patna Urban	2169.10	Per M^3
	Patna	2169.10	Per M^3
	Muzaffarpur	2186.00	Per M^3
	Darbhanga	2192.70	Per M^3
	Bhagalpur	2189.30	Per M^3
	Munger	2158.90	Per M^3
	Saharsa	2189.30	Per M^3
	Purnea	2192.70	Per M^3
	Gaya	2115.00	Per M^3
	Saran	2169.10	Per M^3
5.4.17	Providing rough dressed coarse stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.		
	Patna Urban	2011.20	Per M^3
	Patna	2011.20	Per M^3
	Muzaffarpur	2025.40	Per M^3
	Darbhanga	2031.10	Per M^3
	Bhagalpur	2028.20	Per M^3
	Munger	2002.60	Per M^3
	Saharsa	2028.20	Per M^3
	Purnea	2031.10	Per M^3
	Gaya	1965.60	Per M^3
	Saran	2011.20	Per M^3

5.4 MASONARY WORK

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, curring, scaffolding and its removal wherever required including royalty and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.84 cum	270.36	227.11	
Cement	0.28 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	1 nos	186.00	186.00	
			11709.43	
Add Overhead charge & C.P	15 %		1756.41	
			13465.84	
Add Cess	1 %		134.66	
			13600.50	4802.44
	Say Rs	4802.40	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, curring, scaffolding and its removal wherever required including royalty and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.92 cum	270.36	248.73	
Cement	0.23 cum	9118.00	2097.14	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	1 nos	186.00	186.00	
			11275.16	
Add Overhead charge & C.P	15 %		1691.27	
			12966.43	
Add Cess	1 %		129.66	
			13096.10	4624.33
	Say Rs	4624.30	Per M^3	

5.4.3 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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.95 cum	270.36	256.85	
Cement	0.19 cum	9118.00	1732.42	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	1 nos	186.00	186.00	
			10918.55	
Add Overhead charge & C.P	15 %		1637.78	
			12556.33	
Add Cess	1 %		125.56	
			12681.90	4478.07
	Say Rs	4478.10	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3	
Taking Out put:-	2.832 cum	
Materials		

Bricks	1150 nos	6290.79	7234.41	
Sand	0.968 cum	270.36	261.71	
Cement	0.161 cum	9118.00	1468.00	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	1 nos	186.00	186.00	
			10658.99	
Add Overhead charge & C.P	15 %		1598.85	
			12257.84	
Add Cess	1 %		122.58	
			12380.42	4371.62
	Say Rs	4371.60	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.84 cum	270.36	227.11	
Cement	0.28 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11893.43	
Add Overhead charge & C.P	15 %		1784.01	
			13677.44	
Add Cess	1 %		136.77	
			13814.22	4877.90
	Say Rs	4877.90	Per M^3	

5.4.6 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 including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.92 cum	270.36	248.73	
Cement	0.23 cum	9118.00	2097.14	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11459.16	
Add Overhead charge & C.P	15 %		1718.87	
			13178.03	
Add Cess	1 %		131.78	
			13309.81	4699.79
	Say Rs	4699.80	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.95 cum	270.36	256.85	
Cement	0.19 cum	9118.00	1732.42	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11102.55	
Add Overhead charge & C.P	15 %		1665.38	
			12767.93	
Add Cess	1 %		127.68	
			12895.61	4553.54

	Say Rs	4553.50	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, curring, scaffolding and its removal wherever required including royally and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.968 cum	270.36	261.71	
Cement	0.161 cum	9118.00	1468.00	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			10842.99	
Add Overhead charge & C.P	15 %		1626.45	
			12469.44	
Add Cess	1 %		124.69	
			12594.14	4447.05
	Say Rs	4447.10	Per M^3	

5.4.9 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.050 cum	270.36	283.88	
Cement	0.350 cum	9118.00	3191.30	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	0.5 nos	186.00	93.00	
			5678.03	
Add Overhead charge & C.P	15 %		851.70	
			6529.74	
Add Cess	1 %		65.30	
			6595.03	2328.75
	Say Rs	2328.80	Per M^3	

5.4.10 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.120 cum	270.36	302.81	
Cement	0.280 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	0.5 nos	186.00	93.00	
			5058.70	
Add Overhead charge & C.P	15 %		758.80	
			5817.50	
Add Cess	1 %		58.18	
			5875.68	2074.74
	Say Rs	2074.70	Per M^3	

5.4.11 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3		
Taking Out put:-	2.832 cum		
Materials			
Stone boulder	2.832 cum	251.58	712.47
Sand	1.180 cum	270.36	319.03

Cement	0.236 cum	9118.00	2151.85		
Labour					
Head mason	0.125 nos	251.00	31.38		
Mason Gr II	2 nos	223.00	446.00		
Unskilled mazdoor	5 nos	184.00	920.00		
Bhisti	0.5 nos	186.00	93.00		
			4673.73		
Add Overhead charge & C.P	15 %		701.06		
			5374.79		
Add Cess	1 %		53.75		
			5428.53	1916.85	
	Say Rs	1916.90	Per M^3		

5.4.12 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3				
Taking Out put:-	2.832 cum				
Materials					
Stone boulder	2.832 cum	251.58	712.47		
Sand	1.050 cum	270.36	283.88		
Cement	0.350 cum	9118.00	3191.30		
Labour					
Head mason	0.125 nos	251.00	31.38		
Mason Gr II	2 nos	223.00	446.00		
Unskilled mazdoor	6.25 nos	184.00	1150.00		
Bhisti	0.5 nos	186.00	93.00		
			5908.03		
Add Overhead charge & C.P	15 %		886.20		
			6794.24		
Add Cess	1 %		67.94		
			6862.18	2423.09	
	Say Rs	2423.10	Per M^3		

5.4.13 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3				
Taking Out put:-	2.832 cum				
Materials					
Stone boulder	2.832 cum	251.58	712.47		
Sand	1.120 cum	270.36	302.81		
Cement	0.280 cum	9118.00	2553.04		
Labour					
Head mason	0.125 nos	251.00	31.38		
Mason Gr II	2 nos	223.00	446.00		
Unskilled mazdoor	6.25 nos	184.00	1150.00		
Bhisti	0.5 nos	186.00	93.00		
			5288.70		
Add Overhead charge & C.P	15 %		793.30		
			6082.00		
Add Cess	1 %		60.82		
			6142.82	2169.08	
	Say Rs	2169.10	Per M^3		

5.4.14 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3				
Taking Out put:-	2.832 cum				
Materials					
Stone boulder	2.832 cum	251.58	712.47		
Sand	1.180 cum	270.36	319.03		
Cement	0.236 cum	9118.00	2151.85		
Labour					
Head mason	0.125 nos	251.00	31.38		
Mason Gr II	2 nos	223.00	446.00		
Unskilled mazdoor	6.25 nos	184.00	1150.00		
Bhisti	0.5 nos	186.00	93.00		
			4903.73		
Add Overhead charge & C.P	15 %		735.56		
			5639.29		
Add Cess	1 %		56.39		
			5695.68	2011.19	
	Say Rs	2011.20	Per M^3		

5.4.15 Providing rough dressed coarse rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.050 cum	270.36	283.88	
Cement	0.350 cum	9118.00	3191.30	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5908.03	
Add Overhead charge & C.P	15 %		886.20	
			6794.24	
Add Cess	1 %		67.94	
			6862.18	2423.09
	Say Rs	2423.10	Per M^3	

5.4.16 Providing rough dressed coarse rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.120 cum	270.36	302.81	
Cement	0.280 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5288.70	
Add Overhead charge & C.P	15 %		793.30	
			6082.00	
Add Cess	1 %		60.82	
			6142.82	2169.08
	Say Rs	2169.10	Per M^3	

5.4.17 Providing rough dressed coarse stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.180 cum	270.36	319.03	
Cement	0.236 cum	9118.00	2151.85	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			4903.73	
Add Overhead charge & C.P	15 %		735.56	
			5639.29	
Add Cess	1 %		56.39	
			5695.68	2011.19
	Say Rs	2011.20	Per M^3	

5.5. PLASTER WORK

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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	127.30	Per M^2
Patna	127.30	Per M^2
Muzaffarpur	128.00	Per M^2
Darbhanga	128.40	Per M^2
Bhagalpur	128.20	Per M^2
Munger	126.80	Per M^2
Saharsa	128.20	Per M^2
Purnea	128.40	Per M^2
Gaya	124.70	Per M^2
Saran	127.30	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	117.20	Per M^2
Patna	117.20	Per M^2
Muzaffarpur	117.90	Per M^2
Darbhanga	118.10	Per M^2
Bhagalpur	118.00	Per M^2
Munger	116.90	Per M^2
Saharsa	118.00	Per M^2
Purnea	118.10	Per M^2
Gaya	115.20	Per M^2
Saran	117.20	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	110.50	Per M^2
Patna	110.50	Per M^2
Muzaffarpur	111.10	Per M^2
Darbhanga	111.30	Per M^2
Bhagalpur	111.20	Per M^2
Munger	110.20	Per M^2
Saharsa	111.20	Per M^2
Purnea	111.30	Per M^2
Gaya	108.90	Per M^2
Saran	110.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	216.10	Per M^2
Patna	216.10	Per M^2
Muzaffarpur	217.60	Per M^2
Darbhanga	218.30	Per M^2
Bhagalpur	217.90	Per M^2
Munger	217.90	Per M^2
Saharsa	217.90	Per M^2
Purnea	218.30	Per M^2
Gaya	211.10	Per M^2
Saran	216.10	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	197.50	Per M^2

Patna	197.50	Per M^2
Muzaffarpur	198.70	Per M^2
Darbhanga	199.20	Per M^2
Bhagalpur	199.00	Per M^2
Munger	196.70	Per M^2
Saharsa	199.00	Per M^2
Purnea	199.20	Per M^2
Gaya	193.50	Per M^2
Saran	197.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	181.40	Per M^2
Patna	181.40	Per M^2
Muzaffarpur	182.40	Per M^2
Darbhanga	182.80	Per M^2
Bhagalpur	182.60	Per M^2
Munger	180.70	Per M^2
Saharsa	182.60	Per M^2
Purnea	182.80	Per M^2
Gaya	178.10	Per M^2
Saran	181.40	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	133.90	Per M^2
Patna	133.90	Per M^2
Muzaffarpur	134.60	Per M^2
Darbhanga	135.00	Per M^2
Bhagalpur	134.80	Per M^2
Munger	133.40	Per M^2
Saharsa	134.80	Per M^2
Purnea	135.00	Per M^2
Gaya	131.30	Per M^2
Saran	133.90	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	229.30	Per M^2
Patna	229.30	Per M^2
Muzaffarpur	230.80	Per M^2
Darbhanga	231.50	Per M^2
Bhagalpur	231.10	Per M^2
Munger	228.30	Per M^2
Saharsa	231.10	Per M^2
Purnea	231.50	Per M^2
Gaya	224.30	Per M^2
Saran	229.30	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	210.70	Per M^2
Patna	210.70	Per M^2
Muzaffarpur	211.90	Per M^2
Darbhanga	212.40	Per M^2
Bhagalpur	212.10	Per M^2

Munger	209.90	Per M^2
Saharsa	212.10	Per M^2
Purnea	212.40	Per M^2
Gaya	206.70	Per M^2
Saran	210.70	Per M^2

5.5.10 Providing 1.5 mm thick cement punning including curing, , royalty and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	37.60	Per M^2
Patna	37.60	Per M^2
Muzaffarpur	37.80	Per M^2
Darbhanga	37.90	Per M^2
Bhagalpur	37.90	Per M^2
Munger	37.40	Per M^2
Saharsa	37.90	Per M^2
Purnea	37.90	Per M^2
Gaya	36.70	Per M^2
Saran	37.60	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	105.20	Per M^2
Patna	105.20	Per M^2
Muzaffarpur	105.50	Per M^2
Darbhanga	105.60	Per M^2
Bhagalpur	105.50	Per M^2
Munger	105.10	Per M^2
Saharsa	105.50	Per M^2
Purnea	105.60	Per M^2
Gaya	104.40	Per M^2
Saran	105.20	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	79.80	Per M^2
Patna	79.80	Per M^2
Muzaffarpur	80.10	Per M^2
Darbhanga	80.20	Per M^2
Bhagalpur	80.10	Per M^2
Munger	79.70	Per M^2
Saharsa	80.10	Per M^2
Purnea	80.20	Per M^2
Gaya	79.00	Per M^2
Saran	79.80	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	117.80	Per M^2
Patna	117.80	Per M^2
Muzaffarpur	118.20	Per M^2
Darbhanga	118.40	Per M^2
Bhagalpur	118.30	Per M^2
Munger	117.60	Per M^2
Saharsa	118.30	Per M^2
Purnea	118.40	Per M^2
Gaya	116.60	Per M^2
Saran	117.80	Per M^2

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5.5.14 Providing cement truck pointing (1:3) on0n stone masonary 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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	155.40	Per M^2
Patna	155.40	Per M^2
Muzaffarpur	156.00	Per M^2
Darbhanga	156.20	Per M^2
Bhagalpur	156.10	Per M^2
Munger	155.00	Per M^2
Saharsa	156.10	Per M^2
Purnea	156.20	Per M^2
Gaya	153.50	Per M^2
Saran	155.40	Per M^2

5.5. PLASTER WORK

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 and all taxes etc. complete job as per specification and direction of E / I.

	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
Materials					
Cement		0.043 cum	9118.00	392.07	
Sand		0.129 cum	270.36	34.88	
Labour					
Mason Gr II		1 nos	223.00	223.00	
Unskilled mazdoor		1.5 nos	184.00	276.00	
Bhisti		0.5 nos	186.00	93.00	
				1018.95	
Add Overhead charge & C.P		15 %		152.84	
				1171.79	
Add Cess		1 %		11.72	
				1183.51	127.26
		Say Rs	127.30	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 and all taxes etc. complete job as per specification and direction of E / I.

	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
Materials					
Cement		0.034 cum	9118.00	310.01	
Sand		0.136 cum	270.36	36.77	
Labour					
Mason Gr II		1 nos	223.00	223.00	
Unskilled mazdoor		1.5 nos	184.00	276.00	
Bhisti		0.5 nos	186.00	93.00	
				938.78	
Add Overhead charge & C.P		15 %		140.82	
				1079.60	
Add Cess		1 %		10.80	
				1090.39	117.25
		Say Rs	117.20	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 and all taxes etc. complete job as per specification and direction of E / I.

	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
Materials					
Cement		0.028 cum	9118.00	255.30	
Sand		0.140 cum	270.36	37.85	
Labour					
Mason Gr II		1 nos	223.00	223.00	
Unskilled mazdoor		1.5 nos	184.00	276.00	
Bhisti		0.5 nos	186.00	93.00	
				885.15	
Add Overhead charge & C.P		15 %		132.77	
				1017.93	
Add Cess		1 %		10.18	
				1028.11	110.55
		Say Rs	110.50	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 and all taxes etc. complete job as per specification and direction of E / I.

	Unit :-	Per M^2		
	Taking Out put:-	9.3 Sqm		
Materials				
Cement		0.085 cum	9118.00	775.03
Sand		0.250 cum	270.36	67.59
Labour				
Mason Gr II		1.5 nos	223.00	334.50
Unskilled mazdoor		2.5 nos	184.00	460.00
Bhisti		0.5 nos	186.00	93.00
				1730.12

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	Add Overhead charge & C.P	15 %		259.52	
				1989.64	
	Add Cess	1 %		19.90	
				2009.54	216.08
		Say Rs	216.10	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^2			
Taking Out put:-	9.3 Sqm			
Materials				
Cement	0.068 cum	9118.00	620.02	
Sand	0.272 cum	270.36	73.54	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	2.5 nos	184.00	460.00	
Bhisti	0.5 nos	186.00	93.00	
			1581.06	
Add Overhead charge & C.P	15 %		237.16	
			1818.22	
Add Cess	1 %		18.18	
			1836.40	197.46
	Say Rs	197.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^2			
Taking Out put:-	9.3 Sqm			
Materials				
Cement	0.056 cum	9118.00	510.61	
Sand	0.200 cum	270.36	54.07	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	2.5 nos	184.00	460.00	
Bhisti	0.5 nos	186.00	93.00	
			1452.18	
Add Overhead charge & C.P	15 %		217.83	
			1670.01	
Add Cess	1 %		16.70	
			1686.71	181.37
	Say Rs	181.40	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^2				
Taking Out put:-	9.3 Sqm				
Materials					
Cement	0.043 cum		9118.00	392.07	
Sand	0.129 cum		270.36	34.88	
Cost of water proofing compound (Cico)	2.4	Kg	22.00	52.80	
Labour					
Mason Gr II	1 nos		223.00	223	
Unskilled mazdoor	1.5 nos		184.00	276	
Bhisti	0.5 nos		186.00	93	
				1071.75	
Add Overhead charge & C.P	15 %			160.76	
				1232.51	
Add Cess	1 %			12.33	
				1244.84	133.85
	Say Rs		133.90	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit :-	Per M^2		
Taking Out put:-	9.3 Sqm		
Materials			
Cement	0.085 cum	9118.00	775.03
Sand	0.250 cum	270.36	67.59

	Cost of water proofing compound (Cico)	4.8 Kg	22.00	105.60	
	Labour				
	Mason Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	2.5 nos	184.00	460.00	
	Bhisti	0.5 nos	186.00	93.00	
				1835.72	
	Add Overhead charge & C.P	15 %		275.36	
				2111.08	
	Add Cess	1 %		21.11	
				2132.19	229.27
		Say Rs	229.30	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 and all taxes etc. complete job as per specification and direction of E / I.				
	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
	Materials				
	Cement	0.068 cum	9118.00	620.02	
	Sand	0.272 cum	270.36	73.54	
	Cost of water proofing compound (Cico)	4.8 Kg	22.00	105.60	
	Labour				
	Mason Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	2.5 nos	184.00	460.00	
	Bhisti	0.5 nos	186.00	93.00	
				1686.66	
	Add Overhead charge & C.P	15 %		253.00	
				1939.66	
	Add Cess	1 %		19.40	
				1959.06	210.65
		Say Rs	210.70	Per M^2	
5.5.10	Providing 1.5 mm thick cement punning including curing, , royalty and all taxes etc. complete job as per specification and direction of E / I.				
	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
	Materials				
	Cement	0.014 cum	9118.00	127.65	
	Labour				
	Head Mason	0.0625 nos	251.00	15.69	
	Mason Gr II	0.5 nos	223.00	111.50	
	Unskilled mazdoor	0.25 nos	184.00	46.00	
				300.84	
	Add Overhead charge & C.P	15 %		45.13	
				345.97	
	Add Cess	1 %		3.46	
				349.43	37.57
		Say Rs	37.60	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 and all taxes etc. complete job as per specification and direction of E / I.				
	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
	Materials				
	Cement	0.014 cum	9118.00	127.65	
	Sand	0.042 cum	270.36	11.36	
	Labour				
	Mason Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	1.5 nos	184.00	276.00	
	Bhisti	0.5 nos	186.00	93.00	
				842.51	
	Add Overhead charge & C.P	15 %		126.38	
				968.88	
	Add Cess	1 %		9.69	
				978.57	105.22
		Say Rs	105.20	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 and all taxes etc. complete job as per specification and direction of E / I.				
	Unit :-	Per M^2			

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	Taking Out put:-	9.3 Sqm			
	Materials				
	Cement	0.014 cum	9118.00	127.65	
	Sand	0.042 cum	270.36	11.36	
	Labour				
	Mason Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	1 nos	184.00	184.00	
	Bhisti	0.5 nos	186.00	93.00	
				639.01	
	Add Overhead charge & C.P	15 %		95.85	
				734.86	
	Add Cess	1 %		7.35	
				742.21	79.81
		Say Rs	79.80	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 and all taxes etc. complete job as per specification and direction of E / I.

	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
	Materials				
	Cement	0.021 cum	9118.00	191.48	
	Sand	0.063 cum	270.36	17.03	
	Labour				
	Head Mason	0.125 nos	251.00	31.38	
	Mason Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	1.5 nos	184.00	276.00	
	Bhisti	0.5 nos	186.00	93.00	
				943.39	
	Add Overhead charge & C.P	15 %		141.51	
				1084.89	
	Add Cess	1 %		10.85	
				1095.74	117.82
		Say Rs	117.80	Per M^2	

5.5.14 **Providing** cement truck pointing (1:3) on stone masonary 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 and all taxes etc. complete job as per specification and direction of E / I.

	Unit :-	Per M^2			
	Taking Out put:-	9.3 Sqm			
	Materials				
	Cement	0.032 cum	9118.00	291.78	
	Sand	0.096 cum	270.36	25.95	
	Labour				
	Mason Gr II	2.5 nos	223.00	557.50	
	Unskilled mazdoor	1.5 nos	184.00	276.00	
	Bhisti	0.5 nos	186.00	93.00	
				1244.23	
	Add Overhead charge & C.P	15 %		186.63	
				1430.87	
	Add Cess	1 %		14.31	
				1445.17	155.40
		Say Rs	155.40	Per M^2	

9/11/15

5.6 HUME PIPE LAYING

5.6.1 Labour for laying, fiting and fixing NP_2 pipe with collors in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all completeas per specification and direction of E / I.

5.6.1.1 150 mm dia NP_2 H.P

Patna Urban	116.80	Per M
Patna	116.80	Per M
Muzaffarpur	117.00	Per M
Darbhanga	117.10	Per M
Bhagalpur	117.10	Per M
Munger	116.60	Per M
Saharsa	117.10	Per M
Purnea	117.10	Per M
Gaya	116.00	Per M
Saran	116.80	Per M

5.6.1.2 225 mm dia NP_2 H.P

Patna Urban	178.40	Per M
Patna	178.40	Per M
Muzaffarpur	178.70	Per M
Darbhanga	178.80	Per M
Bhagalpur	178.70	Per M
Munger	178.20	Per M
Saharsa	178.70	Per M
Purnea	178.80	Per M
Gaya	177.40	Per M
Saran	178.40	Per M

5.6.1.3 300 mm dia NP_2 H.P

Patna Urban	211.30	Per M
Patna	211.30	Per M
Muzaffarpur	211.70	Per M
Darbhanga	211.80	Per M
Bhagalpur	211.70	Per M
Munger	211.00	Per M
Saharsa	211.70	Per M
Purnea	211.80	Per M
Gaya	210.00	Per M
Saran	210.00	Per M

5.6.1.4 450 mm dia NP_2 H.P

Patna Urban	329.80	Per M
Patna	329.80	Per M
Muzaffarpur	330.50	Per M
Darbhanga	330.70	Per M
Bhagalpur	330.60	Per M
Munger	329.50	Per M
Saharsa	330.60	Per M
Purnea	330.70	Per M
Gaya	327.80	Per M
Saran	329.80	Per M

5.6.1.5 600 mm dia NP_2 H.P

Patna Urban	408.00	Per M
Patna	408.00	Per M
Muzaffarpur	408.70	Per M
Darbhanga	409.00	Per M
Bhagalpur	408.90	Per M
Munger	407.50	Per M
Saharsa	408.90	Per M
Purnea	409.00	Per M
Gaya	405.50	Per M
Saran	408.00	Per M

5.6.1.6 700 mm or 800 mm dia NP_2 H.P

Patna Urban	448.70	Per M
Patna	448.70	Per M
Muzaffarpur	449.60	Per M
Darbhanga	450.00	Per M
Bhagalpur	449.80	Per M
Munger	448.20	Per M
Saharsa	449.80	Per M
Purnea	450.00	Per M
Gaya	445.80	Per M
Saran	448.70	Per M

5.6.1.7 900 mm dia or 1000 mm dia NP2 H.P

Patna Urban	541.30	Per M
Patna	541.30	Per M
Muzaffarpur	542.40	Per M
Darbhanga	542.80	Per M
Bhagalpur	542.60	Per M
Munger	540.70	Per M
Saharsa	542.60	Per M
Purnea	542.80	Per M
Gaya	538.10	Per M
Saran	541.30	Per M

5.6.1.8 1200 mm dia NP_2 H.P

Patna Urban	710.90	Per M
Patna	710.90	Per M
Muzaffarpur	712.20	Per M
Darbhanga	712.80	Per M
Bhagalpur	712.50	Per M
Munger	710.20	Per M
Saharsa	712.50	Per M
Purnea	712.80	Per M
Gaya	710.90	Per M
Saran	706.80	Per M

5.6.2 Labour for laying, fiting and fixing NP3 pipe with collors in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all completeas 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

Patna Urban	329.80	Per M
Patna	329.80	Per M
Muzaffarpur	330.50	Per M
Darbhanga	330.70	Per M
Bhagalpur	330.60	Per M
Munger	329.50	Per M
Saharsa	330.60	Per M
Purnea	330.70	Per M
Gaya	327.80	Per M
Saran	329.80	Per M

5.6.2.2 600 mm dia NP_3 H.P

Patna Urban	408.00	Per M
Patna	408.00	Per M
Muzaffarpur	408.70	Per M
Darbhanga	409.00	Per M
Bhagalpur	408.90	Per M
Munger	407.50	Per M
Saharsa	408.90	Per M
Purnea	409.00	Per M
Gaya	405.50	Per M
Saran	408.00	Per M

5.6.2.3 700 mm or 800 mm dia NP_3 H.P

Patna Urban	562.70	Per M
Patna	562.70	Per M
Muzaffarpur	563.60	Per M
Darbhanga	564.00	Per M
Bhagalpur	563.80	Per M
Munger	562.20	Per M
Saharsa	563.80	Per M
Purnea	564.00	Per M
Gaya	559.80	Per M
Saran	562.70	Per M

5.6.2.4 900 mm dia or 100 mm dia NP_3 H.P

Patna Urban	807.60	Per M
Patna	807.60	Per M
Muzaffarpur	808.70	Per M
Darbhanga	809.10	Per M
Bhagalpur	808.90	Per M
Munger	807.00	Per M
Saharsa	808.90	Per M
Purnea	809.10	Per M
Gaya	804.30	Per M
Saran	807.60	Per M

5.6.2.5 1200 mm dia NP3 H.P

Patna Urban	974.50	Per M
Patna	974.50	Per M
Muzaffarpur	975.80	Per M
Darbhanga	976.30	Per M
Bhagalpur	976.10	Per M
Munger	973.70	Per M
Saharsa	976.10	Per M
Purnea	976.30	Per M
Gaya	970.40	Per M
Saran	974.50	Per M

5.6 HUME PIPE LAYING

5.6.1 Labour for laying, fiting and fixing NP_2 pipe with collors in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all completeas 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 mtr				
(Assuming 4 pipes of 2 mtr length and three collars)					
Materials					
Cement	0.011	cum	9118.00	100.30	
Sand	0.011	cum	270.36	2.97	
Jute	1.5	Kg	23.00	34.5	
Labour					
Head Mason	0.5	nos	251.00	125.50	
Unskilled mazdoor	2.25	nos	184.00	414.00	
Fitter Gr I	0.5	nos	254.00	127.00	
				804.27	
Add Overhead charge & C.P	15	%		120.64	
				924.91	
Add Cess	1	%		9.25	
				934.16	116.77
Say			Rs	116.80	Per M

5.6.1.2 225 mm dia NP_2 H.P

Unit :-	Per M				
Taking Out put:-	8 mtr				
(Assuming 4 pipes of 2 mtr length and three collars)					
Materials					
Cement	0.014	cum	9116.00	127.65	
Sand	0.014	cum	270.36	3.79	
Jute	2	Kg	23.00	46.00	
Labour					
Head Mason	0.75	nos	251.00	188.25	
Unskilled mazdoor	4	nos	184.00	736.00	
Fitter Gr I	0.5	nos	254.00	127.00	
				1228.69	
Add Overhead charge & C.P	15	%		184.30	
				1412.99	
Add Cess	1	%		14.13	
				1427.12	178.39
Say			Rs	178.40	Per M

5.6.1.3 300 mm dia NP_2 H.P

Unit :-	Per M				
Taking Out put:-	10 mtr				
(Assuming 4 pipes of 2.5 mtr length and three collars)					
Materials					
Cement	0.023	cum	9118.00	209.71	
Sand	0.023	cum	270.36	6.22	
Jute	2.5	Kg	23.00	57.50	
Labour					
Head Mason	1	nos	251.00	251.00	
Unskilled mazdoor	6	nos	184.00	1104.00	
Fitter Gr I	0.75	nos	254.00	190.50	
				1818.93	
Add Overhead charge & C.P	15	%		272.84	
				2091.77	
Add Cess	1	%		20.92	
				2112.69	211.27
Say			Rs	211.30	Per M

5.6.1.4 450 mm dia NP_2 H.P

Unit :-	Per M				
Taking Out put:-	7.5 mtr				
(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
Materials					
Cement	0.028	cum	9118.00	255.30	
Sand	0.028	cum	270.36	7.57	
Jute	3.25	Kg	23.00	74.75	
Labour					
Head Mason	1.25	nos	251.00	313.75	
Unskilled mazdoor	7	nos	184.00	1288.00	
Fitter Gr I	0.75	nos	254.00	190.50	
				2129.87	
Add Overhead charge & C.P	15	%		319.48	
				2449.36	
Add Cess	1	%		24.49	

						2473.85	329.85
		Say		Rs	329.80	Per M	
5.6.1.5	600 mm dia NP_2 H.P						
		Unit :-	Per M				
		Taking Out put:-	7.5 mtr				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)						
	Materials						
	Cement		0.034 cum		9118.00	310.01	
	Sand		0.034 cum		270.36	9.19	
	Jute		4 Kg		23.00	92.00	
	Labour						
	Head Mason		1.5 nos		251.00	376.50	
	Unskilled mazdoor		9 nos		184.00	1656.00	
	Fitter Gr I		0.75 nos		254.00	190.50	
						2634.20	
	Add Overhead charge & C.P		15 %			395.13	
						3029.34	
	Add Cess		1 %			30.29	
						3059.63	407.95
		Say		Rs	408.00	Per M	
5.6.1.6	700 mm or 800 mm dia NP_2 H.P						
		Unit :-	Per M				
		Taking Out put:-	7.5 mtr				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)						
	Materials						
	Cement		0.040 cum		9118.00	364.72	
	Sand		0.040 cum		270.36	10.81	
	Jute		5 Kg		23.00	115.00	
	Labour						
	Head Mason		1.5 nos		251.00	376.50	
	Unskilled mazdoor		10 nos		184.00	1840.00	
	Fitter Gr I		0.75 nos		254.00	190.50	
						2897.53	
	Add Overhead charge & C.P		15 %			434.63	
						3332.16	
	Add Cess		1 %			33.32	
						3365.49	448.73
		Say		Rs	448.70	Per M	
5.6.1.7	900 mm dia or 1000 mm dia NP2 H.P						
		Unit :-	Per M				
		Taking Out put:-	7.5 mtr				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)						
	Materials						
	Cement		0.045 cum		9118.00	410.31	
	Sand		0.045 cum		270.36	12.17	
	Jute		7.5 Kg		23.00	172.50	
	Labour						
	Head Mason		2 nos		251.00	502.00	
	Unskilled mazdoor		12 nos		184.00	2208.00	
	Fitter Gr I		0.75 nos		254.00	190.50	
						3495.48	
	Add Overhead charge & C.P		15 %			524.32	
						4019.80	
	Add Cess		1 %			40.20	
						4060.00	541.33
		Say		Rs	541.30	Per M	
5.6.1.8	1200 mm dia NP_2 H.P						
		Unit :-	Per M				
		Taking Out put:-	7.5 mtr				
	(Assuming 3 pipes of 2.5 mtr length and 2 collars)						
	Materials						
	Cement		0.057 cum		9118.00	519.73	
	Sand		0.057 cum		270.36	15.41	
	Jute		10 Kg		23.00	230.00	
	Labour						
	Head Mason		2.5 nos		251.00	627.50	
	Unskilled mazdoor		16 nos		184.00	2944.00	
	Fitter Gr I		1 nos		254.00	254.00	
						4590.64	
	Add Overhead charge & C.P		15 %			688.60	
						5279.23	
	Add Cess		1 %			52.79	
						5332.02	710.94
		Say		Rs	710.90	Per M	

5.6.2 Labour for laying, fiting and fixing NP_3 pipe with collors in line level and grade as well providing approved jointing materials and joints properly filled to make them water proof all completeas 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 mtr			
(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
Materials					
Cement		0.028 cum	9118.00	255.30	
Sand		0.028 cum	270.36	7.57	
Jute		3.25 Kg	23.00	74.75	
Labour					
Head Mason		1.25 nos	251.00	313.75	
Unskilled mazdoor		7 nos	184.00	1288.00	
Fitter Gr I		0.75 nos	254.00	190.50	
				2129.87	
Add Overhead charge & C.P		15 %		319.48	
				2449.36	
Add Cess		1 %		24.49	
				2473.85	329.85
	Say		Rs 329.80	Per M	

5.6.2.2 600 mm dia NP_3 H.P

	Unit :-	Per M			
	Taking Out put:-	7.5 mtr			
(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
Materials					
Cement		0.034 cum	9118.00	310.01	
Sand		0.034 cum	270.36	9.19	
Jute		4 Kg	23.00	92.00	
Labour					
Head Mason		1.5 nos	251.00	376.50	
Unskilled mazdoor		9 nos	184.00	1656.00	
Fitter Gr I		0.75 nos	254.00	190.50	
				2634.20	
Add Overhead charge & C.P		15 %		395.13	
				3029.34	
Add Cess		1 %		30.29	
				3059.63	407.95
	Say		Rs 408.00	Per M	

5.6.2.3 700 mm or 800 mm dia NP_3 H.P

	Unit :-	Per M			
	Taking Out put:-	7.5 mtr			
(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
Materials					
Cement		0.040 cum	9118.00	364.72	
Sand		0.040 cum	270.36	10.81	
Jute		5 Kg	23.00	115.00	
Labour					
Head Mason		1.5 nos	251.00	376.50	
Unskilled mazdoor		14 nos	184.00	2576.00	
Fitter Gr I		0.75 nos	254.00	190.50	
				3633.53	
Add Overhead charge & C.P		15 %		545.03	
				4178.56	
Add Cess		1 %		41.79	
				4220.35	562.71
	Say		Rs 562.70	Per M	

5.6.2.4 900 mm dia or 1000 mm dia NP_3 H.P

	Unit :-	Per M			
	Taking Out put:-	7.5 mtr			
(Assuming 3 pipes of 2.5 mtr length and 2 collars)					
Materials					
Cement		0.045 cum	9118.00	410.31	
Sand		0.045 cum	270.36	12.17	
Jute		7.5 Kg	23.00	172.50	
Labour					
Head Mason		2 nos	251.00	502.00	
Unskilled mazdoor		21 nos	184.00	3864.00	
Fitter Gr I		1 nos	254.00	254.00	
				5214.98	
Add Overhead charge & C.P		15 %		782.25	
				5997.22	
Add Cess		1 %		59.97	
				6057.20	807.63
	Say		Rs 807.60	Per M	

5.6.2.5 1200 mm dia NP$_2$ H.P

		Unit :-	Per M			
		Taking Out put:-	7.5 mtr			
(Assuming 3 pipes of 2.5 mtr length and 2 collars)						
Materials						
Cement			0.057 cum		9118.00	519.73
Sand			0.057 cum		270.36	15.41
Jute			12 Kg		23.00	276.00
Labour						
Head Mason			2.5 nos		251.00	627.50
Unskilled mazdoor			25 nos		184.00	4600.00
Fitter Gr I			1 nos		254.00	254.00
						6292.64
Add Overhead charge & C.P			15 %			943.90
						7236.53
Add Cess			1 %			72.37
						7308.90
		Say		Rs	974.50	Per M

974.52

5.7 PITCHING AND PILING

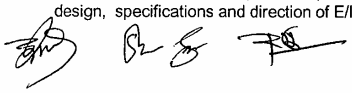
5.7.1	Labour for making 150 mm to 200 mm dia Sal ballah piles including cutting to size and dressing, making shoes for driving etc.all completeas per specification and direction of E / I.	13.00	Per pile
5.7.2	Providing two coats of coal tar painting over 150 mm to 200 mm dia Sal ballah piles and labour for driving it below ground level upto 5 metre including cost of all tools and plants required for the job all completeas per specification and	153.20	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	#VALUE!	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.	#VALUE!	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.	#VALUE!	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.	#VALUE!	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.	19.60	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.	52.10	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 of E / I.	3.70	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	237.80	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.	14.80	Per M
5.7.12	Labour for fitting and fixing 75 mm but upto 150 mmdia sal ballah runners on sal ballah verticals including cost of nails or spikes for fixing the same complete job as per specification and	21.90	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 appron including light ramming etc.all complete job as per specification	226.40	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	160.30	Per M^3

5.7.14	Providing brick flat soling with designation 100A bricks joints filled with coarse sand of approved quality including royaltyand all taxes, all complete as per approved design,specifications and		
	Patna Urban	274.70	Per M^2
	Patna	235.20	Per M^2
	Muzaffarpur	237.90	Per M^2
	Darbhanga	237.90	Per M^2
	Bhagalpur	237.90	Per M^2
	Munger	237.90	Per M^2
	Saharsa	243.30	Per M^2
	Purnea	254.10	Per M^2
	Gaya	227.20	Per M^2
	Saran	227.20	Per M^2
5.7.15	Providing brick on edge soling with designation 100A bricks joints filled with coarse sand of approved quality including royaltyand all taxes, all complete as per approved design,specifications		
	Patna Urban	443.10	Per M^2
	Patna	377.30	Per M^3
	Muzaffarpur	381.80	Per M^4
	Darbhanga	381.80	Per M^5
	Bhagalpur	381.80	Per M^6
	Munger	381.80	Per M^7
	Saharsa	390.80	Per M^8
	Purnea	408.80	Per M^9
	Gaya	363.90	Per M^{10}
	Saran	363.90	Per M^{11}
5.7.16	Providing pitching work with designation 100A bricks in pannel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay containts including royalty and all taxes, all complete as per approved design,specifications and direction of E/I		
	Patna Urban	686.50	Per M^2
	Patna	612.60	Per M^3
	Muzaffarpur	588.40	Per M^4
	Darbhanga	588.40	Per M^5
	Bhagalpur	588.40	Per M^6
	Munger	588.40	Per M^7
	Saharsa	602.80	Per M^8
	Purnea	631.60	Per M^9
	Gaya	559.70	Per M^{10}
	Saran	559.70	Per M^{11}
5.7.17	Providing pitching work with designation 100A bricks in pannel two brick on edge over a brick flat soling joints filled with local sand free from clay containts including royalty and all taxes, all complete as per approved design,specifications		
	Patna Urban	1188.60	Per M^2
	Patna	1017.60	Per M^3
	Muzaffarpur	1029.20	Per M^4
	Darbhanga	1029.20	Per M^5
	Bhagalpur	1029.20	Per M^6
	Munger	1029.20	Per M^7
	Saharsa	1052.60	Per M^8
	Purnea	1099.40	Per M^9
	Gaya	982.60	Per M^{10}
	Saran	982.60	Per M^{11}

5.7.18.1	Labour charge for pitching work on appron slope of bank with stone boulder duly packed (Uncreated complete job) materials withing 150 m lead with all lifts, all complete as per approved design,specifications and direction of E/I	543.40	Per M^3
5.7.18.2	Labour charge for pitching work on appron slope of bank with stone boulder duly packed (Uncreated complete job) materials withing 50 m lead with all lifts, all complete as per approved design,specifications and direction of E/I	241.60	Per M^3
5.7.19	Labour charge for stone boulder (uncreated) laying in launching appron and slope (materials withing 150 m lead all lifts), all complete as per approved design,specifications and direction of E/I	551.70	Per M^3
5.7.20	Labour charge for pitching with jhama briucks closely packed over appron and including preparation of base, making proper slope and grade etc.all complete (materials withing150 m lead with all lifts) as per approved	498.50	Per M^3
5.7.21.1	Labour charge for pitching above water on appron 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	#REF!	Per M^3
5.7.21.2	Labour charge for pitching above water in appron 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	#REF!	Per M^3
5.7.22	Labour charge for pitching under water in appron 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	#REF!	Per M^3
5.7.23	Labour charge for pitching under water in appron 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	744.60	Per M^3
5.7.24.1	Labour charge for pitching above water in appron 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	#REF!	Per M^3
5.7.24.2	Labour charge for pitching above water in appron 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	#REF!	Per M^3
5.7.24.3	Extra for each lead of 30 M over the initial lead of 50 M (Boulder or Brick) all complete as per approved design,specifications and direction of E/I	84.90	Per M^3
5.7.25	Labour charge for pitching under water in appron 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	#REF!	Per M^3

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 qualiuty of sand of requisite F.M. over 150 mm dry khoa rammed to make the inter spaces closer, keeping the thickness intact including royalty and all taxes complete job as per approved		
	Patna Urban	1869.30	Per M^2
	Patna	1895.90	Per M^2
	Muzaffarpur	1695.00	Per M^2
	Darbhanga	1697.10	Per M^2
	Bhagalpur	1696.00	Per M^2
	Munger	1686.70	Per M^2
	Saharsa	1723.60	Per M^2
	Purnea	1776.40	Per M^2
	Gaya	1620.70	Per M^2
	Saran	1637.20	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 qualiuty 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 and all taxes, complete job as per approved		
	Patna Urban	1993.00	Per M^2
	Patna	1465.00	Per M^2
	Muzaffarpur	1829.70	Per M^2
	Darbhanga	1842.40	Per M^2
	Bhagalpur	1841.30	Per M^2
	Munger	1831.90	Per M^2
	Saharsa	1863.30	Per M^2
	Purnea	1905.10	Per M^2
	Gaya	1766.20	Per M^2
	Saran	1782.90	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 qualiuty 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 and all taxes, complete job as per approved		
	Patna Urban	1251.40	Per M^2
	Patna	1268.20	Per M^2
	Muzaffarpur	1133.80	Per M^2
	Darbhanga	1134.90	Per M^2
	Bhagalpur	1134.30	Per M^2
	Munger	1129.20	Per M^2
	Saharsa	1152.70	Per M^2
	Purnea	1188.20	Per M^2
	Gaya	1086.40	Per M^2
	Saran	1095.50	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, unloding, stacking and carriage upto 1 K.M. lead etc.all complete job as per approved design,specifications and direction of E/I	89.90	Per M^3
5.7.29.2	Extra for carriage of jhankhi for subsequent K.M. beyond initial 1st K.M.by bullock cart.	11.50	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	232.00	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	20.80	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	115.90	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	198.50	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	127.50	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	217.50	Each
5.7.33	(a)Labour charge for fitting and fixing empty coaltar drum sheets at piles in position with G.I. nails including cutting the coal tar drum and making it plain as per approved design,	106.50	Per M^2
5.7.34	Supplying G.I wire crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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	2577.30	Each
5.7.35.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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	2226.50	Each
5.7.35.2	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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	2011.60	Each
5.7.36.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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	1530.10	Each
5.7.36.2	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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	1397.60	Each
5.7.37.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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	2132.40	Each



5.7.37.2	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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	1926.60	Each
5.7.38.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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	1464.30	Each
5.7.38.2	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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	1322.40	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	481.90	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	5.10	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.	642.50	Per % nos
5.7.40.1	Labour for filling empty cement bags with local sand, stiching the bags and placing including suppiy of sutli etc. all complete as per approved design, specifications and direction of E/I	1081.90	Per % nos
A.	Labour for filling empty cement bags with local sand, stiching the bags and stacking including suppiy of sutli etc. all complete as per, specifications and direction of E/I	440.80	Per % nos
B.	Labour for placing sand filled E.C . Bags all complete as per specifications and direction of	641.15	Per % nos
5.7.40.2	Labour for filling empty cement bags with local sand, stiching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including suppiy of sutli etc.in dry portion all complete as per approved design, specifications	270.50	Each
5.7.40.3	Labour for filling empty cement bags with local sand, stiching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including suppiy of sutli etc.and placing the filled crates in water portion within a lead 30 M , all complete as per approved design, specifications	404.40	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	226.40	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	226.40	Per M^3
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	23.50	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	53.90	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	118.10	Per M
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	9.60	Per M
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 G.I Wire 8 to 10 SWG at least at three places along its length, 3 nos loads filled with boulder in empty cement bags and tying it with B.A .Wire 20 to 25 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 baboo post , including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete job as per	#VALUE!	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 G.I Wire 8 to 10 SWG at least at three places along its length, 3 nos loads filled with brick in empty cement bags and tying it with G.I .Wire 20 to 25 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 baboo post , including Piling of baboo post ,including all taxes and royality etc and carriage of		
	Patna Urban	#VALUE!	Each
	Patna	#VALUE!	Each
	Muzaffarpur	#VALUE!	Each
	Darbhanga	#VALUE!	Each
	Bhagalpur	#VALUE!	Each
	Munger	#VALUE!	Each
	Saharsa	#VALUE!	Each
	Purnea	#VALUE!	Each
	Gaya	#VALUE!	Each
	Saran	#VALUE!	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 G.I Wire 8 to 10 SWG at least at three places along its length, 3 nos loads filled with sand in empty cement bags and tying it with G.I .Wire 20 to 25 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 baboo post , including Piling, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete job	#VALUE!	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 Bricks/ boulder spall in E.C bags, tying with 8 to 10 SWG G.I.Wire to the tree spur and anchoring the same with B.A .Wire 20 to 25 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete job as per	#VALUE!	Each
5.7.47(b)	Supplying making and Placing in positionTree branches and Jhankhi covering over all space of about of 2.832 M^3 providing 3 nos of loads by filling Bricks in E.C bags, tying with 8 to 10 SWG G.I.Wire to the tree spur and anchoring the same with B.A .Wire 20 to 25 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all		
	Patna Urban	#VALUE!	Each
	Patna	#VALUE!	Each
	Muzaffarpur	#VALUE!	Each
	Darbhanga	#VALUE!	Each
	Bhagalpur	#VALUE!	Each
	Munger	#VALUE!	Each
	Saharsa	#VALUE!	Each
	Purnea	#VALUE!	Each
	Gaya	#VALUE!	Each
	Saran	#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 Bricks/ boulder spall in E.C bags, tying with 8 to 10 SWG G.I.Wire to the tree spur and anchoring the same with B.A .Wire 20 to 25 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete job as per	#VALUE!	Each

5.7 PITCHING AND PILING

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 completeas per specification and direction of E / I.

Unit :- Per pile

Taking Out put:-	10 Piles			
Labour				
Carpenter Gr II	0.5 nos	223.00	111.50	
			111.50	
Add Overhead charge & C.P	15 %		16.73	
			128.23	
Add Cess	1 %		1.28	
			129.51	12.95
Say Rs		13.00	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 metre including cost of all tools and plants required for the job all completeas per specification and

Unit :- Per M

Taking Out put:-	30.5 Mtr			
Materials				
Coal tar	9 Kg	56.60	509.38	
Labour				
Unskilled mazdoor	18 nos	184.00	3312.00	
Mate	1 nos	201.00	201.00	
			4022.382	
Add Overhead charge & C.P	15 %		603.36	
			4625.7393	
Add Cess	1 %		46.257393	
			4671.996693	153.18
Say Rs		153.20	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

Unit :- Per M

Taking Out put:-	13.7 Mtr			
(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	#VALUE!	#VALUE!	
Labour				
Carpenter Gr II	0.5 nos	223.00	111.50	
Unskilled mazdoor	0.5 nos	184.00	92.00	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Say Rs		#VALUE!	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:-	48.8 Mtr			
(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 mtr				
Materials				
Nuts and bolts 16 mm dia 375 mm long with	30 nos	#VALUE!	#VALUE!	
Labour				
Carpenter Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1 nos	184.00	184.00	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	

	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Say Rs		#VALUE!	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.				
	Unit :- Per M				
	Taking Out put:-	6.10 Mtr			
	(Assuming 6.10 mtr long walling pieces)				
	Total nos. of joints with vertical pile at 1.22 mtr = 6 nos.				
	Materials				
	Nuts and bolts 16 mm dia 375 mm long with washer etc.	6 nos	#VALUE!	#VALUE!	
	Labour				
	Carpenter Gr II	0.125 nos	223.00	27.88	
	Unskilled mazdoor	0.125 nos	184.00	23.00	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Say Rs		#VALUE!	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.				
	Unit :- Per M				
	Taking Out put:-	10.00 Joints			
	(Assuming 10 joints)				
	Materials				
	Nuts and bolts 16 mm dia 225 mm long with washer etc.	20 nos	#VALUE!	#VALUE!	
	Labour				
	Carpenter Gr II	0.5 nos	223.00	111.50	
	Unskilled mazdoor	0.25 nos	184.00	46.00	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Say Rs		#VALUE!	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.				
	Unit :- Per M				
	Taking Out put:-	30.50 Mtr			
	(Assuming 20 nos. pile sunk 1.525 mtr deep)				
	Total depth sunk 30.50 meter				
	Labour				
	Carpenter Gr II	0.25 nos	223.00	55.75	
	Unskilled mazdoor for pilling	2.5 nos	184.00	460.00	
				515.75	
	Add Overhead charge & C.P	15 %		77.36	
				593.11	
	Add Cess	1 %		5.931125	
				599.043625	19.64
	Say Rs		19.60	Per M	
5.7.8	Labour for fitting and fixing split bamboo nwoven 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 M^2				
	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	42.00	10.50	
	Labour				
	Carpenter Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	1 nos	184.00	184.00	
				417.50	

	Add Overhead charge & C.P	15 %		62.63	
				480.13	
	Add Cess	1 %		4.80	
				484.93	52.14
		Say Rs	52.10	Per M	
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 of E / I.				
	Unit :- Per M				
	Taking Out put:-	30.50 Mtr			
	Materials				
	Cost of 150 mm long nails	0.5 Kg	42.00	21	
	Labour				
	Carpenter Gr II	0.13 nos	223.00	28.99	
	Unskilled mazdoor	0.25 nos	184.00	46	
				95.99	
	Add Overhead charge & C.P	15 %		14.40	
				110.39	
	Add Cess	1 %		1.10	
				111.49	3.66
		Say Rs	3.70	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 Mtr			
	Materials				
	Coal tar	9 Kg	56.60	509.38	
	Labour				
	Unskilled mazdoor	28 nos	184.00	5152.00	
	Mate	1 nos	201.00	201.00	
	Hire charge of 2 nos of boat of 40 quintal	2 nos	**191.00**	382.00	
				6244.38	
	Add Overhead charge & C.P	15 %		936.66	
				7181.04	
	Add Cess	1 %		71.81	
				7252.85	237.80
		Say Rs	237.80	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:-	30.50 Mtr			
	Materials				
	Cost of nails or spikes	2 Kg	42.00	84.00	
	Labour				
	Carpenter Gr II	0.75 nos	223.00	167.25	
	Unskilled mazdoor	0.75 nos	184.00	138.00	
				389.25	
	Add Overhead charge & C.P	15 %		58.39	
				447.64	
	Add Cess	1 %		4.48	
				452.11	14.82
		Say Rs	14.80	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				
	Unit :- Per M				
	Taking Out put:-	30.50 Mtr			
	Materials				
	Cost of nails or spikes	4 Kg	42.00	168.00	
	Labour				
	Carpenter Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	1 nos	184.00	184.00	
				575.00	
	Add Overhead charge & C.P	15 %		86.25	
				661.25	
	Add Cess	1 %		6.61	
				667.86	21.90

	Say Rs		21.90	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 appron including light ramming etc.all complete job as per specification				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cun			
	Unskilled mazdoor	3 nos	184.00	552.00	
				552.00	
	Add Overhead charge & C.P	15 %		82.80	
				634.80	
	Add Cess	1 %		6.35	
				641.15	226.39
	Say Rs		226.40	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 M^3				
	Taking Out put:-	1 cum			
	Unskilled mazdoor	0.75 nos	184.00	138.00	
				138	
	Add Overhead charge & C.P	15 %		20.70	
				158.70	158.70
	Add Cess	1 %		1.59	
				160.29	160.29
	Say Rs		160.30	Per M^3	
5.7.14	Providing brick flat soling with designation 100A bricks joints filled with coarse sand of approved quality including royaltyand all taxes, all complete as per approved design,specifications and				
	Unit :- Per M^2				
	Taking Out put:-	9.3 Sqm			
	Materials				
	Bricks	300 nos	5237.66	1571.30	
	Local Sand	0.142 M^3	117.22	16.65	
	Labours				
	Mason Gr 11	0.50 nos	223.00	111.50	
	Unskilled mazdoor	1.00 nos	184.00	184.00	
				1883.44	
	Add Overhead charge & C.P	15 %		282.52	
				2165.96	
	Add Cess	1 %		21.66	
				2187.62	235.23
	Say Rs		235.20	Per M^3	
5.7.15	Providing brick on edge soling with designation 100A bricks joints filled with coarse sand of approved quality including royaltyand all taxes, all complete as per approved design,specifications				
	Unit :- Per M^2				
	Taking Out put:-	9.3 Sqm			
	Materials				
	Bricks	500 nos	5237.66	2618.83	
	Local Sand	0.283 M^3	117.22	33.17	
	Labours				
	Mason Gr 11	0.625 nos	223.00	139.38	
	Unskilled mazdoor	1.25 nos	184.00	230.00	
				3021.38	
	Add Overhead charge & C.P	15 %		453.21	
				3474.59	
	Add Cess	1 %		34.75	
				3509.33	377.35
	Say Rs		377.30	Per M^2	
5.7.16	Providing pitching work with designation 100A bricks in pannel and in herring bond pattern one brick on edge over a brick flat soling joints filled with local sand free from clay containts including royalty and all taxes, all complete as per approved design,specifications and direction of E/I				
	Unit :- Per M^2				
	Taking Out put:-	9.3 Sqm			
	Materials				
	Bricks	800 nos	5237.66	4190.13	

	Local Sand	0.425 M^3	117.22	49.82	
	Labours				
	Mason Gr 11	1.125 nos	223.00	250.88	
	Unskilled mazdoor	2.25 nos	184.00	414.00	
				4904.82	
	Add Overhead charge & C.P	15 %		735.72	
				5640.55	606.51
	Add Cess	1 %		56.41	
				5696.95	612.58
		Say Rs	612.60	Per M^2	
5.7.17	Providing pitching work with designation 100A bricks in pannel two brick on edge over a brick flat soling joints filled with local sand free from clay containts including royalty and all taxes, all complete as per approved design,specifications				
	Unit :- Per M^2				
	Taking Out put:-	9.3 Sqm			
	Materials				
	Bricks	1300 nos	5237.66	6808.96	
	Local Sand	0.556 M^3	117.22	65.17	
	Labours				
	Mason Gr 11	2.000 nos	223.00	446.00	
	Unskilled mazdoor	4.50 nos	184.00	828.00	
				8148.13	
	Add Overhead charge & C.P	15 %		1222.22	
				9370.36	1007.57
	Add Cess	1 %		93.70	
				9464.06	1017.64
		Say Rs	1017.60	Per M^2	
5.7.18.1	Labour charge for pitching work on appron slope of bank with stone boulder duly packed (Uncreated complete job) materials withing 150 m lead with all lifts, all complete as per approved design,specifications and direction of E/I				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Unskilled mazdoofor carring and laying boulder	6 nos	184.00	1104.00	
	Mason Gr 11	0.50 nos	223.00	111.50	
	Mate	0.25 nos	201.00	50.25	
	Stone dresser	0.25 nos	237.00	59.25	
				1325.00	
	Add Overhead charge & C.P	15 %		198.75	
				1523.75	538.05
	Add Cess	1 %		15.24	
				1538.99	543.43
		Say Rs	543.40	Per M^2	
5.7.18.2	Labour charge for pitching work on appron slope of bank with stone boulder duly packed (Uncreated complete job) materials withing 50 m lead with all lifts, all complete as per approved design,specifications and direction of E/I				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Unskilled mazdoofor carring and laying boulder	2 nos	184.00	368.00	
	Mason Gr 11	0.50 nos	223.00	111.50	
	Mate	0.25 nos	201.00	50.25	
	Stone dresser	0.25 nos	237.00	59.25	
				589.00	
	Add Overhead charge & C.P	15 %		88.35	
				677.35	239.18
	Add Cess	1 %		6.77	
				684.12	241.57
		Say Rs	241.60	Per M^2	
5.7.19	Labour charge for stone boulder (uncreated) laying in launching appron and slope (materials withing 150 m lead all lifts), all complete as per approved design,specifications and direction of				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Unskilled mazdoofor carring and laying boulder	6 nos	184.00	1104.00	
	Mate	0.25 nos	201.00	50.25	
	Hire charge of boatof 40 quintal capicity	1 nos	**191.00**	191.00	
				1345.25	
	Add Overhead charge & C.P	15 %		201.79	

				1547.04	546.27
	Add Cess	1 %		15.47	
				1562.51	551.73
		Say Rs	551.70	Per M^2	
5.7.20	Labour charge for pitching with jhama briucks closely packed over appron and including preparation of base, making proper slope and grade etc.all complete (materials withing150 m lead with all lifts) as per approved				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Mason Gr II	0.50 nos	223.00	111.50	
	Unskilled mazdoor	6 nos	184.00	1104.00	
				1215.50	
	Add Overhead charge & C.P	15 %		182.33	
				1397.83	
	Add Cess	1 %		13.98	
				1411.80	498.52
		Say Rs	498.50	Per M^2	
5.7.21.1	Labour charge for pitching above water on appron 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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Skilled mazdoor	1.00 nos	234.00	234.00	
	Unskilled mazdoor	6.50 nos	184.00	1196.00	
	Black smith Gr II	0.25 nos	223.00	55.75	
	Stone dresser	0.25 nos	237.00	59.25	
	Mate	0.25 nos	201.00	50.25	
	Cost of 12 to 14 gauge binding wire for binding	0.30 Kg	#REF!	#REF!	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M^2	
5.7.21.2	Labour charge for pitching above water in appron 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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Skilled mazdoor	1.00 nos	285.00	285.00	
	Unskilled mazdoor	2.00 nos	184.00	368.00	
	Black smith Gr II	0.25 nos	223.00	55.75	
	Stone dresser	0.25 nos	237.00	59.25	
	Mate	0.25 nos	201.00	50.25	
	Cost of 12 to 14 gauge binding wire for binding	0.30 Kg	#REF!	#REF!	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M^2	
5.7.22	Labour charge for pitching under water in appron 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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Skilled mazdoor	1 nos	234.00	234.00	
	Unskilled mazdoor	6.50 nos	184.00	1196.00	
	Black smith Gr II	0.25 nos	223.00	55.75	
	Mate	0.25 nos	201.00	50.25	
	Cost of 12 to 14 gauge binding wire for binding	0.30 Kg	#REF!	#REF!	
	Hire charge of boat of 40 quintal capicity	2 hrs	**191.00**	382.00	
				#REF!	

	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		#REF!	Per M^2	
5.7.23	Labour charge for pitching under water in appron 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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Skilled mazdoor	1 nos	234.00	234.00	
	Unskilled mazdoor	8 nos	184.00	1472.00	
	Stone dresser	0.25 nos	237.00	59.25	
	Mate	0.25 nos	201.00	50.25	
				1815.50	
	Add Overhead charge & C.P	15 %		272.33	
				2087.83	
	Add Cess	1 %		20.88	
				2108.70	744.60
	Say Rs		744.60	Per M^2	
5.7.24.1	Labour charge for pitching above water in appron 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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Skilled mazdoor	1 nos	234.00	234.00	
	Unskilled mazdoor	6.5 nos	184.00	1196.00	
	Black smith Gr II	0.25 nos	223.00	55.75	
	Mate	0.25 nos	201.00	50.25	
	Cost of 12 to 14 gauge binding wire for binding	0.30 Kg	#REF!	#REF!	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		#REF!	Per M^2	
5.7.24.2	Labour charge for pitching above water in appron 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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	Skilled mazdoor	1 nos	234.00	234.00	
	Unskilled mazdoor	2 nos	184.00	368.00	
	Black smith Gr II	0.25 nos	223.00	55.75	
	Mate	0.25 nos	201.00	50.25	
	Cost of 12 to 14 gauge binding wire for binding	0.30 Kg	#REF!	#REF!	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
	Say Rs		#REF!	Per M^2	
5.7.24.3	Extra for each lead of 30 M over the initial lead of 50 M (Boulder or Brick) all complete as per approved design,specifications and direction of				
	Unit :- Per M^3				
	Taking Out put:-	2.832 cum			
	UnSkilled mazdoor	1.125 nos	184.00	207.00	
	Add Overhead charge & C.P	15 %		31.05	
				238.05	
	Add Cess	1 %		2.38	
				240.43	84.90
	Say Rs		84.90	Per M^2	

5.7.25 Labour charge for pitching under water in appron 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

Unit :- Per M^3

Taking Out put:-	2.832 cum			
Skilled mazdoor	1 nos	234.00	234.00	
Unskilled mazdoor	7 nos	184.00	1288.00	
Black smith Gr II	0.25 nos	223.00	55.75	
Mate	0.25 nos	201.00	50.25	
Cost of 12 to 14 gauge binding wire for binding	0.30 Kg	#REF!	#REF!	
Hire charge of boat of 40 quintal capicity	2 hrs	**191.00**	382.00	
			#REF!	
Add Overhead charge & C.P	15 %		#REF!	
			#REF!	
Add Cess	1 %		#REF!	
			#REF!	#REF!
Say Rs		#REF!	Per M^2	

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 qualiuty of sand of requisite F.M. over 150 mm dry khoa rammed to make the inter spaces closer, keeping the thickness intact including royalty and all taxes complete job as per approved Patna R

Unit :- Per M^2

Taking Out put:-	9.3 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	1896.00	3577.75	
Unskilled mazdoor	2 nos	184.00	368.00	
iii.9.3 sqm of block is equivelent 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	2.832 M^3	3707.04	10498.33	
Unskilled mazdoor for placing	4 nos	184.00	736.00	
			15180.08	
Add Overhead charge & C.P	15 %		2277.01	
			17457.10	
Add Cess	1 %		174.57	
			17631.67	1895.88
Say Rs		1895.90	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 qualiuty 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 and all taxes, complete job as per approved Patna R

Unit :- Per M^2

Taking Out put:-	9.3 Sqm			
A. Cost of 2.832 cum brick block in C.M. (1:3) as **item no.5.4.1**	2.832 M^3	4305.70	12193.74	A
B. Unskilled mazdoor for carring and placing in	4 nos	184.00	736.00	B
C. Cost of 150 mm graded jhama filter sand packing				
i. Jhama metal 20 mm to 40 mm	2.832 M^3	0.00	0.00	
ii. Sand	0.425 M^3	270.36	114.90	
iii. Unskilled mazdoor for paking	1.5 nos	184.00	276.00	
			390.90	C
Sub-Total (B+C)			1126.90	
Total (A+ B+C)			13320.65	
Add Overhead charge & C.P	15 %		169.0	
			13489.68	
Add Cess	1 %		134.90	
			13624.58	1465.01
Say Rs		1465.00	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 qualiuty 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 and all taxes, complete job as per approved Patna R

Unit :- Per M^2

Taking Out put:-	9.3 Sqm			
A. 9.3 sqm of block is equivelent 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	4127.60	7788.78	A
B. Unskilled mazdoor for carring and placing	3 nos.	184.00	552.00	B
C.Cost of khoa	1.258 M^3	1896.00	2385.17	
Unskilled mazdoor for carring and ramming	1.5 nos	184.00	276.00	
			2661.17	C
D. Extra materials for setting the block in				
Cement	0.011 M^3	9118.00	100.30	
Sand	0.045 M^3	270.36	12.17	
Mason Gr II	0.25 nos	223.00	55.75	
			168.21	D
Sub-Total (B+C+D)			3381.38	
Total (A+ B+C+D)			11170.16	
Add Overhead charge & C.P	15 %		507.21	
			11677.37	
Add Cess	1 %		116.77	
			11794.14	1268.19
Say Rs		1268.20	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, unloding, stacking and carriage upto 1 K.M. lead etc.all complete job as per approved design,specifications and direction of

Unit :- Per M^3

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	**136.60** Rs			
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=	29.96 Rs			
Assuming bullock cart capacity as jhawa bush woo	1.70 cum			
Carriage cost per 2.832 cum				
=Cost per trip x 2.832 /1.70			49.90	
2. Cost of coir string	0.5 Kg	33.00	16.50	
Labour				
Unskilled mazdoor for loading, unloading				
and placing	0.5 nos	184.00	92.00	
Unskilled mazdoor for cutting jhankhi	0.33 nos	184.00	60.72	
			219.12	
Add Overhead charge & C.P	15 %		32.87	
			251.99	
Add Cess	1 %		2.52	
			254.51	89.87
Say Rs		89.90	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 K.M Per M^3

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	**136.60** Rs			
Cost per trip= Hire charges/1.4=136.6/1.4=	97.57 Rs			
Assuming bullock cart capacity as jhawa bush woo	1.7 cum			
Carriage cost for 5 K.M lead cost per =				
Cost per trip x 2.832 /1.70 =		162.54	162.54	
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			9.94	
Add Overhead charge & C.P	15 %		1.49	
			11.43	11.43

	Add Cess	1 %		0.11	
				11.55	11.55
	Say Rs		11.50	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 % nos				
	Materials				
	Supplying palm leaves 100 nos			15.78	
	Labour				
	Unskilled mazdoor for fixing	1 nos	184.00	184.00	
				199.78	
	Add Overhead charge & C.P	15 %		29.97	
				229.75	
	Add Cess	1 %		2.30	
				232.04	232.04
	Say Rs		232.00	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 **Vide T.E.C No 67 dated 26.6.90**				
	Unit :- Per M^2				
	Taking Out put:-	55.76 Sqm			
	Labour				
	Black smith Gr II	2 nos	223.00	446.00	
	Unskilled mazdoor as Helper	2 nos	184.00	368.00	
	Unskilled mazdoor for tying joints	1 nos	184.00	184.00	
				998.00	
	Add Overhead charge & C.P	15 %		149.70	
				1147.70	20.58
	Add Cess	1 %		11.48	
				1159.18	20.79
	Say Rs		20.80	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 **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	223.00	446.00	
	Unskilled mazdoor for weaving the wire,as helperin making creates &tying joints	3 nos	184.00	552.00	
				998.00	
	Add Overhead charge & C.P	15 %		149.70	
				1147.70	
	Add Cess	1 %		11.48	
				1159.18	115.92
	Say Rs		115.90	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 **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	223.00	936.60	
	Unskilled mazdoor for weaving the wire,as helper in making creates & tying joints	4.2 nos	184.00	772.80	
				1709.40	
	Add Overhead charge & C.P	15 %		256.41	
				1965.81	
	Add Cess	1 %		19.66	
				1985.47	198.55

	Say Rs		198.50	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 **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	223.00	490.60	
	Unskilled mazdoor for weaving the wire,as helper in making creates &tying joints	3.3 nos	184.00	607.20	
				1097.80	
	Add Overhead charge & C.P	15 %		164.67	
				1262.47	
	Add Cess	1 %		12.62	
				1275.09	127.51
	Say Rs		127.50	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 **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	223.00	1025.80	
	Unskilled mazdoor for weaving the wire,as helper in making creates & tying joints	4.6 nos	184.00	846.40	
				1872.20	187.22
	Add Overhead charge & C.P	15 %		280.83	
				2153.03	
	Add Cess	1 %		21.53	
				2174.56	217.46
	Say Rs		217.50	Each	
5.7.33	(a)Supplying and Labour charge for fitting and fixing empty coaltar 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 M^2				
	Taking Out put:-	10.76 Sqm			
	Material				
	Colatar drum	6 nos	120.00	720.00	
	Nail and spike	0.4 Kg	42.00	16.80	
	Labour				
	Black smith Gr II	0.5 nos	223.00	111.50	
	Helper for cutting 12 drum and making plain	0.5 nos	184.00	92.00	
	Unskilled mazdoor for fitting and fixing drums	0.25 nos	184.00	46.00	
				986.30	
	Add Overhead charge & C.P	15 %		147.95	
				1134.25	
	Add Cess	1 %		11.34	
				1145.59	106.47
			106.50	Each	
5.7.34	Supplying G.I wire crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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				
	Unit :- Each				
	Materials				
	Cost of one M.T. of G.I Wire of 8 S.W.G including carriage	1 M.T	64000.00		
	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			2031.75	
	Labour				

Labour charge as item 5.7.32.D				187.22	
				2218.97	
Add Overhead charge & C.P	15 %			332.84	
				2551.81	
Add Cess	1 %			25.52	
				2577.33	2577.33
Say Rs			2577.30	Each	
5.7.35.1 Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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 **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		64000.00		
Av nos of crate manufactured 37 nos	37 nos				
Materials cost of one box=Cost of 1 M.T G.I wire/37				1729.73	
Labour					
Labour charge as item 5.7.32.D				187.22	
				1916.95	
Add Overhead charge & C.P	15 %			287.54	
				2204.49	
Add Cess	1 %			22.04	
				2226.54	2226.54
Say Rs			2226.50	Each	
5.7.35.2 Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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 **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		64000.00		
Av nos of crate manufactured 41 nos	41 nos				
Materials cost of one box=Cost of 1 M.T G.I wire/30				1560.98	
Labour					
Labour charge as item 5.7.32.B				170.94	
				1731.92	
Add Overhead charge & C.P	15 %			259.79	
				1991.70	
Add Cess	1 %			19.92	
				2011.62	2011.62
Say Rs			2011.60	Each	
5.7.36.1 Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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 **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		64000.00		
Av nos of crate manufactured 53nos	53 nos				
Materials cost of one box=Cost of 1 M.T G.I wire/53				1207.55	
Labour					
Labour charge as item 5.7.32.C				109.78	
				1317.33	
Add Overhead charge & C.P	15 %			197.60	
				1514.93	
Add Cess	1 %			15.15	
				1530.08	1530.08
Say Rs			1530.10	Each	
5.7.36.2 Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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 **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	64000.00		
	Av nos of crate manufactured 58 nos	58 nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/58			1103.45	
	Labour				
	Labour charge as item 5.7.32.A			99.80	
				1203.25	
	Add Overhead charge & C.P	15 %		180.49	
				1383.74	
	Add Cess	1 %		13.84	
				1397.57	1397.57
	Say Rs		1397.60	Each	
5.7.37.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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 **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	61000.00		
	Av nos of crate manufactured 37nos	37 nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/37			1648.65	
	Labour				
	Labour charge as item 5.7.32.D			187.22	
				1835.87	
	Add Overhead charge & C.P	15 %		275.38	
				2111.25	
	Add Cess	1 %		21.11	
				2132.36	2132.36
	Say Rs		2132.40	Each	
5.7.37.2	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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 **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	61000.00		
	Av nos of crate manufactured 41nos	41 nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/41			1487.80	
	Labour				
	Labour charge as item 5.7.32.B			170.94	
				1658.74	
	Add Overhead charge & C.P	15 %		248.81	
				1907.56	1907.56
	Add Cess	1 %		19.08	
				1926.63	1926.63
	Say Rs		1926.60	Each	
5.7.38.1	Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.75 mtr 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 **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	61000.00		
	Av nos of crate manufactured 53nos	53 nos			
	Materials cost of one box=Cost of 1 M.T G.I wire/53			1150.94	
	Labour				
	Labour charge as item 5.7.32.C			109.78	
				1260.72	
	Add Overhead charge & C.P	15 %		189.11	
				1449.83	1449.83
	Add Cess	1 %		14.50	
				1464.33	1464.33
	Say Rs		1464.30	Each	

5.7.38.2 Supplying wire mesh crates of size 3 mtr x 1.5 mtr x 0.60 mtr 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 **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	61000.00		
Av nos of crate manufactured 58nos	58 nos			
Materials cost of one box=Cost of 1 M.T G.I wire/58			1051.72	
Labour				
Labour charge as item 5.7.32.A			99.80	
			1151.52	
Add Overhead charge & C.P	15 %		157.76	
			1309.28	1309.28
Add Cess	1 %		13.09	
			1322.38	1322.38
Say Rs		1322.40	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 :- PerM^3

Taking Out put:- 8 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 40 Qt Boat	1 Day	**191.00**	191.00	
Unskilled mazdoor for loading and unloading	17 nos	184.00	3128.00	
			3319.00	
Add Overhead charge & C.P	15 %		497.85	
			3816.85	
Add Cess	1 %		38.17	
			3855.02	481.88
Say Rs		481.90	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 upto 4 K.M.all complete as per approved design, specifications and direction of

Unit :- Per K.M PerM^3

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
Say 5.39 cum

Hire charge of 40 Qt Boat	1 Day	**191.00**	191.00	
Unskilled mazdoor for loading and unloading	11.5 nos	184.00	2116.00	
			2307.00	
Add Overhead charge & C.P	15 %		346.05	
			2653.05	
Add Cess	1 %		26.53	
			2679.58	497.14
Say Rs		497.10	PerM^3	
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		5.07		5.07
Say Rs		5.10	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 40 Qt Boat	1 Day	**191.00**	191.00	
Unskilled mazdoor for loading and unloading	17 nos	184.00	3128.00	
			3319.00	

	Add Overhead charge & C.P	15 %			497.85	
					3816.85	636.14
	Add Cess	1 %			38.17	
					3855.02	642.50
		Say Rs		642.50	Per % nos	
5.7.40.1	Labour for filling empty cement bags with local sand, stiching the bags and placing including suppiy of sutli etc. all complete as per approved design, specifications and direction of E/I					
	Unit :- Per % nos					
	Taking Out put:-	100 nos				
	For filling & stiching & stacking					
	(a) Unskilled mazdoor for filling sand into bags and sewing	2 nos		184.00	368.00	
	Sutali	0.5 Kg		23.00	11.50	
					379.50	
	Add Overhead charge & C.P	15 %			56.93	
					436.43	
	Add Cess	1 %			4.36	
					440.79	440.79
.7.40.1.1	**Labour rate for filling of E.C.Bags with stiching and stacking**	Say Rs		440.80	Per % nos	**(a)**
	(b) Unskilled mazdoor for carring filled bags and placing to work site	3 nos		184.00	552.00	
	Add Overhead charge & C.P	15 %			82.80	
					634.80	
	Add Cess	1 %			6.35	
					641.15	641.15
.7.40.1.2	**Labour rate for Carring & Placing to work site of E.C.Bags**	Say Rs		641.15	Per % nos	**(b)**
						1081.94
5.7.40.1	**Labour rate for Filling of E.C bags with stiching, Carring & Placing to work site (a+b)**			1081.90	Per%Nos	
5.7.40.2	Labour for filling empty cement bags with local sand, stiching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with a lead of 150 M including suppiy of sutli etc. at site in dry portion all complete as per approved design,					
	Unit :- Each					
	Taking Out put:-	25 nos of filled E.C.Bags in each N/C				
	Cost of 25 nos of filled E.C.Bag (vide item no	25 nos		1081.90	270.475	270.475
		Say Rs		270.50	Each	
5.7.40.3	Labour for filling empty cement bags with local sand, stiching 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,					
	Unit :- Each					
	Cost of Nylone crating (vide item no 5.7.40.2) except C.P., overhead ch. & cess	1 nos		**232.88**	232.88	(i)
	(ii).Placing of filled N/C with 30 m lead in water Portion					
	a.Skilled mazdoor	1 No		234.00	234.00	
	b.Unskilled mazdoor	1 No		184.00	184.00	
	c. Mate	0.37 No		201.00	74.37	
					492.37	
	Add Overhead charge & C.P	15 %			73.86	
					566.23	
	Add Cess	1 %			5.66	
					571.89	(X)
	Taking one E.Cbags to contain 1.20 cft of Sand Hence rate for 100 no bags (X) x120 /100x4	171.57			171.57	(ii)
	Hence rate Per Nylon crate in water Portion(i+ii)				404.44	404.44
		Say	Rs	404.40	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 M^3					
	Taking Out put:-	2.832 cum				
	Labour					

	Unskilled mazdoor for picking and carrying	2.5 nos	184.00	460.00	
	Unskilled mazdoor for cutting stacking	0.5 nos	184.00	92.00	
				552.00	
	Add Overhead charge & C.P	15 %		82.80	
				634.80	224.15
	Add Cess	1 %		6.35	
				641.15	226.39
	Say Rs		226.40	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 M^3				
	Taking Out put:-	2.832 cum			
	Labour				
	Unskilled mazdoor for carriage and dumping	3 nos	184.00	552.00	
	Add Overhead charge & C.P	15 %		82.80	
				634.80	224.15
	Add Cess	1 %		6.35	
				641.15	226.39
	Say Rs		226.40	Per M^3	
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				
	Unit :- Per M				
	Taking Out put:-	30.48 mtr			
	Materials				
	Cost of nails or spikes	5 Kg	42.00	210.00	
	Labour				
	Carpenter Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	1 nos	184.00	184.00	
				617.00	
	Add Overhead charge & C.P	15 %		92.55	
				709.55	
	Add Cess	1 %		7.10	
				716.65	23.51
	Say Rs		23.50	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				
	Unit :- Per M^3				
	Taking Out put:-	28.32 cum			
	Unskilled mazdoor for cutting earth	4 nos	184.00	736.00	
	Unskilled mazdoor for carring earth and clod and rough dressingof slope	3 nos	184.00	552.00	
	Mate	0.125 nos	201.00	25.13	
				1313.13	
	Add Overhead charge & C.P	15 %		196.97	
				1510.09	
	Add Cess	1 %		15.10	
				1525.19	53.86
	Say Rs		53.90	Per M^3	
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 **Vide T.E.C. letter no 48 (e) dated 10.05.04**				
	Unit :- Per M^2				
	Taking Out put:-	10 Sqm			
	Material				
	Permeable synthetic Geotextile including 5 % for overlap and wastage	10.50 Sqm	89.00	934.50	
	Labour				
	Mate	0.02 nos	201.00	4.02	
	Unskilled mazdoor	0.30 nos	184.00	55.20	
	Skilled mazdoor	0.10 nos	234.00	23.40	
				1017.12	
	Add Overhead charge & C.P	15 %		152.57	
				1169.69	

3/11/15

Add Cess	1 %		11.70		
			1181.38	118.14	
Say Rs		118.10	Per M^2		

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

Unit :- Per M^2

Taking Out put:-	10 Sqm			
Mate	0.02 nos	201.00	4.02	
Unskilled mazdoor	0.30 nos	184.00	55.20	
Skilled mazdoor	0.10 nos	234.00	23.40	
			82.62	
Add Overhead charge & C.P	15 %		12.39	
			95.01	9.50
Add Cess	1 %		0.95	
			95.96	9.60
Say Rs		9.60	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 G.I Wire 8 to 10 SWG at least at three places along its length, 3 nos loads filled with boulder in empty cement bags and tying it with B.A .Wire 20 to 25 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 baboo post , including Piling of baboo post ,including all taxes and royality etc and carriage of

Unit :- Each

Materials				
Bamboo 75 mm dia 6 m to 8 m long	4.25 Nos	52.00	221.00	
Annealled wire 20 to 25 SWG	0.5 Kg	64.00	32.00	
B.A.Wire 8 to 10 SWG	1.13 Kg	#VALUE!	#VALUE!	
E.C.bags	3 Nos	2.7	8.10	
Boulder spall				
Taking compact volume 0.75 cft per bags	0.064 Cum	270.36	17.30	
Labour				
Unskilled labour for Tying and Placing etc.	0.5 nos	184.00	92.00	
Unskilled Laour for filling E.C.Bags	0.06 nos	184.00	11.04	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Say Rs		#VALUE!	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 G.I Wire 8 to 10 SWG at least at three places along its length, 3 nos loads filled with brick in empty cement bags and tying it with G.I .Wire 20 to 25 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 baboo post , including Piling of baboo post ,including all taxes and royality etc and carriage of Patna R

Unit :- Each

Materials				
Bamboo 75 mm dia 6 m to 8 m long	4.25 Nos	52.00	221.00	
Annealled wire 20 to 25 SWG	0.5 Kg	64.00	32.00	
B.A.Wire 8 to 10 SWG	1.13 Kg	#VALUE!	#VALUE!	
E.C.bags	3 Nos	2.7	8.10	
Brick (100 B)	30 Nos	5.84	175.15	
Labour				
Unskilled labour for Tying and Placing etc.	0.5 nos	184.00	92.00	
Unskilled Laour for filling E.C.Bags	0.06 nos	184.00	11.04	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!

	Say Rs		#VALUE!	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 G.I Wire 8 to 10 SWG at least at three places along its length, 3 nos loads filled with sand in empty cement bags and tying it with G.I .Wire 20 to 25 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 baboo post , including Piling, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete				
	Unit :- Each				
	Assuming one nos of baboo roll				
	Materials				
	Bamboo 75 mm dia 6 m to 8 m long	4.25 Nos	52.00	221.00	
	Annealled wire 20 to 25 SWG	0.5 Kg	64.00	32.00	
	B.A.Wire 8 to 10 SWG	1.13 Kg	#VALUE!	#VALUE!	
	E.C.bags	3 Nos	2.7	8.10	
	Local sand				
	Taking compact volume 0.75 cft per bags	0.06 Cum	117.22	7.03	
	Labour				
	Unskilled labour for Tying and Placing etc.	0.5 Nos	184.00	92.00	
	Unskilled Laour for filling E.C.Bags	0.06 Nos	184.00	11.04	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Say Rs		#VALUE!	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 Bricks/ boulder spall in E.C bags, tying with 8 to 10 SWG G.I.Wire to the tree spur and anchoring the same with B.A .Wire 20 to 25 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete job as per				
	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	#VALUE!	#VALUE!	
	Bamboo 75 mm dia 6 m to 8 m long	3.25 Nos	52.00	169.00	
	Annealled wire 20 to 25 SWG	1.5 Kg	64.00	96.00	
	B.A.Wire 8 to 10 SWG	11.3 Kg	#VALUE!	#VALUE!	
	E.C.bags	30 Nos	2.7	81.00	
	Boulder spall (compact volume)	0.64 Cum	270.36	173.03	
	Labour				
	Unskilled labour for Tying and Placing etc.	5	184.00	920.00	
	Unskilled Laour for filling E.C.Bags	0.6	184.00	110.40	
				#VALUE!	
		15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	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 in E.C bags, tying with 8 to 10 SWG G.I.Wire to the tree spur and anchoring the same with B.A .Wire 20 to 25 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site Patna R				
	Unit :-				
	Assuming 10 nos Tree branches				
	Materials				

9/11/15

Cost of Tree branches of dia150 mm to 200 mm and 3 M tb 4.5 M long with jhankhi covering the space of 100 cft in volume	10 Nos	#VALUE!	#VALUE!	
Bamboo 75 mm dia 6 m to 8 m long	3.25 Nos	52.00	169.00	
Annealled wire 20 to 25 SWG	1.5 Kg	64.00	96.00	
B.A.Wire 8 to 10 SWG	11.3 Kg	#VALUE!	#VALUE!	
E.C.bags	30 Nos	2.7	81.00	
Bricks (100B)	300 Nos	5.84	1751.55	
Labour				
Unskilled labour for Tying and Placing etc.	5	184.00	920.00	
Unskilled Laour for filling E.C.Bags	0.6	184.00	110.40	
			#VALUE!	
	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Say Rs		#VALUE!	Each	

5.7.47© 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/ boulder spall in E.C bags, tying with 8 to 10 SWG G.I.Wire to the tree spur and anchoring the same with B.A .Wire 20 to 25 SWG to the bamboo post at least 15 M away from the river bank, including Piling of baboo post ,including all taxes and royality etc and carriage of all materials at site all complete job as per

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	#VALUE!	#VALUE!	
Bamboo 75 mm dia 6 m to 8 m long	3.25 Nos	52.00	169.00	
Annealled wire 20 to 25 SWG	1.5 Kg	64.00	96.00	
B.A.Wire 8 to 10 SWG	11.3 Kg	#VALUE!	#VALUE!	
E.C.bags	30 Nos	2.7	81.00	
Local sand				
Taking compact volume 0.75 cft per bags	0.64 Cum	117.22	75.02	
Labour				
Unskilled labour for Tying and Placing etc.	5	184.00	920.00	
Unskilled Laour for filling E.C.Bags	0.6	184.00	110.40	
			#VALUE!	
	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Say Rs		#VALUE!	Each	

5/11/15

5.8 MISCELLANEOUS

5.8.1	Supplying, fitting and fixing copper strip of 16 guage of approved quality (with 90 % purity) in expansion joints all complete as per approved design, specifications and direction of E/I	865.50	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 (Shalites or equivalent) in expansion or construction joint all complete as per approved design, specifications and direction	734.20	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		
	Patna Urban	203.80	/ cm width / cm depth / 100 mtr length
	Patna	203.80	/ cm width / cm depth / 100 mtr length
	Muzaffarpur	204.00	/ cm width / cm depth / 100 mtr length
	Darbhanga	204.00	/ cm width / cm depth / 100 mtr length
	Bhagalpur	204.00	/ cm width / cm depth / 100 mtr length
	Munger	203.70	/ cm width / cm depth / 100 mtr length
	Saharsa	204.00	/ cm width / cm depth / 100 mtr length
	Purnea	204.00	/ cm width / cm depth / 100 mtr length
	Gaya	203.40	/ cm width / cm depth / 100 mtr length
	Saran	203.80	/ cm width / cm depth / 100 mtr length
5.8.5.1	Providing and driving steel sheet piles on specified alignment and upto 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 charage of sheet pile, driving plant etc as per approved design, specifications and direction of E/I (For the pupose of payment opf sheet pile driving measurement	#VALUE!	Per M
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 extraced shall be	#VALUE!	Per M
5.8.6(a)	Providing weep holes with dry graded stone single filter of 20 mm to 40 mm siz in abutment and wing wall as per specification and direction of E/I	75.00	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		
	Patna Urban	231.10	Each
	Patna	224.00	Each
	Muzaffarpur	215.10	Each
	Darbhanga	221.60	Each
	Bhagalpur	221.60	Each
	Munger	221.60	Each
	Saharsa	221.60	Each
	Purnea	221.60	Each
	Gaya	215.10	Each
	Saran	215.10	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.	305.10	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.		538.10	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		1099.00	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		12.10	Per M^2	

5.8 MISCELLANEOUS

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 acessries				
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 %				
i.Cost per linear metre.Including furnishing,	3.77 kg	719.00	2708.38	
ii. Cost of bracing, washers and nails etc. per running metre @ 3 % of item (i)			81.25	
Sub-Total			2789.63	
B.Labour charge				
Taking that 1/4 mason and 1 helper can place				
Head mason.	0.25 nos	251.00	62.75	
Helper	1 nos	196.00	196.00	
Total labour charge			258.75	
Total charge per mtr= total labour charge / 15			17.25	
Total A+B			2806.88	
Hence rate per kg =Total (A+B)/ wt. Of seal per			745.15	
Add Overhead charge & C.P	15 %		111.77	
			856.92	
Add Cess	1 %		8.57	
			865.49	865.49
Hence rate per kg of copper seal		865.50	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 mtr

Taking Out put:-	1 mtr			
Cost of rubber seal	1 mtr	#VALUE!	#VALUE!	
Add for overlapping and valcanizing 10 % of the			#VALUE!	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Hence rate per mtr of rubber seal per mtr		#VALUE!	Per mtr	

5.8.3 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

Unit:- Per M^2

Taking Out put:-	9.3 Sqm			
Material				
Bituminastic board	9.3 M^2	611.00	5682.30	
Shalitex primer	2.25 Kg	42.00	94.50	
Labour				This rate is
Mason Gr II	0.25 nos	223.00	55.75	under
Unskilled mazdoor	0.25 nos	184.00	46.00	rectification
			5878.55	

	Add Overhead charge & C.P	15 %			881.78	
					6760.33	726.92
	Add Cess	1 %			67.60	
					6827.94	734.19
	Say		Rs	734.20	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	Patna U				
		Unit:-	Per cm width	Per cm depth	Per100 mtr lenth	
	Consider a joint =2.5 cm wide 15 cm deep and 292.75 mtre 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	55637.00	15689.63	
	Cement	0.088	Cum	9118.00	802.38	
	Coarse sand	0.0283	Cum	270.36	7.65	
	Steam coal @ 2 quintal / M.T(including carriage	0.564	Qnt	315.00	177.66	
	Labour					
	Mason Gr II	5	nos	223.00	1115.00	
	Unskilled mazdoor	8	nos	184.00	1472.00	
					19264.33	
	Add Overhead charge & C.P	15 %			2889.65	
					22153.98	
	Add Cess	1 %			221.54	
					22375.52	203.82
		203.80 / cm width / cm depth / 100 mtr lenth				
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,					
		Unit:-	Per M			
	Assuming pilling that can be expected to be driven per hour= 65.37 x 6.70= 437.98 Kg					
	(Assuming I.S.P.S. 1625 U& pilling 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 pilling machines and dismantling @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges forsupply 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!	
	Surface area of 1 M.T. sheet piles to be painted					
C.	both side with anti-corrasive bitumen, paint					
	Length of sheet pile per M.T=1 x 1000 / 65.37 = 15.29 mtr					
	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 / M2 =24.62 x 0.5 =	12.31	Kg	38.00	467.78	
D.	Unskilled mazdoor	2	nos	184.00	368.00	
	Total (A+B+C+D)				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	

					#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M	
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 extraced shall be					
	Unit:- Per M					
	Assuming pilling that can be expected to be per hour= 65.37 x 6.70= 437.98 Kg					
	(Assuming I.S.P.S. 1625 U& pilling section vide I.S. 2314, 1963)					
	Hourly use rate of sheet pile					
	Sheet pile Driving plant	**#VALUE!**				
A.	(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 pilling machines and dismantling @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges forsupply 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!	
B.	Unskilled mazdoor	2 nos		184.00	368.00	
	Total (A+B)				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M	
5.8.6(a)	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm siz in abutment and wing wall as per specification and direction of E/I					
	Unit :- Each					
	Stone metal filter 20 mm to 40 mm	0.113 M^3		481.18	54.37	
	Fitting and cost of Wire netting @ 20% of above				10.87	
					65.25	
	Add Overhead charge & C.P	15 %			9.79	
					75.04	75.04
	Say		Rs	75.00	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 Patna U					
	Unit :- Each					
	Jhama metal filter 20 mm to 40 mm	0.113 M^3		1467.22	165.80	
	Fitting and cost of Wire netting @ 20% of above				33.16	
					198.95	
	Add Overhead charge & C.P	15 %			29.84	
					228.80	
	Add Cess	1 %			2.29	
					231.09	231.09
	Say		Rs	231.10	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 M^3					
	Taking Out put:-	2.832 Cum				
	Semi skilled mazdoor	1 nos		192.00	192.00	
	Unskilled mazdoor	3 nos		184.00	552.00	
					744.00	
	Add Overhead charge & C.P	15 %			111.60	
					855.60	

	Add Cess	1 %		8.56	
				864.16	305.14
	Say Rs		305.10	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 M^3				
	Taking Out put:-	2.832 Cum			
	Semi skilled mazdoor	3 nos	192.00	576.00	
	Unskilled mazdoor	4 nos	184.00	736.00	
				1312.00	
	Add Overhead charge & C.P	15 %		196.80	
				1,508.80	
	Add Cess	1 %		15.09	
				1523.89	538.10
	Say Rs		538.10	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				
	Unit :- Per M^3				
	Taking Out put:-	2.832 Cum			
	Hammer man	2.25 nos	196.00	441.00	
	Skilled mazdoor	2.25 nos	234.00	526.50	
	Unskilled mazdoor	7 nos	184.00	1288.00	
	Blacksmith Gr II	1 nos	223.00	223.00	
	Mate	1 nos	201.00	201.00	
				2679.50	
	Add Overhead charge & C.P	15 %		401.93	
				3,081.43	
	Add Cess	1 %		30.81	
				3112.24	1,098.95
	Say Rs		1099.00	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				
	Unit :- Per M^2				
	Taking Out put:-	9.3 Sqm			
	Semi skilled mazdoor	0.35 nos	192.00	67.20	
	Unskilled mazdoor	0.10 nos	184.00	18.40	
	Bhisti	0.06 nos	186.00	11.16	
				96.76	
	Add Overhead charge & C.P	15 %		14.51	
				111.27	
	Add Cess	1 %		1.11	
				112.39	12.08
	Say Rs		12.10	Per M^2	

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CHAPTER VI

BARRAGE AND WEIR

6.1 EARTH WORK

6.1.1	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)		
	(a) Girth above 0.50 metre but upto 0.75 metre	171.60	Each
	(b) Girth above 0.75 metre but upto 1.50 metre	343.20	Each
	(c) Girth above 1.5 metre but upto2.50 metre	621.70	Each
	(d) Girth above 2.50 metre but upto 4.00 metre	1007.00	Each
	(e) Girth above 4.00 metre	1457.10	Each
6.1.2	Up.rooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 metre but upto 0.75 metre	106.90	Each
	(b) Girth above 0.75 metre but upto 1.50 metre	106.90	Each
	(c) Girth above 1.5 metre but upto2.50 metre	142.50	Each
	(d) Girth above 2.50 metre but upto 4.00 metre	213.70	Each
	(e) Girth above 4.00 metre	267.10	Each
6.1.3.1	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.	1.70	Per M^2
6.1.3.2	Jungle clearance and weeding out shurbs including small tree upto 0.50 mtr girth and removal as per specifications and direction of E/I.	5.20	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 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.	67.90	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 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.	126.60	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 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.	287.70	Per M^3

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6.1.7	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.	310.00	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 excavated earth so obtained (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.	100.70	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.	15.10	Per M^3
6.1.10	Extra for earth work in marshy soil , slushy and daldal (vide classification of soil item-F)	22.60	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 tranch) 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 conccerned Chief Engineer)	449.90	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 isnot required) (vide classification of soil item C) disposal of excavated materials so obtained (beyond 50 mtr away from the edge of the tranch) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.	323.00	Per M^3
6.1.12	Earth work in excavation of foundation trenches as per designed section in har rock where blasting is required and stacking properly in approved stack size in approved stack yard (beyond 50 mtr away from the edge of the tranch in country side) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.	777.30	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 (50 mtr. away from the edge of the trench)beyound initial lead of 150 m 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.	284.40	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 (50 mtr away from the edge of the trench beyond initial lead of 150 mtr 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 conccerned Chief Engineer)	605.80	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 mtr away from the edge of the trench beyond initial lead of 150 mtr 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.	431.20	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 (50 mtr away from the edge of the trench beyond initial lead of 150 mtr 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.	604.90	Per M^3
6.1.16	Earth work in filling in foundation trenches and back filling of masonary structures with suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable prpfile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.	65.40	Per M^3
6.1.17	Earth work in filling in foundation trenches and back filling of masonary structures with semipervious orsuitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly dressed withearth 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.	73.00	Per M^3
6.1.18	Extra for each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. (for ordinary or hard soil) as per specification and direction of E/I.	7.50	Per M^3
6.1.19	Extra for each subsequent lead upto 25 Mtr beyond the initial lead of 30 Mtr. (for ordinary or hard soil) as per specification and direction of E/I.	7.50	Per M^3
6.1.20	Extra for each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. (for ordinary soft or hard rock) as per specification and direction of E/I.	11.30	Per M^3

6.1.21	Extra for each subsequent lead upto 25 Mtr beyond the initial lead of 30 Mtr. (for ordinary soft or hard rock) as per specification and direction of E/I.	11.30	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 sode obtained within a lead of 150 mtr including the cost of watering the grass surface till it acquires greennessas per specifications and direction of E/I.	1520.40	Per % M^2
6.1.24.2	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.	320.60	Per % M^2
6.1.25	Close timbering in trenches including strutting, shoring and packing cavaties(whereve required)depth not exceding 1.5 mtr, complete as per specifications and direction of E/I.	45.60	Per M^2
6.1.26	Close timbering in trenches including strutting, shoring and packing cavaties(whereve required)depth not exceding 1.5 mtr, but upto 3.0 mtrcomplete as per specifications and direction of E/I.	48.70	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 roads as per specifications and direction of E/I.	263.30	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.	294.40	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** (50 mtr. away from the edge of the trench)beyound initial lead of 150 m 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.	260.00	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 mtr away from the edge of the trench beyond initial lead of 150 mtr 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 conccerned Chief Engineer)

515.20 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 mtr away from the edge of the trench beyond initial lead of 150 mtr 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.

362.30 Per M^3

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 mtr 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.

536.90 Per M^3

6.1.32 Earth work in filling in foundation trenches or back filling of masonary structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly dressed withearth obtained after cutting from borrow pits beyond 150 mtr. lead but upto 1/2 K.M. with all lift and carriage by **Tipper** complete job as per specifications and direction of E/I.

325.90 Per M^3

6.1.33 Earth work in filling in foundation trenches or back filling of masonary structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly dressed withearth obtained after cutting from borrow pits beyond 1/2 K.M lead but upto 1 K.M. with all lift and carriage by **Tipper** complete job as per specifications and direction of E/I.

341.40 Per M^3

CHAPTER VI

BARRAGE AND WEIR

6.1 EARTH WORK

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.(Measurment of girth at a hight of one metre above the ground level)

Unit:- Each

(a) Girth above 0.50 metre but upto 0.75 metre				
Carpenter Gr II	0.25 nos	223.00	55.75	
Unskilled mazdoor	0.50 nos	184.00	92.00	
			147.75	
Add Overhead charge & C.P	15 %		22.1625	
			169.91	
Add Cess	1 %		1.70	
			171.61	171.61
	Say Rs.	171.60	Each	
(b) Girth above 0.75 metre but upto 1.50 metre				
Carpenter Gr II	0.50 nos	223.00	111.50	
Unskilled mazdoor	1 nos	184.00	184.00	
			295.50	
Add Overhead charge & C.P	15 %		44.325	
			339.83	
Add Cess	1 %		3.40	
			343.22	343.22
	Say Rs.	343.20	Each	
(c) Girth above 1.5 metre but upto2.50 metre				
Carpenter Gr II	0.75 nos	223.00	167.25	
Unskilled mazdoor	2 nos	184.00	368.00	
			535.25	
Add Overhead charge & C.P	15 %		80.2875	
			615.54	
Add Cess	1 %		6.16	
			621.69	621.69
	Say Rs.	621.70	Each	
(d) Girth above 2.50 metre but upto 4.00 metre				
Carpenter Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	3.50 nos	184.00	644.00	
			867.00	
Add Overhead charge & C.P	15 %		130.05	
			997.05	
Add Cess	1 %		9.97	
			1007.02	1007.02
	Say Rs.	1007.00	Each	
(e) Girth above 4.00 metre				
Carpenter Gr II	1.50 nos	223.00	334.50	
Unskilled mazdoor	5 nos	184.00	920.00	
			1254.50	
Add Overhead charge & C.P	15 %		188.175	
			1442.68	
Add Cess	1 %		14.43	
			1457.10	1457.10
	Say Rs.	1457.10	Each	

6.1.2 Up.rooting of stumps and their removal,away from the work site as per specifications and direction of E/I.

Unit:- Each

(a) Girth above 0.50 metre but upto 0.75 metre				
Unskilled mazdoor	0.50 nos	184.00	92.00	
			92.00	
Add Overhead charge & C.P	15 %		13.80	
			105.80	
Add Cess	1 %		1.06	
			106.86	106.86
	Say Rs.	106.90	Each	

	(b) Girth above 0.75 metre but upto 1.50 metre				
	Unskilled mazdoor	0.50 nos	184.00	92.00	
				92.00	
	Add Overhead charge & C.P	15 %		13.8	
				105.80	
	Add Cess	1 %		1.06	
				106.86	106.86
		Say Rs.	106.90	Each	
	(c) Girth above 1.5 metre but upto2.50 metre				
	Unskilled mazdoor	0.67 nos	184.00	122.67	
				122.67	
	Add Overhead charge & C.P	15 %		18.40	
				141.07	
	Add Cess	1 %		1.41	
				142.48	142.48
		Say Rs.	142.50	Each	
	(d) Girth above 2.50 metre but upto 4.00 metre				
	Unskilled mazdoor	1 nos	184.00	184.00	
				184.00	
	Add Overhead charge & C.P	15 %		27.6	
				211.60	
	Add Cess	1 %		2.12	
				213.72	213.72
		Say Rs.	213.70	Each	
	(e) Girth above 4.00 metre				
	Unskilled mazdoor	1.25 nos	184.00	230.00	
				230.00	
	Add Overhead charge & C.P	15 %		34.5	
				264.50	
	Add Cess	1 %		2.65	
				267.15	267.15
		Say Rs.	267.10	Each	
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.				
		Unit:- Per M^2			
	Taking out put:-	92.94 Sqm			
	Unskilled mazdoor for levelling and ploughinging	0.75 nos	184.00	138.00	
				138.00	
	Add Overhead charge & C.P	15 %		20.7	
				158.70	
	Add Cess	1 %		1.59	
				160.29	1.72
		Say Rs.	1.70	Per M2	
6.1.3.2	Jungle clearance and weeding out shurbs including small tree upto 0.50 mtr girth and their removal as per specifications and direction of E/I.				
		Unit:- Per M^2			
	Taking out put:-	92.94 Sqm			
	Unskilled mazdoor for cutting shrubs and trees	1.50 nos	184.00	276.00	
	Unskilled mazdoor for collecting and removing shrubs and weeds and tree.	0.75 nos	184.00	138.00	
				414.00	
	Add Overhead charge & C.P	15 %		62.1	
				476.10	
	Add Cess	1 %		4.76	
				480.86	5.17
		Say Rs.	5.20	Per M2	

6.1.4 Removal of stone boulder of more than 300 mm size from alignment of the Barriage / Weir and stacking the same (beyond 50 mtr 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 M^3

Assuming out put	28.32 Cum				
Unskilled mazdoor for removal and stacking	9 nos		184.00	1656.00	
				1656.00	
Add Overhead charge & C.P	15 %			248.4	
				1904.40	
Add Cess	1 %			19.04	
				1923.44	67.92
	Say Rs.		67.90	Per M3	

6.1.5 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 the edge of the foundation trenches in the country side) with initial lead of 150 m and all lifts as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	28.32 Cum				
Unskilled mazdoor for dagbelling	0.50 nos		184.00	92.00	
Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos		184.00	1104.00	
Unskilled mazdoor for preparation of sheet	1 nos		184.00	184.00	
Unskilled mazdoor for disposal of earth and organic materials	9 nos		184.00	1656.00	
Mate	0.25 nos		201.00	50.25	
				3086.25	
Add Overhead charge & C.P	15 %			462.9375	
				3549.19	
Add Cess	1 %			35.49	
				3584.68	126.58
	Say Rs.		126.60	Per M3	

6.1.6 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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for dagbelling	0.50 nos		184.00	92.00
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos		184.00	1104.00
	Unskilled mazdoor for preparation of sheet	1 nos		184.00	184.00
	Mate	0.25 nos		201.00	50.25
B.	Carriage of earth by 10 M.T capacity Truck				
	Carriage 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 lead x 60 x 2/1000 x Average speed	4.31 minutes			
	(b) Loading unloding turning and spoliting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			

	No of trip per working hour = Loading unlodjng turning and spoliting time / Total hauling time	0.93 trips			
	Material carried=trips x net capacity	4.48 M^3			
	Hourly use rate of truck (Vide Item no 3.26)	**841.00** hr			
	Rate per 28.32 cum for carriage only=				
	Use rate of truck x 28.32 / material carrieed		Rs	5318.54	
	(c). Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	265.93	
				7014.71	
	Add Overhead charge & C.P	15 %		1052.21	
				8066.92	
	Add Cess	1 %		80.67	
				8147.59	287.70
		Say Rs.	287.70	Per M3	

6.1.7 **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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Mate	0.25 nos	201.00	50.25	
B.	Carriage of earth by 10 M.T capacity Truck				
	Carriage cost of earth for 2 k.m lead				
	Average lead	1500 M			
	Truck capicty 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 unloding turning and spoliting time=	60 minutes			
	Total hauling cycle time=	70.59 minutes			
	No of trip per working hour =				
	Loading unloding turning and spoliting time / Total hauling time	0.85 trips			
	Material carried=trips x net capacity	4.08 M^3			
	Hourly use rate of truck	**841.00** hr			
	Rate per 28.32 cum for carriage only=				
	Use rate of truck x 28.32 / material carrieed		Rs	5837.53	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	291.88	
				7559.66	
	Add Overhead charge & C.P	15 %		1133.95	
				8693.60	
	Add Cess	1 %		86.94	
				8780.54	310.05
		Say Rs.	310.00	Per M3	

6.1.8 Earth work in excavation of foundation trenches in ordinary soil (vide classification of siol item A) and disposal of the excavated earth so obtained (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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum			
	Unskilled mazdoor for cutting earth	6 nos	184.00	1104.00	
	Unskilled mazdoor for carrying	7 nos	184.00	1288.00	
	Head Mason	0.25 nos	251.00	62.75	
				2454.75	
	Add Overhead charge & C.P 1000 M	15 %		368.2125	
				2822.96	
	Add Cess	1 %		28.23	
				2851.19	100.68
		Say Rs.	100.70	Per M3	

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 M^3

Assuming out put:-	28.32 Cum			
Unskilled mazdoor	2 nos	184.00	368.00	
			368.00	
Add Overhead charge & C.P	15 %		55.20	
			423.20	
Add Cess	1 %		4.23	
			427.43	15.09
	Say Rs.	15.10	Per M3	

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 M^3

Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting	1.50 nos	184.00	276.00	
Unskilled mazdoor for carring	1.50 nos	184.00	276.00	
			552.00	
Add Overhead charge & C.P	15 %		82.80	
			634.80	
Add Cess	1 %		6.35	
			641.15	22.64
	Say Rs.	22.60	Per M3	

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)**

Unit:- Per M^3

Assuming out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for all work	9.50 nos	184.00	1748.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.33 nos	237.00	78.21	
Blasting material including excise, sales tax,				
carriage from Gomia to work site, storage etc.				
Special Gelatin	2.00 Kg	677.29	1354.58	
Detonator	10 nos	4.50	45.00	
Fuse coil	1 nos	10.40	10.40	
Tools and Plants				
Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
			3873.02	
Add Overhead charge & C.P	15 %		580.95	
			4453.97	
Add Cess	1 %		44.54	
			4498.51	449.85
	Say Rs.	449.90	Per M3	

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.

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	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
	Labour				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	11.50 nos	184.00	2116.00	
	Mason Gr I	0.50 nos	251.00	125.50	
				2780.50	
	Add Overhead charge & C.P	15 %		417.075	
				3197.58	
	Add Cess	1 %		31.98	
				3229.55	322.96
		Say Rs.	323.00	Per M3	

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 mtr away from the edge of the trench in country side) with initial lead of 150 m and initial lifts of 1.5 mtr all complete as per specifications and direction of E/I.

	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	10.50 nos	196.00	2058.00	
	Unskilled mazdoor for all work	13.00 nos	184.00	2392.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.67 nos	237.00	158.00	
B.	**Blasting material including excise, sales tax,**				
	carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.75 Kg	677.29	1862.55	
	Detonator	18 nos	4.50	81.00	
	Fuse coil	3 nos	10.40	31.20	
C.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equipment and other accessories			26.50	
				6692.08	
	Add Overhead charge & C.P	15 %		1003.81	
				7695.89	
	Add Cess	1 %		76.96	
				7772.85	777.28
		Say Rs.	777.30	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 (50 mtr. away from the edge of the trench)beyound initial lead of 150 m 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.

	Unit:-	Per M^3			
	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for cutting earth	6 nos		184.00	1104.00
	Unskilled mazdoor for carrying	1 nos		184.00	184.00
	Head Mason	0.25 nos		251.00	62.75
B.	Cost of carriage of 28.32 cum earth by Truck including loadingand unloading				
	Carriage 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 =	4.31 minutes			
	(b) Loading unloding turning and spoilting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour = Loading unloding turning and spoilting time / Total hauling time	0.93 trips			
	Material carried=trips x net capacity	4.48 M^3			
	Hourly use rate of truck	**841.00** hr			
	Rate per 28.32 cum for carriage only= Use rate of truck x 28.32 / material carrieed			Rs	5318.54
C.	Constuction and maintenance of haul road @ 5 % of Item (B)		Rs		265.93
					6935.21
	Add Overhead charge & C.P	15 %			1040.28
					7975.50
	Add Cess	1 %			79.75
					8055.25 284.44
		Say Rs.		284.40	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 (50 mtr. away from the edge of the trench) beyond initial lead of 150 mtr 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 conccerned Chief Engineer)

	Unit:-	Per M^3		
	Assuming out put:-	10 Cum		
A.	**Labour**			
	Hammer man	2.75 nos	196.00	539.00
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00
	Mason Gr I	0.33 nos	251.00	82.83
	Blaster	0.33 nos	237.00	78.21

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B.	Cost of carriage of 10 cum earth by Truck including loadingand unloading Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spoltting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour = Loading unloding turning and spoltting time / Total hauling time	0.93 trips			
	Material carried=tripsxnet capacity	3.75 M^3			
	Hourly use rate of truck	**841.00** hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carrieed			Rs 2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
C.	**Blasting material including excise, sales tax,**				
	carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	4.50	45.00	
	Fuse coil	1 nos	10.40	10.40	
	Tools and Plants				
	Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
				5215.55	
	Add Overhead charge & C.P	15 %		782.33	
				5997.88	
	Add Cess	1 %		59.98	
				6057.86	605.79
		Say Rs.	605.80	Per M3	
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 mtr away from the edge of the trench) beyond initial lead of 150 mtr 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 M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
B.	Cost of carriage of 10 cum earth by Truck including loadingand unloading Carriage cost of earth for 1 k.m lead				
		1000 M			

	Average lead=	575 M			
	Truck capicty 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 unloding turning and spoilting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour =				
	Loading unloding turning and spoilting time / Total hauling time	0.93 trips			
	Material carried=tripsxnet capacity	3.75 M^3			
	Hourly use rate of truck	**841.00** hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carrieed		Rs	2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
				3712.36	
	Add Overhead charge & C.P	15 %		556.85	
				4269.21	
	Add Cess	1 %		42.69	
				4311.90	431.19
		Say Rs.	431.20	Per M3	

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 (50 mtr away from the edge of the trench beyond initial lead of 150 mtr 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 M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.33 nos	237.00	78.21	
B.	Cost of carriage of 10 cum earth by Truck including loadingand unloading				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spoilting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour =				
	Loading unloding turning and spoilting time / Total hauling time	0.93 trips			
	Material carried=tripsxnet capacity	3.75 M^3			
	Hourly use rate of truck	**841.00** hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carrieed		Rs	2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	

C.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	4.50	45.00	
	Fuse coil	1 nos	3.00	3.00	
D.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
				5208.15	
	Add Overhead charge & C.P	15 %		781.22	
				5989.37	
	Add Cess	1 %		59.89	
				6049.26	604.93
		Say Rs.	604.90	Per M3	
6.1.16	Earth work in filling in foundation trenches and back filling of masonary structures with suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly dressed with suitable earth obtained from excavation of foundation trenches and placed in a suitable prpfile within a lead of 30 mtr and lift of 1.5 mtr. complete job as per specifications and direction of E/I.				
	Unit:-	Per M^3			
	Assuming out put:-	28.32 Cum			
	Unskilled mazdoor for cutting .	4.5 nos	184.00	828.00	
	Unskilled mazdoor for carrying .	4 nos	184.00	736.00	
	Head mason	0.125 nos	251.00	31.38	
				1595.38	
	Add Overhead charge & C.P	15 %		239.31	
				1834.68	
	Add Cess	1 %		18.35	
				1853.03	65.43
		Say Rs.	65.40	Per M3	
6.1.17	Earth work in filling in foundation trenches and back filling of masonary structures with semipervious or suitable earth in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly 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.				
	Unit:-	Per M^3			
	Assuming out put:-	28.32 Cum			
	Unskilled mazdoor for cutting .	5.5 nos	184.00	1012.00	
	Unskilled mazdoor for carrying .	4 nos	184.00	736.00	
	Head mason	0.125 nos	251.00	31.38	
				1779.38	
	Add Overhead charge & C.P	15 %		266.91	
				2046.28	
	Add Cess	1 %		20.46	
				2066.74	72.98
		Say Rs.	73.00	Per M3	
6.1.18	Extra for each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. (for ordinary or hard soil) as per specification and direction of E/I.				
	Unit:-	Per M^3			
	Assuming out put:-	28.32 Cum			
	Unskilled mazdoor for cutting	1 nos	184.00	184.00	
				184.00	
	Add Overhead charge & C.P	15 %		27.60	
				211.60	
	Add Cess	1 %		2.12	
				213.72	7.55
		Say Rs.	7.50	Per M3	

6.1.19 Extra for each subsequent lead upto 25 Mtr beyond the initial lead of 30 Mtr. (for ordinary or hard soil) as per specification and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor	1 nos	184.00	184.00	
Add Overhead charge & C.P	15 %		27.60	
			211.60	
Add Cess	1 %		2.12	
			213.72	7.55
	Say Rs.	7.50	Per M3	

6.1.20 Extra for each subsequent lift upto 1 Mtr over the initial lift of 1.5 Mtr. (for ordinary soft or hard rock) as per specification and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting	1.5 nos	184.00	276.00	
Add Overhead charge & C.P	15 %		41.40	
			317.40	
Add Cess	1 %		3.17	
			320.57	11.32
	Say Rs.	11.30	Per M3	

6.1.21 Extra for each subsequent lead upto 25 Mtr beyond the initial lead of 30 Mtr. (for ordinary soft or hard rock) as per specification and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor	1.5 nos	184.00	276.00	
Add Overhead charge & C.P	15 %		41.40	
			317.40	
Add Cess	1 %		3.17	
			320.57	11.32
	Say Rs.	11.30	Per M3	

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 sode obtained within a lead of 150 mtr including the cost of watering the grass surface till it acquires greennessas per specifications and direction of E/I. 500 M

Unit:-	Per $\%M^2$			
Assuming out put:-	100 Sqm			
Unskilled mazdoor for cutting	1.5 nos	184.00	276.00	
Unskilled mazdoor for carring	1.5 nos	184.00	276.00	
Unskilled mazdoor for dressing, placing turf and ramming	1 nos	184.00	184.00	
Bhisti for carriage of water and sprikling	3 nos	186.00	558.00	
Cost of watering till the growth			15.00	
			1309.00	
Add Overhead charge & C.P	15 %		196.35	
			1505.35	
Add Cess	1 %		15.05	
			1520.40	1520.40
	Say Rs.	1520.40	Per %M2	

6.1.24.2 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.

Unit:-	Per %M^2				
Assuming out put:-	100 Sgm				
Unskilled mazdoor for carring	1.50 nos	184.00	276.00		
			276.00		
Add Overhead charge & C.P	15 %		41.40		
			317.40		
Add Cess	1 %		3.17		
			320.57	320.57	
	Say Rs.	320.60	Per %M2		

6.1.25 Close timbering in trenches including strutting, shoring and packing cavaties (whereve required) depth not exceding 1.5 mtr, complete as per specifications and direction of E/I. (Meassurement to be taken of the face area timbered)

Unit:-	Per M^2			
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	10444.00	35718.48	
100 mm x100 mm				
Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum	1.2 Cum	10444.00	12532.80	
Balli struts				
Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr	51 mtr	30.00	1530.00	
Total Cost of material			49781.28	
Carriage				
Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials			497.81	
Total cost of material with carriage cost			50279.09	
Deduct credit for materials 75 % of the cost of material			37335.96	
			12943.13 **(A)**	
This (A) can be used four times				
Therfore cost per use A/4			3235.78	
Labour				
Carpenter Gr II	0.5 nos	223.00	111.50	
Unskilled mazdoor	1 nos	184.00	184.00	
Total			3531.28	
Add Overhead charge & C.P	15 %		529.69	
			4060.98	
Add Cess	1 %		40.61	
			4101.59	45.57
	Say Rs.	45.60	Per M2	

6.1.26 Close timbering in trenches including strutting, shoring and packing cavaties (whereve required) depth exceding 1.5 mtr, but upto 3.0 mtr complete as per specifications and direction of E/I. (Meassurement to be taken of the face area timbered)

	Unit:-	Per M^2			
	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	10444.00	35718.48	
100 mm x100 mm					
Local wood planks 4 x30x 0.1 x0.1 = 1.2 cum		1.2 Cum	10444.00	12532.80	
Balli struts					
Sal ballah 120 mm dia 1.5 m long 2 x17x1.5=51 mtr		51 mtr	30.00	1530.00	
Total Cost of material				49781.28	
Cost of carriage of material including loading, unloading and stacking @ 1 % of total of cost materials				497.81	
Total cost of material with carriage cost				50279.09	
Deduct credit for materials 75 % of the cost of material				37335.96	
				12943.13	**(A)**
This (A) can be used four times Therfore cost per use A/4				3235.78	
Labour					
Carpenter Gr II		0.75 nos	223.00	167.25	
Unskilled mazdoor		2 nos	184.00	368.00	
Total				3771.03	
Add Overhead charge & C.P		15 %		565.65	
				4336.69	
Add Cess		1 %		43.37	
				4380.06	48.67
		Say Rs.	48.70	Per M2	

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 roads as per specifications and direction of E/I.

	Unit:- Per M^3				
	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Mate	0.25 nos	201.00	50.25	
				1430.25	
	Add Overhead charge & C.P	15 %		214.5375	
				1644.79	58.08
B.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km				
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**Lead x H_{ka}**
				202.60	202.6
					260.68
	Add Cess	1 %			2.61
					263.29
		Say Rs.	263.30	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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum				
A.	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00		
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00		
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00		
	Mate	0.25 nos	201.00	50.25		
				1430.25		
	Add Overhead charge & C.P	15 %		214.5375		
				1644.79	58.08	
B.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	61.60	61.60	**Lead x H_{ka}**	
				233.40	233.4	
					291.48	
	Add Cess	1 %			2.91	
					294.39	
		Say Rs.	294.40	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 (50 mtr. away from the edge of the trench)beyound initial lead of 150 m 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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum				
A.	Unskilled mazdoor for cutting earth	6 nos	184.00	1104.00		
	Unskilled mazdoor for carrying	1 nos	184.00	184.00		
	Head Mason	0.25 nos	251.00	62.75		
				1350.75		
	Add Overhead charge & C.P	15 %		202.6125		
				1553.36	54.85	
B.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**Lead x H_{ka}**	
				202.60	202.6	
					257.45	
	Add Cess	1 %			2.57	
					260.02	
		Say Rs.	260.00	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 mtr away from the edge of the trench beyond initial lead of 150 mtr 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 conccerned Chief Engineer)

Unit:- Per M^3

	Assuming out put:-	10 Cum				
A.	**Labour**					
	Hammer man	2.75 nos	196.00	539.00		
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00		
	Mason Gr I	0.33 nos	251.00	82.83		
	Blaster	0.33 nos	237.00	78.21		
				1436.04		143.604
B.	**Blasting material including excise, sales tax,**					
	carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00 Kg	677.29	1354.58		
	Detonator	10 nos	4.50	45.00		
	Fuse coil	1 nos	10.40	10.40		
	Tools and Plants					
	Cost of hire charge of compressor, drilling equpment and other accessories			15.00		
				1424.98		
	Add Overhead charge & C.P	15 %		213.75		
				1638.73		163.87
C.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**Lead x H_k**	
				202.60		202.6
						510.08
	Add Cess	1 %				5.10
						515.18
		Say Rs.	515.20	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 mtr away from the edge of the trench beyond initial lead of 150 mtr 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.

Assuming 10cum					
Labour					
Hammer man	2.75 nos	196.00	539.00		
Unskilled mazdoor for all work	4.00 nos	184.00	736.00		
Mason Gr I	0.33 nos	251.00	82.83		
			1357.83		
Add Overhead charge & C.P	15 %		203.67		
			1561.50		156.15
Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km					
Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80		
Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**Lead x H_{ka}**	
			202.60		202.6
					358.75
Add Cess	1 %				3.59
					362.34
	Say Rs.	362.30	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 mtr 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 M^3

	Assuming out put:-	10 Cum				
A.	**Labour**					
	Hammer man	2.75	nos	196.00	539.00	
	Unskilled mazdoor for all work	4.00	nos	184.00	736.00	
	Mason Gr I	0.33	nos	251.00	82.83	
	Blaster	0.33	nos	237.00	78.21	
B.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**					
	Special Gelatin	2.00	Kg	677.29	1354.58	
	Detonator	10	nos	4.50	45.00	
	Fuse coil	1	nos	10.40	10.40	
	Tools and Plants					
	Cost of hire charge of compressor, drilling equpment and other accessories				15.00	
					2861.02	
	Add Overhead charge & C.P	15	%		429.15	
					3290.17	329.02
C.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means Vide item no 4.2	1	cum	171.80	171.80	
	Cost of Haulage vide item no 4.4(c)	1	cum.km	30.80	30.80	**Lead x H_k**
					202.60	202.60
						531.62
	Add Cess	1	%			5.32
						536.93
		Say Rs.		536.90	Per M^3	

6.1.32 Earth work in filling in foundation trenches or back filling of masonary structures with pervious soil in layers not exceeding 150 mm thick well watered, rammed and fully compacted and finaly dressed withearth obtained after cutting from borrow pits beyond 150 mtr. lead but upto 1/2 K.M. with all lift and carriage by Tipper complete job as per specifications and direction of E/I.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum				
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75	nos	184.00	138.00	
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75	nos	184.00	138.00	
	Unskilled mazdoor for cutting earth	9.50	nos	184.00	1748.00	
	Mate	1.00	nos	201.00	201.00	
B.	**Cost of compaction(vide itm no 6.1.38)**					
	Unskilled mazdoor	3	nos	184.00	552.00	
	Bhisti for carriage of water and sprikling	3	nos	186.00	558.00	
	Total (A+B)				3335.00	
	Add Overhead charge & C.P	15	%		500.25	
					3835.25	135.43

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C.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	15.40	15.40	**Lead x H_k**
				187.20	187.2
					322.63
	Add Cess	1 %			3.23
					325.85
		Say Rs.	325.90	Per M^3	

6.1.33 **Earth** work in filling in foundation trenches or back **filling of** masonary structures with pervious soil in **layers** not exceeding 150 mm thick well watered, **rammed** and fully compacted and finaly dressed **withearth** obtained after cutting from borrow pits **beyond** 1/2 K.M lead but upto 1 K.M. with all lift **and** carriage by Tipper complete job as per **specifications** and direction of E/I.

Unit:- Per M^3

Assuming out put:- 28.32 Cum

A.	**Labour**				
	Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00	
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00	
	Unskilled mazdoor for cutting earth	9.50 nos	184.00	1748.00	
	Mate	1.00 nos	201.00	201.00	
B.	**Cost of compaction(vide itm no 6.1.38)**				
	Unskilled mazdoor	3 nos	184.00	552.00	
	Bhisti for carriage of water and sprikling	3 nos	186.00	558.00	
	Total (A+B)			3335.00	
	Add Overhead charge & C.P	15 %		500.25	
				3835.25	135.43
C.	Carriage of earth by 5.5 cum capacity Tipper Taking output = 1 cum.km Loading and Unloading of Earth By manuals means Vide item no 4.2	1 cum	171.80	171.80	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**Lead x H_k**
				202.60	202.6
					338.03
	Add Cess	1 %			3.38
					341.41
		Say Rs.	341.40	Per M^3	

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6.2 DRILLING WORK

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 upto 20 metres depth in all kinds of hard rock including finishing and maintaenance 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 upto 20 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintaenance 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 reamina (to fanilitate 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 upto 20 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintaenance 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 upto 20 metres depth in all kinds of hard rock including finishing and maintaenance 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 siol 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.	#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 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.	#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
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 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.	#VALUE!	Per M
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.	#VALUE!	Per M

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6.2 DRILLING WORK

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 upto 20 metres depth in all kinds of hard rock including finishing and maintaenance 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 mtr		#VALUE!
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT			
	Life of the bit = 10 metres		10 Mtr		
	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 mtr		
	Coxt of core box = 'X'	IINPUT			
	Cost per mrtre= X/15				#VALUE!
					#VALUE!
	Add Overhead charge & C.P		15 %		#VALUE!
					#VALUE!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
			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 upto 20 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintaenance 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 upto 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, therefor 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 mtr		#VALUE!
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT			
	Life of the bit = 10 metres		10 Mtr		
	Cost of bit per metre = D/10				#VALUE!
	(iv). Cost of (NxSize) Reaming shell at site = 'S'	IINPUT			

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	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 mtr		
	Coxt of core box = 'X '(	IINPUT			
	Cost per mrtre= X/15			#VALUE!	
				#VALUE!	
	Add Overhead charge & C.P		15 %	#VALUE!	
				#VALUE!	
	Add Cess,		1 %	#VALUE!	
				#VALUE!	#VALUE!
			Say Rs.	#VALUE!	Per M
	Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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				
6.2.2	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 fanilitate 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 Tungaton Carbide bit at site Rs.	IINPUT			
	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'	IINPUT			
	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 mtr		
	Coxt of core box = 'CB'	IINPUT			
	Cost per mrtre= CB/15			#VALUE!	
	(vii). Lowering 50 m dia light duty G.I causing pipe and its extraction including cutting , threading an providing socket wherever necessary.				

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	(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)	107.33		53.67	
	(b) Unskilled mazdoor for raising (Extracting) the casing pipe	0.17 nos	184.00	30.67	
	Total (ii)+(iii)+(iv)+(v)+(vi)+(vii)			#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs.	#VALUE!	Per M	

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

6.2.3.1 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 maintaenance 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 mtr		#VALUE!	
	(iii). Cost of Diamond bit or (Bxsize) at site Rs 'T'	IINPUT			
	Life of the bit = 10 metres	10			
	Cost of bit per metre = T/10			#VALUE!	
	(iv). Cost of (Bxsize) Reaming shell at site = 'TK'	IINPUT			
	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 mtr			
	Coxt of core box = 'CB'	IINPUT			
	Cost per mrtre= CB/15			#VALUE!	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs.	#VALUE!	Per M	

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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 upto 20 metres depth in all kinds of hard rock including finishing and maintaenance 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 upto 20 metresdepth 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'	IINPUT			
Life of the bit = 10 metres		10		
Cost of bit per metre = T/10				#VALUE!
(iv). Cost of (Bxsize) Reaming shell at site = 'TK'	IINPUT			
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 mtr		
Coxt of core box = 'CB'	IINPUT			
Cost per mrtre= CB/15				#VALUE!
				#VALUE!
Add Overhead charge & C.P	#REF!	%		#VALUE!
				#VALUE!
Add Cess		1 %		#VALUE!
				#VALUE! #VALUE!
		Say Rs.	#VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

6.2.4. 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 siol 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.

(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 metreper hour (As per actual observation). Therefore cost of drilling /m= D/2.5		2.5	mtr		#VALUE!
(iii). Cost of Tungaton Carbide bit at site Rs.T.C	IINPUT				
Assuming Life of the T.C bit – 20 metres		20			
Cost of bit per metre = T.C/20					#VALUE!
(iv). Cost of Reaming shell at site = 'RS'	IINPUT				
Assuming Life of Reaming shell = 100 metres		100			
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.**(vide T.E.C Item no 12.1.61)**		1	mtr	Per mtr	#VALUE!
Analysis (vide T.E.C Item no 12.1.61)					
Supplying labour, materials and equipment for lowering 100 mm G.I.pipe (casing) upto 12 m depth for prateeting 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 mttr. In length as per carriage schedule					
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**	**2.00**	**8.00**
iv. Supplying and fitting two extra socket		**2**	**nos**	**125.00**	**250.00**
v. Red lead and jute etc. for scoket fixing					**3.00**
vi. Plumber Gr I		**0.5**	**nos**	**237.00**	**118.50**
					379.50
Add Overhead charge & C.P %		**20**	**%**		**75.90**
					834.90 **69.58**
	Say		**Rs**	**69.58**	**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	161.00	80.50
(b). Labour for cutting, threading and inserting etc.		0.08		184.00	14.72
© Unskilled mazdoor for raising (Extracting) the casing pipe		0.17	nos	184.00	31.28
(d). Clearing the pipe					
Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)					#VALUE!
Add Overhead charge & C.P		15	%		#VALUE!
					#VALUE!
Add Cess		1	%		#VALUE!
					#VALUE! #VALUE!

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			Say Rs.	#VALUE!	Per M
	Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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				
6.2.5	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 be1.50 metreper hour (As per actual observation at Latrau Dam site). Therefore cost of drilling /m= R/1.5		1.5 mtr		#VALUE!
	(iii). Cost of Tungaton Carbide bit at site Rs. Assuming Life of the T.C bit = 20 metres Cost of bit per metre = T.C/20	IINPUT	20		#VALUE!
	(iv). Cost of Reaming shell at site = 'RS' Assuming Life of Reaming shell =100 metres Cost of shell per metre = RS / 100	IINPUT	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.				
	(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 mtr	65.73	65.73
	(b). Labour for cutting, threading and inserting etc.		1.00 mtr	161.00	80.50
	© Unskilled mazdoor for raising (Extracting) the casing pipe		0.08	184.00	14.72
	(d). Clearing the pipe		0.17 nos	184.00	31.28
	Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!
	Add Overhead charge & C.P		15 %		#VALUE!
					#VALUE!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
			Say Rs.	#VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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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 machince. 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!

Say Rs #VALUE! Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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. Hehce 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 machince. 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!

Say Rs #VALUE! Per M

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Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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)	**844.00**			
Average rate of drilling 35 mm hole per hour-- 2.3 metre	2.3 mtr			
Hence rate of drilling per metre				
= Use rate of Jack Hammer/2.3			366.96	
(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). Sharping charge of bit @Rs 1.00 per m			1.00	
Use rate of drill roads 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!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
		Say Rs. #VALUE!	Per M	

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

6.2.9 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!**

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(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!	
Add Cess		1 %		#VALUE!	
				#VALUE!	#VALUE!
			Say Rs.	#VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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6.3. CONCRETE WORK

6.3.1 Providing and laying P.C.C or R.C.C M-75 with nominal mix of (1: 4 : 8) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	3195.30	Per M^3
Patna	3195.30	Per M^3
Muzaffarpur	3215.80	Per M^3
Darbhanga	3224.10	Per M^3
Bhagalpur	3219.90	Per M^3
Munger	3182.90	Per M^3
Saharsa	3224.10	Per M^3
Purnea	3224.10	Per M^3
Gaya	3129.60	Per M^3
Saran	3174.80	Per M^3

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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	3588.30	Per M^3
Patna	3588.30	Per M^3
Muzaffarpur	3615.00	Per M^3
Darbhanga	3625.70	Per M^3
Bhagalpur	3620.20	Per M^3
Munger	3572.10	Per M^3
Saharsa	3625.70	Per M^3
Purnea	3625.70	Per M^3
Gaya	3502.70	Per M^3
Saran	3561.50	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	4457.30	Per M^3
Patna	4457.30	Per M^3
Muzaffarpur	4495.70	Per M^3
Darbhanga	4457.30	Per M^3
Bhagalpur	4503.30	Per M^3
Munger	4434.00	Per M^3
Saharsa	4511.10	Per M^3
Purnea	4511.10	Per M^3
Gaya	4334.20	Per M^3
Saran	4418.90	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	5075.80	Per M^3
Patna	5075.80	Per M^3
Muzaffarpur	5124.80	Per M^3
Darbhanga	5075.80	Per M^3
Bhagalpur	5134.50	Per M^3
Munger	5046.20	Per M^3
Saharsa	5144.40	Per M^3
Purnea	5144.40	Per M^3
Gaya	4919.00	Per M^3
Saran	5026.90	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

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Patna Urban	6515.30	Per M^3

Patna	6515.30	Per M^3
Muzaffarpur	6587.60	Per M^3
Darbhanga	6515.30	Per M^3
Bhagalpur	6601.90	Per M^3
Munger	6471.50	Per M^3
Saharsa	6616.70	Per M^3
Purnea	6616.70	Per M^3
Gaya	6283.50	Per M^3
Saran	6442.90	Per M^3

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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	3241.60	Per M^3
Patna	3241.60	Per M^3
Muzaffarpur	3262.10	Per M^3
Darbhanga	3241.60	Per M^3
Bhagalpur	3266.10	Per M^3
Munger	3229.20	Per M^3
Saharsa	3270.30	Per M^3
Purnea	3270.30	Per M^3
Gaya	3175.90	Per M^3
Saran	3221.10	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	3588.20	Per M^3
Patna	3588.20	Per M^3
Muzaffarpur	3614.90	Per M^3
Darbhanga	3588.20	Per M^3
Bhagalpur	3620.20	Per M^3
Munger	3572.00	Per M^3
Saharsa	3625.60	Per M^3
Purnea	3625.60	Per M^3
Gaya	3502.60	Per M^3
Saran	3561.50	Per M^3

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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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	4480.10	Per M^3
Patna	4480.10	Per M^3
Muzaffarpur	4518.60	Per M^3
Darbhanga	4480.10	Per M^3
Bhagalpur	4526.10	Per M^3
Munger	4456.90	Per M^3
Saharsa	4534.00	Per M^3
Purnea	4534.00	Per M^3
Gaya	4357.10	Per M^3
Saran	4441.70	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	5098.70	Per M^3
Patna	5098.70	Per M^3
Muzaffarpur	5147.70	Per M^3
Darbhanga	5098.70	Per M^3
Bhagalpur	5157.30	Per M^3
Munger	5069.10	Per M^3
Saharsa	5167.30	Per M^3
Purnea	5167.30	Per M^3
Gaya	4941.90	Per M^3
Saran	5049.80	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

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Patna Urban	6538.10	Per M^3

Patna	6538.10	Per M^3
Muzaffarpur	6610.50	Per M^3
Darbhanga	6538.10	Per M^3
Bhagalpur	6624.80	Per M^3
Munger	6494.30	Per M^3
Saharsa	6639.50	Per M^3
Purnea	6639.50	Per M^3
Gaya	6306.30	Per M^3
Saran	6465.80	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	4480.10	Per M^3
Patna	4480.10	Per M^3
Muzaffarpur	4518.60	Per M^3
Darbhanga	4480.10	Per M^3
Bhagalpur	4526.10	Per M^3
Munger	4456.90	Per M^3
Saharsa	4534.00	Per M^3
Purnea	4534.00	Per M^3
Gaya	4357.10	Per M^3
Saran	4441.70	Per M^3

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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Patna Urban	5098.70	Per M^3
Patna	5098.70	Per M^3
Muzaffarpur	5147.70	Per M^3
Darbhanga	5098.70	Per M^3
Bhagalpur	5157.30	Per M^3
Munger	5069.10	Per M^3
Saharsa	5167.30	Per M^3
Purnea	5167.30	Per M^3
Gaya	4941.90	Per M^3
Saran	5049.80	Per M^3

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6.3.13 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 qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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.

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3
Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#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 raded coarse aggregate of required qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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.

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3
Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#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 raded coarse aggregate of required qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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.

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3

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Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#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 raded coarse aggregate of required qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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.

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3
Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#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 (asper 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 and all taxes complete job as per specifications and direction of E/I.

Patna Urban	4269.20	Per M^3
Patna	3496.70	Per M^3
Muzaffarpur	3517.20	Per M^3
Darbhanga	3496.70	Per M^3
Bhagalpur	3521.20	Per M^3
Munger	3484.30	Per M^3
Saharsa	3525.40	Per M^3
Purnea	3525.40	Per M^3
Gaya	3431.00	Per M^3
Saran	3476.20	Per M^3

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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 (asper 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 and all taxes complete job as per specifications and direction of E/I.

Patna Urban	4664.50	Per M^3
Patna	4112.90	Per M^3
Muzaffarpur	4140.00	Per M^3
Darbhanga	4112.90	Per M^3
Bhagalpur	4145.40	Per M^3
Munger	4096.50	Per M^3
Saharsa	4150.90	Per M^3
Purnea	4150.90	Per M^3
Gaya	4026.00	Per M^3
Saran	4085.80	Per M^3

6.3.19 Centrin and shuttering in major Barrage work involving mass concrete including cost of form work, their carriage from work shop to work site, errection 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 structting. Proping etc. and its removal after use in foundation work as per specifications and direction of E/I. 242.60 Per M^2

6.3.21 Providing shuttering including structting. Proping etc. and its removal after use in superstructure portion of various components of dam work as per specifications and direction of E/I. 242.60 Per M^2

6.3.22 Providing centering including strutting. Proping etc. and removing after use in deck slab as per specifications and direction of E/I. 339.60 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	#REF!	Per M.T
(B).Dia of bar above 6 mm to 12 mm	#REF!	Per M.T
(B).Dia of bar above 14 mm to 50 mm	#REF!	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 -415- 8 mm	#REF!	Per M.T
(b).	T.M.T. GRADE -415- 10 mm	#REF!	Per M.T
(c).	T.M.T. GRADE -415- 12 mm	#REF!	Per M.T

(d).	T.M.T. GRADE FE415- 16mm	#REF!	Per M.T
(e).	T.M.T. GRADE FE415- 20 mm	#REF!	Per M.T
(f).	T.M.T. GRADE FE415- 25 mm	#REF!	Per M.T
(g).	T.M.T. GRADE FE415- 28 mm	#REF!	Per M.T
(h).	T.M.T. GRADE FE415-32 mm	#REF!	Per M.T
(i).	T.M.T. GRADE -FE500- 8 mm	#REF!	Per M.T
(j).	T.M.T. GRADE -FE500- 10 mm	#REF!	Per M.T
(k).	T.M.T. GRADE -FE500- 12 mm	#REF!	Per M.T
(l).	T.M.T. GRADE FE500- 16mm	#REF!	Per M.T
(m).	T.M.T. GRADE FE500- 20 mm	#REF!	Per M.T
(n).	T.M.T. GRADE FE500- 25 mm	#REF!	Per M.T
(o).	T.M.T. GRADE FE500- 28 mm	#REF!	Per M.T
(p).	T.M.T. GRADE FE500-32 mm	#REF!	Per M.T
(q).	T.M.T. GRADE FE500-36 mm	#REF!	Per M.T

6.3.25 Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.

Patna Urban	408.70	Per bags of cement
Patna	408.70	Per bags of cement
Muzaffarpur	414.80	Per bags of cement
Darbhanga	417.30	Per bags of cement
Bhagalpur	416.00	Per bags of cement
Munger	405.00	Per bags of cement
Saharsa	417.30	Per bags of cement
Purnea	417.30	Per bags of cement
Gaya	389.20	Per bags of cement
Saran	402.60	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 and all taxes etc.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)**

Patna Urban	3102.10	Per M^3
Patna	3102.10	Per M^3
Muzaffarpur	3128.90	Per M^3
Darbhanga	3139.70	Per M^3
Bhagalpur	3134.20	Per M^3
Munger	3085.90	Per M^3
Saharsa	3139.70	Per M^3
Purnea	3139.70	Per M^3
Gaya	3016.20	Per M^3
Saran	3075.30	Per M^3

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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)**

Patna Urban	3965.50	Per M^3
Patna	3965.50	Per M^3
Muzaffarpur	4003.90	Per M^3
Darbhanga	4019.40	Per M^3
Bhagalpur	4011.50	Per M^3
Munger	3942.30	Per M^3
Saharsa	4019.40	Per M^3
Purnea	4019.40	Per M^3
Gaya	3842.40	Per M^3
Saran	3927.10	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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)**

Patna Urban	4585.90	Per M^3
Patna	4585.90	Per M^3
Muzaffarpur	4634.90	Per M^3
Darbhanga	4654.50	Per M^3
Bhagalpur	4644.50	Per M^3
Munger	4556.20	Per M^3
Saharsa	4654.50	Per M^3
Purnea	4654.50	Per M^3
Gaya	4428.90	Per M^3
Saran	4536.90	Per M^3

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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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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)**

Patna Urban	5976.30	Per M^3
Patna	5976.30	Per M^3
Muzaffarpur	6048.00	Per M^3
Darbhanga	6076.80	Per M^3
Bhagalpur	6062.10	Per M^3
Munger	5932.90	Per M^3
Saharsa	6076.80	Per M^3
Purnea	6076.80	Per M^3
Gaya	5746.50	Per M^3
Saran	5904.60	Per M^3

6.3. CONCRETE WORK

6.3.1 Providing and laying P.C.C or R.C.C M-75 with nominal mix of (1: 4 : 8) in various components of Barrage foundation with approved quality of gravel coarse aggregate of required qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates Gr III				
(Rate of approved quality of aggregate as per Design)	2.718 M^3	460.18	1250.77	
Sand	1.368 M^3	270.36	369.86	
Cement	0.34 M^3	9118.00	3100.12	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			7790.93	
Add Overhead charge & C.P	15 %		1168.64	
			8959.57	
Add Cess	1 %		89.60	
			9049.17	3195.33
	Say Rs	3195.30	Per M^3	

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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum		
MATERIALS			
Coarse aggregates Gr IV			
(Rate of approved quality of aggregate as per Design)	2.66 M^3	481.18	1279.94
Sand	1.330 M^3	270.36	359.58
Cement	0.443 M^3	9118.00	4039.27
Labour			

Head mason	0.5 nos	251.00	125.50		
Mason Gr II	1 nos	223.00	223.00		
Unskilled mazdoor	12 nos	184.00	2208.00		
Bhisti	1 nos	186.00	186.00		
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)**	**67.00**				
Used rate per hourx2.832/1.98			95.83		
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**				
Used rate per hourx2.832/1.98			231.85		
			8748.98		
Add Overhead charge & C.P	15 %		1312.35		
			10061.33		
Add Cess	1 %		100.61		
			10161.94	3588.26	
	Say Rs	3588.30	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum				
MATERIALS					
Coarse aggregates (20 mm To 10 mm) **(Rate of approved quality of aggregate as per Design)**	2.548 M^3	645.63	1645.07		
Sand	1.274 M^3	270.36	344.44		
Cement	0.637 M^3	9118.00	5808.17		
Labour					
Head mason	0.5 nos	251.00	125.50		
Mason Gr II	1 nos	223.00	223.00		
Unskilled mazdoor	12 nos	184.00	2208.00		
Bhisti	1 nos	186.00	186.00		
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)**	**67.00**				
Used rate per hourx2.832/1.98			95.83		
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**				
Used rate per hourx2.832/1.98			231.85		
			10867.86		
Add Overhead charge & C.P	15 %		1630.18		
			12498.04		
Add Cess	1 %		124.98		
			12623.02	4457.28	
	Say Rs	4457.30	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates (20 mm To 10 mm)				
(Rate of approved quality of aggregate as per Design)	2.436 M^3	645.63	1572.76	
Sand	1.218 M^3	270.36	329.30	
Cement	0.812 M^3	9118.00	7403.82	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			12376.06	
Add Overhead charge & C.P	15 %		1856.41	
			14232.47	
Add Cess	1 %		142.32	
			14374.80	5075.85
	Say Rs	5075.80	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

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	645.63	1549.52
Sand	1.20 M^3	270.36	324.44
Cement	1.20 M^3	9118.00	10941.60
Labour			
Head mason	0.5 nos	251.00	125.50

Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			15885.74	
Add Overhead charge & C.P	15 %		2382.86	
			18268.60	
Add Cess	1 %		182.69	
			18451.28	6515.28
	Say Rs	6515.30	Per M^3	

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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:- 2.832 Cum

MATERIALS				
Coarse aggregates Gr IV				
(Rate of approved quality of aggregate as per Design)	2.718 M^3	481.18	1307.85	
Sand	1.368 M^3	270.36	369.86	
Cement	0.34 M^3	9118.00	3100.12	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			7903.76	
Add Overhead charge & C.P	15 %		1185.56	
			9089.33	
Add Cess	1 %		90.89	
			9180.22	3241.60
	Say Rs	3241.60	Per M^3	

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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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates Gr III				
(Rate of approved quality of aggregate as per Design)	2.66 M^3	460.18	1224.08	
Sand	1.330 M^3	270.36	359.58	
Cement	0.443 M^3	9118.00	4039.27	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			8748.87	
Add Overhead charge & C.P	15 %		1312.33	
			10061.20	
Add Cess	1 %		100.61	
			10161.82	3588.21
	Say Rs	3588.20	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum		
MATERIALS			
Coarse aggregates (20 mm To 10 mm)			
(Rate of approved quality of aggregate as per Design)	2.548 M^3	645.63	1645.07
Sand	1.274 M^3	270.36	344.44
Cement	0.637 M^3	9118.00	5808.17
Labour			
Head mason	0.5 nos	251.00	125.50
Mason Gr II	1.25 nos	223.00	278.75

Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			10923.61	
Add Overhead charge & C.P	15 %		1638.54	
			12562.16	
Add Cess	1 %		125.62	
			12687.78	4480.15
	Say Rs	4480.10	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates (20 mm To 10 mm) **(Rate of approved quality of aggregate as per Design)**	2.436 M^3	645.63	1572.76	
Sand	1.218 M^3	270.36	329.30	
Cement	0.812 M^3	9118.00	7403.82	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			12431.81	
Add Overhead charge & C.P	15 %		1864.77	
			14296.58	
Add Cess	1 %		142.97	
			14439.55	5098.71
	Say Rs	5098.70	Per M^3	

9/11/15

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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

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	645.63	1549.52	
Sand	1.20 M^3	270.36	324.44	
Cement	1.20 M^3	9118.00	10941.60	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
Used rate per hourx2.832/1.98			231.85	
			15941.49	
Add Overhead charge & C.P	15 %		2391.22	
			18332.71	
Add Cess	1 %		183.33	
			18516.04	6538.15
	Say Rs	6538.10	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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	2.832 Cum		
MATERIALS			
Coarse aggregates (20 mm To 10 mm)			
(Rate of approved quality of aggregate as per Design)	2.548 M^3	645.63	1645.07
Sand	1.274 M^3	270.36	344.44
Cement	0.637 M^3	9118.00	5808.17
Labour			
Head mason	0.5 nos	251.00	125.50
Mason Gr II	1.25 nos	223.00	278.75
Unskilled mazdoor	12 nos	184.00	2208.00

	Bhisti	1 nos	186.00	186.00	
	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)**	**67.00**			
	Used rate per hourx2.832/1.98			95.83	
	(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
	Used rate per hourx2.832/1.98			231.85	
				10923.61	
	Add Overhead charge & C.P	15 %		1638.54	
				12562.16	
	Add Cess	1 %		125.62	
				12687.78	4480.15
		Say Rs	4480.10	Per M^3	
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 qrades 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 and all taxes etc. complete job as per specifications and direction of E/I.				
	Unit:- Per M^3				
	Assuming out put:-	2.832 Cum			
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm) **(Rate of approved quality of aggregate as per Design)**	2.436 M^3	645.63	1572.76	
	Sand	1.218 M^3	270.36	329.30	
	Cement	0.812 M^3	9118.00	7403.82	
	Labour				
	Head mason	0.5 nos	251.00	125.50	
	Mason Gr II	1.25 nos	223.00	278.75	
	Unskilled mazdoor	12 nos	184.00	2208.00	
	Bhisti	1 nos	186.00	186.00	
	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)**	**67.00**			
	Used rate per hourx2.832/1.98			95.83	
	(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
	Used rate per hourx2.832/1.98			231.85	
				12431.81	
	Add Overhead charge & C.P	15 %		1864.77	
				14296.58	
	Add Cess	1 %		142.97	
				14439.55	5098.71
		Say Rs	5098.70	Per M^3	

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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 M^3		
	Taking Out put:-	1.00 Cum		
	MATERIALS			
	Coarse aggregates **Gr IV**			
	(Rate of approved quality of aggregate as per Design)	0.94 M^3	481.18	452.31
	Sand	0.470 M^3	270.36	127.07
	~~Cement~~	~~0.157 M^3~~	~~9118.00~~	~~1431.53~~
(B)	(a). Batching and mixing charge			
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**		
	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	64.80		64.80
	(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 cu	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.spolting 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)	**22.00**		
	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)	**1161.00**		
	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/26.76*0.69	29.34		29.34
	(d). Vibrating the concrete.			
	(Vide item no 3.22)			
	Hire charge of vibrator per hr			**162.10**
				#VALUE!
	Add Overhead charge & C.P	15 %		#VALUE!
				#VALUE!

	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
		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 sectopm of dry intake, structures and bridges etc with approved quality of qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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 M^3				
	Taking Out put:-	1.00 Cum				
	MATERIALS					
	Coarse aggregates (20 mm To 10 mm)					
	(Rate of approved quality of aggregate as per Design)	0.90 M^3		645.63	581.07	
	Sand	0.450 M^3		270.36	121.66	
	Cement	0.225 M^3		9118.00	2051.55	
(B)	(a). Batching and mixing charge					
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**				
	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	64.80			64.80	
	(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 cu	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.spolting 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)	**22.00**				
	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)	**1161.00**				
	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/26.76*0.69	29.34			29.34	

	(d). Vibrating the concrete.				
	(Vide item no 3.22)				
	Hire charge of vibrator per hr			**162.10**	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs	#VALUE!	Per M^3	
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 and all taxes etc.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 M^3			
	Taking Out put:-	1.00 Cum			
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm)				
	(Rate of approved quality of aggregate as per Design)	0.860 M^3	645.63	555.24	
	Sand	0.430 M^3	270.36	116.26	
	Cement	0.287 M^3	9118.00	2616.87	
(B)	(a). Batching and mixing charge				
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**			
	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	64.80		64.80	
	(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 cu	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 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)	**22.00**			
	Total use ratr	#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)	**1161.00**			
	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/26.76*0.69	29.34			29.34	
	(d). Vibrating the concrete.					
	(Vide item no 3.22)					
	Hire charge of vibrator per hr				**162.10**	
					#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
		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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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 M^3				
	Taking Out put:-	1.00 Cum				
	MATERIALS					
	Coarse aggregates (20 mm To 10 mm)					
	(Rate of approved quality of aggregate as per Design)	0.84 M^3		645.63	542.33	
	Sand	0.420 M^3		270.36	113.55	
	Cement	0.42 M^3		9118.00	3829.56	
(B)	(a). Batching and mixing charge					
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**				
	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	64.80			64.80	
	(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 cu	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.spolting 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)	**22.00**				

	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)	**1161.00**				
	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/26.76*0.69	29.34			29.34	
	(d). Vibrating the concrete.					
	(Vide item no 3.22)					
	Hire charge of vibrator per hr				**162.10**	
					#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
		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 (asper 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 and all taxes complete job as per specifications and direction of E/I.	Unit-per M^3				
	(Taking output 2.832 m3)					
A	MATERIALS					
	Coarse aggregates Gr III					
	(Rate of approved quality of aggregate as per Design)	2.720 M^3		460.18	1251.69	
	Sand	1.360 M^3		270.36	367.69	
	Cement	0.34 M^3		9118.00	3100.12	
B	LABOUR					
	Head mason	0.5 nos		251.00	125.50	
	Mason Gr II	1 nos		223.00	223.00	
	Unskilled mazdoor	12 nos		184.00	2208.00	
	Bhisti	1 nos		186.00	186.00	
	Unskilled mazdoor for placing blocks in position	4 nos		184.00	736.00	
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	**67.00**			95.83	
	(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	**162.10**			231.85	
D	SHUTTERING CHARGES					
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000	0.51 M^3		5339.50		
	Add 1 % for cost of nails and spikes			53.39		
	LABOUR					
	Carpenter Gr II 3 nos @ Rs152.00	3	Rs	669.00		
	Unskilled mazdoor 8 nos @ Rs125.00	8	Rs	1472.00		
	Assuming 4 uses to calculate			7533.89		
	Cost of shuttering for 2.832 cum total cost/4				1883.47	
					10409.16	
	Add Overhead charge & C.P	15 %			1561.37	
					11970.54	
	Add Cess	1 %			119.71	
					12090.24	4269.15
		Say Rs		4269.20	Per M^3	

6.3.18 Providing and laying dry pitching with pre cement concrete block 600 mm x 600 mm x mm size of M-100 with nominal mix of (1:3:6 floor and flank wall with approved quality of gra coarse aggregate of required grade (asper de) and approved quality of sand of requisite washed and screened including necessary f work, tools and plants, vibrating, curing as royalty and all taxes complete job as specifications and direction of E/l.

Unit-per M^3

(Taking output 2.832 i

A	MATERIALS					
	Coarse aggregates GR III					
	(Rate of approved quality of aggregate as pe Design)	2.66 M^3		460.18	1224.08	
	Sand	1.33 M^3		270.36	359.58	
	Cement	0.45 M^3		9118.00	4103.10	
B	LABOUR					
	Head mason	0.5 nos		251.00	125.50	
	Mason Gr II	1 nos		223.00	223.00	
	Unskilled mazdoor	12 nos		184.00	2208.00	
	Bhisti	1 nos		186.00	186.00	
	Unskilled mazdoor for placing blocks in position	4 nos		184.00	736.00	
C	HIRE CHARGES OF MACHINE					
	(i)Concrete mixer (10 H.P) for 2.832 cum consi on the basic of mixer production capacity 1.98 n per hour. Used rate per hourx2.832/1.98	**67.00**			95.83	
	(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	**162.10**			231.85	
D	SHUTTERING CHARGES					
	Shuttering 25 blocks 25 mm thick mango planks with 10 % wastage 20.45 sqm 20.45X25/1000 0	0.51 PerM^3		5326.44		
	Add 1 % for cost of nails and spikes			53.26		
	LABOUR					
	Carpenter Gr II 3 nos @152.00	3	Rs	669.00		
	Unskilled mazdoor 8 nos @ Rs144.00	8	Rs	1472.00		
	Assuming 4 uses to calculate			7520.70		
	Cost of shuttering for 2.832 cum total cost/4				1880.18	
					11373.12	
	Add Overhead charge & C.P	15 %			1705.97	
					13079.09	
	Add Cess	1 %			130.79	
					13209.88	4664.51
		Say Rs		4664.50	Per M^3	

6.3.19 Centring and shuttering in major Barrage v involving mass concrete including cost of f work, their carriage from work shop to work erection with the help of suitable crane stripping etc. complete job as per specificati and direction of E/l.

Brief specification
Heavir type steel shuttering for use in dams
Working with suitable crane
Shuttering once manufactured shall be used thir ur 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	44.60	2096.15
M.S. plates 65x45x8 mm thick	20 kg	44.60	891.98
M.S. channel 125 x 50 mm	82 kg	49.56	4063.92
M.S. channel 150x55 mm	42 kg	49.56	2081.52

	M.S. channel 100x45 mm	30 kg	49.56	1486.80	
	M.S. plates 63x6 mm	22 kg	#VALUE!	#VALUE!	
	G.I pipe 50 mm dia	3.5 kg	161.00	563.50	
	Nuts and bolts 10 mm dia and 85 mm long(31 nos)	4.5 kg	61.00	274.50	
	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 ancorage 24 kg	24 kg	#VALUE!	#VALUE!	
	Linssed oil @ 8 litres per % sqm	8 lit	80.00	640.00	
	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 transportaion and febrication charge per sqm.			#VALUE!	
	(C). Machinery charge				
	Taking in output of crane / hr	8.33 sqm			
	Hourly use rate or crane	**1161.00**			
	Machinary charge per sqm = Use rate of crane x 100 / 8.33			13937.58	
	(D). Labour charge				
	Fore man	0.25 nos	317.00	79.25	
	Semi Skilled mazdoor	20 nos	192.00	3840.00	
	Carpenters Gr II	4 nos	223.00	892.00	
	Total			4811.25	
	Total Of A+B+C+D			#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs	#VALUE!	Per M2	
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.				
	(Assuming 9.30 M^2)				
A	MATERIALS				
	Local wood planks 38 mm thick 9.3 x 38 / 1000 =0.	0.353 cum			
	Add 5 % wastage	0.017 cum			
	Cost of 0.37 cum lock wood planks	0.37 cum	10444.00	3864.28	
	Add cost for strutting and proping @ 10 % of above			386.43	
				4250.71	
	Assuming 4 uses to calculate	4 use			
	~~Cost of shuttering for 2.832 cum total cost/4~~			~~1062.66~~	
	Add 1 % for cost of nails and spikes of total cost of wooden materials.			42.51	
				1105.18 **A**	
B	LABOUR				
	Carpenter Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	2.5 nos	184.00	460.00	
				794.50 **B**	
C	Carrage of materials				
	Cost of the carriage of materials from Godowm and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals			42.51 **C**	
	TOTAL cost per 9.3 sqm =A+B+C			1942.19	

	Add Overhead charge & C.P	15 %		291.33	
				2233.52	
	Add Cess	1 %		22.34	
				2255.86	242.57
		Say Rs	242.60	Per M^3	
6.3.21	Providing shuttering including structting. Proping etc. and its removal after use in superstructure portion of various components of Barrage work as per specifications and direction of E/I.				
	(Assuming 9.30 M^2)				
A	MATERIALS				
	Local wood planks 38 mm thick 9.3 x 38 / 1000 =0.	0.353 cum			
	Add 5 % wastage	0.017 cum			
	Cost of 0.37 cum lock wood planks	0.37 cum	10444.00	3864.28	
	Add cost for strutting and proping @ 10 % of above			386.43	
				4250.71	
	Assuming 4 uses to calculate	4 use			
	Cost of shuttering for 2.832 cum total cost/4			1062.68	
	Add 1 % for cost of nails and spikes of total cost of woden materials			42.51	
				1105.18 **A**	
B	LABOUR				
	Carpenter Gr II	1.5 nos	223.00	334.50	
	Unskilled mazdoor	2.5 nos	184.00	460.00	
				794.50 **B**	
C	Carrage of matterials				
	Cost of the carriage of materials from Godowm and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals			42.51 **C**	
	TOTAL cost per 9.3 sqm =A+B+C			1942.19	
	Add Overhead charge & C.P	15 %		291.33	
				2233.52	
	Add Cess	1 %		22.34	
				2255.86	242.57
		Say Rs	242.60	Per M^3	
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	0.89 cum	10444.00		
	Assuming 4 uses to calculate				
	Cost of planks per use =0.89 x rate of local wood /4			2323.79	
	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	285.48 mtr	40.00		
	(Assuming sal bullah to be used 10 times for centerins				
	=285.48 x Rate per Mtr / 10			1141.92	
	c. Salwood scanting required (75 mm x 63 mm size) =0.311 cum	0.311 cum	25620.00		
	(Assuming 10 uses)				
	Cost per use =0.311 x Rate per Mtr/10			796.78	
				4262.49	
	Add 1 % for cost of nails and spikes of total cost of woden materials			42.62	
				4305.12 (A)	

B.	LABOUR				
	Carpenter Gr II	4 nos	223.00	892.00	
	Unskilled mazdoor	7 nos	184.00	1288.00	
				2180.00 (B)	
C.	Carrage of materials				
	Cost of the carriage of materials from Godowm and back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals			42.62 (C)	
	TOTAL cost per 22.326 sqm =A+B+C			6527.74	
	Add Overhead charge & C.P	15 %		979.16	
				7506.90	
	Add Cess	1 %		75.07	
				7581.97	339.60
		Say Rs	339.60	Per M^3	
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			
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	38324.00	40240.20	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Totalof A+B			#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
	(b).Dia of bar above 6 mm to 12 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	37856.00	39748.80	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Totalof A+B			#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
	(c).Dia of bar above 14 mm to 50 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	#VALUE!	#VALUE!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Totalof A+B			#REF!	
	Add Overhead charge & C.P	15 %		#REF!	

	Add Cess	1 %		#REF! #REF! #REF!	#REF!
		Say Rs	#REF!	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 (Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	36400.00	38220.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(b).	T.M.T. GRADE -FE 415- 10 mm (Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	36400.00	38220.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(c).	T.M.T. GRADE -FE 415- 12 mm (Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	35880.00	37674.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(d).	T.M.T. GRADE FE415- 16mm (Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T	35880.00	37674.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	

				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(e).	T.M.T. GRADE FE415- 20 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	35880.00	37674.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(f).	T.M.T. GRADE FE415- 25 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	35880.00	37674.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(g).	T.M.T. GRADE FE415- 28 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	35880.00	37674.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(h).	T.M.T. GRADE FE415-32 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	35880.00	37674.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	

(i).	T.M.T. GRADE -FE 500- 8 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	52185.00	54794.25	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(j).	T.M.T. GRADE -FE500-10 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	51135.00	53691.75	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(k).	T.M.T. GRADE -FE 500- 12 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	50610.00	53140.50	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(l).	T.M.T. GRADE FE 500- 16mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	50898.75	53443.69	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(m).	T.M.T. GRADE FE 500- 20 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	50400.00	52920.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	

	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(n).	T.M.T. GRADE FE 500- 25 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage.)	1.05 M.T	50400.00	52920.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(o).	T.M.T. GRADE FE 500- 28 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	50400.00	52920.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(p).	T.M.T. GRADE FE 500-32 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	50400.00	52920.00	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(q).	T.M.T. GRADE FE 500-36 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	46567.50	48895.88	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	

	Add Cess	1 %		#REF!		
				#REF!	#REF!	
		Say Rs	#REF!	Per M.T		
6.3.25	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.					
	(A). Cost of 1.05 bag of cement at site including 5 % wastage and incidental charge	0.0357 Cum	9118.00	325.51		
	(B). Grouting					
	i. Hourly use rate of grouting machine	**211.00**				
	Taking progress of grouting 8 bags of cement per ho	8 Bags				
	Cost of Grouting= use rate/8			26.38		
				351.89		
	Add Overhead charge & C.P	15 %		52.78		
				404.67	404.67	
	Add Cess	1 %		4.05		
				408.72	408.72	
		Say Rs	408.70	Per bags of cement		
6.3.26	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 qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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 M^3				
	Taking Out put:-	1.000 Cum				
	MATERIALS					
	Coarse aggregates **Gr IV**					
	(Rate of approved quality of aggregate as per Design)	0.94 M^3	481.18	452.31		
	Sand	0.470 M^3	270.36	127.07		
	Cement	0.157 M^3	9118.00	1431.53		
	(b)LABOURS					
	Mate	0.01	201.00	1.41		
	Mason	0.03	223.00	5.58		
	Mazdoor	0.15	184.00	27.60		
	c) Machinery					
	Batching Plant @ 20 cum/hour	0.05	2513.00	125.65		
	Generator 100 KVA	0.05	1716.00	85.80		
	Loader 1 cum capacity	0.05	1199.00	59.95		
	Transit Mixer 4 cum capacity for lead upto 1 km.	0.13	1265.00	158.13	**Lead**	
	Lead beyond 1 km, L-lead in km	2.50	6.50	16.25		1
	Concrete Pump	0.05	348.00	17.40		
	(d). Vibrating the concrete.			**162.10**		
				2670.76		
	Add Overhead charge & C.P	15 %		400.61		
				3071.38		
	Add Cess	1 %		30.71		
				3102.09	3102.09	
		Say Rs	3102.10	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 raded coarse aggregate of required qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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 M^3			
	Taking Out put:- 1.000 Cum			
MATERIALS				
Coarse aggregates (20 mm To 10 mm)				
(Rate of approved quality of aggregate as per Design)	0.90 M^3	645.63	581.07	
Sand	0.450 M^3	270.36	121.66	
Cement	0.225 M^3	9118.00	2051.55	
(b)LABOURS				
Mate	0.01	201.00	1.41	
Mason	0.03	223.00	5.58	
Mazdoor	0.15	184.00	27.60	
c) Machinery				
Batching Plant @ 20 cum/hour	0.05	2513.00	125.65	
Generator 100 KVA	0.05	1716.00	85.80	
Loader 1 cum capacity	0.05	1199.00	59.95	
Transit Mixer 4 cum capacity for lead upto 1 km.	0.13	1265.00	158.13	**Lead**
Lead beyond 1 km, L-lead in km	2.50	6.50	16.25	1
Concrete Pump	0.05	348.00	17.40	
(d). Vibrating the concrete.			**162.10**	
			3414.14	
Add Overhead charge & C.P	15 %		512.12	
			3926.26	
Add Cess	1 %		39.26	
			3965.52	3965.52
	Say Rs	3965.50	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 raded coarse aggregate of required qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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.

Patna U

With Batching Plant, Transit Mixer And Concrete Pump

	Unit:- Per M^3		
	Taking Out put:- 1.000 Cum		
MATERIALS			
Coarse aggregates (20 mm To 10 mm)			
(Rate of approved quality of aggregate as per Design)	0.86 M^3	645.63	555.24
Sand	0.430 M^3	270.36	116.26
Cement	0.287 M^3	9118.00	2616.87
(b)LABOURS			
Mate	0.01	201.00	1.41
Mason	0.03	223.00	5.58
Mazdoor	0.15	184.00	27.60

c) Machinery					
Batching Plant @ 20 cum/hour	0.05	2513.00	125.65		
Generator 100 KVA	0.05	1716.00	85.80		
Loader 1 cum capacity	0.05	1199.00	59.95		
Transit Mixer 4 cum capacity for lead upto 1 km.	0.13				
		1265.00	158.13	**Lead**	
Lead beyond 1 km, L-lead in km	2.50	6.50	16.25		1
Concrete Pump	0.05	348.00	17.40		
(d). Vibrating the concrete.			**162.10**		
			3948.22		
Add Overhead charge & C.P	15 %		592.23		
			4540.46	4540.46	
Add Cess	1 %		45.40		
			4585.86	4585.86	
	Say Rs	4585.90	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 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 as royalty and all taxes 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 M^3				
Taking Out put:-	1.000 Cum				
MATERIALS					
Coarse aggregates (20 mm To 10 mm)					
(Rate of approved quality of aggregate as per Design)	0.84 M^3	645.63	542.33		
Sand	0.420 M^3	270.36	113.55		
Cement	0.42 M^3	9118.00	3829.56		
(b)LABOURS					
Mate	0.01	201.00	1.41		
Mason	0.03	223.00	5.58		
Mazdoor	0.15	184.00	27.60		
c) Machinery					
Batching Plant @ 20 cum/hour	0.05	2513.00	125.65		
Generator 100 KVA	0.05	1716.00	85.80		
Loader 1 cum capacity	0.05	1199.00	59.95		
Transit Mixer 4 cum capacity for lead upto 1 km.	0.13				
		1265.00	158.13	**Lead**	
Lead beyond 1 km, L-lead in km	2.50	6.50	16.25		1
Concrete Pump	0.05	348.00	17.40		
(d). Vibrating the concrete.			**162.10**		
			5145.30		
Add Overhead charge & C.P	15 %		771.80		
			5917.10		
Add Cess	1 %		59.17		
			5976.27	5976.27	
	Say Rs	5976.30	Per M^3		

6. 4 MASONARY WORK

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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E

Patna Urban	4802.40	Per M^3
Patna	4305.70	Per M^3
Muzaffarpur	4356.30	Per M^3
Darbhanga	3669.40	Per M^3
Bhagalpur	4359.60	Per M^3
Munger	4329.20	Per M^3
Saharsa	4431.00	Per M^3
Purnea	4566.90	Per M^3
Gaya	4150.00	Per M^3
Saran	4204.10	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4624.30	Per M^3
Patna	4127.60	Per M^3
Muzaffarpur	4175.20	Per M^3
Darbhanga	4180.80	Per M^3
Bhagalpur	4177.90	Per M^3
Munger	4152.90	Per M^3
Saharsa	4177.90	Per M^3
Purnea	4384.60	Per M^3
Gaya	3981.50	Per M^3
Saran	4026.00	Per M^3

6.4.3 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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4478.10	Per M^3
Patna	3981.40	Per M^3
Muzaffarpur	4026.50	Per M^3
Darbhanga	4031.10	Per M^3
Bhagalpur	4028.80	Per M^3
Munger	4008.10	Per M^3
Saharsa	4028.80	Per M^3
Purnea	4235.00	Per M^3
Gaya	3843.00	Per M^3
Saran	3879.70	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4877.90	Per M^3
Patna	4381.20	Per M^3
Muzaffarpur	4431.80	Per M^3
Darbhanga	4431.80	Per M^3
Bhagalpur	4435.10	Per M^3
Munger	4404.70	Per M^3
Saharsa	4435.10	Per M^3
Purnea	4642.40	Per M^3
Gaya	4225.40	Per M^3
Saran	4279.50	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4699.80	Per M^3
Patna	4203.10	Per M^3
Muzaffarpur	4250.70	Per M^3
Darbhanga	4256.20	Per M^3
Bhagalpur	4253.40	Per M^3
Munger	4228.40	Per M^3
Saharsa	4253.40	Per M^3
Purnea	4460.10	Per M^3
Gaya	4057.00	Per M^3
Saran	4101.40	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4553.50	Per M^3
Patna	Per M3	Per M^3
Muzaffarpur	4102.00	Per M^3
Darbhanga	4106.60	Per M^3
Bhagalpur	4104.20	Per M^3
Munger	4083.60	Per M^3
Saharsa	4104.20	Per M^3
Purnea	4310.40	Per M^3
Gaya	3918.50	Per M^3
Saran	3955.20	Per M^3

6.4.7 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2328.80	Per M^3
Patna	2328.80	Per M^3
Muzaffarpur	2349.90	Per M^3
Darbhanga	2358.30	Per M^3
Bhagalpur	2354.00	Per M^3
Munger	2316.00	Per M^3
Saharsa	2354.00	Per M^3
Purnea	2358.30	Per M^3
Gaya	2261.10	Per M^3
Saran	2328.80	Per M^3

6.4.8 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2074.70	Per M^3
Patna	2074.70	Per M^3
Muzaffarpur	2091.60	Per M^3
Darbhanga	2098.40	Per M^3
Bhagalpur	2095.00	Per M^3
Munger	2064.50	Per M^3
Saharsa	2095.00	Per M^3
Purnea	2098.40	Per M^3
Gaya	2020.70	Per M^3
Saran	2074.70	Per M^3

6.4.9 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	1916.90	Per M^3
Patna	1916.90	Per M^3
Muzaffarpur	1931.10	Per M^3
Darbhanga	1936.80	Per M^3
Bhagalpur	1933.90	Per M^3
Munger	1908.20	Per M^3
Saharsa	1933.90	Per M^3
Purnea	1936.80	Per M^3
Gaya	1871.30	Per M^3
Saran	1916.90	Per M^3

6.4.10 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2423.10	Per M^3
Patna	2423.10	Per M^3
Muzaffarpur	2444.20	Per M^3
Darbhanga	2452.70	Per M^3
Bhagalpur	2448.30	Per M^3
Munger	2410.30	Per M^3
Saharsa	2448.30	Per M^3
Purnea	2452.70	Per M^3
Gaya	2355.50	Per M^3
Saran	2423.10	Per M^3

6.4.11 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2169.10	Per M^3
Patna	2169.10	Per M^3
Muzaffarpur	2186.00	Per M^3
Darbhanga	2192.70	Per M^3
Bhagalpur	2189.30	Per M^3
Munger	2158.90	Per M^3
Saharsa	2189.30	Per M^3
Purnea	2192.70	Per M^3
Gaya	2115.00	Per M^3
Saran	2169.10	Per M^3

6.4.12 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2011.20	Per M^3
Patna	2011.20	Per M^3
Muzaffarpur	2025.40	Per M^3
Darbhanga	2031.10	Per M^3
Bhagalpur	2028.20	Per M^3
Munger	2002.60	Per M^3
Saharsa	2028.20	Per M^3
Purnea	2031.10	Per M^3
Gaya	1965.60	Per M^3
Saran	2011.20	Per M^3

6.4.13 Providing rough dressed coursed rubble stone masonary in cement mortar (1:3) in supersiructure 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2423.10	Per M^3
Patna	2423.10	Per M^3
Muzaffarpur	2444.20	Per M^3
Darbhanga	2452.70	Per M^3
Bhagalpur	2448.30	Per M^3
Munger	2410.30	Per M^3
Saharsa	2448.30	Per M^3
Purnea	2452.70	Per M^3
Gaya	2355.50	Per M^3
Saran	2423.10	Per M^3

6.4.14 Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2169.10	Per M^3
Patna	2169.10	Per M^3
Muzaffarpur	2186.00	Per M^3
Darbhanga	2192.70	Per M^3
Bhagalpur	2189.30	Per M^3
Munger	2158.90	Per M^3
Saharsa	2189.30	Per M^3
Purnea	2192.70	Per M^3
Gaya	2115.00	Per M^3
Saran	2169.10	Per M^3

6.4.15 Providing rough dressed coursed stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2011.20	Per M^3
Patna	2011.20	Per M^3
Muzaffarpur	2025.40	Per M^3
Darbhanga	2031.10	Per M^3
Bhagalpur	2028.20	Per M^3
Munger	2002.60	Per M^3
Saharsa	2028.20	Per M^3
Purnea	2031.10	Per M^3
Gaya	1965.60	Per M^3
Saran	2011.20	Per M^3

6. 4 MASONARY WORK

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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	
Sand		0.84 cum	270.36	227.11	
Cement		0.28 cum	9118.00	2553.04	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2.5 nos	223.00	557.50	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		1 nos	186.00	186.00	
				11709.43	
Add Overhead charge & C.P		15 %		1756.41	
				13465.84	
add Cess		1 %		134.66	
				13600.50	4802.44
	Say		4802.40	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	
Sand		0.92 cum	270.36	248.73	
Cement		0.23 cum	9118.00	2097.14	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2.5 nos	223.00	557.50	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		1 nos	186.00	186.00	
				11275.16	
Add Overhead charge & C.P		15 %		1691.27	
				12966.43	
add Cess		1 %		129.66	
				13096.10	4624.33
	Say		4624.30	Per M^3	

6.4.3 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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	

Sand	0.95 cum	270.36	256.85	
Cement	0.19 cum	9118.00	1732.42	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	1 nos	186.00	186.00	
			10918.55	
Add Overhead charge & C.P	15 %		1637.78	
			12556.33	
add Cess	1 %		125.56	
			12681.90	4478.07
	Say	4478.10	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.84 cum	270.36	227.11	
Cement	0.28 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11893.43	
Add Overhead charge & C.P	15 %		1784.01	
			13677.44	
add Cess	1 %		136.77	
			13814.22	4877.90
	Say	4877.90	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.92 cum	270.36	248.73	
Cement	0.23 cum	9118.00	2097.14	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11459.16	
Add Overhead charge & C.P	15 %		1718.87	
			13178.03	
add Cess	1 %		131.78	
			13309.81	4699.79
	Say	4699.80	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	
Sand		0.95 cum	270.36	256.85	
Cement		0.19 cum	9118.00	1732.42	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2.5 nos	223.00	557.50	
Unskilled mazdoor		6 nos	184.00	1104.00	
Bhisti		1 nos	186.00	186.00	
				11102.55	
Add Overhead charge & C.P		15 %		1665.38	
				12767.93	
add Cess		1 %		127.68	
				12895.61	4553.54
		Say	4553.50	Per M^3	

6.4.7 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
Materials					
Stone boulder		2.832 cum	304.97	863.68	
Sand		1.050 cum	270.36	283.88	
Cement		0.350 cum	9118.00	3191.30	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2 nos	223.00	446.00	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		0.5 nos	186.00	93.00	
				5829.23	
Add Overhead charge & C.P		15 %		874.38	
				6703.62	
add Cess		1 %		67.04	
				6770.65	2390.77
		Say	2390.80	Per M^3	

6.4.8 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

	Unit:-	Per M^3		
	Taking Out put:-	2.832 cum		
Materials				
Stone boulder		2.832 cum	304.97	863.68
Sand		1.120 cum	270.36	302.81
Cement		0.280 cum	9118.00	2553.04

	Labour				
	Head mason	0.125 nos	251.00	31.38	
	Mason Gr II	2 nos	223.00	446.00	
	Unskilled mazdoor	5 nos	184.00	920.00	
	Bhisti	0.5 nos	186.00	93.00	
				5209.90	
	Add Overhead charge & C.P	15 %		781.48	
				5991.38	
	add Cess	1 %		59.91	
				6051.30	2136.76
		Say	2136.80	Per M^3	

6.4.9 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.180 cum	270.36	319.03	
Cement	0.236 cum	9118.00	2151.85	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	5 nos	184.00	920.00	
Bhisti	0.5 nos	186.00	93.00	
			4673.73	
Add Overhead charge & C.P	15 %		701.06	
			5374.79	
add Cess	1 %		53.75	
			5428.53	1916.85
	Say	1916.90	Per M^3	

6.4.10 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.050 cum	270.36	283.88	
Cement	0.350 cum	9118.00	3191.30	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5908.03	
Add Overhead charge & C.P	15 %		886.20	
			6794.24	
add Cess	1 %		67.94	
			6862.18	2423.09
	Say	2423.10	Per M^3	

6.4.11 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.120 cum	270.36	302.81	
Cement	0.280 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5288.70	
Add Overhead charge & C.P	15 %		793.30	
			6082.00	
add Cess	1 %		60.82	
			6142.82	2169.08
	Say	2169.10	Per M^3	

6.4.12 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.180 cum	270.36	319.03	
Cement	0.236 cum	9118.00	2151.85	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			4903.73	
Add Overhead charge & C.P	15 %		735.56	
			5639.29	
add Cess	1 %		56.39	
			5695.68	2011.19
	Say	2011.20	Per M^3	

6.4.13 Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.050 cum	270.36	283.88	
Cement	0.350 cum	9118.00	3191.30	

	Labour				
	Head mason	0.125 nos	251.00	31.38	
	Mason Gr II	2 nos	223.00	446.00	
	Unskilled mazdoor	6.25 nos	184.00	1150.00	
	Bhisti	0.5 nos	186.00	93.00	
				5908.03	
	Add Overhead charge & C.P	15 %		886.20	
				6794.24	
	add Cess	1 %		67.94	
				6862.18	2423.09
		Say	2423.10	Per M^3	
6.4.14	Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.				
	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
	Materials				
	Stone boulder	2.832 cum	251.58	712.47	
	Sand	1.120 cum	270.36	302.81	
	Cement	0.280 cum	9118.00	2553.04	
	Labour				
	Head mason	0.125 nos	251.00	31.38	
	Mason Gr II	2 nos	223.00	446.00	
	Unskilled mazdoor	6.25 nos	184.00	1150.00	
	Bhisti	0.5 nos	186.00	93.00	
				5288.70	
	Add Overhead charge & C.P	15 %		793.30	
				6082.00	
	add Cess	1 %		60.82	
				6142.82	2169.08
		Say	2169.10	Per M^3	
6.4.15	Providing rough dressed coursed stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.				
	Unit:-	Per M^3			
	Taking Out put:-	2.832 cum			
	Materials				
	Stone boulder	2.832 cum	251.58	712.47	
	Sand	1.180 cum	270.36	319.03	
	Cement	0.236 cum	9118.00	2151.85	
	Labour				
	Head mason	0.125 nos	251.00	31.38	
	Mason Gr II	2 nos	223.00	446.00	
	Unskilled mazdoor	6.25 nos	184.00	1150.00	
	Bhisti	0.5 nos	186.00	93.00	
				4903.73	
	Add Overhead charge & C.P	15 %		735.56	
				5639.29	
	add Cess	1 %		56.39	
				5695.68	2011.19
		Say	2011.20	Per M^3	

6.5. PLASTER WORK

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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	127.30	Per M^2
Patna	127.30	Per M^2
Muzaffarpur	128.00	Per M^2
Darbhanga	128.40	Per M^2
Bhagalpur	128.20	Per M^2
Munger	126.80	Per M^2
Saharsa	128.20	Per M^2
Purnea	128.40	Per M^2
Gaya	124.70	Per M^2
Saran	127.30	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	117.20	Per M^2
Patna	117.20	Per M^2
Muzaffarpur	117.90	Per M^2
Darbhanga	118.10	Per M^2
Bhagalpur	118.00	Per M^2
Munger	116.90	Per M^2
Saharsa	118.00	Per M^2
Purnea	118.10	Per M^2
Gaya	115.20	Per M^2
Saran	117.20	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	110.50	Per M^2
Patna	110.50	Per M^2
Muzaffarpur	111.10	Per M^2
Darbhanga	111.30	Per M^2
Bhagalpur	111.20	Per M^2
Munger	110.20	Per M^2
Saharsa	111.20	Per M^2
Purnea	111.30	Per M^2
Gaya	108.90	Per M^2
Saran	110.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	216.10	Per M^2

Patna	216.10	Per M^2
Muzaffarpur	217.60	Per M^2
Darbhanga	218.30	Per M^2
Bhagalpur	217.90	Per M^2
Munger	217.90	Per M^2
Saharsa	217.90	Per M^2
Purnea	218.30	Per M^2
Gaya	211.10	Per M^2
Saran	216.10	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	197.50	Per M^2
Patna	197.50	Per M^2
Muzaffarpur	198.70	Per M^2
Darbhanga	199.20	Per M^2
Bhagalpur	199.00	Per M^2
Munger	196.70	Per M^2
Saharsa	199.00	Per M^2
Purnea	199.20	Per M^2
Gaya	193.50	Per M^2
Saran	197.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	181.40	Per M^2
Patna	181.40	Per M^2
Muzaffarpur	182.40	Per M^2
Darbhanga	182.80	Per M^2
Bhagalpur	182.60	Per M^2
Munger	180.70	Per M^2
Saharsa	182.60	Per M^2
Purnea	182.80	Per M^2
Gaya	178.10	Per M^2
Saran	181.40	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	133.90	Per M^2
Patna	133.90	Per M^2
Muzaffarpur	134.60	Per M^2
Darbhanga	135.00	Per M^2
Bhagalpur	134.80	Per M^2
Munger	133.40	Per M^2
Saharsa	134.80	Per M^2
Purnea	135.00	Per M^2

	Gaya	131.30	Per M^2
	, Saran	133.90	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 and all taxes etc. complete job as per specification and direction of E / I.		
	Patna Urban	229.30	Per M^2
	Patna	229.30	Per M^2
	Muzaffarpur	230.80	Per M^2
	Darbhanga	231.50	Per M^2
	Bhagalpur	231.10	Per M^2
	Munger	228.30	Per M^2
	Saharsa	231.10	Per M^2
	Purnea	231.50	Per M^2
	Gaya	224.30	Per M^2
	Saran	229.30	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 and all taxes etc. complete job as per specification and direction of E / I.		
	Patna Urban	210.70	Per M^2
	Patna	210.70	Per M^2
	Muzaffarpur	211.90	Per M^2
	Darbhanga	212.40	Per M^2
	Bhagalpur	212.10	Per M^2
	Munger	209.90	Per M^2
	Saharsa	212.10	Per M^2
	Purnea	212.40	Per M^2
	Gaya	206.70	Per M^2
	Saran	210.70	Per M^2
6.5.10	Providing 1.5 mm thick cement punning including curing, , royalty and all taxes etc. complete job as per specification and direction of E / I.		
	Patna Urban	37.60	Per M^2
	Patna	37.60	Per M^2
	Muzaffarpur	37.80	Per M^2
	Darbhanga	37.90	Per M^2
	Bhagalpur	37.90	Per M^2
	Munger	37.40	Per M^2
	Saharsa	37.90	Per M^2
	Purnea	37.90	Per M^2
	Gaya	36.70	Per M^2
	Saran	37.60	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	105.20	Per M^2
Patna	105.20	Per M^2
Muzaffarpur	105.50	Per M^2
Darbhanga	105.60	Per M^2
Bhagalpur	105.50	Per M^2
Munger	105.10	Per M^2
Saharsa	105.50	Per M^2
Purnea	105.60	Per M^2
Gaya	104.40	Per M^2
Saran	105.20	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	79.80	Per M^2
Patna	79.80	Per M^2
Muzaffarpur	80.10	Per M^2
Darbhanga	80.20	Per M^2
Bhagalpur	80.10	Per M^2
Munger	79.70	Per M^2
Saharsa	80.10	Per M^2
Purnea	80.20	Per M^2
Gaya	79.00	Per M^2
Saran	79.80	Per M^2

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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	117.80	Per M^2
Patna	117.80	Per M^2
Muzaffarpur	118.20	Per M^2
Darbhanga	118.40	Per M^2
Bhagalpur	118.30	Per M^2
Munger	117.60	Per M^2
Saharsa	118.30	Per M^2
Purnea	118.40	Per M^2
Gaya	116.60	Per M^2
Saran	117.80	Per M^2

6.5.14 Providing cement truck pointing (1:3) on0n stone masonary 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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	155.40 Per M^2
Patna	155.40 Per M^2
Muzaffarpur	156.00 Per M^2
Darbhanga	156.20 Per M^2
Bhagalpur	156.10 Per M^2
Munger	155.00 Per M^2
Saharsa	156.10 Per M^2
Purnea	156.20 Per M^2
Gaya	153.50 Per M^2
Saran	155.40 Per M^2

6.5 PLASTER WORK

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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Cement	0.043 cum	9118.00	392.07	
Sand	0.129 cum	270.36	34.88	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			1018.95	
Add Overhead charge & C.P	15 %		152.84	
			1171.79	
Add Cess	1 %		11.72	
			1183.51	127.26
Say		127.30	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 and all taxes etc. complete ,job as per specification and direction of E / I.

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Cement	0.034 cum	9118.00	310.01	
Sand	0.136 cum	270.36	36.77	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			938.78	
Add Overhead charge & C.P	15 %		140.82	
			1079.60	
Add Cess	1 %		10.80	
			1090.39	117.25
Say		117.20	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Cement	0.028 cum	9118.00	255.30	
Sand	0.140 cum	270.36	37.85	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			885.15	
Add Overhead charge & C.P	15 %		132.77	
			1017.93	

	Add Cess	1 %		10.18	
				1028.11	110.55
		Say	110.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Cement	0.085 cum	9118.00	775.03	
Sand	0.250 cum	270.36	67.59	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	2.5 nos	184.00	460.00	
Bhisti	0.5 nos	186.00	93.00	
			1730.12	
Add Overhead charge & C.P	15 %		259.52	
			1989.64	
Add Cess	1 %		19.90	
			2009.54	216.08
	Say	216.10	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Cement	0.068 cum	9118.00	620.02	
Sand	0.272 cum	270.36	73.54	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	2.5 nos	184.00	460.00	
Bhisti	0.5 nos	186.00	93.00	
			1581.06	
Add Overhead charge & C.P	15 %		237.16	
			1818.22	
Add Cess	1 %		18.18	
			1836.40	197.46
	Say	197.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Cement	0.056 cum	9118.00	510.61	
Sand	0.200 cum	270.36	54.07	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	2.5 nos	184.00	460.00	
Bhisti	0.5 nos	186.00	93.00	
			1452.18	
Add Overhead charge & C.P	15 %		217.83	
			1670.01	
Add Cess	1 %		16.70	
			1686.71	181.37
	Say	181.40	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2				
Taking Out put:-	9.300 Sqm				
Materials					
Cement	0.043 cum		9118.00	392.07	
Sand	0.129 cum		270.36	34.88	
Cost of water proofing compound (Cico)	2.4	Kg	22.00	52.8	
Labour					
Mason Gr II	1 nos		223.00	223	
Unskilled mazdoor	1.5 nos		184.00	276	
Bhisti	0.5 nos		186.00	93	
				1071.75	
Add Overhead charge & C.P	15 %			160.76	
				1232.51	
Add Cess	1 %			12.33	
				1244.84	133.85
Say			133.90	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2				
Taking Out put:-	9.300 Sqm				
Materials					
Cement	0.085 cum		9118.00	775.03	
Sand	0.250 cum		270.36	67.59	
Cost of water proofing compound (Cico)	4.8 Kg		22.00	105.6	
Labour					
Mason Gr II	1.5 nos		223.00	334.50	
Unskilled mazdoor	2.5 nos		184.00	460.00	
Bhisti	0.5 nos		186.00	93.00	
				1835.72	
Add Overhead charge & C.P	15 %			275.36	
				2111.08	
Add Cess	1 %			21.11	
				2132.19	229.27
Say			229.30	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:-	Per M^2				
Taking Out put:-	9.300 Sqm				
Materials					
Cement	0.068 cum		9118.00	620.02	

Sand	0.272 cum	270.36	73.54	
Cost of water proofing compound (Cico)	4.8 Kg	22.00	105.6	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	2.5 nos	184.00	460.00	
Bhisti	0.5 nos	186.00	93.00	
			1686.66	
Add Overhead charge & C.P	15 %		253.00	
			1939.66	
Add Cess	1 %		19.40	
			1959.06	210.65
	Say	210.70	Per M^2	

6.5.10 Providing 1.5 mm thick cement punning including curing, , royalty and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2
Taking Out put:- 9.300 Sqm

Materials				
Cement	0.014 cum	9118.00	127.65	
Labour				
Head Mason	0.0625 nos	251.00	15.69	
Mason Gr II	0.5 nos	223.00	111.50	
Unskilled mazdoor	0.25 nos	184.00	46.00	
			300.84	
Add Overhead charge & C.P	15 %		45.13	
			345.97	
Add Cess	1 %		3.46	
			349.43	37.57
	Say	37.60	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2
Taking Out put:- 9.300 Sqm

Materials				
Cement	0.014 cum	9118.00	127.65	
Sand	0.042 cum	270.36	11.36	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			842.51	
Add Overhead charge & C.P	15 %		126.38	
			968.88	
Add Cess	1 %		9.69	
			978.57	105.22
	Say	105.20	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2
Taking Out put:- 9.300 Sqm

Materials

	Cement	0.014 cum	9118.00	127.65	
	Sand	0.042 cum	270.36	11.36	
	Labour				
	Mason Gr II	1 nos	223.00	223.00	
	Unskilled mazdoor	1 nos	184.00	184.00	
	Bhisti	0.5 nos	186.00	93.00	
				639.01	
	Add Overhead charge & C.P	15 %		95.85	
				734.86	
	Add Cess	1 %		7.35	
				742.21	79.81
		Say		79.80	Per M^2

6.5.13 Providing cement tuck 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2
Taking Out put:- 9.300 Sqm

Materials				
Cement	0.021 cum	9118.00	191.48	
Sand	0.063 cum	270.36	17.03	
Labour				
Head Mason	0.125 nos	251.00	31.38	
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			943.39	
Add Overhead charge & C.P	15 %		141.51	
			1084.89	
Add Cess	1 %		10.85	
			1095.74	117.82
	Say		117.80	Per M^2

6.5.14 Providing cement truck pointing (1:3) on0n stone masonary 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2
Taking Out put:- 9.300 Sqm

Materials				
Cement	0.032 cum	9118.00	291.78	
Sand	0.096 cum	270.36	25.95	
Labour				
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			1244.23	
Add Overhead charge & C.P	15 %		186.63	
			1430.87	
Add Cess	1 %		14.31	
			1445.17	155.40
	Say		155.40	Per M^2

6.6 PITCHING & PILING

6.6.1	Labour for laying dry graded jhama khoa or stone filter under brick pitching or boulder pitching in slope or appron including light ramming etc.all complete job as per specification and direction of E / I.	226.40	Per M^3
6.6.2	Labour for laying sand filter under brick pitching or boulder pitching in slope or appron including light ramming etc.all complete job as per specification and direction of E / I.	226.40	Per M^3
6.6.3	Providing pitching work with designation 100A bricks in pannel in herring bond pattern one brick on edge over a brick flate soling filled with local sand free from clay contents including royaltyand all taxes as per approved design,specifications and direction of E/I		
	Patna Urban	686.50	Per M^2
	Patna	612.60	Per M^2
	Muzaffarpur	588.40	Per M^2
	Darbhanga	588.40	Per M^2
	Bhagalpur	588.40	Per M^2
	Munger	588.40	Per M^2
	Saharsa	602.80	Per M^2
	Purnea	631.60	Per M^2
	Gaya	559.70	Per M^2
	Saran	559.70	Per M^2
6.6.4	Providing pitching work with designation 100A bricks in pannel two brick on edge over a brick flate soling joints filled with local sand free from clay contents including royaltyand all taxes as per approved design,specifications and direction of E/I		
	Patna Urban	1188.60	Per M^2
	Patna	1017.60	Per M^2
	Muzaffarpur	1029.20	Per M^2
	Darbhanga	1029.20	Per M^2
	Bhagalpur	1029.20	Per M^2
	Munger	1029.20	Per M^2
	Saharsa	1052.60	Per M^2
	Purnea	1099.40	Per M^2
	Gaya	982.60	Per M^2
	Saran	982.60	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 royaltyand all taxes as per approved design,specifications and direction of E/I		
	Patna Urban	274.70	Per M^2
	Patna	235.20	Per M^2
	Muzaffarpur	237.90	Per M^2
	Darbhanga	237.90	Per M^2
	Bhagalpur	237.90	Per M^2
	Munger	237.90	Per M^2
	Saharsa	243.30	Per M^2
	Purnea	254.10	Per M^2
	Gaya	227.20	Per M^2
	Saran	227.20	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	543.40	Per M^2
6.6.7	Providing and laying coarse clean sand in filling in foundation trenches including ramming as well as royalty and all taxes etc. as per approved design,specifications and direction of E/I	206.50	Per M^3

6.6 PITCHING & PILING

6.6.1 Labour for laying dry graded jhama khoa or stone filter under brick pitching or boulder pitching in slope or appron including light ramming etc.all complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Unskilled mazdoor	3 nos	184.00	552.00	
			552.00	
Add Overhead charge & C.P	15 %		82.80	
			634.80	
Add Cess	1 %		6.35	
			641.15	226.39
Say Rs		226.40	Per M^3	

6.6.2 Labour for laying sand filter under brick pitching or boulder pitching in slope or appron including light ramming etc.all complete job as per specification and direction of E / I.

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Unskilled mazdoor	3 nos	184.00	552.00	
			552.00	
Add Overhead charge & C.P	15 %		82.80	
			634.80	
Add Cess	1 %		6.35	
			641.15	226.39
Say Rs		226.40	Per M^3	

6.6.3 Providing pitching work with designation 100A bricks in pannel in herring bond pattern one brick on edge over a brick flate soling filled with local sand free from clay contents including royaltyand all taxes as per approved design,specifications and direction of E/I

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Bricks	800 per%0nos	6290.79	5032.63	
Sand	0.43 M^3	112.85	47.96	
Labour				
Mason Gr II	1.13 nos	223.00	250.88	
Unskilled mazdoor	2.25 nos	184.00	414.00	
			5745.47	
Add Overhead charge & C.P	15 %		861.82	
			6607.29	
Add Cess	1 %		66.07	
			6673.36	717.57
Say Rs		717.60	Per M^2	

6.6.4 Providing pitching work with designation 100A bricks in pannel two brick on edge over a brick flate soling joints filled with local sand free from clay contents including royaltyand all taxes as per approved design,specifications and direction of E/I

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Bricks	1300 per%0nos	6290.79	8178.03	
Sand	0.56 M^3	112.85	62.74	
Labour				
Mason Gr II	2.00 nos	223.00	446.00	
Unskilled mazdoor	4.50 nos	184.00	828.00	
			9514.77	
Add Overhead charge & C.P	15 %		1427.22	
			10941.99	
Add Cess	1 %		109.42	

				11051.41	1188.32
	Say Rs		1188.30	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 royaltyand all taxes as per approved design,specifications and direction of E/I

Unit:-	Per M^2			
Taking Out put:-	9.300 Sqm			
Materials				
Bricks	300 per%0nos	6290.79	1887.24	
Sand	0.142 M^3	112.85	16.02	
Labour				
Mason Gr II	0.50 nos	223.00	111.50	
Unskilled mazdoor	1 nos	184.00	184.00	
			2198.76	
Add Overhead charge & C.P	15 %		329.81	
			2528.58	
Add Cess	1 %		25.29	
			2553.86	274.61
Say Rs		274.60	Per M^2	

6.6.6 Labour charge for pitching work on appron slope of bank with stone boulder duly packed (Uncreated complete job) materials withing 150 m lead with all lifts, all complete as per approved design,specifications and direction of E/I

Unit :-	Per M^3			
Taking Out put:-	2.832 cum			
Unskilled mazdoofor carring and laying boulder	6 nos	184.00	1104.00	
Mason Gr 11	0.50 nos	223.00	111.50	
Mate	0.25 nos	201.00	50.25	
Stone dresser	0.25 nos	237.00	59.25	
			1325.00	
Add Overhead charge & C P	15 %		198.75	
			1523.75	
Add Cess	1 %		15.24	
			1538.99	543.43
Say Rs		543.40	Per M^3	

6.6.7 Providing and laying coarse clean sand in filling in foundation trenches including ramming as well as royalty and all taxes etc. as per approved design,specifications and direction of E/I

Unit:-	Per M^3			
Taking Out put:-	2.832 cum			
Materials				
Local sand	2.832 cum	112.85	319.59	
Labour				
Unskilled mazdoor	1 nos	184.00	184.00	
			503.59	
Add Overhead charge & C.P	15 %		75.54	
			579.13	
Add Cess	1 %		5.79	
			584.92	206.54
Say Rs		206.50	Per M^3	

6.7 MISCELLANEOUS

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.	865.50 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 (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	734.20 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 as per approved design, specifications and direction of E/I	198.10 Per CM^2 /M
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
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 extraced shall be taken only)	#VALUE! Per M
6.7.6	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm siz in abutment and wing wall as per specification and direction of E/I	75.80 Each

6.7 MISCELLANEOUS

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.				
	Unit:- Per Kg				
	Furnishing and installing seal				
	A. Cost of copper seal and acessries				
	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 x1x14.70 x1.025=3.77 kg.				
	i.Cost per linear metre.Including furnishing, storing, handling and cutting etc.	3.77 kg	719.00	2708.38	
	ii. Cost of bracing, washers and nails etc. per running metre @ 3 % of item (i)			81.25	
	Sub-Total			2789.63	
	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	251.00	62.75	
	Helper	1 nos	196.00	196.00	
	Total labour charge			258.75	
	Total charge per mtr= total labour charge / 15			17.25	
	Total A+B			2806.88	
	Hence rate per kg =Total (A+B)/ wt. Of seal per mtr			745.15	
	Add Overhead charge & C.P	15 %		111.77	
				856.92	
	Add Cess	1 %		8.57	
				865.49	865.49
	Hence rate per kg of copper seal		865.50	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.				
	Unit:- Per mtr				
	Taking Out put:-	1 mtr			
	Cost of rubber seal	1 mtr	#VALUE!	#VALUE!	
	Add for overlapping and valcanizing 10 % of the materials cost			#VALUE!	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Hence rate per mtr of rubber seal per mtr		#VALUE!	Per mtr	
6.7.3	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				
	Unit:- Per M^2				
	Taking Out put:-	9.3 Sqm			
	Material				
	Bituminastic board	9.3 M2	611.00	5682.30	
	Shalitex primer	2.25 Kg	42.00	94.50	
	Labour				
	Mason Gr II	0.25 nos	223.00	55.75	
	Unskilled mazdoor	0.25 nos	184.00	46.00	
				5878.55	
	Add Overhead charge & C.P	15 %		881.78	
				6760.33	
	Add Cess	1 %		67.60	
				6827.94	734.19
	Say	Rs	734.20	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 as per approved design, specifications and direction of E/I

Unit:- Per cm width Per cm depth Per100 mtr lenth

Consider a joint =2.5 cm wide 15 cm deep and 292.75 mtre 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	53709.00	15145.94	
Cement	0.088 Cum	9118.00	802.38	
Coarse sand	0.0283 Cum	270.36	7.65	
Steam coal @ 2 quintal / M.T(including carriage charge)	0.564 Qnt	315.00	177.66	
Labour				
Mason Gr II	5 nos	223.00	1115.00	
Unskilled mazdoor	8 nos	184.00	1472.00	
			18720.63	
Add Overhead charge & C.P	15 %		2808.09	
			21528.73	
Add Cess	1 %		215.29	
			21744.02	198.07
		198.10	Per CM^2 /M	

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)

Unit:- Pe M.T

Assuming pilling that can be expected to be driven per hour= 65.37 x 6.70= 437.98 Kg
(Assuming I.S.P.S. 1625 U& pilling 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 pilling machines and dismantling @ 0.5 % of sub item (i)		Rs	#VALUE!
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)		Rs	#VALUE!
	(v). Depreciation charges forsupply 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-corrasive bitumen, paint			

Length of sheet pile per M.T=1 x 1000 / 65.37 = 15.29 mtr

	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 / M2 =24.62 x 0.5 =	12.31 Kg		38.00	467.78	
D.	Unskilled mazdoor	2 nos		184.00	368.00	
	Total (A+B+C+D)				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Say		Rs	#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 extraced shall be taken only)					
	Unit:- Per M.T					
	Assuming pilling that can be expected to be extracting per hour= 65.37 x 6.70= 437.98 Kg (Assuming I.S.P.S. 1625 U& pilling section vide I.S. 2314, 1963)					
	Hourly use rate of sheet pile					
	Sheet pile Driving plant	#VALUE!				
A.	(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 pilling machines and dismantling @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges forsupply 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!	
B.	Unskilled mazdoor	2 nos		184.00	368.00	
	Total (A+B)				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Say		Rs	#VALUE!	Per M.T	
6.7.6	Providing weep holes with dry graded Stone metal filter of 20 mm to 40 mm siz in abutment and wing wall as per specification and direction of E/I					
	Unit :- Each					
	Stone metal filter 20 mm to 40 mm	0.113 M^3		481.18	54.37	
	Fitting and cost of Wire netting @ 20% of above				10.87	
					65.25	
	Add Overhead charge & C.P	15 %			9.79	
					75.04	
	Add Cess	1 %			0.75	
					75.79	75.79
	Say		Rs	75.80	Each	

CHAPTER --VII

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

7.1 EARTH WORK

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)		
	(a) Girth above 0.50 metre but upto 0.75 metre	172.00	Each
	(b) Girth above 0.75 metre but upto 1.50 metre	343.00	Each
	(c) Girth above 1.5 metre but upto2.50 metre	622.00	Each
	(d) Girth above 2.50 metre but upto 4.00 metre	1007.00	Each
	(e) Girth above 4.00 metre	1457.00	Each
7.1.2	Up.rooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.		
	(a) Girth above 0.50 metre but upto 0.75 metre	107.00	Each
	(b) Girth above 0.75 metre but upto 1.50 metre	107.00	Each
	(c) Girth above 1.5 metre but upto2.50 metre	142.00	Each
	(d) Girth above 2.50 metre but upto 4.00 metre	214.00	Each
	(e) Girth above 4.00 metre	267.00	Each
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.	2.00	Per M^2
7.1.3.2	Jungle clearance and weeding out shurbs including small tree upto 0.50 mtr girth and removal as per specifications and direction of E/I.	5.00	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 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.	68.00	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 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.	127.00	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 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.	287.70	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 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.	310.00	Per M^3
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.	115.00	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 to1 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.	292.00	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 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 including making the section in proper frofile, 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 conccerned Chief	452.00	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 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 including making the section in proper frofile, dressing side in proper slope and bed in proper grade etc.all complete as per specifications and direction of E/I.	323.00	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 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. (Soft rock where blasting is required and approved by conccerned Chief Engineer)	608.00	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	431.00	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 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.	781.00	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 mtr 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.	991.00	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 mte away the edge of the trench) with initinal lead of 150 mtr and initial lift of 1.5 mtr , as per specifications and direction of E/I.	115.00	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 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.	356.00	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 mtr from Toe 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 conccerned Chief Engineer	344.00	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 50 mtr from Toe 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.	318.00	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 conccerned Chief Engineer)	608.00	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 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.	375.00	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 mtr from the edge of the trench in country side) 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 conccerned Chief Engineer)	781.00	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 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.	991.00	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 mte away the edge of the trench) with initinal lead of 100 mtr and initial lift of 1.5 mtr , s as per specifications and direction of E/I.	108.00	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 mtr away from the toe drian 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. (Soft rock where blasting is required and approved by conccerned Chief Engineer)	1158.00	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 drian 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.	316.00	Per M^3
7.1.17.4	Earth work in excavation of the toe drian and heel trench as per designed section in hard rock where blasting needed and and stacking properly in approved stack yard (beyond 50 mtr away from the toe drian in country side)and approved stack size with initial lead of 150 m and initial lifts of 1.5 mtr .all complete as per specifications and direction of E/I.	781.00	Per M^3
7.1.17.5	Earth work in excavation of the toe drian and heel trench as per designed section in hard rock with chiesel and hammer and stacking properly in approved stack yard (beyond 50 mtr away from the toe drian with initial lead of 100 m and initial lifts of 1.5 mtr .all complete as per specifications and direction of E/I.	311.00	Per M^3
7.1.18	Earth work in excavation of foundation trenches in hard rock (non- blasting zone) or dismentling cement cocrete (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 mtr. including making the edges straight, dressing, profiling and final preparation of surface all complete as per specifications and direction of E/I.	311.00	Per M^3
7.1.19	Earth work in dam fill by head load in semi previous or impervious soil with initinal lead of 150 mtr and initial lift of 1.5 mtr 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 measurment- sectional measurement of compacted earth).	163.00	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.	8.00	Per M^3
7.1.20.2	Extra for earth work in rock for each additional lead of25 Mtr or part there of over the initial lead as per specification and direction of E/I.	11.00	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 1.50 mtr as per specification and direction of E/I.	8.00	Per M^3
7.1.21.2	Extra for earth work in rock each additional lift of 1 Mtr or part there of over the initial lift of 1.50 mtr as per specification and direction of E/I.	11.00	Per M^3
7.1.22	Earth work in dam fill in semi previous or imprevious 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 construcion and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of		
7.1.22.1	**Lead beyound 150 mtr but upto 1/2 K.M**	313.60	Per M^3
7.1.22.2	**Lead beyound 1/2 K.M but upto 1 K.M**	325.00	Per M^3
7.1.22.3	**Lead beyound 1 K.M but upto 2 K.M**	343.00	Per M^3
7.1.22.4	**Lead beyound 2 K.M but upto 3 K.M**	#VALUE!	Per M^3
7.1.23	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 truck** to the dam fill site with all lift as well as spreading levelling by Dozer including construction and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).		
7.1.23.1	**Lead beyound 150 mtr but upto 1/2 K.M**	#VALUE!	Per M^3
7.1.23.2	**Lead beyound 1/2 K.M but upto 1 K.M**	#VALUE!	Per M^3
7.1.23.3	**Lead beyound 1 K.M but upto 2 K.M**	#VALUE!	Per M^3
7.1.23.4	**Lead beyound 2 K.M but upto 3 K.M**	#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 mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).		
7.1.24.1	**Lead beyound 150 mtr but upto 1/2 K.M**	#VALUE!	Per M^3
7.1.24.2	**Lead beyound 1/2 K.M but upto 1 K.M**	#VALUE!	Per M^3
7.1.24.3	**Lead beyound 1 K.M but upto 2 K.M**	#VALUE!	Per M^3
7.1.24.4	**Lead beyound 2 K.M but upto 3 K.M**	#VALUE!	Per M^3
7.1.25	Earth work in dam fill in semi previous or imprevious 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 levelling by Dozer including construction and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).		

7.1.25.1	**Lead beyound 150 mtr but upto 1/2 K.M**	#VALUE!	Per M^3
7.1.25.2	**Lead beyound 1/2 K.M but upto 1 K.M**	#VALUE!	Per M^3
7.1.25.3	**Lead beyound 1 K.M but upto 2 K.M**	#VALUE!	Per M^3
7.1.25.4	**Lead beyound 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 sprinking 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.	47.30	Per 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 minmum 95 % of dry density includingsprinking the required quanting of water making arragement for supply and carriage of water with all leads and lifts, finishing the surfaceas 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 thicl at O.M.C. by **road roller** to achieve minimum **95 %** of maximum dry density including sprinking 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)	24.40	Per M^3
7.1.29*	Labour for Rolling and compacting the earth in layers of 225 mm thicl at O.M.C. by **sheep foot roller** driven by tractor to achieve minimum **90 %** of maximum dry density including sprinking 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)	#VALUE!	Per M^3

7.1.30	Labour for Rolling and compacting the earth in layers of 225 mm thicl at O.M.C. by **road roller** to achieve minimum **90 %** of maximum dry density including sprinking 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)	23.40	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 sprinking 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)	#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 sprinking 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)	36.00	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 sprinking 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)	#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** driven by tractor to achieve minimum **90 %** of maximum dry density including sprinking 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	33.40	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)	44.40	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	47.00	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.	#REF!	Per M^2
7.1.38	Trimming and dressing the side slope of dam to proper section with all lead and lifts as per drawing, specifications and direction of E/I.	20.00	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 mainttenance of haul roads, all complete as per specifications and direction of E/I.	#VALUE!	Per M^3
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 mainttenance 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 mainttenance 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.	232.00	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 by Tipper and loading by Front end loader,including unloading and maintenance of haul roads as per specifications and direction of E/I.	266.00	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 to1 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.	239.00	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 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 conccerned Chief Engineer)	501.00	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	357.70	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	893.00	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.	239.00	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 conccerned	511.00	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	358.00	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 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.	2200.00	Per M^3
7.1.50	Earth work in dam fill in semi previous or imprevious 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 construcion and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).		
7.1.50.1	**Lead beyound 150 mtr but upto 1/2 K.M**	280.30	Per M^3
7.1.50.2	**Lead beyound 1/2 K.M but upto 1 K.M**	296.00	Per M^3
7.1.50.3	**Lead beyound 1 K.M but upto 2 K.M**	327.00	Per M^3
7.1.50.4	**Lead beyound 2 K.M but upto 3 K.M**	358.00	Per M^3

CHAPTER --VII

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

7.1 EARTH WORK

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)

Unit:- Each

(a) Girth above 0.50 metre but upto 0.75 metre				
Carpenter Gr II	0.25 nos	223.00	55.75	
Unskilled mazdoor	0.50 nos	184.00	92.00	
			147.75	
Add Overhead charge & C.P	15 %		22.1625	
			169.91	
Add Cess	1 %		1.70	
			171.61	171.61
	Say Rs		172.00 Each	
(b) Girth above 0.75 metre but upto 1.50 metre				
Carpenter Gr II	0.50 nos	223.00	111.50	
Unskilled mazdoor	1 nos	184.00	184.00	
			295.50	
Add Overhead charge & C.P	15 %		44.325	
			339.83	
Add Cess	1 %		3.40	
			343.22	343.22
	Say Rs		343.00 Each	
(c) Girth above 1.5 metre but upto2.50 metre				
Carpenter Gr II	0.75 nos	223.00	167.25	
Unskilled mazdoor	2 nos	184.00	368.00	
			535.25	
Add Overhead charge & C.P	15 %		80.2875	
			615.54	
Add Cess	1 %		6.16	
			621.69	621.69
	Say Rs		622.00 Each	
(d) Girth above 2.50 metre but upto 4.00 metre				
Carpenter Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	3.50 nos	184.00	644.00	
			867.00	
Add Overhead charge & C.P	15 %		130.05	
			997.05	
Add Cess	1 %		9.97	
			1007.02	1007.02
	Say Rs		1007.00 Each	
(e) Girth above 4.00 metre				
Carpenter Gr II	1.50 nos	223.00	334.50	
Unskilled mazdoor	5 nos	184.00	920.00	
			1254.50	
Add Overhead charge & C.P	15 %		188.175	
			1442.68	
Add Cess	1 %		14.43	
			1457.10	1457.10
	Say Rs		1457.00 Each	

7.1.2 Up.rooting of stumps and their removal ,away from the work site as per specifications and direction of E/I.

Unit:- Each

(a) Girth above 0.50 metre but upto 0.75 metre				
Unskilled mazdoor	0.50 nos	184.00	92.00	
			92.00	
Add Overhead charge & C.P	15 %		13.8	
			105.80	
Add Cess	1 %		1.06	
			106.86	106.86
	Say Rs		107.00 Each	
(b) Girth above 0.75 metre but upto 1.50 metre				
Unskilled mazdoor	0.50 nos	184.00	92.00	
			92.00	
Add Overhead charge & C.P	15 %		13.8	

				105.80	
	Add Cess	1 %		1.06	
				106.86	106.86
	Say Rs		107.00 Each		
	(c) Girth above 1.5 metre but upto2.50 metre				
	Unskilled mazdoor	0.67 nos	184.00	122.67	
				122.67	
	Add Overhead charge & C.P	15 %		18.4	
				141.07	
	Add Cess	1 %		1.41	
				142.48	142.48
	Say Rs		142.00 Each		
	(d) Girth above 2.50 metre but upto 4.00 metre				
	Unskilled mazdoor	1 nos	184.00	184.00	
				184.00	
	Add Overhead charge & C.P	15 %		27.6	
				211.60	
	Add Cess	1 %		2.12	
				213.72	213.72
	Say Rs		214.00 Each		
	(e) Girth above 4.00 metre				
	Unskilled mazdoor	1.25 nos	184.00	230.00	
				230.00	
	Add Overhead charge & C.P	15 %		34.5	
				264.50	
	Add Cess	1 %		2.65	
				267.15	267.15
	Say Rs		267.00 Each		
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.				
	Unit:- Per M^2				
	Taking out put:-	92.94 Sqm			
	Unskilled mazdoor for levelling and ploughinging	0.75 nos	184.00	138.00	
				138.00	
	Add Overhead charge & C.P	15 %		20.7	
				158.70	
	Add Cess	1 %		1.59	
				160.29	1.72
	Say Rs		2.00 Per M^2		
7.1.3.2	Jungle clearance and weeding out shurbs including small tree upto 0.50 mtr girth and removal as per specifications and direction of E/I.				
	Unit:- Per M^2				
	Taking out put:-	92.94 Sqm			
	Unskilled mazdoor for cutting shrubs and trees	1.50 nos	184.00	276.00	
	Unskilled mazdoor for collecting and removing shrubs and weeds and tree.	0.75 nos	184.00	138.00	
				414.00	
	Add Overhead charge & C.P	15 %		62.1	
				476.10	
	Add Cess	1 %		4.76	
				480.86	5.17
	Say Rs		5.00 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 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.				
	Unit:- Per M^3				
	Assuming out put	28.32 Cum			
	Unskilled mazdoor for removal and stacking	9 nos	184.00	1656.00	
				1656.00	
	Add Overhead charge & C.P	15 %		248.4	
				1904.40	
	Add Cess	1 %		19.04	
				1923.44	67.92
	Say Rs		68.00 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 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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum			
	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Unskilled mazdoor for disposal of earth and organic materials	9 nos	184.00	1656.00	
	Mate	0.25 nos	201.00	50.25	
				3086.25	
	Add Overhead charge & C.P	15 %		462.9375	
				3549.19	
	Add Cess	1 %		35.49	
				3584.68	126.58
	Say Rs		127.00	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 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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Mate	0.25 nos	201.00	50.25	
B.	Carriage of earth by 10 M.T capacity Truck				
	Carriage 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 lead x 60 x 2/1000 x Average speed	4.31 minutes			
	(b) Loading unloding turning and spoilting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour =				
	Loading unloding turning and spoilting time / Total hauling time	0.93 trips			
	Material carried=trips x net capacity	4.48 M^3			
	Hourly use rate of truck				
	(Vide item no 3.26)	**841.00** hr			
	Rate per 28.32 cum for carriage only=				
	Use rate of truck x 28.32 / material carrieed			Rs 5318.54	
	(c). Constuction and maintenance of haul road @ 5 % of Item (B)			Rs 265.93	
				7014.71	
	Add Overhead charge & C.P	15 %		1052.21	
				8066.92	
	Add Cess	1 %		80.67	
				8147.59	287.70
	Say Rs		287.70	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 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 M^3

	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	

	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Mate	0.25 nos	201.00	50.25	
B.	Carriage of earth by 10 M.T capacity Truck				
	Carriage cost of earth for 2 k.m lead				
	Average lead	1500 M			
	Truck capicty 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 unloding turning and spoltting time=	60 minutes			
	Total hauling cycle time=	70.59 minutes			
	No of trip per working hour =				
	Loading unloding turning and spoltting time / Total hauling time	0.85 trips			
	Material carried=trips x net capacity	4.08 M^3			
	Hourly use rate of truck				
	(Vide item no 3.26)	841.00 hr			
	Rate per 28.32 cum for carriage only=				
	Use rate of truck x 28.32 / material carrieed			Rs 5837.53	
	© Constuction and maintenance of haul road @ 5 %				
	of Item (B)		Rs	291.88	
				7559.66	
	Add Overhead charge & C.P	15 %		1133.95	
				8693.60	
	Add Cess	1 %		86.94	
				8780.54	310.05
	Say Rs		310.00 Per M^3		

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

Unit:- Per M^3

Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting earth	7 nos	184.00	1288.00	
Unskilled mazdoor for profilling dressing and making edge straight	1 nos	184.00	184.00	
Unskilled mazdoor for carrying excavated materials	7 nos	184.00	1288.00	
Mason Gr II	0.25 nos	223.00	55.75	
			2815.75	
Add Overhead charge & C.P	15 %		422.3625	
			3238.11	114.34
Add Cess	1 %		32.38	
			3270.49	115.48
Say Rs		115.00 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 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 M^3

	Assuming out put:-	28.32 Cum			
A.	Unskilled mazdoor for cutting earth	7.00 nos	184.00	1288.00	
	Unskilled mazdoor for profilling dressing and making edge straight	1.00 nos	184.00	184.00	
	Mason Gr I	0.25 nos	251.00	62.75	
B.	Carriage of earth by 10 M.T capacity Truck				
	Carriage 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 unloding turning and spollting time=		60 minutes			
Total hauling cycle time=		64.31 minutes			
No of trip per working hour = L,U & S time / Total hauli		0.93 trips			
Material carried=tripsxnet capacity		4.48 M^3			
Hourly use rate of truck					
(Vide item no 3.26)		**841.00** hr			
Rate per 28.32 cum for carriage only=Use rate of truckx28.32/material carrieed				Rs 5318.54	
© Constuction and maintenance of haul road @ 5 % of Item (B)			Rs	265.93	
				7119.21	
Add Overhead charge & C.P		15 %		1067.88	
				8187.10	
Add Cess		1 %		81.87	
				8268.97	291.98
	Say Rs		292.00	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 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, including making the section in proper frofile, 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 conccerned Chief

Unit:-	Per M^3			
Assuming out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for all work	9.50 nos	184.00	1748.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.33 nos	237.00	78.21	
Materials				
Blasting material including excise, sales tax,				
carriage from Gomia to work site, storage etc.				
Special Gelatin	2.00 Kg	677.29	1354.58	
Detonator	10 nos	631.38	63.14	
Fuse coil	1 nos	10.50	10.50	
Tools and Plants				
Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
			3891.26	
Add Overhead charge & C.P	15 %		583.69	
			4474.95	
Add Cess	1 %		44.75	
			4519.70	451.97
Say Rs		452.00	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 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 including making the section in proper frofile, dressing side in proper slope and bed in proper grade etc.all complete as per specifications and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for all work (i.e cutting & carrying etc.)	11.50 nos	184.00	2116.00	
Mason Gr I	0.50 nos	251.00	125.50	
			2780.50	
Add Overhead charge & C.P	15 %		417.075	
			3197.58	
Add Cess	1 %		31.98	
			3229.55	322.96
Say Rs		323.00	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 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. (Soft rock where blasting is required and approved by conccerned Chief Engineer)

	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.33 nos	237.00	78.21	
B.	**Cost of carriage of 10 cum earth by Truck including loadingand unloading**				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spollting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour = Loading unloding turning and spollting 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)	**841.00** hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carrieed			Rs 2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
	Materials				
C.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	631.38	63.14	
	Fuse coil	1 nos	10.50	10.50	
	Tools and Plants				
	Cost of hire charge of compressor, drilling equpment			15.00	
				5233.78	
	Add Overhead charge & C.P	15 %		785.07	
				6018.85	
	Add Cess	1 %		60.19	
				6079.04	607.90
	Say Rs		608.00 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 Truck including loading unloading, construction and maintenance of haul roads as per specifications and direction of E/I

	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
B.	**Cost of carriage of 10 cum earth by Truck including loadingand unloading**				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spollting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour =				
	Loading unloding turning and spollting 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)	**841.00** hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carrieed			Rs 2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)			Rs 112.12	
				3712.36	
	Add Overhead charge & C.P	15 %		556.85	
				4269.21	
	Add Cess	1 %		42.69	
				4311.90	431.19
		Say Rs		431.00 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 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.				
	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	10.50 nos	196.00	2058.00	
	Unskilled mazdoor for all work	13.00 nos	184.00	2392.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.67 nos	237.00	158.00	
	Materials				
B.	**Blasting material including excise, sales tax,**				
	carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.75 Kg	677.29	1862.55	
	Detonator	18 nos	631.38	113.65	
	Fuse coil	3 nos	10.40	31.20	
C.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
				6724.73	
	Add Overhead charge & C.P	15 %		1008.71	
				7733.43	
	Add Cess	1 %		77.33	
				7810.77	781.08
		Say Rs		781.00 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 mtr 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 M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	10.50 nos	196.00	2058.00	
	Unskilled mazdoor for all work	10.00 nos	184.00	1840.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.67 nos	237.00	158.79	
	Materials				
B.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**				
	Special Gelatin	2.75 Kg	677.29	1862.55	
	Detonator	18 nos	631.38	113.65	
	Fuse coil	3 nos	10.40	31.20	

C.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
D.	**Cost of carriage of 10 cum earth by Truck including loadingand unloading**				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spollting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour =				
	Loading unloding turning and spollting 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)	**841.00** hr			
	Rate per 10 cum for carriage only=Use rate of truckx10/material carrieed			Rs 2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
				8528.04	
	Add Overhead charge & C.P	15 %		1279.21	
				9807.25	
	Add Cess	1 %		98.07	
				9905.32	990.53
	Say Rs		991.00	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 mte away the edge of the trench) with initinal lead of 150 mtr and initial lift of 1.5 mtr , as per specifications and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting earth	7 nos	184.00	1288.00	
Unskilled mazdoor for profilling dressing and making edge straight	1 nos	184.00	184.00	
Unskilled mazdoor for carrying excavated materials	7 nos	184.00	1288.00	
Mason Gr II	0.25 nos	223.00	55.75	
			2815.75	
Add Overhead charge & C.P	15 %		422.3625	
			3238.11	
Add Cess	1 %		32.38	
			3270.49	115.48
Say Rs		115.00	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 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.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
A. **Labour**				
Unskilled mazdoor for cutting foundation	7 nos	184.00	1288.00	
Unskilled mazdoor for forming spoil	1 nos	184.00	184.00	
Mason Gr II	0.25 nos	223.00	55.75	
B. **Cost of carriage of 28.32 cum earth by Truck including loadingand unloading**	L.S		4.50	
Carriage cost of earth for 1 k.m lead			1532.25	
Average lead	575 M			
Truck capicty 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 unloding turning and spollting time=	60 minutes			
	Total hauling cycle time=	64.06 minutes			
	No of trip per working hour = Loading unloding turning and spollting time / Total hauling time	0.94 trips			
	Material carried=tripsxnet capacity	4.46 M^3			
	Hourly use rate of truck (Vide item no 3.26)	**841.00** hr			
	Rate per cum= Use rate of truckx28.32/material carrieed			Rs 5340.16	
	© Constuction and maintenance of haul road @ 5 % of Item (B)			Rs 267.01	
				8671.67	
	Add Overhead charge & C.P	15 %		1300.75	
				9972.42	
	Add Cess	1 %		99.72	
				10072.14	355.65
		Say Rs		355.00 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 mtr from Toe 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 conccerned Chief Engineer				
	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for cutting	4 nos	184.00	736.00	
	Unskilled mazdoor for carrying	0.50 nos	184.00	92.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.33 nos	237.00	78.21	
B.	**Materials**				
	Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	631.38	63.14	
	Fuse coil	1 nos	10.40	10.40	
C	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			5.00	
				2961.17	
	Add Overhead charge & C.P	15 %		444.18	
				3405.34	
	Add Cess	1 %		34.05	
				3439.40	343.94
		Say Rs		344.00 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 50 mtr from Toe 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.				
	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
	Labour				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for cutting	11.50 nos	184.00	2116.00	
	Mason Gr I	0.33 nos	251.00	82.83	
				2737.84	
	Add Overhead charge & C.P	15 %		410.68	
				3148.52	
	Add Cess	1 %		31.49	
				3180.00	318.00
		Say Rs		318.00 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 conccerned Chief Engineer)

	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.33 nos	237.00	78.21	
B.	**Cost of carriage of 10 cum earth by Truck including loadingand unloading**				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 8 MT	6 cum			
C.	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 unloding turning and spoltting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour =				
	Loading unloding turning and spoltting time / Total	0.93 trips			
	Material carried=tripsxnet capacity	3.75 M^3			
	Hourly use rate of truck				
	(Vide item no 3.26)	**841.00** hr			
	Rate per cum=Use rate of truckx10/material carrieed				
				Rs 2242.41	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
	Materials				
C.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	631.38	63.14	
	Fuse coil	1 nos	10.40	10.40	
D.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
				5233.68	
	Add Overhead charge & C.P	15 %		785.05	
				6018.74	
	Add Cess	1 %		60.19	
				6078.92	607.89
	Say Rs		608.00 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 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.

	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
B.	**Cost of carriage of 10 cum earth by Truck including loadingand unloading**				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spollting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour = Loading unloding turning and spollting 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)	**841.00** hr			
	Rate per cum=Use rate of truckx10/material carrieed			Rs 2242.41	
C.	Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
	Rate (A+B+C)			3712.36	
	Add Cess	1 %		37.12	
				3749.48	374.95
		Say Rs		375.00 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 mtr from the edge of the trench in country side) 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 conccerned Chief Engineer)				
	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	10.50 nos	196.00	2058.00	
	Unskilled mazdoor for all job	13.00 nos	184.00	2392.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.67 nos	237.00	158.79	
B.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**				
	Special Gelatin	2.75 Kg	677.29	1862.55	
	Detonator	18 nos	631.38	113.65	
	Fuse coil	3 nos	10.40	31.20	
C.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
				6725.53	
	Add Overhead charge & C.P	15 %		1008.83	
				7734.35	
	Add Cess	1 %		77.34	
				7811.70	781.17
		Say Rs		781.00 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 mtr but upto 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 M^3			
	Assuming out put:-	10 Cum			
A.	**Labour**				
	Hammer man	10.50 nos	196.00	2058.00	
	Unskilled mazdoor for all work	10 nos	184.00	1840.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.67 nos	237.00	158.79	
B.	**Cost of carriage of 10 cum earth by Truck including loadingand unloading**				
	Carriage cost of earth for 1 k.m lead				
	Average lead=	575 M			
	Truck capicty 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 unloding turning and spoilting time=	60 minutes			
	Total hauling cycle time=	64.31 minutes			
	No of trip per working hour = Loading unloding turning and spoilting 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)	**841.00** hr			
	Rate per cum=Use rate of truckx10/material carrieed			Rs 2242.41	
	Constuction and maintenance of haul road @ 5 % of Item (B)		Rs	112.12	
	Materials				
C.	**Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.**				
	Special Gelatin	2.75 Kg	677.29	1862.55	
	Detonator	18 nos	631.38	113.65	
	Fuse coil	3 nos	10.40	31.20	
D.	**Tools and Plants**				
	Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
				8528.04	
	Add Overhead charge & C.P	15 %		1279.21	
				9807.25	
	Add Cess	1 %		98.07	
				9905.32	990.53
	Say Rs		991.00 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 mte away the edge of the trench) with initinal lead of 100 mtr and initial lift of 1.5 mtr , s as per specifications and direction of E/I.				
	Unit:-	Per M^3			
	Assuming out put:-	28.32 Cum			
	Unskilled mazdoor for cutting earth	7 nos	184.00	1288.00	
	Unskilled mazdoor for profilling dressing and making edge straight	1 nos	184.00	184.00	
	Unskilled mazdoor for carrying excavated materials	6 nos	184.00	1104.00	
	Mason Gr I	0.25 nos	251.00	62.75	
				2638.75	
	Add Overhead charge & C.P	15 %		395.8125	
				3034.56	
	Add Cess	1 %		30.35	
				3064.91	108.22
	Say Rs		108.00 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 mtr away from the toe drian 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. (Soft rock where blasting is required and approved by conccerned Chief Engineer)				
	Unit:-	Per M^3			
	Assuming out put:-	10 Cum			
	Labour				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for cutting	4.00 nos	184.00	736.00	
	Unskilled mazdoor for carryingand stacking	4.50 nos	184.00	828.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.33 nos	237.00	78.21	
	Materials				
	Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	631.38	6313.80	

Fuse coil	1 nos	10.40	10.40	
Tools and Plants				
Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
			9969.33	
Add Overhead charge & C.P	15 %		1495.40	
			11464.73	
Add Cess	1 %		114.65	
			11579.38	1157.94
Say Rs		1158.00	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 drian 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 M^3			
Assuming out put:-	10 Cum			
Labour				
Hammer man	2.75 nos	196.00	539.00	
Unskilled mazdoor for cutting	7 nos	184.00	1288.00	
Unskilled mazdoor for carryingand stacking	4.50 nos	184.00	828.00	
Mason Gr I	0.33 nos	251.00	82.83	
			2737.83	
Add Overhead charge & C.P	15 %		410.67	
			3148.50	
Add Cess	1 %		31.49	
			3179.99	318.00
Say Rs		318.00	Per M^3	

7.1.17.4 Earth work in excavation of the toe drian and heel trench as per designed section in hard rock where blasting needed and and stacking properly in approved stack yard (beyond 50 mtr away from the toe drian in country side)and approved stack size with initial lead of 150 m and initial lifts of 1.5 mtr .all complete as per specifications and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	10 Cum			
Labour				
Hammer man	10.50 nos	196.00	2058.00	
Unskilled mazdoor for all work	13 nos	184.00	2392.00	
Mason Gr I	0.33 nos	251.00	82.83	
Blaster	0.67 nos	237.00	158.00	
Materials				
Blasting material including excise, sales tax,				
carriage from Gomia to work site, storage etc.				
Special Gelatin	2.75 Kg	677.29	1862.55	
Detonator	18 nos	631.38	113.65	
Fuse coil	3 nos	10.40	31.20	
Tools and Plants				
Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
			6724.73	
Add Overhead charge & C.P	15 %		1008.71	
			7733.43	
Add Cess	1 %		77.33	
			7810.77	781.08
Say Rs		781.00	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 chiesel and hammer and stacking properly in approved stack yard (beyond 50 mtr away from the toe drian 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 M^3			
Assuming out put:-	10 Cum			
Labour				
Hammer man	2.25 nos	196.00	441.00	
Skilled mazdoor for all work	2.25 nos	234.00	526.50	

Unskilled mazdoor for collecting the excavated materials and carrying the same beyond 50 m and stacing properly	4 nos	184.00	736.00		
Unskilled mazdoor for making edge straight, dressing, profiling and final prepartion of surface	3 nos	184.00	552.00		
Blacksmith	1 nos	223.00	223.00		
Mate	1 nos	201.00	201.00		
			2679.50		
Add Overhead charge & C.P	15 %		401.93		
			3081.43		
Add Cess	1 %		30.81		
			3112.24	311.22	
	Say Rs		311.00	Per M^3	

7.1.18 Earth work in excavation of foundation trenches in hard rock (non- blasting zone) or dismentling cement cocrete (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 mtr. including making the edges straight, dressing, profiling and final preparation of surface all complete as per specifications and direction of E/I.

Unit:-	Per M^3				
Assuming out put:-	10 Cum				
Labour					
Hammer man	2.25 nos	196.00	441.00		
Skilled mazdoor for all work	2.25 nos	234.00	526.50		
Unskilled mazdoor for collecting the excavated materials and carrying the same beyond 50 m and stacing properly	4.00 nos	184.00	736.00		
Unskilled mazdoor for making edge straight, dressing, profiling and final prepartion of surface	3.00 nos	184.00	552.00		
Blacksmith	1.00 nos	223.00	223.00		
Mate	1.00 nos	201.00	201.00		
			2679.50		
Add Overhead charge & C.P	15 %		401.93		
			3081.43		
Add Cess	1 %		30.81		
			3112.24	311.22	
	Say Rs		311.00	Per M^3	

7.1.19 Earth work in dam fill by head load in semi previous or impervious soil with initinal lead of 150 mtr and initial lift of 1.5 mtr 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 measurment- sectional measurement of compacted

Unit:-	Per M^3				
Assuming out put:-	28.32 Cum				
Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00		
Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00		
Unskilled mazdoor for cutting earth	5 nos	184.00	920.00		
Unskilled mazdoor for carriage of earth	14 nos	184.00	2576.00		
Mate	1 nos	201.00	201.00		
			3973.00		
Add Overhead charge & C.P	15 %		595.95		
			4568.95		
Add Cess	1 %		45.69		
			4614.64	162.95	
	Say Rs		163.00	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.

Unit:-	Per M^3				
Assuming out put:-	28.32 Cum				
Unskilled mazdoor for cutting	1 nos	184.00	184.00		
			184.00		
Add Overhead charge & C.P	15 %		27.60		
			211.60		
Add Cess	1 %		2.12		
			213.72	7.55	
	Say Rs		8.00	Per M^3	

7.1.20.2 Extra for earth work in rock for each additional lead of 25 Mtr or part there of over the initial lead as per specification and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting	1.50 nos	184.00	276.00	
			276.00	
Add Overhead charge & C.P	15 %		41.40	
			317.40	
Add Cess	1 %		3.17	
			320.57	11.32
Say Rs			11.00 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 1.50 mtr as per specification and direction of

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting	1 nos	184.00	184.00	
			184.00	
Add Overhead charge & C.P	15 %		27.60	
			211.60	
Add Cess	1 %		2.12	
			213.72	7.55
Say Rs			8.00 Per M^3	

7.1.21.2 Extra for earth work in rock each additional lift of 1 Mtr or part there of over the initial lift of 1.50 mtr as per specification and direction of E/I.

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
Unskilled mazdoor for cutting	1.50 nos	184.00	276.00	
			276.00	
Add Overhead charge & C.P	15 %		41.40	
			317.40	
Add Cess	1 %		3.17	
			320.57	11.32
Say Rs			11.00 Per M^3	

7.1.22 Earth work in dam fill in semi previous or imprevious 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 cubsas well as construcion and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).

Unit:-	Per M^3			
Assuming out put:-	28.32 Cum			
7.1.22.1 Lead beyound 150 mtr but upto 1/2 K.M				
A. Labour				
Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00	
Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00	
Unskilled mazdoor for cutting earth	9.50 nos	184.00	1748.00	
Mate	1.00 nos	201.00	201.00	
B. Carriage of earth by 10 M.T capacity Truck				
Average lead	325 M			
Truck capicty 8 MT	4.6 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 unloding turning and spollting 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 capicty =	4.61 Cum			
Hourly use rate of truck				
(Vide item no 3.26)	**841.00** hr			
Rate per cum=Use rate of truckx28.32/material carrieed			Rs 5163.48	
© Constuction and maintenance of haul road @ 5 % of Item B)		Rs	258.17	
			7646.65	

	Add Overhead charge & C.P	15 %			1147.00	
					8793.65	
	Add Cess	1 %			87.94	
					8881.59	313.62
	Say Rs			313.60	Per M^3	
7.1.22.2	**Lead beyound 1/2 K.M but upto 1 K.M**					
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75 nos		184.00	138.00	
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos		184.00	138.00	
	Unskilled mazdoor for cutting earth	9.50 nos		184.00	1748.00	
	Mate	1.00 nos		201.00	201.00	
B.	**Carriage of earth by 10 M.T capacity Truck**					
	Average lead	750 M				
	Truck capicty 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 unloding turning and spoltting 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 capicty =	4.39 Cum				
	Hourly use rate of truck					
	(Vide item no 3.26)	**841.00** hr				
	Rate per cum=Use rate of truckx28.32/material carried			Rs	5427.08	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs		271.35	
					7923.43	
	Add Overhead charge & C.P	15 %			1188.515	
					9111.95	
	Add Cess	1 %			91.12	
					9203.07	324.97
	Say Rs			325.00	Per M^3	
7.1.22.3	**Lead beyound 1 K.M but upto 2 K.M**					
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75 nos		184.00	138.00	
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos		184.00	138.00	
	Unskilled mazdoor for cutting earth	9.50 nos		184.00	1748.00	
	Mate	1.00 nos		201.00	201.00	
B.	**Carriage of earth by 10 M.T capacity Truck**					
	Average lead	1.5 M				
	Truck capicty 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 unloding turning and spoltting 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 capicty =	4.080 Cum				
	Hourly use rate of truck					
	(Vide item no 3.26)	**841.00** hr				
	Rate per cum=Use rate of truckx28.32/material carrieed			Rs	5837.53	
	© Constuction and maintenance of haul road @ 5 % of Item (B)		Rs		291.88	
					8354.41	
	Add Overhead charge & C.P	15 %			1253.161	
					9607.57	
	Add Cess	1 %			96.08	
					9703.64	342.64
	Say Rs			343.00	Per M^3	
7.1.22.4	**Lead beyound 2 K.M but upto 3 K.M**					
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75 nos		184.00	138.00	
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos		184.00	138.00	
	Unskilled mazdoor for cutting earth	9.50 nos		184.00	1748.00	

	Mate	1.00 nos	201.00	201.00	
B.	**Carriage of earth by 8 M.T capacity Truck**				
	Taking efficiency factor	0.88			
	Job management factor	0.69			
	Out put of shoval per hour 172.48x0.69x0.88 =104.72				
	Say100 cum				
	Truck capicty	8 M.T			
	Machinery charges				
	i. Ripper with D-9 tractor dozer				
	Out put per working hour =	150 cum			
	Use rate per working hour (Vide item no 3.11 b+3.27c)	**#VALUE!**			
	Cost of ripping per Cum= Use rate / out put			#VALUE!	
	ii.Shovel				
	Use rate per working hour (vide item no 3.10)	**#VALUE!**			
	Out put per working hour =	100 cum			
	Rate per Cum= Use rate of shovel / out put			#VALUE!	
	iii. Carriage by Truck				
	Truck capicty 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/ shove	2.88 minute			
	(ii) Hauling time @ 17.5 KM (Average)speed per hou	17.50 k.m/hr			
	=Average leadx60x2/hauling time=	17.14 minutes			
	(b) Loading unloding turning and spollting 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 capicty =	7.75 Cum			
	Hourly use rate of truck				
	(Vide item no 3.26)	**841.00** hr			
	Rate per cum= Use rate of truckx28.32/material carrieed			Rs 3071.65	
	© Constuction and maintenance of haul road @ 5 % of Item		Rs	153.58	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Say Rs		#VALUE!	Per M^3	
7.1.23	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 truck** to the dam fill site with all lift as well as spreading levelling by Dozer including construction and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).				
	Unit:-	Per M^3			
	Assuming out put:-	1 Cum			
7.1.23.1	**Lead beyound 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			
	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 (Vide item no 3.11 b+3.27c)	**#VALUE!**			
	Cost of ripping per Cum= Use rate / out put			#VALUE!	

	ii.Shovel				
	Use rate per working hour				
	(vide item no 3.10)	#VALUE!			
	Out put per working hour =	100 cum			
	Rate per Cum= Use rate of shovel / out put			#VALUE!	
	iii. Carriage by Truck				
	Truck capicty 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	16.00 k.m/hr			
	=Average leadx60x2/1000xhauling time=	2.44 minutes			
	(c) Loading unloding turning and spoltting 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 capicty =	9.48 Cum			
	Hourly use rate of truck				
	(Vide item no 3.26)	**841.00**			
	Rate per cum=Use rate of truck / Material carried			88.72	
	(iv). Spreading charge at placement by D- 8 Tractor Dozer				
	Out put per working hour =	300 cum			
	Use Rate of D-8 Tractor Dozer	**5062.00**			
	Rate per cumof D-8=Use rate of / Out put			16.87	
	Total Machinary charges (i+ii+iii+iv)	#VALUE!		#VALUE!	
C.	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!	#VALUE!
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3
7.1.23.2	**Lead beyound 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			
	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 **(Vide item no 3.11 b+3.27c)**	#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 capicty 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	16.00 k.m/hr			
	=Average leadx60x2/1000xhauling time=	5.63 minutes			
	(c) Loading unloding turning and spoltting time=	20 minutes			
	Total hauling cycle time=(a+b+c)	28.51 minutes			

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	No of trip per working hour of 50 minute = 50 / Total hauling time		1.75 Trips			
	Material carried=TripsxTruck capicty =		8.42 Cum			
	Hourly use rate of truck (Vide item no 3.26)		**841.00**			
	Rate per cum=Use rate of truck / Material carried				99.89	
	(iv). Spreading charge at placement by D- 8 Tractor Dozer					
	Out put per working hour =		300 cum			
	Use Rate of D-8 Tractor Dozer		**5062.00**			
	Rate per cumof D-8=Use rate of / Out put				16.87	
	Total Machinary charges (i+ii+iii+iv)				#VALUE!	
C.	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!	#VALUE!
	Add Cess		1 %		#VALUE!	
					#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3	

7.1.23.3 **Lead beyound 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			
	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 (Vide item no 3.11 b+3.27c)		**#VALUE!**			
	Cost of ripping per Cum= Use rate / out put				#VALUE!	
	ii.Shovel					
	Use rate per working hour (Vide item no 3.10)		**#VALUE!**			
	Out put per working hour =		100 cum			
	Rate per Cum= Use rate of shovel / out put				#VALUE!	
	iii. Carriage by Truck					
	Truck capicty 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 unloding turning and spoilting 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 capicty =		7.03 Cum			
	Hourly use rate of truck (Vide item no 3.26)		**841.00**			
	Rate per cum=Use rate of truck / Material carried				119.60	
	(iv). Spreading charge at placement by D- 8 Tractor Dozer					
	Out put per working hour =		300 cum			
	Use Rate of D-8 Tractor Dozer item no 3.11 a)	**(vide**	**5062.00**			
	Rate per cumof D-8=Use rate of / Out put				16.87	
	Total Machinary 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!	#VALUE!
	Add Cess		1 %	#VALUE!	
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3

7.1.23.4 Lead beyound 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 (Vide item no 3.11 b+3.27c)	**#VALUE!**	
	Cost of ripping per Cum= Use rate / out put		#VALUE!
	ii.Shovel		
	Use rate per working hour (Vide item no 3.10)	**#VALUE!**	
	Out put per working hour =	100	cum
	Rate per Cum= Use rate of shovel / out put		#VALUE!
	iii. Carriage by Truck		
	Truck capicty 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 unloding turning and spoltting 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 capicty =	5.77	Cum
	Hourly use rate of truck (Vide item no 3.26)	**841.00**	
	Rate per cum=Use rate of truck / Material carried		145.88
	(iv). Spreading charge at placement by D- 8 Tractor Dozer		
	Out put per working hour =	300	cum
	Use Rate of D-8 Tractor Dozer (vide item no 3.11 a)	**5062.00**	
	Rate per cumof D-8=Use rate of / Out put		16.87
	Total Machinary 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!
	Add Cess	1 %	#VALUE!
			#VALUE! #VALUE!
		Say Rs	#VALUE! Per M^3

7.1.24 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 Dumper** to the dam fill site with all lift as well as spreading levelling by Dozer including construction and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).

		Unit:-	Per M^3		
		Assuming out put:-	1 Cum		
7.1.24.1	**Lead beyound 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 (Vide item no 3.11 b+3.27c)		**#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 capicity= 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) spolting time=		0.30 minutes		
	(c). Turning and dumping time		2.00 minutes		
	(d). Empty haul @ 15 K.M per hour =Average Leadx60/15x1000		1.3 minutes		
	(e). Loaded haul @10 K.M per hour =Average Leadx60/15x1000		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 capaicty =		33.59 Cum		
	Hourly use rate of Dumper 15 T (vide item no 3.12)		**#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		**5062.00**		
	Rate per cumof D-8=Use rate of / Out put				16.87
	Total Machinary 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!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
		Say Rs		#VALUE!	Per M^3

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7.1.24.2 **Lead beyound 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 (Vide item no 3.11 b+3.27c)	**#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 capicity= 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) spolting time=	0.30	minutes	
	(c). Turning and dumping time	2.00	minutes	
	(d). Empty haul @ 25 K.M per hour =Average Leadx60/25x1000	1.8	minutes	
	(e). Loaded haul @20 K.M per hour =Average Leadx60/20x1000	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 capaicty =	30.93	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 (vide item 3.11a)	**5062.00**		
	Rate per cumof D-8=Use rate of / Out put			16.87
	Total Machinary 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!
	Add Cess	1	%	#VALUE!
				#VALUE! #VALUE!
	Say Rs			#VALUE! Per M^3

7.1.24.3 **Lead beyound 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 (Vide item no 3.11 b+3.27c)		**#VALUE!**		
	Cost of ripping per Cum= Use rate / out put			#VALUE!	
	ii.Shovel				
	Use rate per working hour (vide item 3.10a) =		**#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 capicity= 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) spolting time=		0.30 minutes		
	(c). Turning and dumping time		2.00 minutes		
	(d). Empty haul @ 25 K.M per hour =Average Leadx60/25x1000		3.6 minutes		
	(e). Loaded haul @20 K.M per hour =Average Leadx60/20x1000		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 capaicty =		22.08 Cum		
	Hourly use rate of Dumper (Vide item no 4.12c)		**#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 (vide item 3.11a)		**5062.00**		
	Rate per cumof D-8=Use rate of / Out put			16.87	
	Total Machinary 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!	
	Add Cess		1 %	#VALUE!	
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3

7.1.24.4 **Lead beyound 2 K.M but upto 3 K.M**

(Ref.Report of committee on cost control of River vally projects vol 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 (Vide item no 3.11 b+3.27c)	**#VALUE!**		
	Cost of ripping per Cum= Use rate / out put			#VALUE!
	ii.Shovel			
	Use rate per working hour (vide item 3.10a) =	**#VALUE!**		
	Out put per working hour =	100 cum		
	Rate per Cum= Use rate of shovel / out put			#VALUE!
	iii.Dumper			
	Average lead	2500 M		
	Body capicity= 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) spolting time=	0.30 minutes		
	(c). Turning and dumping time	2.00 minutes		
	(d). Empty haul @ 25 K.M per hour =Average Leadx60/25x1000	6 minutes		
	(e). Loaded haul @20 K.M per hour =Average Leadx60/20x1000	7.5 minutes		
	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 capaicty =	15.98 Cum		
	Hourly use rate of Dumper (Vide item no 3.12c)	**#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 (vide item 3.11a)	**5062.00**		
	Rate per cumof D-8=Use rate of / Out put			16.87
	Total Machinary charges (i+ii+iii+iv)			#VALUE!
C.	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!
	Add Cess	1 %		#VALUE!
				#VALUE! #VALUE!
		Say Rs	#VALUE!	Per M^3

7.1.25 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 mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).

Unit:- Per M^3

7.1.25.1	**Lead beyound 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 m	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 (vide Item no 3.23a)	**8 hr**	**#VALUE!**	#VALUE!	
	(ii). Cost of 1.51 hour of dozer (vide Item no 3.11a)	**1.51 hr**	**5062.00**	7649.49	
	Add for				
	I. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!		#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1.00 nos	184.00	184.00	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3
7.1.25.2	**Lead beyound 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 (vide Item no 3.23a)	**8 hr**	**#VALUE!**	#VALUE!	
	(ii). Cost of 0.94 hour of dozer (vide Item no 3.11a)	**0.94 hr**	**5062.00**	4735.636	
	Add for				
	I. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!		#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1.00 nos	184.00	184.00	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3
7.1.25.3	**Lead beyound 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			

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	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 (vide Item no3.23a)	**8 hr**	**#VALUE!**	#VALUE!	
	(ii). Cost of 0.50 hour of dozer (vide Item no	**0.50 hr**	**5062.00**	2522.906	
	Add for				
	I. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!		#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1.00 nos	184.00	184.00	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M^3
7.1.25.4	**Lead beyound 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 (vide Item no3.23a)	**8 hr**	**#VALUE!**	#VALUE!	
	(ii). Cost of 0.32 hour of dozer (vide Item no 3.11a)	**0.32 hr**	**5062.00**	1619.24	
	Add for				
	I. Constuction and maintenance of haul road @ 5 % of (i+ii)	#VALUE!		#VALUE!	
	ii. Unskilled mazdoor for controlling slope	1 nos	184.00	184.00	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
		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 sprinking 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 M^2			
	Assuming out put:-	93 Sqm			
	Unskilled mazdoor	0.2 nos	186.00	37.20	
	Bhisti for carriage of water and sprikling	1 nos	186.00	186.00	
	Cost of water			15.00	
	Hire charge of Roller (Vide item no3.16a)				
	Assuming 2300 sqm. to be rolled in 8 hrs	0.32 hrs	**671.00**	140.80	

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			379.00	
Add Overhead charge & C.P	15 %		56.85	
			435.85	
Add Cess	1 %		4.36	
			440.21	47.33
		Say Rs	47.30 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 sprinking 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

Unit:- Per M^3

Assuming out put:- 100 cum fill

(A). Watering for compaction

Assuming additional moisture required 7 % including 1 % loss. Quantity of water reqwired = 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 (vide item 3.29b) — **606.00**

Cost of water — **0.68** Per gallon

Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallom+cost of water per gallonx1544.38

1153.71

(B). Hire charge of **sheep foot** roller for 100 cum

Assuming 1450 cum to be rolled in 8 hrs **(Vide item no 3.16 d)** — 0.55 hrs — **#VALUE!** #VALUE!

#VALUE!

Add Overhead charge & C.P — 15 % — #VALUE!

#VALUE!

Add Cess — 1 % — #VALUE!

#VALUE! #VALUE!

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 sprinking 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 M^3

Assuming out put:- 100 cum fill

(A). Watering for compaction

Assuming additional moisture required 7 % including 1 % loss. Quantity of water reqwired = 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

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Quantity hauled per hour (50 mts)= 50 x 8000/44.25=9040 gallon	9040 gallon				
Use Rate of tanker (vide item 3.29b)	**606.00**				
Cost of water = Rs 500 / gallon	**0.68** Per gallon				
Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallom+cost of water per gallonx1544.38				1153.71	
(B). Hire charge of **Road roller** for 100 cum Assuming 566 cum to be rolled in 8 hrs **(Vide item no3.16a)**	1.41 hrs		**671.00**	948.41	
				2102.12	
Add Overhead charge & C.P	15 %			315.32	
				2417.44	
Add Cess	1 %			24.17	
				2441.61	24.42
		Say Rs		24.40 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 dencity including sprinking~~ 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

Unit:- Per M^3

Assuming out put:-	100 cum fill				
(A). Watering for compaction Assuming additional moisture required 7 % including 1 % loss. Quantity of water reqwired = 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 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 (vide item 3.29b)	**606.00**				
Cost of water = Rs 500 / gallon	0.68 Per gallon				
Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallon+cost of water per gallonx1544.38				1153.71	
(B). Hire charge of **sheep foot roller** for 100 cum Assuming 1755 cum to be rolled in 8 hrs **(Vide item no 3.16 d)**	0.46 hrs		**#VALUE!**	#VALUE!	
				#VALUE!	
Add Overhead charge & C.P	15 %			#VALUE!	
				#VALUE!	
Add Cess	1 %			#VALUE!	
				#VALUE!	#VALUE!
		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 sprinking 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 M^3

Assuming out put:-	100 cum fill
(A). Watering for compaction	

	Assuming additional moisture required 7 % including 1 % loss. Quantity of water reqwired = 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 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)	**606.00**			
	Cost of water = Rs 500 / gallon	0.68 Per gallon			
	Rate per 100 cum fill=1544.38x Use rate of tanker/9040 gallom+cost of water per gallonx1544.38				
				1153.71	
	(B). Hire charge of **Road roller** for 100 cum Assuming 623 cum to be rolled in 8 hrs **(Vide item no 4.16a)**	1.28 hrs	**671.00**	858.88	
				2012.59	
	Add Overhead charge & C.P	15 %		301.89	
				2314.48	
	Add Cess	1 %		23.14	
				2337.63	23.38
			Say Rs	23.40 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 minmum 95 % of dry density including sprinking the required quanting of water making arragement for supply and carriage of water with all leads and lifts, finishing the surfaceas 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 M^3			
	Assuming out put:-	28.32 cum			
	Bhisti for carriage of water and sprikling	3 nos	186.00	558.00	
	Cost of water			15.00	
	Hire charge of seep foot roller assuming 1450 cum to be rolled in 8 hr (vide item no 4.16 d)	0.16	hr **#VALUE!**	#VALUE!	
				#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
			Say Rs #VALUE!	Per M^3	
7.1.32	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 sprinking 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 M^3			
	Assuming out put:-	28.32 cum			
	Bhisti for carriage of water and sprikling	3.0 nos	186.00	558.00	
	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	**671.00**	268.40	
				841.40	
	Add Overhead charge & C.P	20 %		168.28	
				1009.68	
	Add Cess	1 %		10.10	

				1019.78	36.01
			Say Rs	36.00 Per M^3	

7.1.33 Labour for Rolling and compacting the earth in layers of 225 mm thicl at O.M.C. by **sheep foot roller driven by tractor** to achieve minimum 90 % of maximum dry density including sprinking 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 M^3

Assuming out put:-	28.32 cum			
Bhisti for carriage of water and sprikling	3.0 nos	186.00	558.00	
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	**#VALUE!**	#VALUE!	
			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
		Say Rs	#VALUE! Per M^3	

7.1.34 Labour for Rolling and compacting the earth in layers of 225 mm thicl at O.M.C. by **road roller** driven by tractor to achieve minimum **90 %** of maximum dry density including sprinking 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

Unit:- Per M^3

Assuming out put:-	28.32 cum			
Bhisti for carriage of water and sprikling	3.0 nos	186.00	558.00	
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	**671.00**	241.56	
			814.56	
Add Overhead charge & C.P	15 %		122.18	
			936.74	
Add Cess	1 %		9.37	
			946.11	33.41
		Say Rs	33.40 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 M^2

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	10444.00	35718.48	
Walings 100 mm x 100 mm				
Local wood4 x30 x0.1 x0.1	1.2 cum	10444.00	12532.80	
Ball struts				
Sal baltah (125 mm dia 1.5 metre long)				
2 x17 x 1.5	51 metre	30.00	1530.00	
Carriage				
Cost of carriage of material including loading, unloading and stacking 1 % of total cost of materials				
	49781.28		497.81	
			50279.09	A

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	Deduct credit for materials 75 % of the cost of materials. This can be used four times (Ax0.75)				(-) 37709.32	
					12569.77	B
	Therefore cost of use =B/4				3142.44	
	Labour					
	Carpenter Gr II	0.5 nos		223.00	111.50	
	Unskilled mazdoor	1 nos		184.00	184.00	
					3437.94	
	Add Overhead charge & C.P	15 %			515.69	
					3953.63	
	Add Cess	1 %			39.54	
					3993.17	44.37
			Say Rs	44.40	Per M2	
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 M^2					
	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		10444.00	35718.48	
	Walings 100 mm x 100 mm					
	Local wood4 x30 x0.1 x0.1	1.2 cum		10444.00	12532.80	
	Ball struts					
	Sal ballah (125 mm dia 1.5 metre long)					
	2 x17 x 1.5	51 metre		30.00	1530.00	
	Carriage					
	Cost of carriage of material including loading, unloading and stacking 1 % of total cot of materials					
		49781.28			497.81	
					50279.09	A
	Deduct credit for materials 75 % of the cost of materials. This can be used four times				(-) 37709.32	
					12569.77	B
	Therefore cost of use =B/4				3142.44	
	Labour					
	Carpenter Gr II	0.75 nos		223.00	167.25	
	Unskilled mazdoor	2 nos		184.00	368.00	
					3677.69	
	Add Overhead charge & C.P	15 %			551.65	
					4229.35	
	Add Cess	1 %			42.29	
					4271.64	47.46
			Say Rs	47.00	Per M2	
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.					
	Unit:- Per M^2					
	Assuming out put:-	100 Sqm				
	Unskilled mazdoor for cutting humous earth and dub grass	6 nos		184.00	1104.00	
	Unskilled mazdoor for carrying earth to drm slope and laying in layers	8 nos		184.00	1472.00	
	Carriage of earth by truck with 1 km lead	28.32 cum		#REF!	#REF!	
	Unskilled mazdoor for ramming for proper consolidation	2 nos		184.00	368.00	
	Unskilled mazdoor for watering the surface including carriage of water	1 nos		184.00	184.00	
	Unskilled mazdoor for or carriage of grass sides on slope	2 nos		184.00	368.00	
	Unskilled mazdoor for watering the planted grass till gramination	2 nos		184.00	368.00	
	Mate	0.5 nos		201.00	100.50	
					#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
			Say Rs	#REF!	Per M2	

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 M^2

Assuming out put:-	100 Sqm			
Mason Gr II	0.25 nos	223.00	55.75	
Unskilled mazdoor for cutting slope	4 nos	184.00	736.00	
Unskilled mazdoor for carrying the spoils	4 nos	184.00	736.00	
Unskilled mazdoor for dressing the slope	1 nos	184.00	184.00	
Mate	0.25 nos	201.00	50.25	
			1762.00	
Add Overhead charge & C.P	15 %		264.3	
			2026.30	
Add Cess	1 %		20.26	
			2046.56	20.47
		Say Rs	20.00 Per M2	

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 mainttenance of haul roads, all complete as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:-	1 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 shovelper working hour =	100 cum		
Use rate per working hour (vide item 3.11b)	**#VALUE!**		
Rate per Cum= Use rate / out put		#VALUE!	
ii.Shovel			
Use rate per working hour (vide item 3.10a)	**#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 capicity= capacity x Swell factor	5.58 cum (compacted volume)		
Handling Cycle time----			
(a). Loading time per minute= Body capacity / shovel out put	3.35 minute		
(b) spolting time=	0.30 minutes		
(c). Turning and dumping time	2.00 minutes		
(d). Empty haul @ 25 K.M per hour =Average Leadx60/25x1000	1.2 minutes		
(e). Loaded haul @20 K.M per hour =Average Leadx60/20x1000	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 capaicty =	33.43 Cum		
Hourly use rate of Dumper (Vide item no 4.12c)	**#VALUE!**		
Rate per cum=Use rate of Dumper/ Material carried		#VALUE!	
Total Machinary charges (i+ii+iii)		#VALUE!	A
B. Add for			
I. Constuction and maintenance of haul road @ 5 % of machinery charges		#VALUE!	B

	Total(A+B)		#VALUE!
	Add Overhead charge & C.P	15 %	#VALUE!
			#VALUE!
	Add Cess	1 %	#VALUE!
			#VALUE! #VALUE!

Say Rs #VALUE! Per M^3

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 mainttenance of haul roads, all complete as per specifications and direction of E/I.

Unit:- Per M^3

Assuming out put:- 100 cum

A. Drilling and blasting

(a). Drilling charges

Rock drilling for excavation will be carried out br 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 vol 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%	75%	50%
1	2	3	4	5	6	7	8
38	1.52x1.52	2.31	2.31	1.34	0.58	0.43	0.28

Depth of drilling per 100 cum of rock= 100/2.31=43.29 m	43.29 mtr		
Horizontal drilling and pull effect @ 50 %	21.65 mtr		
Total drilling per 100 cum of rock	64.94 mtr		
Say	65.00 mtr		
Cost of drilling			
Rate of drilling per hour 2.3 m	2.3 mtr		
Hourly use rate (vide item 3.19)	**436.00**		
Cost of compracssed air= Total drilling per 100 cum of rockx hourly use rate (vide item 4.19)/rate of drilling per hour		12321.74	
Hourly use rate (vide item 3.2)	**844.00**		
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		23852.17	

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 excise, sales tax. Carriage from Gomia to worksite, storage etc.				
	(I). Cost of Gelatine				
	Assuming that the drill holes can be filled with dynamite upto 75 % of thick capacity. The quantity of explosive required per 100 cum of rock=0.43x100	43 Kg			
	Cost of Gelatine	43 Kg		677.29	29123.47
	(ii). Cost of Detonators				
	Average depth of hole	1.75 mtr			
	Quantity of rock per linear metre of hole	2.31 mtr			
	Quantity of rock per 1.75 m deep hole=	4.04			
	No of holes per 100 cum=	24.74			
	Say	25			
	Using one detenator per hole				
	Nos of detonators per 100 cum	25 nos		631.38	157.85
	(iii). Blasting batteries, primer, primac rod and loading wire etc. per 100 cum @ 50 % of the cost of detonators				78.92
	(iv). Stemming @ 40 % of the cost of detonators				63.14
	Total (A+B+C)				#VALUE!
	Add Overhead charge & C.P	15 %			#VALUE!
	Rate per cum (A+B+C)/100				#VALUE!
	Add Cess	1 %			#VALUE!
					#VALUE! #VALUE!
	Carriage of blasted rock upto 1 km.lead (vide item no 7.1.39)				0.00
					#VALUE!

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 k.m with the combination of machines Dragline Dumper and Tractor - Dozer complete job including construction and mainttenance of haul roads, all complete as per specifications and direction of E/I.

Unit:- Per M^3

	Assuming out put:-	1 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)	**1740.00**
	Rate Per cum=Use rate / out put	15.13 **a**
	ii.Dumper 15 T	
	Average lead	250 M
	Body capicity= capacity x Swell factor	6.25 cum (Bank volume)
	Handling Cycle time----	
	(a). Loading time per minute= Body capacity / Dragline out put/minutes	3.26 minute
	(b) spolting 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 capaicty =	38.76 Cum
	Hourly use rate of Dumper	
	(Vide item no 3.12c)	**#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	
	(vide item 3.11a)	**5062.00**

	Rate per cum of D-8=Use rate of / Out put	22.01 c				
	Total Machinary charges (a+b+c)	#VALUE!			#VALUE!	
B	Add for					
	I. Constuction and maintenance of haul road @ 5 % of machinery charges	#VALUE!			#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
			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 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.

Unit:- Per M^3

	Assuming out put:-	28.32 Cum			
A.	**Labour**				
	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Mate	0.25 nos	201.00	50.25	
				1430.25	
	Add Overhead charge & C.P	15 %		214.5375	
				1644.79	58.08
B.	**Carriage of earth by 5.5 cum capacity Tipper**				
	Taking output = 1 cum.km				
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**
				174.40	174.4
					232.48
	Say Rs		232.00	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 M^3

	Assuming out put:-	28.32 Cum			
A.	**Labour**				
	Unskilled mazdoor for dagbelling	0.50 nos	184.00	92.00	
	Unskilled mazdoor for for cutting earth as well as removing organic materials etc.	6 nos	184.00	1104.00	
	Unskilled mazdoor for preparation of sheet	1 nos	184.00	184.00	
	Mate	0.25 nos	201.00	50.25	
				1430.25	
	Add Overhead charge & C.P	15 %		214.5375	
				1644.79	58.08
B.	Carriage of earth by 5.5 cum capacity Tipper				
	Taking output = 1 cum.km				
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	61.60	61.60	**ead x H_{ka}**
				205.20	205.2
					263.28
	Add Cess	1 %			2.63
					265.91
	Say Rs		266.00	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 to1 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 M^3

	Assuming out put:-	28.32 Cum			
A.	**Labour**				
	Unskilled mazdoor for cutting earth	7.00 nos	184.00	1288.00	
	Unskilled mazdoor for profilling dressing and making edge straight	1.00 nos	184.00	184.00	
	Mason Gr I	0.25 nos	251.00	62.75	
				1534.75	
	Add Overhead charge & C.P	15 %		230.2125	
				1764.96	62.32
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**				
	Taking output = 1 cum.km				
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**
				174.40	174.40
	Rate (A+B)				236.72
	Add Cess	1 %			2.37
					239.09
	Say Rs		239.00 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 conccerned Chief Engineer)

Assuming 10cum

A.	**Labour**				
	Hammer man	2.75 nos	196.00	539.00	
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.33 nos	237.00		
	Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.00 Kg	677.29	1354.58	
	Detonator	10 nos	631.38	63.14	
	Fuse coil	1 nos	10.40	10.40	
	Tools and Plants				
	Cost of hire charge of compressor, drilling equpment and other accessories			15.00	
				2800.95	
	Add Overhead charge & C.P	15 %		420.14	
				3221.09	322.11
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**				
	Taking output = 1 cum.km				
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**
				174.40	174.40
	Rate (A+B)				496.51
	Add Cess	1 %			4.97
					501.47
	Say Rs		501.00 Per M^3		

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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	196.00	539.00	
	Unskilled mazdoor for all work	4.00	nos	184.00	736.00	
	Mason Gr I	0.33	nos	251.00	82.83	
					1563.03	
	Add Overhead charge & C.P	15	%		234.45	
					1797.48	179.75
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**					
	Taking output = 1 cum.km					
	Loading and Unloading of Front end loader (Vide item no 4.1)	1	cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1	cum.km	30.80	30.80	**ead x H_{ka}**
					174.40	174.40
	Rate (A+B)					354.15
	Add Cess	1	%			3.54
						357.69
			Say Rs		357.70	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					
	Taking out put	10	cum			
A.	**For Excavation**					
	Hammer man	10.50	nos	196.00	2058.00	
	Unskilled mazdoor for all work	10.00	nos	184.00	1840.00	
	Mason Gr I	0.33	nos	251.00	82.83	
	Blaster	0.67	nos	237.00	158.79	
	Blasting material including excise, sales tax,					
	carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.75	Kg	677.29	1862.55	
	Detonator	18	nos	631.38	113.65	
	Fuse coil	3	nos	10.40	31.20	
	Tools and Plants					
	Cost of hire charge of compressor, drilling equpment and other accessories				26.50	
					6173.52	
	Add Overhead charge & C.P	15	%		926.03	
					7099.54	709.95
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**					
	Taking output = 1 cum.km					
	Vide item no 4.1	1	cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1	cum.km	30.80	30.80	**ead x H_{ka}**
					174.40	174.40
	Rate (A+B)					884.35
	Add Cess	1	%			8.84
						893.20
			Say Rs		893.00	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	184.00	1288.00		
	Unskilled mazdoor for forming spoil	1.00 nos	184.00	184.00		
	Mason Gr I	0.25 nos	251.00	62.75		
				1534.75		
	Add Overhead charge & C.P	15 %		230.21		
				1764.96	62.32	
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**					
	Taking output = 1 cum.km					
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**	
				174.40	174.40	
	Rate (A+B)				236.72	
	Add Cess	1 %			2.37	
					239.09	
	Say Rs		239.00 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 conccerned Chief Engineer)

Assuming 10cum

A.	**Labour**					
	Hammer man	2.75 nos	196.00	539.00		
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00		
	Mason Gr I	0.33 nos	251.00	82.83		
	Blaster	0.33 nos	237.00	78.21		
	Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.					
	Special Gelatin	2.00 Kg	677.29	1354.58		
	Detonator	10 nos	631.38	63.14		
	Fuse coil	1 nos	10.40	10.40		
	Tools and Plants					
	Cost of hire charge of compressor, drilling equpment and other accessories			15.00		
				2879.16		
	Add Overhead charge & C.P	15 %		431.87		
				3311.03	331.10	
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**					
	Taking output = 1 cum.km					
	Vide item no 4.1	1 cum	143.60	143.60		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**	
				174.40	174.40	
	Rate (A+B)				505.50	
	Add Cess	1 %			5.06	
					510.56	
	Say Rs		511.00 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 Assuming 10cum

A.	**Labour**					
	Hammer man	2.75 nos	196.00	539.00		
	Unskilled mazdoor for all work	4.00 nos	184.00	736.00		
	Mason Gr I	0.33 nos	251.00	82.83		
				1563.03		
	Add Overhead charge & C.P	15 %		234.45		
				1797.48	179.75	

B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**				
	Taking output = 1 cum.km				
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**
				174.40	174.40
	Rate (A+B)				354.15
	Add Cess	1 %			3.54
					357.69
	Say Rs		358.00	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 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	196.00	2058.00	
	Unskilled mazdoor for all work	10.00 nos	184.00	1840.00	
	Mason Gr I	0.33 nos	251.00	82.83	
	Blaster	0.67 nos	237.00	158.79	
	Blasting material including excise, sales tax, carriage from Gomia to work site, storage etc.				
	Special Gelatin	2.75 Kg	677.29	1862.55	
	Detonator	18 nos	631.38	11364.84	
	Fuse coil	3 nos	10.40	31.20	
	Tools and Plants				
	Cost of hire charge of compressor, drilling equpment and other accessories			26.50	
				17424.71	
	Add Overhead charge & C.P	15 %		2613.71	
				20038.41	2003.84
B.	**Carriage of earth by 5.5 cum capacity Tipper and loading by front end loader**				
	Taking output = 1 cum.km				
	Loading and Unloading of Front end loader (Vide item no 4.1)	1 cum	143.60	143.60	
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	**ead x H_{ka}**
				174.40	174.40
	Rate (A+B)				2178.24
	Add Cess	1 %			21.78
					2200.02
	Say Rs		2200.00	Per M^3	
7.1.50	Earth work in dam fill in semi previous or imprevious 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 construcion and mainttenance of haul roads, all complete as per specifications and direction of E/I. (Mode of measurment- sectional measurement of compacted earth).				
	Assuming 28.32cum				
7.1.50.1	**Lead beyound 150 mtr but upto 1/2 K.M**				
A.	**Labour**				
	Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00	
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00	
	Unskilled mazdoor for cutting earth	9.50 nos	184.00	1748.00	
	Mate	1.00 nos	201.00	201.00	
				2225.00	
	Add Overhead charge & C.P	15 %		333.75	
				2558.75	90.35
B.	**Carriage of earth by 5.5 cum capacity Tipper**				
	Taking output = 1 cum.km				

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	Loading and Unloading of Earth By manuals means					
	Vide item no 4.2.	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	15.40	15.40	ead x H_{ka}	
				187.20	187.20	
	Rate (A+B)				277.55	
	Add Cess	1 %			2.78	
					280.33	
	Say Rs		280.30 Per M^3			
7.1.50.2	**Lead beyound 1/2 K.M but upto 1 K.M**					
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00		
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00		
	Unskilled mazdoor for cutting earth	9.50 nos	184.00	1748.00		
	Mate	1.00 nos	201.00	201.00		
				2225.00		
	Add Overhead charge & C.P	15 %		333.75		
				2558.75	90.35	
B.	**Carriage of earth by 5.5 cum capacity Tipper**					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means					
	Vide item no 4.2.	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	30.80	30.80	ead x H_{ka}	
				202.60	202.60	
	Rate (A+B)				292.95	
	Add Cess	1 %			2.93	
					295.88	
	Say Rs		296.00 Per M^3			
7.1.50.3	**Lead beyound 1 K.M but upto 2 K.M**					
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00		
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00		
	Unskilled mazdoor for cutting earth	9.50 nos	184.00	1748.00		
	Mate	1.00 nos	201.00	201.00		
				2225.00		
	Add Overhead charge & C.P	15 %		333.75		
				2558.75	90.35	
B.	**Carriage of earth by 5.5 cum capacity Tipper**					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means					
	Vide item no 4.2.	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	61.60	61.60	ead x H_{ka}	
				233.40	233.40	
	Rate (A+B)				323.75	
	Add Cess	1 %			3.24	
					326.99	
	Say Rs		327.00 Per M^3			
7.1.50.4	**Lead beyound 2 K.M but upto 3 K.M**					
A.	**Labour**					
	Unskilled mazdoor for stripping the borrow area	0.75 nos	184.00	138.00		
	Unskilled mazdoor for throwing the stripped earth from borrpw area	0.75 nos	184.00	138.00		
	Unskilled mazdoor for cutting earth	9.50 nos	184.00	1748.00		
	Mate	1.00 nos	201.00	201.00		
				2225.00		
	Add Overhead charge & C.P	15 %		333.75		
				2558.75	90.35	
B.	Carriage of earth by 5.5 cum capacity Tipper					
	Taking output = 1 cum.km					
	Loading and Unloading of Earth By manuals means					
	Vide item no 4.2.	1 cum	171.80	171.80		
	Cost of Haulage vide item no 4.4(c)	1 cum.km	92.40	92.40	ead x H_{ka}	
				264.20	264.20	
	Rate (A+B)				354.55	
	Add Cess	1 %			3.55	
					358.10	
	Say Rs		358.00 Per M^3			

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7.2 DRILLING WORK

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 maintaenance 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	#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 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintaenance 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 fanilitate 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 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintaenance of core (minimum 80 % core recovery in hard rock is essential) and sludge etc. for foundation exploration only complete as per	#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 metres depth in all kinds of hard rock including finishing and maintaenance 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 siol 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.	#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 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.	#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
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 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.	#VALUE!	Per M
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.	#VALUE!	Per M

7.2 DRILLING WORK

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 maintaenance 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				
	(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 mtr		#VALUE!
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT			
	Life of the bit = 10 metres		10 Mtr		
	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 mtr		
	Coxt of core box = 'X'	IINPUT			
	Cost per mrtre= X/15				#VALUE!
					#VALUE!
	Add Overhead charge & C.P		15 %		#VALUE!
					#VALUE!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
				Say Rs #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 metres depth and upto 30 metres depth in all kinds of hard rock including finishing and maintaenance 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 **The rate for item 7.2.1.1 has been worked out for drilling upto 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, therefor affecting the cost of drilling as per item 8.2.1 ii.Hence cost of drilling**				
	(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 mtr		#VALUE!
	(iii). Cost of Diamond bit for N x size at site Rs 'D'	IINPUT			
	Life of the bit = 10 metres		10 Mtr		
	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 mtr		
	Coxt of core box = 'X '(	IINPUT			
	Cost per mrtre= X/15				#VALUE!
					#VALUE!
	Add Overhead charge & C.P		15 %		#VALUE!
					#VALUE!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
				Say Rs #VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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 fanilitate 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 Tungaton Carbide bit at site Rs.	IINPUT				
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'	IINPUT				
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 mtr			
Coxt of core box = 'CB'	IINPUT				
Cost per mrtre= CB/15				#VALUE!	
(vii). Lowering 50 m dia light duty G.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)		107.33		53.67	
(b) Unskilled mazdoor for raising (Extracting) the casing pipe		0.17 nos	184.00	30.67	
Total (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!	
Add Overhead charge & C.P		15 %		#VALUE!	
				#VALUE!	
Add Cess		1 %		#VALUE!	
				#VALUE!	#VALUE!
			Say Rs	#VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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 maintaenance 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 mtr		#VALUE!
	(iii). Cost of Diamond bit or (Bxsize) at site Rs 'T'	IINPUT			
	Life of the bit = 10 metres		10		
	Cost of bit per metre = T/10				#VALUE!
	(iv). Cost of (Bxsize) Reaming shell at site = 'TK'	IINPUT			
	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 mtr		
	Coxt of core box = 'CB'	IINPUT			
	Cost per mrtre= CB/15				#VALUE!
					#VALUE!
	Add Overhead charge & C.P		15 %		#VALUE!
					#VALUE!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
				Say Rs #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 metres depth in all kinds of hard rock including finishing and maintaenance 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				
	The rate for item 7.2.3.1 has been worked out for drilling upto 20 metresdepth 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=		0.5 mtr		#VALUE!
	(iii). Cost of Diamond bit or (Bxsize) at site Rs 'T'	IINPUT			
	Life of the bit = 10 metres		10		
	Cost of bit per metre = T/10				#VALUE!
	(iv). Cost of (Bxsize) Reaming shell at site = 'TK'	IINPUT			
	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 mtr		
	Coxt of core box = 'CB'	IINPUT			
	Cost per mrtre= CB/15				#VALUE!
					#VALUE!
	Add Overhead charge & C.P		15 %		#VALUE!
					#VALUE!
	Add Cess		1 %		#VALUE!
					#VALUE! #VALUE!
				Say Rs #VALUE!	Per M

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Note:- To the rates derived above following may be included as mobilisation and domobiilisation charge depanding 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

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 siol 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.

(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 metreper hour (As per actual observation). Therefore cost of drilling /m= D/2.5		2.5 mtr		#VALUE!	
(iii). Cost of Tungaton Carbide bit at site Rs.T.C	IINPUT				
Assuming Life of the T.C bit = 20 metres		20			
Cost of bit per metre = T.C/20				#VALUE!	
(iv). Cost of Reaming shell at site = 'RS'	IINPUT				
Assuming Life of Reaming shell = 100 metres		100			
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.**(vide T.E.C Item no 12.1.61)**		1 mtr	66.20	66.20	
Analysis (vide T.E.C Item no 12.1.61)					
Supplying labour, materials and equipment for lowering 100 mm G.I.pipe (casing) upto 12 m depth for prateeting the sides from filling during the process of drilling as per specification and direction of E/I. (G.I casing to be supplied					
i. Carriage of pipe for an average lead of 50 K.M from store to site (12 mttr. 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**	**2.00**	**8.00**	
iv. Supplying and fitting two extra socket		**2 nos**	**120.00**	**240.00**	
v. Red lead and jute etc. for scoket fixing				**3.00**	
vi. Plumber Gr I		**0.5 nos**	**237.00**	**118.50**	
				369.50	
Add Overhead charge & C.P %		**15 %**		**55.43**	
				794.43	**66.20**
	Say	**Rs**	**66.20**	**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	161.00	80.50	
(b). Labour for cutting, threading and inserting etc.		0.08	184.00	14.72	
© Unskilled mazdoor for raising (Extracting) the casing pipe		0.17 nos	184.00	31.28	
(d). Clearing the pipe					
Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)				#VALUE!	
Add Overhead charge & C.P		15 %		#VALUE!	
				#VALUE!	
Add Cess		1 %		#VALUE!	
				#VALUE!	#VALUE!
			Say Rs	#VALUE! Per M	

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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.

(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 be1.50 metreper hour (As per actual observation at Latrau Dam site). Therefore cost of drilling /m=	1.5 mtr		#VALUE!	
(iii). Cost of Tungaton Carbide bit at site Rs.	IINPUT			
Assuming Life of the T.C bit = 20 metres	20			
Cost of bit per metre = T.C/20			#VALUE!	
(iv). Cost of Reaming shell at site = 'RS'	IINPUT			
Assuming Life of Reaming shell =100 metres	100			
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	66.20	66.20208	
(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	161.00	80.50	
(b). Labour for cutting, threading and inserting etc.	0.08	184.00	14.72	
© Unskilled mazdoor for raising (Extracting) the casing pipe	0.17 nos	184.00	31.28	
(d). Clearing the pipe				
Final Rate (ii)+(iii)+(iv)+(v)+(vi)+(vii)			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
		Say Rs	#VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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.

(A). 40% drilling is done by wagon drill machine. Hehce 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 machince. 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!

Say Rs #VALUE! Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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.
(One a fission and Zeological condition as per report received from zeological and actual obervation)

(A). 40% drilling is done by wagon drill machine. Hehce 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 machince. 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!

Say Rs #VALUE! Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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.

(A) Cost of drilling. Use rate of Jack Hammer (52 lbs) (vide item 3.2)	**844.00**	
Average rate of drilling 35 mm hole per hour– 2.3 metre	2.3 mtr	
Hence rate of drilling per metre = Use rate of Jack Hammer/2.3		366.96
(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). Sharping charge of bit @Rs 1.00 per m		1.00
Use rate of drill roads 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!
		#VALUE!
Add Cess	1 %	#VALUE!
		#VALUE! #VALUE!

Say Rs #VALUE! Per M

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Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

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.

(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!
Add Cess	1 %			#VALUE!
				#VALUE! #VALUE!
		Say Rs	#VALUE!	Per M

Note:- To the rates derived above following may be included as mobilisation and domobilisation charge depanding 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

7.3. CONCRETE WORK

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3
Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work etc. wherever provided and removed after use, all complete as per specifications and direction of E/I.

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3
Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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)**

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3

Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#VALUE!	Per M^3

7.3.4 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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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)**

Patna Urban	#VALUE!	Per M^3
Patna	#VALUE!	Per M^3
Muzaffarpur	#VALUE!	Per M^3
Darbhanga	#VALUE!	Per M^3
Bhagalpur	#VALUE!	Per M^3
Munger	#VALUE!	Per M^3
Saharsa	#VALUE!	Per M^3
Purnea	#VALUE!	Per M^3
Gaya	#VALUE!	Per M^3
Saran	#VALUE!	Per M^3

7.3.5 Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1: 3 : 6) in various components of dam foundation with approved quality of qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	3588.30	Per M^3
Patna	3588.30	Per M^3
Muzaffarpur	3615.00	Per M^3
Darbhanga	3625.70	Per M^3
Bhagalpur	3620.20	Per M^3
Munger	3572.10	Per M^3
Saharsa	3625.70	Per M^3
Purnea	3625.70	Per M^3
Gaya	3502.70	Per M^3
Saran	3561.50	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	4457.30	Per M^3
Patna	4457.30	Per M^3
Muzaffarpur	4495.70	Per M^3
Darbhanga	4511.10	Per M^3
Bhagalpur	4503.30	Per M^3
Munger	4434.00	Per M^3
Saharsa	4511.10	Per M^3
Purnea	4511.10	Per M^3
Gaya	4334.20	Per M^3
Saran	4418.90	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	5075.80	Per M^3
Patna	5075.80	Per M^3
Muzaffarpur	5124.80	Per M^3
Darbhanga	5144.40	Per M^3
Bhagalpur	5134.50	Per M^3
Munger	5046.20	Per M^3
Saharsa	5144.40	Per M^3
Purnea	5144.40	Per M^3
Gaya	4919.00	Per M^3
Saran	5026.90	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	6515.30	Per M^3
Patna	6515.30	Per M^3

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Muzaffarpur	6587.60	Per M^3
Darbhanga	6616.70	Per M^3
Bhagalpur	6601.90	Per M^3
Munger	6471.50	Per M^3
Saharsa	6616.70	Per M^3
Purnea	6616.70	Per M^3
Gaya	6283.50	Per M^3
Saran	6442.90	Per M^3

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	3611.10	Per M^3
Patna	3611.10	Per M^3
Muzaffarpur	3637.80	Per M^3
Darbhanga	3648.50	Per M^3
Bhagalpur	3643.10	Per M^3
Munger	3595.00	Per M^3
Saharsa	3648.50	Per M^3
Purnea	3648.50	Per M^3
Gaya	3525.50	Per M^3
Saran	3584.40	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	4480.10	Per M^3
Patna	4480.10	Per M^3
Muzaffarpur	4518.60	Per M^3
Darbhanga	4534.00	Per M^3
Bhagalpur	4526.10	Per M^3
Munger	4456.90	Per M^3
Saharsa	4534.00	Per M^3
Purnea	4534.00	Per M^3
Gaya	4357.10	Per M^3
Saran	4441.70	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	5098.70	Per M^3
Patna	5098.70	Per M^3
Muzaffarpur	5147.70	Per M^3
Darbhanga	5167.30	Per M^3
Bhagalpur	5157.30	Per M^3
Munger	5069.10	Per M^3
Saharsa	5167.30	Per M^3
Purnea	5167.30	Per M^3
Gaya	4941.90	Per M^3
Saran	5049.80	Per M^3

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Patna Urban	6538.10	Per M^3
Patna	6538.10	Per M^3
Muzaffarpur	6610.50	Per M^3
Darbhanga	6639.50	Per M^3
Bhagalpur	6624.80	Per M^3
Munger	6494.30	Per M^3
Saharsa	6639.50	Per M^3
Purnea	6639.50	Per M^3
Gaya	6306.30	Per M^3
Saran	6465.80	Per M^3

7.3.13 Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.

Patna Urban	408.70	Per M^3
Patna	408.70	Per M^3
Muzaffarpur	414.80	Per M^3
Darbhanga	417.30	Per M^3
Bhagalpur	416.00	Per M^3
Munger	405.00	Per M^3
Saharsa	417.30	Per M^3
Purnea	417.30	Per M^3

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	Gaya	389.20	Per M^3
	Saran	402.60	Per M^3
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	53232.20	Per M.T
	(B).Dia of bar above 6 mm to 12 mm	52642.60	Per M.T
	(B).Dia of bar above 14 mm to 50 mm	#VALUE!	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. GRADE -415- 8 mm	50808.00	Per M.T
(b).	T.M.T. GRADE -415- 10 mm	50808.00	Per M.T
(c).	T.M.T. GRADE -415- 12 mm	50152.80	Per M.T
(d).	T.M.T. GRADE FE415- 16mm	50152.80	Per M.T
(e).	T.M.T. GRADE FE415- 20 mm	35880.00	Per M.T
(f).	T.M.T. GRADE FE415- 25 mm	50152.80	Per M.T
(g).	T.M.T. GRADE FE415- 28 mm	50152.80	Per M.T
(h).	T.M.T. GRADE FE415-32 mm	50152.80	Per M.T
(i).	T.M.T. GRADE -FE500- 8 mm	70398.50	Per M.T
(j).	T.M.T. GRADE -FE500- 10 mm	70398.50	Per M.T
(k).	T.M.T. GRADE -FE500- 12 mm	69219.10	Per M.T
(l).	T.M.T. GRADE FE500- 16mm	69743.30	Per M.T
(m).	T.M.T. GRADE FE500- 20 mm	69219.10	Per M.T
(n).	T.M.T. GRADE FE500- 25 mm	69219.10	Per M.T
(o).	T.M.T. GRADE FE500- 28 mm	69219.10	Per M.T
(p).	T.M.T. GRADE FE500-32 mm	69481.20	Per M.T
(q).	T.M.T. GRADE FE500-36 mm	59325.60	Per M.T
7.3.16	Centring and shuttering in major dam work involving mass concrete including cost of form work, their carriage from work shop to work site, errection with the help of suitable crane and stripping etc. complete job as per specifications and direction of	#REF!	Per M^2
7.3.17	Providing shuttering including structting. Proping etc. and its removal after use in foundation work as per specifications and direction of E/I.	242.60	Per M^2
7.3.18	Providing shuttering including structting. Proping etc. and its removal after use in superstructure portion of various components of dam work as per specifications and direction of E/I.	242.60	Per M^2
7.3.19	Providing centering including strutting. Proping etc. and removing after use in deck slab as per specifications and direction of E/I.	339.60	Per M^2
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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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**		

Patna Urban	3111.40	Per M^3
Patna	3111.40	Per M^3
Muzaffarpur	3138.20	Per M^3
Darbhanga	3149.00	Per M^3
Bhagalpur	3143.50	Per M^3
Munger	3095.20	Per M^3
Saharsa	3149.00	Per M^3
Purnea	3149.00	Per M^3
Gaya	3025.50	Per M^3
Saran	3084.60	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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**

Patna Urban	3974.90	Per M^3
Patna	3974.90	Per M^3
Muzaffarpur	4013.30	Per M^3
Darbhanga	4028.70	Per M^3
Bhagalpur	4020.90	Per M^3
Munger	3951.60	Per M^3
Saharsa	4028.70	Per M^3
Purnea	4028.70	Per M^3
Gaya	3851.80	Per M^3
Saran	3936.40	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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)**

Patna Urban	4595.20	Per M^3
Patna	4595.20	Per M^3
Muzaffarpur	4644.20	Per M^3
Darbhanga	4663.90	Per M^3
Bhagalpur	4653.90	Per M^3
Munger	4565.50	Per M^3
Saharsa	4663.90	Per M^3
Purnea	4663.90	Per M^3
Gaya	4438.20	Per M^3
Saran	4546.20	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 and all taxes etc.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**

		Per M^3
Patna Urban	5966.70	Per M^3
Patna	5966.70	Per M^3
Muzaffarpur	6038.40	Per M^3
Darbhanga	6067.20	Per M^3
Bhagalpur	6052.60	Per M^3
Munger	5923.30	Per M^3
Saharsa	6067.20	Per M^3
Purnea	6067.20	Per M^3
Gaya	5737.00	Per M^3
Saran	5895.00	Per M^3

7.3. CONCRETE WORK

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 and all taxes etc.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 M^3			
	Taking Out put:-	1.00 Cum			
	MATERIALS				
	Coarse aggregates **Gr IV**				
	(Rate of approved quality of aggregate as per Design)	0.94 M^3		481.18	452.31
	Sand	0.470 M^3		270.36	127.07
	Cement	0.157 M^3		9118.00	1431.53
(B)	(a). Batching and mixing charge				
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**			
	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	64.80			64.80
	(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.spolting 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)	**22.00**			
	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)	**1161.00**			
	Output of crane per hour (production) using 2 no Buckets 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/26.76*0.69	29.34			29.34
	(d). Vibrating the concrete. (Vide item no 3.22)				
	Hire charge of vibrator per hr				**162.10**
					#VALUE!
	Add Overhead charge & C.P	15 %			#VALUE!
					#VALUE!
	Add Cess	1 %			#VALUE!
					#VALUE! #VALUE!
		Say	Rs	#VALUE!	Per M^3

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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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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 M^3			
	Taking Out put:-	1.00 Cum			
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm)				
	(Rate of approved quality of aggregate as per Design)	0.90 M^3		645.63	581.07
	Sand	0.450 M^3		270.36	121.66
	Cement	0.225 M^3		9118.00	2051.55
(B)	(a). Batching and mixing charge				
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**			
	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	64.80			64.80
	(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.spolting 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)	**22.00**			
	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)	**1161.00**			
	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/26.76*0.69	29.34			29.34
	(d). Vibrating the concrete.				
	(Vide item no 3.22)				
	Hire charge of vibrator per hr				**162.10**
					#VALUE!
	Add Overhead charge & C.P	15 %			#VALUE!
					#VALUE!
	Add Cess	1 %			#VALUE!
					#VALUE! #VALUE!
		Say Rs		#VALUE!	Per M^3

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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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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 M^3			
	Taking Out put:-	1.00 Cum			
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm)				
	(Rate of approved quality of aggregate as per Design)	0.860 M^3		645.63	555.24
	Sand	0.430 M^3		270.36	116.26
	Cement	0.287 M^3		9118.00	2616.87
(B)	(a). Batching and mixing charge				
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**			
	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	64.80			64.80
	(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.spolting 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)	**22.00**			
	Total use ratr	#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)**	**1161.00**			
	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/26.76*0.69	29.34			29.34
	(d). Vibrating the concrete. (Vide item no 3.22)				
	~~Hire charge of vibrator per hr~~				~~162.10~~
					#VALUE!
	Add Overhead charge & C.P	15 %			#VALUE!
					#VALUE!
	Add Cess	1 %			#VALUE!
					#VALUE! #VALUE!
		Say Rs		#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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.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 M^3			
		Taking Out put:-	1.00 Cum			
	MATERIALS					
	Coarse aggregates (20 mm To 10 mm)					
	(Rate of approved quality of aggregate as per Design)		0.84 M^3		645.63	542.33
	Sand		0.420 M^3		270.36	113.55
	Cement		0.42 M^3		9118.00	3829.56
(B)	(a). Batching and mixing charge					
	Use rate of Batching and mixing plant (vide item 3.13a)		**2513.00**			
	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		64.80			64.80
	(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.spolting 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)		**22.00**			
	Total use ratr		#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)		**1161.00**			
	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/26.76*0.69		29.34			29.34
	(d). Vibrating the concrete. (Vide item no 3.22) Hire charge of vibrator per hr					**162.10**
						#VALUE!
	Add Overhead charge & C.P		15 %			#VALUE!
						#VALUE!
	Add Cess		1 %			#VALUE!
						#VALUE! #VALUE!
			Say	Rs	#VALUE!	Per M^3
7.3.5	Providing and laying P.C.C or R.C.C M-100 with nominal mix of (1: 3 : 6) in various components of dam foundation with approved quality of qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.					
		Unit:-	Per M^3			
		Taking Out put:-	2.832 Cum			
	MATERIALS					
	Coarse aggregates Gr IV					
	(Rate of approved quality of aggregate as per Design)		2.66 M^3		481.18	1279.94
	Sand		1.330 M^3		270.36	359.58
	Cement		0.443 M^3		9118.00	4039.27

Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
= Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
= Used rate per hourx2.832/1.98			231.85	
			8748.98	
Add Overhead charge & C.P	15 %		1312.35	
			10061.33	
Add Cess	1 %		100.61	
			10161.94	3588.26
	Say Rs	3588.30	Per M^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 as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

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Unit:- Per M^3

Taking Out put:- 2.832 Cum

MATERIALS				
Coarse aggregates (20 mm To 10 mm) **(Rate of approved quality of aggregate as per Design)**	2.548 M^3	645.63	1645.07	
Sand	1.274 M^3	270.36	344.44	
Cement	0.637 M^3	9118.00	5808.17	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
= Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
= Used rate per hourx2.832/1.98			231.85	
			10867.86	
Add Overhead charge & C.P	15 %		1630.18	
			12498.04	
Add Cess	1 %		124.98	
			12623.02	4457.28
	Say Rs	4457.30	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 and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

MATERIALS					
Coarse aggregates (20 mm To 10 mm)					
(Rate of approved quality of aggregate as per Design)	2.436	M^3	645.63	1572.76	
Sand	1.218	M^3	270.36	329.30	
Cement	0.812	M^3	9118.00	7403.82	
Labour					
Head mason	0.5	nos	251.00	125.50	
Mason Gr II	1	nos	223.00	223.00	
Unskilled mazdoor	12	nos	184.00	2208.00	
Bhisti	1	nos	186.00	186.00	
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)**	**67.00**				
= Used rate per hourx2.832/1.98				95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**				
= Used rate per hourx2.832/1.98				231.85	
				12376.06	
Add Overhead charge & C.P	15	%		1856.41	
				14232.47	
Add Cess	1	%		142.32	
				14374.80	5075.85
	Say	Rs	5075.80	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Unit:-	Per M^3				
Taking 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	645.63	1549.52	
Sand	1.20	M^3	270.36	324.44	
Cement	1.20	M^3	9118.00	10941.60	
Labour					
Head mason	0.5	nos	251.00	125.50	
Mason Gr II	1	nos	223.00	223.00	
Unskilled mazdoor	12	nos	184.00	2208.00	
Bhisti	1	nos	186.00	186.00	
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)**	**67.00**				
= Used rate per hourx2.832/1.98				95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**				
= Used rate per hourx2.832/1.98				231.85	
				15885.74	
Add Overhead charge & C.P	15	%		2382.86	
				18268.60	
Add Cess	1	%		182.69	
				18451.28	6515.28
	Say	Rs	6515.30	Per M^3	

9/1/15

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Unit:-	Per M^3			
Taking Out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates Gr IV				
(Rate of approved quality of aggregate as per Design)	2.66 M^3	481.18	1279.94	
Sand	1.330 M^3	270.36	359.58	
Cement	0.443 M^3	9118.00	4039.27	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
= Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
= Used rate per hourx2.832/1.98			231.85	
			8804.73	
Add Overhead charge & C.P	15 %		1320.71	
			10125.44	
Add Cess	1 %		101.25	
			10226.70	3611.12
	Say Rs		3611.10 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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Unit:-	Per M^3			
Taking Out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates (20 mm To 10 mm)				
(Rate of approved quality of aggregate as per Design)	2.548 M^3	645.63	1645.07	
Sand	1.274 M^3	270.36	344.44	
Cement	0.637 M^3	9118.00	5808.17	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
= Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
= Used rate per hourx2.832/1.98			231.85	
			10923.61	

	Add Overhead charge & C.P	15 %		1638.54	
				12562.16	
	Add Cess	1 %		125.62	
				12687.78	4480.15
		Say Rs	4480.10	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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Unit:-	Per M^3			
Taking Out put:-	2.832 Cum			
MATERIALS				
Coarse aggregates (20 mm To 10 mm)				
(Rate of approved quality of aggregate as per Design)	2.436 M^3	645.63	1572.76	
Sand	1.218 M^3	270.36	329.30	
Cement	0.812 M^3	9118.00	7403.82	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
= Used rate per hourx2.832/1.98			95.83	
(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.**(Vide iten no 3.22)**	**162.10**			
= Used rate per hourx2.832/1.98			231.85	
			12431.81	
Add Overhead charge & C.P	15 %		1864.77	
			14296.58	
Add Cess	1 %		142.97	
			14439.55	5098.71
	Say Rs	5098.70	Per M^3	

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 qraded coarse aggregate and approved quality sand of requisite F.M washed and screened including vibrating,precooling etc. as well as royalty and all taxes etc.but excluding cost of form work as well as of renforcement, its cutting, bending, and placing but including necessary tools, plants and vibrating, curing, royalty andall taxes etc. all complete as per specifications and direction of E/I.

Unit:-	Per M^3			
Taking 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	645.63	1549.52	
Sand	1.20 M^3	270.36	324.44	
Cement	1.20 M^3	9118.00	10941.60	
Labour				
Head mason	0.5 nos	251.00	125.50	
Mason Gr II	1.25 nos	223.00	278.75	
Unskilled mazdoor	12 nos	184.00	2208.00	
Bhisti	1 nos	186.00	186.00	
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)**	**67.00**			
= Used rate per hourx2.832/1.98			95.83	

	(ii) Vibrator 1no. To vibrate 2.832 cum on thebasic of vibrator capacity 1.98 cum per hour.(**Vide iten no 3.22**)	**162.10**				
	= Used rate per hourx2.832/1.98				231.85	
					15941.49	
	Add Overhead charge & C.P	15 %			2391.22	
					18332.71	
	Add Cess	1 %			183.33	
					18516.04	6538.15
		Say	Rs	6538.10	Per M^3	
7.3.13	Grouting for Dam foundation per bags of cement all complete as per specifications and direction of E/I.					
		Patna U				
	Unit:-	Per M^3				
	Taking Out put:-	1.00 Cum				
	(A). Cost of 1.05 bag of cement at site including 5 % wastage and incidental charge	0.0357 Cum		9118.00	325.51	
	(B). Grouting					
	I. Hourly use rate of grouting machine (vide item3.18)	**211.00**				
	Taking progress of grouting 8 bags of cement per hour	8 Bags				
	Cost of Grouting= use rate/8				26.38	
					351.89	
	Add Overhead charge & C.P	15 %			52.78	
					404.67	
	Add Cess	1 %			4.05	
					408.72	408.72
		Say	Rs	408.70	Per bag 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.					
	Unit:-	Per M.T				
	Taking Out put:-	1 M.T				
	(a).Dia of bar 6 mm					
(A).	Providing M.S reinforcement Plain (including 5 % wastage)	1.05 M.T		38324.00	40240.20	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v. Unskilled mazdoor	2 nos		184.00	368.00	
	Totalof A+B				#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	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		37856.00	39748.80	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v. Unskilled mazdoor	2 nos		184.00	368.00	
	Totalof A+B				#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	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		#VALUE!	#VALUE!	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v. Unskilled mazdoor	2 nos		184.00	368.00	
	Totalof A+B				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	

				#VALUE!	#VALUE!
		Say Rs	#VALUE!	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.				
		Unit:- Per M.T			
		Taking Out put:- 1 M.T			
(a).	T.M.T. GRADE -FE 415- 8 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(b).	T.M.T. GRADE -FE 415- 10 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(c).	T.M.T. GRADE -FE 415- 12 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(d).	T.M.T. GRADE FE415- 16mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	
	v Unskilled mazdoor	2 nos	184.00	368.00	
				#REF!	
	Add Overhead charge & C.P	15 %		#REF!	
				#REF!	
	Add Cess	1 %		#REF!	
				#REF!	#REF!
		Say Rs	#REF!	Per M.T	
(e).	T.M.T. GRADE FE415- 20 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05 M.T	#REF!	#REF!	
(B).	i. Annealed wire	14 Kg	#REF!	#REF!	
	ii. Black smith Gr II	9 nos	223.00	2007.00	
	iii. Head black smith	1 nos	251.00	251.00	
	iv. Skilled mazdoor	8 nos	234.00	1872.00	

	v Unskilled mazdoor	2 nos	184.00	368.00		
				#REF!		
	Add Overhead charge & C.P	15 %		#REF!		
				#REF!		
	Add Cess	1 %		#REF!		
				#REF!	#REF!	
		Say Rs		#REF!	Per M.T	
(f).	T.M.T. GRADE FE415- 25 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05 M.T		#REF!	#REF!	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii. Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v Unskilled mazdoor	2 nos		184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(g).	T.M.T. GRADE FE415- 28 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05 M.T		#REF!	#REF!	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii. Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v Unskilled mazdoor	2 nos		184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(h).	T.M.T. GRADE FE415-32 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05 M.T		INPUT	#VALUE!	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii. Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v Unskilled mazdoor	2 nos		184.00	368.00	
					#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
		Say Rs		#VALUE!	Per M.T	
(i).	T.M.T. GRADE -FE 500- 8 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05 M.T		52185.00	54794.25	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii. Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v Unskilled mazdoor	2 nos		184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(j).	T.M.T. GRADE -FE500-10 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05 M.T		51135.00	53691.75	
(B).	i. Annealed wire	14 Kg		#REF!	#REF!	
	ii. Black smith Gr II	9 nos		223.00	2007.00	
	iii. Head black smith	1 nos		251.00	251.00	
	iv. Skilled mazdoor	8 nos		234.00	1872.00	
	v Unskilled mazdoor	2 nos		184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15 %			#REF!	

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					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(k).	T.M.T. GRADE -FE 500- 12 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05	M.T	50610.00	53140.50	
(B).	i. Annealed wire	14	Kg	#REF!	#REF!	
	ii. Black smith Gr II	9	nos	223.00	2007.00	
	iii. Head black smith	1	nos	251.00	251.00	
	iv. Skilled mazdoor	8	nos	234.00	1872.00	
	v Unskilled mazdoor	2	nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15	%		#REF!	
					#REF!	
	Add Cess	1	%		#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(l).	T.M.T. GRADE FE 500- 16mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05	M.T	50898.75	53443.69	
(B).	i. Annealed wire	14	Kg	#REF!	#REF!	
	ii. Black smith Gr II	9	nos	223.00	2007.00	
	iii. Head black smith	1	nos	251.00	251.00	
	iv. Skilled mazdoor	8	nos	234.00	1872.00	
	v Unskilled mazdoor	2	nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15	%		#REF!	
					#REF!	
	Add Cess	1	%		#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(m).	T.M.T. GRADE FE 500- 20 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05	M.T	50400.00	52920.00	
(B).	i. Annealed wire	14	Kg	#REF!	#REF!	
	ii. Black smith Gr II	9	nos	223.00	2007.00	
	iii. Head black smith	1	nos	251.00	251.00	
	iv. Skilled mazdoor	8	nos	234.00	1872.00	
	v Unskilled mazdoor	2	nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15	%		#REF!	
					#REF!	
	Add Cess	1	%		#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(n).	T.M.T. GRADE FE 500- 25 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05	M.T	50400.00	52920.00	
(B).	i. Annealed wire	14	Kg	#REF!	#REF!	
	ii. Black smith Gr II	9	nos	223.00	2007.00	
	iii. Head black smith	1	nos	251.00	251.00	
	iv. Skilled mazdoor	8	nos	234.00	1872.00	
	v Unskilled mazdoor	2	nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15	%		#REF!	
					#REF!	
	Add Cess	1	%		#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M.T	
(o).	T.M.T. GRADE FE 500- 28 mm					
	(Assuming 1 MT)					
(A).	Providing M.S reinforcement Plain					
	(including 5 % wastage)	1.05	M.T	50400.00	52920.00	
(B).	i. Annealed wire	14	Kg	#REF!	#REF!	
	ii. Black smith Gr II	9	nos	223.00	2007.00	
	iii. Head black smith	1	nos	251.00	251.00	
	iv. Skilled mazdoor	8	nos	234.00	1872.00	
	v Unskilled mazdoor	2	nos	184.00	368.00	
					#REF!	
	Add Overhead charge & C.P	15	%		#REF!	
					#REF!	
	Add Cess	1	%		#REF!	
					#REF!	#REF!

		Say Rs		#REF!	Per M.T
(p).	T.M.T. GRADE FE 500-32 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05	M.T	50400.00	52920.00
(B).	i. Annealed wire	14	Kg	#REF!	#REF!
	ii. Black smith Gr II	9	nos	223.00	2007.00
	iii. Head black smith	1	nos	251.00	251.00
	iv. Skilled mazdoor	8	nos	234.00	1872.00
	v Unskilled mazdoor	2	nos	184.00	368.00
					#REF!
	Add Overhead charge & C.P	15	%		#REF!
					#REF!
	Add Cess	1	%		#REF!
					#REF! #REF!
		Say Rs		#REF!	Per M.T
(q).	T.M.T. GRADE FE 500-36 mm				
	(Assuming 1 MT)				
(A).	Providing M.S reinforcement Plain				
	(including 5 % wastage)	1.05	M.T	46567.50	48895.88
(B).	i. Annealed wire	14	Kg	#REF!	#REF!
	ii. Black smith Gr II	9	nos	223.00	2007.00
	iii. Head black smith	1	nos	251.00	251.00
	iv. Skilled mazdoor	8	nos	234.00	1872.00
	v Unskilled mazdoor	2	nos	184.00	368.00
					#REF!
	Add Overhead charge & C.P	15	%		#REF!
					#REF!
	Add Cess	1	%		#REF!
					#REF! #REF!
		Say Rs		#REF!	Per M.T
7.3.16	Centring 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.				
	Unit:-	Per M^2			
	Taking Out put:-	100	Sqm		
	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	Mtr	161.00	563.50
	Nuts and bolts 10 mm dia and 85 mm long(31 nos)	4.5	kg	61.00	274.50
	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				#REF!
	Deduct salvage @ 20 % of the above sub total				#REF!
	Net total cost of materials				#REF! (a)
	Additional materials (per 50 % sqm)	50	%		#REF!
	M.S. rods 16 mm and 25 mm dia for ancorage	24	kg	#VALUE!	#VALUE!
	Linssed oil @ 8 litres per % sqm	8	lit	80.00	640.00
	Sub Total of materials				#REF! A
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)				#REF!
	ii. Fabrication charge including cutting, welding, marking and oil other operations @ 90 % of the materials item 1 to 12				#REF!
	Total transportaion and febrication charge per sqm.				#REF! B
C.	**. Machinery charge**				
	Taking in output of crane / hr	8.33	sqm		

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	Hourly use rate of crane (15T) (Vide item no 3.20)	**1161.00**				
	Machinary charge per sqm = Use rate of crane x 100 / 8.33				13937.58	C
D	**. Labour charge**					
	Fore man	0.25 nos		317.00	79.25	
	Semi Skilled mazdoor	20 nos		192.00	3840.00	
	Carpenters Gr II	4 nos		223.00	892.00	
	Total				4811.25	D
	Total Of A+B+C+D				#REF!	
	Add Overhead charge & C.P	15 %			#REF!	
					#REF!	
	Add Cess	1 %			#REF!	
					#REF!	#REF!
		Say Rs		#REF!	Per M^2	
7.3.17	Providing shuttering including structting. Proping etc. and its removal after use in foundation work as per specifications and direction of E/I.					
		Unit:- Per M^2				
	Taking Out put:-	9.3 Sqm				
A	MATERIALS					
	Local wood planks 38 mm thick 9.3 x 38 / 1000 =0.35	0.353 cum				
	Add 5 % wastage	0.017 cum				
	Cost of 0.37 cum lock wood planks	0.37 cum		10444.00	3864.28	
	Add cost for strutting and proping @ 10 % of above				386.43	
					4250.71	
	Assuming 4 uses to calculate	4 use				
	Cost of shuttering for 2.832 cum total cost/4				1062.68	
	Add 1 % for cost of nails and spikes of total cost of woden materials				42.51	
					1105.18	A
B	LABOUR					
	Carpenter Gr II	1.5 nos		223.00	334.50	
	Unskilled mazdoor	2.5 nos		184.00	460.00	
					794.50	B
C	Carriage of materials					
	Cost of the carriage of materials from Godowmand back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals				42.51	C
	TOTAL cost per 9.3 sqm =A+B+C				1942.19	
	Add Overhead charge & C.P	15 %			291.33	
					2233.52	
	Add Cess	1 %			22.34	
					2255.86	242.57
		Say Rs		242.60	Per M^2	
7.3.18	Providing shuttering including structting. Proping etc. and its removal after use in superstructure portion of various components of dam work as per specifications and direction of E/I.					
		Unit:- Per M^2				
	Taking Out put:-	9.3 Sqm				
A	MATERIALS					
	Local wood planks 38 mm thick 9.3 x 38 / 1000 =0.35	0.353 cum				
	Add 5 % wastage	0.017 cum				
	Cost of 0.37 cum lock wood planks	0.37 cum		10444.00	3864.28	
	Add cost for strutting and proping @ 10 % of above				386.43	
					4250.71	
	Assuming 4 uses to calculate	4 use				
	Cost of shuttering for 2.832 cum total cost/4				1062.68	
	Add 1 % for cost of nails and spikes of total cost of woden materials				42.51	
					1105.18	A
B	LABOUR					
	Carpenter Gr II	1.5 nos		223.00	334.50	
	Unskilled mazdoor	2.5 nos		184.00	460.00	
					794.50	B
C	Carriage of matterials					
	Cost of the carriage of materials from Godowmand back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals				42.51	C
	TOTAL cost per 9.3 sqm =A+B+C				1942.19	
	Add Overhead charge & C.P	15 %			291.33	
					2233.52	

	Add Cess	1 %		22.34	
				2255.86	242.57
		Say Rs	242.60	Per M^2	
7.3.19	Providing centering including strutting. Proping etc. and removing after use in deck slab as per specifications and direction of E/I.				
		Unit:- Per M^2			
	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 =0.85				
	Add 5 % for wastages =0.04				
	=0.89	0.89 cum	10444.00		
	Assuming 4 uses to calculate				
				2323.79	
	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	285.48 mtr	40.00		
	(Assuming sal bullah to be used 10 times for centerins				
	=285.48 x Rate per Mtr / 10			1141.92	
	c. Salwood scanting required (75 mm x 63 mm size) =0.311 cum	0.311 cum	25620.00		
	(Assuming 10 uses)				
	Cost per use =0.311 x Rate per Mtr/10			796.78	
				4262.49	
	Add 1 % for cost of nails and spikes			42.62	
				4305.12	(A)
B.	LABOUR				
	Carpenter Gr II	4 nos	223.00	892.00	
	Unskilled mazdoor	7 nos	184.00	1288.00	
C.	Carrage of matterials			2180.00	(B)
	Cost of the carriage of materials from Godowmand back to godown after use including loading unloading and stacking @ 1 % of Total cost of wooden materals				
				42.62	(C)
	TOTAL cost per 22.326 sqm =A+B+C			6527.74	
	Add Overhead charge & C.P	15 %		979.16	
				7506.90	
	Add Cess	1 %		75.07	
				7581.97	339.60
		Say Rs	339.60	Per M^2	
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 qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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 M^3			
	Taking Out put:-	1 cum			
	MATERIALS				
	Coarse aggregates **Gr IV**				
	(Rate of approved quality of aggregate as per Design)	0.94 M^3	481.18	452.31	
	Sand	0.470 M^3	270.36	127.07	
	Cement	0.157 M^3	9118.00	1431.53	
	(b)LABOURS				
	Mate	0.01 nos	201.00	2.01	
	Mason	0.03 nos	223.00	6.69	
	Mazdoor	0.15 nos	184.00	27.60	
	c) Machinery				
	Batching Plant @ 20 cum/hour	0.05 hr.	2513.00	125.65	
	Generator 100 KVA	0.05 hr.	1716.00	85.80	
	Loader 1 cum capacity	0.05 hr.	1199.00	59.95	
	Transit Mixer 4 cum capacity for lead upto 1 km.	0.13 hr.	1265.00	164.45	**Lead**
	Lead beyond 1 km, L-lead in km	2.50 t.Km.	6.50	16.25	1
	Concrete Pump	0.05 hr.	348.00	17.40	
	(d). Vibrating the concrete.			**162.10**	
				2678.81	

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	Add Overhead charge & C.P	15 %		401.82	
				3080.63	
	Add Cess	1 %		30.81	
				3111.43	3111.43
		Say Rs		3111.40 Per M^3	

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 qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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 M^3

	Taking Out put:-	1 cum			
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm)				
	(Rate of approved quality of aggregate as per Design)	0.90 M^3	645.63	581.07	
	Sand	0.450 M^3	270.36	121.66	
	Cement	0.225 M^3	9118.00	2051.55	
	(b)LABOURS				
	Mate	0.01 nos	201.00	2.01	
	Mason	0.03 nos	223.00	6.69	
	Mazdoor	0.15 nos	184.00	27.60	
	c) Machinery				
	Batching Plant @ 20 cum/hour	0.05 hr.	2513.00	125.65	
	Generator 100 KVA	0.05 hr.	1716.00	85.80	
	Loader 1 cum capacity	0.05 hr.	1199.00	59.95	
	Transit Mixer 4 cum capacity for lead upto 1 km.	0.13 hr.	1265.00	164.45	**Lead**
	Lead beyond 1 km, L-lead in km	2.50 t.Km.	6.50	16.25	1
	Concrete Pump	0.05 hr.	348.00	17.40	
	(d). Vibrating the concrete.			**162.10**	
				3422.18	
	Add Overhead charge & C.P	15 %		513.33	
				3935.51	
	Add Cess	1 %		39.36	
				3974.87	3974.87
		Say Rs		3974.90 Per M^3	

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 qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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 M^3

	Taking Out put:-	1 cum			
	MATERIALS				
	Coarse aggregates (20 mm To 10 mm)				
	(Rate of approved quality of aggregate as per Design)	0.86 M^3	645.63	555.24	
	Sand	0.430 M^3	270.36	116.26	
	Cement	0.287 M^3	9118.00	2616.87	
	(b)LABOURS				
	Mate	0.01 nos	201.00	2.01	
	Mason	0.03 nos	223.00	6.69	
	Mazdoor	0.15 nos	184.00	27.60	
	c) Machinery				
	Batching Plant @ 20 cum/hour	0.05 hr.	2513.00	125.65	
	Generator 100 KVA	0.05 hr.	1716.00	85.80	
	Loader 1 cum capacity	0.05 hr.	1199.00	59.95	
	Transit Mixer 4 cum capacity for lead upto 1 km.	0.13 hr.	1265.00	164.45	**Lead**
	Lead beyond 1 km, L-lead in km	2.50 t.Km.	6.50	16.25	1
	Concrete Pump	0.05 hr.	348.00	17.40	
	(d). Vibrating the concrete.			**162.10**	
				3956.27	

	Add Overhead charge & C.P	15 %		593.44	
				4549.71	
	Add Cess	1 %		45.50	
				4595.20	4595.20
		Say Rs	4595.20	Per M^3	

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 qrades as per design and approved quality sand of requisite F.M washed and screened including vibrating,curing etc. as well as royalty and all taxes 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 M^3

Taking Out put:- 1 cum

MATERIALS				
Coarse aggregates (20 mm To 10 mm)				
~~(Rate of approved quality of aggregate as per~~ **Design)**	0.84 M^3	645.63	542.33	
Sand	0.420 M^3	270.36	113.55	
Cement	0.42 M^3	9118.00	3829.56	
(b)LABOURS				
Mate	0.01 nos	201.00	2.01	
Mason	0.03 nos	223.00	6.69	
Mazdoor	0.15 nos	184.00	27.60	
c) Machinery				
Batching Plant @ 20 cum/hour	0.05 hr.	2513.00	125.65	
Generator 100 KVA	0.05 hr.	1716.00	85.80	
Loader 1 cum capacity	0.05 hr.	1199.00	59.95	
Transit Mixer 4 cum capacity for lead upto 1 km.	0.13 hr.	1265.00	164.45	
Lead beyond 1 km, L-lead in km	0.00 t.Km.	6.50	0.00	
Concrete Pump	0.05 hr.	348.00	17.40	
(d). Vibrating the concrete.			**162.10**	
			5137.09	
Add Overhead charge & C.P	15 %		770.56	
			5907.66	
Add Cess	1 %		59.08	
			5966.73	5966.73
	Say Rs	5966.70	Per M^3	

7.4 MASONARY WORK

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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4802.40	Per M^3
Patna	4305.70	Per M^3
Muzaffarpur	4356.30	Per M^3
Darbhanga	3669.40	Per M^3
Bhagalpur	4359.60	Per M^3
Munger	4329.20	Per M^3
Saharsa	4431.00	Per M^3
Purnea	4566.90	Per M^3
Gaya	4150.00	Per M^3
Saran	4204.10	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4624.30	Per M^3
Patna	4127.60	Per M^3
Muzaffarpur	4175.20	Per M^3
Darbhanga	4180.80	Per M^3
Bhagalpur	4177.90	Per M^3
Munger	4152.90	Per M^3
Saharsa	4177.90	Per M^3
Purnea	4384.60	Per M^3
Gaya	3981.50	Per M^3
Saran	4026.00	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4478.10	Per M^3
Patna	3981.40	Per M^3
Muzaffarpur	4026.50	Per M^3
Darbhanga	4031.10	Per M^3
Bhagalpur	4028.80	Per M^3
Munger	4008.10	Per M^3
Saharsa	4028.80	Per M^3
Purnea	4235.00	Per M^3
Gaya	3843.00	Per M^3
Saran	3879.70	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4877.90	Per M^3
Patna	4381.20	Per M^3
Muzaffarpur	4431.80	Per M^3
Darbhanga	4431.80	Per M^3
Bhagalpur	4435.10	Per M^3
Munger	4404.70	Per M^3
Saharsa	4435.10	Per M^3
Purnea	4642.40	Per M^3
Gaya	4225.40	Per M^3
Saran	4279.50	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4699.80	Per M^3
Patna	4203.10	Per M^3
Muzaffarpur	4250.70	Per M^3
Darbhanga	4256.20	Per M^3
Bhagalpur	4253.40	Per M^3
Munger	4228.40	Per M^3
Saharsa	4253.40	Per M^3
Purnea	4460.10	Per M^3
Gaya	4057.00	Per M^3
Saran	4101.40	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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	4553.50	Per M^3
Patna	4057.00	Per M^3
Muzaffarpur	4102.00	Per M^3
Darbhanga	4106.60	Per M^3
Bhagalpur	4104.20	Per M^3
Munger	4083.60	Per M^3
Saharsa	4104.20	Per M^3
Purnea	4310.40	Per M^3
Gaya	3918.50	Per M^3
Saran	3955.20	Per M^3

7.4.7 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2328.80	Per M^3
Patna	2328.80	Per M^3
Muzaffarpur	2349.90	Per M^3
Darbhanga	2358.30	Per M^3
Bhagalpur	2354.00	Per M^3
Munger	2316.00	Per M^3
Saharsa	2354.00	Per M^3
Purnea	2358.30	Per M^3
Gaya	2261.10	Per M^3
Saran	2328.80	Per M^3

7.4.8 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2074.70	Per M^3
Patna	2074.70	Per M^3
Muzaffarpur	2091.60	Per M^3
Darbhanga	2098.40	Per M^3
Bhagalpur	2095.00	Per M^3
Munger	2064.50	Per M^3
Saharsa	2095.00	Per M^3
Purnea	2098.40	Per M^3
Gaya	2020.70	Per M^3
Saran	2074.70	Per M^3

7.4.9 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	1916.90	Per M^3
Patna	1916.90	Per M^3
Muzaffarpur	1931.10	Per M^3
Darbhanga	1936.80	Per M^3
Bhagalpur	1933.90	Per M^3
Munger	1908.20	Per M^3
Saharsa	1933.90	Per M^3
Purnea	1936.80	Per M^3
Gaya	1871.30	Per M^3
Saran	1916.90	Per M^3

9/11/15

7.4.10 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2423.10	Per M^3
Patna	2423.10	Per M^3
Muzaffarpur	2444.20	Per M^3
Darbhanga	2452.70	Per M^3
Bhagalpur	2448.30	Per M^3
Munger	2410.30	Per M^3
Saharsa	2448.30	Per M^3
Purnea	2452.70	Per M^3
Gaya	2355.50	Per M^3
Saran	2423.10	Per M^3

7.4.11 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2169.10	Per M^3
Patna	2169.10	Per M^3
Muzaffarpur	2186.00	Per M^3
Darbhanga	2192.70	Per M^3
Bhagalpur	2189.30	Per M^3
Munger	2158.90	Per M^3
Saharsa	2189.30	Per M^3
Purnea	2192.70	Per M^3
Gaya	2115.00	Per M^3
Saran	2169.10	Per M^3

7.4.12 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2011.20	Per M^3
Patna	2011.20	Per M^3
Muzaffarpur	2025.40	Per M^3
Darbhanga	2031.10	Per M^3
Bhagalpur	2028.20	Per M^3
Munger	2002.60	Per M^3
Saharsa	2028.20	Per M^3
Purnea	2031.10	Per M^3
Gaya	1965.60	Per M^3
Saran	2011.20	Per M^3

9/1/15

7.4.13 Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2423.10	Per M^3
Patna	2423.10	Per M^3
Muzaffarpur	2444.20	Per M^3
Darbhanga	2452.70	Per M^3
Bhagalpur	2448.30	Per M^3
Munger	2410.30	Per M^3
Saharsa	2448.30	Per M^3
Purnea	2452.70	Per M^3
Gaya	2355.50	Per M^3
Saran	2423.10	Per M^3

7.4.14 Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2169.10	Per M^3
Patna	2169.10	Per M^3
Muzaffarpur	2186.00	Per M^3
Darbhanga	2192.70	Per M^3
Bhagalpur	2189.30	Per M^3
Munger	2158.90	Per M^3
Saharsa	2189.30	Per M^3
Purnea	2192.70	Per M^3
Gaya	2115.00	Per M^3
Saran	2169.10	Per M^3

7.4.15 Providing rough dressed coursed stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Patna Urban	2011.20	Per M^3
Patna	2011.20	Per M^3
Muzaffarpur	2025.40	Per M^3
Darbhanga	2031.10	Per M^3
Bhagalpur	2028.20	Per M^3
Munger	2002.60	Per M^3
Saharsa	2028.20	Per M^3
Purnea	2031.10	Per M^3
Gaya	1965.60	Per M^3
Saran	2011.20	Per M^3

7. 4 MASONARY WORK

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 royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	
Sand		0.84 cum	270.36	227.11	
Cement		0.28 cum	9118.00	2553.04	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2.5 nos	223.00	557.50	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		1 nos	186.00	186.00	
				11709.43	
Add Overhead charge & C.P		15 %		1756.41	
				13465.84	
Add Cess		1 %		134.66	
				13600.50	4802.44
				4802.40 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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	
Sand		0.92 cum	270.36	248.73	
Cement		0.23 cum	9118.00	2097.14	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2.5 nos	223.00	557.50	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		1 nos	186.00	186.00	
				11275.16	
Add Overhead charge & C.P		15 %		1691.27	
				12966.43	
Add Cess		1 %		129.66	
				13096.10	4624.33
		Say Rs.		4624.30 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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Bricks		1150 nos	6290.79	7234.41	
Sand		0.95 cum	270.36	256.85	
Cement		0.19 cum	9118.00	1732.42	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2.5 nos	223.00	557.50	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		1 nos	186.00	186.00	
				10918.55	
Add Overhead charge & C.P		15 %		1637.78	
				12556.33	
Add Cess		1 %		125.56	
				12681.90	4478.07

Say Rs. 4478.10 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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.84 cum	270.36	227.11	
Cement	0.28 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11893.43	
Add Overhead charge & C.P	15 %		1784.01	
			13677.44	
Add Cess	1 %		136.77	
			13814.22	4877.90

Say Rs. 4877.90 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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.92 cum	270.36	248.73	
Cement	0.23 cum	9118.00	2097.14	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11459.16	
Add Overhead charge & C.P	15 %		1718.87	
			13178.03	
Add Cess	1 %		131.78	
			13309.81	4699.79

Say Rs. 4699.80 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, curring, scaffolding and its removal wherever required including royaliy and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Bricks	1150 nos	6290.79	7234.41	
Sand	0.95 cum	270.36	256.85	
Cement	0.19 cum	9118.00	1732.42	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	6 nos	184.00	1104.00	
Bhisti	1 nos	186.00	186.00	
			11102.55	
Add Overhead charge & C.P	15 %		1665.38	
			12767.93	
Add Cess	1 %		127.68	
			12895.61	4553.54

Say Rs. 4553.50 Per M^3

7.4.7 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Stone boulder		2.832 cum	251.58	712.47	
Sand		1.050 cum	270.36	283.88	
Cement		0.350 cum	9118.00	3191.30	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2 nos	223.00	446.00	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		0.5 nos	186.00	93.00	
				5678.03	
Add Overhead charge & C.P		15 %		851.70	
				6529.74	
Add Cess		1 %		65.30	
				6595.03	2328.75
		Say Rs.		2328.80 Per M^3	

7.4.8 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Stone boulder		2.832 cum	251.58	712.47	
Sand		1.120 cum	270.36	302.81	
Cement		0.280 cum	9118.00	2553.04	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2 nos	223.00	446.00	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		0.5 nos	186.00	93.00	
				5058.70	
Add Overhead charge & C.P		15 %		758.80	
				5817.50	
Add Cess		1 %		58.18	
				5875.68	2074.74
		Say Rs.		2074.70 Per M^3	

7.4.9 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Stone boulder		2.832 cum	251.58	712.47	
Sand		1.180 cum	270.36	319.03	
Cement		0.236 cum	9118.00	2151.85	
Labour					
Head mason		0.125 nos	251.00	31.38	
Mason Gr II		2 nos	223.00	446.00	
Unskilled mazdoor		5 nos	184.00	920.00	
Bhisti		0.5 nos	186.00	93.00	
				4673.73	
Add Overhead charge & C.P		15 %		701.06	
				5374.79	
Add Cess		1 %		53.75	
				5428.53	1916.85
		Say Rs.		1916.90 Per M^3	

7.4.10 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.050 cum	270.36	283.88	
Cement	0.350 cum	9118.00	3191.30	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5908.03	
Add Overhead charge & C.P	15 %		886.20	
			6794.24	
Add Cess	1 %		67.94	
			6862.18	2423.09

Say Rs. 2423.10 Per M^3

7.4.11 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.120 cum	270.36	302.81	
Cement	0.280 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5288.70	
Add Overhead charge & C.P	15 %		793.30	
			6082.00	
Add Cess	1 %		60.82	
			6142.82	2169.08

Say Rs. 2169.10 Per M^3

7.4.12 Providing rough dressed random rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.180 cum	270.36	319.03	
Cement	0.236 cum	9118.00	2151.85	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			4903.73	
Add Overhead charge & C.P	15 %		735.56	
			5639.29	
Add Cess	1 %		56.39	
			5695.68	2011.19

Say Rs. 2011.20 Per M^3

7.4.13 Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.050 cum	270.36	283.88	
Cement	0.350 cum	9118.00	3191.30	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5908.03	
Add Overhead charge & C.P	15 %		886.20	
			6794.24	
Add Cess	1 %		67.94	
			6862.18	2423.09

Say Rs. 2423.10 Per M^3

7.4.14 Providing rough dressed coursed rubble stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.120 cum	270.36	302.81	
Cement	0.280 cum	9118.00	2553.04	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			5288.70	
Add Overhead charge & C.P	15 %		793.30	
			6082.00	
Add Cess	1 %		60.82	
			6142.82	2169.08

Say Rs. 2169.10 Per M^3

7.4.15 Providing rough dressed coursed stone masonary 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 and all taxes etc.complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Stone boulder	2.832 cum	251.58	712.47	
Sand	1.180 cum	270.36	319.03	
Cement	0.236 cum	9118.00	2151.85	
Labour				
Head mason	0.125 nos	251.00	31.38	
Mason Gr II	2 nos	223.00	446.00	
Unskilled mazdoor	6.25 nos	184.00	1150.00	
Bhisti	0.5 nos	186.00	93.00	
			4903.73	
Add Overhead charge & C.P	15 %		735.56	
			5639.29	
Add Cess	1 %		56.39	
			5695.68	2011.19

Say Rs. 2011.20 Per M^3

7.5. PLASTER WORK

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 and all taxes etc. complete job as per specification and direction of E /		
	Patna Urban	127.30	Per M^2
	Patna	127.30	Per M^2
	Muzaffarpur	128.00	Per M^2
	Darbhanga	128.40	Per M^2
	Bhagalpur	128.20	Per M^2
	Munger	126.80	Per M^2
	Saharsa	128.20	Per M^2
	Purnea	128.40	Per M^2
	Gaya	124.70	Per M^2
	Saran	127.30	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 and all taxes etc. complete job as per specification and direction of E /		
	Patna Urban	117.20	Per M^2
	Patna	117.20	Per M^2
	Muzaffarpur	117.90	Per M^2
	Darbhanga	118.10	Per M^2
	Bhagalpur	118.00	Per M^2
	Munger	116.90	Per M^2
	Saharsa	118.00	Per M^2
	Purnea	118.10	Per M^2
	Gaya	115.20	Per M^2
	Saran	117.20	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 and all taxes etc. complete job as per specification and direction of E / I.		
	Patna Urban	110.50	Per M^2
	Patna	110.50	Per M^2
	Muzaffarpur	111.10	Per M^2
	Darbhanga	111.30	Per M^2
	Bhagalpur	111.20	Per M^2
	Munger	110.20	Per M^2
	Saharsa	111.20	Per M^2
	Purnea	111.30	Per M^2
	Gaya	108.90	Per M^2
	Saran	110.50	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 and all taxes etc. complete job as per specification and direction of E / I.		
	Patna Urban	216.10	Per M^2
	Patna	216.10	Per M^2
	Muzaffarpur	217.60	Per M^2
	Darbhanga	218.30	Per M^2
	Bhagalpur	217.90	Per M^2

Munger	217.90	Per M^2
Saharsa	217.90	Per M^2
Purnea	218.30	Per M^2
Gaya	211.10	Per M^2
Saran	216.10	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	197.50	Per M^2
Patna	197.50	Per M^2
Muzaffarpur	198.70	Per M^2
Darbhanga	199.20	Per M^2
Bhagalpur	199.00	Per M^2
Munger	196.70	Per M^2
Saharsa	199.00	Per M^2
Purnea	199.20	Per M^2
Gaya	193.50	Per M^2
Saran	197.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	181.40	Per M^2
Patna	181.40	Per M^2
Muzaffarpur	182.40	Per M^2
Darbhanga	182.80	Per M^2
Bhagalpur	182.60	Per M^2
Munger	180.70	Per M^2
Saharsa	182.60	Per M^2
Purnea	182.80	Per M^2
Gaya	178.10	Per M^2
Saran	181.40	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	133.90	Per M^2
Patna	133.90	Per M^2
Muzaffarpur	134.60	Per M^2
Darbhanga	135.00	Per M^2
Bhagalpur	134.80	Per M^2
Munger	133.40	Per M^2
Saharsa	134.80	Per M^2
Purnea	135.00	Per M^2
Gaya	131.30	Per M^2
Saran	133.90	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	229.30	Per M^2
Patna	229.30	Per M^2
Muzaffarpur	230.80	Per M^2
Darbhanga	231.50	Per M^2
Bhagalpur	231.10	Per M^2
Munger	228.30	Per M^2
Saharsa	231.10	Per M^2
Purnea	231.50	Per M^2
Gaya	224.30	Per M^2
Saran	229.30	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	210.70	Per M^2
Patna	210.70	Per M^2
Muzaffarpur	211.90	Per M^2
Darbhanga	212.40	Per M^2
Bhagalpur	212.10	Per M^2
Munger	209.90	Per M^2
Saharsa	212.40	Per M^2
Purnea	182.80	Per M^2
Gaya	206.70	Per M^2
Saran	180.30	Per M^2

7.5.10 Providing 1.5 mm thick cement punning including curing, , royalty and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	37.60	Per M^2
Patna	37.60	Per M^2
Muzaffarpur	37.80	Per M^2
Darbhanga	37.90	Per M^2
Bhagalpur	37.90	Per M^2
Munger	37.40	Per M^2
Saharsa	37.90	Per M^2
Purnea	37.90	Per M^2
Gaya	36.70	Per M^2
Saran	37.30	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, royalty and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	105.20	Per M^2
Patna	105.20	Per M^2
Muzaffarpur	105.50	Per M^2
Darbhanga	105.60	Per M^2

Bhagalpur	105.50	Per M^2
Munger	105.10	Per M^2
Saharsa	105.60	Per M^2
Purnea	105.60	Per M^2
Gaya	104.40	Per M^2
Saran	105.00	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 and their removal, royalty and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	79.80	Per M^2
Patna	79.80	Per M^2
Muzaffarpur	80.10	Per M^2
Darbhanga	80.20	Per M^2
Bhagalpur	80.10	Per M^2
Munger	79.70	Per M^2
Saharsa	80.20	Per M^2
Purnea	80.20	Per M^2
Gaya	79.00	Per M^2
Saran	79.60	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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	117.80	Per M^2
Patna	117.80	Per M^2
Muzaffarpur	80.10	Per M^2
Darbhanga	118.40	Per M^2
Bhagalpur	118.30	Per M^2
Munger	117.60	Per M^2
Saharsa	118.40	Per M^2
Purnea	118.40	Per M^2
Gaya	116.60	Per M^2
Saran	117.40	Per M^2

7.5.14 Providing cement truck pointing (1:3) on stone masonary 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 and all taxes etc. complete job as per specification and direction of E / I.

Patna Urban	155.40	Per M^2
Patna	155.40	Per M^2
Muzaffarpur	156.00	Per M^2
Darbhanga	156.20	Per M^2
Bhagalpur	156.10	Per M^2
Munger	155.40	Per M^2
Saharsa	156.20	Per M^2
Purnea	156.20	Per M^2
Gaya	153.50	Per M^2
Saran	154.80	Per M^2

7.5 PLASTER WORK

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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2 PU

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.043 cum	9118.00	392.07	
Sand	0.129 cum	270.36	34.88	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			1018.95	
Add Overhead charge & C.P	15 %		152.84	
			1171.79	
Add Cess	1 %		11.72	
			1183.51	127.26

127.30 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.034 cum	9118.00	310.01	
Sand	0.136 cum	270.36	36.77	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			938.78	
Add Overhead charge & C.P	15 %		140.82	
			1079.60	
Add Cess	1 %		10.80	
			1090.39	117.25

117.20 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.028 cum	9118.00	255.30	
Sand	0.140 cum	270.36	37.85	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			885.15	
Add Overhead charge & C.P	15 %		132.77	
			1017.93	
Add Cess	1 %		10.18	
			1028.11	110.55

110.50 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.085 cum	9118.00	775.03	
Sand	0.250 cum	270.36	67.59	
Labour				
Mason Gr II	1.5 nos	223.00	334.50	

Unskilled mazdoor	2.5 nos		184.00	460.00	
Bhisti	0.5 nos		186.00	93.00	
				1730.12	
Add Overhead charge & C.P	15 %			259.52	
				1989.64	
Add Cess	1 %			19.90	
				2009.54	216.08
			216.10	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials					
Cement	0.068 cum		9118.00	620.02	
Sand	0.272 cum		270.36	73.54	
Labour					
Mason Gr II	1.5 nos		223.00	334.50	
Unskilled mazdoor	2.5 nos		184.00	460.00	
Bhisti	0.5 nos		186.00	93.00	
				1581.06	
Add Overhead charge & C.P	15 %			237.16	
				1818.22	
Add Cess	1 %			18.18	
				1836.40	197.46
			197.50	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm PU

Materials					
Cement	0.056 cum		9118.00	510.61	
Sand	0.200 cum		270.36	54.07	
Labour					
Mason Gr II	1.5 nos		223.00	334.50	
Unskilled mazdoor	2.5 nos		184.00	460.00	
Bhisti	0.5 nos		186.00	93.00	
				1452.18	
Add Overhead charge & C.P	15 %			217.83	
				1670.01	
Add Cess	1 %			16.70	
				1686.71	181.37
			181.40	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials					
Cement	0.043 cum		9118.00	392.07	
Sand	0.129 cum		270.36	34.88	
Cost of water proofing compound (Cico)	2.4	Kg	22.00	52.80	
Labour					
Mason Gr II	1 nos		223.00	223.00	
Unskilled mazdoor	1.5 nos		184.00	276.00	
Bhisti	0.5 nos		186.00	93.00	
				1071.75	
Add Overhead charge & C.P	15 %			160.76	
				1232.51	
Add Cess	1 %			12.33	
				1244.84	133.85
			133.90	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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

	Taking Out put:-	9.3 Sqm			
Materials					
Cement		0.085 cum	9118.00	775.03	
Sand		0.250 cum	270.36	67.59	
Cost of water proofing compound (Cico)		4.8 Kg	22.00	105.60	
Labour					
Mason Gr II		1.5 nos	223.00	334.50	
Unskilled mazdoor		2.5 nos	184.00	460.00	
Bhisti		0.5 nos	186.00	93.00	
				1835.72	
Add Overhead charge & C.P		15 %		275.36	
				2111.08	
Add Cess		1 %		21.11	
				2132.19	229.27
			229.30 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

	Taking Out put:-	9.3 Sqm	PU		
Materials					
Cement		0.068 cum	9118.00	620.02	
Sand		0.272 cum	270.36	73.54	
Cost of water proofing compound (Cico)		4.8 Kg	22.00	105.60	
Labour					
Mason Gr II		1.5 nos	223.00	334.50	
Unskilled mazdoor		2.5 nos	184.00	460.00	
Bhisti		0.5 nos	186.00	93.00	
				1686.66	
Add Overhead charge & C.P		15 %		253.00	
				1939.66	
Add Cess		1 %		19.40	
				1959.06	210.65
			210.70 Per M^2		

7.5.10 Providing 1.5 mm thick cement punning including curing, , royalty and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

	Taking Out put:-	9.3 Sqm			
Materials					
Cement		0.014 cum	9118.00	127.65	
Labour					
Head Mason		0.0625 nos	251.00	15.69	
Mason Gr II		0.5 nos	223.00	111.50	
Unskilled mazdoor		0.25 nos	184.00	46.00	
				300.84	
Add Overhead charge & C.P		15 %		45.13	
				345.97	
Add Cess		1 %		3.46	
				349.43	37.57
			37.60 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, royalty and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

	Taking Out put:-	9.3 Sqm		
Materials				
Cement		0.014 cum	9118.00	127.65
Sand		0.042 cum	270.36	11.36
Labour				

Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			842.51	
Add Overhead charge & C.P	15 %		126.38	
			968.88	
Add Cess	1 %		9.69	
			978.57	105.22
			105.20 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 and their removal, royalty and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.014 cum	9118.00	127.65	
Sand	0.042 cum	270.36	11.36	
Labour				
Mason Gr II	1 nos	223.00	223.00	
Unskilled mazdoor	1 nos	184.00	184.00	
Bhisti	0.5 nos	186.00	93.00	
			639.01	
Add Overhead charge & C.P	15 %		95.85	
			734.86	
Add Cess	1 %		7.35	
			742.21	79.81
			79.80 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 and all taxes etc. complete job as per specification and direction of E / I.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.021 cum	9118.00	191.48	
Sand	0.063 cum	270.36	17.03	
Labour				
Head Mason	0.125 nos	251.00	31.38	
Mason Gr II	1.5 nos	223.00	334.50	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			943.39	
Add Overhead charge & C.P	15 %		141.51	
			1084.89	
Add Cess	1 %		10.85	
			1095.74	117.82
			117.80 Per M^2	

7.5.14 Providing cement truck pointing (1:3) onOn stone masonary 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 and all taxes etc. complete job as per specification and direction of E / i.

Unit:- Per M^2

Taking Out put:- 9.3 Sqm

Materials				
Cement	0.032 cum	9118.00	291.78	
Sand	0.096 cum	270.36	25.95	
Labour				
Mason Gr II	2.5 nos	223.00	557.50	
Unskilled mazdoor	1.5 nos	184.00	276.00	
Bhisti	0.5 nos	186.00	93.00	
			1244.23	
Add Overhead charge & C.P	15 %		186.63	
			1430.87	
Add Cess	1 %		14.31	
			1445.17	155.40
			155.40 Per M^2	

7.6 PITCHING AND PILING

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, taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	749.70	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 and all taxes etc.but excluding the cost of carriage all complete job as per specification and direction of E / I.	793.90	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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	781.50	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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	775.00	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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	862.90	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 and all taxes etc.but excluding the cost of carriage all complete job as per specification and direction of E / I.	982.60	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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	966.40	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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.	926.00	Per M^3

7.6 PITCHING AND PILING

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, taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Sand		2.832 cum	270.36	765.67	
Labour					
Unskilled mazdoor for placing		2 nos	184.00	368.00	
Unskilled mazdoor for spreading		1.5 nos	184.00	276.00	
Unskilled mazdoor for watering and ramming		2 nos	184.00	368.00	
Mate		0.25 nos	201.00	50.25	
				1827.92	
Add Overhead charge & C.P		15 %		274.19	
				2102.11	
Add Cess		1 %		21.02	
				2123.13	749.69
		Say Rs		749.70 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 and all taxes etc.but excluding the cost of carriage all complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Cost of gravel filter (6 mm to 19 mm)		2.832 cum	470.85	1333.45	
Labour					
Unskilled mazdoor for placing		2 nos	184.00	368.00	
Unskilled mazdoor for spreading		0.5 nos	184.00	92.00	
Unskilled mazdoor for loght compaction		0.5 nos	184.00	92.00	
Mate		0.25 nos	201.00	50.25	
				1935.70	
Add Overhead charge & C.P		15 %		290.35	
				2226.05	
Add Cess		1 %		22.26	
				2248.31	793.90
		Say Rs		793.90 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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Cost of stone metal (22.5 mm to 53 mm)		2.832 cum	460.18	1303.23	
Labour					
Unskilled mazdoor for placing		2 nos	184.00	368.00	
Unskilled mazdoor for spreading		0.5 nos	184.00	92.00	
Unskilled mazdoor for loght compaction		0.5 nos	184.00	92.00	
Mate		0.25 nos	201.00	50.25	
				1905.48	
Add Overhead charge & C.P		15 %		285.82	
				2191.30	
Add Cess		1 %		21.91	
				2213.21	781.50
		Say Rs		781.50 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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.

Unit:- Per M^3

	Taking Out put:-	2.832 Cum			
Materials					
Cost of boulder		2.832 cum	304.97	863.68	

	Labour				
	Mason Gr II	0.25 nos	223.00	55.75	
	Unskilled mazdoor	5 nos	184.00	920.00	
	Mate	0.25 nos	201.00	50.25	
				1889.68	
	Add Overhead charge & C.P	15 %		283.45	
				2173.13	
	Add Cess	1 %		21.73	
				2194.86	775.02
		Say Rs		775.00 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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Cost of sand	2.832 cum	270.36	765.67	
Labour				
Unskilled mazdoor for carrying	3 nos	184.00	552.00	
Unskilled mazdoor for spreading	2 nos	184.00	368.00	
Unskilled mazdoor for watering and ramming	2 nos	184.00	368.00	
Mate	0.25 nos	201.00	50.25	
			2103.92	
Add Overhead charge & C.P	15 %		315.59	
			2419.51	
Add Cess	1 %		24.20	
			2443.70	862.89
	Say Rs		862.90 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 and all taxes etc.but excluding the cost of carriage all complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Cost of gravel filter (6 mm to 19 mm)	2.832 cum	470.85	1333.45	
Labour				
Unskilled mazdoor for carrying	3 nos	184.00	552.00	
Unskilled mazdoor for spreading	2 nos	184.00	368.00	
Unskilled mazdoor for loght compaction	0.5 nos	184.00	92.00	
Mate	0.25 nos	201.00	50.25	
			2395.70	
Add Overhead charge & C.P	15 %		359.35	
			2755.05	
Add Cess	1 %		27.55	
			2782.60	982.56
	Say Rs		982.60 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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Cost of stone metal (22 mm to 53 mm)	2.832 cum	456.95	1294.08	
Labour				
Unskilled mazdoor for placing	3 nos	184.00	552.00	
Unskilled mazdoor for spreading	2 nos	184.00	368.00	
Unskilled mazdoor for loght compaction	0.5 nos	184.00	92.00	
Mate	0.25 nos	201.00	50.25	
			2356.33	
Add Overhead charge & C.P	15 %		353.45	
			2709.77	
Add Cess	1 %		27.10	
			2736.87	966.41
	Say Rs		966.40 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 and all taxes etc. but excluding the cost of carriage, all complete job as per specification and direction of E / I.

Unit:- Per M^3

Taking Out put:- 2.832 Cum

Materials				
Cost of boulder	2.832 cum	304.97	863.68	
Labour				
Mason Gr II	0.25 nos	223.00	55.75	
Unskilled mazdoor	7 nos	184.00	1288.00	
Mate	0.25 nos	201.00	50.25	
			2257.68	
Add Overhead charge & C.P	15 %		338.65	
			2596.33	
Add Cess	1 %		25.96	
			2622.29	925.95
	Say Rs	926.00	Per M^3	

7.7 TUNNEL WORK

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 errection of steel portal including steel lagging in concrete in live and grade all complete as per specifications and direction of E/I.

Per M.T

7.7.5 Grouting in tunnel per bag cement consumption all complete as per specifications and direction of E/I.

Patna Urban	418.90	Per Bag of cement
Patna	437.10	Per Bag of cement
Muzaffarpur	443.50	Per Bag of cement
Darbhanga	446.10	Per Bag of cement
Bhagalpur	444.80	Per Bag of cement
Munger	433.30	Per Bag of cement
Saharsa	446.10	Per Bag of cement
Purnea	446.10	Per Bag of cement
Gaya	416.80	Per Bag of cement
Saran	430.80	Per Bag of cement

7.7.6 Excavation of vertical shaft for (Intaake 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 slorted 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

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 M^3

Taking Out put:-	1 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 =$22d^2/(7 \times 4) = 22/7 \times (8.3)^2/4$	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, riboing 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 eraction and concreting	12 hours			
(A).Direct labour				
Junior formen	1 nos/shift	281.00	281.00	
Sr. Formen Spl. Drilling	1 nos/shift	317.00	317.00	
Supervisor (Diploma holder)	1 nos/shift	302.00	302.00	
Electrician Gr I	1 nos/shift	237.00	237.00	
Blaster	2 nos/shift	237.00	474.00	
Hole cleaner	2 nos/shift	190.00	380.00	
Helper to Electrician	1 nos/shift	196.00	196.00	
Unskilled mazdoor	12 nos/shift	184.00	2208.00	
Semi skilled mazdoor	12 nos/shift	192.00	2304.00	
Wiremen for Blasting	1 nos/shift	217.00	217.00	
			6916.00	
Rate of labour per cum = Total wage/Quantity of excavation per day			**35.47**	A

(B). Machinary 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	844	42200
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	5062	30372
Total Machinary charges							#VALUE!
Rate per cum = Total Machinary 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!
(b). Explosives		
(i) Gelatine required per cum	1 Kg	677.29 677.29
(ii). Detonators @ one per hole per face	96 nos	631.38 60612.48

	(iii). Fuse coils @ one per hole per face	96 nos		10.40	998.40	
	Quantity of rock excavated per day	195 cum				
	Hence Rate of explosive per cum= Cost of detonators+Fuse coils)/Quantity of rock excavated					
					319.43	
	(iii). Other consumable petty stores such as blasting batteries, galvano metres and blasting wires etc. 50 % of item (i)				338.65	
	Total explosive charge =i+ii+iii				1335.36	
	Total Drilling and blasting charge (a+b)				#VALUE!	C
	(D). Charge for ventilator blowers.					
	Use rate of ventilation blower vide item 3.14	**#VALUE!**				
	Total blower charge/ shift= use rate/8	#VALUE!				
	Rock excavated per shift=	65 cum				
	Rate per cum=Total blower charge per shif / Rock excavated per shift	#VALUE!			#VALUE!	D
	(E). Shop charge					
	(i).Machine shop including foundary and smithy structural shop, steel metal shop, Air and water shop and foundary @ 40 % of machinary charges (B)					
					#VALUE!	E
	(F).Electrical materials charges @ 10 % of item (C)					
					#VALUE!	F
	G). Compressed air charge @ 20 % of item ©				#VALUE!	G
	(H). Water charge @ 4 % of item (C)				#VALUE!	H
	(I). Carriage of excavated rocks by truck upto 1 km from portal face					
	Average lead=575 M	575 M				
	Truck capicty 8 MT =6 cum (swell factor0.67)	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 unloding turning and spollting 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	3.75 Cum				
	Hourly use rate of truck (vide item no 3.26)	**841** hr				
	Rate per cum=Use rate of truck/3.74 =192.60 /3.74	224.87		Rs	224.87	
	Constuction and maintenance of haul road Add @ 5 % of Item (b)			Rs	11.24	
	Add 2 % for electric charge				4.50	
					240.61	I
	Total of A+B+C+D+E+F+G+H+I+J				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Rate per cum=			#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.					
	Unit:- Per M^3					
	Taking Out put:-	1 cum				
	A.Materials					
	Cement	0.034 cum		9118.00	310.01	
	Coarse aggregate	0.033 cum		481.18	15.88	
	Sand	0.1 cum		270.36	27.04	
					352.93	A
(B)	B. Batching and mixing charge per bag					
	Use rate of Batching and mixing plant (vide item 3.13a)	**2513.00**				
	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	64.80				
	Charge for mixing of materials per bag= Rate of mass concrete per cum/7.5				8.64	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 cuy	57.34 cum				
	Actual production with 0.69 x 57.34=39.56 cum	39.56 cum				

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I.Loading time of a Train =3.06 x2 x60/39.56 =9.28 minutes		9.28 minute			
ii.spoiling 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 no 3.17a)		**#VALUE!**			
Use rate of concrete buckets 2.nos (Vide Item no 3.30a)		**22.00**			
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 (vide Item no 3.8)		**348.00**			
Capacity		1 cum			
Considering no of shots by shot creting Machine per h		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 x7.5				9.67	D
(E). Lighting, work shop charge and other miscelleneous item @ 100 % of use rate of shout crete machine per bag				9.67	E
Rate per bag of cement constructed=A+B+C+D+E				#VALUE!	
Add Overhead charge & C.P		15 %		#VALUE!	
				#VALUE!	
Add Cess		1 %		#VALUE!	
				#VALUE!	#VALUE!
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 M^3	
Unit:- Per H.P. Per Hour					
(A) Pump charge					
Use rate of --- H.P pump per hour (vide item no3.15c)		15 H.P		**#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. Vacaum pumping set 5 H.P (vide item no 3.15n)		1 nos	**#VALUE!**	#VALUE!	
vi. Reflex valve		1 nos	#VALUE!	#VALUE!	
Total				#VALUE!	
Rated lift = 20000hrs					
Depreciation charge per hr = 0.734 x total cost of material/(0.75x20000) (REF Report of committee on,cost control of River vally project, Vol II Jan. 81)				#VALUE!	a
(b).Repair and maintenance charge					
Total repair provision @ 50 % of Depreciation					
.Repair and maintenance charge per hour=				#VALUE!	b
(c). P.O.L. charge					
Engergy consumed in 5 H.P vacum pumping set = 5 x 0.746= 3.73 kwh					
Cost of 3.73 kwh @ Rs		3.73 kwh	#VALUE!	#VALUE!	c
(d). Labour charge					
Plumber		1 nos	237.00	237.00	
Halper		1 nos	196.00	196.00	
Mechnanic Gr II		0.5 nos	268.00	134.00	
Total				567.00	
Labour charge per hr=Total labour charge/8				70.88	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	184.00	736.00	
Labour charge per hr= Labour charge/8				92.00	C
(D). Misc. charge and making platform etc. for pumps					
Add @ 10 % of the total charges A+B+C				#VALUE!	D
				#VALUE!	

9.1.15

	Rate per H.P per Hr=(A+B+C+D)/15			#VALUE!	
	Add Overhead charge & C.P	15 %		#VALUE!	
				#VALUE!	
	Add Cess	1 %		#VALUE!	
				#VALUE!	#VALUE!
	Rate per H.P per hour			#VALUE!	Per H.P Per Hour
7.7.4	Supplying, fabricating and errection 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 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 structual steel at project store (2.5 % wastage and incidental to work)	1.025 M.T		#VALUE!	#VALUE! A
	B. Fabrication				
	I. Making roller section 2.5 % of the cost of stock A. above				#VALUE!
	ii. Cutting 3 % 0f A.above				#VALUE!
	iii. Bending of rolled section @ 6% of A above				#VALUE!
	iv. Welding				
	a. Cost of electricity including 20% reject @ 8 % of A. above				#VALUE!
	b. Labour and electric charge @ 10 % of A				#VALUE!
	c. Handling of material during febrication @ 5 % of A				#VALUE!
	d. Temporary fixture @ 8 % of A				#VALUE!
	Total welding charge				#VALUE!
	Total of fabrication i to iv				#VALUE! B
	C. Eraction				
	Transport of material out of work shop operation, handling final matching and field welding etc. @ 12 % of A				#VALUE! C
	Total cost A+B+C				#VALUE!
	Add Overhead charge & C.P	15 %			#VALUE!
	Add Cess	1 %			#VALUE!
					#VALUE! #VALUE!
	Rate per M.T				per M.T
7.7.5	Grouting in tunnel per bag cement consumption all complete as per specifications and direction of E/I.				
	Patna U				
	Unit:- Per 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		9118.00	325.51
	I. Hourly use rate of grouting machine (vide item 3.18)	**211.00**			
	Taking progress of grouting 6 bags of cement per hou	6 Bags			
	Cost of Grouting= use rate/ 6				35.17
					360.68
	Add Overhead charge & C.P	15 %			54.10
					414.78
	Add Cess	1 %			4.15
					418.93 418.93
		Say Rs		418.90	Per Bag of cement
7.7.6	Excavation of vertical shaft for (Intaake 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 M^3				
	Taking Out put:-	1 cum			
	Assuming				
	Formate diameter of shaft	13 metre			
	Av.Thickness of linings (Taking1.5 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, riboing 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	Cum (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 eraction and concreting	1.5	hours
Total	8	hours

(A).Direct labour

Sr. Formen Spl. Drilling	1	nos	317.00	317.00
Supervisor (Diploma holder)	1	nos	302.00	302.00
Electrician Gr II	2	nos	223.00	446.00
Blaster	3	nos	237.00	711.00
Hole cleaner	5	nos	190.00	950.00
Helper to Electrician	3	nos	196.00	588.00
Unskilled mazdoor	24	nos	184.00	4416.00
Semi skilled mazdoor	24	nos	192.00	4608.00
Wiremen for Blasting	5	nos	217.00	1085.00
Stone men (Semi skilled labour)	1	nos	240.00	240.00
Total labour				13663.00
Rate of labour per cum = Total wage/Quantity of excavation per day				**202.92** A

(B). Machinary charges

SL no	Equipment	Nos	Working hr/ day	Total Working hr/ day	Use rate per hr vide item no	Rate	
1	D.8 Tractor Dozer	1	1	1	**3.11a**	**5062**	5062
2	Convey mucker	20	3	60	**3.9**	**#VALUE!**	#VALUE!
3.	Jack hammer (52 lb)	24	2.5	60	**3.2**	**844.00**	50640
4.	Scalling hammer	3	1	3	**3.3**	**#VALUE!**	#VALUE!
5.	Drill excavattors	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 Machinary charges							#VALUE!
Rate per cum = Total Machinary charges/Quantity of excavation per day							**#VALUE!** B

(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 =	**IINPUT**		
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! a
(b). Explosives			
(i) Gelatine required per cum	1	Kg	677.29 677.29
(ii). Detonators @ one per hole per face	274	nos	631.38 172998.12
Fuse coils @ one per hole per face	274	nos	10.40 2849.60
Quantity of rock excavated per day	202	cum	
Hence Rate of explosive per cum= Cost of detonators+Fuse coils)/Quantity of rock excavated			870.53
(iii). Other consumable petty stores such as blasting batteries, galvano metres and blasting wires etc. 50 % of item (i)			338.65
Total explosive charge =i+ii+iii			1886.47 b
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 supperts packing rate per cum @ 5 % of 1			#VALUE!
4. Missscellaneous suplies such as safety hates, gunboots, rain coats, wire ropes, manila rops, v-clampes, rubber gloves, shackles and artifical respirators rate per cum @ 4 % of 1			#VALUE!
Total material charge 1+2.+3+4			#VALUE! C

(D). Charge for ventilator blowers.				
Use rate of ventilation blower vide item 3.14	**#VALUE!**			
Total blower charge/ shift= use ratex8	#VALUE!			
Rock excavated per shift=	67.33 cum			
Rate per cum=Total blower charge per shif / Rock excavated per shift	#VALUE!		#VALUE!	D
(E). Shop charge				
(i).Machine shop including foundary and smithy structural shop, steel metal shop, Air and water shop and foundary @ 40 % of machinary charges (B)			#VALUE!	E
(F).Electrical materials charges @ 10 % of item (C)			#VALUE!	F
(G) Trolly Track charge Per M3 @ 5% of (C)			#VALUE!	G
(H). Compressed air charge @ 20 % of item C			#VALUE!	H
(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 capicty 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 unloding turning and spolilting 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	**841**			
Total Rate per cum=Use rate of truck/3.74 =192.60 /3.74			Rs 224.24	
Constuction and maintenance of haul road Add @ 5 % of Item (b)	5 %	Rs	0.45	
Add 2 % for electric charge	2 %		4.48	
			229.17	J
Total of A+B+C+D+E+F+G+H+I+J+K			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Rate per cum=			#VALUE! per cum	

7.7.7 Drilling holes upto 38 mm dia rock including supplying and fixing 25 mm dia rock bolts slorted 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 Mtr				
Taking Out put:-	1 Mtr			
A. Drilling				
i.Cost of drilling use rate of Jack hammer	**844.00**			
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	366.96			
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!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
Rate per metre=			#VALUE! per metre	

7.8 MISCELLANEOUS

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.	866.20	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 Mtre
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	734.20	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	206.70	Per cm width Per cm depth Per 100 mtr length
7.8.7	Providing slope drian with boulder duly cement grouted in (1 : 10) over layers of sand, gravel filter as per approved design, specifications and direction of E/I	689.80	Per Mtre
7.8.8	Construction slope drian and grass drian and berm drian with cement plaster (1 : 3) including the cost of all materials as per specifications and direction of E/I	9893.30	Per Mtre
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 extraced 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	89.00	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	111.30	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 beyound 45 M and upto 165 M including the cost of all labours all complete as per direction of E/I.	133.60	Per M.T
7.8.13	Extra for each additional lead of 45 M or a part there of beyound the initial lead of 165 M as per direction of E/I.	40.10	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	5.30	Per bag

7.8 MISCELLANEOUS

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 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	#VALUE!	#VALUE!	
ii.Acetylene	3.8 cum	#VALUE!	#VALUE!	
iii. Oxygen	16 cum	#VALUE!	#VALUE!	
iv. M.S Electrodes	330 nos	#VALUE!	#VALUE!	
v. Miscellaneous items like oil and paints @ 2 % of the cost of mild steel /M.T			#VALUE!	
Sub-Total (A)			#VALUE!	A
B.Labour				
i.Fabrication including cutting, welding and making @ 40 % of the cost of mild steel / M.T			#VALUE!	
ii. Straightening and black smithy charges @ 15 % of the cost of mils steel / M.T			#VALUE!	
iii. Miscellaneous labour charges I.e handling of job to different shops @ 3 % of cost of mild steel /M.T			#VALUE!	
Sub-Total(B)			#VALUE!	B
C.Transportation and erection charge				
i.Transpotrtation 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 @ 40 % of cost of mild steel /M.T			#VALUE!	
Sub-Total©			#VALUE!	C
Grand Total			#VALUE!	
Add Overhead charge & C.P	15 %		#VALUE!	
			#VALUE!	
Add Cess	1 %		#VALUE!	
			#VALUE!	#VALUE!
		#VALUE!	Per MT	

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.

Unit:- Per M.T

Taking Out put:-	1 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	#VALUE!	#VALUE!	
ii.Acetylene	3.8 cum	#VALUE!	#VALUE!	
iii. Oxygen	8.6 cum	#VALUE!	#VALUE!	
iv. M.S Electrodes	200 nos	#VALUE!	#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 / M.T			#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 mils steel / M.T			#VALUE!	
iv. Black smithyand forging charges @ 15 % of the cost of mils 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.Transpotrtation 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©			#VALUE!		C
	Grand Total			#VALUE!		
	Add Overhead charge & C.P	15 %		#VALUE!		
				#VALUE!		
	Add Cess	1 %		#VALUE!		
				#VALUE!	#VALUE!	
			#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.					
	Unit:- Per Kg					
	Furnishing and installing seal					
	A. Cost of copper seal and acessries					
	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 x1x14.70 x1.025=3.77 kg.					
	i.Cost per linear metre.Including furnishing, storing, handling and cutting etc.	3.77 kg		719.00	2710.63	
	ii. Cost of bracing, washers and nails etc. per running metre @ 3 % of item (i)				81.32	
	Sub-Total				2791.95	A
	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		251.00	62.75	
	Helper	1 nos		196.00	196.00	
	Total labour charge				258.75	
	Total charge per mtr= total labour charge / 15				17.25	B
	Total A+B				2809.20	
	Hence rate per kg =Total (A+B)/ wt. of seal per mtr					
					745.76	
	Add Overhead charge & C.P	15 %			111.86	
					857.63	
	Add Cess	1 %			8.58	
					866.20	866.20
	Hence rate per kg of copper seal			866.20	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.					
	Unit:- Per mtr					
	Taking Out put:-	1 mtr				
	Cost of rubber seal	1 mtr		#VALUE!	#VALUE!	
	Add for overlapping and valcanizing 10 % of the materials cost				#VALUE!	
					#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Hence rate per mtr of rubber seal per mtr			#VALUE!	Per mtr	
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					
	Unit:- Per M^2					
	Taking Out put:-	9.3 Sqm				
	Material					
	Bituminastic board	9.3 M^2		611.00	5682.30	
	Shalitex primer	2.25 Kg		42.00	94.50	
	Labour					
	Mason Gr II	0.25 nos		223.00	55.75	
	Unskilled mazdoor	0.25 nos		184.00	46.00	
					5878.55	
	Add Overhead charge & C.P	15 %			881.78	

	Add Cess	1 %		6760.33 67.60	
				6827.94	734.19
		Say Rs	734.20	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				
		Unit:- Per cm width Per cm depth Per100 mtr lenth			
	Consider a joint =2.5 cm wide 15 cm deep and 292.75 mtre 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	56598.00	15960.64	
	Cement	0.088 Cum	9118.00	802.38	
	Coarse sand	0.0283 Cum	270.36	7.65	
	Steam coal @ 2 quintal / M.T(including carriage charge)	0.564 Qnt	315.00	177.66	
	Labour				
	Mason Gr II	5 nos	223.00	1115.00	
	Unskilled mazdoor	8 nos	184.00	1472.00	
				19535.33	
	Add Overhead charge & C.P	15 %		2930.30	
				22465.63	
	Add Cess	1 %		224.66	
				22690.29	206.69
		206.70 / cm width / cm depth / 100 mtr lenth			
7.8.7	Providing slope drian with boulder duly cement grouted in (1 : 10) over layers of sand, gravel filter as per approved design, specifications and				
		Unit:- Per M			
	Taking Out put:-	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	270.36	919.24	
	Gravel	1.98	470.85	932.28	
	Boulder	4.39	304.97	1338.82	
	Cement	0.142	9118.00	1294.76	
				4485.09	(A)
	Labour				
	ii. Labour for sand filter (vide item no 7.6.1) (Labour For 2.832 cum)	1.98 cum	375.09	**742.67**	(B)
	Unskilled mazdoor for placing	2 nos	184.00	368.00	
	Unskilled mazdoor for spreading	1.5 nos	184.00	276.00	
	Unskilled mazdoor for watering and ramming	2 nos	184.00	368.00	
	Mate	0.25 nos	201.00	50.25	
				1062.25	375.09
	ii. Labour for Gravel filter (vide item no 7.6.2) (Labour For 2.832 cum)	1.98 cum	212.66	**421.06**	(C)
	Unskilled mazdoor for placing	2 nos	184.00	368.00	
	Unskilled mazdoor for spreading	0.5 nos	184.00	92.00	
	Unskilled mazdoor for loght compaction	0.5 nos	184.00	92.00	
	Mate	0.25 nos	201.00	50.25	
				602.25	212.66
	iii. Labour for boulder laying (vide item no 7.6.4) (Labour For 2.832 cum)	4.39 cum	362.29	**1590.44**	(D)
	Mason Gr II	0.25 nos	223.00	55.75	
	Unskilled mazdoor	5 nos	184.00	920.00	
	Mate	0.25 nos	201.00	50.25	
				1026.00	362.29
	iv. Labour for Earth work in foundation (vide item no 5.1.27)	22.65 cum	73.68	**1668.96**	(E)
	v. Labour for grouting				
	Unskilled mazdoor for carrying the soil	0.25 nos	184.00	46.00	
	Unskilled mazdoor for dressing the slope	0.25 nos	184.00	46.00	
	Mate	0.25 nos	201.00	50.25	
				142.25	(F)
	Total (A+B+C+D+E+F)			9050.49	
	Add Overhead charge & C.P	15 %		1357.57	
				10408.06	
	Add Cess	1 %		104.08	
				10512.14	689.77
			689.80	Per M	
7.8.8	Construction slope drain and grass drain and berm drain with cement plaster (1 : 3) including the cost of all materials as per specifications and direction of				

	Unit:- Per M					
	Taking Out put:-	1 mtr				
	1.Earth work (vide item no 5.1.27)	100 cum		85.60	8560.00	
	2.Supply and placing gravel or stone chips (20 mm to 40 mm)	0.42 cum		994.56	417.71	
	3.Supply and placing of sand (vide item 7.6.5)	0.42 cum		862.90	362.42	
	4.Supply and placing of Stone boulder(vide item 7.6.4	0.46 cum		775.00	356.50	
	5.Cement plaster (1 : 3)(vide item 7.5.4)	0.91 sqm		216.10	196.65	
					9893.28	9893.28
				9893.30	Per mtr	
Note:-	**Rate anaylisis 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**		**481.18**	**1362.71**	
	Labour					
	Unskilled mazdoor for placing	**3 nos**		**184.00**	**552.00**	
	Unskilled mazdoor for spreading	**2 nos**		**184.00**	**368.00**	
	Unskilled mazdoor for light compaction	**0.5 nos**		**184.00**	**92.00**	
	Mate	**0.25 nos**		**201.00**	**50.25**	
					2424.96	
	Add Overhead charge & C.P	**15 %**			**363.74**	
					2788.70	
	Add Cess	**1 %**			**27.89**	
					2816.59	**994.56**
	Say Rs.			994.60	**Per M**	
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					
	Unit:- Per M.T					
	Assuming pilling that can be expected to be driven per hour= 65.37 x 6.70= 437.98 Kg					
	(Assuming I.S.P.S. 1625 U& pilling 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 pilling machines and dismantling @ 0.5 % of sub item (I)			Rs	#VALUE!	
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges forsupply of ralls @ 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			Rs	#VALUE!	
C.	Surface area of 1 M.T. sheet piles to be painted both side with anti-corrasive bitumen. paint					
	Length of sheet pile per M.T=1 x 1000 / 65.37 = 15.29 mtr					
	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 / M2 =24.62 x 0.5 =	12.31 Kg		38.00	467.78	
D.	Unskilled mazdoor	2 nos		184.00	368.00	
	Total (A+B+C+D)	o			#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Say	**Rs**		#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 extraced shall be taken only)

Unit:- Per M.T

Assuming pilling that can be expected to be extracting
per hour= 65.37 x 6.70= 437.98Kg
(Assuming I.S.P.S. 1625 U& pilling section vide I.S. 2314, 1963)
Hourly use rate of sheet pile
Sheet pile Driving plant **#VALUE!**

A.	(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 pilling machines and dismantling @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(iv). Depreciation charges for track fand wooden sleeper, fish plates, bolts dog spikes @ 0.5 % of sub item (i)			Rs	#VALUE!	
	(v). Depreciation charges forsupply 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 3 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!	
B.	Unskilled mazdoor	2 nos		184.00	368.00	
	Total (A+B)				#VALUE!	
	Add Overhead charge & C.P	15 %			#VALUE!	
					#VALUE!	
	Add Cess	1 %			#VALUE!	
					#VALUE!	#VALUE!
	Say		Rs	#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
Vide T.E.C no 54E dated 12.12.89

Unit:- Per M.T

Taking Out put:-	48 MT				
(Assuming unloadin one wagon Load 48.00 M.T)					
Unskilled mazdoor	20.00 nos		184.00	3680.00	
				3680.00	
Add Overhead charge & C.P	15 %			552.00	
				4232.00	
Add Cess	1 %			42.32	
				4274.32	89.05
		Say Rs		89.00	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 MT				
(Assuming unloadin one wagon Load 48.00 M.T)					
Unskilled mazdoor	25.00 nos		184.00	4600.00	
				4600.00	
Add Overhead charge & C.P	15 %			690.00	
				5290.00	
Add Cess	1 %			52.90	
				5342.90	111.31
		Say Rs		111.30	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 beyound 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 MT				
	(Applicable only for departmental work not for general contract work)					
	Considering 4 M.T					
	Unskilled mazdoor	2.50 nos		184.00	460.00	
					460.00	
	Add Overhead charge & C.P	15 %			69.00	
					529.00	
	Add Cess	1 %			5.29	
					534.29	133.57
			Say Rs	133.60	Per M.T	
7.8.13	Extra for each additional lead of 45 M or a part there of beyound 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 MT				
	(Applicable only for departmental work not for general contract work)					
	Considering 4 M.T					
	Unskilled mazdoor	0.75 nos		184.00	138.00	
					138.00	
	Add Overhead charge & C.P	15 %			20.70	
					158.70	
	Add Cess	1 %			1.59	
					160.29	40.07
			Say Rs	40.10	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		184.00	460.00	
					460.00	
	Add Overhead charge & C.P	15 %			69.00	
					529.00	
	Add Cess	1 %			5.29	
					534.29	5.34
			Say Rs	5.30	Per bag	

Annex. III

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GOVERNMENT OF BIHAR
WATER RESOURCES DEPARTMENT
BIHAR,PATNA

SPECIFICATION OF OLD EMPTY CEMENT BAGS (Synthetic)

Supply of Old Empty Cement Bags (Synthetic), of 1.2 cft Capacity in good condition. On one side of the bag in almost central portion (in 12 cm. x 10 cm. Size) W.R.D ,name of Chief Engineer Zone and F.F.2013 should be written clearly in permanent red paint. The paint should not be washed away with water.

Annex. IV

411

GOVERNMENT OF BIHAR
WATER RESOURCES DEPARTMENT
BIHAR, PATNA

SPECIFICATION OF NYLON CRATES

Supply of Nylon Crate of size one cubic meter (1mx1mx1m) with 20 cms. Mesh of specification 1260/3/4/29 (i.e having 24 nos. of threads) of weight 165 Grams(±) 5 Grams.

9/11/15 9/11/15

Annex. V

412

GOVERNMENT OF BIHAR,W.R.D,BIHAR.

SPECIFICATION OF PP ROPE GABION(1.8Mx1.2Mx0.5M

PROPERTIES	9 mm x 4 STRAND PP GABION±1mm,150 mm x150 m MESH SIZE
SIZE OF GABION	(1) 1.8mx1.2mx0.5m WITH LID & SLINGS
SIZE OF THE BODY & BORDER ROPE ROPE	9 mmx4 STRAND HAVING A WEIGHT OF 42 gm/m± 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 P PER IS 7071(PART 4):1986 (REAFFIRMED 1999) B.ROPE NET 10000 Kg/m BREAKING STRENGTH.
STRUCRURE OF ROPE	4 STRAND SHROUD LAID
CONSTRUCTION OF ROPE NET	WOVEN JOINT AT INTERSECTION OF ROPES

9/11/15

9/11/15

दिनांक 26.08.2011 को 11.00 बजे पूर्वाहन् में सम्पन्न जियो बैग के विशिष्टि के निर्धारण हेतु बैठक की कार्यवाही

विभागीय पत्रांक – 2/क्रय–03–07/2011–2230, पटना दिनांक 25.08.2011 के आलोक में दिनांक 26.08.2011 को 11.00 बजे पूर्वाहन् में अभियन्ता प्रमुख (मध्य), जल संसाधन विभाग, पटना बिहार के कार्यालय कक्ष में जियो बैग के विशिष्टि के निर्धारण हेतु बैठक आहूत की गई, बैठक में निम्नलिखित पदाधिकारियों ने भाग लिया :–

1. ई0 देवी रजक, अभियन्ता प्रमुख (मध्य), जल संसाधन विभाग, पटना।
2. ई0 आर0 दयाल, अभियन्ता प्रमुख (उत्तर), जल संसाधन विभाग, पटना।
3. ई0 हरि नारायण, मुख्य अभियंता, योजना एवं मोनिटरिंग, जल संसाधन विभाग, पटना।
4. ई0 विमलेश कुमार झा, निदेशक, क्रय भंडार एवं सामग्री प्रबंधन निदेशालय, जल संसाधन विभाग, पटना।
5. ई0 इन्दु भूषण कुमार, अधीक्षण अभियंता, बाढ़ नियंत्रण योजना एवं मोनिटरिंग अंचल, पटना।
6. ई0 सोहेल, अवर सचिव (काडा), जल संसाधन विभाग, पटना।

बैठक में जिओ बैग के woven एवं Non-woven के विशिष्टि एवं उसके आकार–प्रकार पर चर्चा हुई।

निर्णय :– बैठक में विस्तार से विचार विमर्श के उपरान्त कटाव निरोधक / बाढ़ संघर्षात्मक कार्यों में निम्न विशिष्टि के Geo bag प्रयोग की अनुशंसा की गई :–

(1)- **Bag Size** 1M x 0.7m

- **Material & make**: Needle-punched, staple fiber, high elongation, nonwoven PET geo textile, should resist ultraviolet, rooting & biological degradation, naturally encountered acids and alkalis.
- **Mass (GSM)** as per ASTM D 5261 = 300gm/m²
- **Wide width tensile strength** (both directions) as per ASTM D4595 = 9.00 KN/M
- **Elongation (both directions)** as per ASTM D4595 = 50%
- **Static puncture strength** as per ASTM D 6241 = 1400 N
- **AOS** as per ASTM D 4751 = 100 micron
- **Permittivity** as per ASTM D 4491 = 1.25
- **UV resistance** @500hrs as per ASTM D 4355 = 70 %
- **Trapezoidal Tear strength** as per ASTM D 4533 = 340 N
- **Volume of Filled Bag** = 0.07M³
- **Weight of Filled Bag** = 126Kg
- **Stitching**: Ring Spun Yarn stitches with = 2500 - 3500 denier (PET/ PP); double line chain stitch with overlap stitches along the edges @ minimum 15 stitches / 100mm

(2)- **Bag Size**: 2mx1.5m

Material & make: Needle-punched, staple fiber, high elongation, nonwoven PET geo textile should resist ultraviolet, rooting & biological degradation, naturally encountered acids and alkalis.

- **Mass (GSM)** as per ASTM D 5261 (TYP) = 600 gm/m²
- **Wide strip tensile strength (MD/XD)** as per ASTM D4595 (TYP): = 18/33 KN/M
- **Trapezoidal Tear strength (MD/XD)** as per ASTM D 4533 (TYP): = 400/800 N
- **CBR Burst Strength** as per ASTM D 6241 (TYP): = 4700 N
- **CBR Burst Elongation** as per ASTM D 6241 (TYP): = 70%
- **AOS** as per ASTM D 4751 (Max ARV): = 75 micron
- **UV resistance** @500hrs as per ASTM D 4355 (TYP): = 80 %
- **Abrasion resistance** as per BAW Rotating Drum (TYP): 75%
- **Volume of Filled Bag** = 0.75M³
- **Weight of Filled Bag** = 1350Kg
- **Stitching**: Ring Spun Yarn stitches with = 5000-6000 denier (PET/ PP); double line chain stitch with overlap stitches along the edges @ minimum 15 stitches / 100mm.

बाढ़ संघर्षात्मक कार्य हेतु Geo bag उपयोग के मामले में न्युनतम अभियंता प्रमुख स्तर से पूर्व स्वीकृति आवश्यक होगी।

(मो0 सोहेल)
अवर सचिव (काडा),
जल संसाधन विभाग, पटना।

26.8.2011
(विमलेश कुमार झा)
निदेशक, क्रय भंडार एवं सामग्री प्रबंधन
निदेशालय,
जल संसाधन विभाग, पटना।

26/8/11
(इन्दु भूषण कुमार)
अधीक्षण अभियंता,
बाढ़ नि0 यो0 एवं मोनि0 अंचल,
जल संसाधन विभाग, पटना।

26.8.11
(हरि नारायण)
मुख्य अभियंता, यो0 एवं मोनि0,
जल संसाधन विभाग, पटना।

26/8/11
(आर0 दयाल)
अभियंता प्रमुख (उत्तर)
जल संसाधन विभाग, पटना।

26/08/2011
(देवी रजक)
अभियंता प्रमुख (मध्य)
जल संसाधन विभाग, पटना।

Annex- VI

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GOVERNMENT OF BIHAR

WATER RESOURCES DEPARTMENT, BIHAR

SPECIFICATION OF P.P ROPE GABION OF SIZE(1.8Mx1.8Mx0.5M

PROPERTIES	9 mm x 4 STRAND PP GABION ±1mm,150 mm x150 m MESH SIZE
SIZE OF GABION	(1) 1.8 mx1.8mx0.5m WITH LID & SLINGS
SIZE OF THE BODY & BORDER ROPE ROPE	9 mmx4 STRAND HAVING A WEIGHT OF 42 gm/m ± 8% AS PER IS 5175 :1992 (REAFFIRMED 1997)
MATERIAL OF ROPE	POLYPROPYLENE (WITH ADEQUATE UV STABILISER)
MESH OPENING	150 mm x 150 mm.
TETHSILE STRENGTH	A. ROPE-1560 Kg BREAKING STRENGTH(MIN) AS P PER I S 7071(PART 4):1986 (REAFFIRMED 1999) B.ROPE NET 10000 Kg/m BREAKING STRENGTH.
STRUCRURE OF ROPE	4 STRAND SHROUD LAID
CONSTRUCTION OF ROPE NET	WOVEN JOINT AT INTERSECTION OF ROPES