


Technical Details of Civil Works for B&R Branch

<u>Analysis of L-type drain</u>		Unit = 100 Rft
1/10.6 (b)	Laying C.Conc. 1:8:16 with 40mm gauge Stone Ballast using mech. mixer. $1 \times 100' \times 1' - 10" \times 1/4' = 45.75$ Cft. $1 \times 100' \times 5/6' \times 1/6' = 13.28$ Cft. <u>59.03</u> Cft. or 1.67 Cum. @ 1438.55+18% C.P. 1.67 Cum. @ 148 ¹⁴⁸ +15% C.P.	= 2834.80 = 92.18 148.03
2/29.12	3" thick tega with 1st Class BB work in CM 1:5 100 Rft. or 30.47 Rmt. @ Rs. 57.62+35% C.P.	= 2282.71 = 2370.17
3/29.20	4.5" thick Bundh with 1st Class BB in CM 1:5 $100' \times 9" = 75$ Sft. or 6.97 Sqm. @ Rs. 277.76+35% C.P.	= 2613.58
4/10.12	Laying C.Conc. (1:2:4) for $100 \times 5/6 \times 1/6$ = 13.28 Cft. or 0.376 Cum. @ 2799.75/- Cum. +18% C.P.	= 1242.19
5/5.2	Extra carriage of sand: 1:8:16=1.67x50%=0.83 Cum. 1:2:4= 0.376x45%=0.16 Cum. <u>0.99</u> Cum. @ Rs. 202.68 Extra carriage of stone ballast & crusher: 1:8:16= 1.67x1.0=1.67 Cum. @ (401.57-61.09) 340.48 1:2:4 (Crusher) 0.376x0.90=0.338 @ (401.57-85.50) = 316.07	= 200.65 = 568.60 = 106.83 <u>10029.00</u> 100.00-1.5 3992.05
	Rate per Rft. = 10029 ^{3992.05} = Rs. 100.29 ^{39.92} 100 Say Rs. 100/- Rft. <u>100.00</u>	

Rate Amended as per A.C slip II dt. 7.2.13.


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Analysis of Laying 8" Dia of S.W. pipe Sewer Line

Unit-24 Rft.

1/6.6	E/w in excavation 24' x 2' x 2'-6" = 120 cft. Or 3.39 Cum @ Rs. 66.28/cum Add 12%	= Rs. 224.68 = Rs. 26.96
2/10.6 a	Laying 1:8:16 with Brick ballast. 24'x2'x0.25'=12 Cft. or 0.34 Cum. @ 1570.22 18% CP	= Rs. 533.87 = Rs. 96.09
3/29.63 c	Providing, Lowering, Cutting & Jointing 8" dia SW Pipe complete in all respect 7.31 Mtr. @ Rs. 309.15 Add 30%	= Rs. 2259 = <u>Rs. 678</u>
G. Total		= <u>3818.60</u>

Hence, Rate for Rft. = $3818.60/24 = 159.10$ Per Rft
Say Rs. 159 per Rft.


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A.C. (T) 25/06/2012

A.C.E.


H.D.M.


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Analysis for Providing & Laying of 6" Dia P.V.C. pipe

Unit-100 Rft. Or 30.48 Mt

1/6.6 E/w in excavation
100' x 0'-10" x 2' = 166 cft.
Or 4.7 Cum @ Rs. 66.28/cum
Add 12% = Rs. 348.90

2/N.S. Providing and Laying of 6" dia P.V.C. pipe 6 Kg/Cm²
Complete in all respect
@ Rs. 350/- per meter = Rs. 10668.00

Total Rs. 11016.9

Rate per Rft = $\frac{11016.9}{100} = 110.16$
-100

Say Rs. 110/- Rft


Superintending Engineer (B&R)
A.C. Corporation
Jalandhar


A.C. (T)


A.C.E.


H.D.M.


J.E.

Analysis of road gully chamber 2'x2'x2'-1" size

Unit=Each

1/6.6	E/W in excavation 1x4'x4'x2'-6" =40 Cft. Or 1.13 Cum. @ 66.28+12%	= 83.88
2/10.6	Laying CC 1:8:16 with stone ballast 40mm gauge. 4'x4'x4" = 5.28 Cft. or 0.15 Cum. @ Rs. 1438.55+18% C.P.	= 253.79
3/11.5	1st Class BB work 1:5 2x3'-4"x0'-9"x2'-3" =11.23 Cft. 2x1'-10"x0'-9"x2'-3" =6.17 Cft. <u>17.40 Cft.</u> Less for 8" dia SW pipe 3.14x6"x0'-9" = -0.58 Cft. <u>16.82 Cft.</u> or 0.48 Cum. @ 2485.48+35% C.P.	= 1610.59
4/14.6	CC topping 1:2:4 40mm thick. 1x1'-10"x1'-10"=3.34 Sft. or 0.31 Sqm. @ 135.48+15%	= 48.29
5/14.4	Floating coat Quantity as per item no. 4 0.31 Sqm. @ 18.43+15%	= 6.57
6/15.7	12.5mm thick Cement Plaster 1:2 2x1'-10"x2' =7.32 2x1'-10"x2' =7.32 14.64 Sft. Deduct area of 8" dia pipe 3.14 x 6"x6" = (-)0.78 <u>13.86 Sft.</u> or 1.288 Sqm. @ 107.18+15%	= 158.75
7/15.48	Cement rendering on plaster 1mm thick. Quantity as per item no. 6 1.288 Sqm. @ 29.13 + 15%	= 43.14
8/NS	P/L road gully cover & frame set	= 1050.00
9/10.12	Copping of road gully. CC 1:2:4 2x2'-4"x4"x3" =0.38 Cft. 2x2'-4"x4"x3" =0.38 Cft. 0.76 Cft. or 0.021 Cum. @ 2799.75+18%	= 58.79
	Total	3313.80

Say Rs. 3313/- each.

Note: - Payment shall be made as per Actual measurement.

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Analysis of road gully chamber 2'x1'x2'-1" size

Unit=Each

1/6.6	E/W in excavation 1x4'x3'x2'-6"=30 Cft. Or 0.849 Cum. @ 66.28+12%	= 63.00
2/10.6 a	Laying CC 1:8:16 with stone ballast 40mm gauge. 1x4'x3'x0'-4"= 3.96 Cft. or 0.11 Cum. @ Rs. 1438.55+18% C.P.	= 186.72
3/11.5	1st Class BB work 1:5 2x3'-4"x0'-9"x2'-3" = 11.23 Cft. 2'x0'-10"x0'-9"x2'-3" = 2.80 Cft. <u>14.03 Cft.</u> Less for 6" dia SW pipe 3.14x5"x5"x0'-9" = (-) 0.40 Cft. <u>13.63 Cft.</u> or 0.38 Cum. @ 2485.48+35% C.P.	= 1295.00
4/14.6	CC topping 1:2:4 40mm thick. 1'x1'-10"x0'-10"=1.52 Sft. or 0.14 Sqm. @ 135.48+15%	= 21.81
5/14.4	Floating coat Quantity as per item no. 4 0.14 Sqm. @ 18.43+15%	= 2.96
6/15.7	12.5mm thick Cement Plaster 1:2 2x1'-10"x2' = 7.32 2x0'-10"x2' = 3.32 10.64 Sft. Deduct area of 8" dia pipe 3.14 x 5"x5" = (-) 0.54 <u>10.10 Sft.</u> or 0.93 Sqm. @ 107.18+15%	= 115.61
7/15.48	Cement rendering on plaster 1mm thick. Quantity as per item no. 6 0.93 Sqm. @ 29.13 + 15%	= 31.15
8/N5	P/L road gully cover & frame set	= 675.00
9/10.12	Copping of road gully. CC 1:2:4 2x2'-3"x4"x2" = 0.23 Cft. 2x1'-3"x4"x2" = 0.11 Cft. 0.36 Cft. or 0.010 Cum. @ 2799.75+18%	= 33.00
	Total	2424.25

Say Rs. 2424/- each.

Note:- Payment shall be made as per actual measurement.

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Analysis of rate for excavation of earth & removal of malba with lead 8 Km.

Unit= Cum.

1/4.1 Loading & Un-loading of earth (Rs. 15.22 + 4.90) =Rs. 20.12
Add premium 15% Rs. 3.00

2/5.2 Extra for carriage of earth up to 8 Km.

Lead up to 5 Km. Rs. 142.50

6 Km. to 8 Km. (3 km. x Rs. 11.25)= 33.75

176.25

Rs. 176.25

Add premium 15%

Rs. 26.43

Rs. 225.80 Cum.

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③ Analysis of Rate for excavation of earth & removal of Malba with lead 10 KM. By mech. means. unit = 1 cum.

1/4.1 A Excavation of earth & removal of Malba with lead 10 KM
loading & unloading = 15.22
= 4.90

2/5.2 (i) Carriage = 142.50

1 km to 5 km = 56.25

6 km to 10 km @ R.S. 11.25/- km R.S. 218.87

Add 15% C.Prem. R.S. 32.83

Rate per cum Rs. 251.70

④ Analysis of Rate for excavation of earth & removal of Malba with lead 12 KM. By mech. means. unit = 1 cum.

1/4.1 A Excavation of earth & removal of Malba with lead 12 KM
loading & unloading = 15.22
= 4.90

2/5.2 (i) Carriage = 142.50

1 km to 5 km = 56.25

6 km to 10 km @ R.S. 11.25/- km = 15.00

11 km to 12 km @ R.S. 7.50 per km. R.S. 232.87

Add 15% C.Prem. R.S. 35.08

Rate per cum Rs. 268.95

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Superintending Engineer (B&R)
Municipal Corporation
Jalandhar

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Assistant Commissioner
Technical (B&R)
Municipal Corporation
Jalandhar

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① Analysis of Rate for excavating earth & removal of matter with lead 14 km. by mech. means. Unit = 1 cum.

1/4.1 A Excavation of earth & removal of matter with lead 14 km loading & unloading

	15.22
	4.90

2/5.2(i) Carriage

1 km to 5 km	142.50
6 km to 10 km @	56.25
Rs 11.25 / km.	
11 km to 14 km @	30.00
Rs 7.50 / km	<u>248.87</u>

Add 15% C. Provision

	<u>37.33</u>
Rs.	<u>286.20</u>

Rate per cum is. 286.20.

② Analysis of Rate for Earth filling with good earth with lead 16 km. by mech. means. Unit = 1 cum.

1/4.1 A Earth filling with good earth lead 16 km loading & unloading

	15.22
	4.90

2/5.2(i) Carriage

1 km to 5 km	142.50
6 km to 10 km @	56.25
Rs 11.25 / km.	
10 km to 16 km @	45.00
Rs 7.50 / km	<u>263.87</u>

Add 15% C. Provision

	<u>39.58</u>
Rs.	<u>303.45</u>

Rate per cum is. 303.45

Superintending Engineer (B&R)
Municipal Corporation
Jalandhar


 29/05/2012
 Assistant Commissioner
 Technical (B&R)
 Municipal Corporation
 Jalandhar


 M.O.M.

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Analysis of Rate for W.B.M Grade -II and Grade III

Unit = Cum

1. WBM Grade II Rate as Per CSR24.13-II		903.14
Add 15% Premium		135.47
2. Extra Carriage of Aggregates and Difference in average rate and Basic Rate Beyond 5km		
a) Stone metal (63-45 mm) 1.33 cum @401.57-93.21		
	=308.36	410.12
3. Extra Carriage of binding material from 8Km Beyond 1Km		
1st 5km	=142.50(-)75=67.50	
Next 3km @ 11.25 /km	=33.75	
0.10cum @11.64	101.25+15% premium=11.64	
	Total Rate /cum	Rs. 1460.37

1. W.B.M Grade -III Rate as per CSR24.14-II		921.25
add 15% Premium		138.19
2. Extra Carriage of aggregate & difference in av. rate &		
a) Stone metal(53-22.4mm) 1.33 cum@		
401.57-93.79=307.78		409.35
3. Extra Carriage of binding material from 8Km Beyond 1Km		
1st 5km	=142.50(-)75=67.50	
Next 3km @ 11.25 /km	=33.75	
0.10cum @11.64	101.25+15% premium=11.64	
	Total Rate /cum	Rs. 1480.43

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Maybe approval M
Add. Comm (D) K 28/12/13
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Analysis of Rate for Providing and Laying Tack Coat.

Unit=Sqm

Sr.No

1.	Rate as Per CSRIItem24.18 (B) With VG-10	Rs. NP
	@0.4 Kg PerSqm	16-28
	Add 28% Premium	4.56

Add. Difference in Cost Bitumen/VG-10 (Bulk)

0.0004 MT	As on 5.12.2011	49581.31(-)	51641.45
	=2060.147		(As on 16.02.2013) 0.82
	Total Rate per sqm		Rs.21.66

CSRI Item 24.18 (B)
Maybe approved for
Add. Cost 1/6
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af/pt *Ranjit*

Analysis of Rate For Providing and Laying Bituminous Macadam.
(B.M Grade-II)
Unit = Cum

1. Rate as Per CSR	24.19(B)	4607.13
Add 28% premium		1290.00
2. Extra Carriage of Aggregates and Difference in average rate and Basic Rate Beyond 5km		
	1.4168 Cum	
A) 25mm to 10mm @ 40% i.e. 0.5667 cum @ 298.76		= 169.30
B) 10mm to 5mm (11.2mm) @ 40% i.e. 0.5667 cum @ 316.07		= 179.11
C) 5mm and below @ 20% i.e. 0.2834 cum @ 384.20 (Coarse sand)		= 108.88
3. Add difference in cost of Bitumen VG-10 (bulk) 0.0748 Mt As on 5-12-2011 Rs. 49581.31 (-) 51641.45 (As on Dt. 16-02-2013) or Rs. 2060.14		154.09
4. Extra Carriage of mixed material from plant to side of work . average (6km) up to 5 km Rs. 142.50 6 th km Rs. 11.25 153.75 Add 15% ceiling premium =		176.81
Add 10% extra as per note of CSR =		17.68
		Rate per cum Rs. 6703

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 Maybe approval H
 Add. Limit $\frac{16}{4/03/13}$ $\frac{2872}{ACLA}$ $\frac{17.68}{20/12}$

Analysis of Rate For Providing and Laying 20mm thick open graded Premix Carpet (P.C)

	Unit= sqm
	Rs. N.P
1. Rate as per C.S.R item 24.25	89.49
Add 28% Premium	25.06
2. Extra Carriage of Aggregates and Difference in average rate and Basic Rate Beyond 5km	
a) 13.2mm Bajri 0.018 cum @ <u>321.34/cum</u>	5.78
b) 11.2mm Bajri <u>0.009cum @ 316.07/cum</u>	2.84
3. Add difference in Cost of bitumen /VG-10(Bulk) 0.00146Mt As on 5.12.2011 Rs. 49581.31 As on 16.02.2013 (-) <u>51641.45</u>	
Rs. 2060.14/Mt.	3.00
4. Extra carriage of mixed material from Plant to site of work up to 5 km 142.50+15% C.P =163.87	
Next 1Km @ 11.25+15% CP = <u>12.93</u>	
176.80/cum	
0.02 cum @ <u>176.80</u>	3.53
add 10% extra as per note of C.S.R	<u>0.35</u>
	Rate Per sqm Rs. 130.05

*Comptroller
28/2/13*

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May be approved by

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