

प्रतिवेदन

प्रस्तुत प्राक्कलन झारखण्ड राज्यान्तर्गत 100 M.T. क्षमता गोदाम का निर्माण हेतु तैयार किया गया है जिसकी प्राक्कलित राशि— 5,70,000 /— रुपया मात्र है।

प्रस्तुत प्राक्कलन विभिन्न स्थानों पर निर्माण होने वाले गोदाम के लिए तैयार किया गया है। उक्त प्राक्कलन आई.सी.डी.पी. प्रोजेक्ट द्वारा स्वीकृत मानक नक्शे पर आधारित है।

इस प्राक्कलन में दो हॉल $5.8^M \times 5.10^M$ एवं $6.4^M \times 5.1^M$ एवं बरामदा पर दोनों ओर $3.9^M \times 3.10^M$ आकार का दो कमरा का प्रावधान किया गया है। इसमें दरवाजा, खिड़की रोलिंग सटर एवं कॉलेप्सेबुल गेट लगाने का प्रावधान है। साथ ही चार स्टीफनर्स का भी प्रावधान किया गया है।

उक्त प्राक्कलन दक्षिणी छोटनागपुर के चालू अनुसूचित दर 1.02.2010 पर आधारित है।

कमल कुमार
9.6.2010
सहायक अभियंता,

समेकित सहकारी विकास परियोजना,
कोषांग, राँची।

DETAILED ESTIMATE FOR CONSTRUCTION OF 100 M.T CAPACITY GODOWN

1)	Site Clearance & lay out	LS			Rs 500.00
<u>2</u>	Earth work in excavation in foundation with hard soil.....etc.				
5.1.1					
			$2 \times 13.5^M \times 0.80^M \times 0.90^M$	=	$19.44 M^3$
			$3 \times 4.55^M \times 0.80^M \times 0.90^M$	=	$9.83 M^3$
			$4 \times 2.55^M \times 0.80^M \times 0.90^M$	=	$7.34 M^3$
			$2 \times 4.95^M \times 0.80^M \times 0.90^M$	=	$7.13 M^3$
			$1 \times 3.60^M \times 0.625^M \times 0.52^M$	=	$1.17 M^3$
	Step		$1.5^M \times 1.0^M \times 0.075^M$	=	$0.11 M^3$
					<u>$45.02 M^3$</u>
					@ Rs. 43.41/ M^3
					Rs 1954.00
<u>3</u>	Providing local sand filling in foundation & plinth.....etc				
5.1.10					
	i) Area as per				
			$43.74/0.90$	=	$48.60 M^2$
			$1.17/0.52$	=	$2.25 M^2$
			$0.11/0.075$	=	$1.50 M^2/52.35 M^2$
			$52.35 M^2 \times 0.15^M$	=	$7.85 M^3$
	ii) Plinth		$1 \times 5.80^M \times 5.10^M \times 0.45^M$	=	$13.31 M^3$
			$1 \times 6.40^M \times 5.10^M \times 0.45^M$	=	$14.68 M^3$
			$2 \times 3.90^M \times 3.10^M \times 0.45^M$	=	$10.88 M^3$
			$1 \times 4.15^M \times 3.10^M \times 0.45^M$	=	$5.78 M^3$
					<u>$52.50 M^3$</u>
					@ Rs. 115.76/ M^2
					Rs. 6077.00
<u>4</u>	Providing B/F/S with 75A brick with local sand filling.....etc.				
5.6.1					
	Area sa per item (3)		$52.35 M^2$		
	(i)				
	ii) Plinth		$1 \times 5.80^M \times 5.10^M$	=	$29.58 M^2$
			$1 \times 6.40^M \times 5.10^M$	=	$32.64 M^2$
			$2 \times 3.90^M \times 3.10^M$	=	$24.18 M^2$
			$1 \times 4.15^M \times 3.10^M$	=	$12.87 M^2$
					<u>$151.62 M^2$</u>
					@ Rs. 122.92/ M^2
					Rs. 18637.00

15/7/10

5 Providing P.C.C. (1:2:4) with S.M. G-III in foundation & plinth..... etc

5.6.1
5.3.4

(ii) Plinth

Qty. Same as item 3(i) = 7.85 M³
 $99.27M^2 \times 0.075^M = 7.45 M^3$

15.10 M³
 @Rs 2212.42/M²

Rs. 33408.00

6 Providing 75B brick B/W (1:6) in foundation & plinth.....etc

5.2.6

1st flooring

$2 \times 13.325^M \times 0.625^M \times 0.15^M = 2.50 M^3$
 $2 \times 4.725^M \times 0.625^M \times 0.15^M = 1.33 M^3$
 $4 \times 2.725^M \times 0.625^M \times 0.15^M = 1.02 M^3$
 $2 \times 4.775^M \times 0.625^M \times 0.15^M = 0.90 M^3$

2nd flooring

$2 \times 13.20^M \times 0.50^M \times 0.15^M = 1.98 M^3$
 $3 \times 4.85^M \times 0.50^M \times 0.15^M = 1.09 M^3$
 $4 \times 2.85^M \times 0.50^M \times 0.15^M = 0.86 M^3$
 $2 \times 4.650^M \times 0.50^M \times 0.15^M = 0.70 M^3$
 $1 \times 3.725^M \times 0.375^M \times 0.145^M = 0.20 M^3$

3rd flooring

$2 \times 13.075^M \times 0.375^M \times 0.225^M = 2.21 M^3$
 $3 \times 4.975^M \times 0.375^M \times 0.225^M = 1.26 M^3$
 $4 \times 2.975^M \times 0.375^M \times 0.225^M = 1.00 M^3$
 $2 \times 4.525^M \times 0.375^M \times 0.225^M = 0.76 M^3$
 $1 \times 3.85^M \times 0.375^M \times 0.225^M = 0.32 M^3$

In Plinth

$3 \times 12.95^M \times 0.25^M \times 0.90^M = 8.74 M^3$
 $3 \times 5.10^M \times 0.25^M \times 0.90^M = 3.44 M^3$
 $4 \times 3.10^M \times 0.25^M \times 0.90^M = 2.79 M^3$

Step

$1.5^M \times (0.75 + 0.50 + 0.25) \times 0.25^M = 0.51 M^3$

Deduct for stiffener $2 \times 2 \times 0.25 \times 0.25 \times 1.425^M$

31.61 M³
 = 0.360 M³
 @Rs 2074.88/M³

Rs 6558

~~BB~~
12/3/10

Providing 1" D.P.C (1:2:4) with stone chips..... etc.

$$3 \times 12.95^M \times 0.25^M = 9.71M^2$$

$$3 \times 5.10^M \times 2.25^M = 3.83M^2$$

$$4 \times 3.10^M \times 0.25^M = 3.10M^2$$

16.63 M²

@Rs. 106.02/M²

Rs. 1763.00

8

Providing B/W(1:6) with 75B brick in S/S.....etc. complete

5.2.14

$$12.95^M \times 0.25^M = 34.15M^3$$

$$(3.75+3.90+2.90)$$

$$3 \times 5.10^M \times 0.25^M (3.75+3.90) = 14.60M^3$$

$$4 \times 3.10^M \times 0.25^M \times 2.90+3.0/2 = 9.15M^3$$

57.93 M³

Deduction

A) Door & Windows

D 2x0.90^Mx2.10^M = 3.78 M²

2x1.20^Mx2.40^M = 5.76 M²

W 4x0.75^Mx1.20^M = 3.60 M²

V 8x0.60^Mx0.15^M = 2.16 M²

V. opening 4.15^Mx2.10^M = 8.72 M²

24.02 M²

Qty. 24.02 M²x0.25^M = 6.00 M³

(b) Lower roof 1x12.95^Mx0.25^Mx0.10^M = 0.32 M³

(c) Lintel

R/S 3.15^Mx0.25^Mx0.150^M = 0.12 M³

D 2x1.2^Mx0.25^Mx0.15^M = 0.09 M³

W 4x1.05^Mx0.25^Mx0.15^M = 0.15 M³

0.36 M³

(D) Ver Beam 3x4.65^Mx0.25^Mx0.20^M = 0.23 M³

Handwritten signature and date 12.7.10

(E) Band at lintel level $3 \times 12.95^M = 38.85 M$

$4 \times 3.10^M = 12.40 M$

$5 \times 5.10^M = 15.30 M$

Deduction $3.15 + 2.40 + 3.15 = 8.70^M$

Ver Beam 4.65^M

13.35

Hence length of Band (66.55-13.35) $53.20^M \times 0.250^M \times 0.15^M = 1.99 M^3$

(F) Stiffeners $2 \times 2 \times 0.25^M \times 0.25^M \times 3.40^M = 0.85 M^3$
(av)

Net B/W $0.25 M^3 - (5.78 + 0.32 + 0.64 M^3 + 0.23 + 1.99 + 0.85) = 48.12 M^3$ ✓

@Rs 2119.16/M³ Rs.101974.00

9 Providing R.C.C.(1:2:4).....etc
5.3.7.1

a) Band at lintel level Qty.8(E)-1.99M³ ✓ @Rs.3860.44/M³ Rs.7682.00

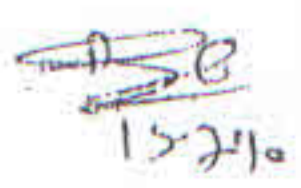
5.3.8 b) Lintel Qty.8(C)-0.64M³ ✓ @Rs.4412.45/M³ Rs.2824.00

5.3.10 c) Beam Qty.8(D)-0.23M³ = 1.12M³
 $2 \times 5.60^M \times 0.25^M \times 0.40^M = 1.35 M^3$
@Rs.4847.52/M³ Rs.6544.00

5.3.15 d) 63mm Chajja $3 \times 01.05^M \times 0.45^M = 1.89 M^2$
 $1 \times 4.65^M \times 0.45^M = 2.09 M^2$
 $3.98 M^3$
@Rs.525.39/M² Rs.2091.00

5.3.12 e) Stiffener Qty. vide Item No. (6) 0.36M³
+ Qty. vide Item No. 8(F) 0.85 M³
1.21 M³
@Rs.4200.07/M³ Rs.5082.00

5.3.9 f) R.C.C. roof slab
Main roof $13.25^M \times 5.90^M \times 0.115^M = 8.99 M^3$
Lower roof $13.25^M \times 3.75^M \times 0.115^M = 5.71 M^3$
 $14.70 M^3$
@Rs. 4467.93/M³ Rs.65679.00



10
5.1.8

Earth in fitting in
toder....etc

Qty same as item No. 3 (ii) = 44.65 M³

Back = 10.55 M³

55.20 M³

@Rs.37.15/M³

Rs.2051.00

11
5.7.15

Providing 19 mm
C.P.(1:3) over
roof.....etc

1x13.25^Mx5.90^M = 78.18 M²

1x13.25^Mx3.75^M = 49.69 M²

127.87 M²

@Rs.119.17/M²

Rs.15238.00

12
5.7.3

Providing 12 mm C.P.(1:6)....etc.

In side (5.8+6.40)x3.90 = 47.58 M²

(5.8+6.40)x3.75 = 45.75 M²

4x5.10+(3.90+3.75/2) = 78.03 M²

2x(3.90+4.15)x3.0 = 35.85 M²

2x(3.90+4.15)x2.90 = 34.66 M²

6x3.10x(3.0+2.90/2) = 54.87 M²

296.74 M²

Deduction

D 2x0.90^Mx2.10^M = 3.78 M²

R/S 2x1.20^Mx2.40^M = 5.76 M²

1x0.75^Mx1.20^M = 0.90 M²

ver opening 4.15^Mx2.10^M = 8.71 M²

19.15 M²

Net Inn 296.74-19.15 = 277.59 M² (A)

Outer Portion

12.95x(3.75+4.90+0.70) = 121.08 M²

2x5.60x(3.90+2.75/2) = 42.84 M²

2x3.35x(3.90+2.90/2) = 15.76 M²

[Handwritten signature]
13.2.10

13

Plinth $2 \times (15.95 + 8.95) \times 0.90 = 39.42 \text{ M}^2$

Deduction

Ver Opening $4.15^M \times 2.10^M = 8.71 \text{ M}^2$

W $3 \times 0.75^M \times 1.20^M = 2.70 \text{ M}^2$

11.41 M²

Net outer $219.10^M - 13.57^M = 205.53 \text{ M}^2 \text{ (B)}$

Step $3 \times 1.5^M \times 0.45^M = 2.03 \text{ M}^2$

$1 \times 1.5^M \times 0.225^M = 0.34 \text{ M}^2$

$2 \times (0.75 + 0.25/2) \times 0.075 = 0.08 \text{ M}^2$

2.45 M² (C)

(A+B+C) = 485.57 M²

@Rs. 60.88/M²

Rs 29562.00

13 Providing 6 mm ceiling plaster (1:4).....etc.

Qty same as item No. 4(iii) = 99.27 M²

$2 \times 13.25^M \times 0.15^M = 3.97 \text{ M}^2$

$2 \times 5.75^M \times 0.15^M = 1.73 \text{ M}^2$

$2 \times 3.75^M \times 0.15^M = 1.12 \text{ M}^2$

106.09 M²

@ Rs 60.57/M²

Rs. 6426.00

14 Providing three coat white washing.....etc.

Area vide item No. 12(A) = 277.59 M²

Vide item no.13 = 106.09 M²

383.68 M²

@ Rs. 5.52/M²

Rs. 2118.00

15 Providing two coat snowcem....etc

Qty. same as item no. 12(b) = 205.53 M²

@Rs. 40.94/M²

Rs. 8414.00

16 Providing S/F/F rolling shutter.....etc

$2 \times 1.20^M \times 2.40^M = 5.76 \text{ M}^2$

MP/LS @Rs. 1965.95/M²

Rs. 11324.00

7

15.7.10

17	S/F/F top cover of rolling shutter.....etc	2x1.20 ^M	= 2.40 M ²	
18	Providing Fan hooks	Office	L.S, @Rs.511.00/1No	Rs. 1226.00
		Shop	1No	
		Ver	1No	
			L.S, 3Nos.@Rs.223.80	Rs. 671.00
19	Providing 35 mm precast jail(R.C.C.)...etc	8x0.60 ^M x0.45 ^M	= 2.16M ² @Rs.240.47/M ²	Rs. 3848.00 Rs. 519.00
20	Providing G.C.I gate.....etc	D:- 2x0.90 ^M x2.10 ^M W:- 3x0.75 ^M x2.10 ^M	= 3.78M ² = 3.78M ² 6.48 M ² @Rs.1896.57/M ²	Rs.12290.00
21	Providing M.S.Grill....etc	3x0.75 ^M x1.2 ^M	= 2.70M ² @20kg/M ² =54.0kg @Rs 48.24/M ² kg	Rs.2605.00
22	Providing two coat painting over steel surface with primer coat.....etc	2x2.25x1.20x2.40 2x0.60x1.05 4x0.60x1.05 2x2.25x0.90x2.10 3x2.25x0.75x1.90	= 12.96 M ² = 2.52M ² = 2.52 M ² = 8.57 M ² = 8.10 M ² <hr/> 32.15 M ² 8.72 M ² <hr/> 40.87 M ² @Rs 34.68/ M ²	Rs. 1417.00
	Add collapsible gate			

~~150~~
12.2.10

23	S/F/F/ collapsible gate at var.....etc	4.15 ^M x2.10 ^M	= 8.72M ²	Rs. 17263.00-
5.5.14			@Rs 1979.73/M ²	
24	Providing 50 mm thick I.P.S. floor (1:2:4).....etc	(5.80+5.10)+(6.4x5.10)	= 62.22M ²	Rs. 13987.00
5.6.9			@Rs 224.80/M ²	
25	Providing 25mm thick I.P.S floor (1:2:4)	(3.90+4.15+3.90)x3.10 ^M	= 37.05 M ²	Rs. 5287.00
5.6.7			@Rs142.69/M ²	
26	Providing 1.5 mm cement punning....etc			
	In Dedo	2x2x(3.90+3.10)x0.3	= 8.40 M ²	
	Ver:-	2x(3.10+4.15)x0.30	= 3.11 M ²	
			48.56 M ²	Rs 1008.00
			@Rs20.75/M²	
27)	Providing M.S. reinforcement.....etc			
	A) Stiffener			
	12 mm Φ	4x4x6.0 ^M	= 96 ^M @ 0.89	
			kg/M=85.44 Kg	
	8 mm Φ	4x30x1.02 ^M	= 122.40 ^M @ 0.22	
			kg/M =26.96 Kg	
	B) Band at lintel level			
	Main bar			
	8 mm Φ	2x52.90 ^M	= 105.80 ^M	
	Hence bar:-			
	8 mm for	2x52.90 ^M	= 105.80 ^M	
			211.60 ^M	
	Add 5% for cutting & wastage	10.58 ^M	= 222.18 ^M @ 0.39	
			kg/M =87.76 Kg	
	6mm Φ 250 mm	2/2x0.60 ^M	= 127.20 ^M	
			127.20 ^M @ 0.39	
			kg/M =27.98 Kg	

C) Lintel

[Signature]
12-7-16

R/S Main bar- 12mmΦ	2x3.10 ^M	= 6.20 ^M @ 0.89 kg =5.51Kg
Hence bar-8 mm	2x3.10 ^M	= 6.20 ^M @ 0.39 kg =2.41Kg
Ring 6 mmΦ	22 Nos x 0.70 ^M	= 15.40 ^M @ 0.22 kg =3.38Kg

ii) Door:-

Main bar 10 mmΦ	2x2x1.15 ^M	= 4.60 ^M @ 0.62 kg/m =2.85Kg
Huger bar- 8mmΦ	2x2x1.5 ^M	= 4.60 ^M @ 0.39 kg/m =1.79Kg
Ring 6mm @ 200 mmck	2x7x0.60 ^M	= 8.40 ^M @ 0.22 kg/m =1.84Kg

iii) Window

Main bar 10 mmΦ	3x2x1.00 ^M	= 6.0 ^M @ 0.62 kg/m =3.72Kg
Huger bar- 8mmΦ	3x2x1.0 ^M	= 6.0 ^M @ 0.39 kg/m =2.37Kg
Ring 200mmck .6mm	3x6x0.60 ^M	= 10.80 ^M @ 0.22 kg/m =2.37Kg

E) Beam:-

Main bar 16 mmΦ	2x2x5.55 ^M	= 22.20 ^M
	2x2x5.75 ^M	= 23.00 ^M
Ver:-	2x4.60 ^M	= 92.20 ^M
	2x4.77 ^M	= 9.54 ^M
		63.94 ^M @ 1.58 kg/M= 101.02 kg

Huger bar:-

12 mm Φ	2x2x5.55 ^M	= 22.20 ^M
Ver:-	2x4.60 ^M	= 9.20 ^M
		31.40 ^M @ 0.89 kg/M= 27.94 kg
Ring 8 mm Φ	2x33x1.20 ^M	= 79.20 ^M
Ver.	32x0.75 ^M	= 24.00 ^M

103.20^M@ 0.39
kg/M= 40.24 kg

E) Roof slab

i) lower roof- 10mm 44x3.60^M
Φ main base
150mck

= 158.40^M

43x3.82^M

= 164.26^M

322.66^M@ 0.62
kg/M= 200.00 kg

= 129.50^M

Distribution-8mmΦ 10x12.95^M
-200mck

= 106.56^M

8x13.32^M

= 6.30^M

Over lapping

18x0.35^M

= 38.85^M

To player

3x12.95^M

= 51.80^M

4x12.95^M

= 28.80^M

2x4x3.60^M

= 2.45

Over lapping

7x0.350

= 18.0

Chair .

2x15x0.60

= 6.0

2x5x0.60

388.26^M@ 0.39
kg/M= 151.42 kg

ii) Upper roof

Main bar-10 mm
150mmck

20x12.95^M

= 259.00^M

18x13.45^M

= 242.10^M

Lapping

38x0.35^M

= 13.30^M

514.40^M@ 0.62
kg/M= 318.92 kg

Distribution 8mmΦ 34x5.60^M

= 190.40^M

31x5.80^M

= 179.80^M

Upper layer

1x6x15.95^M

= 77.75^M

1x5x12.95^M

= 64.75^M

Over lab

11x0.35^M

= 3.85^M

2x3x5.75^M

= 34.50^M

2x5x5.75^M

= 40.25^M

Chair

(2x15+2x7)x0.60^M

= 26.40^M



Top bar-10mmΦ	2x20x1.80 ^M	= 675.15 ^M @ 0.39 kg/M= 263.30 kg
F) Chajja main bar-8mmΦ	55x0.90 ^M	= 72.00 ^M @ 0.62 kg/M= 44.64 kg
Dist.	3x4x1.0 ^M 1x4x4.60 ^M	= 49.5 ^M = 12.0 ^M = 18.40 ^M
		79.90 ^M @ 0.39 kg/M= 31.16 kg
		Total- 1.433 MT

S.S.1 A) 8mmΦ Tor & 6mmΦ	(-) 0.607 MT. 0.036 MT	
	<u>0.643 MT</u>	
S.S.S B) 10mmΦ Tor	0.571 MT	
S.S.S C) 12 to 16 mmΦ Tor	0.219 MT	

@ Rs 54667.30	Rs 35154.
Rs 44188.47/MT	Rs 2841
Rs 43124.12/MT	Rs 2462
@ Rs 54667/MT	Rs 31215
@ Rs 54608.75/MT	Rs 7045
Rs 9313	
Rs 42523.58/MT	526948

Deduct 9.09% C.P. Excluding cost of Cement and Ms Rod	Cost of 434 bags of Cement @ 215/- per bag = 93310	369770.00 @ 9.09/-	Rs (-) 33612
	Cost of 1.433 MT Rod @ of 44570/- = 63868.00	= (-) 33612.00	Rs 493336
	Total = 157178.00		

~~Add Cost of difference of Cement 434 bags @ (300-215) = 85/ par bag~~

✓ Add carriage of material 7% on 530226.00

Add Cost of painting writing & sign board & Photograph

Rs 2689
Total Rs 513
Rs 3714
Rs 35940
Rs 56730
Rs 250
Rs 5698

Technically Sanctioned for Rs. ~~5,70,000.00~~ ⁵⁵²⁰⁰⁷⁼⁰⁰ (Five Lakhs Seventeen thousand only accorded.)

Technical sanction accorded for Rs 552,007=00 (Rs five lac Fifty-two thousand and seven) only for the construction of Godown as model estimate with following conditions.

- (i) payment against lump-sum / non-schedule items must be done as per work done and minimum rate sanctioned by the competent authority
- (ii) sanction of estimate is not the sanction of rate
- (iii) payment against carriage of material must be done as per lead involved.

(A. D. M. S.)
Assistant Engineer.

Ranchi, Jh

[Signature]
CE