PMGSY/NIELSC

M.B.NO 3148

Schedule XLV-Form No. 134

PMGSY पथ से विशुनपुरा खुर्द हरिजन टोला एवं यादव टोला तक पथ।

21 SBD/2019-20

संवेदक :- श्री राजेश कुमार

श्री. शंकर जी गिरी

एकमा

DIVISION

SUB-DIVISION

MEASUREMENT BOOK

M.B.NO-3148

Scanned with CamScanner

Name fo work—
Situation of work—
Agency by which work is executed—
Date of measurement—
No. and date of agreement.
(These four lines should be repeated at the commencement of the measurements relating to each work.)

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of road - const. of road from pmussy road to Vishnpura khurd Harijan tola					
Name of Agency - Rajesh kumar					
Agreement no - 21 SBD/2019-2020					
Date of start - 12/02/2019					
Date of completion - 11/02/2020					
Measurement					
1. Setting out pillars					
Providing & fixing of working & benchmark pillars					
- - - do - - -					
(A) working bench mark pillars					= 2 NO.
(B) Reference pillars - -					= 6 NO.
2. clearing and grubbing road					
Land - - - do - - -					
as per technical specifican					
2 X 63 X 25 X 3.50					= 11025 m²
= 11025 / 10000					= 1.10 Hect
(3) Dismantling of existing structure - - do - - -					

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
Dismantling Brick masonary from culvert as per technical specification					
— " " do —					= 17.33 m³
(4) Dismantling of existing structures like culverts					
— " do —					
cement concrete as per technical specification					= 0.60 m³
(5) Removing all types of hume pipe					
— " do —					
as per tech. specification					
upto 600mm dia					= 5m
(6) Box cutting					
Excavation for roadway in soil using manual means — " do —					
(A) Flexible road					
RPSM: 2	34	30	0.525	0.10	= 107.10 m³
RPSM: 2×2	25		0.525	0.10	= 5.25 m³
(B) Rigid road					
RPSM: 2	20	25	0.375	0.10	= 37.50 m³
				Total	149.85 m³
(7) const. of embankment with material obtained from					

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
borrow pits					
— do —					
as per technical specification					
(A) For 1000 m lead					
RP Soil: 2	3	30	1.20	0.90	= 194.40 m³
2	6	30	1.30	0.80	= 374.40
18	4	30	1.25	0.90	= 135.0 m³
			Total		703.80
			Limit to		688.81 m³
(B) For 100 m lead					
2	7	30	1.20	0.90	= 453.60
2	8	30	1.30	0.80	= 499.20
RP Soil: 2	4	25	1.25	0.90	= 225.0
2	9	30	1.30	0.90	= 631.8
2	2	30	1.30	0.90	= 140.40
			Total		1950 m³
			Limit to		1928.83 m³
(8.) construction of subgrade and earthen shoulder					
— do —					
as per tech. specification					
(A) on flexible road					
side of GSB					
RP Soil: 2	34	30	1.10	0.20	= 571.20
2	2	25	1.10	0.20	= 28.0
side of WBM					
2	34	30	1.20	0.075	= 183.60
Continuation 2	2	25	1.20	0.075	= 9.0
					791.80 m³

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(B) 9m rigid road					
side of cSB					
2X	20X	25X	0.625	X0.1	= 62.50
side of WBM					
2X	20X	25X	0.625	X0.075	= 46.88
side of CC					
2X	20X	25X	0.625	X0.160	= 100.00
Hard shouldering					
2X	20X	25X	0.375	X0.125	= 46.88
			Total		256.26m
Total of A+B					
791.80	+ 256.26	=			1048.06m
(9) Cost of granular subbase by providing coarse graded material — do — as per tech. specif.					
For flexible portion					
cSB in widening					
2X	34X	30X	0.525	X0.10	= 107.10
2X	2X	25X	0.525	X0.10	= 5.25
cSB in full width					
	34X	30X	4.050	X 0.10	= 413.10
	2X	25X	4.050	X 0.10	= 20.25
For Profile correction					
	15X	5X	3X	0.1	= 22.50

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
For rigid portion					
GSB in Box cutting portion					
RPCM	2X	20X	25X	0.375X0.10 =	37.50
Profile correction					
RPCM	5X	5X	3.10X	0.1 =	7.75
			Total =		613.45m³
(10) Providing laying spreading and compacting stone aggregates of specific sizes to water bound macadam					
— do —					
(A) as per tech. specifications					
Flexible road					
RPCM	24 24X	30X	3.75X0.075 =		202.50
	10X	30X	3.80X0.075 =		85.50
	2X	25X	3.75X0.075 =		14.06 m³
				Total	302.06m³
(B)					
(bb) Rigid road					
RPCM	10X	25X	3.75X0.075 =		70.312
	10X	25X	3.85X0.075 =		72.187
				Total	142.499
Total A+B =	302.06+142.499 = 444.559 m³				
				=	444.559m³
(11) Providing and applying primer coat with bitumen emulsion					
— do —					

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
as per tech. specifi-					
RP&S	24 × 30 × 3.75			=	2700
	10 × 30 × 3.80			=	1140
	2 × 25 × 3.75			=	187.50
				Total	4027.50 m²
(12) Tack coat					
Providing and applying tack coat with bitumen emulsion -- do -- as per tech. specifications					
	24 × 30 × 3.75			=	2700
	10 × 30 × 3.80			=	1140
	2 × 25 × 3.75			=	187.50
				Total	4027.50 m²
(13) mix seal surface Providing laying and rolling of close graded premix surfacing -- do -- as per tech. specifications					
RP&SM	24 × 30 × 3.75			=	2700
	10 × 30 × 3.80			=	1140
	2 × 25 × 3.75			=	187.50
				Total	4027.50 m²
(14) cement concrete pavement const. of un-reinforced plain cement concrete pavement -- do --					

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(14) as per tech. specification					
Retaining wall	10 X 25 X 3.75 X 0.16 =				150.0
	10 X 25 X 3.85 X 0.16 =				154.0
				Total	304.0 m^3
				Limit to	303.0 m^3
(15) Kilometer Stone Reinforced cement concrete M-15 grade					
(i) km stone					3 NO.
(ii) 200 m Stone					6 NO.
(16) Reinforced cement concrete M-15 grade boundary pillars					
do				=	140 NO.
(17) Traffic sign Providing and fixing of retro-reflective cautionary mandatory and informatia sign board					
do					
(i) 600 mm circular speed limit					10 NO.
(ii) 900 mm equilateral triangle (left, right) curve					6 NO.

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(iii) 600mm x 450 mm rectangular (school & place board —					4 No.
(18) Road marking with hot applied Thermoplastic compound — do — on BT surface					
RFSor	2 X 34 X 30 X 0.10 =				204 m^2
	2 X 2 X 25 X 0.10 =				10 m^2
				Total	214 m^2
(19) Road marking with hot applied thermoplastic compound — do — on concrete surface					
	2 X 20 X 25 X 0.10 =				100 m^2
(20) Direction and place identification sign — do —					= 1 No.
(21) Providing and fixing of typical mmrsy informatory sign board with logo — do — as per tech. specific.					

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
W.B identification sign board					2 NO.
citizen information board					2 NO.
maintn Board					2 NO
			Total		6 NO.
(22) H.P culvert					
(A) Earth work in excavation for found of structure - rdo as per drawing and technical specification					
H.W	2	6.450	1.40	1.5 =	27.09
Below pipe	1	4.850	1.530	0.365 =	2.708
					29.798 m³
for four 4 No. of culvert					
	4	29.798 =			119.192 m³
(B) Providing M 15 as levelling course (in found) — — do —					
H.W	2	6.450	1.40	0.150 =	2.709
Below pipe	1	4.931	1.530	0.250 =	1.886
less for pipe	0.250	0.7857	(1.230)²	5.496 =	-1.633
					2.962 m³
for 4 No. of culvert					
	4	2.962 =			11.848 m³

Continuation

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(c)					
(a) Brick masonary work in cm 1:4 in headwall					
" " do " "					
H.W 2	× 6.150	× 0.825	× 2.580	=	26.181
Parapet 2	× 6.150	× 0.40	× 1.20	=	5.904
Less for 2 pipe	× 0.7857	× (1.230)²	× 0.622	=	⊖1.478
					30.607 m³
For 4 No. of culvert				4 × 30.607	= 122.428
(d) Providing and laying RCC pipe NP-3 for culverts " do " cm per tech. specification					
RPS 3	× 2.50			=	7.50 m
For 4 No. of culvert				4 × 7.50	= 30 m
(e) Plastering with cement mortar (1:4) on brick work in sub-structure as per tech. specifi's					
outer side	2 × 6.150	× 3.780		=	46.494
Inner side	2 × 6.150	× 0.60		=	7.380
Top	2 × 6.150	× 0.40		=	4.920
Ends	4 × 0.825	× 2.580		=	8.514
Ends Parapet	4 × 0.40	× 1.20		=	1.920
Less	2 × 0.7857	× (1.230)²		=	- 2.377
					66.851 m²

Continuation

For 4 No. of culvert 4 × 66.851 = 267.404 m²

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(f) Providing 1:5 mm cement pointing — do — as per tech. specifica					
Top	2	6.150	0.40	=	4.920
Endo parapet	4	0.40	1.20	=	1.920
Inner sides	2	6.150	0.60	=	7.380
				total	14.220m
for 4 No. of culvert			4 X 14.220		56.88m²
(g) Painting two coats on new concrete surface — — do — as per tech. spe					
	2.5	2	6.150	X 3.780 =	116.235m²
for 4 No. of culvert			4 X 116.235		464.94m²
(23) cable duct across the road Providing and laying of a reinforced cement concrete. duct pipe duct across the road — — do — as per tech. specific.					
				Qnt =	45 Rm

Continuation

P. T.O

Scanned with CamScanner

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(24) Hard shoulder ing Laying brick soling Layer on prepared subgrade --- do --- as per tech. specifich					
RPSm [	2 X	20 X 25 X	0.375 =		375 m^2

G Singh 10/9/2020 JE

RPSm 25-9-2020 AE EKmg.

material statement

(1)	E/V4 = 3096.89 m^3	
(2)	Stone aggregates =	1126.817 m^3
(3)	coarse sand =	401.651 m^3
(4)	stone chips =	284.074 m^3
(5)	stone screening =	106.694 m^3
(6)	Bricks =	84364 No.
(7)	cement =	1444.564 tone
(8)	SS-1 bitumen emulsion =	3.40611 Mt
(9)	RS-1 emulsion =	1.104168 Mt
(10)	Bitumen (S-90) =	7.65225 Mt

G Singh 10/9/2020 JE

RPSm 25-9-2020 AE EKmg.

Continuation

Scanned with CamScanner

Abstract of cost

Sch. XLV—Form No. 134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(1) setting out pillars					
(A) working bench mark pillars - do -					
qnt = 2 NO. vide - mB					
Page - (1) item - (1) A					
@ Rs 3979.82/No. = Rs					7959 =
(B) Reference pillars					
qnt = 6 NO. Page - (1)					
item - 1(B) @ Rs 1823.69					
= Rs					10942 =
(2) clearing and grubbing					
road/ canal - - do - -					
qnt = 1.10 Hectare					
Page - (1) item - (2)					
@ Rs 50148.62/Hect = Rs					55163 =
(3) Dismantling of existing structure - do - -					
qnt = 17.33 m^3 Page - (2)					
item - (3) @ Rs 231.85/m^3					
= Rs					4017 =
(4) Dismantling of existing structure like culverts - - do - -					
qnt = 0.60 m^3 Page - (2)					
item - (4) @ Rs 480.23/m^3					
= Rs					288 =

Continuation

Total C/o Rs 78369 =

P.T.O

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F Rs 78369=

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(5) Removing all types of turnt pipe	—	—	—	—	
—	—	do	—	—	
Qnt = 5m Page-(2) item-(5) @ Rs 171.34/m				= Rs	856=
(6) Box cutting / Excavation for roadway in soil					
— — —		do	—	—	
Qnt = 149.85 m^3 Page-(2) item-(6) @ Rs 75.43/m^3 =				Rs	11303=
(7) const. of embankment with material obtained from borrow pits					
— — —		do	—	—	
(A) For 1000 m lead Qnt = 688.81 m^3 Page-(3) item-7(A) @ Rs 155.23/m^3 =				Rs	106923=
(B) For 100 m lead Qnt = 1928.83 m^3 Page-(3) item-7(B) @ Rs 130.88/m^3 =				Rs	252445=

Continuation

C/O Total Rs 449896

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F = Rs 449896=

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(8) const. of subgrade and earthen shoulder					
— — do — —					
qnt = 1048.06 m^3					
Page - (4) item - (8)					
@ Rs 195.94/m^3 = Rs					205357=
(9) const. of granular subbase by providing well graded — do —					
qnt = 613.45 m^3					
Page - (5) item - (9)					
@ Rs 2865.36/m^3 = Rs					1757755=
(10) WBM gr-II providing laying spreading and compacting stone aggregate					
— — do — —					
qnt = 444.559 m^3					
Page - (5) item - (10)					
@ Rs 4284.49/m^3 = Rs					1904709=
(11) Providing and applying primer coat with bitumen emulsion					
— — do — —					

Continuation

C/T Total Rs 4317717=

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F Rs 4317717=

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
Qnt = 4027.50 m²					
Page- (6) item- (11)					
@ Rs 49.59/m² = Rs					199724=
(12) Tack coat					
Providing and applying tack coat with bitumen emulsion					
— — do — —					
Qnt = 4027.50 m²					
Page- (6) item- (12)					
@ Rs 1.610/m² = Rs					64843=
(13) Mix seal surfacing providing, laying and rolling of close graded premix — do —					
Qnt = 4027.50 m²					
Page- (6) item- (13)					
@ Rs 244.12/m² = Rs					983193=
(14) Const. of un-reinforced plain cement concrete pavement — do —					
Qnt = 303 m³					
Page- (7) item- (14)					
@ Rs 8006.68/m³ = Rs					2426024

Continuation

C/F Total Rs 7991501

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F Rs 799150/-=

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(15) Kilometer stone Reinforced cement concrete m-15 geade					
(i) Km stone qnt = 3 No. Page-(7) item-15(i)					
@ Rs 2366.73 /No. = Rs					7100/-
(ii) 200m stone qnt = 6 No. Page-7 item 15(ii)					
@ Rs 667.32 /No. = Rs					4003/-
(16) Reinforced cement concrete m-15 geade boundary pillars — — do — — qnt = 140 No. page-(7) item-(16)					
@ Rs 505.30 /No. = Rs					70742/-
(17) Traffic sign Providing and fixing of retro-reflective cautionary mandatory and information sign board — — do — —					
(i) 600 mm circular board qnt = 10 No. Page-(7) item-17(i)					
@ Rs 5591.16 = Rs					55911/-

Continuation

C/o Total Rs 8129257

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F Rs 812925 =

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(ii) 900 mm equilateral triangle					
Qnt = 6 NO. Page-(7) item-17(ii)					
@ Rs 6212.47/NO. = Rs					37274 =
(iii) 600mm X 450mm rectangular board					
Qnt = 4 NO. Page-(8) item-17(iii)					
@ Rs 5441.14/NO. = Rs					21764 =
(18) Road marking with hot applied Thermoplastic on BT surface					
— " — do — —					
Qnt = 214 m²					
Page-(8) item-18					
@ Rs 942.89/m² = Rs					201778 =
(19) Road marking with hot applied Thermoplastic compound — do —					
on concrete surface					
— " — do —					
Qnt = 100 m² Page-(8)					
item-(19) @ Rs 1048.07/m²					
= Rs					104807 =

Continuation

C/D Total Rs 8494881

Sch. XLV—Form No. 134 B/c Rs 8494880

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(20) Direction and place identification sign					
— " do —					
ant = 1 No; Page-(8)					
item - (20) @ Rs 3478.67/N					
				= Rs	3478=
(21) Providing and fixing of typical mileage information —					
— do sign board					
ant = 6 No.					
Page-(9) item - (21)					
@ Rs 9451.18/No = Rs					56707=
H.P culvert					
(22) (A) Earthwork in excavation for found.					
— " do —					
ant = 119.192 m^3					
Page-(9) item - 22 (A)					
@ Rs 264.02/m^3 = Rs					31469=
(B) Providing M-15 as					
levelling course in					
found - " do —					
ant = 11.848 m^3					
Page-(9) item - 22 (B)					
@ Rs 5592.93/m^3 = Rs					66265=

Continuation

c/o Total Rs 8652799=

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F Rs 8652799=

Particulars	Details of actual measurement				Contents of area
	Nos.	L.	B.	D.	
(c) Brick masonary work in headwall					
— — do — —					
Qnt = 122.428 m^3					
Page - (10) item - 22 (c)					733477=
@ Rs 5991.09/m^3 = Rs					~~110323~~ =
(d) Providing and laying RCC pipe NP-3 for culverts — do —					
Qnt = 30 m					
Page - (10) item - 22 (d)					
@ Rs 4078.20/m = Rs					122346=
(e) Plastering with cement mortar (1:4) on brick work in substructure					
— — do — —					
Qnt = 267.404 m^2					
Page - (10) item - 22 (e)					
@ Rs 166.23/m^2 = Rs					44451=
(f) Providing 1.5 mm cement pointing					
— — do — —					
Qnt = 56.88 m^2					
Page - (11) item - 22 (f)					
@ Rs 49.48/m^2 = Rs					2814=

Continuation

C/O Total Rs 9555887

Scanned with CamScanner

Sch. XLV—Form No. 134 B/F Rs 9555887=

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
(9) Painting two coats on new concrete surface -- do --					
qnt = 464.94 m²					
Page-(11)					
item - 22(f)					
@ Rs 110.65 / m² =					Rs 51446=
(23) Cable duct across the road Providing and laying of reinforced cement concrete pipe -- do --					
qnt = 45 Rm					
vide TMD Page-(11)					
item-(23)					
@ Rs 880.74 =					Rs 39633=
(24) Hard shouldering Laying brick soling layer on prepared subgrade -- do -					
qnt = 375 m²					
P- (12) item- (24)					
@ Rs 489.66 / m² =					Rs 183622=
				Total	Rs 9830588=
Less 0.11% below on per aggregmt agreemt					(-) Rs 10814=
				Total	Rs 9819774=

Checked 10/02/2020 JE

RPS 25-9-2020 AE

Continuation

CP 30/9/20

Scanned with CamScanner