

KARACHI NEIGHBORHOOD IMPROVEMENT PROJECT (KNIP)



REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBOURHOOD IMPROVEMENT

BILL OF QUANTITIES

SEPTEMBER, 2021



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**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT**

BILL OF QUANTITIES

SUMMARY OF COST

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REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

S/N	DESCRIPTION	AMOUNT (Rs.)
1.0	CIVIL WORKS	
1.1	MULTIPURPOSE HALL	
1.2	STADIA,EXISTING BUILDING,PLAY GROUND,JOGGING TRACK ,UNION COUNCEL, AND BOUNDARY WALL	
1.3	FISH MARKIT	
1.4	SOFT LAND SCAPING AND SOFT PLANTS	
2.0	PUBLIC HEALTH WORK	
2.1	Boxing Area	
2.2	Stedia	
2.3	Multipurpose Hall	
2.4	Existing Multipurpose Hall	
2.5	Union Council	
2.6	Park	
2.7	Existing Stadia	
2.8	Fish Market	
2.9	Main Gate	
2.10	External Water Distribution System	
2.11	External Sewerage System	
2.12	External Drainage System	
3.0	ELECTRICAL WORK	
3.1	EXTERNAL ELECTRICAL WORKS	

SUMMARY OF COST

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT BILL OF QUANTITIES

S/N	DESCRIPTION	AMOUNT (Rs.)
3.2	PROPOSED MULTIPURPOSE HALL	
3.3	PROPOSED STADIA	
3.4	EXISTING GYMNASIUM	
3.5	BOXING ARENA	
3.6	UNION COUNCIL OFFICE	
3.7	EXISTING STADIA	
3.8	ROAD LIGTING	
3.9	FISH MARKIT	
3.10	URBAN DESIGN	
4.0	ROAD WORK WITH URBAN DESIGN	
5.0	ESMP COST:	
	GRAND TOTAL	
	IN MILLION :	

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
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BILL OF QUANTITIES**

MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Earth Work				
1	Clearing and grubbing the site by cutting, uprooting and removing all rubbish and shrubs including disposal to (outside limits) designated places etc. complete in all respects as per standard specification, drawing and entire satisfaction of The Engineer.	Cft	22,943.25		
2	Excavation in foundation of building ,bridges and other structures including dagbelling dressing, refilling around structure with excavated earth watering and ramming lead upto 5 ft. (b) in ordinary soil	Cft	362,663.00		
	Anti-Termmite				
3	Providing Anti-termmite treatment by spraying / sprinkling / spreading Neptachlar 0.5% Emulsion as an overall pre-construction teatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	Per/Sft	37,157.25		
	Plain and Reinforement Concrete				
4	Cement concrete plain including placing compacting, finishing and curing, complete (including screeninig and washing at stone aggregate without shuttering. (Ratio 1:4:8)	Cft	11,242.19		
5	Providing and laying Reinforced cement concrete having 4000 psi cylindrical strength (ready mixed concrete) including all kinds of formwork, hoisting, placing, compacting, finishing, vibrating, curing etc. complete in all respects as per standard specification, drawing and entire satisfaction of the Engineer.(Excluding the cost of steel reinforcement)				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT
BILL OF QUANTITIES**

MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
5.1	Basement Floor	Cft	29229.60		
5.2	Ground Floor	Cft	2584.27		
5.3	First Floor	Cft	2385.48		
5.4	Mumty Floor	Cft	565.99		
6	Providing and laying Reinforced cement concrete having 3000 psi cylindrical strength (ready mixed concrete) including all kinds of formwork, hoisting, placing, compacting, finishing, vibrating, curing etc. complete in all respects as per standard specification, drawing and entire satisfaction of The Engineer.(Excluding the cost of steel reinforcement)				
6.1	Basement Floor	Cft	16314.48		
6.2	Ground Floor	Cft	11796.71		
6.3	First Floor	Cft	5835.85		
6.4	Mumty Floor	Cft	2876.76		
	Block Masonry				
7	Providing and laying 1:3:6 Cement concrete solid block (1200 PSI) masonry wall above 6" in thickness set in 1:4 cement sand mortar in Super Structure including raking out joints & curing etc.				
	8" Thick Block Masonry				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
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MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Ground Floor	Cft	6,970.71		
8	Providing and laying 1 : 3 : 6 cement concrete solid block (1200 PSI) masonry wall 6" and below in thickness set in 1: 4 cement mortar in ground floor Super Structure including raking out joints & curring etc, complete.				
	6" Thick Block Masonry				
	Ground Floor	Cft	3,342.77		
	Surface Rendring				
9	Cement plaster 1:4 upto 12' height. 1/2" thick (Internal plaster)				
	Ground Floor	Sft	87,838.46		
10	Cement plaster 1:4 upto 12' height. 3/4" thick (External plaster)				
	Ground Floor	100 Sft	11,233.18		
	FLOORING				
11	Supplying and filling sand under floor; or plugging in wells	Cft	12,500.00		
12	dry rammed brick or stone ballast / soling 1- 1/2" to 2" gauge.	Cft	5,853.38		
13	Providing and laying cement concrete plain including placing compacting, finishing, leveling and curing complete (including screening and washing at stone aggregate without shuttering etc. (Ratio 1:2:4) (Under Floor)	Cft	10,295.26		
	Painting and Warnishing				
14	Preparing surface and painting with plastic emulsion paint of approved make i/c rubbing the surface with sand paper, filling the voids with chalk/plaster of paris and then painting etc complete. 3 Coats	Sft	90,443.62		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT
BILL OF QUANTITIES**

MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
15	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick / sand paper, filling the voids with chalk / plaster of paris and then painting with weather coat approved make. 3 Coats	Sft	11,570.18		
	Earthwork for structures				
16	Structural excavation in any kind of soil above / below water level for levelling and grading of building, for raft / foundations and other structures upto any depth, and disposal of unsuitable / surplus excavated material outside the project premises at any lead, including restoration of any damages during excavation is the responsibility of contractor complete in all respects as per Specifications and as per approval of The Engineer.	Per/Cft	27,037.50		
	STEEL				
17	Providing and fixing steel reinforcement Grade 60 deformed steel bars (amreli steel karachi or approved equivalents) conforming to ASTM A-615, including cleaning, cutting, bending, placing, binding etc., including provision and cost of spacers and binder wire, cost of chairs, over-laps not shown on drawings etc., in any kind of R.C.C works as specified, complete in all respects as per specification and approved by The Engineer.				
	a) . Reinforcing steel bars of Grade 60 (min. 60,000 psi yield strength)	Per/Kg	422,142.11		
	Flooring				
	Porcelain Tile Work				
18	Providing and laying Porcelain tiles flooring (full body) (Master, or approved equivalent) laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer.	Per/Sft	23,413.53		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT
BILL OF QUANTITIES**

MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Skirting / Dado				
19	Providing and laying Porcelain tiles flooring (full body) exc 7 (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Skirting)	Per/Sft	1,304.37		
20	Providing and laying Porcelain tiles flooring (full body) exc 3 sft (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Dado)	Per/Sft	6,005.93		
21	Providing and laying Porcelain tiles size 12"x18" on Elevation (full body) 8' Hight (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Dado)	Per/Sft	6,427.20		
	Marble and Granite Works				
	Windows Sill				
22	Providing and fixing 3/4" thick Pre-polished Boticina Marble Slab uniform texture full width and length laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing, curing and beveling charges on exposed edges complete in all respect as per Specifications, and as per sample approved by The Engineer.	Per/Sft	375.44		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT
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MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Stair / Entrance Steps				
23	Providing and laying Pre-polished Black Granite (supreme quality) slabs laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints and washing the tiles with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing, curing and beveling charges on exposed edges, i/c anti-slip treads with carborundum powder and silicon mixture in three rows complete in all respect as per Specifications, and as per sample approved by The Engineer.				
	3/4" thick Pre-polished Black Granite (supreme quality) slabs of length and height as shown on drawings, over risers of stairs and entrance steps.	Per/Sft	896.10		
	Carpentry And Joinery Works				
24	Providing and fixing 1-1/2" Engineered / Veneered Door shutter with 6mm thick MDF Oak Veneer Sheet on both sides comprising of kail wood for shutter frame and for solid core batten board and deodar wood lipping 1 1/2"x3/8" (40mm x 10mm) around shutter and 3"x1/2" (75x12mm) deodar wood architraves on both sides, including polishing with lacquer polish (including preparation of surface, applying priming coat, rubbing etc.); or approved equal; all rough and finished hardware complete in all respects as per drawings and Specifications, including handles, door locks (Hungry make), as per sample approved by The Engineer.	Per/Sft	1,837.52		
25	Providing and fixing Door Closer Japan make (Ryobi / Newstar or equivalent), to aluminium doors as per sample approved by The Engineer complete in all respects.	Each	73.00		

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IMPROVEMENT
BILL OF QUANTITIES**

MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
26	Providing and fixing wardrobe 24" (600 mm) deep including ¾" (20 mm) thick Vin Board Sheet boxing, shelves and MDF Laminated (both sides laminated) for front shutter with kail wood frame (3"x1") and hard board for back including hanger rods, brass fittings, locking arrangements, handles, Catchers, full length hinges, deodar wood lipping etc. including polishing and all type of material & labour, as shown on drawings complete in all respects as per sample approved by The Engineer.	Per/Sft	576.00		
	Aluminium Work				
27	Providing and fixing all types of glazed aluminium windows of anodized champagne color partly fixed and partly sliding using deluxe section of (M.S Al-Fattah Aluminium or Equivalent) having frame size 100mm x 30mm x 2mm using frame at bottom at top and side leaf frame size 60mmx23mmx2mm at top and bottom and size 45mmx25mmx 2mm at centre and size 45mm x 25mm x 2mm at sides jali leaf frame size 43mm x 13mm x 2mm all section of 2mm thick i/c imported fine quality aluminum wire gauze jali 5mm tinted glass with rubber gasket using approved standard latches, wheel stopper, brush channel angle joint and hardware etc as per design and complete in all respect as approved by the Engineer Incharge. (all section 2 mm thick)	Per/Sft	3,281.58		
	Steel and Iron Works				
28	Providing and installing of Pre-Engineered Steel Structure Roof (UPPLE HADID make or approved equivalent) complete in all respects as per drawing and as directed by The Engineer.	Per/Sft	13,612.48		

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IMPROVEMENT
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MULTIPURPOSE HALL (CIVIL WORKS)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
29	Providing and fixing M.S grill consisting of 1" x 1", 16-SWG M.S square pipe frame with 2 rows of horizontally & equal dividing panels vertically in the same frame and 1/2" M.S square bars 5" c/c welded to each an other & frame horizontally with 2 rows of equal dividing in three panels vertically as per approved drawing and design in windows i/c hold fast, grouting hold fast in cement concrete (1:2:4) and enamel painting 3-coats with one base coat of red oxide paint complete in all respect as approved and directed by The Engineer.	Sft	3,281.58		
30	Providing and fixing M.S safety grill (Railling) of approved design and drawings comprising of all M.S / wrought iron works and ornamental works, on Balconies / Stairs i/c fixing charges, enamel painting 3-coats with one base coat of red oxide paint complete in all respect as approved and directed by The Engineer.	Sft	1,286.99		
	TOTAL COST:				

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IMPROVEMENT
BILL OF QUANTITIES**

CIVIL WORKS (STADIA,EXISTING BUILDING,PLAY GROUND,JOGGING TRACK ,UNION COUNCEL, AND BOUNDARY WALL)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Earth Work				
1	Clearing and grubbing the site by cutting, uprooting and removing all rubbish and shrubs including disposal to (outside limits) designated places etc. complete in all respects as per standard specification, drawing and entire satisfaction of The Engineer.	Cft	8,474.90		
2	DISMENTLING (DEMOLITION)				
i	Dismantling Cement Block Masonary work	Cft	1,242.18		
ii	Dismantling Concrete (PCC1:2:4) work	Cft	369.89		
iii	Dismantling D.P.C 1-1/2" thick	Cft	25.88		
iv	Dismantling cement concrete reinforced separating reinfor cement from concrete cleaning and straightening the same.	Cft	-		
v	Removing cement or lime plaster.	Sft	12,335.28		
3	Excavation in foundation of building ,bridges and other structures including dagbelling dressing, refilling around structure with excavated earth watering and ramming lead upto 5 ft. (b) in ordinary soil	Cft	45,320.00		
	Anti-Termmite				
4	Providing Anti-termmite treatment by spraying / sprinkling / spreading Neptachlar 0.5% Emulsion as an overall pre-construction teatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	Per/Sft	12,257.00		
	Plain and Reinforement Concrete				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (STADIA, EXISTING BUILDING, PLAY GROUND, JOGGING TRACK, UNION COUNCEL, AND BOUNDARY WALL)

5	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without shuttering. (Ratio 1:4:8))	Cft	34,269.05		
6	Providing and laying Reinforced cement concrete having 4000 psi cylindrical strength (ready mixed concrete) including all kinds of formwork, hoisting, placing, compacting, finishing, vibrating, curing etc. complete in all respects as per standard specification, drawing and entire satisfaction of the Engineer. (Excluding the cost of steel reinforcement)				
	Ground Floor	Cft	12,804.90		
7	Providing and laying Reinforced cement concrete having 3000 psi cylindrical strength (ready mixed concrete) including all kinds of formwork, hoisting, placing, compacting, finishing, vibrating, curing etc. complete in all respects as per standard specification, drawing and entire satisfaction of The Engineer. (Excluding the cost of steel reinforcement)				
	Ground Floor	Cft	7,433.29		
	Block Masonry				
8	Providing and laying 1:3:6 Cement concrete solid block (1200 PSI) masonry set in 1:4 cement sand mortar in plinth and foundation including raking out joints & curing etc.	Cft	641.29		
9	Providing and laying 1:3:6 Cement concrete solid block 1200 PSI masonry wall above 6" in thickness set in 1:4 cement sand mortar in Super Structure including raking out joints & curing etc.				
	8" Thick Block Masonry				
	Ground Floor	Cft	7,285.96		

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IMPROVEMENT
BILL OF QUANTITIES**

**CIVIL WORKS (STADIA, EXISTING BUILDING, PLAY GROUND, JOGGING TRACK, UNION COUNCEL, AND BOUNDARY
WALL)**

10	Providing and laying 1 : 3 : 6 cement concrete solid block (1200 PSI) masonry wall 6" and below in thickness set in 1: 4 cement mortar in ground floor Super Structure including raking out joints & curring etc, complete.				
	6" Thick Block Masonry				
	Ground Floor	Cft	3,388.70		
	Surface Rending				
11	Cement plaster 1:4 upto 12' height. 1/2" thick (Internal plaster)				
	Ground Floor	Sft	60,273.35		
12	Cement plaster 1:4 upto 12' height. 3/4" thick (External plaster)				
	Ground Floor	Sft	47,614.84		
	FLOORING				
13	Providing and laying cement concrete plain including placing compacting, finishing, leveling and curing complete (including screening and washing at stone aggregate without shuttering etc. (Ratio 1:2:4) (Under Floor)	Cft	1,891.60		
	Painting and Warnishing				
14	Preparing surface and painting with plastic emulsion paint of approved make i/c rubbing the surface with sand paper, filling the voids with chalk/plaster of paris and then painting etc complete. 3 Coats	Sft	62,081.56		
15	Preparing the surface and painting with weather coat i/c rubbing the surface with rubbing brick / sand paper, filling the voids with chalk / plaster of paris and then painting with weather coat approved make. 3 Coats	100 Sft	49,043.29		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT
BILL OF QUANTITIES**

**CIVIL WORKS (STADIA,EXISTING BUILDING,PLAY GROUND,JOGGING TRACK ,UNION COUNCEL, AND BOUNDARY
WALL)**

	steel				
16	Providing and fixing steel reinforcement Grade 60 deformed steel bars (amreli steel karachi or approved equivalents) conforming to ASTM A-615, including cleaning, cutting, bending, placing, binding etc., including provision and cost of spacers and binder wire, cost of chairs, over-laps not shown on drawings etc., in any kind of R.C.C works as specified, complete in all respects as per specification and approved by The Engineer.				
	a) . Reinforcing steel bars of Grade 60 (min. 60,000 psi yield strength)	Per/Kg	106,759.89		
	Flooring				
	Porcelain Tile Work				
17	Providing and laying Porcelain tiles flooring (full body) (Master, or approved equivalent) laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer.	Per/Sft	32,046.09		
	Skirting / Dado				
18	Providing and laying Porcelain tiles flooring (full body) exc 7 (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Skirting)	Per/Sft	1,473.81		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (STADIA, EXISTING BUILDING, PLAY GROUND, JOGGING TRACK, UNION COUNCEL, AND BOUNDARY WALL)

19	Providing and laying Porcelain tiles flooring (full body) exc 3 sft (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Dado)	Per/Sft	8,086.29		
	Marble and Granite Works				
	Windows Sill				
20	Providing and fixing 3/4" thick Pre-polished Boticina Marble Slab uniform texture full width and length laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing, curing and beveling charges on exposed edges complete in all respect as per Specifications, and as per sample approved by The Engineer.	Per/Sft	281.52		
	Stair / Entrance Steps				
21	Providing and laying Pre-polished Black Granite (supreme quality) slabs laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints and washing the tiles with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing, curing and beveling charges on exposed edges, i/c anit-slip treads with carborundum powder and silicon mixture in thee rows complete in all respect as per Specifications, and as per sample approved by The Engineer.				
	3/4" thick Pre-polished Black Granite (supreme quality) slabs of length and height as shown on drawings, over risers of stairs and entrance steps.	Per/Sft	784.00		
	Carpentry And Joinery Works				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT
BILL OF QUANTITIES**

**CIVIL WORKS (STADIA,EXISTING BUILDING,PLAY GROUND,JOGGING TRACK ,UNION COUNCEL, AND BOUNDARY
WALL)**

22	Providing and fixing 1-1/2" Engineered / Veneered Door shutter with 6mm thick MDF Oak Veneer Sheet on both sides comprising of kail wood for shutter frame and for solid core batten board and deodar wood lipping 1½"x3/8" (40mm x 10mm) around shutter and 3"x½" (75x12mm) deodar wood architraves on both sides, including polishing with lacquer polish (including preparation of surface, applying priming coat, rubbing etc.); or approved equal; all rough and finished hardware complete in all respects as per drawings and Specifications, including handles, door locks (Hungry make), as per sample approved by The Engineer.	Per/Sft	2,288.66		
23	Providing and fixing Door Closer Japan make (Ryobi / Newstar or equivalent), to aluminium doors as per sample approved by The Engineer complete in all respects.	Each	107.00		
24	Providing and fixing wardrobe 24" (600 mm) deep including ¾" (20 mm) thick Vin Board Sheet boxing, shelves and MDF Laminated (both sides laminated) for front shutter with kail wood frame (3"x1") and hard board for back including hanger rods, brass fittings, locking arrangements, handles, Catchers, full length hinges, deodar wood lipping etc. including polishing and all type of material & labour, as shown on drawings complete in all respects as per sample approved by The Engineer.	Per/Sft	480.00		
	Aluminium Work				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

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CIVIL WORKS (STADIA, EXISTING BUILDING, PLAY GROUND, JOGGING TRACK, UNION COUNCEL, AND BOUNDARY WALL)

25	Providing and fixing all types of glazed aluminium windows of anodized champagne color partly fixed and partly sliding using deluxe section of(M.S Al-Fattah Aluminium or Equivalent) having frame size 100mm x 30mm x 2mm using frame at bottom at top and side leaf frame size 60mmx23mmx2mm at top and bottom and size 45mmx25mmx 2mm at centre and size 45mm x 25mm x 2mm at sides jali leaf frame size 43mm x 13mm x 2mm all section of 2mm thick i/c imported fine quality aluminum wire gauze jali 5mm tinted glass with rubber gasket using approved standard latches, wheel stopper, brush channel angle joint and hardware etc as per design and complete in all respect as approved by the Engineer Incharge. (all section 2 mm thick)	Per/Sft	2,730.32		
26	Providing and fixing all types of partly fixed and partly openable glazed anodized wood colour aluminium doors, using delux section of approved manufacturer(Al-Fattah Aluminium or equivalent), having chowkat frame of size 40 x 100 mm (1½" x 4") and leaf frame of 60x40mm (2½"x1½") wide sections including the cost of ¼" (5 mm) thick imported tinted glass with aluminium triangular gola and rubber gasket to support the glass and leaf edging, using approved standard fittings, locks, 3" (75 mm) wide long handles etc., and hardware any required as approved by the engineer in-charge. (2 mm thick)	Per/Sft	247.20		
	Steel and Iron Works				
27	Providing and fixing M.S Jangla on front side boundary wall 4'-6" high comprising of ¾" sq.bars at 5" c/c, 4 rows of M.S flat 2"x3/8" and 1- row of 5" circle of same m.s flat size ,4"x4" x3/8" sq. pipe at middle of 8' pannel and welding M.S spearheads at top of ¾" sq. bars i/c anti rust red oxide paint and 3- coats of enamel paint (ICI make or approved equivalent), Complete in all respects, as shwon on drawings, Approved by The Engineer.	Per/Sft	8,292.79		

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**CIVIL WORKS (STADIA, EXISTING BUILDING, PLAY GROUND, JOGGING TRACK, UNION COUNCEL, AND BOUNDARY
WALL)**

28	Providing and fixing M.S. Sheet hollow pressed 'frame of doors, '(Chowkhat only) full jam of 10½"x 2" single rebate of M.S 16 SWG with i/c 4 No's 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 No's bottom with 6-No's 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching with concrete, complete in all respects as per drawings and Specifications and as per sample approved by the Engineer.	Per/Rft	1871.51		
29	Providing and installing M.S Main Gate consisting of 2"x2"x2/8" M.S. angle tube frame, including 1/2" sq.bars at 5" c/c, 1- row of 5" circle 2"x3/8" along the frame and 1 rows of M.S flat of 2"x3/8", welded to M.S. frame including making of s type design of M.S 1/2' sq.br and M.S sheet of 3/8" at center, including tube frame hold-fast with arrangement accessories embedded in R.C.C. columns, all rough and finish hardware, two coats of anti rust red oxide paint with two coats of enamel paint (ICI make or approved equivalent) complete in all respects as per drawing and as directed by The Engineer.	Per/Sft	375.44		
30	Providing and fixing M.S grill consisting of 1" x 1", 16-SWG M.S square pipe frame with 2 rows of horizontally & equal dividing panels vertically in the same frame and 1/2" M.S square bars 5" c/c welded to each an other & frame horizontally with 2 rows of equal dividing in three panels vertically as per approved drawing and design in windows i/c hold fast, grouting hold fast in cement concrete (1:2:4) and enamel painting 3-coats with one base coat of red oxide paint complete in all respect as approved and directed by The Engineer.	Sft	2,730.32		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (STADIA, EXISTING BUILDING, PLAY GROUND, JOGGING TRACK, UNION COUNCEL, AND BOUNDARY WALL)

31	Providing and fixing (Ms Wire Mesh Structure) Ms pipe angle iron 1.5"x1.5"x1.5"" with ms plate 6"x6"x1/2", J-Bolt 5/8"x18" with nut bolt ,Mesh chain link 2.5"x2.5" 10 guage including civil works pad size 15"x15"x2.5' coast of all labour and material as per design provided by the consultants and to the entire satisfaction of Engineer incharge complete in all respects .(height-6 ft)	Sft	5,351.88		
32	Providing and fixing M.S safety grill (Railling) of approved design and drawings comprising of all M.S / wrought iron works and ornamental works, on Balconies / Stairs i/c fixing charges, enamel painting 3-coats with one base coat of red oxide paint complete in all respect as approved and directed by The Engineer.	Sft	1,910.65		
33	P/L tuff paver using 60 mm I section made by Izhar/concrete concepts with crushing strength from 5000 to 7000 psi, complete in all respects .	Sft	42,230.00		
34	Construction of Concrete Benches with Planter complete in all respect as per architecturel drawing.	Job	2.00		
35	Providing and fixing PVC door with frame best quality complete in all respect.	Sft	35.00		
36	Supply and apply 50 mm Artificial Grass with sbr and sand filling Football Ground Area (50 mm) International Standard SBR rubber filling :6-8 kg/sqm Line Marking: 50 mm white grass inclouding 10" thick Sub Base Complete in all respect.	Sft	56,701.50		
37	CONSTRUCTION OF JOGGING TRACK WITH 100X160X190 MM EDGING STONE K2 IZHAR / CONCRETE CONCEPT ON BOTH SIDES, 3" LAYER OF STONE BALLAST, 4" LAYER OF STONE DUST & FINE KERIPOWDER MIXED WITH EACH OTHER WITH 60/40 RATIO BY VOLUME COMPLETE IN ALL RESPECTS .	Sft	8,856.00		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT**

BILL OF QUANTITIES

CIVIL WORKS (STADIA,EXISTING BUILDING,PLAY GROUND,JOGGING TRACK ,UNION COUNCEL, AND BOUNDARY WALL)

38	Providing and installing of Pre-Engineered Steel Structure Roof (UPPLE HADID make or approved equivalent) complete in all respects as per drawing and as directed by The Engineer.(for Boxing Areana)	Sft	8,804.00		
39	Providing and installing of Pre-Engineered Steel Structure Roof (UPPLE HADID make or approved equivalent) complete in all respects as per drawing and as directed by The Engineer. (For New Proposed Stadia)	Sft	21,521.00		
40	Removed iron Framed shed from existing Stadia area	Job	1.00		
TOTAL COST:					

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Earth Work				
1	Clearing and grubbing the site by cutting, uprooting and removing all rubbish and shrubs including disposal to (outside limits) designated places etc. complete in all respects as per standard specification, drawing and entire satisfaction of The Engineer.	Cft	16,249.28		
2	Excavation in foundation of building ,bridges and other structures including dagbelling dressing, refilling around structure with excavated earth watering and ramming lead upto 5 ft. (b) in ordinary soil	Cft	6,879.11		
	Anti-Termmite				
3	Providing Anti-termmite treatment by spraying / sprinkling / spreading Neptachlar 0.5% Emulsion as an overall pre-construction teatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	Per/Sft	9,625.87		
	Plain and Reinforement Concrete				
4	Cement concrete plain including placing compacting, finishing and curing, complete (including screeninig and washing at stone aggregate without shuttering. (Ratio 1:4:8))	Cft	1,380.09		
5	Providing and laying Reinforced cement concrete having 4000 psi cylindrical strength (ready mixed concrete) including all kinds of formwork, hoisting, placing, compacting, finishing, vibrating, curing etc. complete in all respects as per standard specification, drawing and entire satisfaction of the Engineer.(Excluding the cost of steel reinforcement)				
	Ground Floor	Cft	3,003.79		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
6	Providing and laying Reinforced cement concrete having 3000 psi cylindrical strength (ready mixed concrete) including all kinds of formwork, hoisting, placing, compacting, finishing, vibrating, curing etc. complete in all respects as per standard specification, drawing and entire satisfaction of The Engineer.(Excluding the cost of steel reinforcement)				
	Ground Floor	Cft	1,642.81		
	Block Masonry				
7	Providing and laying 1:3:6 Cement concrete solid block masonry set in 1:6 cement sand mortar in plinth and foundation including raking out joints & curing etc.	Cft	1,241.94		
8	Providing and laying 1:3:6 Cement concrete solid block masonry wall above 6" in thickness set in 1:6 cement sand mortar in Super Structure including raking out joints & curing etc.				
	8" Thick Block Masonry				
	Ground Floor	Cft	3,279.38		
9	Providing and laying 1 : 3 : 6 cement concrete solid block masonry wall 6" and below in thickness set in 1: 6 cement mortar in ground floor Super Structure including raking out joints & curring etc, complete.				
	6" Thick Block Masonry				
	Ground Floor	Cft	2,036.77		
	Surface Rendring				
10	Cement plaster 1:4 upto 12' height. 1/2" thick (Internal plaster)				
	Ground Floor	Sft	39,399.56		
11	Cement plaster 1:4 upto 12' height. 3/4" thick (External plaster)				
	Ground Floor	Sft	5,550.16		
	FLOORING				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
12	Supplying and filling sand under floor; or plugging in wells	Cft	104,222.61		
13	dry rammed brick or stone ballast 1-1/2" to 2" gauge.	Cft	6,392.84		
14	Providing and laying cement concrete plain including placing compacting, finishing, leveling and curing complete (including screening and washing at stone aggregate without shuttering etc. (Ratio 1:2:4) (Under Floor)	Cft	1,608.83		
15	1½"(40 mm) thick mosaic flooring, consisting of ½ "(13 mm) mosaic topping of one part of grey cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1"(25 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing.	Sft	380		
16	Mosaic dado or skirting with one part of grey cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing: ii) ½"(13 mm) thick	Sft	180		
	Painting and Warnishing				
17	Preparing surface and painting with plastic emulsion paint of approved make i/c rubbing the surface with sand paper, filling the voids with chalk/plaster of paris and then painting etc complete. 3 Coats	Sft	40,581.55		
18	Preparing the surface and painting with weather coat i/c rubbing the surface with rubbing brick / sand paper, filling the voids with chalk / plaster of paris and then painting with weather coat approved make. 3 Coats	Sft	5,716.67		
	STEEL				
19	Providing and fixing steel reinforcement Grade 60 deformed steel bars (amreli steel karachi or approved equivalents) conforming to ASTM A-615, including cleaning, cutting, bending, placing, binding etc., including provision and cost of spacers and binder wire, cost of chairs, over-laps not shown on drawings etc., in any kind of R.C.C works as specified, complete in all respects as per specification and approved by The Engineer.				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	a) . Reinforcing steel bars of Grade 60 (min. 60,000 psi yield strength)	Per/Kg	28,220.53		
	Flooring				
	Porcelain Tile Work				
20	Providing and laying Porcelain tiles flooring (full body) (Master, or approved equivalent) laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer.	Per/Sft	3,427.34		
	Skirting / Dado				
21	Providing and laying Porcelain tiles flooring (full body) (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Skirting)	Per/Sft	356.73		
22	Providing and laying Porcelain tiles flooring (full body) (Master, or approved equivalent) laid over pre-plastered surface including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing and curing complete in all respect as per Specifications, and as per sample approved by The Engineer. (Dado)	Per/Sft	803.92		
	Marble and Granite Works				
	Windows Sill				
23	Providing and fixing 3/4" thick Pre-polished Boticina Marble Slab uniform texture full width and length laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing, curing and beveling charges on exposed edges complete in all respect as per Specifications, and as per sample approved by The Engineer.	Per/Sft	21.63		
	Stair / Entrance Steps				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
24	Providing and laying Pre-polished Black Granite (supreme quality) slabs laid over 3/4" thick cement sand mortar (1:3) including setting the tiles with Bond (Stile, or approved equivalent) i/c filling joints and washing the tiles with Grout (Stile, or approved equivalent) of matching color i/c cutting, leveling, washing, curing and beveling charges on exposed edges, i/c anti-slip treads with carborundum powder and silicon mixture in three rows complete in all respect as per Specifications, and as per sample approved by The Engineer.				
	3/4" thick Pre-polished Black Granite (supreme quality) slabs of length and height as shown on drawings, over risers of stairs and entrance steps.	Per/Sft	889.92		
	Vanity / Kitchen Counter Top				
	Carpentry And Joinery Works				
25	Providing and fixing 1-1/2" Engineered / Veneered Door shutter with 6mm thick MDF Oak Veneer Sheet on both sides comprising of kail wood for shutter frame and for solid core batten board and deodar wood lipping 1 1/2"x3/8" (40mm x 10mm) around shutter and 3"x1/2" (75x12mm) deodar wood architraves on both sides, including polishing with lacquer polish (including preparation of surface, applying priming coat, rubbing etc.); or approved equal; all rough and finished hardware complete in all respects as per drawings and Specifications, including handles, door locks (Hungry make), as per sample approved by The Engineer.	Per/Sft	97.34		
26	Providing and fixing Door Closer Japan make (Ryobi / Newstar or equivalent), to aluminium doors as per sample approved by The Engineer complete in all respects.	Each	6.00		
	Aluminium Work				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
27	Providing and fixing all types of glazed aluminium windows of anodized champagne color partly fixed and partly sliding using deluxe section of(M.S Al-Fattah Aluminium or Equivalent) having frame size 100mm x 30mm x 2mm using frame at bottom at top and side leaf frame size 60mmx23mmx2mm at top and bottom and size 45mmx25mmx 2mm at centre and size 45mm x 25mm x 2mm at sides jali leaf frame size 43mm x 13mm x 2mm all section of 2mm thick i/c imported fine quality aluminum wire gauze jali 5mm tinted glass with rubber gasket using approved standard latches, wheel stopper, brush channel angle joint and hardware etc as per design and complete in all respect as approved by the Engineer Incharge. (all section 2 mm thick)	Per/Sft	69.53		
	Steel and Iron Works				
28	Providing and fixing M.S. Sheet hollow pressed 'frame of doors, '(Chowkhat only) full jam of 10½"x 2" single rebate of M.S 16 SWG with i/c 4 No's 5" long C.P hinges screwed / welded M.S flat iron 2" x 1/8" in back of hinges welded inside i/c 3/8" dia bars 2 No's bottom with 6-No's 6" long hold fast angle iron 1.5"x1.5"x3/16" also back fill with P.C.C 1:2:4 i/c painting with red oxide and bitumen coating on surface touching with concrete, complete in all respects as per drawings and Specifications and as per sample approved by the Engineer.	Per/Rft	191.84		
29	Providing and installing M.S Main Gate consisting of 2"x2"x2/8" M.S. angle tube frame, including 1/2" sq.bars at 5" c/c, 1- row of 5" circle 2"x3/8" along the frame and 1 rows of M.S flat of 2"x3/8", welded to M.S. frame including making of s type design of M.S 1/2' sq.br and M.S sheet of 3/8" at center, including tube frame hold-fast with arrangement accessories embedded in R.C.C. columns, all rough and finish hardware, two coats of anti rust red oxide paint with two coats of enamel paint (ICI make or approved equivalent) complete in all respects as per drawing and as directed by The Engineer.	Per/Sft	375.44		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
30	Providing and fixing M.S grill consisting of 1" x 1", 16-SWG M.S square pipe frame with 2 rows of horizontally & equal dividing panels vertically in the same frame and 1/2" M.S square bars 5" c/c welded to each an other & frame horizontally with 2 rows of equal dividing in three panels vertically as per approved drawing and design in windows i/c hold fast, grouting hold fast in cement concrete (1:2:4) and enamel painting 3-coats with one base coat of red oxide paint complete in all respect as approved and directed by The Engineer.	Sft	271.15		
31	Providing and fixing M.S safety grill (Railling) of approved design and drawings comprising of all M.S / wrought iron works and ornamental works, on Balconies / Stairs i/c fixing charges, enamel painting 3-coats with one base coat of red oxide paint complete in all respect as approved and directed by The Engineer.	Sft	360.50		
	Waterproofing on Roof				
32	Providing & laying complete roof treatment at any floor and any height as shown in the drawing, details consisting of following items complete in all respects as per drawing, standards, specifications and direction of The Engineer.				
32.1	Apply one coat of bitumen primer over R.C.C. slab.	Per/Sft	820.00		
32.2	Lay one layer of polythene sheet 500 SWG	Per/Sft	820.00		
32.3	Providing and laying 4mm thick torch applied water proofing membrane by High Grip; or approved equivalent over above leveled surface including primer coating, overlapping (horizontal & vertical) complete as per manufacturer's specifications, instruction & as shown in the drawing etc., complete in all respects as per drawings, specification and as directed by The Engineer.	Per/Sft	820.00		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

CIVIL WORKS (FISH MARKIT)

Item No.	Description of Items	Unit	Qty	Rate (Rs.)	Amount (Rs.)
32.4	Providing and laying 2" thick 1:2:4 concrete screed including BRC mesh 4" x 4" x 10 swg in required slope curing, making ridges, valleys, chamfered edges etc complete in all respects as per drawings, specifications and as directed by The Engineer.	Per/Sft	820.00		
33	P/L tuff paver using 60 mm I section made by Izhar/concrete concepts with crushing strength from 5000 to 7000 psi, complete in all respects .	Sft	2,884.00		
34	Construction of Circulr Concrete Bench with Planter complete in all respect as per architecturel drawing.	Job	1.00		
35	Providing and fixing PVC door with frame best quality complete in all respect.	Sft	84.00		
36	Providing and installing of Trusess roof (Ms pipe with carrogated sheet complete in all respects) as per drawing and as directed by The Engineer.	Sft	4,575.78		
37	Providing and fixing hot galvanised octagone wire Mesh grill with Ms pipe 16 swg on frant Entrance complete in all respects as per drawing and as directed by The Engineer.	Sft	967.65		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

SOFT LAND SCAPING AND SOFT PLANTS (FISH MARKIT & KAKRI GROUND)					
SR	Discription	UNIT	QTY	RATE	AMOUNT
1	Providing and laying sweet earth (Bhal or Equivalent)	Cft	20000		
2	Earth work in ordinary soil for embankments lead upto 100 ft. (30m), including ploughing and mixing with blade grade or disc harrow or other suitable equipment, and compaction by mechanical means at optimum moisture content and dressing to designed section, complete in all respects: 95% to 100% miximum modified AASHO dry density .				
	Unde T.paver path	Cft	10000		
3	Filling, watering and ramming earth under floors:-with new earth excavated from outside.	Cft	3500		
4	Levelling dressing and making lawns	Sft	10000		
5	Providing and planting dhaka grass @2.5"c/c both way including cost of grass, dreshi, waering, & cuttings complete in all respects till proper handing over	Sft	10000		
6	Providing and planting of "Nenthra Red/ Green" 2" crown height in P.B including the cost of pitting watering, complete in all respect .	No	800		
7	Providing and planting of Bottle Palm Queen stem height 12' including the cost of pitting bhul, fertilizer, watering complete .	No	30		
8	Providing and planting of Ficus Golden / Black/ White/ Jamin./FICUS GROUP 18" crown height 9' pot size including the cost of pitting bhul, fertilizer, watering, complete in all respect.	No	25		
9	Providing and planting of "PHOENIX PALM" 6' crown height 18" pot size including the cost of fertilizer, watering complete in all respect .	No	10		
10	Providing and planting of "TERMINALIA" 9' crown height 18" pot size including the cost of fertilizer, watering, complete in all respect .	No	20		
11	Providing and planting of "BISMARKEA" 4' crown height including the cost of fertilizer, watering complete in all respect .	No	20		
12	Providing and planting of "khajoor" 12' crown height in health condition including the cost of pitting watering complete in all respect.	No	20		
	TOTAL				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT**

BILL OF QUANTITIES

SUMMARY OF COST PH WORKS

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (BOXING AREA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing European type white glazed earthen ware wash down wc pan with including with white/black plastic seat (best quality)and lid with cp brass hinges & buffers, white glazed earthen ware low level flushing cistern with siphon fitting 1½" dia white porcelain enamelled flush bend ¾" dia and making requisite number of holes in walls,plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Porta or Equivalent)	Each	4		
2	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inletr & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	6		
3	Providing and fixing 24"x18" Wash basin in white glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Porta or Equivalent)	Each	10		
4	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	4		
5	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Porta or Equivalent	Each	10		
6	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	10		
7	Towel rail 24" long , ¾" dia round or square (Porta or Equivalent)	Each	6		
8	Supply & fixing wash basin mixture of superior Quality with cp head ½" dia	Each	10		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (BOXING AREA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
9	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	10		
10	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & ½ " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	4		
11	Constructing manhole or inspection chamber for the required diameterof circular sewer and 3'-6"depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-½'x1-½' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6"wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	6		
12	<u>Septic Tank</u>				
	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and rammiing lead upto 5 ft. (1.5 m)n b) in ordinary soil.	Cft	390		
13	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate witout shuttering).Complete in all respect. (i) Ratio 1:4:8	Cft	20		
14	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately.This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface(including screening and washing of shingle.): (a) Reinforced cement concrete in roof slab, beams,rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (BOXING AREA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	1): Slab	Cft	45		
	2): Walls	Cft	100		
15	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc.and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	528		
16	Providind CI Manhole Cover & Frame i/c Cost of Material etc	Kg	22		
17	Small iron work such as gusset plate knees bends,stirrups, rings etc.Including cutting, drilling, handling and fixing but excluding erection in position.				
	For septic tank monkey ladder	Kg	10		
	PLUMBING FIXTURES				
18	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	76		
	WATER SUPPLY				
19	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	100		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (BOXING AREA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	32mm dia	Rft	100		
	40mm dia	Rft	81		
	50mm dia	Rft	23		
	63mm dia	Rft	138		
20	Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		
	32 mm	Nos.	1		
	40 mm	Nos.	1		
	50 mm	Nos.	0		
	63 mm	Nos.	2		
21	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	6 Liter Electric Geyser	Nos.	1		
	12 Liter Electric Geyser	Nos.	3		
	SEWERAGE & DRAINAGE				
22	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	1,882		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMNET**

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (BOXING AREA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
23	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints,DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	36		
	3" i.d	Rft	110		
	4" i.d	Rft	72		
	6" i.d	Rft	215		
	8" i.d	Rft	20		
24	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	6		
25	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	16		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMNET**

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (BOXING AREA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
26	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	6		
27	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	2		
	4" i.d	Nos.	2		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing European type white glazed earthen ware wash down wc pan with including with white/black plastic seat (best quality)and lid with cp brass hinges & buffers, white glazed earthen ware low level flushing cistern with siphon fitting 1½" dia white porcelain enamelled flush bend ¾" dia and making requisite number of holes in walls,plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Foreign Quality)	Each	14		
2	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inletr & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalant). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	10		
3	Providing and fixing steel sinks stainless local make complete with cast iron or wrought iron brackets 6inches built in walls ,1½ c.p bubber plug chrome plated brass chain,1½" c.p brass waste , with 1½" P.V.C waste pipe & making requisite number of holes in wall & plinth & floor for pipe connection & making good in cement concrete 1:2:4				
	C) Steel Sink Stainless sized 33"x18" Local make Standard pattern	Each	3		
4	Supply & fixing sink mixture Cock of superior Quality with cp head ½" dia with cp head etc complete	Each	3		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
5	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	18		
6	Add Extra for labour for providing & fixing of earthen ware pedestal white or colour glazed(Foreign or equivalent)	Each	4		
7	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	24		
8	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	18		
9	Towel rail 24" long , 3/4" dia round or square (Superior Quality)	Each	12		
10	Supply & fixing wash basin mixture of superior Quality with cp head ½" dia	Each	18		
11	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	24		
12	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & ½ " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	4		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
13	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-½'x1-½' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	5		
	<u>G.I Piping</u>				
14	Providing G.I Pipes , Special and clamps etc, including fixing cutting & fitting complete with i/c the cost of breaking through walls and roof ,Making good etc,painted two coats after cleaning the pipe etc ,with zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling -				
	a) ¾" i/d dia G.I Pipe	Rft	231		
	<u>SEWERAGE</u>				
15	<u>Septic Tank</u>				
	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and ramming lead upto 5 ft. (1.5 m)n b) in ordinary soil.	Cft	429		
16	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate without shuttering).Complete in all respect. (i) Ratio 1:4:8	Cft	22		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
17	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface(including screening and washing of shingle):- (a) Reinforced cement concrete in roof slab, beams,rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	50		
	2): Walls	Cft	108		
18	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc.and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	573		
19	Providind CI Manhole Cover & Frame i/c Cost of Material etc	Kg	22		
20	Small iron work such as gusset plate knees bends,stirrups, rings etc.Including cutting, drilling, handling and fixing but excluding erection in position.				
	For septic tank monkey ladder	Kg	10		
	PLUMBING FIXTURES				
21	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	100		
22	Providing and installing shower mixer including fitting & fitting accessories, complete in all respect as per specifications and drawings.	Each	4		
	WATER SUPPLY				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
23	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	275		
	32mm dia	Rft	156		
	40mm dia	Rft	178		
	50mm dia	Rft	132		
	63mm dia	Rft	138		
24	Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		
	32 mm	Nos.	0		
	40 mm	Nos.	4		
	50 mm	Nos.	4		
	63 mm	Nos.	1		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
25	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	55 Gallon Geyser	Nos.	2		
	GAS SUPPLY				
26	Providing and installing ball valves of following nominal dia, Kitz/Scon make, including jointing, fitting, painting, testing, complete in all respects to match with following G.I pipe diameters.				
	3/4" i.d	No.	4		
	SEWERAGE & DRAINAGE				
27	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	1,612		
28	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints,DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	50		
	3" i.d	Rft	265		
	4" i.d	Rft	176		
	6" i.d	Rft	182		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (STEDIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	8" i.d	Rft	20		
29	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	4		
30	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	42		
31	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	14		
32	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	9		
	4" i.d	Nos.	6		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MULTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing European type white glazed earthen ware wash down wc pan with including with white/black plastic seat (best quality)and lid with cp brass hinges & buffers, white glazed earthen ware low level flushing cistern with siphon fitting 1½" dia white porcelain enamelled flush bend ¾" dia and making requisite number of holes in walls,plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Foreign Quality)	Each	12		
2	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inlet & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	10		
3	Providing and fixing 24"x18" Lavatory basin in white glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malleable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	20		
4	Add Extra for labour for providing & fixing of earthen ware pedestal white or colour glazed(Foreign or equivalent)	Each	2		
5	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	22		
6	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	20		
7	Towel rail 24" long , ¾" dia round or square (Superior Quality)	Each	18		
8	Supply & fixing wash basin mixture of superior Quality with cp head ½" dia	Each	20		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
9	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	22		
10	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & ½ " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	3		
11	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-½'x1-½' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	7		
	<u>G.I Piping</u>				
12	Providing G.I Pipes , Special and clamps etc, including fixing cutting & fitting complete with i/c the cost of breaking through walls and roof ,Making good etc,painted two coats after cleaning the pipe etc ,with zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling -				
	a) ¾" i/d dia G.I Pipe	Rft	446		
	<u>WATER SUPPLY</u>				
	<u>Over Head Water Tank</u>				
13	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface (including screening and washing of shingle.):-((a) Reinforced cement concrete in roof slab, beams,rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	370		
	2): Walls	Cft	279		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
14	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	2355		
15	Providing CI Manhole Cover & Frame i/c Cost of Material etc	Kg	11		
16	Small iron work such as gusset plate knees bends, stirrups, rings etc. Including cutting, drilling, handling and fixing but excluding erection in position.				
	For tank monkey ladder	Kg	5		
	SEWERAGE				
	Septic Tank				
17	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and ramming lead upto 5 ft. (1.5 m) n b) in ordinary soil.	Cft	429		
18	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate without shuttering). Complete in all respect. (i) Ratio 1:4:8	Cft	22		
19	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface (including screening and washing of shingle):- (a) Reinforced cement concrete in roof slab, beams, rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	50		
	2): Walls	Cft	108		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
20	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	573		
21	Providing CI Manhole Cover & Frame i/c Cost of Material etc	Kg	22		
22	Small iron work such as gusset plate knees bends, stirrups, rings etc. Including cutting, drilling, handling and fixing but excluding erection in position. For septic tank monkey ladder	Kg	10		
	Sump Pit (Nu 2)				
23	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and ramming lead upto 5 ft. (1.5 m) n b) in ordinary soil.	Cft	216		
24	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate without shuttering). Complete in all respect. (i) Ratio 1:4:8	Cft	13		
25	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface (including screening and washing of shingle):- (a) Reinforced cement concrete in roof slab, beams, rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	41		
	2): Walls	Cft	90		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
26	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	474		
27	Providing CI Manhole Cover & Frame i/c Cost of Material etc	Kg	22		
28	Small iron work such as gusset plate knees bends, stirrups, rings etc. Including cutting, drilling, handling and fixing but excluding erection in position.				
	For septic tank monkey ladder	Kg	8		
	PLUMBING FIXTURES				
29	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	120		
30	Providing and installing shower mixer including fitting & fitting accessories, complete in all respect as per specifications and drawings.	Each	8		
	WATER SUPPLY				
31	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078, PN-20 for pipes and DIN 16962, PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	313		
	32mm dia	Rft	311		
	40mm dia	Rft	168		
	50mm dia	Rft	540		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	63mm dia	Rft	259		
	90mm dia	Rft	154		
32	Providing and installing ball valves of following nominal dia, Kitz/Dadex make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		
	32 mm	Nos.	0		
	40 mm	Nos.	10		
	50 mm	Nos.	4		
	63 mm	Nos.	3		
	90 mm	Nos.	2		
33	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	35 Gallon Geyser	Nos.	1		
	55 Gallon Geyser	Nos.	1		
	GAS SUPPLY				
34	Providing and installing ball valves of following nominal dia, Kitz/Scon make, including jointing, fitting, painting, testing, complete in all respects to match with following G.I pipe diameters.				
	3/4" i.d	No.	1		
	SEWERAGE & DRAINAGE				
35	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT**

**BILL OF QUANTITIES
PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)**

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	Up to 7 feet depth	Cft	3,504		
36	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints, DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	248		
	3" i.d	Rft	462		
	4" i.d	Rft	473		
	6" i.d	Rft	418		
	8" i.d	Rft	20		
	Class "C"				
	2" i.d	Rft	88		
37	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	11		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
38	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	48		
39	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	18		
40	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	4		
	4" i.d	Nos.	8		
41	Providing and making top khurra/R.W.C.B using 3" thick plain cement concrete 1:2:4 matching with roof tiles with steel trowel finishing at desired level including curing, finishing, complete in all respect as per specifications and drawings.				
	i) 1'x1'.	Nos.	1		
	ii) 2'x2'.	Nos.	2		
	DRAIN				
42	Constructing R.C.C Drain including Stainless Steel Grating,R.C.C & Complete in All respect as per drawings & site engineer .				
	9" wide	Rft	20		
	PUMP & EQUIPMENT				
43	Providing, fixing & testing submersible Pumps installed in Sumpit consisting of two pumps one running and one standby. Each pump having following Capacity. coupled with elctric motor, Grundfos make or Approved Equivalent.				
	a) Q=25 GPM, H=20ft	Nos.	4		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (EXISTING MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing European type white glazed earthen ware wash down wc pan with including with white/black plastic seat (best quality)and lid with cp brass hinges & buffers, white glazed earthen ware low level flushing cistern with siphon fitting 1½" dia white porcelain enamelled flush bend ¾" dia and making requisite number of holes in walls,plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Foreign Quality)	Each	1		
2	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inetr & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	2		
3	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	3		
4	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	0		
5	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	3		
6	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	3		
7	Towel rail 24" long , ¾" dia round or square (Superior Quality)	Each	4		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (EXISTING MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
8	Supply & fixing wash basin mixture of superior Quality with cp head ½" dia	Each	3		
9	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	3		
10	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & ½ " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	2		
11	Constructing manhole or inspection chamber for the required diameterof circular sewer and 3'-6"depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-½'x1-½' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6"wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	2		
	<u>G.I Piping</u>				
12	Providing G.I Pipes , Special and clamps etc, including fixing cutting & fitting complete with i/c the cost of breaking through walls and roof ,Making good etc,painted two coats after cleaning the pipe etc ,with zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling -				
	a) ¾" i/d dia G.I Pipe	Rft	66		
	<u>SEWERAGE</u>				
	<u>Septic Tank</u>				
13	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and rammiing lead upto 5 ft. (1.5 m)n b) in ordinary soil.	Cft	429		
14	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate witout shuttering).Complete in all respect. (i) Ratio 1:4:8	Cft	22		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (EXISTING MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
15	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface (including screening and washing of shingle):- (a) Reinforced cement concrete in roof slab, beams, rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	50		
	2): Walls	Cft	108		
16	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	573		
17	Providind CI Manhole Cover & Frame i/c Cost of Material etc	Kg	22		
18	Small iron work such as gusset plate knees bends, stirrups, rings etc. Including cutting, drilling, handling and fixing but excluding erection in position.				
	For septic tank monkey ladder	Kg	10		
	PLUMBING FIXTURES				
19	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	16		
20	Providing and installing shower mixer including fitting & fitting accessories, complete in all respect as per specifications and drawings.	Each	2		
	WATER SUPPLY				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (EXISTING MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
21	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	125		
	32mm dia	Rft	54		
	40mm dia	Rft	36		
	50mm dia	Rft	61		
	63mm dia	Rft	20		
22	Providing and installing ball valves of following nominal dia, Kitz/Dadex make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	1		
	32 mm	Nos.	1		
	40 mm	Nos.	2		
	50 mm	Nos.	0		
	63 mm	Nos.	1		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (EXISTING MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
23	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	35 Gallon Geyser	Nos.	1		
	GAS SUPPLY				
24	Providing and installing ball valves of following nominal dia, Kitz/Scon make, including jointing, fitting, painting, testing, complete in all respects to match with following G.I pipe diameters.				
	3/4" i.d	No.	1		
	SEWERAGE & DRAINAGE				
25	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	880		
26	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints,DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	15		
	3" i.d	Rft	58		
	4" i.d	Rft	28		
	6" i.d	Rft	110		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (EXISTING MUTI PURPOSE HALL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	8" i.d	Rft	0		
27	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	2		
28	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	7		
29	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	3		
30	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	1		
	4" i.d	Nos.	1		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (UNION COUNCIL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inletr & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	2		
2	Providing and fixing steel sinks stainless local make complete with cast iron or wrought iron brackets 6inches built in walls ,1½ c.p bubber plug chrome plated brass chain,1½" c.p brass waste , with 1½" P.V.C waste pipe & making requisite number of holes in wall & plinth & floor for pipe connection & making good in cement concrete 1:2:4				
	C) Steel Sink Stainless sized 33"x18" Local make Standard pattern	Each	1		
3	Supply & fixing sink mixture Cock of superior Quality with cp head ½" dia with cp head etc complete	Each	1		
4	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	6		
5	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	0		
6	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	2		
7	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	6		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (UNION COUNCIL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
8	Towel rail 24" long , 3/4" dia round or square (Superior Quality)	Each	2		
9	Supply & fixing wash basin mixture of superior Quality with cp head 1/2" dia	Each	6		
10	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	2		
11	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2 " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12"X12" (Inside) etc Complete	Each	1		
12	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-1/2'x1-1/2' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	1		
	G.I Piping				
13	Providing G.I Pipes , Special and clamps etc, including fixing cutting & fitting complete with i/c the cost of breaking through walls and roof ,Making good etc,painted two coats after cleaning the pipe etc ,with zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling -				
	a) 3/4" i/d dia G.I Pipe	Rft	20		
	PLUMBING FIXTURES				
1	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	36		
	WATER SUPPLY				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (UNION COUNCIL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
2	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	44		
	32mm dia	Rft	24		
	40mm dia	Rft	40		
	50mm dia	Rft	36		
	63mm dia	Rft	10		
3	Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		
	32 mm	Nos.	0		
	40 mm	Nos.	0		
	50 mm	Nos.	0		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (UNION COUNCIL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	63 mm	Nos.	1		
4	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	12 Liter Electric Geyser	Nos.	2		
	GAS SUPPLY				
5	Providing and installing ball valves of following nominal dia, Kitz/Scon make, including jointing, fitting, painting, testing, complete in all respects to match with following G.I pipe diameters.				
	3/4" i.d	No.	2		
	SEWERAGE & DRAINAGE				
6	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	80		
7	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints, DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	10		
	3" i.d	Rft	55		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES

PUBLIC HEALTH WORKS (UNION COUNCIL)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	4" i.d	Rft	35		
	6" i.d	Rft	10		
	8" i.d	Rft	0		
8	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	1		
9	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	6		
10	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	6		
11	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	1		
	4" i.d	Nos.	1		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (PARK)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inletr & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	2		
2	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of 1/2" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	2		
3	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	0		
4	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	2		
5	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	2		
6	Towel rail 24" long , 3/4" dia round or square (Superior Quality)	Each	2		
7	Supply & fixing wash basin mixture of superior Quality with cp head 1/2" dia	Each	2		
8	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	2		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (PARK)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
9	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & ½ " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	1		
10	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-½'x1-½' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	1		
	PLUMBING FIXTURES				
11	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	16		
	WATER SUPPLY				
12	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078, PN-20 for pipes and DIN 16962, PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	44		
	32mm dia	Rft	24		
	40mm dia	Rft	35		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (PARK)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
13	Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		
	32 mm	Nos.	0		
	40 mm	Nos.	1		
14	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	12 Liter Electric Geyser	Nos.	1		
	SEWERAGE & DRAINAGE				
15	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	80		
16	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints,DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	5		
	3" i.d	Rft	30		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (PARK)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	4" i.d	Rft	22		
	6" i.d	Rft	10		
17	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	1		
18	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	4		
19	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	2		
20	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	1		
	4" i.d	Nos.	1		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (EXISTING STADIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing European type white glazed earthen ware wash down wc pan with including with white/black plastic seat (best quality)and lid with cp brass hinges & buffers, white glazed earthen ware low level flushing cistern with siphon fitting 1½" dia white porcelain enamelled flush bend ¾" dia and making requisite number of holes in walls,plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Foreign Quality)	Each	5		
2	Providing and fixing steel sinks stainless local make complete with cast iron or wrought iron brackets 6inches built in walls ,1½ c.p bubber plug chrome plated brass chain,1½" c.p brass waste , with 1½" P.V.C waste pipe & making requisite number of holes in wall & plinth & floor for pipe connection & making good in cement concrete 1:2:4				
	C) Steel Sink Stainless sized 33"x18" Local make Standard pattern	Each	1		
3	Supply & fixing sink mixture Cock of superior Quality with cp head ½" dia with cp head etc complete	Each	1		
4	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalant)	Each	6		
5	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	3		
6	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	5		
7	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	6		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (EXISTING STADIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
8	Towel rail 24" long , 3/4" dia round or square (Superior Quality)	Each	4		
9	Supply & fixing wash basin mixture of superior Quality with cp head 1/2" dia	Each	6		
10	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	5		
11	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2 " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	3		
12	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-1/2'x1-1/2' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	3		
	<u>G.I Piping</u>				
13	Providing G.I Pipes , Special and clamps etc, including fixing cutting & fitting complete with i/c the cost of breaking through walls and roof ,Making good etc,painted two coats after cleaning the pipe etc ,with zink paint with pigment to match the colour of the building and testing with water to a pressure head of 200 feet and handling -				
	a) 3/4" i/d dia G.I Pipe	Rft	121		
	PLUMBING FIXTURES				
1	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	34		
2	Providing and installing Urinal "Porta or approved brand" including fitting & fitting accessories, complete in all respect as per specifications and drawings.	Each	1		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (EXISTING STADIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
3	Providing and installing shower mixer including fitting & fitting accessories, complete in all respect as per specifications and drawings.	Each	2		
	WATER SUPPLY				
4	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	324		
	32mm dia	Rft	184		
	40mm dia	Rft	110		
	50mm dia	Rft	20		
	63mm dia	Rft	0		
5	Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	2		
	32 mm	Nos.	1		
	40 mm	Nos.	2		
	50 mm	Nos.	1		
	63 mm	Nos.	0		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (EXISTING STADIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
6	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	35 Gallon Geyser	Nos.	1		
	GAS SUPPLY				
7	Providing and installing ball valves of following nominal dia, Kitz/Scon make, including jointing, fitting, painting, testing, complete in all respects to match with following G.I pipe diameters.				
	3/4" i.d	No.	2		
	SEWERAGE & DRAINAGE				
8	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	1,232		
9	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints, DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowl, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	30		
	3" i.d	Rft	121		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (EXISTING STADIA)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	4" i.d	Rft	46		
	6" i.d	Rft	154		
	8" i.d	Rft	0		
10	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	4		
11	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	12		
12	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	3		
13	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	1		
	4" i.d	Nos.	1		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (FISH MARKET)

Sr #	Description	Unit	Qty.		
	PLUMBING FIXTURES				
1	Providing and fixing European type white glazed earthen ware wash down wc pan with including with white/black plastic seat (best quality)and lid with cp brass hinges & buffers, white glazed earthen ware low level flushing cistern with siphon fitting 1½" dia white porcelain enamelled flush bend 3/4" dia and making requisite number of holes in walls,plinth and floor for pipe connection & making good in cement concrete 1:2:4 (Foreign Quality)	Each	3		
2	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inlet & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen were trap and plastic thumble.	Each	2		
3	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	5		
4	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	1		
5	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	5		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (FISH MARKET)

Sr #	Description	Unit	Qty.		
6	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	5		
7	Towel rail 24" long , 3/4" dia round or square (Superior Quality)	Each	3		
8	Supply & fixing wash basin mixture of superior Quality with cp head 1/2" dia	Each	5		
9	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	5		
10	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2 " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	2		
11	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1-1/2'x1-1/2' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	2		
12	<u>Septic Tank</u>				
	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and rammiing lead upto 5 ft. (1.5 m)n b) in ordinary soil.	Cft	340		
13	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate witout shuttering).Complete in all respect. (i) Ratio 1:4:8	Cft	17		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (FISH MARKET)

Sr #	Description	Unit	Qty.		
14	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately. This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface (including screening and washing of shingle):- (a) Reinforced cement concrete in roof slab, beams, rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	38		
	2): Walls	Cft	92		
15	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc. and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	473		
16	Providing CI Manhole Cover & Frame i/c Cost of Material etc	Kg	22		
17	Small iron work such as gusset plate knees bends, stirrups, rings etc. Including cutting, drilling, handling and fixing but excluding erection in position.				
	For septic tank monkey ladder	Kg	10		
	PLUMBING FIXTURES				
18	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	30		
	WATER SUPPLY				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (FISH MARKET)

Sr #	Description	Unit	Qty.		
19	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	60		
	32mm dia	Rft	55		
	40mm dia	Rft	10		
	50mm dia	Rft	30		
	63mm dia	Rft	140		
20	Providing and installing ball valves of following nominal dia, Kitz make or approved Equaivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		
	32 mm	Nos.	0		
	40 mm	Nos.	0		
	50 mm	Nos.	0		
	63 mm	Nos.	2		
21	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (FISH MARKET)

Sr #	Description	Unit	Qty.		
	12 Liter Electric Geyser	Nos.	2		
	SEWERAGE & DRAINAGE				
22	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	320		
23	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints, DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	10		
	3" i.d	Rft	50		
	4" i.d	Rft	80		
	6" i.d	Rft	40		
	8" i.d	Rft	0		
24	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				
	2" i.d	Nos	2		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (FISH MARKET)

Sr #	Description	Unit	Qty.		
25	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	8		
26	Providing, laying, fixing and testing Bottle trap uPVC including all accessories best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	4		
27	Providing and fixing clean out with threads ferule fixed in pipe with the help of solvent, as shown on drawing, complete in all respects as per specifications and drawings.				
	3" i.d	Nos.	1		
	4" i.d	Nos.	2		
	TANK				
28	Providing and fixing 500 gallons capacity Fiber Glass Water Tank (DURA(PLUS) made) placed on Roof above Bathroom on 18" clear stand duly fitted with 3/4" dia brass Ball Valve, inlet, outlet, overflow and washout nipples and pipes etc complete in all respects.	Nos.	1		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MAIN GATE)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	PLUMBING FIXTURES				
1	Providing and fixing squatting type white glazed earthen ware w.c pan with front flush inlet & complete with including the cost of flushing cistern with internal fitting and flush Pipe with bend and making requisite number of holes in walls plinth & floor for Pipe connection & making good in cement concrete 1: 2: 4: (foreign Equivalent). (A) W.C.pan 23" & low level earthen ware flush tank 3 gallons. (ii) With 4" dia white glazed earthen ware trap and plastic thumble.	Each	1		
2	Providing and fixing 24"x18" Lavatory basin in hite glazed earthen ware complete with & i/c the cost of W.I or C.I cantilever brackets 6' Built into Walls,painted white in two coats after a primary coat of red lead paint a pair of ½" dia rubber plug & Charome plated brass chain 1-1/4",Malloable irons or brass unions and making requisite number of holes in walls,plinth & floor for pipe connections and making good in cement concrete 1:2:4 (Foreign Equivalent)	Each	1		
3	Add Extra for labour for providing & fixing of earthen ware padestal white or colour glazed(Foreign or equivalent)	Each	1		
4	Providing and fixing, c.p brass toilet paper holder of standard size with chrome plated brass brackets complete				
	b) Superior Quality	Each	1		
5	Supplying & fixing soap tray earthen ware with c.p Screws etc.complete	Each	1		
6	Towel rail 24" long , 3/4" dia round or square (Superior Quality)	Each	1		
7	Supply & fixing wash basin mixture of superior Quality with cp head ½" dia	Each	1		
8	Supply & fixing C.P muslim shower with double bibcock & ring pipe etc complete	Each	1		
9	Providing & fixing 6"x4" CC Gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & ½ " thick cement plaster (1:3) to the karb , C.I grating 6"x6" & C.I cover & frame 12'X12" (Inside) etc Complete	Each	1		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MAIN GATE)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
10	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" depth with walls of RCC 1:2:4, and 1' thick over benching and channel fixing cast iron manhole cover with frame of clear opening 1 ½'x1-½' of 1.75 cwt.(88.9 kg) embaded in plain C.C 1:2:4 & fixing 1" dia MS Steps 6" wide projecting 4"(102mm) from the face of walls at 12"(305mm) C/C duly painted etc Complete as per standard specification & drawing.				
	a) 4" to 12" dia 2'x2'x3'-6"	Each	1		
	PLUMBING FIXTURES				
11	Providing and fixing best quality distortion free imported Belgium glass (beveled) mirrors 5mm thick, with hard board backing, chromium plated screws/brackets, complete in all respects as per specifications and drawings.	Sft	4		
	WATER SUPPLY				
12	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077/8078, PN-20 for pipes and DIN 16962, PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	25mm dia	Rft	40		
	32mm dia	Rft	30		
	40mm dia	Rft	0		
13	Providing and installing ball valves of following nominal dia, Kitz make or approved Equivalent, including jointing, fitting, painting, testing, complete in all respects to match with PPR and PE pipes of following diameters.				
	25 mm	Nos.	0		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES PUBLIC HEALTH WORKS (MAIN GATE)

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	32 mm	Nos.	1		
	40 mm	Nos.	0		
14	Providing and installing Geyser including All types of Valves & fitting accessories, complete in all respect as per specifications and drawings.				
	6 Liter Electric Geyser	Nos.	1		
	SEWERAGE & DRAINAGE				
15	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	80		
16	Providing, laying, fixing and testing uPVC soil, waste, vent and rain water as per ISO 3633:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints, DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	2" i.d	Rft	5		
	3" i.d	Rft	15		
	4" i.d	Rft	10		
	6" i.d	Rft	10		
17	Providing, fixing, cutting, jointing and testing uPVC Vent Cowel on Vent Pipes with solvent cement jointing, DADEX or approved equivalent, rates include cost of cutting & pipe fittings of the following diameter:				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMENT**

**BILL OF QUANTITIES
PUBLIC HEALTH WORKS (MAIN GATE)**

Sr #	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
	2" i.d	Nos	1		
18	Providing, laying, fixing and testing floor drain (multifloor trap) uPVC including extension grating and stainless steel cover grating best quality local make Porta or Approved Equivalent as approved Engineer, complete in all respect as per specifications and drawings.	Nos.	2		
	TOTAL COST:				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

BILL OF QUANTITIES

EXTERNAL WORK

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

1- Water Distribution System BILL OF QUANTITIES

Item No.	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1	Excavation and backfilling of trenches in all kinds of soil except cutting of rock for water supply pipe line, upto 5ft depth from ground level including trimming, dressing sides, levelling the beds of trenches to correct grade and cutting pits for joints etc complete in all respects.	Cft	10,798		
2	Providing and filling of trenches with sand before laying of water supply pipes as per drawing and compacting the same under specifications.	Cft	900		
3	Providing, fixing, jointing and testing Polypropylene Random (PPR) pipes, VODA PIPES/DADEX or approved equivalent, pressure pipe for cold/hot water as per DIN 8077-8078,PN-20 for pipes and DIN 16962,PN-25 for fittings (polyfusion welded joints) inside building including fittings and specials (sockets, tees, elbows, bends, crosses, reducers, adaptor, plugs and union etc.) supported on walls or suspended from roof slab or run in chases including pipe hangers, supports, cutting and making good the chases and holes, complete in all respects.				
	90 mm dia	Rft	1,800		
4	Providing and installing of sluice (gate) valves of B.S.S. quality for HDPE pipe line (Including cost of jointing material) complete in all respects.				
	90 mm dia	Each	1		
5	Providing and fixing of double (action) air valve 3" (75mm) dia B.S.S quality and weight (complete with jointing material).	Each	2		
6	Construction of Valve chambers for following types as per drawing and specifications complete in all respects.				
	Sluice Valve	Each	1		
	Air Valve	Each	2		
7	Providing and installation of indication plates as per drawings.	Each	3		
8	Providing and laying of polyethylene pipe, house connection including 30ft polyethelene pipe, FTA 25mm x3/4", end cap 25mm, brass ferule and saddle clamp, complete in all respects.	Each	9		
Total Cost:					

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD
IMPROVEMNET**

2- SEWERAGE COLLECTION SYSTEM

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Rate (Rs.)	Total Amount (Rs.)
1	EXCAVATION AND BACKFILL				
1.1	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto				
	Up to 7 feet depth	Cft	11,088		
2	BRICK BALLAST				
2.1	Providing and laying of brick ballast (1-1/2 to 3/4")"under pipe with levelling, ramming etc. complete in all respect to the satisfaction of the Engineer.	Cft	528		
3	Sand				
3.1	Providing and filling of sand cushion under road for sewer pipes as per drawing and compacting the same under specifications.	Cft	396		
4	PIPE LAYING				
4.1	Providing and laying R.C.C. pipe sewers, moulded with cement concrete 1:1½:3 conforming to ASTM Specification C-76-79, Class III, Wall B, including carriage of pipes from factory to site of work, lowering in trenches to correct alignment and grade, jointing with rubber ring, cutting pipe where necessary, testing, etc. complete:-				
	310 mm (12") i/d	Rft.	528		
5	MANHOLES				
5.1	Providing and laying R.C.Cconcrete (1:2:4) for Bed, walls & top slab. Using sand and crush as coarse aggregate including formwork and its removal, levelling, compacting and curing complete in all respects., (including the cost of steel reinforcement, its fabrication 2) and placing in position, etc.)				
i	12" dia				
	upto 6 depth	Nos	7		
			TOTAL		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

3 - Drainage System for KAKRI GROUND

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Unit Rate (Rs.)	Total Amount (Rs.)
1	EXCAVATION AND BACKFILL				
1.1	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	6,531.25		
2	P.C.C				
2.1	Providing and laying 1:4:8 (1 cement, 4 sand & 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) & down gauge in foundation including levelling, compacting and curing etc. complete.	Cft	687.50		
3	Water Stopper				
3.1	Providing embedding 10" (250 mm) wide ¼" (6 mm) thick rubber water stopper in expansion joints of R.C.C. roof slab complete in all respects.	Rft	275.00		
4	Bitumen coating				
4.1	Bitumen coating to plastered or cement concrete surface				
	i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	Per Sft	3,300.00		
5	Grating				
5.1	Providing & fixing of Vertival M.S angle iron frame (grating) 1"x1", 1/4" sq bars welded to at 2" c/c, M.S. 3/4"X3/4' 4" long anchor bar welded to frame (TYP) etc, complete in all respects as shown in drawing.	Nos	400.00		
6	R.C.C				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

3 - Drainage System for KAKRI GROUND

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Unit Rate (Rs.)	Total Amount (Rs.)
6.1	Providing and laying R.C.C concrete (1:2:4) for Bed, walls & top slab. Using sand and crush as coarse aggregate including formwork and its removal, levelling, compacting and curing complete in all respects., (but excluding the cost of steel reinforcement, its fabrication 2) and placing in position, etc.):				
	Ratio 1: 2: 4	Cft	2,268.75		
6.2	Steel				
	Providing and fixing in position Deformed Reinforcment Bars for Cement Concrete, including cost of cleaning, straightening, cutting, bending, laying in position, wastage all over laps whether shown on drawings or not. M.S Chairs and tied with anealed wire 16 SWG (binding wire), placing in position Cement Concrete precast good gutty CS (1:3) complete in all respects.				
	Grade 60	Kg	6,239.06		
	SubTotal A				
For 12" Wide Drain					
Item No.	Description	Unit	Quantity	Unit Rate (Rs.)	Total Amount (Rs.)
1	EXCAVATION AND BACKFILL				
1.1	Excavation in soft soils as per pay line shown on drawings including lift upto 7 ft. (2.13 m) including back filling and disposal of earth upto all leads.				
	Up to 7 feet depth	Cft	10,375.00		
2	P.C.C				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

3 - Drainage System for KAKRI GROUND

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Unit Rate (Rs.)	Total Amount (Rs.)
2.1	Providing and laying 1:4:8 (1 cement, 4 sand & 8 coarse aggregate) cement concrete using graded stone ballast 2 inches (51 mm) & down gauge in foundation including levelling, compacting and curing etc. complete.	Cft	1,037.50		
3	Water Stopper				
3.1	Providing embedding 10" (250 mm) wide ¼" (6 mm) thick rubber water stopper in expansion joints of R.C.C. roof slab complete in all respects.	Rft	1,660.00		
4	Bitumen coating				
4.1	Bitumen coating to plastered or cement concrete surface				
	i) 20 lbs. per 100 Sft. (9.07 Kg per Sq.m)	Per Sft	6,640.00		
5	Grating				
5.1	Providing & fixing of Vertival M.S angle iron frame (grating) 1"x1", 1/4" sq bars welded to at 2" c/c, M.S. 3/4"X3/4' 4" long anchor bar welded to frame (TYP) etc, complete in all respects as shown in drawing.	Nos	125.00		
6	R.C.C				
6.1	Providing and laying R.C.C concrete (1:2:4) for Bed, walls & top slab. Using sand and crush as coarse aggregate including formwork and its removal, levelling, compacting and curing complete in all respects., (but excluding the cost of steel reinforcement, its fabrication 2) and placing in position, etc.):				
	Ratio 1: 2: 4	Cft	4,150.00		
6.2	Steel				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

3 - Drainage System for KAKRI GROUND

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Unit Rate (Rs.)	Total Amount (Rs.)
	Providing and fixing in position Deformed Reinforcement Bars for Cement Concrete, including cost of cleaning, straightening, cutting, bending, laying in position, wastage all over laps whether shown on drawings or not. M.S Chairs and tied with anealed wire 16 SWG (binding wire), placing in position Cement Concrete precast good gutty CS (1:3) complete in all respects.				
	Grade 60	Kg	11,412.50		
7	<u>uPVC Class "D"</u>				
	Providing, laying, fixing and testing uPVC Pressure pipes as per ISO 3505:1991 or equivalent BS specifications including uPVC fittings with solvent cement jointing or rubber ring joints,DADEX Or Approved Equivalent make as approved by the Engineer complete in all respects, including clamps, bends, tees, Y-tees, cowls, reducers, sleeves, clean out, waterproof sleeves, roof drain, etc., embedded in floors and walls, clamped to walls, suspended from slab (common hanger shall be used for pipe hanging and fiber glass tray under pipes), painted MS horizontal and vertical pipe hangers of approved design making requisite no. of holes and making good the same complete in all respect as per specifications and drawings.				
	3" i.d	Rft	140.00		
8	<u>Sump Pit</u>				
8.1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around 17.1 to 17.5 structure with excavated earth, watering and rammiing lead upto 5 ft. (1.5 m)n b) in ordinary soil.	Cft	571		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

3 - Drainage System for KAKRI GROUND

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Unit Rate (Rs.)	Total Amount (Rs.)
8.2	Cement concrete plain including placing, compacting, finishing and curing (including screening and washing at stone stone aggregate witout shuttering).Complete in all respect. (i) Ratio 1:4:8	Cft	30		
8.3	Reinforced cement concrete work including all labour and material except the cost of steel reinforcement and its labour for bending and binding which will be paid separately.This rate also includes all kinds of forms moulds: lifting, shuttering, curing rendering and finishing the exposed surface(including screening and washing of shingle.): (a) Reinforced cement concrete in roof slab, beams,rafts, columns lintels and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- (II) Ratio 1 : 1½ : 3				
	1): Slab	Cft	72		
	2): Walls	Cft	78		
8.4	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and chairs, etc.and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- (b) Using Tor bars	Kg	544		
8.5	Providind CI Manhole Cover & Frame i/c Cost of Material etc	Kg	45		
8.6	Small iron work such as gusset plate knees bends,stirrups, rings etc.Including cutting, drilling, handling and fixing but excluding erection in position.				
	For septic tank monkey ladder	Kg	6		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMNET

3 - Drainage System for KAKRI GROUND

BILL OF QUANTITIES

Item No.	Description	Unit	QTY	Unit Rate (Rs.)	Total Amount (Rs.)
8.7	Providing, fixing & testing submersible Pumps installed in Sumpit consisting of two pumps one running and one standby. Each pump having following Capacity. coupled with elctric motor, Grundfos make or Approved Equivalent.				
	a) Q=1 CUSEC, H= 50ft	No.	2		
	TOTAL COST:				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND
NEIGHBORHOOD IMPROVEMENT**

BILL OF QUANTITIES

ELECTRICAL WORKS

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	250		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	110		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (3/4") dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	20		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan, call bell or light plug point, controlled with same switch with (3/.029") PVC insulated wire in 20 mm (3/4") dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	40		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	50		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	60		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	60		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	50		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	1		
	<u>Exhaust Fans Points</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	3		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				
	Providing & fixing Brass Ceiling fan 56'' (good quality)	Each	1		
2	<u>4 Core Cable PVC/PVC</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core Armoured copper conductor 600/1000 volts size 185mm ² (2 Cables Per Phase From Transformer to LT Panel)	Mtr	160		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core Armoured copper conductor 600/1000 volts size 150mm ² (Cable From LT Panel to Existing Gymnasium Building)	Mtr	300		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core Armoured copper conductor 600/1000 volts size 35mm ² (Cable From LT Panel to Existing & Proposed Pavalion & Union Council Office)	Mtr	750		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core Armoured copper conductor 600/1000 volts size 50mm ² (Cable From LT Panel to Existing Boxing Arena & Feeder Pillar -01)	Mtr	450		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 25mm ² (From LT Panel to Proposed Multipurpose Hall Ground & First Floor & Feeder Pillar -02)	Mtr	245		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 16mm ² (From LT Panel to Proposed Multipurpose Hall Basement Floor + From Transformer to General Ground)	Mtr	775		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 10mm ² (From Feeder Pillars To 1000/500 Watt Lights)	Mtr	5500		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 6mm ² (From Feeder Pillars To Lights)	Mtr	6500		
	<u>3 Core PVC Copper Conductor</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC Sheeted with three core copper conductor 300/500 volts size 2.5mm ²	Mtr	2550		
3	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	4		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	2		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	8		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	6		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	4		
4	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	15,000.00		
	ii. Sand (Bed & Cover)	Cft	3,000.00		
	iii. Block Work Wall on Both Side of Trench	Cft	2,812.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	1,125.00		
	iv. Warning Tap 30 cm Wide.	M	500.00		
	v. Removeable Slab (3'x1'-6"x2")	Cft	765.00		
5	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	1500		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	3500		
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	160		
	<u>1 Core PVC Copper Conductor AS A CPC</u>				
	Supply & drawing of 50 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	400		
	Supply & drawing of 25 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	450		
	Supply & drawing of 10 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	6520		
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	6500		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
6	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as Annex-A.	Each	30		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	4		
7	<u>STEEL TUBULAR POLE</u>				
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Fancy Road Double Arm Light pole 10.792 M long, Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A.	Each	13		
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Fancy Road Four Arm Light pole 10.792 M long, Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A.	Each	4		
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Stadium Light Poles 15 M long Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A.	Each	6		
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Flood Light Poles 12 M long Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A.	Each	4		
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Flood Light Poles 10 M long Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A.	Each	6		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	POLE BASE CONNECTION BOXES				
	Supply , Installation, testing and commissioning of Pole Base Connection Boxes complete comprising 2-NO.circuit breakers (MCB 6A,)connectors, nut & bolts etc; as per drawings, specification, complete in all respects and to the approval of the Consultant/The Engineer: Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	33		
8	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A .				
	LED Flood light 100W	Each	6		
	LED Street light 100W	Each	13		
	LED Solar Street light 100W	Each	13		
	LED Solar Street light 50W	Each	8		
	LED Bollard light 14W	Each	80		
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	120		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	28		
	Outdoor Column / Gate Light Big Size 1x14 Watt	Each	85		
	Outdoor Floor Light 14WATT	Each	20		
	Spot Light 5 Watt	Each	15		
	Downlight 1x18 Watt	Each	30		
	Downlight 1x13 Watt	Each	20		
	Venity Lights 2x10 Watt	Each	6		
	Stadium Light Del-Std-1100 with 1x1000Watt	Each	38		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	LED Flood light 500W	Each	10		
	LED Flood light 200W	Each	22		
	<u>FP-01</u>				
	Supply ,installation testing & commissioning of Road Light Control Panel 16 SWG sheet steel construction with IP 43 protection class, canopy, door, locking arrangement with MCCB magnetic contactor relay. Photo cell, control swiches and monitoring switches etc including provision of foundation with PCC 3" Thick top pad, as per drawing, and approval of the consultant/the Engineer Detail is as under. Manufactured by any one of the manufacturers, list attached as Annex-A , Incoming: 1-125 A MCCB TP RC:16KA Outgoing: 15-30 A MCB TP RC:6KA	Each	1		
	<u>FP-02 & General Park</u>				
	Supply ,installation testing & commissioning of Road Light Control Panel 16 SWG sheet steel construction with IP 43 protection class, canopy, door, locking arrangement with MCCB magnetic contactor relay. Photo cell, control swiches and monitoring switches etc including provision of foundation with PCC 3" Thick top pad, as per drawing, and approval of the consultant/the Engineer Detail is as under. Manufactured by any one of the manufacturers, list attached as Annex-A , Incoming: 1-100 A MCCB TP RC:16KA Outgoing: 09-30 A MCB TP RC:6KA	Each	2		
	<u>Main Panel Board</u>				
	Providing & fixing cubical type metal sheet vermin protected LT pannel board as per drawing with locking arragement duly powder coated I/c all fastening devices and electrical wire/ leads for internal connection complete as required.	P/Sft	60		
	Providing & fixing 1000 Amps,35 KA T.P circuit breaker fixed on existing board , I/c inter-connection as required. (K-Electric & Gen. Set) with interlocking System.	Each	2		
	Providing & fixing 250 Amps, 25 KA T.P MCCB fixed on existing board , I/c inter-connection as required..	Each	2		
	Providing & fixing 125 Amps, 25 KA T.P MCCB fixed on existing board , I/c inter-connection as required..	Each	3		
	Providing & fixing 100 / 75 / 50 Amps, 16 KA T.P MCCB fixed on existing board , I/c inter-connection as required..	Each	12		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Providing & fixing 6 to 32 Amps, S.P MCB fixed on existing board , I/c inter-connection as required.	Each	20		
	Providing & fixing 1000 Amps, 4 pole, three phase bus bar strip set (Standard size) fitted in suitable size metallic sheet steel box with hinged type front door duly painted and fixed on existing board I/c connection as required.	L/S	1		
	Providing & fixing pilot lamp set fitted on existing board I/c connection as required.	Each	3		
	Providing and fixing of Digital Voltmeter fitted on existing board I/c connection as required.	Each	18		
	Providing and fixing of Current Transformer 300/5A fitted on existing board I/c connection as required.	Each	6		
	Providing and fixing of Digital Ampere Meter fitted on existing board I/c connection as required.	Each	6		
	<u>Main Switch Distribution Box for Meters</u>				
	<p>Fabrication, supply at site, installation at designated location, testing and commissioning of Main Switch Distribution Box for Meters (M.S) comprising of cubicles, frame made of sheet steel 14 SWG and doors of 14 SWG, with flexible earthing straps, degreased and de-rusted, finished with electro-static powder coating of 50 micron thickness in approved color, panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect. including cost of Foundation.</p> <p>Incoming from Transformer: 1: 250 Amps 3 pole Moulded Case Circuit Breaker (MCCB) with overload and short circuit protection RC: 25 KA. 4: Copper Bus Bars of electrolytic copper 99.9% size not less than 40x5mm for each phase and neutral (3P+N) on incoming side of breaker of facilitate connection cables.</p> <p>Brass Cable Glands: 5: Set of "Brass Cable Gland" at bottom of M.S suitable for 1 core 95mm sq. PVC/PVC insulated incoming cables. 4: Sets of "Brass Cable Gland" at bottom of M.S suitable for 1 core 95mm sq. PVC/PVC insulated outgoing cable.</p>	Each	1		
	<u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<p>Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:-</p> <p>2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site.</p> <p>M.S strip 2" wide x 1/4" thick.</p> <p>Hilti rawal bolts as per required quantity & size.</p> <p>2 coats of antirust paint.</p> <p>2 coats of powder coating of approved colour.</p> <p>Complete hanging system shall be installed at every 36"</p> <p>The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes.</p> <p>12" wide x 3" high with cover.</p>	Mtr	50		
9	<u>CCTV System</u>				
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	1200		
	<u>CCTV Cables</u>				
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto 1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	20000		
	<u>Fiber Cable</u>				
	Supply, Installation and commissioning of wiring with fiber cable as per drawing wired with Unitube, Light-Armoured Cable, Single-Mode, 6Core, 9µm run in pre laid conduit or cable tray from Fiber switcher to Fiber Switcher & control Panel, including all installation accessories. Make Delpro (UK), Belden, Schnider as approved Equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	3000		
	<u>ODF</u>				
	Supply and installation of 8 port ODF loaded with single mode 4 SC duplex adapters coupler plates splice tray and 8 port SC simplex pigtails. Make Schneider or as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects.	Each	4		
	<u>FIBER OPTIC SC- LC PATCH CORD</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation and connections of Fiber Optic SC - LC Patch cords 3 meter. Make Schneider or as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects.	Each	3		
	<u>CCTV</u>				
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	34		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 32 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	3		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A .	Each	4		
10	<u>Public Address System</u>				
	<u>Outdoor Speaker</u>				
	Supply and installation of CS-304 wall-mountable, outdoor 2-way speaker with 30W . Complete with fixing arrangement on the pole. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	32		
	<u>Microphone</u>				
	Supply and installation of Goosenect Dynamic Microphone. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	3		
	<u>Amplifier</u>				
	Supply and installation of Amplifier - 240 Watts with 3 Mic Input and 2x AUX input. Complete with Rack and power supplies with UPS. as approved by the Engineer Incharge. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	4		
	<u>Cable</u>				
	Supply and Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type, manufactured by list Attached as Annex-A .	Rft	39360		
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	1500		
11	<u>Earthing System</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Providing and fixing Earthing set with 2'x2'x1/4" copper plate buried in the ground at a depth of 12 feet or less if water comes out from the ground level (with salt and charcoal, or Earthing chemical Powder) etc making the pit 12 feet deep by excavation of all type of soil (except soft or hard rock) i/c fixing of 8 SWG copper wire in 1/2 " G.I conduit complete in all respect as required.	Job	16		
12	Pad Mounted Transformer				
	Supply, installtion, testing & commissioning of outdoor Pad mounted transformers on the foundation as per K-Electric Specifications, Drawings and Approval of the Consultant . Including cost of Foundation. Manufactured by any one of the manufacturers, list attached as Annex-A, 630 KVA	Each	1		
13	DIESEL GENERATOR SET				
	Supply at site, installation, testing and commissioning at designated location, connection of cables, testing and commissioning of water cooled NEW diesel generating sets suitable for operation at 50oC and 90% relative humidity manufactured by any one of the manufacturers as specified in annexure "A" assembled in accordance with their provided drawings / manuals and consisting of painted welded steel bed plate frame work to accommodate engine alternator complete with electronic governor to give regulation to BS: 514 class A1, balanced flywheel, water jacket heaters energized by the in coming main supply, heavy duty starting batteries, battery charger, set of spare oil/fuel filters engine panel with oil pressure and water temperature gauge, pressure and water temperature gauge, (Electrical), alternator electronic voltage regulator, radio interference suppressors, electronic tachometer frequency meter voltmeter with selector switch, Ammeter with selector switch, hour runs meter, KWH meter, KW (total and per phase) KVA total and per phase. Power factor (Ave, total and per phase. KVAR (total) KVAR hour % of rated load, emergency stop push button, radiator, with water level switch, suitable for 400 / 230 volts, 50 cycles/second, at 1500 rpm, for 3 phase 4 wire system, including cost of all necessary material / accessories, daily fuel tank and conforming to technical specifications mentioned below.				
	500 KVA New Diesel Gen. Set Including cost of Foundation, ATS and Conopy.	Each	1		
14	<u>Horizontal Thrust Boring</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

(EXTERNAL WORKS)

BILL OF QUANTITIES (ELECTRICAL WORK)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Provision of horizontal thrust boring at road crossing including UPVC 6" dia pipe (C-Class), back filling and compaction for H.T / L.T cables and crossing where road crossing sleeves are not available as per site requirement and approval of the Consultant . * subject to actual site work	Mtr	50		
15	H.T cables				
	Supply at work, laying, testing and commissioning of following H.T cables, laying directly in the sand layer, in already excavated trenches or through duct and/ or PVC pipe (already provided), including cable binding ties as per specifications, standards, and drawings and to the of the Consultant . Manufactured by any one of the manufacturers, list attached as Annex-A ,				
	50 MM ² AL/XLPE/AWA/PVC 15 KV single core aluminium cable	Mtr	2750		
16	HT terminations Kits				
	Supply at work, installation testing & commissioning of following HT terminations kits, Raychem /3-M/Cellpack for cables laid under works in above Item , including cable glands and miscellaneous material and installations as per requirements specifications and standards and to the approval of the Consultant .				
	50 MM ² AL/XLPE/AWA/PVC 15 KV single core aluminium cable.	Each	36		
TOTAL COST:					

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	1200		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	450		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (¾")dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	246		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan ,call bell or light plug point,controlled with same switch with (3/.029") PVC insulated wire in 20 mm (¾")dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	492		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	26		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	50		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	65		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	62		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(¾") PVC conduit Recessed in the wall or column as required.	Per point	75		
	<u>Exhaust Fans Points</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	20		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				
	Providing & fixing Brass Ceiling fan 56" (good quality)	Each	75		
2	<u>4 Core Cable PVC/PVC</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 25mm ²	Mtr	120		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 16mm ² (From MPB to Existing & Proposed Pavilions) (From Feeder Pillar-1 to Stadium Lights Circuits)	Mtr	60		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 10mm ² (From Feeder Pillars To 100/50 Watt Lights)	Mtr	40		
3	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	60		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	80		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	65		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	76		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	62		
4	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	1,000.00		
	ii. Sand (Bed & Cover)	Cft	200.00		
	iii. Block Work thick Wall on Both Side of Trench	Cft	187.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	75.00		
	iv. Warning Tap 30 cm Wide.	M	50.00		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	v. Removeable Slab (3'x1'-6"x2")	Cft	51.00		
5	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	50		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	120		
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	120		
	<u>1 Core PVC Copper Conductor AS A CPC</u>				
	Supply & drawing of 10 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	220		
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	120		
6	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as <u>Annex-A.</u>	Each	15		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/.0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	20		
7	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as <u>Annex-A.</u>				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	20		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	80		
	Outdoor Floor Light 14WATT	Each	15		
	Spot Light 5 Watt	Each	15		
	Downlight 1x18 Watt	Each	262		
	Downlight 1x13 Watt	Each	171		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Venity Lights 2x10 Watt	Each	25		
	LED Tube Light 1x18 Watt	Each	184		
	Highbay Light Del-HYB-1100 with 1x100Watt	Each	22		
8	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				
	<p>Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect.r. Manufactured by any one of the manufacturers, list attached as Annex-A,</p> <p>Incoming: 1-100 A MCCB TP RC:16KA</p> <p>Outgoing: 24- 10 / 16 / 20 A MCB SP RC:6KA</p>	Each	5		
	<p><u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u></p> <p>Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:-</p> <p>2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site.</p> <p>M.S strip 2" wide x 1/4" thick.</p> <p>Hilti rawal bolts as per required quantity & size.</p> <p>2 coats of antirust paint.</p> <p>2 coats of powder coating of approved colour.</p> <p>Complete hanging system shall be installed at every 36".</p> <p>The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes.</p> <p>12" wide x 3" high with cover.</p>	Mtr	100		
9	<u>CCTV System</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	1250		
	<u>CCTV Cables</u>				
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto 1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	18000		
	<u>CCTV</u>				
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	25		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 32 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	1		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A.	Each	1		
10	<u>Public Address System</u>				
	<u>Indoor Speaker</u>				
	Supply and installation of wall-mountable, indoor 2-way speaker with 10-15W . Complete with fixing arrangement on the pole. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	20		
	<u>Microphone</u>				
	Supply and installation of Goosenect Dynamic Microphone. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	1		
	<u>Amplifier</u>				
	Supply and installation of Amplifier - 240 Watts with 3 Mic Input and 2x AUX input. Complete with Rack and power supplies with UPS. as appoved by the Engineer Incharge. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	2		
	<u>Cable</u>				
	Supply and Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type, manufactured by list Attached as Annex-A.	Rft	19680		
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	1500		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
11	<u>DATA, WIFI SYSTEM</u>				
	<u>POWER CABLE</u>				
	Supply, Installation and commissioning of wiring for Power with flexible 3C, 2.5 Sq.mm, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaidd conduit from prelaidd Conduit. Make as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	500		
	<u>Computer Outlet</u>				
	Supply and installation of Single Shutter Face Plate with bracket and UTP Cat-6 Keystone Jack Make as specified in appendix-A,complete in all respect as approved by the site incharge. RJ-45 outlet, included cost of Wall boxes.	Each	30		
	<u>Computer Cables</u>				
	Supply, Installation and commissioning of wiring as per drawing wired with CAT- 6 23 AWG, UTP Cable UL Listed, run in pre laidd conduit from CCTV point to Data Switcher, including all installation accessories. Make as specified in appendix-A or as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	8250		
	<u>Network Core Switch</u>				
	Supply and installation of Layer -3 , Giga 24 Port Network Switch with 04 SFP Ports rack mounted having support through put 146 Gbps to be installed in Main data cabinet. Make as specified in appendix-A	Each	1		
	<u>Edge Networking Switch</u>				
	Supply and installation of Layer -2 , Giga 24 Port Network Switch rack mounted having support through put 56 Gbps to be installed in data cabinet. Make as specified in appendix-A	Each	3		
	<u>Cat-6 UTP Patch Panel</u>				
	Supply and installation of 24 Port Cat-6 Patch Panel loaded with Cat-6 UTP Keystone Jack Rack Mounted with rear cable manager to be installed in data cabinet.	Each	4		
	<u>Main Data Cabinet Floor Standing</u>				
	Supply and installation of 42U (800 x 800 x 2055mm) Floor Standing data cabinet with front glass door, rear perforated , two side opening, 4-way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix-A	Each	1		
	<u>Floor Level Data Cabinet Wall Mounted</u>				
	Supply and installation of 24U (600 x 450mm) wall mounted data cabinet with front glass door, two side opening, two way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix-A	Each	4		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<u>Floor Level Data Cabinet Wall Mounted</u>				
	Supply and installation of 12U (600 x 450mm) wall mounted data cabinet with front glass door, two side opening, two way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix-A	Each	4		
	<u>UTP Cat-6 Patch Cords</u>				
	Supply and installation of UTP Cat-6 Patch Cords to be used to connect patch panel and network switch with both end machine made RJ-45 connectors. Make as specified in appendix-A, complete in all respect.				
	1 Meter Length	Each	110		
	3Meter Length	Each	110		
	<u>Cable Manager</u>				
	Supply and installation of Metal Cable Manager 1U Rack Mounted to be installed in data cabinet. Make as specified in appendix-A	Each	6		
	<u>Fiber Optic Cable</u>				
	Supply, Installation and commissioning of wiring with fiber cable as per drawing wired with Unitube, Light-Armoured Cable, Single-Mode, 6Core, 9µm run in pre laid conduit or cable tray from Fiber switcher to Fiber Switcher & control Panel, including all installation accessories. Make as specified in appendix-A as approved Eqavlent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	1200		
	<u>24 OFDF (Fiber optic Distribution Frame to be installed in main cabinet.</u>				
	Supply and installation of 24 Ports Fiber Optic Distribution Frame Rack Mounted with Om3 Multimode Duplex Couplers, Pigtails, Fiber Patch Cords including cost of splicing charges. Make as specified in appendix-A	Each	1		
	<u>FIBER OPTIC SC- LC PATCH CORD</u>				
	Supply, installation and connections of Fiber Optic SC - LC Patch cords 3 meter. Make as specified in appendix-A equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects.	Nos.	2		
	<u>5-KVA Online UPS Un-Intruptible Power Supply for Main Data / Server Cabinet.</u>				
	Supply at Site, Installation of Online 5 KVA UPS with 0.8 Power Factor with dry gel battries for standard backup upto 15 minutes. Make as specified in appendix-A	Each	1		
	<u>WIFI ACCESS POINT</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation and connections of wireless wave two Wi-Fi access point or equivalent 2533Mbps dual-band, 802.11 abgn/ac with 20,40,80 MHz Channel width Support 4x4:4 streams, Beam Flex, Dual Polarized Integrated smart Directional antenna array. Auto-sensing 10/100/1000 Mbps, RJ-45 Power over Ethernet (PoE) Integrated 24 Antenna elements with more than 3000 Antenna Patterns, 15db interference mitigation, make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	6		
	<u>Server Machine</u>				
	Supply at site, 2 x Intel Xeon E5-2630 v4 2.2GHz, 25 M cache, 8.0 GT/s, QPI, Turbo, HT, 10C/20T(85W)85W, Chipset: Genuine Intel, Memory: 32GB(2x16GB) RDIMM, multi Slots, Storage: 3 x 1TB 7.2k RPM Near Line SAS 12 Gbps, Drive bays: 2.5" Drive, Raid Controller: RAID 5 for H330/H730P/H730, Network: Dual Port Ethernet, DVD +/- RW, Display: 18.5" LCD, Power Supply: 2 x power cord 12A 4M C13/C14, hot plug, Redundant, Ready Rail Sliding Rails with Cable Management arm, Chasis: 2U, Windows Server 2012, Warranty : 03 Years	Each	1		
	<u>MONITOR</u>				
	Supply, installation and connections of 52" BACKLIT LED 1080p monitor with operation capacity of 24/7 wit 3 year warranty. make as specified in appendix-A approved equivalent by consultant or Engineer Incharge, Complete in all respectsActual quantities shall be measured as per site & paid accordingly. Complete in all respects.	Nos.	1		
	<u>Computer Junction Box(CJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	3		
12	<u>TELEPHONE SYSTEM</u>				
	<u>Telephone Outlet</u>				
	Supply and installation of Single Shutter Face Plate including I/Os with bracket and UTP Cat-6 Keystone Jack make Make as specified in appendix-A,complete in all respect as approved by the site incharge. RJ-45 outlet, including Plastic Wall Box Clipsal	Each	10		
	Supply and installation of Double Shutter Face Plate including I/Os with bracket and UTP Cat-6 Keystone Jack Make as specified in appendix-A,complete in all respect as approved by the site incharge. RJ-45 outlet, including Plastic Wall Box Clipsal	Each	30		
	<u>CAT-6A CABLE FOR TELEPHONE SYSTEM</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring as per drawing, Schnieder CAT-6A, UTP Cable UL Listed or Equivalent, run in pre laid conduit/cable tray from outlet point to Patch Panel, including all installation accessories. Make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	12975		
	Supply and installation of 50 Pair Cable UG/PVC (0.4 - 0.5 mm sq) Telephone Cable (From JB to MDF)	Rft	250		
	<u>Telephone Junction Box(TJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	46		
	<u>Cable Termination</u>				
	Termination of multi pairs cable in secondary Section of Exchange using termination punching tool, rate includes termination charges for all Distribution Network in the building, as per site requirement complete Job.	Each	1		
	<u>Tag Block</u>				
	Providing & fixing of Korone strip / Tag Block 10 Pairs Capacity in Exchange, DP or any specified place as per site requirement as directed by the Engineer Incharge.	Each	173		
	<u>Main Distribution Frame</u>				
	Supply and installation of MDF 200x200 mm including fuse boxes for commercial Areas.	Each	1		
	<u>PABX</u>				
	Supply, installation, testing & commissioning of TELEPHONE EXCHANGE TDE 600 (16 Lines 16 Digital & 144 Analogue Ext.) (Make as specified in appendix-A) (PTA approved) with following minimum required features / specifications. i) 16+180 lines extendable upto minimum 600 lines. ii) CLI Card (8 port min.) Complete installation material i.e Bix, Strips cable Main Distribution Frame with surge protector, cable termination between PABX and MDF as per satisfaction of the Engineer incharge.	Each	1		
13	<u>Drain & Copper Pipe for HVAC System</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation, of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber insulation 3" dia pvc conduit heavy duty controlled wire from condenser to indoor unit. G.I pipe 3/4" dia for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Architect/Site Engineer and all necessary accessories material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be included in the cost of above said item, complete in all respect without any other extra claim (Electrical wiring from DB to fan coil/ condenser unit is excluded from this item)	Nos.	42.00		
14	<u>FIRE ALARM SYSTEM</u>				
	<u>FIRE ALARM CABLE</u>				
	Supply, Installation and commissioning of wiring for FACP Power from respective DB to Fire Alarm FACP with 3C, 2.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaidd conduit from prelaidd Conduit. Make as specified in appendix-A as approved by consultants, Complete in all respect	Rft	50		
	Supply, Installation and commissioning of wiring for FACP to Fire Alarm System as per drawing wired with 2C, 1.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 1 hours) in prelaidd conduit from fire Alarm Control Panel to all Smoke Detector/ Heat Detector / Sounder & Manual Devices, Devices upto 180 units in one Loop, including all installation accessories. Make as specified in appendix-A or approved equivalent approved by consultants, Complete in all respect	Rft	7950		
	<u>MANUAL CALL POINTS</u>				
	Supply, Installation and commissioning with Manual Call Point Model DL-MCP-1010 having a built in short circuit isolator and built in microprocessor to ensure a response time of max. 1 second. It also incorporates an indication LED, flashed after pressing the button to acknowledge the activation and a key operation facility for testing purposes. Make as specified in appendix-A	Nos.	12		
	<u>ALARM SOUNDER /BUZZER</u>				
	Supply, installation and connections of Addressable Type Indoor Loop Powered electronic Sounder/ Buzzer Model DL-BZ-1121 and minimum sound output 100dB at 1 meter with frequencies for variety of sounds as required. Sounder shall be loop wired and loop signaled, built in short circuit isolator, configured via software. Make as specified in appendix-A	Nos.	12		
	<u>OPTICAL ADDRESSABLE SMOKE DETECTOR</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS (MPH)

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation and connections of Supply, installation and connections of Addressable Optical Smoke Detectors Model DL-SM-1221 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	42		
	<u>ADDRESSABLE HEAT DETECTOR</u>				
	Supply, installation and connections of Addressable Heat Detectors Model DL-HD-1225 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	4		
	<u>FIRE ALARM CONTROL PANEL</u>				
	Supply, installation and commissioning of Intellegent 02 Loop Micro processor based Fire Alarm Control Panel Model DL-FAP-2414, consisting of Loop and specific call point status, built in power supply, including UPS with about 40Ah batteries or better (estimated load 230W), alarm and trouble indication, silence alarm and rest system, general alarm and rest system, general alarm facility, Make as specified in appendix-A	Nos.	1		
	<u>FIRE ALARM JUNCTION BOX</u>				
	Supply, installation, testing and factory fabricated of PVC / MS junction box 16 SWG duly painted with antirust paint and further two coats of enamelled paint of approved colour including cost of earth terminal making holes of all sides to pull Fire Alarm cables complete. 4"x7". Make as specified in appendix-A	No.	3		
15	<u>SPLIT AC</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS (MPH)**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation, testing and commissioning of following capacities of split air-conditioner of make Mitsubishi, General, Sabro, Gree or as approved by the Site Engineer, including cost of cutting chases, reshaping of chases, installtion of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber installtion, 3" dia. PVC conduit heavy duty, control wires from condenser to indoor unit, G.I. pipe 3/4" dia. for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Site Engineer, and all necessary accessories / material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be includeed in the cost of above said item, complete in all respects without any extra claim (Electrical wiring from DB to fan coil / condenser unit is exluded from this item).				
	Split Air-Conditioner, 1.5 Ton. (Heat & Cool) Invertor Wall Mounted Type	No.	42		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
A:-					
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	460		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	150		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (3/4") dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	73		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan ,call bell or light plug point,controlled with same switch with (3/.029") PVC insulated wire in 20 mm (3/4") dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	146		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	10		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	20		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	26		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	20		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	21		
	<u>Exhaust Fans Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	19		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Providing & fixing Brass Ceiling fan 56'' (good quality)	Each	21		
2	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	20		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	60		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	26		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	30		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	20		
3	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	1,000.00		
	ii. Sand (Bed & Cover)	Cft	200.00		
	iii. Block Work Wall on Both Side of Trench	Cft	187.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	75.00		
	iv. Warning Tap 30 cm Wide.	M	50.00		
	v. Removeable Slab (3'x1'-6"x2")	Cft	51.00		
4	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	50		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	50		
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	50		
5	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as Annex-A.	Each	5		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/.0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal.	Each	19		
6	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A .				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	20		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	25		
	Outdoor Floor Light 14WATT	Each	15		
	Spot Light 5 Watt	Each	15		
	Downlight 1x18 Watt	Each	110		
	Downlight 1x13 Watt	Each	62		
	Venity Lights 2x10 Watt	Each	10		
	Highbay Light Del-HYB-1100 with 1x100Watt	Each	8		
7	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				
	Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect.r. Manufactured by any one of the manufacturers, list attached as Annex-A , Incoming: 1-100 A MCCB TP RC:16KA Outgoing: 30- 10 / 16 / 20 A MCB SP RC:6KA	Each	1		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u> Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:- 2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site. M.S strip 2" wide x 1/4" thick. Hilti rawal bolts as per required quantity & size 2 coats of antirust paint. 2 coats of powder coating of approved colour. Complete hanging system shall be installed at every 36" The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes. 12" wide x 3" high with cover.	Mtr	20		
8	<u>CCTV System</u>				
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	200		
	<u>CCTV Cables</u>				
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	6000		
	<u>CCTV</u>				
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	15		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 32 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A .	Each	1		
9	<u>Public Address System</u>				
	<u>Indoor Speaker</u>				
	Supply and installation of wall-mountable, indoor 2-way speaker with 10-15W . Complete with fixing arrangement on the pole. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	10		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<u>Microphone</u>				
	Supply and installation of Goosenect Dynamic Microphone. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>Amplifier</u>				
	Supply and installation of Amplifier - 240 Watts with 3 Mic Input and 2x AUX input. Complete with Rack and power supplies with UPS. as appewed by the Engineer Incharge. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>Cable</u>				
	Supply and Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type, manufactured by list Attached as Annex-A .	Rft	4920		
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	200		
9	<u>DATA, WIFI SYSTEM</u>				
	<u>POWER CABLE</u>				
	Supply, Installation and commissioning of wiring for Power with flexible 3C, 2.5 Sq.mm, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaidd conduit from prelaidd Conduit. Make as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	200		
	<u>Computer Cables</u>				
	Supply, Installation and commissioning of wiring as per drawing wired with CAT- 6 23 AWG, UTP Cable UL Listed, run in pre laidd conduit from CCTV point to Data Switcher, including all installation accessories. Make as specified in appendix-A or as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	1900		
	<u>Network Core Switch</u>				
	Supply and installation of Layer -3 , Giga 24 Port Network Switch with 04 SFP Ports rack mounted having support through put 146 Gbps to be installed in Main data cabinet. Make as specified in appendix-A	Each	1		
	<u>Cat-6 UTP Patch Panel</u>				
	Supply and installation of 24 Port Cat-6 Patch Panel loaded with Cat-6 UTP Keystone Jack Rack Mounted with rear cable manager to be installed in data cabinet.	Each	1		
	<u>Floor Level Data Cabinet Wall Mounted</u>				
	Supply and installation of 24U (600 x 450mm) wall mounted data cabinet with front glass door, two side opening, two way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix-A	Each	1		
	<u>UTP Cat-6 Patch Cords</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply and installation of UTP Cat-6 Patch Cords to be used to connect patch panel and network switch with both end machine made RJ-45 connectors. Make as specified in appendix-A, complete in all respect.				
	1 Meter Length	Each	10		
	3Meter Length	Each	10		
	<u>Cable Manager</u>				
	Supply and installation of Metal Cable Manager 1U Rack Mounted to be installed in data cabinet. Make as specified in appendix-A	Each	1		
	<u>5-KVA Online UPS Un-Intruptible Power Supply for Main Data / Server Cabinet.</u>				
	Supply at Site, Installation of Online 1 KVA UPS with 0.8 Power Factor with dry gel battries for standard backup upto 15 minutes. Make as specified in appendix-A	Each	1		
	<u>WIFI ACCESS POINT</u>				
	Supply, installation and connections of wireless wave two Wi-Fi access point or equivalent 2533Mbps dual-band, 802.11 abgn/ac with 20,40,80 MHz Channel width Support 4x4:4 streams, Beam Flex, Dual Polarized Integrated smart Directional antenna array. Auto-sensing 10/100/1000 Mbps, RJ-45 Power over Ethernet (PoE) Integrated 24 Antenna elements with more than 3000 Antenna Patterns, 15db interference mitigation, make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	4		
	<u>Computer Junction Box(CJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	2		
10	<u>Drain & Copper Pipe for HVAC System</u>				
	Supply, installation, of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper ribber insulation 3" dia pvc conduit heavy duty controlled wire from condencer to indoor unit. G.I pipe 3/4" dia for condensation drain from fan coil unit to neareast toilet or anyother proper place as per the direction of Architect/Site Engineer and all necessary accessories material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be included in the cost of above said item, complete in all respect without any other extra claim (Electrical wiring from DB to fan coil/ condenser unit is excluded from this item)	Nos.	10.00		
11	<u>FIRE ALARM SYSTEM</u>				
	<u>FIRE ALARM CABLE</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS PROPOSED STADIA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring for FACP Power from respective DB to Fire Alarm FACP with 3C, 2.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaid conduit from prelaid Conduit. Make as specified in appendix-A as approved by consultants, Complete in all respect	Rft	50		
	Supply, Installation and commissioning of wiring for FACP to Fire Alarm System as per drawing wired with 2C, 1.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 1 hours) in prelaid conduit from fire Alarm Control Panel to all Smoke Detector/ Heat Detector / Sounder & Manual Devices, Devices upto 180 units in one Loop, including all installation accessories. Make as specified in appendix-A or approved equivalent approved by consultants, Complete in all respect	Rft	2500		
	<u>MANUAL CALL POINTS</u>				
	Supply, Installation and commissioning with Manual Call Point Model DL-MCP-1010 having a built in short circuit isolator and built in microprocessor to ensure a response time of max. 1 second. It also incorporates an indication LED, flashed after pressing the button to acknowledge the activation and a key operation facility for testing purposes. Make as specified in appendix-A	Nos.	2		
	<u>ALARM SOUNDER /BUZZER</u>				
	Supply, installation and connections of Addressable Type Indoor Loop Powered electronic Sounder/ Buzzer Model DL-BZ-1121 and minimum sound output 100dB at 1 meter with frequencies for variety of sounds as required. Sounder shall be loop wired and loop signaled, built in short circuit isolator, configured via software. Make as specified in appendix-A	Nos.	2		
	<u>OPTICAL ADDRESSABLE SMOKE DETECTOR</u>				
	Supply, installation and connections of Supply, installation and connections of Addressable Optical Smoke Detectors Model DL-SM-1221 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	20		
	<u>ADDRESSABLE HEAT DETECTOR</u>				
	Supply, installation and connections of Addressable Heat Detectors Model DL-HD-1225 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	1		
	<u>FIRE ALARM CONTROL PANEL</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

**BILL OF QUANTITIES (ELECTRICAL WORK)
ELECTRIC WORKS PROPOSED STADIA**

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation and commissioning of Intellegent 01 Loop Micro processor based Fire Alarm Control Panel Model DL-FAP-2414, consisting of Loop and specific call point status, built in power supply, including UPS with about 40Ah batteries or better (estimated load 230W), alarm and trouble indication, silence alarm and rest system, general alarm and rest system, general alarm facility, Make as specified in appendix-A	Nos.	1		
	<u>FIRE ALARM JUNCTION BOX</u>				
	Supply, installation, testing and factory fabricated of PVC / MS junction box 16 SWG duly painted with antirust paint and further two coats of enamelled paint of approved colour including cost of earth terminal making holes of all sides to pull Fire Alarm cables complete. 4"x7". Make as specified in appendix-A	No.	1		
12	<u>SPLIT AC</u>				
	Supply, installation, testing and commissioning of follwing capacities of split air-conditioner of make Mitsubishi, General, Sabro, Gree or as approved by the Site Engineer, including cost of cutting chases, reshaping of chases, installtion of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber installtion, 3" dia. PVC conduit heavy duty, control wires from condenser to indoor unit, G.I. pipe 3/4" dia. for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Site Engineer, and all necessary accessories / material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be includeed in the cost of above said item, complete in all respects without any extra claim (Electrical wiring from DB to fan coil / condenser unit is exluded from this item).				
	Split Air-Conditioner, 1.5 Ton. (Heat & Cool) Invertor Wall Mounted Type	No.	10		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	1050		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	650		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm² single core, PVC insulated wire copper conductor wire in 20 mm (¾")dia PVC conduit recessed in the wall or column, roof etc. including 1mm² single core PVC insulated wire as ECC as required.	Per point	176		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan ,call bell or light plug point,controlled with same switch with (3/.029") PVC insulated wire in 20 mm (¾")dia PVC conduit fitted on surface including 1 mm² single core, PVC insulated wire as ECC as required.	Per point	363		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	20		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	50		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	75		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	75		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(¾") PVC conduit Recessed in the wall or column as required.	Per point	60		
	<u>Exhaust Fans Points</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	25		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				
	Providing & fixing Brass Ceiling fan 56'' (good quality)	Each	20		
	Providing & fixing Brass Bracket fan 18'' (good quality)	Each	40		
2	<u>4 Core Cable PVC/PVC</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 25mm2	Mtr	30		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 16mm2 (From MPB to Existing & Proposed Pavilions) (From Feeder Pillar-1 to Stadium Lights Circuits)	Mtr	30		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 10mm2 (From Feeder Pillars To 100/50 Watt Lights)	Mtr	10		
3	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	30		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	60		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	75		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	70		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	75		
4	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	1,000.00		
	ii. Sand (Bed & Cover)	Cft	200.00		
	iii. Block Work Wall on Both Side of Trench	Cft	187.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	75.00		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	iv. Warning Tap 30 cm Wide.	M	50.00		
	v. Removeable Slab (3'x1'-6"x2")	Cft	51.00		
5	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	50		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	100		
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	100		
	<u>1 Core PVC Copper Conductor AS A CPC</u>				
	Supply & drawing of 10 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	20		
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	30		
6	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as <u>Annex-A.</u>	Each	10		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/.0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	25		
7	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as <u>Annex-A.</u>				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	25		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	40		
	Outdoor Floor Light 14WATT	Each	15		
	Spot Light 5 Watt	Each	15		
	Downlight 1x18 Watt	Each	345		
	Downlight 1x13 Watt	Each	65		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Venety Lights 2x10 Watt	Each	10		
	LED Tube Light 1x18 Watt	Each	20		
	Highbay Light Del-HYB-1100 with 1x100Watt	Each	26		
8	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				
	<p>Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect.r. Manufactured by any one of the manufacturers, list attached as Annex-A,</p> <p>Incoming: 1-100 A MCCB TP RC:16KA Outgoing: 30- 10 / 16 / 20 A MCB SP RC:6KA</p>	Each	2		
	<p><u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u></p> <p>Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:- 2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site. M.S strip 2" wide x 1/4" thick. Hilti rawal bolts as per required quantity & size. 2 coats of antirust paint. 2 coats of powder coating of approved colour. Complete hanging system shall be installed at every 36". The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes.</p> <p>12" wide x 3" high with cover.</p>	Mtr	50		
9	<u>CCTV System</u>				
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	500		
	<u>CCTV Cables</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto 1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	18000		
	<u>CCTV</u>				
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	25		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 32 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A .	Each	1		
10	<u>Public Address System</u>				
	<u>Indoor Speaker</u>				
	Supply and installation of wall-mountable, indoor 2-way speaker with 10-15W . Complete with fixing arrangement on the pole. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	25		
	<u>Microphone</u>				
	Supply and installation of Goosenect Dynamic Microphone. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>Amplifier</u>				
	Supply and installation of Amplifier - 240 Watts with 3 Mic Input and 2x AUX input. Complete with Rack and power supplies with UPS. as appewed by the Engineer Incharge. Manufactured by any one of the manufacturers, list attached as	Each	2		
	<u>Cable</u>				
	Supply and Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type, manufactured by list Attached as Annex-A .	Rft	19680		
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	1500		
11	<u>DATA, WIFI SYSTEM</u>				
	<u>POWER CABLE</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring for Power with flexible 3C, 2.5 Sq.mm, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaid conduit from prelaid Conduit. Make as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	200		
	<u>Computer Outlet</u>				
	Supply and installation of Single Shutter Face Plate with bracket and UTP Cat-6 Keystone Jack Make as specified in appendix-A, complete in all respect as approved by the site incharge. RJ-45 outlet, included cost of Wall boxes.	Each	10		
	<u>Computer Cables</u>				
	Supply, Installation and commissioning of wiring as per drawing wired with CAT- 6 23 AWG, UTP Cable UL Listed, run in pre laid conduit from CCTV point to Data Switcher, including all installation accessories. Make as specified in appendix-A or as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	7500		
	<u>Network Core Switch</u>				
	Supply and installation of Layer -3 , Giga 24 Port Network Switch with 04 SFP Ports rack mounted having support through put 146 Gbps to be installed in Main data cabinet. Make as specified in appendix-A	Each	1		
	<u>Cat-6 UTP Patch Panel</u>				
	Supply and installation of 24 Port Cat-6 Patch Panel loaded with Cat-6 UTP Keystone Jack Rack Mounted with rear cable manager to be installed in data cabinet.	Each	1		
	<u>Floor Level Data Cabinet Wall Mounted</u>				
	Supply and installation of 24U (600 x 450mm) wall mounted data cabinet with front glass door, two side opening, two way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix-A	Each	1		
	<u>UTP Cat-6 Patch Cords</u>				
	Supply and installation of UTP Cat-6 Patch Cords to be used to connect patch panel and network switch with both end machine made RJ-45 connectors. Make as specified in appendix-A, complete in all respect.				
	1 Meter Length	Each	20		
	3Meter Length	Each	20		
	<u>Cable Manager</u>				
	Supply and installation of Metal Cable Manager 1U Rack Mounted to be installed in data cabinet. Make as specified in appendix-A	Each	1		
	<u>Fiber Optic Cable</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring with fiber cable as per drawing wired with Unitube, Light-Armoured Cable, Single-Mode, 6Core, 9µm run in pre laid conduit or cable tray from Fiber switcher to Fiber Switcher & control Panel, including all installation accessories. Make as specified in appendix-A as approved Equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	800		
	<u>24 OFDF (Fiber optic Distribution Frame to be installed in main cabinet.</u>				
	Supply and installation of 24 Ports Fiber Optic Distribution Frame Rack Mounted with OM3 Multimode Duplex Couplers, Pigtails, Fiber Patch Cords including cost of splicing charges. Make as specified in appendix-A	Each	1		
	<u>FIBER OPTIC SC- LC PATCH CORD</u>				
	Supply, installation and connections of Fiber Optic SC - LC Patch cords 3 meter. Make as specified in appendix-A equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects.	Nos.	2		
	<u>5-KVA Online UPS Un-Interruptible Power Supply for Main Data / Server Cabinet.</u>				
	Supply at Site, Installation of Online 5 KVA UPS with 0.8 Power Factor with dry gel batteries for standard backup upto 15 minutes. Make as specified in appendix-A	Each	1		
	<u>WIFI ACCESS POINT</u>				
	Supply, installation and connections of wireless wave two Wi-Fi access point or equivalent 2533Mbps dual-band, 802.11 abgn/ac with 20,40,80 MHz Channel width Support 4x4:4 streams, Beam Flex, Dual Polarized Integrated smart Directional antenna array. Auto-sensing 10/100/1000 Mbps, RJ-45 Power over Ethernet (PoE) Integrated 24 Antenna elements with more than 3000 Antenna Patterns, 15db interference mitigation, make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	5		
	<u>Computer Junction Box(CJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	1		
12	<u>TELEPHONE SYSTEM</u>				
	<u>Telephone Outlet</u>				
	Supply and installation of Single Shutter Face Plate including I/Os with bracket and UTP Cat-6 Keystone Jack make Make as specified in appendix-A, complete in all respect as approved by the site incharge. RJ-45 outlet, including Plastic Wall Box Clipsal	Each	5		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply and installation of Double Shutter Face Plate including I/Os with bracket and UTP Cat-6 Keystone Jack Make as specified in appendix-A, complete in all respect as approved by the site incharge. RJ-45 outlet, including Plastic Wall Box Clipsal	Each	10		
	<u>CAT-6A CABLE FOR TELEPHONE SYSTEM</u>				
	Supply, Installation and commissioning of wiring as per drawing, Schnieder CAT-6A, UTP Cable UL Listed or Equivalent, run in pre laid conduit/cable tray from outlet point to Patch Panel, including all installation accessories. Make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	3200		
	Supply and installation of 50 Pair Cable UG/PVC (0.4 - 0.5 mm sq) Telephone Cable (From JB to MDF)	Rft	250		
	<u>Telephone Junction Box(TJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	2		
	<u>Cable Termination</u>				
	Termination of multi pairs cable in secondary Section of Exchange using termination punching tool, rate includes termination charges for all Distribution Network in the building, as per site requirement complete Job.	Each	1		
	<u>Tag Block</u>				
	Providing & fixing of Korone strip / Tag Block 10 Pairs Capacity in Exchange, DP or any specified place as per site requirement as directed by the Engineer Incharge.	Each	173		
12	<u>Drain & Copper Pipe for HVAC System</u>				
	Supply, installation, of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper ribber insulation 3" dia pvc conduit heavy duty controlled wire from condencer to indoor unit. G.I pipe 3/4" dia for condensation drain from fan coil unit to neareast toilet or anyother proper place as per the direction of Architect/Site Engineer and all necessary accessories meterial whether mentioned in this item or not but are necessary for completion of job shall be deemed to be included in the cost of above said item, complete in all respect without any other extra claim (Electrical wiring from DB to fan coil/ condenser unit is excluded from this item)	Nos.	55.00		
13	<u>FIRE ALARM SYSTEM</u>				
	<u>FIRE ALARM CABLE</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring for FACP Power from respective DB to Fire Alarm FACP with 3C, 2.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaidd conduit from preliad Conduit. Make as specified in appendix-A as approved by consultants, Complete in all respect	Rft	50		
	Supply, Installation and commissioning of wiring for FACP to Fire Alarm System as per drawing wired with 2C, 1.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 1 hours) in prelaidd conduit from fire Alarm Control Panel to all Smoke Detector/ Heat Detector / Sounder & Maunal Devices, Devices upto 180 units in one Loop, including all installation accessories.Make as specified in appendix-A or approved equilvent approved by consultants, Complete in all respect	Rft	6500		
	<u>MANUAL CALL POINTS</u>				
	Supply, Installation and commissioining with Manual Call Point Model DL-MCP-1010 having a built in short circuit isolator and built in microprocessor to ensure a response time of max. 1 second. It also incorporates an indication LED, flashed after pressing the button to acknowledge the activation and a key operation facility for testing purposes. Make as specified in appendix-A	Nos.	8		
	<u>ALARM SOUNDER /BUZZER</u>				
	Supply, installation and connections of Addressable Type Indoor Loop Powered electronic Sounder/ Buzzer Model DL-BZ-1121 and minimum sound output 100dB at 1 meter with frequencies for variety of sounds as required.Sounder shall be loop wired and loop signaled, built in short circuit isolator, configured via software. Make as specified in appendix-A	Nos.	8		
	<u>OPTICAL ADDRESSABLE SMOKE DETECTOR</u>				
	Supply, installation and connections of Supply, installation and connections of Addressable Optical Smoke Detectors Model DL-SM-1221 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	30		
	<u>ADDRESSABLE HEAT DETECTOR</u>				
	Supply, installation and connections of Addressable Heat Detectors Model DL-HD-1225 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	2		
	<u>FIRE ALARM CONTROL PANEL</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS EXISTING GYMNASIUM

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation and commissioning of Intellegent 02 Loop Micro processor based Fire Alarm Control Panel Model DL-FAP-2414, consisting of Loop and specific call point status, built in power supply, including UPS with about 40Ah batteries or better (estimated load 230W), alarm and trouble indication, silence alarm and rest system, general alarm and rest system, general alarm facility, Make as specified in appendix-A	Nos.	1		
	<u>FIRE ALARM JUNCTION BOX</u>				
	Supply, installation, testing and factory fabricated of PVC / MS junction box 16 SWG duly painted with antirust paint and further two coats of enamelled paint of approved colour including cost of earth terminal making holes of all sides to pull Fire Alarm cables complete. 4"x7". Make as specified in appendix-A	No.	3		
14	<u>SPLIT AC</u>				
	Supply, installation, testing and commissioning of follwing capacities of split air-conditioner of make Mitsubishi, General, Sabro, Gree or as approved by the Site Engineer, including cost of cutting chases, reshaping of chases, installtion of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber installtion, 3" dia. PVC conduit heavy duty, control wires from condenser to indoor unit, G.I. pipe 3/4" dia. for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Site Engineer, and all necessary accessories / material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be includeed in the cost of above said item, complete in all respects without any extra claim (Electrical wiring from DB to fan coil / condenser unit is exluded from this item).				
	Split Air-Conditioner, 1.5 Ton. (Heat & Cool) Invertor Wall Mounted Type	No.	55		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
A:-					
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	840		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	240		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (3/4") dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	98		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan ,call bell or light plug point,controlled with same switch with (3/.029") PVC insulated wire in 20 mm (3/4") dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	198		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	10		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	10		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	15		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in ¾" dia PVC conduit recessed in wall or column as required.	Per Mtr.	20		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	30		
	<u>Exhaust Fans Points</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	25		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				
	Providing & fixing Brass Bracket fan 18'' (good quality)	Each	60		
2	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	20		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	20		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	15		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	20		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	20		
3	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective block and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	1,000.00		
	ii. Sand (Bed & Cover)	Cft	200.00		
	iii. Block Work Wall on Both Side of Trench	Cft	187.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	75.00		
	iv. Warning Tap 30 cm Wide.	M	50.00		
	v. Removeable Slab (3'x1'-6"x2")	Cft	51.00		
4	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	30		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	30		
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	30		
	1 Core PVC Copper Conductor AS A CPC				
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	800		
5	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as Annex-A.	Each	10		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/.0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	16		
6	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A.				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	20		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	30		
	Outdoor Floor Light 14WATT	Each	20		
	Spot Light 5 Watt	Each	10		
	Downlight 1x18 Watt	Each	148		
	Downlight 1x13 Watt	Each	62		
	Venety Lights 2x10 Watt	Each	12		
	LED Tube Light 1x18 Watt	Each	10		
	Highbay Light Del-HYB-1100 with 1x100Watt	Each	14		
	Flood Light 100 Watt	Each	22		
7	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<p>Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respects. Manufactured by any one of the manufacturers, list attached as Annex-A,</p> <p>Incoming: 1-100 A MCCB TP RC:16KA</p> <p>Outgoing: 30- 10 / 16 / 20 / 30 A MCB SP RC:6KA</p>	Each	1		
	<p><u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u></p> <p>Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:- 2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site. M.S strip 2" wide x 1/4" thick. Hilti rawal bolts as per required quantity & size. 2 coats of antirust paint. 2 coats of powder coating of approved colour. Complete hanging system shall be installed at every 36". The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes.</p> <p>12" wide x 3" high with cover.</p>	Mtr	50		
8	<u>CCTV System</u>				
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	100		
	<u>CCTV Cables</u>				
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	6500		
	<u>CCTV</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	6		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 16 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A .	Each	1		
9	<u>Public Address System</u>				
	<u>Indoor Speaker</u>				
	Supply and installation of wall-mountable, indoor 2-way speaker with 10-15W . Complete with fixing arrangement on the pole. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	12		
	<u>Microphone</u>				
	Supply and installation of Goosenect Dynamic Microphone. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>Amplifier</u>				
	Supply and installation of Amplifier - 240 Watts with 3 Mic Input and 2x AUX input. Complete with Rack and power supplies with UPS. as appewed by the Engineer Incharge. Manufactured by any one of the manufacturers, list attached as	Each	1		
	<u>Cable</u>				
	Supply and Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type, manufactured by list Attached as Annex-A .	Rft	6888		
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	150		
10	<u>DATA, WIFI SYSTEM</u>				
	<u>POWER CABLE</u>				
	Supply, Installation and commissioning of wiring for Power with flexible 3C, 2.5 Sq.mm, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaidd conduit from prelaidd Conduit. Make as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	200		
	<u>Computer Outlet</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply and installation of Single Shutter Face Plate with bracket and UTP Cat-6 Keystone Jack Make as specified in appendix-A, complete in all respect as approved by the site incharge. RJ-45 outlet, included cost of Wall boxes.	Each	4		
	<u>Computer Cables</u>				
	Supply, Installation and commissioning of wiring as per drawing wired with CAT- 6 23 AWG, UTP Cable UL Listed, run in pre laid conduit from CCTV point to Data Switcher, including all installation accessories. Make as specified in appendix-A or as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	5500		
	<u>Network Core Switch</u>				
	Supply and installation of Layer -3 , Giga 24 Port Network Switch with 04 SFP Ports rack mounted having support through put 146 Gbps to be installed in Main data cabinet. Make as specified in appendix-A	Each	1		
	<u>Cat-6 UTP Patch Panel</u>				
	Supply and installation of 24 Port Cat-6 Patch Panel loaded with Cat-6 UTP Keystone Jack Rack Mounted with rear cable manager to be installed in data cabinet.	Each	1		
	<u>Floor Level Data Cabinet Wall Mounted</u>				
	Supply and installation of 24U (600 x 450mm) wall mounted data cabinet with front glass door, two side opening, two way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix A	Each	1		
	<u>UTP Cat-6 Patch Cords</u>				
	Supply and installation of UTP Cat-6 Patch Cords to be used to connect patch panel and network switch with both end machine made RJ-45 connectors. Make as specified in appendix-A, complete in all respect.				
	1 Meter Length	Each	20		
	3Meter Length	Each	20		
	<u>Cable Manager</u>				
	Supply and installation of Metal Cable Manager 1U Rack Mounted to be installed in data cabinet. Make as specified in appendix-A	Each	1		
	<u>Fiber Optic Cable</u>				
	Supply, Installation and commissioning of wiring with fiber cable as per drawing wired with Unitube, Light-Armoured Cable, Single-Mode, 6Core, 9µm run in pre laid conduit or cable tray from Fiber switcher to Fiber Switcher & control Panel, including all installation accessories. Make as specified in appendix-A as approved Eqavlent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	800		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	<u>24 OFDF (Fiber optic Distribution Frame to be installed in main cabinet.</u>				
	Supply and installation of 24 Ports Fiber Optic Distribution Frame Rack Mounted with Om3 Multimode Duplex Couplers, Pigtails, Fiber Patch Cords including cost of splicing charges. Make as specified in appendix-A	Each	1		
	<u>FIBER OPTIC SC- LC PATCH CORD</u>				
	Supply, installation and connections of Fiber Optic SC - LC Patch cords 3 meter. Make as specified in appendix-A equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects.	Nos.	2		
	<u>5-KVA Online UPS Un-Intruptible Power Supply for Main Data / Server Cabinet.</u>				
	Supply at Site, Installation of Online 5 KVA UPS with 0.8 Power Factor with dry gel battries for standard backup upto 15 minutes. Make as specified in appendix-A	Each	1		
	<u>WIFI ACCESS POINT</u>				
	Supply, installation and connections of wireless wave two Wi-Fi access point or equivalent 2533Mbps dual-band, 802.11 abgn/ac with 20,40,80 MHz Channel width Support 4x4:4 streams, Beam Flex, Dual Polarized Integrated smart Directional antenna array. Auto-sensing 10/100/1000 Mbps, RJ-45 Power over Ethernet (PoE) Integrated 24 Antenna elements with more than 3000 Antenna Patterns, 15db interference mitigation, make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	4		
	<u>Computer Junction Box(CJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	1		
11	<u>TELEPHONE SYSTEM</u>				
	<u>Telephone Outlet</u>				
	Supply and installation of Single Shutter Face Plate including I/Os with bracket and UTP Cat-6 Keystone Jack make Make as specified in appendix-A,complete in all respect as approved by the site incharge. RJ-45 outlet, including Plastic Wall Box Clipsal	Each	5		
	Supply and installation of Double Shutter Face Plate including I/Os with bracket and UTP Cat-6 Keystone Jack Make as specified in appendix-A,complete in all respect as approved by the site incharge. RJ-45 outlet, including Plastic Wall Box Clipsal	Each	10		
	<u>CAT-6A CABLE FOR TELEPHONE SYSTEM</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring as per drawing, Schnieder CAT-6A, UTP Cable UL Listed or Equivalent, run in pre laid conduit/cable tray from outlet point to Patch Panel, including all installation accessories. Make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	3200		
	Supply and installation of 50 Pair Cable UG/PVC (0.4 - 0.5 mm sq) Telephone Cable (From JB to MDF)	Rft	250		
	<u>Telephone Junction Box(TJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	2		
	<u>Cable Termination</u>				
	Termination of multi pairs cable in secondary Section of Exchange using termination punching tool, rate includes termination charges for all Distribution Network in the building, as per site requirement complete Job.	Each	1		
	<u>Tag Block</u>				
	Providing & fixing of Korone strip / Tag Block 10 Pairs Capacity in Exchange, DP or any specified place as per site requirement as directed by the Engineer Incharge.	Each	173		
12	<u>Drain & Copper Pipe for HVAC System</u>				
	Supply, installation, of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper ribber insulation 3" dia pvc conduit heavy duty controlled wire from condenser to indoor unit. G.I pipe 3/4" dia for condensation drain from fan coil unit to neareast toilet or anyother proper place as per the direction of Architect/Site Engineer and all necessary accessories meterial whether mentioned in this item or not but are necessary for completion of job shall be deemed to be included in the cost of above said item, complete in all respect without any other extra claim (Electrical wiring from DB to fan coil/ condenser unit is excluded from this item)	Nos.	10.00		
13	<u>FIRE ALARM SYSTEM</u>				
	<u>FIRE ALARM CABLE</u>				
	Supply, Installation and commissioning of wiring for FACP Power from respective DB to Fire Alarm FACP with 3C, 2.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaid conduit from preliad Conduit. Make as specified in appendix-A as approved by consultants, Complete in all respect	Rft	50		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring for FACP to Fire Alarm System as per drawing wired with 2C, 1.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 1 hours) in prelaidd conduit from fire Alarm Control Panel to all Smoke Detector/ Heat Detector / Sounder & Maunal Devices, Devices upto 180 units in one Loop, including all installation accessories.Make as specified in appendix-A or approved equilvent approved by consultants, Complete in all respect	Rft	3500		
	<u>MANUAL CALL POINTS</u>				
	Supply, Installation and commissioning with Manual Call Point Model DL-MCP-1010 having a built in short circuit isolator and built in microprocessor to ensure a response time of max. 1 second. It also incorporates an indication LED, flashed after pressing the button to acknowledge the activation and a key operation facility for testing purposes. Make as specified in appendix-A	Nos.	4		
	<u>ALARM SOUNDER /BUZZER</u>				
	Supply, installation and connections of Addressable Type Indoor Loop Powered electronic Sounder/ Buzzer Model DL-BZ-1121 and minimum sound output 100dB at 1 meter with frequencies for variety of sounds as required.Sounder shall be loop wired and loop signaled, built in short circuit isolator, configured via software. Make as specified in appendix-A	Nos.	4		
	<u>OPTICAL ADDRESSABLE SMOKE DETECTOR</u>				
	Supply, installation and connections of Supply, installation and connections of Addressable Optical Smoke Detectors Model DL-SM-1221 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	22		
	<u>ADDRESSABLE HEAT DETECTOR</u>				
	Supply, installation and connections of Addressable Heat Detectors Model DL-HD-1225 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	2		
	<u>FIRE ALARM CONTROL PANEL</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK) ELECTRIC WORKS BOXING ARENA

Sr No.	Description	Unit	QTY	Rate (Rs.)	Amount (Rs.)
	Supply, installation and commissioning of Intellegent 01 Loop Micro processor based Fire Alarm Control Panel Model DL-FAP-2414, consisting of Loop and specific call point status, built in power supply, including UPS with about 40Ah batteries or better (estimated load 230W), alarm and trouble indication, silence alarm and rest system, general alarm and rest system, general alarm facility, Make as specified in appendix-A	Nos.	1		
	<u>FIRE ALARM JUNCTION BOX</u>				
	Supply, installation, testing and factory fabricated of PVC / MS junction box 16 SWG duly painted with antirust paint and further two coats of enamelled paint of approved colour including cost of earth terminal making holes of all sides to pull Fire Alarm cables complete. 4"x7". Make as specified in appendix-A	No.	1		
14	<u>SPLIT AC</u>				
	Supply, installation, testing and commissioning of follwing capacities of split air-conditioner of make Mitsubishi, General, Sabro, Gree or as approved by the Site Engineer, including cost of cutting chases, reshaping of chases, installtion of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber installtion, 3" dia. PVC conduit heavy duty, control wires from condenser to indoor unit, G.I. pipe 3/4" dia. for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Site Engineer, and all necessary accessories / material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be includeed in the cost of above said item, complete in all respects without any extra claim (Electrical wiring from DB to fan coil / condenser unit is exluded from this item).				
	Split Air-Conditioner, 1.5 Ton. (Heat & Cool) Invertor Wall Mounted Type	No.	10		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS(UNION OFFICE)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	185		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	75		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (3/4")dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	6		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan ,call bell or light plug point,controlled with same switch with (3/.029") PVC insulated wire in 20 mm (3/4")dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	24		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	4		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	8		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	18		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	10		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	5		
	<u>Exhaust Fans Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	6		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS(UNION OFFICE)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				
	Providing & fixing Brass Ceiling fan 56'' (good quality)	Each	4		
	Providing & fixing Brass Bracket fan 18'' (good quality)	Each	4		
2	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	4		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	4		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	18		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	12		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	10		
3	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	1,000.00		
	ii. Sand (Bed & Cover)	Cft	200.00		
	iii. Block Work Wall on Both Side of Trench	Cft	187.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	75.00		
	iv. Warning Tap 30 cm Wide.	M	50.00		
	v. Removeable Slab (3'x1'-6"x2")	Cft	51.00		
4	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	20		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	20		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS(UNION OFFICE)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	20		
5	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as Annex-A.	Each	2		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	6		
6	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A.				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	10		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	10		
	Outdoor Floor Light 14WATT	Each	5		
	Spot Light 5 Watt	Each	5		
	Downlight 1x18 Watt	Each	30		
	Downlight 1x13 Watt	Each	18		
	Venity Lights 2x10 Watt	Each	4		
7	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS(UNION OFFICE)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	<p>Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect.r. Manufactured by any one of the manufacturers, list attached as Annex-A,</p> <p>Incoming: 1-100 A MCCB TP RC:16KA</p> <p>Outgoing: 24- 10 / 16 / 20 A MCB SP RC:6KA</p>	Each	1		
	<p><u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u></p> <p>Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:-</p> <p>2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site.</p> <p>M.S strip 2" wide x 1/4" thick.</p> <p>Hilti rawal bolts as per required quantity & size.</p> <p>2 coats of antirust paint.</p> <p>2 coats of powder coating of approved colour.</p> <p>Complete hanging system shall be installed at every 36".</p> <p>The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes.</p> <p>12" wide x 3" high with cover.</p>	Mtr	20		
8	<u>SPLIT AC</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT**BILL OF QUANTITIES (ELECTRICAL WORK)****ELECTRIC WORKS(UNION OFFICE)**

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply, installation, testing and commissioning of following capacities of split air-conditioner of make Mitsubishi, General, Sabro, Gree or as approved by the Site Engineer, including cost of cutting chases, reshaping of chases, installtion of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber installtion, 3" dia. PVC conduit heavy duty, control wires from condenser to indoor unit, G.I. pipe 3/4" dia. for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Site Engineer, and all necessary accessories / material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be includeed in the cost of above said item, complete in all respects without any extra claim (Electrical wiring from DB to fan coil / condenser unit is exluded from this item).				
	Split Air-Conditioner, 1.5 Ton. (Heat & Cool) Invertor Wall Mounted Type	No.	4		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	520		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	173		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (3/4") dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	68		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan, call bell or light plug point, controlled with same switch with (3/.029") PVC insulated wire in 20 mm (3/4") dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	154		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	20		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	40		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	42		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	22		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	26		
	<u>Exhaust Fans Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	16		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Providing & fixing Brass Ceiling fan 56'' (good quality)	Each	18		
	Providing & fixing Brass Bracket fan 18'' (good quality)	Each	8		
2	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	16		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	48		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	42		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	60		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	22		
3	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	1,000.00		
	ii. Sand (Bed & Cover)	Cft	200.00		
	iii. Block Work Wall on Both Side of Trench	Cft	187.50		
	iii. PCC 1:4:8 in foundation 3"	Cft	75.00		
	iv. Warning Tap 30 cm Wide.	M	50.00		
	v. Removeable Slab (3'x1'-6"x2")	Cft	51.00		
4	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	50		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	50		
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	50		
5	<u>32 Amp Waterproof Socket</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as Annex-A .	Each	2		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/.0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	19		
6	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A .				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	15		
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	30		
	Outdoor Floor Light 14WATT	Each	22		
	Spot Light 5 Watt	Each	18		
	Downlight 1x18 Watt	Each	151		
	Downlight 1x13 Watt	Each	68		
	Venety Lights 2x10 Watt	Each	10		
	Highbay Light Del-HYB-1100 with 1x100Watt	Each	12		
7	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				
	Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect.r. Manufactured by any one of the manufacturers, list attached as Annex-A ,				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Incoming: 1-100 A MCCB TP RC:16KA Outgoing: 30- 10 / 16 / 20 / 30 A MCB SP RC:6KA	Each	1		
	<u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u> Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:- 2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site. M.S strip 2" wide x 1/4" thick. Hilti rawal bolts as per required quantity & size. 2 coats of antirust paint. 2 coats of powder coating of approved colour. Complete hanging system shall be installed at every 36". The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes. 12" wide x 3" high with cover.	Mtr	20		
8	<u>CCTV System</u>				
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	100		
	<u>CCTV Cables</u>				
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT- 6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	4500		
	<u>CCTV</u>				
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	8		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 16 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	1		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A .	Each	1		
9	<u>Public Address System</u>				
	<u>Indoor Speaker</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply and installation of wall-mountable, indoor 2-way speaker with 10-15W . Complete with fixing arrangement on the pole. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	10		
	<u>Microphone</u>				
	Supply and installation of Goosenect Dynamic Microphone. Manufactured by any one of the manufacturers, list attached as Annex-A,	Each	1		
	<u>Amplifier</u>				
	Supply and installation of Amplifier - 240 Watts with 3 Mic Input and 2x AUX input. Complete with Rack and power supplies with UPS. as appeved by the Engineer Incharge. Manufactured by any one of the manufacturers, list attached as	Each	1		
	<u>Cable</u>				
	Supply and Wiring of Each P.A Points, wired with PA Speaker Cable, 2 x 1.23mm, Bare CU Type, manufactured by list Attached as Annex-A.	Rft	4920		
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	200		
10	<u>DATA, WIFI SYSTEM</u>				
	<u>POWER CABLE</u>				
	Supply, Installation and commissioning of wiring for Power with flexible 3C, 2.5 Sq.mm, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaid conduit from prelaid Conduit. Make as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	1500		
	<u>Computer Cables</u>				
	Supply, Installation and commissioning of wiring as per drawing wired with CAT- 6 23 AWG, UTP Cable UL Listed, run in pre laid conduit from CCTV point to Data Switcher, including all installation accessories. Make as specified in appendix-A or as specified in appendix-A as approved equivalent by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	2500		
	<u>Network Core Switch</u>				
	Supply and installation of Layer -3 , Giga 24 Port Network Switch with 04 SFP Ports rack mounted having support through put 146 Gbps to be installed in Main data cabinet. Make as specified in appendix-A	Each	1		
	<u>Cat-6 UTP Patch Panel</u>				
	Supply and installation of 24 Port Cat-6 Patch Panel loaded with Cat-6 UTP Keystone Jack Rack Mounted with rear cable manager to be installed in data cabinet.	Each	1		
	<u>Floor Level Data Cabinet Wall Mounted</u>				
	Supply and installation of 24U (600 x 450mm) wall mounted data cabinet with front glass door, two side opening, two way fans with 06 sockets power distribution unit, complete in all respect. Make as specified in appendix A	Each	1		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	<u>UTP Cat-6 Patch Cords</u>				
	Supply and installation of UTP Cat-6 Patch Cords to be used to connect patch panel and network switch with both end machine made RJ-45 connectors. Make as specified in appendix-A, complete in all respect.				
	1 Meter Length	Each	10		
	3Meter Length	Each	10		
	<u>Cable Manager</u>				
	Supply and installation of Metal Cable Manager 1U Rack Mounted to be installed in data cabinet. Make as specified in appendix-A	Each	1		
	<u>5-KVA Online UPS Un-Intruptible Power Supply for Main Data / Server Cabinet.</u>				
	Supply at Site, Installation of Online 1 KVA UPS with 0.8 Power Factor with dry gel battries for kstandar backup upto 15 minutes. Make as specified in appendix-A	Each	1		
	<u>WIFI ACCESS POINT</u>				
	Supply, installation and connections of wireless wave two Wi-Fi access point or equivalent 2533Mbps dual-band, 802.11 abgn/ac with 20,40,80 MHz Channel width Support 4x4:4 streams, Beam Flex, Dual Polarized Integrated smart Directional antenna array. Auto-sensing 10/100/1000 Mbps, RJ-45 Power over Ethernet (PoE) Integrated 24 Antenna elements with more than 3000 Antenna Patterns, 15db interference mitigation, make as specified in appendix-A as approved by engineer's Incharge or consultants, Actual quantities shall be measured as per site & paid accordingly. Complete in all respects	Rft	4		
	<u>Computer Junction Box(CJB)</u>				
	Supply, installation of computer junction box 16 SWG to be concealed in wall with 2 coats of antirust paint, earthing terminal, complete in all respects.				
	Computer Junction Box Size: 4"x7"x4" deep.	No.	2		
11	<u>Drain & Copper Pipe for HVAC System</u>				
	Supply, installation, of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper ribber insulation 3" dia pvc conduit heavy duty controlled wire from condencer to indoor unit. G.I pipe 3/4" dia for condensation drain from fan coil unit to neareast toilet or anyother proper place as per the direction of Architect/Site Engineer and all necessary accessories material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be included in the cost of above said item, complete in all respect without any other extra claim (Electrical wiring from DB to fan coil/ condenser unit is excluded from this item)	Nos.	8.00		
12	<u>FIRE ALARM SYSTEM</u>				
	<u>FIRE ALARM CABLE</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply, Installation and commissioning of wiring for FACP Power from respective DB to Fire Alarm FACP with 3C, 2.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 2 hours) in prelaid conduit from prelaid Conduit. Make as specified in appendix-A as approved by consultants, Complete in all respect	Rft	50		
	Supply, Installation and commissioning of wiring for FACP to Fire Alarm System as per drawing wired with 2C, 1.5 Sq.mm with drain wire, Fire Resistant Shielded Cable (Fire Rating for 1 hours) in prelaid conduit from fire Alarm Control Panel to all Smoke Detector/ Heat Detector / Sounder & Manual Devices, Devices upto 180 units in one Loop, including all installation accessories. Make as specified in appendix-A or approved equivalent approved by consultants, Complete in all respect	Rft	2500		
	<u>MANUAL CALL POINTS</u>				
	Supply, Installation and commissioning with Manual Call Point Model DL-MCP-1010 having a built in short circuit isolator and built in microprocessor to ensure a response time of max. 1 second. It also incorporates an indication LED, flashed after pressing the button to acknowledge the activation and a key operation facility for testing purposes. Make as specified in appendix-A	Nos.	2		
	<u>ALARM SOUNDER /BUZZER</u>				
	Supply, installation and connections of Addressable Type Indoor Loop Powered electronic Sounder/ Buzzer Model DL-BZ-1121 and minimum sound output 100dB at 1 meter with frequencies for variety of sounds as required. Sounder shall be loop wired and loop signaled, built in short circuit isolator, configured via software. Make as specified in appendix-A	Nos.	2		
	<u>OPTICAL ADDRESSABLE SMOKE DETECTOR</u>				
	Supply, installation and connections of Supply, installation and connections of Addressable Optical Smoke Detectors Model DL-SM-1221 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	20		
	<u>ADDRESSABLE HEAT DETECTOR</u>				
	Supply, installation and connections of Addressable Heat Detectors Model DL-HD-1225 incorporating an LED indication located in labyrinth with in the housing of the detector. Sensing unit. It can be adjustable via software between 0-90 seconds. The detector shall have built in short circuit isolators on both inputs. Make as specified in appendix-A, including cost of all other accessories as required. All equipped as per specifications, complete in all respects.	Nos.	1		
	<u>FIRE ALARM CONTROL PANEL</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (EXISTING STADIA)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply, installation and commissioning of Intellegent 01 Loop Micro processor based Fire Alarm Control Panel Model DL-FAP-2414, consisting of Loop and specific call point status, built in power supply, including UPS with about 40Ah batteries or better (estimated load 230W), alarm and trouble indication, silence alarm and rest system, general alarm and rest system, general alarm facility, Make as specified in appendix-A	Nos.	1		
	<u>FIRE ALARM JUNCTION BOX</u>				
	Supply, installation, testing and factory fabricated of PVC / MS junction box 16 SWG duly painted with antirust paint and further two coats of enamelled paint of approved colour including cost of earth terminal making holes of all sides to pull Fire Alarm cables complete. 4"x7". Make as specified in appendix-A	No.	1		
13	<u>SPLIT AC</u>				
	Supply, installation, testing and commissioning of follwing capacities of split air-conditioner of make Mitsubishi, General, Sabro, Gree or as approved by the Site Engineer, including cost of cutting chases, reshaping of chases, installtion of 2 Nos. copper pipe of appropriate size covered with plastic tape and proper rubber installtion, 3" dia. PVC conduit heavy duty, control wires from condenser to indoor unit, G.I. pipe 3/4" dia. for condensation drain from fan coil unit to nearest toilet or any other proper place as per the direction of Site Engineer, and all necessary accessories / material whether mentioned in this item or not but are necessary for completion of job shall be deemed to be includeed in the cost of above said item, complete in all respects without any extra claim (Electrical wiring from DB to fan coil / condenser unit is exluded from this item).				
	Split Air-Conditioner, 1.5 Ton. (Heat & Cool) Invertor Wall Mounted Type	No.	8		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS ROAD LIGHTING

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<u>4 Core Cable PVC/PVC</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 25mm ² (From Existing Transformer to Feeder Pillar)	Mtr	300		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 10mm ² (From Feeder Pillars To 1000/500 Watt Lights)	Mtr	3500		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 6mm ² (From Feeder Pillars To Lights)	Mtr	1500		
	<u>3 Core PVC Copper Conductor</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC Sheeted with three core copper conductor 300/500 volts size 2.5mm ²	Mtr	2450		
2	<u>Trench / Foundation</u>				
	Back filling of any type of trench already excavated after laying various cables (LT) including laying of sand, protective blocks and excavated earth compaction, site cleaning etc. as per drawings and to approval of the consultants.				
	i. Excavation in soft soil including lift up to 5ft	Cft	58,000.00		
	ii. Sand (Bed & Cover)	Cft	11,000.00		
	iv. Warning Tap 30 cm Wide.	M	1,800.00		
3	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	3200		
	<u>1 Core PVC Copper Conductor AS A CPC</u>				
	Supply & drawing of 10 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	3500		
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	1500		
4	<u>STEEL TUBULAR POLE</u>				
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Fancy Road Double Arm Light pole 10.792 M long, Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A .	Each	65		
	<u>POLE BASE CONNECTION BOXES</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS ROAD LIGHTING

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply , Installation, testing and commissioning of Pole Base Connection Boxes complete comprising 2-NO.circuit breakers (MCB 6A,)connectors, nut & bolts etc; as per drawings, specification, complete in all respects and to the approval of the Consultant/The Engineer: Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	65		
5	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A .				
	LED Street light 100W	Each	130		
	<u>FP-01</u>				
	Supply ,installation testing & commissioning of Road Light Control Panel 16 SWG sheet steel construction with IP 43 protection class, canopy, door, locking arrangement with MCCB magnetic contactor relay. Photo cell, control swiches and monitoring switches etc including provision of foundation with PCC 3" Thick top pad, as per drawing, and approval of the consultant/the Engineer Detail is as under. Manufactured by any one of the manufacturers, list attached as Annex-A , Incoming: 1-125 A MCCB TP RC:16KA Outgoing: 15-30 A MCB TP RC:6KA	Each	6		
	TOTAL COST=				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<u>Light Circuits.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	315		
	<u>Switch Board To Switch Board.</u>				
	Providing & laying (MAIN or SUB MAIN), PVC insulated with size 3-7/.029 copper conductor in ¾" dia PVC conduit recessed in the wall or column as required.	Per Mtr.	140		
	<u>Point Wiring</u>				
	Wiring for light, fan or call bell point with 1.5 mm ² single core, PVC insulated wire copper conductor wire in 20 mm (3/4") dia PVC conduit recessed in the wall or column, roof etc. including 1mm ² single core PVC insulated wire as ECC as required.	Per point	40		
	<u>Point to Points Wiring</u>				
	Extension/Additional wiring for light, fan ,call bell or light plug point,controlled with same switch with (3/.029") PVC insulated wire in 20 mm (3/4") dia PVC conduit fitted on surface including 1 mm ² single core, PVC insulated wire as ECC as required.	Per point	82		
	<u>Wiring of 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	50		
	<u>Point to Point 1-3 Pin 13 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	900		
	<u>Point to Point 1-3 Pin 5 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	450		
	<u>Wiring of 1-3 Pin 15 Amps Switch Socket</u>				
	Providing and laying (Main or Sub main) PVC insulated with size 3-7/0.036 copper conductor in 3/4" dia PVC conduit recessed in wall or column as required.	Per Mtr.	400		
	<u>Fan / Wall Bracket Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	20		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	<u>Exhaust Fans Points</u>				
	Wiring for light or fan point with 3/.029 PVC insulated wire in 20 mm(3/4") PVC conduit Recessed in the wall or column as required.	Per point	5		
	<u>PLASTIC BODY LOUVRE WALL BRACKET FANS</u>				
	Providing & fixing Brass Bracket fan 18'' (ROYAL FAN OR EQUIVALENT)	Each	20		
2	<u>4 Core Cable PVC/PVC</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core Armoured copper conductor 600/1000 volts size 50mm ² (Cable From Transformer to DB)	Mtr	150		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 10mm ² (From DB To External Light)	Mtr	175		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 6mm ² (From Feeder Pillars To Lights)	Mtr	180		
	<u>3 Core PVC Copper Conductor</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC Sheeted with three core copper conductor 300/500 volts size 2.5mm ²	Mtr	75		
3	<u>Switch & Sockets.</u>				
	Providing and fixing of 4 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	28		
	Providing and fixing of 6 gang switch 10 Amp with back box (6"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	6		
	Providing and Fixing of Switched Socket 5 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	8		
	Providing and Fixing of Universal Switched Socket 13 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	23		
	Providing and Fixing of Universal Switched Socket 15 Amp with back box (3"x3"). Make Clipsal Austrila, Legrand, ABB or eqv.	Each	6		
4	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 50 mm i/d	Mtr	150		
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	600		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply & fixing 100mm (4") dia UPVC conduit with all especial such as bends, sockets, Junction etc recessed in the wall or column as required.	Mtr	150		
	1 Core PVC Copper Conductor AS A CPC				
	Supply & drawing of 25 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	150		
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	180		
5	<u>32 Amp Waterproof Socket</u>				
	Supply installation testing and commissioning of 32 Amp waterproof outdoor type industrial socket with back box and all fixing arrangements, complete in all respect as shown on drawings, as approved by the engineer incharge. Make list attached as Annex-A .	Each	2		
	<u>Plastic body Exhaust Fan</u>				
	Providing & installing 30 Cm (12") sweep, Plastic body Exhaust fan complete with blades, motor, etc fixed in existing hole including connection with 14/.0076" flexible wire complete as required Millat/Pak/Asia/ Younas/Climax/ Royal..	Each	5		
6	<u>STEEL TUBULAR POLE</u>				
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Post Top Pole 8 Feet long Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A .	Each	7		
	<u>POLE BASE CONNECTION BOXES</u>				
	Supply , Installation, testing and commissioning of Pole Base Connection Boxes complete comprising 2-NO.circuit breakers (MCB 6A,)connectors, nut & bolts etc; as per drawings, specification, complete in all respects and to the approval of the Consultant/The Engineer: Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	7		
7	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A .				
	LED Flood light 100W	Each	6		
	LED Bollard light 14W	Each	10		
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	124		

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Indoor / Outdoor Wall Bracket/ Washer Light 2x 14W	Each	4		
	Outdoor Floor Light 14WATT	Each	20		
	Downlight 1x18 Watt	Each	96		
	Downlight 1x13 Watt	Each	26		
	Venety Lights 2x10 Watt	Each	4		
	Outdoor Garden LED Post Top Light 60w with al fixing arrangements, complete with all necessary materials / accessories, complete in all respects	Each	7		
8	<u>Distribution Board Light & Power</u>				
	<u>DBLP-GF</u>				
	<p>Fabrication, supply at site, installation, testing, commissioning and connections of wires / cables of Distribution Boards "Light / Power" concealed / open type to be installed as and where shown on drawing, made of MS sheet 16 SWG degreased and derusted, zinc phosphated, finished with electro-static powder coating of 50 micron thickness in approved colour, DB panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect.r. Manufactured by any one of the manufacturers, list attached as Annex-A,</p> <p>Incoming: 1-150 A MCCB TP RC:16KA</p> <p>Outgoing: 24- 10 / 16 / 20 A MCB SP RC:6KA 04- 30 A MCB TP RC:6KA</p>	Each	1		
	<u>Main Switch Distribution Box for Meters</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	<p>Fabrication, supply at site, installation at designated location, testing and commissioning of Main Switch Distribution Box for Meters (M.S) comprising of cubicles, frame made of sheet steel 14 SWG and doors of 14 SWG, with flexible earthing straps, degreased and de-rusted, finished with electro-static powder coating of 50 micron thickness in approved color, panel housing to comply with protection class IP-64, outdoor floor mounting, in free standing design, with hinged door, lockable handle, all auxiliaries, internal wiring, designation labels on MCCBs, earthing bar, numbering beads on the control wires, panel suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral, bus bars of 99.8% purity electrolytic copper, including cost of cable termination lugs, brass cable glands for incoming & outgoing cables, wiring from breakers, indication lamps, instruments and control all accessories complete in all respect. including cost of Foundation.</p> <p>Incoming from Transformer: 1: 150 Amps 3 pole Moulded Case Circuit Breaker (MCCB) with overload and short circuit protection RC: 16 KA. 4: Copper Bus Bars of electrolytic copper 99.9% size not less than 20x5mm for each phase and neutral (3P+N) on incoming side of breaker of facilitate connection cables.</p> <p>Brass Cable Glands: 5: Set of "Brass Cable Gland" at bottom of M.S suitable for 1 core 50mm sq. PVC/PVC insulated incoming cables. 4: Sets of "Brass Cable Gland" at bottom of M.S suitable for 1 core 95mm sq. PVC/PVC insulated outgoing cable.</p>	Each	1		
	<p><u>Powder Coated Ceiling Suspended / Horizontal Cable Tray in Corridor</u> Fabrication, supply at site and installation of perforated cable tray made of M.S. sheet 14 SWG 8 ft. to 10 ft. long with sides 3" high with cover of cable tray made of 18 SWG M.S sheet to be installed on wall, or in vertical, or above false ceiling in horizontal position or as shown on drawing, including cost of the following:- 2 M.S threaded hanging rod 1/2" dia. Length 12" or as required as per site. M.S strip 2" wide x 1/4" thick. Hilti rawal bolts as per required quantity & size. 2 coats of antirust paint. 2 coats of powder coating of approved colour. Complete hanging system shall be installed at every 36". The above mentioned cable tray shall be complete in all respects including cost of all accessories / materials. Cable tray shall be of the following sizes.</p>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	12" wide x 3" high with cover.	Mtr	15		
9	<u>CCTV System</u>				
	Supply & fixing 20mm (3/4") dia PVC conduit with all especial such as bends, sockets, Junction etc fitted on surface as required.	Mtr	510		
	<u>CCTV Cables</u>				
	Wiring for each CCTV point included cost of 1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed manufactured by Krone, 3M, Clipsal, Delpro UK to support data rates upto 1GBits/s. or more than 1 GBits/s with connections at both ends, designation labels				
	1 no. 4 pair CAT-6 (UTP) cable tinned copper conductor PVC insulated PVC sheathed.	Rft	10000		
	<u>CCTV</u>				
	Supply and installation of Varifocal Lens Type (2.8~12mm), POE HD (H.264, 1080p) 8MP outdoor CCTV complete in all respects, with 30m IR Distance, Day and Night Vision, IP66 Approved, weather and Vandalproof. Manufactured by any one of the manufacturers, list attached as Annex-A ,	Each	10		
	<u>NVR</u>				
	Supply and installation of Network Video Recorder (NVR), H.264/H.265 Type, Full HD 1080p with 16 channel Video input, with 4TB HDD (2x2TB), with Ethernet, USB support, Including cost of UPS 5KVA. complete in all respect. Manufactured by any one of the manufacturers, list attached as	Each	1		
	<u>52" Size LED TV</u>				
	Supply and installation of 52 inch android LED tv, Full HD, with Base and fixing arrangement, complete in all respect. Make list attached as Annex-A .	Each	1		
10	<u>Earthing System</u>				
	Providing and fixing Earthing set with 2'x2'x1/4" copper plate buried in the ground at a depth of 12 feet or less if water comes out from the ground level (with salt and charcoal, or Earthing chemical Powder) etc making the pit 12 feet deep by excavation of all type of soil (except soft or hard rock) i/c fixing of 8 SWG copper wire in 1/2 " G.I conduit complete in all respect as required.	Job	4		
11	<u>Pad Mounted Transformer</u>				
	Supply, installtion, testing & commissioning of outdoor Pad mounted transformers on the foundation as per K-Electric Specifications, Drawings and Approval of the Consultant . Including cost of Foundation. Manufactured by any one of the manufacturers, list attached as Annex-A, 50 KVA	Each	1		
12	<u>DIESEL GENERATOR SET</u>				

REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT

BILL OF QUANTITIES (ELECTRICAL WORK)

ELECTRIC WORKS (FISH MARKET)

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
	Supply at site, installation, testing and commissioning at designated location, connection of cables, testing and commissioning of water cooled NEW diesel generating sets suitable for operation at 50oC and 90% relative humidity manufactured by any one of the manufacturers as specified in annexure "A" assembled in accordance with their provided drawings / manuals and consisting of painted welded steel bed plate frame work to accommodate engine alternator complete with electronic governor to give regulation to BS: 514 class A1, balanced flywheel, water jacket heaters energized by the in coming main supply, heavy duty starting batteries, battery charger, set of spare oil/fuel filters engine panel with oil pressure and water temperature gauge, pressure and water temperature gauge, (Electrical), alternator electronic voltage regulator, radio interference suppressors, electronic tachometer frequency meter voltmeter with selector switch, Ammeter with selector switch, hour runs meter, KWH meter, KW (total and per phase) KVA total and per phase. Power factor (Ave, total and per phase. KVAR (total) KVAR hour % of rated load, emergency stop push button, radiator, with water level switch, suitable for 400 / 230 volts, 50 cycles/second, at 1500 rpm, for 3 phase 4 wire system, including cost of all necessary material / accessories, daily fuel tank and conforming to technical specifications mentioned below.				
	50 KVA New Diesel Gen. Set Including cost of Foundation, ATS and Conopy.	Each	1		
13	Horizontal Thrust Boring				
	Provision of horizontal thrust boring at road crossing including UPVC 6" dia pipe (C-Class), back filling and compaction for H.T / L.T cables and crossing where road crossing sleeves are not available as per site requirement and approval of the Consultant . * subject to actual site work	Mtr	10		
TOTAL COST=					

KAKRI GROUND AND AMENITIES ENCLAVE IN LYARI

BILL OF QUANTITIES

ELECTRICAL WORKS FOR URBAN DESIGN

Sr No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	<u>4 Core Cable PVC/PVC</u>				
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 600/1000 volts size 25mm ²	Mtr	200		
	Providing & laying (MAIN or SUB MAIN) PVC insulated & PVC sheeted with 4 core copper conductor 300/500 volts size 10mm ² (From Feeder Pillars To 100/50 Watt Lights)	Mtr	2695		
2	<u>PVC Conduit</u>				
	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:- 40 mm i/d	Mtr	1348		
	<u>1 Core PVC Copper Conductor AS A CPC</u>				
	Supply & drawing of 10 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	200		
	Supply & drawing of 6 mm ² , single core, PVC insulated wire in all kinds of existing or given conduit/cable duct as required.	Mtr	2695		
3	<u>STEEL TUBULAR POLE</u>				
	Digging hole in ordinary soil proven and erection in position and sitting in 150mm thick type D 1:4:8 foundation and 80mm thick type D 1:4:8 muffler all round for and Post Top Pole 8 Feet long Octagonal Conical Shaped Hot Dip Galvanized including pole base plate /terminal boxes ,Earth point and as per Technical specification, drawings and to the approval of the consultant /The Engineer. make attached as Annex-A.	Each	319		
4	<u>LIGHT FIXTURES</u>				
	Supply, instalation, testing and commissioning of LED road light with imported chip , campitble imported driver with IP 66 rating , built in Aluminium Alloy + lens housing , input voltage AC 85-285V Frequency 50-60 Hz , beam angle 140° LED Life span 60000 Hours, colour Warm white 3000K ,as per specifications and to the approval of the Consultant/ The Engineer, Make list attached as Annex-A.				
	Outdoor Garden Spike Light Spotlight Tree UpLighter Lamp Black Path 1x7W	Each	30		
	Outdoor Garden LED Post Top Light 60w with al fixing arrangements, complete with all necessary materials / accessories, complete in all respects	Each	319		
	TOTAL COST=				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT
ROAD WORKS WITH URBAN DESIGN**

BILL OF QUANTITIES					
S.No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1.0	DISMENTALLING & DEMOLITION				
1.0	DEMOLITION				
1.1	Demolition of Plain cement Concrete in foundation or under floor basement, plinth and ground floor and , disposing of surplus material UPTO as directed. (Provisional item)	Cft	2,000.00		
1.2	Demolition of RCC, including disposing of debris as directed.	Cft	2,000.00		
1.3	Dismantling bitumen carpet of any description from existing road surface including base sub base and its removal and disposal up to 100M as directed.	Cft	10,000.00		
1.4	Removal /Felling trees of any height, any girth cutting into portable pieces taking out their entire roots and filling hollows with earth complete with dressing, consolidating and watering the filling including disposal of useless material as directed. included cost of the earth removal.	EACH	10.00		
1.5	Transplantation of trees as directed including digging, removing with care as directed transported to the designated place as directed and replanting to the designated place as directed and replanting the same including watering and taking care till it is regenerated as per specification complete using professional persons having experience of the work	EACH	10.00		
1.6	EXCAVATION				
1.6	Excavation or cutting in gravelly soil to a required grade, camber and side slopes including dressing top and disposal of excavated stuff within any lift and lead as per direction with space of project.	Cft	39,911.00		
1.7	DISPOSAL OF EXCAVATED / DISMENTALED MATERIAL				
1.7	Cartage of Excavated material / building rubbish including loading, unloading and stacking etc. at site to any lead as directed.	Cft	10,000.00		
2	PREPARATION OF SUBGRADE				
2	Preparation of sub-grade over bottom of excavation with required dressing to required grade, camber and side slopes including cutting to required depth and breaking clods watering and consolidation with suitable mechanical means to attain minimum density of 95% modified A.A.S.H.T.O maximum dry density for top 6" (152mm) layers including disposal of surplus earth within 3 chains (92 m) lead complete.	sq. ft	574,512.00		
3	BASE COURSE				
	Supplying and laying hand broken 2" to 1/2" (51mm to 13mm) stone ballast of approved grade and quality CONFIRMING TO CBR 80 AS PER AASHTO SPECIFICATION in sub-base or base courses in required grade and amber and compacting to the required density by approved mechanical means (Vibratory Roller, Road Packer and Smooth Wheel Roller etc.) including watering with all lead and lift complete (actual compacted depth shall be considered for payment) AS PER SPECIFICATION.	Cft	38,301.00		
4	GRANULAR FILLER				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT
ROAD WORKS WITH URBAN DESIGN**

BILL OF QUANTITIES					
S.No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
	Supplying and laying screened grade Bajri 3/8" to 3/16" (9.5mm to 4.8mm) of approved grade and quality in sub-base or base courses in required graded and camber and compacting to the required density by approved mechanical means (Vibratory Roller, Road Packer and Smooth Wheel roller etc.) including watering with all lead and lift complete (actual compacted depth shall be considered for payment)	Cft	19,150.00		
5	PRIMER				
	Applying prime coat with approved binder at the required rate including cleaning the road surface thoroughly, heating to the required temperature and spraying the binder with pressure as directed etc.	SQM	17,149.00		
6	PREMIX ASPHALTIC CARPET				
	Providing and laying premix Carpet asphaltic wearing course AVERAGE THICKNESS MINIMUM 60MM as specified with Asphalt 80/100 or 60/70 using job mix formula including leveling etc. complete as per specification	sq. ft	17,149.00		
7	TACK COAT				
	Providing and laying TACK COAT on Bituminous premix Carpet asphaltic wearing course surface A60/70 using job mix formula including leveling etc. complete as per specification	sq. ft	17,149.00		
8	PRE CAST KERB BLOCKS				
	Providing and laying road kerb of precast cement concrete Plant manufactured 24" long 6" wide and 12" deep (610mm long 152mm wide and 305mm deep) laid increments sand mortar 1:4 including cost of excavation and back filling of excavated stuff and its disposal as directed Minimum Compressive Strength at 28 days 3000 PSI cube strength including the cartage, stacking loading and unloading etc. complete as per drawing and direction.	Rft	25,534.00		
9	FOOT PATHS				
9.A	EARTH FILLING				
	Making earthen embankments with earth taken from approved borrow pits including cost of excavation, placing earth in layers not exceeding 9" (229 mm) depth as per approved section including dressing top and sides of the bank within a lift of 5 ft. (1.52m) and lead up to 100ft. (30.5 m) in all kinds of soil (except gravelly, murum, wet silt, clay or mud and rock).	Cft	27,662.00		
9.B	CONCRETE BASE				
	Providing and laying 4" (102mm) thick not less than 1:2:4 cement concrete (minimum works cube crushing strength of 2250 Lbs. PSI (158 Kg. per Sq.cm. at 28 days) in road, paths, crete-ways etc. using graded screened Bajri in panels of approved size laid to required gradient and camber over any sub-grade including cost of necessary from work and its removal, compacting with vibrators (immersion or screen or both) belting the surface with canvas belt, roughening the surface after laying concrete with brush and curing etc. complete.	Cft	9,221.00		
9.B(i)	CONCRETE PAVERS				

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT
ROAD WORKS WITH URBAN DESIGN**

BILL OF QUANTITIES					
S.No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
9.B(ii)	Providing and laying in floor C.C paver flat type TERRA COTTA as border tile 600x600x60MM as per approved design and colour pattern (average strength 6000 psi) laid on sand cushion filling of joint with sand and warring etc. complete as per direction of Engineer in charge. (the cost of sand cushion is included)	sq. ft	13,831.00		
9.B(iii)	Providing and laying in floor C.C paver 197x97x60MM of CITY SHAPE/drawing/ as per approved design and natural colour pattern (average strength 5000~6000 psi) laid on sand cushion filling of joint with sand and warring etc. complete as per direction of Engineer in charge. (the cost of sand cushion is included)	sq. ft	160,418.00		
	Road LANE MARKINGS				
	Providing and applying road marking paint suitable for Concrete and asphalt surface containing chlorinated rubber resine with a safe level of CTC CR paint yellow 100MM wideconfirming to specification and applicationwith spraymachinesasper manufacturer's recommendation.	Rft	24,580.00		
	REFLECTORS CAT EYE				
	Supply & Fixing of reflectorize Road Studs Double Face. Flushed surface type (Cat Eyes) AS PER SPECIFICATION.	No.	1,277.00		
	EXTRA ITEMS		-		
1	P/F Garden benches 6' long consisting of pvc base with shesham wood planks 2x1-1/4" Made of Green Earth/ garden fixture lahore complete in all respect approved by engineer incharge of the work.	Nos	100.00		
2	P/F straight benches 6' long consisting of pvc base with shesham wood planks 2x1-1/4" Made of Green Earth/ garden fixture lahore complete in all respect approved by engineer incharge of the work.	Nos	60.00		
3	P/F Round shap Bench under trees consisting of recycle plastic with wood planks Made of Green Earth/ garden fixture lahore complete in all respect approved by engineer incharge of the work.	Nos	40.00		
4	P/F Dust bins made of pvc material "made of GREEN EARTH /GARDEN FIXTURE/DECORA COMPANY LAHORE" best quality complete in all respects and direction of architect & approved by engineeer incharge .	Nos	130.00		
5	Providing and fixing Feature wall(bamboo with artifical plants) complete in all respect as per drawing and satisfaction of the engineer incharge .	Sft	6,377.00		
6	P/F Trees Grating size (36"x36") made of pvc material "made of GREEN EARTH /GARDEN FIXTURE/DECORA COMPANY LAHORE" best quality complete in all respects and direction of architect & approved by engineeer incharge .	Sft	360.00		
7	Providing and fixing Way finder (Ms pipe 3" dia with ms plate)including civil works complete in all respect as per drawing and satisfaction of the engineer incharge .	EACH	10.00		
8	Providing and fixing Ms pipe 4" bollard with ms chain (2 No.pipe 8' chain)including civil works complete in all respect as per drawing and satisfaction of the engineer incharge .	EACH	20.00		

**REDEVELOPMENT OF KAKRI SPORTS COMPLEX AND NEIGHBORHOOD IMPROVEMENT
ROAD WORKS WITH URBAN DESIGN**

BILL OF QUANTITIES					
S.No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
9	Providing and fixing Canopy complete in all respect as per drawing and satisfaction of the engineer incharge .	Nos	5.00		
10	Construction of Bus Stop Complete in all respect as per architectural drawing.	Job	1.00		
11	Providing and planting dhaka grass @2.5"c/c both way including cost of grass, dreshi, waering, & cuttings complete in all respects till proper handing over	Sft	100,000.00		
12	Providing and planting of Bottle Palm Queen stem height 12' including the cost of pitting bhul, fertilizer, watering complete .	Nos	50.00		
13	Providing and planting of Ficus Golden / Black/ White/ Jamn./FICUS GROUP 18" crown height 9' pot size including the cost of pitting bhul, fertilizer, watering, complete in all respect.	Nos	50.00		
14	Providing and planting of tree plant "AMALTAS, JACARAANDA , MELALUCA, STERCULIA ,ARJUN, BATOOTIA, SUKHCHAN ETC" 8" crown height including the cost of fertilizer, watering, complete in all respect.	Nos	100.00		
15	Providing and planting of "khajoor" 12' crown height in health condition including the cost of pitting watering complete in all respect.	Nos	50.00		
16	Providing and planting of "LATANIAPALM, LIVISTONIA PALM,etc" 3' crown height in 14" pot size including the cost of pitting watering complete in all respect as per analysis attached N.S (detail attached)	Nos	50.00		
17	Providing and planting of "Mango" 4' crown height in health condition including the cost of pitting watering complete in all respect.	Nos	50.00		
18	Providing and planting of "Chico" 7' crown height in health condition including the cost of pitting watering complete in all respect.	Nos	50.00		
19	Providing and planting of "NEEM" 7' crown height in health condition including the cost of pitting watering complete in all respect.	Nos	50.00		
20	Providing and planting of "Coconut" 7' crown height in health condition including the cost of pitting watering complete in all respect.	Nos	50.00		
	TOTAL COST:				