Local Government & Community Development Department

Punjab Cities Program
Construction of SWM
Parking Area in Jehlum City

PC-I

Estimated Cost PKR 58.919 Million

March 2023

Municipal Committee Jehlum

JERS CONSULTANCY (PVT) LTD
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PC-I FORM
for
Construction of SWM Parking Area in Jehlum City

Project Serial Number

Sector : ***Local Government & Community Development Department***
Sub Sector: ***Social***

<table>
<tr><td>1. Name of the project</td><td>Punjab Cities Program
Construction of Parking Area in Jehlum city</td></tr>
<tr><td>2.Location</td><td>The city of Jhelum is the headquarters of Jhelum district, situated on the right bank of the Jhelum River, in the north of Punjab province. It is located on the Grand Trunk Road in the north-west at a distance of 180 Kilometres from the Lahore (Punjab capital). The city is located at a distance of 115 Kilometres from Islamabad and located at 32°56′ North latitude and 73°44′ East longitude and elevation of 234 meters above mean sea level.
Location map of the city is attached in Annexure-A</td></tr>
<tr><td colspan="2">3. Authorities responsible for</td></tr>
<tr><td>i- Sponsoring</td><td>Government of the Punjab (through World Bank funding)</td></tr>
<tr><td>ii- Execution</td><td>Municipal Committee Jehlum</td></tr>
<tr><td>iii- Operation and Maintenance</td><td>Municipal Committee Jehlum</td></tr>
<tr><td>iv-Concerned Provincial Department</td><td>Local Government and Community Development Department Punjab</td></tr>
<tr><td>4a.Plan Provision</td><td></td></tr>
<tr><td>i. If the project is included in medium term/five year plan, specify actual allocation</td><td>Punjab Cities Program (PCP) is a World Bank funded Program with a total cost of USD 236.00 million and comprises of below mentioned components.
<table>
<tr><td>Total loan from World Bank</td><td>USD 200.00 million</td></tr>
<tr><td>Component-1 Infrastructure development (PforR)</td><td>USD 180.00 million</td></tr>
<tr><td>Component-2 Technical Assistance</td><td>USD 20.00 million</td></tr>
<tr><td>MCs share (20% of PforR component) equivalent to:</td><td>USD 36.00 million</td></tr>
<tr><td>Total Program cost</td><td>USD 236.00 million</td></tr>
</table></td></tr>
</table>

		Component-2 i-e Technical Assistance component of Program costing USD 20.00 million is meant for management cost of the Program and capacity building of MCs & Government Departments and is included in the medium term/ five-year plan and has been funded now with allocation of PKR 1329.90 million as foreign component.
ii- If not included in the current plan, what warrants its inclusion and how it is now proposed to be accommodated		Not applicable
iii If the project is proposed to be financed out of block provision indicate.		The Project is being financed by World Bank as Donor along with 20% co-financing from the Program Units and is not proposed to be financed out of block allocation.
4b- Provision in the current year PSDP/ADP		PKR. 1329.90.00 million
5. Project objectives and its relationship with sector objectives		**Sector Objectives** The sector objectives include: 1. Provision of efficient and effective municipality services to the masses. 2. Community development through improving basic infrastructure. 3. Clean and green environment for better living standards. 4. Effective use of land through master planning of urban areas. 5. Social uplifting and cohesion through provision of public open spaces and play grounds. 6. Ease in mobility and communication. 7. Cost efficient Solid Waste Management through waste to energy initiatives. 8. Capacity building of Local Governments. 9. Efficient Road network to make areas easily accessible **Objectives of the Project** The Punjab Cities Program aims at improvement of infrastructure of municipal services such as roads, cross roads, street lights, parks and parking shed for SWM machinery for improved communication and recreational facilities. Scope of the work for this particular project includes the construction of Parking shed for SWM Machinery.

		The Project has the following objectives; 1. Provision of suitable parking area for the MC Vehicles. 2. Making MC self-sufficient in small repairs to the machinery & Equipment possessed by MC 3. Provision of a washing facilities for the vehicles 4. Effective protection to the vehicles against the solar radiation and Ultraviolet rays, rain, hail, wind, and dust. 5. Slowing down the deterioration of vehicles, therefore reducing the cost of maintenance. 6. Enhancement of the security of vehicles during non-working hours. 7. Better watch and ward of MC machinery and equipment and reduction of losses due to theft of equipment and spares. 8. Provision of better solid waste management service by protection of the machinery and equipment. Hence, the objectives of the project are in line with the sector objectives at serial No-1, 2, 3 & 7 and the project forms integral part of the concerned sector.
6. Description, justification, technical parameters and technology transfer aspects		
i. Present Condition		As per PLGA-12019 Urban Local Governments (ULGs) are basically and wholly responsible for delivery of the municipal services with a service delivery level which should satisfy the consumers and citizen. Unfortunately, the prevalent conditions of the service delivery are not encouraging in the city. The major reason of unsatisfactory service delivery is the lack of proper maintenance of the municipal infrastructure in all sectors causing consumer dissatisfaction at one end and degradation of the infrastructure on the other end apart from very low revenue recovery as the consumers are reluctant to pay because of deteriorated service delivery. MC Jehlum has some machinery and equipment which is already being used for collection and disposal of the solid waste. Under Punjab Cities Program modern, efficient and cost-effective machinery and equipment has been provided to MC Jehlum for provision of better solid waste management facilities to the people of Jehlum. At present, there is no appropriate parking space available with MC for the existing and newly procured machinery and equipment and dire need for parking area facility is being felt. Currently the solid waste machinery is being parked under open sky in various spaces available with MC. Absence of permanent parking space can cause machinery

<table>
<tr><td></td><td></td><td>deterioration and compromise its safety that will lead to non-sustainability of solid waste management.</td></tr>
<tr><td>ii. Description of the subproject-</td><td></td><td>The project comprises of construction of Parking Area for solid waste management and other machinery and equipment possessed by MC over an area of 3.91 Kanals in the city. Detail of the components of Parking Area have been given in the table below.</td></tr>
<tr><td>iii Detail of civil works, equipment & machinery and other physical facilities</td><td></td><td>The detail of Parking Shed for SWM Machinery to be constructed in the city, is given below:

Location: Stadium Road between MC Stadium Jehlum and Altaf Park
<table>
<tr><th>S. N.</th><th>Detail of works</th></tr>
<tr><td>1</td><td>Boundary wall (part)</td></tr>
<tr><td>2</td><td>Sheds for vehicles with steel girders and Aluzinc sheeting at the top</td></tr>
<tr><td>3</td><td>Administrative Block</td></tr>
<tr><td>4</td><td>Work shop</td></tr>
<tr><td>5</td><td>Parking aprons</td></tr>
<tr><td>5</td><td>External Water supply, Sewerage and Drainage system</td></tr>
<tr><td>6</td><td>Approach road</td></tr>
</table></td></tr>
<tr><td>iv Indicate governess issues of the sector relevant to the project and strategy to resolve them</td><td></td><td>• MC Jehlum is facing acute shortage of staff. The smooth sailing of the Punjab Cities Program can only be assured when the required staff is available with Unit.
• The Repair and maintenance of the municipal services in not up to the mark in such Unit. Trainings will be imparted by PMDFC to the officers as well as the field staff under the Program but practicing the interventions and method/procedures learnt in these trainings is the actual requirement in which MCs are lacking at present. Hence inculcating the mind set for good repair and maintenance is the major requirement for improving the service delivery level.</td></tr>
</table>

7- Capital Cost of Project

The summary of the works included in the project is given below;

S. No	Item of works	Cost (PKR million)
1	Admin Building	4.453
2	Guard Room	0.506
3	Work Shop	3.712
4	Parking Shed (Size 90' X 32')	10.288
5	Parking Shed (Size 156' X 16')	8.113
6	External Work (Boundary Wall + Tuff Paver + Lawn)	16.942
7	Ejector Pump	0.266
8	External Water Supply Work	0.659
9	External Sewerage Work	0.211
10	External Electrical Work	6.727
11	Dismantling Work	0.147
12	Environmental Health & Safety Cost	0.112
	Total cost	**52.141**
	Contingencies @2%	1.042
	Escalation @6%	3.128
	Punjab Sales Tax @5%	2.607
	Grand Total	**58.919**

See **Annexure-B** for details

i- Indicate date of estimation of the project cost

The project estimates have been framed during the month of March 2023

ii- Basis of determining the estimates be provided.

The cost estimates have been framed on the basis of bill of quantities actually required at site and unit rates from the Market Rate System (MRS) issued by the Government of Punjab (District Jehlum 1st Bi-Annual of year 2023).

For items not available in the MRS, the same have been analyzed as per prevailing market rates.

iii- Provide year wise estimation of physical activities

Physical phasing of the project is included in the following table:

S. #	Item of works	Year 2022-2023
1	Boundary wall (part)	100%
2	Sheds for vehicles with steel girders and Aluzinc sheeting at the top	100%
3	Administrative Block	100%
4	Work shop	100%
5	Parking aprons	100%
6	External Water supply, Sewerage and Drainage system	100%
7	Contingencies & PRS Taxes	100%

iv- Phasing of capital cost on the basis of each item of work.

Phasing of capital cost of the project is included in the following table:
(All figures are in million rupees)

S. #	Items of Shed	Total cost (Million Rs)	Year 2022-2023 (Million Rs)
1	Admin Building	4.453	4.453
2	Guard Room	0.506	0.506
3	Work Shop	3.712	3.712
4	Parking Shed (Size 90' X 32')	10.288	10.288
5	Parking Shed (Size 156' X 16')	8.113	8.113
6	External Work (Boundary Wall + Tuff Paver + Lawn)	16.942	16.942
7	Ejector Pump	0.266	0.266
8	External Water Supply Work	0.659	0.659
9	External Sewerage Work	0.211	0.211
10	External Electrical Work	6.727	6.727
11	Dismantling Work	0.147	0.147
12	Environmental Health & Safety Cost	0.112	0.112
	Total cost	**52.141**	**52.141**
	Contingencies @2%	1.042	1.042
	Escalation @6%	3.128	3.128
	Punjab Sales Tax @5%	2.607	2.607
	Grand Total	**58.919**	**58.919**

8-**Annual recurrent cost after completion of the project and source of financing**

Cost in Million = Rs. 0.821
(See details in **Annexure-1**)

<table>
<tr><td>9- Demand & Supply Analysis

i- Existing Capacity of services</td><td>Existing supply level
• There is no existing parking facility for the SWM machinery. Resultantly the vehicles are parked at open spaces with no protection.
• MC Jehlum is unable to protect the solid waste transportation and other MC vehicles because of non-availability of appropriate parking area.</td></tr>
<tr><td>ii- Projected Demand for 10 years</td><td>The Parking area is required to park and protect the solid waste transportation and other MC vehicles.
•The influence and value of parking spaces in planning for livable communities is very essential. Parking space is more than a necessary element of larger residential or commercial uses; it merits consideration as a distinct land use that affects travel behavior and the environment. The provision of parking lots reduces the congestion on streets and roads and improves traffic flow. District Jehlum lacks parking space for the SWM Machinery which are therefore parked in open or rental spaces. The proposal is to construct a parking shed for SWM machinery to accommodate a total of 19 vehicles.
•The municipal services require radical improvement to enhance the efficiency of the service to increase service delivery to a satisfactory level.
•Many shortcomings, problems and bottlenecks have been observed in the present situation which could not be addressed by MC due to funding constraints and now have been proposed to be addressed by the construction of the municipal services infrastructure.</td></tr>
<tr><td>iii- Capacity of other similar projects being implemented in public/private sector</td><td>No other project of this nature is being implemented in public as well as private sector because of funding constrains in the Unit.</td></tr>
<tr><td>iv- Supply and Demand gaps</td><td>As explained above there is no parking area in Jehlum City for solid waste transportation and other MC vehicles. So there is a large gap between the supply and demand.</td></tr>
<tr><td>v-Designed capacity and output of the project</td><td>1)-Table showing details of the parking area is given below:
<table>
<tr><th rowspan="2">Location</th><th rowspan="2">Components</th><th rowspan="2">No. of Sheds</th><th colspan="2">Area</th></tr>
<tr><th>Total area</th><th>Shed area & Nos.</th></tr>
<tr><td>Stadium Road between MC Stadium Jehlum and Altaf Park</td><td>As listed in section-7</td><td>02</td><td>3.91 Kanals</td><td>1 Nos = 90’x32’
1 Nos = 156’x16’</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td>2)-Parking shed is designed for 28-year life.
3)-This Parking shed is designed for 19 vehicles of SWM Machinery.</td></tr>
<tr><td>10. Financial Plan
Sources of financing
<u>Debt</u>
a) Indicate the local and foreign debt Loan</td><td></td><td>Below given loan for the Punjab Cities Program has been funded by World Bank for 16 PCP cities in Punjab.
<table>
<tr><td>Total loan to Government of Pakistan/Punjab</td><td>USD 200 million</td></tr>
<tr><td>Component-1 for Infrastructure Development</td><td>USD 180 million</td></tr>
<tr><td>Component-2 for Investment Project Financing For capacity building of MCs & three Govt. organization and program management.</td><td>USD 20 million</td></tr>
<tr><td>20% share of Municipalities is equivalent to</td><td>USD 36 million</td></tr>
<tr><td>Total funds available for Infrastructure Development</td><td>USD 216 million</td></tr>
<tr><td colspan="2">This project will be funded under this financing.</td></tr>
</table></td></tr>
<tr><td>b) Equity</td><td></td><td>A. Loan/grant to MC
The amount of loan converted to grant to MC Jehlum will be Rs 47.135 million. The financing of the project will be as give n below:
<table>
<tr><td>Grant to MC Jehlum from World Bank (80% of cost of PC-I)</td><td>PKR 47.135 million</td></tr>
<tr><td>20% Co-finance by MC</td><td>PKR 11.783 million</td></tr>
<tr><td>Total cost of project</td><td>PKR 58.919 million</td></tr>
</table>
B. Project Cost =Rs. 58.919 million

*The loan is from World Bank to Government of Pakistan/Punjab which will trickle down to MC Jehlum as grant.</td></tr>
<tr><td>c) Grants</td><td></td><td>No grant is being given by Government of Punjab out of ADP funds. The World Bank loan to Government of Pakistan/Punjab will trickle down as grant to MC from Government of Punjab.</td></tr>
<tr><td>d) Weighted cost of capital</td><td></td><td>Nil</td></tr>
<tr><td colspan="3">11-Project benefits and analysis</td></tr>
<tr><td>i.Financial:
Income to the project with assumption</td><td></td><td>• No income will be generated from the project and hence the Financial Analysis is not required.
• It is a social sector project and the capital cost of the project is not intended to be recovered. MC will meet the cost of repair and maintenance out of its own resources. The project economic analysis is given as Annexure-C.</td></tr>
</table>

ii.Social benefits to the target group		The completion of the project will result in: • Provision of suitable parking area for the MC Vehicles. • Making MC self-sufficient in small repairs to the machinery & Equipment possessed by MC • Provision of a washing facilities for the vehicles • Effective protection to the vehicles against the solar radiation and Ultraviolet rays, rain, hail, wind, and dust. • Slowing down the deterioration of vehicles, therefore reducing the cost of maintenance. • Enhancement of the security of vehicles during non-working hours. • Better watch and ward of MC machinery and equipment and reduction of losses due to theft of equipment and spares. • Provision of better solid waste management service by protection of the machinery and equipment.
iii.Environmental Impact negative/positive		Primary and secondary data has been collected and used to assess the environmental impacts of the proposed Parking Area. Site visit was conducted to the project area for the proposed works and to assess the baseline in order to evaluate whether there are any key receptors that will need to be considered during the project works to prevent any long term and irreversible impacts. The activities to be conducted under the project were screened for potential impacts at the design/pre-construction, construction and operation phases of the Parking Sheds. This 'activity wise' screening enabled to obtain a clear picture of the expected level of impacts resulting from the different activities and helped identify required mitigation measures to mitigate them to within acceptable limits as per the guidelines provided by the World Bank in the form of Environment and Social Management Framework. However, the impacts will be temporary and there will be no negative impacts after completion of the project, rather, during the operation phase of the Parking Sheds, mostly positive impacts are expected. To facilitate the selection of an optimal solution and for the inclusion of Safe Operating Procedures for Construction workers/labors; assessment indicators or an Environmental Screening Checklist has been developed which is attached as Annexure E (A) of this PC-1. The checklist focuses on Environmental Issues and social concerns and ensure that all environmental and social dimensions are adequately considered. Based on the remarks of the screening checklist, Environment and Social Management Plans (ESMPs) does not need to be prepared. However, the necessary cost for Environment Health and Safety of Workers has been incorporated in the PC-1. The Environment, Health and Safety SOPs for labor/workers are provided as Annexure E (B).

<table>
<tr><td>iv.Quantifiable project outputs</td><td>The quantifiable project out puts have been given above in Sr. No-9 (V). The social benefits to the citizen have been described at Sr. No-11(ii).</td></tr>
<tr><td>v.Unit cost analysis</td><td>A) Capital Unit Cost
The unit cost analysis is produced below;<table><tr><td>Project capital cost</td><td>PKR 58.919 million</td></tr><tr><td>Population of the city in year 2023</td><td>300,804 persons</td></tr><tr><td>Unit capital cost per capita</td><td>PKR 196.00</td></tr></table>
B)-Unit R&M cost:<table><tr><td>Annual R&M cost</td><td>821,414</td></tr><tr><td>Population of the city in year 2023</td><td>300,804 persons</td></tr><tr><td>Unit R&M cost per capita</td><td>PKR 3.00</td></tr></table></td></tr>
<tr><td>vi.Employment generation (direct and indirect)</td><td><u>Employment Analysis</u>
Direct Employment
a) Planning and Design of projects
The planning and design of the project has been entrusted to local consultants (JERS Consultancy) who have appointed staff and experts in Structural designing and related disciplines along with their support staff. The consultants will also appoint their staff for resident supervision of the project to verify and certify the items of works to be executed under this PC-I.
b) Execution of the Project
a) PMDFC
PMDFC has the project monitoring and supervisory role and the company has enough experts and staff to complete this assignment. PMDFC has already deployed under mentioned staff for these projects:
Civil Engineers
Accounts, administration and audit personnel
Urban planners
GIS experts
Support staff like computer operators, vehicle drivers, office boys and guards.
Procurement experts
Communication experts
Environmental and social experts
Contract management experts
b) Consultants
PMDFC has employed consultants for detailed design and resident supervision of the projects who have deployed their staff for detailed design and resident supevision of the project.</td></tr>
</table>

		c) Municipality MC Jehlum has regular staff like engineers, sub engineers and other administrative & accounts keeping staff which will be responsible for execution of the project and contract management. No additional staff will be needed for execution of this project ***d) Contractor*** The contractor responsible for execution of the sub project will employ skilled and un-skilled labor on this work. **Indirect Employment** Indirect employment for production of material such as cement, steel, stone metal, bitumen, bricks etc. will be generated.
vii. Impacts of delays on project cost and viability		The impact of delay in project implementation will result in; • Increased project cost due to escalation in cost of material and labor. • Deterioration of vehicles due to weathering effects • Recurrent watch and ward problems for the delayed period
12-Implementation Schedule		
a) Indicate starting and completion date of the project		The project is anticipated to commence by May 2023 and to be completed by October 2023 with project implementation period of 06 months.
b) Item wise/year wise schedule in line chart		The Gant chart has been attached at **Annexure-D**
13- Management Structure and manpower requirements		
i. Administrative arrangements for the implementation of the project		**ii. Planning & design of the project** The project has been designed by the consultants employed by PMDFC and will also carry out the resident supervision of the project. **iii. Preparation of cost estimation** The cost estimates have been prepared by the design consultants by actual measurements and requirements at site. The execution of the items of works included in these estimates /PC-I will be certified by these consultants. **iv. Execution of the project** • The project will be executed by MC Jehlum and supervised by the Consultants appointed by PMDFC in resident supervision mode. The technical staff & experts in PMDFC will oversee, co-ordinate and collaborate in the project planning, design and implementation through their experts in head office located in

		Lahore and regional offices. The reporting of progress to LG & CDD & World bank and troubleshooting will also be responsibility of PMDFC. • MO (I&S) of the MC has been designated as Project Manager /Engineer in Charge of the project. The supervision of the works will also be carried out by these municipal officers along with their support engineering staff. All supervisory staff is available with MC. • The procurement of works and goods will be done by Procurement Committee of Jehlum Unit as per PPRA Rules. **v. Verification of quantities included in PC-Is and Resident Supervision of the works by consultants** The works will be supervised by Supervision Consultants in resident supervision mode by assuring the quantity and quality of works. The consultants will verify the items of work and their quantities contained in the PC-Is and cost estimates initially and then the quantities and quality of works included in the contractor claims at the stage of payments. Payments will be made by the MC after these contractor claims have been entered in the measurement books by the Project Manager/Engineer in Charge and pre audited as per LG Works Rules.
ii)The manpower requirements by skills during execution and operation of the project and; The job description, qualification, experience, age and salary of each post		**a) PMDFC experts and staff** For rendering assistance in implementation of infrastructure projects in 16 MCs, PMDFC has the experts and staff in the required fields. In order to facilitate the Program Units, three regional offices have been established by PMDFC at Gujranwala, Faisalabad and Multan/Khanewal. **b) Resident Supervision Consultants** The project will be supervised by consultants. The tentative staff to be employed/deployed by the consultants for the certification of quantities of works and resident supervision of the project is given below:

S #	Personnel	Nos	Qualification
1	Chief Resident Engineer/Team Leader	01	BSc;/BE in Civil engineering from HEC approved University with minimum 20 years' professional experience and 5 years' experience on similar assignment or MSC; Civil Engineering/Public Health Engineering/Environmental Engineering with Bachelor in Civil Engineering and minimum 15 years, experience, with 5 years on similar assignments on urban planning, designing and construction supervision assignment.
2	Assistant Resident Engineer	01	Bachelor Degree in Civil engineering with minimum 8 years' experience in site supervision and execution for projects of similar nature
3	Site Inspectors	01	DAE in Civil with minimum 10 years' experience in site supervision for projects of similar nature

c) Contractor's Technical staff, skilled & non skilled labor

The contractors will employ the supervisory technical staff and skilled & non skilled labor for execution of works. The works will be supervised by experienced Engineers and sub engineers and the number of slots for engineers and skilled and non-skilled will depend upon the type and quantity of work and its period of completion.

d) Repair & maintenance of the project

MC has its own regular staff which has been deployed for repair and maintenance of the municipal services infrastructure. However, it has been observed that the existing staff is not adequate to repair and maintain the services in a manner which can give good service delivery. Hence it is proposed to;

- Fill up the presently vacant slots
- Recruit additional staff as per need of the infrastructure after obtaining the sanctions from the competent authorities.

14-Additional projects /decisions required to optimize the investment being undertaken

1) Shortage & frequent transfers of Provincially appointed staff

MC is facing shortage in provincially appointed and locally appointed cadres. This will seriously affect the pace of progress of the program and the implementation of the infrastructure projects may be delayed. Provincial Government should fill up the vacant staff immediately for optimizing the investments in MC.

2) Repair & Maintenance (R&M) staff

The R&M staff is also deficient and this is adversely affecting the service delivery level. Number of slots are vacant but MC is not

		allowed to recruit the persons to fill these slots due to ban on recruitments. Further the sanctioned strength of the field staff is much lesser than the actual requirement because with the increase in population and extension of services, additionally required staff has not been sanctioned by the competent authorities. Both of the above issues need to be addressed for optimal utilization of the investments and giving targeted benefits to the resident population of these cities.
15-Certificate		Certified that the project proposal has been prepared on the basis of guidelines provided by the Planning Commission for the preparation of PC-I for social sectors projects.

Prepared by	JERS Consultancy (Pvt) Ltd	Stamp & Signatures	
Checked by	Municipal officer (Infrastructure) MC Jehlum	Stamp & Signatures	
	Chief Officer MC Jehlum	Stamp & Signatures	
Forwarded by	Administrator MC Jehlum	Stamp & Signatures	
Vetted By	Senior Program Officer (PMDFC)	Stamp & Signatures	

Annexure-1

Annual Recurrent Cost

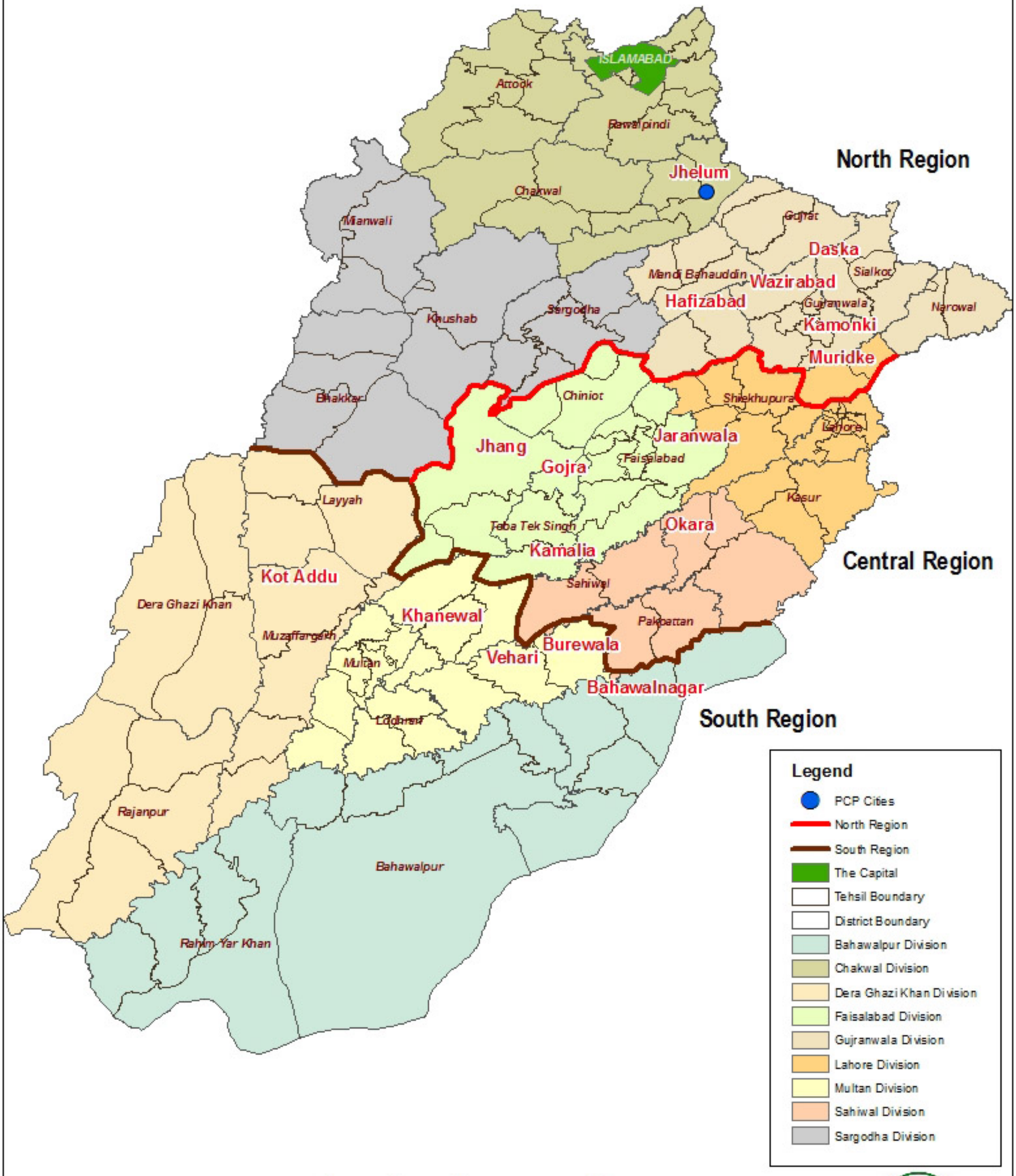
Annual Recurrent Cost after Completion of the Project

Cost Category	Cost Breakup	Cost per Annum
Annual Maintenance Cost of The Civil Works	1% of Project Cost = 0.01*(52,141,355)	521,414
Annual Manpower Cost of One Guard	Rs. 25000/month	300,000
	Total cost per Annum (Million Rs.)	821,414

Annexure-A
Location Map

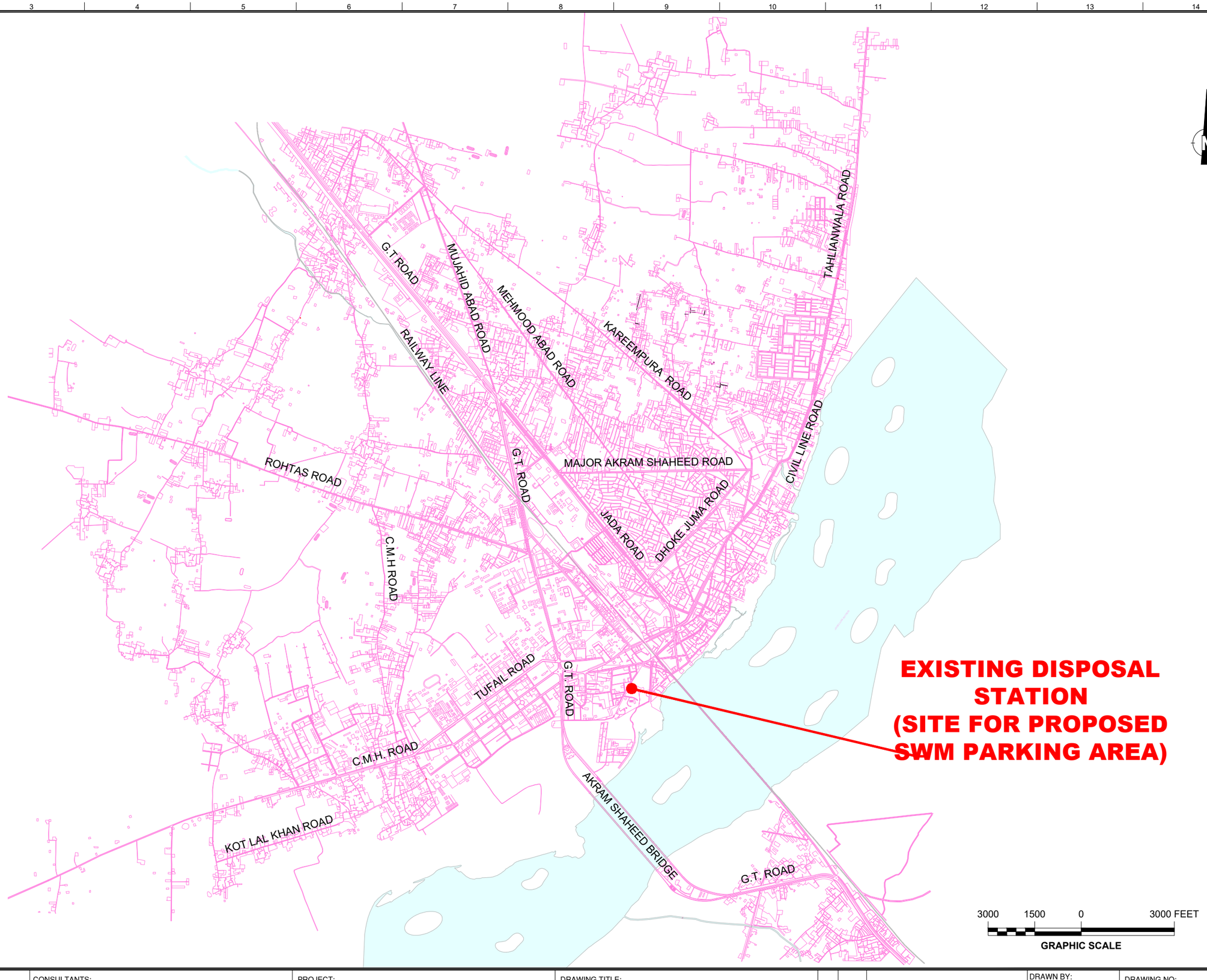
Location Map
(Punjab Cities Program)

ANNEXURE - A



HELP BUILD PMDFC HEALTHY CITIES

Local Government & Community Development Department, Governmnet of The Punjab



CLIENT:

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD

24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
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Web: http://www.jers.com.pk

PROJECT:

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.

DRAWING TITLE:

PROJECT KEY PLAN (JEHLUM CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Asif
CHECKED BY: Sadat Waleed
DATE: July,2022

DRAWING NO: **PS-01**
SCALE: UNIT=FEET 1"=3000'
SHEET: -
JOB NO: 488-01

Annexure-B

Rough Cost Estimate

Punjab Municipal Development Fund Company

Consultancy Services for Detailed Design of Infrastructure sub-projects (Parking Sheds, Parks, Roads, Chowks, etc.) and Resident Supervision in 16 Cities of Punjab

Construction of SWM Parking Area

MC Jehlum

Detailed Cost Estimate

March 2023

JERS CONSULTANCY (PVT) LTD
(Formerly Jers Engineering Consultants)
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
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Web: http://www.jers.com.pk

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

SWM PARKING AREA (MURIDKE)

COMPARATIVE STATEMENT

Sr. No.	Description	Previous Amount (Rs.)	Revised Amount (Rs)	Difference (Rs.)
1	**ADMIN BLOCK**			
i	Civil Work	1,036,630	3,949,619	2,912,989
ii	Plumbing Work	97,948	308,583	210,636
iii	Electrical Work	198,085	195,132	(2,953)
2	**GUARD ROOM**			
i	Civil Work		465,471	465,471
ii	Plumbing Work		6,540	6,540
iii	Electrical Work		34,143	
3	**WORK SHOP**			
i	Civil Work		3,529,802	3,529,802
ii	Plumbing Work		54,807	54,807
iii	Electrical Work		128,172	
2	**TOILET BLOCK**			
i	Civil Work	479,921		(479,921)
ii	Plumbing Work	111,491		(111,491)
iii	Electrical Work	153,258		(153,258)
4	**PARKING SHED**			
i	Civil Work	23,788,567	18,119,068	(5,669,500)
ii	Electrical Work	894,225	283,033	(611,192)
5	**GENERATOR PAD**	163,023		(163,023)
6	**PUMP PAD**	15,072		(15,072)
7	**EXTERNAL WORK (BOUNDARY WALL + TUFF PVER + LAWN)**	5,007,637	16,942,437	11,934,800
8	**EJECTOR PUMP**		266725.15	266,725
9	**EXTERNAL WATER SUPPLY**	838,978	659,656	(179,322)
10	**EXTERNAL SEWERAGE SYSTEM**		211,011	211,011
11	**SEPTIC TANK**	622,216		(622,216)
12	**EXTERNAL ELECTRICAL WORK**	8,542,645	6,727,010	(1,815,635)
13	**DISMANTLING WORK**	126,194	147,720	21,526

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

SWM PARKING AREA (MURIDKE)

COMPARATIVE STATEMENT

Sr. No.	Description	Previous Amount (Rs.)	Revised Amount (Rs)	Difference (Rs.)
14	**ENVIRONMENTAL HEALTH & SAFETY COST**	112,425	112,425	
	Total Rs.	**42,188,314**	**52,141,355**	**9,953,041**
	Contingencies @ 2%	843,766	1,042,827	199,061
	Price Escalation @ 6%		3,128,481	3,128,481
	PRA Charges @ 5%	2,109,416	2,607,068	497,652
	Total Amount. Rs.	**45,141,496**	**58,919,731**	**13,778,235**

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

SWM PARKING AREA (JEHLUM)

SUMMARY

Sr. No.	Description	Amount (Rs)
1	**ADMIN BLOCK**	
i	Civil Work	3,949,619
ii	Plumbing Work	308,583
iii	Electrical Work	195,132
2	**GUARD ROOM**	
i	Civil Work	465,471
ii	Plumbing Work	6,540
iii	Electrical Work	34,143
3	**WORK SHOP**	
i	Civil Work	3,529,802
ii	Plumbing Work	54,807
iii	Electrical Work	128,172
4	**PARKING SHED (SIZE 90' x 32')**	
i	Civil Work	10,177,891
ii	Electrical Work	110,384
5	**PARKING SHED (SIZE 156' x 16')**	
i	Civil Work	7,941,177
ii	Electrical Work	172,649
6	**EXTERNAL WORK (BOUNDARY WALL + TUFF PAVER + LAWN)**	16,942,437
7	**EJECTOR PUMP**	266,725
8	**EXTERNAL WATER SUPPLY**	659,656
9	**EXTERNAL SEWERAGE SYSTEM**	211,011
10	**EXTERNAL ELECTRICAL WORK**	6,727,010
11	**DISMANTLING WORK**	147,720
12	**ENVIRONMENTAL HEALTH & SAFETY COST**	112,425
	Total Rs.	**52,141,355**
	Contingencies @ 2%	1,042,827
	Price Escalation @ 6%	3,128,481

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

SWM PARKING AREA (JEHLUM)

SUMMARY

Sr. No.	Description	Amount (Rs)
	PRA Charges @ 5%	2,607,068
	Total Amount. Rs.	**58,919,731**

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DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Excavation				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	2.25	11,658.25	26,231
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	3,087.00	9.90	30,561
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	4.94	28,513.90	140,859
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	18.17	31,518.60	572,693
		Horizontal D.P.C				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	3.35	9,137.10	30,609
		Vertical D.P.C				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	4.46	6,929.55	30,906

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DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	20.61	33,921.00	699,112
		Concrete Work				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		Above foundation				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	513.20	566.35	290,653
		Steel Work.				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	14.67	31,945.90	468,646
		Sand Filling				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	7.65	2,862.00	21,894
		Brick ballast				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft	2.52	9,900.00	24,948
		Plain Cement Concrete				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		Ratio 1: 2: 4	100 Cft	2.08	37,614.70	78,239

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DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Porcelain Tile				
13	10/42/c	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		c) (Non-Skid Chequred Tiles) 300mmx300mm	Per Sft	497.00	225.60	112,123
14	10/43/a	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		a) Full body Glazed Tile				
		(i) 400 mm x 400 mm	Per Sft	46.86	310.00	14,527
		Ceramic Tile				
15	10/24	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	254.00	255.45	64,884
16	10/25	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over1/2" thick (1:2)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	637.50	310.00	197,625

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DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Marble				
17	10/47	Providing and laying 3/4" thick full width Prepolished Marble slab for Vanities / Shelves / Treads/Window Cills , having Uniform texture (Spotless) with adhesive bond over 3/4" thick (1:2) cement sand mortor i/c the cost of matching sealer complete in all respects as approved and directed by the Engineer Incharge.				
		i) China Verona	Sft	38.50	496.90	19,131
		Slab Plaster				
18	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)	100 Sft	7.65	3,960.25	30,296
		Cement Plaster				
19	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	31.56	4,644.25	146,573
		Pointing				
20	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	14.40	3,774.25	54,349
21	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	14.40	822.00	11,837
		Distempering				
22	11/23	Distempering:-				
		iii) three coats	100 Sft	39.21	1,446.35	56,711
		Wooden Door				
23	12/52	P/F 1-1/2" thick solid flush door comprising of 2.5 mm thick Deodar/Ash/Oak ply with grooves , compressed over 2.5 mm thick commercial ply over 1" thick packing wood in style and rails under proper pressure i/c the cost of nails, tower bolt , handles, glue, sawing charges and lacquar polishing to show the grains of ply properly, sand papering and 3/8" thick matching wooden lipping as approved and directed by the Engineer Incharge.	Per Sft	158.50	795.70	126,118

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DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
24	25/51	Providing and fixing all types of partly fixed and partly openable glazed anodised/ powder coated aluminium doors, using delux section of M/s Al-Cop or Pakistan Cables, 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	Sft	68.00	1,549.35	105,356
		Formica Sheet				
25	Rate Analysis	Providing and fixing Formica sheet on bathroom door as per drawing and design complete in all respect.	Sft	50.00	75.11	3,756
26	12/17	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed/welded / supported with M.S. flat 1-1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge				
		(ii) 10.50 " wide	Sft	74.81	660.00	49,376
27	12/28	Providing and fixing 3"x4-1/2" chowkat for doors, windows and C. windows, including holdfast, etc.				
		b) Deodar wood	Sft	22.92	835.35	19,143
28	12/53	Providing and laying 24 SWG aluminum kick plate 4" (100 mm) high, fixed with screws 4" (100 mm) centre to centre, on bottom rail of flush doors only of commercial ply.	Rft	20.00	79.75	1,595
29	12/58	Providing and fixing ornamental wooden architrave 3" x (1½" tapered to ¼") all along the door frame complete in all respect.				
		b) Deodar wood architrave	Sft	21.38	99.35	2,124

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DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Lock				
30	12/22	Providing and fixing, approved quality mortice lock.	Each	9.00	774.00	6,966
		Paint				
31	13/5/c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-				
		i) priming coat.	100 Sft	3.17	1,460.05	4,628
		ii)Two coat	100 Sft	3.17	841.65	2,668
		Aluminium Window				
32	25/52	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge	Per Sft	126.50	1,336.55	169,074
		Roof Insulation				
33	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	8.55	12,001.20	102,610
34	9/45	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M, compressive strength 250-400 kpa, R-value 5 per inch thickness and water obsorption (1% by volume, closed cell type structure) i/c cutting and placing in position. complete in all respect.				
		c) 2" thick	100 Sft	8.55	12,039.60	102,939
35	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.				
		ii) 500 gauge (.005" thick)	Per Sft	1,710.00	8.65	14,792

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DETAILED COST ESTIMATE

ADMIN BLOCK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Khurras				
36	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00	889.60	1,779
		Bottom Khuras				
37	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	2.00	1,860.30	3,721
38	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	1,102.82	99.35	109,569
		Total Rs.				**3,949,619**

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ADMIN BLOCK

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Excavation						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Office wall 9" Thick Wall	1	182.50	3.00	3.00	1,642.50	Cft
	Center wall 4-1/2" Thick Wall	1	81.00	2.50	3.00	607.50	Cft
					Total	2,250.00	Cft
					Total	**2.25**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Office wall 9" Thick Wall	1	182.50	9.00		1,642.50	Sft
	Center wall 4-1/2" Thick Wall	1	81.00	8.50		688.50	Sft
	Floor	1	36.00	21.00		756.00	Sft
					Total	**3,087.00**	**Sft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Office wall 9" Thick Wall	1	182.50	3.00	0.50	273.75	Cft
	Center wall 4-1/2" Thick Wall	1	81.00	2.50	0.50	101.25	Cft
	Plinth Protection	1	95.00	5.00	0.25	118.75	Cft
					Total	493.75	Cft
					Total	**4.94**	**%Cft**
	Brick work in Foundation						
4	Pacca brick work in foundation and plinth in:-						

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ADMIN BLOCK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Cement, sand mortar:- Ratio 1:5						
	Office wall 9" Thick Wall						
	Step - 1	1	182.50	2.250	0.50	205.31	Cft
	Step - 2	1	182.50	1.875	0.50	171.09	Cft
	Step - 3	1	182.50	1.500	0.50	136.88	Cft
	Step - 4	1	182.50	1.125	0.50	102.66	Cft
	Step - 5	1	182.50	0.750	5.00	684.38	Cft
	Center wall 4-1/2" Thick Wall						
	Step - 1	1	81.00	1.875	0.50	75.94	Cft
	Step - 2	1	81.00	1.500	0.50	60.75	Cft
	Step - 3	1	81.00	1.125	0.50	45.56	Cft
	Step - 4	1	81.00	0.750	5.50	334.13	Cft
					Total	1,816.69	Cft
					Total	**18.17**	**%Cft**
	Horizontal D.P.C						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Office wall 9" Thick Wall	2	182.50	0.75		273.75	Sft
	Center wall 4-1/2" Thick Wall	1	81.00	0.75		60.75	Sft
					Total	334.50	Sft
					Total	**3.35**	**%Sft**
	Vertical D.P.C						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Office wall 9" Thick Wall	1	182.50		2.00	365.00	Sft
	Center wall 4-1/2" Thick Wall	1	81.00		1.00	81.00	Sft
					Total	446.00	Sft
					Total	**4.46**	**%Sft**
	Brick work in Super Structure						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Office wall 9" Thick Wall	1	182.50	0.75	11.00	1,505.63	Cft

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ADMIN BLOCK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Center wall 4-1/2" Thick Wall	1	81.00	0.75	11.00	668.25	Cft
	Parapet Wall	1	120.00	0.38	2.50	112.50	Cft
	Entrance step	2	10.00	1.00	0.75	15.00	Cft
	D/d Doors and Window						
	D-1	-2	3.50	0.75	7.00	(36.75)	Cft
	D-2	-2	3.00	0.75	7.00	(31.50)	Cft
	D-3	-1	2.50	0.75	7.00	(13.13)	Cft
	D-4	-4	2.50	0.75	5.00	(37.50)	Cft
	DW-1	-1	5.00	0.75	7.00	(26.25)	Cft
	W-1	-3	6.00	0.75	4.00	(54.00)	Cft
	W-2	-1	5.00	0.75	4.00	(15.00)	Cft
	W-3	-1	3.00	0.75	3.50	(7.88)	Cft
	V-1	-6	2.00	0.75	2.00	(18.00)	Cft
					Total	2,061.38	Cft
					Total	**20.61**	**%Cft**
	Concrete Work						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	Above foundation						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	37.38	23.00	0.50	429.81	Cft
	Kitchen slab	1	4.50	3.00	0.50	6.75	Cft
	B-1	1	18.00	0.75	1.25	16.88	Cft
	CB-1	1	26.00	0.75	0.75	14.63	Cft
	Doors and window Lintels						
	D-1	2	4.50	0.38	0.75	2.53	Cft
	D-2	2	4.00	0.75	0.75	4.50	Cft
	D-3	1	3.50	0.38	0.75	0.98	Cft
	D-4	4	3.50	0.38	0.75	3.94	Cft
	DW-1	1	10.00	0.75	0.75	5.63	Cft

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ADMIN BLOCK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	3	7.00	0.75	0.75	11.81	Cft
	W-2	1	6.00	0.75	0.75	3.38	Cft
	W-3	1	4.00	0.75	0.75	2.25	Cft
	V-1	6	3.00	0.75	0.75	10.13	Cft
					Total	**513.20**	**Cft**
	Steel Work.						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					513.20	Cft
	Top Slab & lintel @ 6 lbs / Cft		6.00		=	3,079.22	lbs/cft
				Total	=	3,079.22	lbs/cft
				Total	=	1,397.10	Kg.
			Add 5% Wastage.		=	69.86	Kg.
				Total	**=**	**1,467**	**Kg**
					Total	**14.67**	**%kg**
	Sand Filling						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	765.00	1.00	1.00	765.00	Cft
					Total	765.00	Cft
					Total	**7.65**	**%Cft**
	Brick ballast						
11	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.						
	Floor	1	765.00	1.00	0.33	252.45	Cft
					Total	252.45	Cft
					Total	**2.52**	**%Cft**
	P.C.C						
12	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	Ratio 1: 2: 4						
	Floor	1	765.00	1.00	0.17	127.50	Cft

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Plinth Protection	1	95.00	5.00	0.17	80.75	Cft
					Total	**2.08**	**%Cft**
	Porcelain Tile						
13	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	c) (Non-Skid Chequred Tiles) 300mmx300mm	1	497.00	1.00		497.00	Sft
					Total	**497.00**	**Sft**
14	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	a) Full body Glazed Tile						
	(i) 400 mm x 400 mm	1	142.00	1.00	0.33	46.86	Sft
					Total	**46.86**	**Sft**
	Ceramic Tile						
15	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	1	254.00	1.00		254.00	Sft
					Total	**254.00**	**Sft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
16	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over1/2" thick (1:2)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	1	141.00		5.00	705.00	Sft
	D/d						
	D-3	-1	2.50		7.00	(17.50)	Sft
	D-4	-4	2.50		5.00	(50.00)	Sft
					Total	**637.50**	**Sft**
	Marble						
17	Providing and laying 3/4" thick full width Prepolished Marble slab for Vanities / Shelves / Treads/Window Cills , having Uniform texture (Spotless) with adhesive bond over 3/4" thick (1:2) cement sand mortor i/c the cost of matching sealer complete in all respects as approved and directed by the Engineer Incharge.						
	i) China Verona						
	W-1	3	6.00	0.75		13.50	Sft
	W-2	1	5.00	0.75		3.75	Sft
	W-3	1	3.00	0.75		2.25	Sft
	V-1	6	2.00	0.75		9.00	Sft
	Kitchen	1	5.00	2.00		10.00	Sft
					Total	**38.50**	**Sft**
	Slab Plaster						
18	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:-1:3)						
		1	765.00	1.00		765.00	Sft
					Total	**7.65**	**%Sft**
	Cement Plaster						
19	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Office Room Walls						
		1	152.00		11.00	1,672.00	Sft
	Toilet Walls						
	Bath	1	22.00		11.00	242.00	Sft

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CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
		1	142.00		11.00	1,562.00	Sft
	D/d Doors and Window						
	D-1	-2	3.50		7.00	(49.00)	Sft
	D-2	-2	3.00		7.00	(42.00)	Sft
	D-3	-1	2.50		7.00	(17.50)	Sft
	D-4	-4	2.50		5.00	(50.00)	Sft
	DW-1	-1	5.00		7.00	(35.00)	Sft
	W-1	-3	6.00		4.00	(72.00)	Sft
	W-2	-1	5.00		4.00	(20.00)	Sft
	W-3	-1	3.00		3.50	(10.50)	Sft
	V-1	-6	2.00		2.00	(24.00)	Sft
					Total	3,156.00	Sft
					Total	**31.56**	**%Sft**
	Pointing						
20	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	120.00		12.00	1,440.00	Sft
					Total	**14.40**	**%Sft**
21	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**14.40**	**%Sft**
	Distempering						
22	Distempering:-						
	iii) three coats						
	Office Room						
		1	152.00		11.00	1,672.00	Sft
	Toilet Walls						
		1	22.00		11.00	242.00	Sft
		1	142.00		11.00	1,562.00	Sft
	Slab	1	765.00	1.00		765.00	Sft
	D/d Doors and Window						
	D-1	-2	3.50		7.00	(49.00)	Sft
	D-2	-2	3.00		7.00	(42.00)	Sft
	D-3	-1	2.50		7.00	(17.50)	Sft
	D-4	-4	2.50		5.00	(50.00)	Sft
	DW-1	-1	5.00		7.00	(35.00)	Sft
	W-1	-3	6.00		4.00	(72.00)	Sft
	W-2	-1	5.00		4.00	(20.00)	Sft
	W-3	-1	3.00		3.50	(10.50)	Sft

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CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	V-1	-6	2.00		2.00	(24.00)	Sft
					Total	3,921.00	Sft
					Total	**39.21**	**%Sft**
	Wooden Door						
23	P/F 1-1/2" thick solid flush door comprising of 2.5 mm thick Deodar/Ash/Oak ply with grooves , compressed over 2.5 mm thick commercial ply over 1" thick packing wood in style and rails under proper pressure i/c the cost of nails, tower bolt , handles, glue, sawing charges and lacquar polishing to show the grains of ply properly, sand papering and 3/8" thick matching wooden lipping as approved and directed by the Engineer Incharge.						
	D-1	2	3.50		7.00	49.00	Sft
	D-2	2	3.00		7.00	42.00	Sft
	D-3	1	2.50		7.00	17.50	Sft
	D-4	4	2.50		5.00	50.00	Sft
					Total	**158.50**	**Sft**
24	Providing and fixing all types of partly fixed and partly openable glazed anodised/ powder coated aluminium doors, using delux section of M/s Al-Cop or Pakistan Cables, 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						
	DW-1	1	8.00		8.50	**68.00**	**Sft**

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CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Formica Sheet						
25	Providing and fixing Formica sheet on bathroom door as per drawing and design complete in all respect.						
	D-4	4	2.50		5.00	**50.00**	**Sft**
26	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed/welded / supported with M.S. flat 1-1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge						
	(ii) 10.50 " wide						
	D-1	2	17.50	0.875		30.63	Sft
	D-2	2	17.00	0.875		29.75	Sft
	D-3	1	16.50	0.875		14.44	Sft
					Total	**74.81**	**Sft**
27	Providing and fixing 3"x4-1/2" chowkat for doors, windows and C. windows, including holdfast, etc.						
	b) Deodar wood						
	D-4	4	12.50	0.46		22.92	Sft
					Total	**22.92**	**Sft**
28	Providing and laying 24 SWG aluminum kick plate 4" (100 mm) high, fixed with screws 4" (100 mm) centre to centre, on bottom rail of flush doors only of commercial ply.	8	2.50			**20.00**	**Rft**
29	Providing and fixing ornamental wooden architrave 3" x (1½" tapered to ¼") all along the door frame complete in all respect.						
	b) Deodar wood architrave						
	D-1	2	17.50	0.25		8.75	Sft
	D-2	2	17.00	0.25		8.50	Sft
	D-3	1	16.50	0.25		4.13	Sft
					Total	**21.38**	**Sft**

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CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Lock						
30	Providing and fixing, approved quality mortice lock.	9				**9.00**	**Each**
	Paint						
31	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii)Two coat				**Total**	**3.17**	**Sft**
	Aluminium Window						
32	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge						
	W-1	3	6.00		4.00	72.00	Sft
	W-2	1	5.00		4.00	20.00	Sft
	W-3	1	3.00		3.50	10.50	Sft
	V-1	6	2.00		2.00	24.00	Sft
					Total	**126.50**	**Sft**
	Roof Insulation						
33	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	37.38	22.88		854.95	Sft
					Total	854.95	Sft
					Total	**8.55**	**%Sft**
34	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)				**Total**	**1,710.00**	**Sft**

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ADMIN BLOCK

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Khurras						
35	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	2				**2.00**	**Each**
	Bottom Khuras						
36	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	2				**2.00**	**Each**

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DETAILED COST ESTIMATE

ADMIN BLOCK

PLUMBING WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Indian W.C				
1	19-4-i	Providing and fitting glazed earthen ware water closet, squatter type (Orisa pattern), combined with foot rest.				
		i) white	Each	2.00	2,461.80	4,924
2	19-3	Providing and fitting one piece Europeon Coupled set of Water Closet (WC) and flushing Cistern of PORTA brand (full size) i/c the cost of CP/rubber connection, thimble, normal seat cover and rawal bolts complete in all respects as approved and directed by the Engineer Incharge.	Each	2.00	35,817.00	71,634
3	19-13-i	Providing and fitting plastic made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete.				
		i) white	Each	2.00	3,061.40	6,123
4	19-7-i	Providing and fitting glazed earthen ware wash hand basin 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc.				
		i) white, with pedestal	Each	5.00	6,160.50	30,803
5	19-8	Providing and fixing stainless steel sink with drain board, size 120x60 cm (48"x24") including bracket set, waste pipe and waste coupling.	Each	2.00	7,747.40	15,495
6	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	7.00	2,477.00	17,339
7	19-16	Providing and fixing, chromium plated soap dish.	Each	5.00	538.60	2,693
8	19-20	Providing and fixing looking glass 55x40 cm (22"x16") size	Each	5.00	800.30	4,002
9	19-27	Providing and fixing chromium plated bib cock:-				
		i) 2 cm (¾")	Each	4.00	1,081.60	4,326
10	19-28	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	14.00	1,081.60	15,142
11	19-34-i	Providing and fixing, floor trap of cast iron, including concrete chamber all round, and C.I. grating:-				
		i) 10x5 cm (4"x2")	Each	7.00	666.25	4,664

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ADMIN BLOCK

PLUMBING WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
12	19-36	Providing and fitting 10 cm (4") gully trap, including cement concrete, cost of PVC grating 15x15 cm (6"x6") and masonry chamber 30x30 cm (12"x12").	Each	2.00	1,198.65	2,397
13	19-35-ii	Providing and fitting "P" trap:-				
		ii) 10 cm (4") glazed.	Each	9.00	322.25	2,900
		PPRC Pipe				
14	23-47	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex/ Popular /Beta/ BBJ)with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directedby Engineer Incharge.(Internal / External Diameters mentioned).				
		b) PN-20 pipe				
		(i) (1/2") 20 mm	Rft	50.00	48.75	2,438
		(ii) (3/4") 25 mm	Rft	70.00	67.15	4,701
		(iii) (1") 32 mm	Rft	20.00	107.65	2,153
		(iv) (1-1/4") 40 mm	Rft	25.00	162.05	4,051
		G.I Pipe on Roof				
15	23-23	Providing, laying, cutting, jointing, testing and disinfecting G.I. pipeline in trenches, with socket joints, using G.I. pipes of B.S.S. 1387-1967 complete in all respects, with specials and valves.				
		iii) Heavy Quality				
		b) ¾" i/d (20 mm) 3.25mm thick	Rft	30.00	279.15	8,375
		Valve				
16	23/46	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.				
		ii) 3/4" dia	Each	1.00	1,545.60	1,546
		iii) 1" dia	Each	1.00	1,809.60	1,810

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ADMIN BLOCK

PLUMBING WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		uPVC Pipe				
17	19-47	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(iii) 2"(60 mm)	Rft	20.00	89.25	1,785
		(v) 4"(110 mm)	Rft	80.00	218.00	17,440
		(vi) 6"(160 mm)	Rft	10.00	422.55	4,226
		HDPE Tank				
18	19/51	Providing and hoisting vertical /horizontal type storage tank of required capacity made of rotationally molded from (HDPE), double ply polyethelene of approved manufacturer i/c cost of making connection for inlet/outlet pipe, float valve i/c all cost of specials & labour complete in all respect as approved and directed by the Engineer Incharge.	P.Gln	500	117.30	58,650
		Total Rs. (A)				**289,614**
		Non-Schedule Item				
19	N.S	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	1.00	18,969.75	18,970
		Total Rs. (B)				**18,970**
		Total Amount Rs. (A + B)				**308,583**

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DETAILED COST ESTIMATE

ADMIN BUILDING

ELECTRICAL WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		Scheduled Items (A)				
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	510.00	86.35	44,039
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	320.00	101.60	32,512
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	820.00	27.85	22,837
4	C-24/10a.ii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	130.00	23.70	3,081
	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.036)	Rft.	240.00	44.05	10,572
5	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	9.00	295.90	2,663
6	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (7"x4")	Each	2.00	409.85	820

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DETAILED COST ESTIMATE

ADMIN BUILDING

ELECTRICAL WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
7	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	11.00	82.55	908
8	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	14.00	167.75	2,349
9	C-24/43-	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
	C-24/43-i	Double rod (80 watts) with two chokes and 2 starters.	Each	5.00	2,579.25	12,896
	C-24/43-ii	Single rod (40 watts) with one choke and one starter.	Each	17	1,444.20	24,551
10	C-24/102/a	Providing and fixing Copper winded Exhaust fan with louver and shutter made of Pak/Younas /G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge.				
		(a) Plastic body (ii) 12 " dia	Each	5.00	3,380.85	16,904
		Sub Total (A)				**174,132**
11	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	3.00	7,000.00	21,000
		Sub Total (B)				**21,000**
		Sub Total (A+B)				**195,132**

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DETAILED COST ESTIMATE

GUARD ROOM

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Excavation				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.32	11,658.25	3,731
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	169.00	9.90	1,673
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.53	28,513.90	15,112
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	2.49	31,518.60	78,481
		Horizontal D.P.C				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	0.53	9,137.10	4,843
		Vertical D.P.C				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	0.70	6,929.55	4,851

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GUARD ROOM

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	2.59	33,921.00	87,855
		Concrete Work				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		Above foundation				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	53.28	566.35	30,176
		Steel Work.				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	1.71	31,945.90	54,627
		Sand Filling				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	0.64	2,862.00	1,832
		Brick ballast				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft	0.21	9,900.00	2,079

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DETAILED COST ESTIMATE

GUARD ROOM

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Plain Cement Concrete				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		Ratio 1: 2: 4	100 Cft	0.11	37,614.70	4,138
		Porcelain Tile				
13	10/42/d	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		d) (Non-Skid Chequred Tiles) 300mmx300mm	Per Sft	64.00	225.6	14,438
14	10/43/a	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		a) Full body Glazed Tile				
		(i) 400 mm x 400 mm	Per Sft	10.56	310.00	3,274
		Slab Plaster				
15	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:-1:3)	100 Sft	0.64	3,960.25	2,535
		Cement Plaster				
16	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	2.80	4,644.25	13,004
		Pointing				
17	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	4.56	3,774.25	17,211
18	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	4.56	822.00	3,748

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GUARD ROOM

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Distempering				
19	11/23	Distempering:-				
		iii) three coats	100 Sft	3.44	1,446.35	4,975
		Steel Door				
20	25/62	P/F Iron door comprising of specified leaves made of 1-1/4”x1- 1/4”x3/16" MS angle iron for leaf frame, diagonal and horizontal braces duly welded with MS. sheet 18-SWG i/c the cost of sliding bolt, tower bolt and painting 3-coats but excluding the cost of Chowkat complete in all respect as approved and directed by the Engineer incharge.				
		(i) Single Leaf	Per Sft	24.50	1,030.85	25,256
21	12/17	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed / welded / supported with M.S. flat 1-1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge				
		(ii) 10.50 " wide	Sft	15.31	660.00	10,106
		Aluminium Window				
22	25/52	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge	Per Sft	32.00	1,336.55	42,770

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GUARD ROOM

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Marble				
23	10/47	Providing and laying 3/4" thick full width Prepolished Marble slab for Vanities / Shelves / Treads/Window Cills , having Uniform texture (Spotless) with adhesive bond over 3/4" thick (1:2) cement sand mortor i/c the cost of matching sealer complete in all respects as approved and directed by the Engineer Incharge.				
		i) China Verona	Sft	6.00	496.90	2,981
		Roof Insulation				
24	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	0.90	12,001.20	10,801
25	9/45	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M, compressive strength 250-400 kpa, R-value 5 per inch thickness and water obsorption (1% by volume, closed cell type structure) i/c cutting and placing in position. complete in all respect.				
		c) 2" thick	100 Sft	0.90	12,039.60	10,836
26	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.				
		ii) 500 gauge (.005" thick)	Per Sft	90.00	8.65	779
		Khurras				
27	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	889.60	890
		Bottom Khuras				
28	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	1.00	1,860.30	1,860

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CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
29	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	106.80	99.35	10,610
		Total Amount Rs.				**465,471**

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GUARD ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Excavation						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Room wall	1	35.00	3.00	3.00	315.00	Cft
					Total	315.00	Cft
					Total	**0.32**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Room wall	1	35.00	3.00		105.00	Sft
	Floor	1	8.00	8.00		64.00	Sft
					Total	**169.00**	**Sft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Room wall	1	35.00	3.00	0.50	52.50	Cft
					Total	52.50	Cft
					Total	**0.53**	**%Cft**

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GUARD ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Brick work in Foundation						
4	Pacca brick work in foundation and plinth in:-						
	Cement, sand mortar:- Ratio 1:5						
	Room wall						
	Step - 1	1	35.00	2.250	0.50	39.38	Cft
	Step - 2	1	35.00	1.875	0.50	32.81	Cft
	Step - 3	1	35.00	1.500	0.50	26.25	Cft
	Step - 4	1	35.00	1.125	0.50	19.69	Cft
	Step - 5	1	35.00	0.750	5.00	131.25	Cft
					Total	249.38	Cft
					Total	**2.49**	**%Cft**
	Horizontal D.P.C						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Room wall	2	35.00	0.75		52.50	Sft
					Total	52.50	Sft
					Total	**0.53**	**%Sft**
	Vertical D.P.C						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Room wall	1	35.00		2.00	70.00	Sft
					Total	70.00	Sft
					Total	**0.70**	**%Sft**

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GUARD ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Brick work in Super Structure						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Room wall	1	35.00	0.75	10.50	275.63	Cft
	Parapet Wall	1	35.00	0.38	1.50	19.69	Cft
	Entrance step	2	4.00	1.00	0.75	6.00	Cft
	D/d Doors and Window						
	D-1	-1	3.50	0.75	7.00	(18.38)	Cft
	W-1	-2	4.00	0.75	4.00	(24.00)	Cft
					Total	258.94	Cft
					Total	**2.59**	**%Cft**
	Concrete Work						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	Above foundation						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	9.50	9.50	0.50	45.13	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.75	0.75	2.53	Cft
	W-1	2	5.00	0.75	0.75	5.63	Cft
					Total	**53.28**	**Cft**

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CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Steel Work.						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					53.28	Cft
	Top Slab & lintel @ 6.75 lbs / Cft		6.75		=	359.65	lbs/cft
				Total	=	359.65	lbs/cft
				Total	=	163.18	Kg.
			Add 5% Wastage.		=	8.16	Kg.
				Total	**=**	**171**	**Kg**
					Total	**1.71**	**%kg**
	Sand Filling						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	8.00	8.00	1.00	64.00	Cft
					Total	64.00	Cft
					Total	**0.64**	**%Cft**
	Brick ballast						
11	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.						
	Floor	1	8.00	8.00	0.33	21.12	Cft
					Total	21.12	Cft
					Total	**0.21**	**%Cft**
	P.C.C						
12	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	Ratio 1: 2: 4						
	Floor	1	8.00	8.00	0.17	10.67	Cft
					Total	**0.11**	**%Cft**

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CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Porcelain Tile						
13	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	d) (Non-Skid Chequred Tiles) 300mmx300mm	1	8.00	8.00		64.00	Sft
					Total	**64.00**	**Sft**
14	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	a) Full body Glazed Tile						
	(i) 400 mm x 400 mm	1	32.00		0.33	10.56	Sft
					Total	**10.56**	**Sft**
	Slab Plaster						
15	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:-1:3)						
		1	8.00	8.00		64.00	Sft
					Total	**0.64**	**%Sft**
	Cement Plaster						
16	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Guard Room						
		2	8.00		10.50	168.00	Sft
		2	8.00		10.50	168.00	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	W-1	-2	4.00		4.00	(32.00)	Sft
					Total	279.50	Sft
					Total	**2.80**	**%Sft**

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CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Pointing						
17	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	38.00		12.00	456.00	Sft
					Total	456.00	Sft
					Total	**4.56**	**%Sft**
18	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**4.56**	**%Sft**
	Distempering						
19	Distempering:-						
	iii) three coats						
	Guard Room						
		2	8.00		10.50	168.00	Sft
		2	8.00		10.50	168.00	Sft
	Ceiling	1	8.00	8.00		64.00	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	W-1	-2	4.00		4.00	(32.00)	Sft
					Total	343.50	Sft
					Total	**3.44**	**%Sft**
	Wooden Door						
20	P/F Iron door comprising of specified leaves made of 1-1/4”x1- 1/4”x3/16" MS angle iron for leaf frame, diagonal and horizontal braces duly welded with MS. sheet 18-SWG i/c the cost of sliding bolt, tower bolt and painting 3-coats but excluding the cost of Chowkat complete in all respect as approved and directed by the Engineer incharge.						
	D-1	1	3.50		7.00	24.50	Sft
					Total	**24.50**	**Sft**

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CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
21	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed / welded / supported with M.S. flat 1-1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge						
	(ii) 10.50 " wide	1	17.50	0.875		15.31	Sft
					Total	**15.31**	**Sft**
	Aluminium Window						
22	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge						
	W-1	2	4.00		4.00	32.00	Sft
					Total	**32.00**	**Sft**
	Marble						
23	Providing and laying 3/4" thick full width Prepolished Marble slab for Vanities / Shelves / Treads/Window Cills , having Uniform texture (Spotless) with adhesive bond over 3/4" thick (1:2) cement sand mortor i/c the cost of matching sealer complete in all respects as approved and directed by the Engineer Incharge.						
	i) China Verona	2	4.00	0.75		**6.00**	**Sft**

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CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Roof Insulation						
24	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	9.50	9.50		90.25	Sft
					Total	90.25	Sft
					Total	**0.90**	**%Sft**

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GUARD ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
25	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)				**Total**	**90.00**	**Sft**
	Khurras						
26	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				**1.00**	**Each**
	Bottom Khuras						
27	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	1				**1.00**	**Each**

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DETAILED COST ESTIMATE

GUARD ROOM

PLUMBING WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		uPVC Pipe				
1	19-47	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(v) 4"(110 mm)	Rft	30.00	218.00	6,540
		Cost of 1 No.				**6,540.00**

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DETAILED COST ESTIMATE
GUARD ROOM
ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		Scheduled Items (A)				
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	100.00	86.35	8,635
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	50.00	101.60	5,080
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	150.00	27.85	4,178
4	C-24/10a.ii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	50.00	23.70	1,185
	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.036)		100.00	44.05	4,405
5	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	1.00	295.90	296
6	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	1.00	82.55	83
7	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	5.00	167.75	839
8	C-24/43	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
		Single rod (40 watts) with one choke and one starter.	Each	2.00	1,221.70	2,443
		Sub Total (A)				**27,143**
9	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	1.00	7,000.00	7,000
		Sub Total (B)				**7,000**
		Sub Total (A+B)				**34,143**

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DETAILED COST ESTIMATE

WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Excavation				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.49	11658.25	5,713
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	606.75	9.9	6,007
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.81	28513.9	23,096
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	3.90	31518.6	122,923
		Horizontal D.P.C				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	0.77	9137.1	7,036
		Vertical D.P.C				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	1.03	6929.55	7,137

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WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	4.71	33921	159,768
		Concrete Work				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		Above foundation				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	80.58	566.65	45,660
		Steel Work.				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	2.30	31945.9	73,476
		Sand Filling				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	1.10	2862	3,148
		Brick ballast				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft	0.36	9900	3,564
		Plain Cement Concrete				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		Ratio 1: 2: 4	100 Cft	0.18	34614.65	6,231

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DETAILED COST ESTIMATE

WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Porcelain Tile				
13	10/42/c	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		c) (Non-Skid Chequred Tiles) 300mmx300mm	Per Sft	110.44	225.6	24,915
14	10/43/a	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.				
		a) Full body Glazed Tile				
		(i) 400 mm x 400 mm	Per Sft	14.52	310	4,501
		Ceramic Tile				
15	10/24	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	17.00	255.45	4,343
16	10/25	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over1/2" thick (1:2)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.				
		i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	Per Sft	70.00	310	21,700

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WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Slab Plaster				
17	11/10/b	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:-1:3)	100 Sft	1.10	3960.25	4,356
		Cement Plaster				
18	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	6.45	4644.25	29,955
		Pointing				
19	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	5.64	3774.25	21,287
20	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	5.64	822	4,636
		Distempering				
21	11/23	Distempering:-				
		iii) three coats	100 Sft	12.72	1446.35	18,398
		Wooden Door				
22	12/52	P/F 1-1/2" thick solid flush door comprising of 2.5 mm thick Deodar/Ash/Oak ply with grooves , compressed over 2.5 mm thick commercial ply over 1" thick packing wood in style and rails under proper pressure i/c the cost of nails, tower bolt , handles, glue, sawing charges and lacquar polishing to show the grains of ply properly, sand papering and 3/8" thick matching wooden lipping as approved and directed by the Engineer Incharge.	Per Sft	42.00	795.7	33,419
		Formica Sheet				
23	Rate Analysis	Providing and fixing Formica sheet on bathroom door as per drawing and design complete in all respect.	Sft	17.50	75.11	1,314

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DETAILED COST ESTIMATE

WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
24	12/17	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed/welded / supported with M.S. flat 1-1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge				
		(ii) 10.50 " wide	Sft	15.31	660	10,106
25	12/28	Providing and fixing 3"x4-1/2" chowkat for doors, windows and C. windows, including holdfast, etc.				
		b) Deodar wood	Sft	7.56	835.35	6,317
26	12/53	Providing and laying 24 SWG aluminum kick plate 4" (100 mm) high, fixed with screws 4" (100 mm) centre to centre, on bottom rail of flush doors only of commercial ply.	Rft	5.00	79.75	399
27	12/58	Providing and fixing ornamental wooden architrave 3" x (1½" tapered to ¼") all along the door frame complete in all respect.				
		b) Deodar wood architrave	Sft	4.38	96.65	423
		Lock				
28	12/22	Providing and fixing, approved quality mortice lock.	Each	2.00	774	1548
		Paint				
29	13/5/c	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-				
		i) priming coat.	100 Sft	0.84	1460.05	1,226
		ii)Two coat	100 Sft	0.84	841.65	707

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WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Aluminium Window				
30	25/52	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge	Per Sft	20.00	1,336.55	26,731
		Roof Insulation				
31	9/5	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.	100 Sft	1.46	12001.2	17,522
32	9/45	Providing and Laying Insulation material of Extruded Polystyrene XPS in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M, compressive strength 250-400 kpa, R-value 5 per inch thickness and water obsorption (1% by volume, closed cell type structure) i/c cutting and placing in position. complete in all respect.				
		c) 2" thick	100 Sft	1.46	12039.6	17,578
33	26/37/ii	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.				
		ii) 500 gauge (.005" thick)	Per Sft	292.00	8.65	2,526
		Khurras				
34	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	2.00	889.6	1,779
		Bottom Khuras				
35	9/16	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	Each	2.00	1860.3	3,721

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WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Shed				
		Excavation				
36	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	1.86	11658.25	21,684
		Anti-Termite				
37	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	818.00	9.9	8,098
		Plain Cement Concrete				
38	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	1.16	28,513.90	33,076
		Concrete Work				
39	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		In Foundation				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(2) Type C (nominal mix 1: 2: 4)	P.Cft	549.98	456.95	251,311

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DETAILED COST ESTIMATE

WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Steel Work.				
40	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	31.44	31,945.90	1,004,379
		Brick work in Foundation				
41	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	4.80	31,518.60	151,289
		Cement Plaster				
42	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	2.03	4,644.25	9,428
		Sand Filling				
43	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	4.80	2,862.00	13,738
		Sub Base Course				
44	18/3/a/ (ii) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)	100Cft	1.58	10564.662	16,692

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WORK SHOP

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Water Bound Macadam				
45	18/4/a + 1/1	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)	100Cft	1.58	24086.8282	38,057
		Tuff Paver				
46	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		c) 80-mm thick	Per Sft	480.00	195.9	94,032
47	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	757.42	99.3531	75,252
		Parking Shed				
48	N.S	Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.	Sft	480.00	2270	1,089,600
		Total Rs.				**3,529,802**

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WORK SHOP
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Excavation						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Office wall 9" Thick Wall	1	47.00	3.00	3.00	423.00	Cft
	Center wall 4-1/2" Thick Wall	1	8.63	2.50	3.00	64.69	Cft
					Total	487.69	Cft
					Total	**0.49**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Office wall 9" Thick Wall	1	47.00	9.00		423.00	Sft
	Center wall 4-1/2" Thick Wall	1	8.63	8.50		73.31	Sft
	Floor	1	7.75	14.25		110.44	Sft
					Total	**606.75**	**Sft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Office wall 9" Thick Wall	1	47.00	3.00	0.50	70.50	Cft
	Center wall 4-1/2" Thick Wall	1	8.63	2.50	0.50	10.78	Cft
					Total	81.28	Cft
					Total	**0.81**	**%Cft**
	Brick work in Foundation						
4	Pacca brick work in foundation and plinth in:-						
	Cement, sand mortar:- Ratio 1:5						

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WORK SHOP
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Office wall 9" Thick Wall						
	Step - 1	1	47.00	2.250	0.50	52.88	Cft
	Step - 2	1	47.00	1.875	0.50	44.06	Cft
	Step - 3	1	47.00	1.500	0.50	35.25	Cft
	Step - 4	1	47.00	1.125	0.50	26.44	Cft
	Step - 5	1	47.00	0.750	5.00	176.25	Cft
	Center wall 4-1/2" Thick Wall						
	Step - 1	1	8.63	1.875	0.50	8.09	Cft
	Step - 2	1	8.63	1.500	0.50	6.47	Cft
	Step - 3	1	8.63	1.125	0.50	4.85	Cft
	Step - 4	1	8.63	0.750	5.50	35.58	Cft
					Total	389.86	Cft
					Total	**3.90**	**%Cft**
	Horizontal D.P.C						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Office wall 9" Thick Wall	2	47.00	0.75		70.50	Sft
	Center wall 4-1/2" Thick Wall	1	8.63	0.75		6.47	Sft
					Total	76.97	Sft
					Total	**0.77**	**%Sft**
	Vertical D.P.C						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Office wall 9" Thick Wall	1	47.00		2.00	94.00	Sft
	Center wall 4-1/2" Thick Wall	1	8.63		1.00	8.63	Sft
					Total	102.63	Sft
					Total	**1.03**	**%Sft**
	Brick work in Super Structure						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Office wall 9" Thick Wall	1	47.00	0.75	11.00	387.75	Cft
	Center wall 4-1/2" Thick Wall	1	8.63	0.75	11.00	71.16	Cft

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CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Parapet Wall	1	47.00	0.38	2.50	44.06	Cft
	Entrance step	2	10.00	1.00	0.75	15.00	Cft
	D/d Doors and Window						
	D-1	-1	3.50	0.75	7.00	(18.38)	Cft
	D-2	-1	2.50	0.75	7.00	(13.13)	Cft
	W-1	-1	4.00	0.75	4.00	(12.00)	Cft
	V-1	-1	2.00	0.75	2.00	(3.00)	Cft
					Total	471.47	Cft
					Total	**4.71**	**%Cft**
	Concrete Work						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	Above foundation						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Top Slab	1	9.25	15.75	0.50	72.84	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.38	0.75	1.27	Cft
	D-2	1	3.50	0.75	0.75	1.97	Cft
	W-1	1	5.00	0.75	0.75	2.81	Cft
	V-1	1	3.00	0.75	0.75	1.69	Cft
					Total	**80.58**	**Cft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Steel Work.						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					80.58	Cft
	Top Slab & lintel @ 6 lbs / Cft		6.00		=	483.47	lbs/cft
				Total	=	483.47	lbs/cft
				Total	=	219.36	Kg.
			Add 5% Wastage.		=	10.97	Kg.
				Total	**=**	**230**	**Kg**
					Total	**2.30**	**%kg**
	Sand Filling						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	7.75	14.25	1.00	110.44	Cft
					Total	110.44	Cft
					Total	**1.10**	**%Cft**
	Brick ballast						
11	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.						
	Floor	1	7.75	14.25	0.33	36.44	Cft
					Total	36.44	Cft
					Total	**0.36**	**%Cft**
	P.C.C						
12	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	Ratio 1: 2: 4						
	Floor	1	7.75	14.25	0.17	18.41	Cft
					Total	**0.18**	**%Cft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Porcelain Tile						
13	Providing and laying superb quality Porcelain glazed tiles flooring of MASTER brand of specified size in approved design, Color and Shade with adhesive / bond over 3/4" thick (1:3)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	c) (Non-Skid Chequred Tiles) 300mmx300mm	1	7.75	14.25		110.44	Sft
					Total	**110.44**	**Sft**
14	Providing and laying superb quality Porcelain glazed tiles of Master brand, skirting/ dado of specified size, Color and Shade with adhesive/ bond over 1/2" thick (1:2)cement plaster i/c the cost of and sealer for finishing the joints, cutting grinding complete in all respect as approved and directed by the Engineer Incharge.						
	a) Full body Glazed Tile						
	(i) 400 mm x 400 mm	1	44.00	1.00	0.33	14.52	Sft
					Total	**14.52**	**Sft**
	Ceramic Tile						
15	Providing and laying superb quality Ceramic tile floors of Master brand of specified size, Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over 3/4" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"	1	4.25	4.00		17.00	Sft
					Total	**17.00**	**Sft**
16	Providing and laying superb quality Ceramic tiles dado of Master brand of specified size, Glossy/Matt/Texture skirting / dado of approved Color and Shade with adhesive bond over1/2" thick (1:2)cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects as approved and directed by the Engineer Incharge.						
	i) 12"x18"/12"x24"/10"x24" /8"x24"/12"x36"						

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CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Washroom	1	14.00		5.00	70.00	Sft
					Total	**70.00**	**Sft**
	Slab Plaster						
17	Cement plaster 3/8" (10 mm) thick under soffit of R.C.C. roof slabs only, upto 20' height. (Ratio:- 1:3)						
		1	7.75	14.25		110.44	Sft
					Total	**1.10**	**%Sft**
	Cement Plaster						
18	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Office wall 9" Thick Wall	1	47.00		11.00	517.00	Sft
	Center wall 4-1/2" Thick Wall	2	8.63		11.00	189.75	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	D-2	-1	2.50		7.00	(17.50)	Sft
	W-1	-1	4.00		4.00	(16.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	644.75	Sft
					Total	**6.45**	**%Sft**
	Pointing						
19	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	47.00		12.00	564.00	Sft
					Total	**5.64**	**%Sft**
20	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**5.64**	**%Sft**
	Distempering						
21	Distempering:-						
	iii) three coats						
	Office wall 9" Thick Wall	2	47.00		11.00	1,034.00	Sft
	Center wall 4-1/2" Thick Wall	2	8.63		11.00	189.75	Sft
	Slab	1	7.75	14.25		110.44	Sft
	D/d Doors and Window						
	D-1	-1	3.50		7.00	(24.50)	Sft
	D-2	-1	2.50		7.00	(17.50)	Sft

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	-1	4.00		4.00	(16.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	1,272.19	Sft
					Total	**12.72**	**%Sft**
	Wooden Door						
22	P/F 1-1/2" thick solid flush door comprising of 2.5 mm thick Deodar/Ash/Oak ply with grooves , compressed over 2.5 mm thick commercial ply over 1" thick packing wood in style and rails under proper pressure i/c the cost of nails, tower bolt , handles, glue, sawing charges and lacquar polishing to show the grains of ply properly, sand papering and 3/8" thick matching wooden lipping as approved and directed by the Engineer Incharge.						
	D-1	1	3.50		7.00	24.50	Sft
	D-2	1	2.50		7.00	17.50	Sft
					Total	**42.00**	**Sft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Formica Sheet						
23	Providing and fixing Formica sheet on bathroom door as per drawing and design complete in all respect.						
	D-2	1	2.50		7.00	**17.50**	**Sft**
24	Providing and fixing 2" wide MS/ GI Chowkat singel/double rebate made of 16 SWG MS sheet pressed/welded / supported with M.S. flat 1-1/4"x1/8" i/c 6"long M.S. Flat 1"x1/8"hold fasts (6-Nos) welded/screwed, punching of lock hole covered with MS Box,coating with antirust paint including filling with cement sand mortar (1:8) and embedding hold fast in cement concrete (1:2:4) ,complete in all respect as approved and directed by Engineer Incharge						
	(ii) 10.50 " wide						
	D-1	1	17.50	0.875		15.31	Sft
					Total	**15.31**	**Sft**
25	Providing and fixing 3"x4-1/2" chowkat for doors, windows and C. windows, including holdfast, etc.						
	b) Deodar wood						
	D-2	1	16.50	0.46		7.56	Sft
					Total	**7.56**	**Sft**
26	Providing and laying 24 SWG aluminum kick plate 4" (100 mm) high, fixed with screws 4" (100 mm) centre to centre, on bottom rail of flush doors only of commercial ply.	2	2.50			**5.00**	**Rft**
27	Providing and fixing ornamental wooden architrave 3" x (1½" tapered to ¼") all along the door frame complete in all respect.						
	b) Deodar wood architrave						
	D-1	1	17.50	0.25		4.38	Sft
					Total	**4.38**	**Sft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Lock						
28	Providing and fixing, approved quality mortice lock.	2				**2.00**	**Each**
	Paint						
29	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii)Two coat				**Total**	**0.84**	**Sft**
	Aluminium Window						
30	Providing and fitting all types of glazed aluminium windows of anodised/ powder coated partly fixed and partly sliding using delux sections of approved manufacturer having frame size of 100 x 30 mm (4"x1-1/4") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge						
	W-1	1	4.00		4.00	16.00	Sft
	V-1	1	2.00		2.00	4.00	Sft
					Total	**20.00**	**Sft**
	Roof Insulation						
31	Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.						
	Roof area	1	9.25	15.75		145.69	Sft
					Total	145.69	Sft
					Total	**1.46**	**%Sft**
32	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)				**Total**	**292.00**	**Sft**
	Khurras						
33	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	2				**2.00**	**Each**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Bottom Khuras						
34	Bottom Khuras of brick masonry in cement mortar 1:6, 4'x2'x4½" (1200x600x113 mm) over 3" (75 mm) cement concrete 1:4:8.	2				**2.00**	**Each**
	Excavation						
35	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Columns	2	13.00	13.00	4.00	1,352.00	Cft
	Workshop Pit	1	20.00	4.75	5.33	506.35	Cft
					Total	1,858.35	Cft
					Total	**1.86**	**%oCft**
	Anti-Termite						
36	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Floor	1	15.00	32.00		480.00	Sft
	Columns	2	13.00	13.00		338.00	Sft
					Total	**818.00**	**Sft**
	Plain Cement Concrete						
37	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Columns	2	13.00	13.00	0.25	84.50	Cft
	Workshop Pit	1	20.00	4.75	0.33	31.35	Cft
					Total	115.85	Cft
					Total	**1.16**	**%Cft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Concrete Work						
38	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	In Foundation						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Columns	2	12.00	12.00	1.50	432.00	Cft
	Workshop Pit	1	20.00	4.75	0.33	31.35	Cft
	Columns	2	3.00	1.50	7.75	69.75	Cft
	Plinth beam	1	15.00	0.75	1.50	16.88	Cft
					Total	**549.98**	**Cft**
	Steel Work.						
39	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					549.98	Cft
	Columns @ 12 lbs / Cft		12.00		=	6,600	lbs/cft
				Total	=	6,600	lbs/cft
				Total	=	2,994	Kg.
			Add 5% Wastage.		=	150	Kg.
				Total	**=**	**3,144**	**Kg**
					Total	**31.44**	**%kg**
	Brick work in Foundation						
40	Pacca brick work in foundation and plinth in:-						
	Cement, sand mortar:- Ratio 1:5						
		1	45.00	1.125	4.50	227.81	Cft
					Total	**2.28**	**%Cft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Cement Plaster						
41	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick	1	45.00		4.50	202.50	Sft
					Total	**2.03**	**%Sft**
	Sand Filling						
42	Supplying and filling sand under floor; or plugging in wells.						
	Shed	1	15.00	32.00	1.00	480.00	Cft
					Total	480.00	Cft
					Total	**4.80**	**%Cft**
	Sub Base Course						
43	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Pit run or bed run gravel from sargodha querry to site, actual compacted depth shall be considered for payment)						
	Shed	1	15.00	32.00	0.33	158.40	Cft
					Total	**1.58**	**%Cft**
	Water Bound Macadam						
44	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)						
	Shed	1	15.00	32.00	0.33	158.40	Cft

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
					Total	**1.58**	**%Cft**
45	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	Shed	1	15.00	32.00		**480**	**Sft**
	Parking Shed						
46	Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.	1	15.00	32.00		**480**	**Sft**

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DETAILED COST ESTIMATE

WORK SHOP

PLUMBING WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Qty.	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Indian W.C				
1	19-4-i	Providing and fitting glazed earthen ware water closet, squatter type (Orisa pattern), combined with foot rest.				
		i) white	Each	1.00	2,461.80	2,462
2	19-13-i	Providing and fitting plastic made low down flushing cistern 13.63 litre (3 gallons) capacity, including bracket set, copper connection, etc. complete.				
		i) white	Each	1.00	3,061.40	3,061
3	19-7-i	Providing and fitting glazed earthen ware wash hand basin 56x40 cm (22"x16") including bracket set, waste pipe and waste coupling, etc.				
		i) white, with pedestal	Each	1.00	6,160.50	6,161
4	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.00	2,477.00	2,477
5	19-16	Providing and fixing, chromium plated soap dish.	Each	1.00	538.60	539
6	19-20	Providing and fixing looking glass 55x40 cm (22"x16") size	Each	1.00	800.30	800
7	19-27	Providing and fixing chromium plated bib cock:-				
		i) 2 cm (¾")	Each	1.00	1,081.60	1,082
8	19-28	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	3.00	1,081.60	3,245
9	19-34-i	Providing and fixing, floor trap of cast iron, including concrete chamber all round, and C.I. grating:-				
		i) 10x5 cm (4"x2")	Each	1.00	666.25	666
10	19-36	Providing and fitting 10 cm (4") gully trap, including cement concrete, cost of PVC grating 15x15 cm (6"x6") and masonry chamber 30x30 cm (12"x12").	Each	1.00	1,198.65	1,199
11	19-35-ii	Providing and fitting "P" trap:-				
		ii) 10 cm (4") glazed.	Each	2.00	322.25	645

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DETAILED COST ESTIMATE

WORK SHOP

PLUMBING WORKS

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Qty.	Unit Rate (Rs)	Amount (Rs)
		PPRC Pipe				
12	23-47	Providing, laying, testing and commissioning of POLYPROPYLENE RANDOM COPOLYMER (PPRC) water supply pipe made of (Dadex/ Popular /Beta/ BBJ) with specified pressure rating PN (PRESSURE NOMINAL) and conforming to DIN8077-8078 code i/c cost of solvent, specials, making jharries complete in all respect as approved and directedby Engineer Incharge. (Internal / External Diameters mentioned).				
		b) PN-20 pipe				
		(i) (1/2") 20 mm	Rft	40.00	48.75	1,950
		(ii) (3/4") 25 mm	Rft	25.00	67.15	1,679
		Valve				
13	23/46	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.				
		ii) 3/4" dia	Each	2.00	1,545.60	3,091
		uPVC Pipe				
14	19-47	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized polyvinyl Chloride)Nikasi /waste pipe make of dadex/Popular/Beta/BBJ plain/ socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio)including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge				
		Type (SDR 41/SN-4)				
		(iii) 2"(60 mm)	Rft	10.00	89.25	893
		(v) 4"(110 mm)	Rft	30.00	218.00	6,540
		Total Rs. (A)				**36,488**
		Non-Schedule Item				
15	N.S	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	1.00	18,318.79	18,319
		Total Rs. (B)				**18,319**
		Total Amount Rs. (A + B)				**54,807**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

WORK SHOP

ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		Scheduled Items (A)				
1	C-24/3-ii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (20 mm i/d)	Rft.	120.00	86.35	10,362
2	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	250.00	101.60	25,400
3	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	190.00	27.85	5,292
4	C-24/10a.ii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	400.00	23.75	9,500
	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.036)	Rft.	350.00	44.05	15,418
5	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	2.00	295.90	592
6	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	2.00	82.55	165

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

WORK SHOP

ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
7	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	7.00	167.75	1,174
8	C-24/43-	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
	C-24/43-ii	Single rod (40 watts) with one choke and one starter.	Each	3	1,221.70	3,665
9	C-24/102/a	Providing and fixing Copper winded Exhaust fan with louver and shutter made of Pak/Younas /G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer Incharge.				
		(a) Plastic body (ii) 12 " dia	Each	5.00	3,380.85	16,904
		Sub Total (A)				**88,472**
10	N.S	Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	1.00	7,000.00	7,000
11	N.S	Supply, installation and commissioning FLOOD LIGHT BVP151 LED50NW 220240V 50Wwith all accessories complete in all respects	Each	3.00	10,900.00	32,700
		Sub Total (B)				**39,700**
		Sub Total (A+B)				**128,172**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 90' x 32')

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Excavation				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	2.70	11,658.25	31,477
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	3,556.00	9.90	35,204
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	1.69	28,513.90	48,188
		Concrete Work				
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		In Foundation				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(2) Type C (nominal mix 1: 2: 4)	P.Cft	1,068.75	456.95	488,365

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 90' x 32')

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Steel Work.				
5	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	61.10	31,945.90	1,951,894
		Sand Filling				
6	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	28.80	2,862.00	82,426
		Sub Base Course				
7	18/3/a/ (ii) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)	100Cft	9.50	10,564.66	100,364
		Water Bound Macadam				
8	18/4/a + 1/1	Providing and laying base course of crushed stone **(Water Bound Macadam)** of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)	100Cft	9.50	24,086.83	228,825

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 90' x 32')

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Tuff Paver				
9	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		c) 80-mm thick	Per Sft	2,880.00	195.90	564,192
10	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	1,100.66	99.35	109,354
		Parking Shed				
11	N.S	Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.	Sft	2,880.00	2,270.00	6,537,600
		Total Rs.				**10,177,891**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
PARKING SHED (SIZE 90' x 32')
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Excavation						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Columns	4	13.00	13.00	4.00	2,704.00	Cft
					Total	2,704.00	Cft
					Total	**2.70**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Floor	1	90.00	32.00		2,880.00	Sft
	Columns	4	13.00	13.00		676.00	Sft
					Total	**3,556.00**	**Sft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Columns	4	13.00	13.00	0.25	169.00	Cft
					Total	169.00	Cft
					Total	**1.69**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
PARKING SHED (SIZE 90' x 32')
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Concrete Work						
4	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	In Foundation						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Columns footing	4	12.00	12.00	1.50	864.00	Cft
	Columns	4	3.00	1.50	5.75	103.50	Cft
	Plinth beam	1	90.00	0.75	1.50	101.25	Cft
					Total	**1,068.75**	**Cft**
	Steel Work.						
5	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					1,068.75	Cft
	Columns @ 12 lbs / Cft		12.00		=	12,825	lbs/cft
				Total	=	12,825	lbs/cft
				Total	=	5,819	Kg.
			Add 5% Wastage.		=	291	Kg.
				Total	**=**	**6,110**	**Kg**
					Total	**61.10**	**%kg**
	Sand Filling						
6	Supplying and filling sand under floor; or plugging in wells.						
	Shed	1	90.00	32.00	1.00	2,880.00	Cft
					Total	2,880.00	Cft
					Total	**28.80**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
PARKING SHED (SIZE 90' x 32')
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Sub Base Course						
7	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)						
	Shed	1	90.00	32.00	0.33	950.40	Cft
					Total	**9.50**	**%Cft**
	Water Bound Macadam						
8	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)						
	Shed	1	90.00	32.00	0.33	950.40	Cft
					Total	**9.50**	**%Cft**
9	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	Shed	1	90.00	32.00		**2,880**	**Sft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

PARKING SHED (SIZE 90' x 32')

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Parking Shed						
10	Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.	1	90.00	32.00		**2,880**	**Sft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 90' x 32')

ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		Scheduled Items (A)				
1	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	380.00	101.60	38,608
2	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	30.00	27.50	825
3	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	860.00	44.05	37,883
4	C-24/14-ii	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	1.00	270.60	271
5	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	1.00	96.95	97
		Sub Total (A)				**77,684**
6	N.S	Supply, installation and commissioningFLOOD LIGHT BVP151 LED50NW 220,240V 50W with all accessories complete in all respects	Each	3.00	10,900	32,700
		Sub Total (B)				**32,700**
		Sub Total (A+B)				**110,384**
				DA		

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 156' x 16')

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Schedule Item				
		Excavation				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	1.57	11,658.25	18,303
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	2,888.00	9.90	28,591
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.98	28,513.90	27,944
		Concrete Work				
4	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		In Foundation				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(2) Type C (nominal mix 1: 2: 4)	P.Cft	567.50	456.95	259,319

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 156' x 16')

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Steel Work.				
5	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	32.44	31,945.90	1,036,325
		Sand Filling				
6	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	24.96	2,862.00	71,436
		Sub Base Course				
7	18/3/a/ (ii) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)	100Cft	8.24	10,564.66	87,053

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

PARKING SHED (SIZE 156' x 16')

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Water Bound Macadam				
8	18/4/a + 1/1	Providing and laying base course of crushed stone **(Water Bound Macadam)** of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)	100Cft	8.24	24,086.83	198,475
		Tuff Paver				
9	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		c) 80-mm thick	Per Sft	2,496.00	195.90	488,966
10	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	592.27	99.35	58,844
		Parking Shed				
11	N.S	Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.	Sft	2,496.00	2,270.00	5,665,920
		Total Amonut Rs.				**7,941,177**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
PARKING SHED (SIZE 156' x 16')
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Excavation						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Columns	8	7.00	7.00	4.00	1,568.00	Cft
					Total	1,568.00	Cft
					Total	**1.57**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Floor	1	156.00	16.00		2,496.00	Sft
	Columns	8	7.00	7.00		392.00	Sft
					Total	**2,888.00**	**Sft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Columns	8	7.00	7.00	0.25	98.00	Cft
					Total	98.00	Cft
					Total	**0.98**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
PARKING SHED (SIZE 156' x 16')
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Concrete Work						
4	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	In Foundation						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Columns footing	8	6.50	6.50	1.00	338.00	Cft
	Columns	8	1.50	1.50	6.25	112.50	Cft
	Plinth Beam	1	156.00	0.75	1.00	117.00	
					Total	**567.50**	**Cft**
	Steel Work.						
5	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					567.50	Cft
	Columns @ 12 lbs / Cft		12.00		=	6,810	lbs/cft
				Total	=	6,810	lbs/cft
				Total	=	3,090	Kg.
			Add 5% Wastage.		=	154	Kg.
				Total	**=**	**3,244**	**Kg**
					Total	**32.44**	**%kg**
	Sand Filling						
6	Supplying and filling sand under floor; or plugging in wells.						
	Shed	1	156.00	16.00	1.00	2,496.00	Cft
					Total	2,496.00	Cft
					Total	**24.96**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
PARKING SHED (SIZE 156' x 16')
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Sub Base Course						
7	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)						
	Shed	1	156.00	16.00	0.33	823.68	Cft
					Total	**8.24**	**%Cft**
	Water Bound Macadam						
8	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)						
	Shed	1	156.00	16.00	0.33	823.68	Cft
					Total	**8.24**	**%Cft**
9	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	Shed	1	156.00	16.00		**2,496**	**Sft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

PARKING SHED (SIZE 156' x 16')

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Parking Shed						
10	Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.	1	156.00	16.00		**2,496**	**Sft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

PARKING SHED (SIZE 156' x 16')

ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		Scheduled Items (A)				
1	C-24/3-iii	Supply and erection of PVC pipe for wiring recessed in walls, including bends, inspection joints, boxes, pull boxes, hook, cutting and repair surface etc. completed with all specified. (25 mm i/d)	Rft.	520.00	101.60	52,832
2	C-24/10a.i	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (3.029)	Rft.	50.00	27.50	1,375
3	C-24/10a.iii	Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	940.00	44.05	41,407
4	C-24/14-i	Supply and erection of M.S. sheet box of 16 SWG, 10 cm (4") deep, with 4.75 mm thick (3/16") bakelite sheet top, for recessed wiring, including making holes for regulators, switches, plugs, etc. (4"x4")	Each	2.00	270.60	541
5	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	2.00	96.95	194
		Sub Total (A)				**96,349**
6	N.S	Supply, installation and commissioning FLOOD LIGHT BVP151 LED50NW 220240V 50Wwith all accessories complete in all respects	Each	7.00	10,900.00	76,300
		Sub Total (B)				**76,300**
		Sub Total (A+B)				**172,649**

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

EXTERNAL WORK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		BOUNDARY WALL				
		Excavation				
1	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	4.46	11,658.25	51,996
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.	Sft	1,936.00	9.90	19,166
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	8.11	28,513.90	231,248
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	36.33	31,518.60	1,145,071
		Horizontal D.P.C				
5	6/36	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-				
		(a) with one coat bitumen and one coat polythene sheet 500gauge				
		i) 1½" thick (40 mm)	100 Sft	1.26	9,137.10	11,513
		Vertical D.P.C				
6	6/37	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-				
		(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:				
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	2.05	6,929.55	14,206

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

EXTERNAL WORK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	7.59	33,921.00	257,460
		Concrete Work				
8	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		In Foundation				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(3) Type C (nominal mix 1: 2: 4)	P.Cft	50.63	456.95	23,133
		Above foundation				
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	88.00	566.35	49,839
		Steel Work.				
9	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	7.93	31,945.90	253,331

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DETAILED COST ESTIMATE

EXTERNAL WORK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Cement Plaster				
10	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	9.57	4,644.25	44,445
		Pointing				
11	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	9.57	3,774.25	36,120
12	11/31	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.	100 Sft	9.57	822.00	7,867
		Distempering				
13	11/23	Distempering:-				
		iii) three coats	100 Sft	8.47	1,446.35	12,251
		Main Gate				
14	25/30	Making and fixing steel grated doors, complete with locking arrangement, angle iron frame 2"x2"x3/8" (50x50x10 mm) and ¾" (20 mm) square bars 4" (100 mm) centre to centre.	Sft	112.00	1,998.95	223,882
		Painting new surface:-				
15	13/5/d	d) Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:-				
		i) priming coat.	100 Sft	2.24	927.05	2,077
		ii) each subsequent coat of paint.	100 Sft	2.24	572.20	1,282
16	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	890.57	99.35	88,481
		Total Rs. "A"				**2,473,367**

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

EXTERNAL WORK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Tuff Paver				
		Borrow Earth				
17	3/5/i + 3/17	Earthwork in ordinary soil for embankment 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:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.	1000Cft	97.09	17,627.60	1,711,464
		Sub Base Course				
18	18/3/a/ (ii) + 1/1	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)	100Cft	128.16	10,564.66	1,353,967

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
DETAILED COST ESTIMATE
EXTERNAL WORK
CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Water Bound Macadam				
19	18/4/a + 1/1	Providing and laying base course of crushed stone **(Water Bound Macadam)** of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)	100Cft	128.16	24,086.83	3,086,968
		Tuff Paver				
20	10/41	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)				
		c) 80-mm thick	Per Sft	38,835.00	195.90	7,607,777
		Kerb Stone				
21	6/52	Providing and fixing precast Edge Kerb Stone (4"to 6" thick), of 3500 PSI Compressive Strength, embeded in PCC 1:2:4 over lean concrete 1:4:8 etc complete in all respect.				
		b) With Painting				
		(i) 14" high	Rft	830.00	529.75	439,693
22	3/32	Turfing slopes of banks or lawns with grass sods including ploughing, laying, setting and watering (Turf got from within a distance of 5 miles (8 Km.) and maintenance for 15 days).	100 Sft	159.00	1,693.10	269,203
		Total Rs. "B"				**14,469,071**
		Total Rs. "A+B"				**16,942,437**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	BOUNDARY WALL						
	Excavation						
1	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	ii) in ordinary soil.						
	Boundary wall	1	121.00	3.00	3.00	1,089.00	Cft
	Boundary wall Columns	14	3.50	3.50	3.00	514.50	Cft
	Columns	2	5.00	5.00	4.00	200.00	Cft
	Toe Wall	1	425.00	2.50	2.50	2,656.25	Cft
					Total	4,459.75	Cft
					Total	**4.46**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect as approved by the Engineer Incharge.						
	Boundary wall	1	121.00	9.00		1,089.00	Sft
	Boundary wall Columns	14	3.50	9.50		465.50	Sft
		14	3.50	3.50		171.50	Sft
	Columns	2	20.00	4.00		160.00	Sft
		2	5.00	5.00		50.00	Sft
					Total	**1,936.00**	**Sft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Boundary wall	1	121.00	3.00	0.50	181.50	Cft
	Boundary wall Columns	14	3.50	3.50	0.50	85.75	Cft
	Columns	2	5.00	5.00	0.25	12.50	Cft
	Toe Wall	1	425.00	2.50	0.50	531.25	Cft
					Total	811.00	Cft
					Total	**8.11**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Brick work in Foundation						
4	Pacca brick work in foundation and plinth in:-						
	Cement, sand mortar:- Ratio 1:5						
	Boundary wall						
	Step - 1	1	121.00	2.625	0.50	158.81	Cft
	Step - 2	1	121.00	2.250	0.50	136.13	Cft
	Step - 3	1	121.00	1.875	0.50	113.44	Cft
	Step - 4	1	121.00	1.500	0.50	90.75	Cft
	Step - 5	1	121.00	1.125	0.50	68.06	Cft
	Step - 6	1	121.00	0.750	4.50	408.38	Cft
	Boundary wall Columns						
	Step - 1	14	3.00	3.00	0.50	63.00	Cft
	Step - 2	14	2.63	2.63	0.50	48.23	Cft
	Step - 3	14	2.25	2.25	0.50	35.44	Cft
	Step - 4	14	1.88	1.88	0.50	24.61	Cft
	Step - 5	14	1.50	1.50	0.50	15.75	Cft
	Step - 6	14	1.13	1.13	4.50	79.73	Cft
	Toe Wall						
	Step - 1	1	425.00	1.875	0.50	398.44	Cft
	Step - 2	1	425.00	1.500	0.50	318.75	Cft
	Step - 3	1	425.00	1.125	3.50	1,673.44	Cft
					Total	3,632.95	Cft
					Total	**36.33**	**%Cft**
	Horizontal D.P.C						
5	Providing and laying damp proof course of cement concrete 1 : 2 : 4 (using cement, sand and shingle), including bitumen coating :-						
	(a) with one coat bitumen and one coat polythene sheet 500gauge						
	i) 1½" thick (40 mm)						
	Boundary wall	1	121.00	0.75		90.75	Sft
	Boundary wall Columns	28	1.13	1.13		35.44	Sft
					Total	126.19	Sft
					Total	**1.26**	**%Sft**
	Vertical D.P.C						
6	Providing and laying vertical damp proof course with cement sand plaster and bitumen coating:-						
	(a) with one coat of bitumen and one coat of polythene sheet 500 gauge:						
	ii) Ratio 1:3 ¾ " thick (20 mm)						
	Boundary wall	1	121.00		1.50	181.50	Sft
	Boundary wall Columns	14	1.13		1.50	23.63	Sft
					Total	205.13	Sft
					Total	**2.05**	**%Sft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Brick work in Super Structure						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Boundary wall	1	121.00	0.75	7.00	635.25	Cft
	Boundary wall Columns	14	1.13	1.13	7.00	124.03	Cft
					Total	759.28	Cft
					Total	**7.59**	**%Cft**
	Concrete Work						
8	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	In Foundation						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	Gate Columns	2	4.50	4.50	1.25	50.63	Cft
					Total	**50.63**	**Cft**
	Above foundation						
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Gate Columns	2	2.00	2.00	11.00	88.00	Cft
					Total	**88.00**	**Cft**

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EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Steel Work.						
9	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60)					138.63	Cft
	Columns @ 12 lbs / Cft		12.00		=	1,663.50	lbs/cft
				Total	=	1,663.50	lbs/cft
				Total	=	754.76	Kg.
			Add 5% Wastage.		=	37.74	Kg.
				Total	**=**	**793**	**Kg**
					Total	**7.93**	**%kg**
	Cement Plaster						
10	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Boundary wall	1	121.00		7.00	847.00	Sft
	Boundary wall Columns	14	1.13		7.00	110.25	Sft
					Total	957.25	Sft
					Total	**9.57**	**%Sft**
	Pointing						
11	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	121.00		7.00	847.00	Sft
	Boundary wall Columns	14	1.13		7.00	110.25	Sft
					Total	957.25	Sft
					Total	**9.57**	**%Sft**
12	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**9.57**	**%Sft**
	Distempering						
13	Distempering:-						
	iii) three coats						
	Boundary wall	1	121.00		7.00	847.00	Sft
					Total	847.00	Sft
					Total	**8.47**	**%Sft**

PUNJAB CITIES PROGRAM (PCP)
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EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Main Gate						
14	Making and fixing steel grated doors, complete with locking arrangement, angle iron frame 2"x2"x3/8" (50x50x10 mm) and ¾" (20 mm) square bars 4" (100 mm) centre to centre.	1	16.00		7.00	**112.00**	**Sft**
	Painting new surface:-						
15	d) Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards, braces, etc.) and in similar open work:-						
	i) priming coat.					**2.24**	**%Sft**
	ii) each subsequent coat of paint.					**2.24**	**%Sft**
	Tuff Paver						
	Borrow Earth						
16	Earthwork in ordinary soil for embankment 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:- 90% to 95% maximum modified dry density as determined according to AASHTO T-180 method-D including Transportation of earth.		Area				
	Total Area	1	38,835	1.00	2.50	97,088	Cft
					Total	97,088	Cft
					Total	**97.09**	**%oCft**
	Sub Base Course						
17	Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from Dina querry to site, actual compacted depth shall be considered for payment)						
		1	38,835	1.00	0.33	12,815.55	Cft
	117				**Total**	**128.16**	**%Cft**

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EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Water Bound Macadam						
18	Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)						
		1	38,835	1.00	0.33	12,815.55	Cft
					Total	**128.16**	**%Cft**
	Tuff Paver						
19	Providing and laying Tuff pavers, having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope. complete in all respect. (50% Grey / 50% Coloured)						
	c) 80-mm thick	1	38,835	1.00		**38,835**	**Sft**
20	Providing and fixing precast Edge Kerb Stone (4"to 6" thick), of 3500 PSI Compressive Strength, embeded in PCC 1:2:4 over lean concrete 1:4:8 etc complete in all respect.						
	b) With Painting						
	(i) 14" high	1	830			**830**	**Rft**
21	Turfing slopes of banks or lawns with grass sods including ploughing, laying, setting and watering (Turf got from within a distance of 5 miles (8 Km.) and maintenance for 15 days).	1	15,900	1.00		15,900	Sft
					Total	**159.00**	**%Sft**

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DETAILED COST ESTIMATE

EJECTOR PUMP

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Ejector Pump				
1	23/45/ii	P/F Ejector Pump of specified Suction and Delivery heads, coupled with Single Phase Seimen Electric Motor of required rating for water supply i/c the cost of connection charges, necessary wire, PVC pipes etc complete in all respect as approved and directed by the Engineer Incharge.				
		ii) G-IV (2-1/2"x2") with 2.5 HP Electric Motor, 38-Mtr Suction and 38 M delivery head	Each	1.00	19,360.20	19,360
		Boring				
2	23/1	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete:-				
		c) 5" (125 mm) i/d	Rft	100.00	646.70	64,670
3	23/2	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 100.1 ft. to 200 ft. (30 to 60 m) below ground level, including sinking and withdrawing of casing pipe, complete:-				
		a) 5" (125 mm) i/d	Rft	100.00	1,083.25	108,325
4	23/16	Providing and installing P.V.C. blind pipe, B.S.S. Class `B', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete.				
		b) 4" i/d (100 mm)	Rft	50.00	451.30	22,565
5	23/17	Providing and installing P.V.C. blind pipe, B.S.S. Class `D', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete.				
		b) 1½" i/d (40 mm)	Rft	200.00	152.95	30,590
		c) 2" i/d (50 mm)	Rft	70.00	221.20	15,484
6	23/11	Providing and installing, P.V.C. strainer B.S.S. Class 'B', in tubewell bore hole, including sockets and solvents, etc. complete:-				
		a) 3" i/d (75 mm)	Rft	30.00	187.95	5,639

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DETAILED COST ESTIMATE

EJECTOR PUMP

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
7	23/14	Providing and installing P.V.C. Bail/End plug, in tubewell bore hole:-				
		a) B.S.S. Class `B'				
		i) 3" i/d (75 mm)	Rft	1.00	92.45	92
		Total Amount Rs.				**266,725**

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DETAILED COST ESTIMATE

EXTERNAL WTER SUPPLY

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Excavation				
1	3/44	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines upto 5 ft. (1.5 m) depth from ground level, including trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.	1000Cft	0.70	8,321.30	5,825
		HDPE Pipe				
2	23-43	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE-100) working presure pipe, Beta/ Dadex/Popular/ IIL or equivalent including the cost of specials, in trenches, as approved & directed by the engineer incharge, complete in all respects				
		c) PN-10 (SDR-17)				
		3) 40 mm	Rft	60.00	53.10	3,186
		4) 50 mm	Rft	40.00	78.65	3,146
		Valve				
3	23/46	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.				
		v) 1-1/2" dia	Each	1.00	2,289.60	2,290
		vi) 2" dia	Each	1.00	2,709.60	2,710
		Under Ground Water Tank				
		Excavation				
4	3/21/a/ii	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	0.89	11,658.25	10,376
		Plain Cement Concrete				
5	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(i) Ratio 1: 4: 8	100 Cft	0.42	28,513.90	11,976

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DETAILED COST ESTIMATE

EXTERNAL WTER SUPPLY

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Concrete Work				
6	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		In Foundation				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(3) Type C (nominal mix 1: 2: 4)	P.Cft	85.28	456.95	38,967
		(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-				
		Type C (nominal mix 1: 2: 4)	P.Cft	278.09	566.35	157,497
		Steel Work.				
7	6/12/c	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		Deformed bars (Grade-60)	100kg	10.90	31,945.90	348,244
		RCC Manhole Cover				
8	21/16	Providing and fixing 6" thick R.C.C. manhole cover with tee shaped C.I. frame of 22" I/d (frame weighing 37.324 Kg. or one maund as per Standard Drawing STD/PD No. 6, of 1977, complete in all respect.	Each	1.00	16,051.80	16,052
		Angle Iron Step				
9	21/13	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	Each	6.00	610.75	3,665

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DETAILED COST ESTIMATE

EXTERNAL WTER SUPPLY

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
10	1/1	Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)	Cft	359.57	99.35	35,724
		Pump				
11	N.S	Providing, installing, Fixing and commisioning of reciprocating pump with a capacity of 30 USGPM against a total head of 90 ft Cast Iron, Cylinder & Piston Rod in S.S., Crank Shaft in super finish S.G. Iron, Gland Nut in Brass and abrasion proof silently working Valves fitted on easily Feat accessible S.S., ABS or Cast Iron Valve Plate with Brass Seats, All Gaskets are in Rubber and Rocker Rail in Galvanized Mild Steel with Insulation Bushes complete system installed upto satisfaction of engineer in charge, complete in all respects	Each	1.00	20,000	20,000
		Total Rs				**659,656**

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DETAILED COST ESTIMATE

EXTERNAL WTER SUPPLY

Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
	Excavation						
1	Excavation of trenches in all kinds of soil, except cutting rock, for watersupply pipelines upto 5 ft. (1.5 m) depth from ground level, including trimming, dressing sides, leveling the beds of trenches to correct grade and cutting pits for joints, etc. complete in all respects.						
	Water supply Pipe	1	100.00	2.00	3.50	700.00	Cft
					Total	**0.70**	**%oCft**
	PPRC Pipe						
2	Providing, laying, cutting, jointing, testing and disinfecting High Density Polyethylene Pipe (HDPE-100) working presure pipe, Beta/ Dadex/Popular/ IIL or equivalent including the cost of specials, in trenches, as approved & directed by the engineer incharge, complete in all respects						
	c) PN-10 (SDR-17)						
	3) 40 mm	1	60.00			**60.00**	**Rft**
	4) 50 mm	1	40.00			**40.00**	**Rft**
	Valve						
3	Providing and fixing CP heavy duty brass Ball valve with CP handle of specified dia meter made of Faisal/ Sonex/ Master best quality or equivalent complete in all respect as approved and directed by the Engineer Incharge.						
	v) 1-1/2" dia	1				**1.00**	**Nos.**
	vi) 2" dia	1				**1.00**	**Nos.**
	Under Ground Water Tank						
	Excavation						
4	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)						
	a) By Manual						
	ii) in ordinary soil.	1	12.33	10.33	7.00	890.95	Cft
					Total	**0.89**	**%oCft**
	Plain Cement Concrete						
5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8	1	12.33	10.33	0.33	42.00	Cft
					Total	**0.42**	**%Cft**

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DETAILED COST ESTIMATE

EXTERNAL WTER SUPPLY

Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
	Concrete Work						
6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-						
	In Foundation						
	(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-						
	(3) Type C (nominal mix 1: 2: 4)	1	12.33	10.33	0.67	**85.28**	**Cft**
	(a) (i) Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:-						
	Type C (nominal mix 1: 2: 4)						
	Walls	1	38.66	0.67	8.00	207.24	Cft
	Top Slab	1	11.33	9.33	0.67	70.85	Cft
					Total	**278.09**	**Cft**

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DETAILED COST ESTIMATE

EXTERNAL WTER SUPPLY

Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
	Steel Work.						
7	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-						
	Deformed bars (Grade-60) (3 kg/cft)				**Total**	**1,090.10**	**Kg**
	RCC Manhole Cover						
8	Providing and fixing 6" thick R.C.C. manhole cover with tee shaped C.I. frame of 22" I/d (frame weighing 37.324 Kg. or one maund as per Standard Drawing STD/PD No. 6, of 1977, complete in all respect.	1				**1.00**	**Nos**
	Angle Iron Step						
9	Providing and fixing 1¼"x1¼"x3/16" (31x31x5 mm) angle iron step, in manhole chambers, including carriage and setting the same in work to correct lines and levels.	6				**6.00**	**Nos.**

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DETAILED COST ESTIMATE

EXTERNAL SEWERAGE SYSTEM

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Excavation				
1	3/42	Earth work excavation in open cutting for sewers and manholes as shown in drawing including shuttering of wooden vertical planks, struts and beams, dressing to correct section and dimension according to templates and levels and removing surface water in all types of soil except shingle, gravel and rock. i) 0 ft. to 7.0 ft. (0 to 2.10 m) depth	1000Cft	0.88	12,836.55	11,232
		Sand Filling				
2	21/24	Providing and laying sand under and around the sewer pipe, including leveling, manual compaction, complete in all respect.	100Cft	2.50	3,786.00	9,465
		uPVC Pipe				
3	19/48	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or equivalent, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge.				
		a) Type (SDR 34/SN-8)				
		i) 6" dia 150mm	Rft	100.00	1,144.35	114,435
4	N.S Rate Analysis	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	4.00	18,969.75	75,879
		Total Rs				**211,011**

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DETAILED COST ESTIMATE

EXTERNAL SEWERAGE SYSTEM

Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
	Excavation						
1	Earth work excavation in open cutting for sewers and manholes as shown in drawing including shuttering of wooden vertical planks, struts and beams, dressing to correct section and dimension according to templates and levels and removing surface water in all types of soil except shingle, gravel and rock. i) 0 ft. to 7.0 ft. (0 to 2.10 m) depth						
	uPVC pipe	1	100.00	2.50	3.50	875.00	Cft
					Total	**0.88**	**%oCft**
	Sand Filling						
2	Providing and laying sand under and around the sewer pipe, including leveling, manual compaction, complete in all respect.						
		1	100.00	2.50	1.00	250.00	Cft
					Total	**2.50**	**%Cft**
	uPVC Pipe						
3	Providing, fixing, testing and commissioning of µ-PVC (Unplasticized Polyvinyl Chloride) sewerage pipe make of Dadex /Popular/Beta or equivalent, plain /socket ended conforming to code EN-1401 of specified SDR (Standard Dimension Ratio) including the cost of specials and Solvents complete in all respect as approved and directed by the Engineer Incharge.						
	a) Type (SDR 34/SN-8)						
	i) 6" dia 150mm	1	100.00			**100.00**	**Rft**
4	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	4				**4.00**	**Nos.**

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DETAILED COST ESTIMATE

DISMANTLING WORK

CIVIL WORK

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1		**Existing Store Room (Size 30 x 25 ft) and Boundary Wall (150' Portion)**				
		Dismantling				
1	4/13	Dismantling brick work in lime or cement mortar.	100Cft	17.55	4,712.40	82,703
2	4/20	Dismantling cement concrete reinforced, separating reinforcement from concrete, cleaning and straightening the same	100Cft	8.40	19,958.40	167,651
3	4/32	a) Removing door with chowkat.	No.	1.00	485.10	485
4	4/32	b) Removing windows and sky lights with chowkat.	No.	1.00	378.85	379
5	4/19	c) Dismantling cement concrete 1:2:4 plain.	100Cft	0.45	12,196.80	5,489
		Sub Total (A)				**256,706**
		Deduction				
	40% of Input Rate - Materials 1nd Bi-Annual 2023 - 07.001	Deduction of used bricks from original quantity.	1000 No.	23.69	(4,600.00)	(108,986)
		Sub Total (B)				**(108,986)**
		Grand Total (A+B)				**147,720**

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DISMANTLING WORK

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Existing Store Room (Size 30 x 25 ft) and Boundary Wall (150' Portion)						
	Dismantling						
1	Dismantling brick work in lime or cement mortar.						
		1	12	0.75	10.00	90.00	Cft
		1	15	0.75	10.00	112.50	Cft
		1	12	0.75	10.00	90.00	Cft
		1	15	0.75	10.00	112.50	Cft
		1	150	0.75	12.00	1,350.00	Cft
					Total	1,755.00	Cft
					Total	**17.55**	**%Cft**
2	Dismantling cement concrete reinforced, separating reinforcement from concrete, cleaning and straightening the same						
		1	15.00	112.00	0.50	840.00	Cft
					Total	**8.40**	**%Cft**
3	a) Removing door with chowkat.	1				**1.00**	**No**
4	b) Removing windows and sky lights with chowkat.	1				**1.00**	**No**
5	c) Dismantling cement concrete 1:2:4 plain.	1	15.00	12.00	0.25	45.00	Cft
					Total	**0.45**	**%Cft**

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DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
		Scheduled Items (A)				
		Excavation				
1	3/21	Excavation in foundation of building, bridges and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain (30 m) and lift upto 5 ft. (1.5 m)				
		a) By Manual				
		ii) in ordinary soil.	1000Cft	3.29	11,658.25	38,402
		RCC Foundation for Poles				
2	6/6	Providing and laying reinforced cement concrete (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.):-				
		(a)(iii) Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members other than those mentioned in 6(a) (i)&(ii) above not requiring form work (i.e. horizontal shuttering) complete in all respects:-				
		(3) Type C (nominal mix 1: 2: 4)	Cft	144.00	456.55	65,743
		Steel Work				
3	6/12/b	Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):-				
		('b) Deformed bars (Grade-40)	100Kg	3.60	31,556.10	113,602
4	24/13b.iii	Supply and erection of 3 core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only). (7.029)	Rft.	1,700.00	114.25	194,225
5	24/6i	Supply and erection PVC pipe for recessed wiring (main and sub-main) purpose, including bends, specials, etc. in floor, wall or trenches:-				
		i) 50 mm i/d	Rft	2,400.00	177.75	426,600

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DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
6	24/12	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):-				
		ii) 6 mm sq (7/0.044")	Rft	20.00	119.20	2,384
		iv) 16 mm sq (7/0.064")	Rft	100.00	208.35	20,835
7	24/13	Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire / trenches, etc. (rate for cable only):-				
		a) PVC insulated, PVC sheathed twin core, 250/440 volts.				
		v) 7/1.12 mm (7/0.044")		3,400.00	173.45	589,730
		b) PVC insulated, PVC sheathed 3 core, 600/1000 volt cable:-				
		v) 7/1.12 mm (7/0.044")	Rft	120.00	267.15	32,058
		c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-				
		vi) 10 mm (7/0.052")	Rft	1,200.00	525.75	630,900
		vii) 16mm (7/0.064")	Rft	110.00	694.80	76,428
8	24/68	Supplying,installation testing and commissioning of Octagonal shape electric street light pole, made of hot dipped 4.5 mm thick (7 SWG) galvanized steel ,tappered from 225 mm at bottom to 100 mm at top,with 1500 mmx60 mm dia. arm for luminaire installation, duly G.I.welded with 470x470x20 mm base plate with the help of 4 no triangular stiffeners 100x350x20 mm of GI sheet,with built in junction box with shutter,i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer Incharge.				
		a) Single Arm				
		(i) 10 mtr height	Each	15.00	116,325.95	1,744,889
		b) Double Arm				
		(i) 10 mtr height	Each	3.00	120,141.95	360,426
9	24/69	Supplying, installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conformimg to IP 65, Philips/Osram/Thorn with corrosion resistant die casted aluminum housing, silicon gas kit, thermally hardened glass complete with LED drivers, surge protection i/c the cost of all accessories/components required for proper operation, fully flexible for future upgradation and easy replacements for maintenance purposes,bucket elevator charges as approved and directed by the Engineer Incharge.				
		c) 120 Lm/Watt				
		(vi) 120 Watt with 14400 Lumens	Each	21.00	56,198.60	1,180,171
10	24/77	Supply and erection of electric energy meter, including meter testing fee, etc.				
		b) three phase, 4 wires:				
		iii) 3x80 Amp, 400 volts	Each	1.00	15,987.30	15,987

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
11	24/86	Suppling,Installation and comissioning of MCB (Miniature Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY /SIEMEN GERMAN/TERASAKI JAPAN/ ABB SWITZERLAND in prelaid DBs and Panels i/c the cost of screwes,necessary wire complete in all respect as approved and directed by the Engineer Incharge.				
		a) Single Pole				
		(ii) 6-40 Amp (6 KA)				
		DB admin block	Each	14.00	1,184.45	16,582
		DB workshop & Shed-1,2	Each	5.00	1,184.45	5,922
		DB GR,EXT	Each	12.00	1,184.45	14,213
		b) Double Pole				
		(ii) 6-40 Amp (6 KA)	Each		3,614.45	-
		DB admin block	Each	1.00	3,614.45	3,614
		DB STORE & Shed-1,2		-	3,614.45	-
		DB GR,EXT	Each	6.00	3,614.45	21,687
		MPB	Each	-	3,614.45	-
		c) Tripple Pole				
		(ii) 6-40 Amp (10KA)				
		All DBs	Each	-	7,236.95	-
		(iii) 6-63 Amp (10 KA)				
		MPB & All DBs	Each	10.00	9,756.55	97,566

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
13	24/90	P/F wall mounted DB (Distribution Board) made with 16SWG Sheet (Recessded/Surface mounted Type), Powder coated Paint, i/c the cost of Lock, Indication lights,Thimble, Copper Comb, Wiring, Netural & Earth Bar, Door Earthing, Digital Voltmeter, Digital Ammeter,Volt Selector Switch,Ammeter selector switch,Current Transformers and Controles Complete in all respect as approved and directed by the Engineer Incharge (Breakers will be Paid Separately).				
		(a) 6" deep				
		(i) 20~60A				
		DB admin block	Cft	1.50	19,686.70	29,530
		DB workshop & Shed-1,2	Cft	1.50	19,686.70	29,530
		DB GR,EXT	Cft	1.50	19,686.70	29,530
		MPB	Cft	2.50	19,686.70	49,217
15	24/105/iii	Supply, insatllation, commissioning and testing of oil cooled type, Step down Power Transformer of specified rating,11/0.415 kV, i/c the cost of lifting hooks, thermometers, LT & HT bushing 5-steps, tap changer, imported double float buchholz relay, 2 earthing terminals, roller wheels, connecting terminals for cables M.S box on transformer in order to cover complete L.T side, all necessary materials required for connections on H.T & L.T side, rated voltage 11000/415/240 V impedance 6.25% or as specified by WAPDA/IEC system earth: Delta / Star, neutral solidly earthed, i/c Wapda testing charges,complete in all respects made of PEL, Siemens, as approved and directed by the Engineer Incharge				
		(iii) 25 KVA	Each	1.00	581,485.15	581,485
16	24/70	Earthing of iron clad/aluminum switches, etc. with G.I. wire No. 8 SWG in G.I. pipe 15 mm (½") dia, recessed or on surface of wall and floor, complete with 1.5 metre long G.I. pipe, 50 mm (2") dia with reducing socket 4 to 5 metre below ground level, and 2 metre away from building plinth.	Job	3.00	10,198.95	30,597
17	24/72	Bonding to earth with wire on surface, including cost of wire, clamps, thimbles, etc.				
		a) G.I. wire:				
		i) 8 SWG	Per Rft.	100.00	25.20	2,520
		Sub Total Scheduled Items: (A)				**6,404,374**
18	N.S Rate Analysis	Providing and making Manhole 2'x2' internal size including 9" thick brick masonry (1:4), 1/2" th. Plastering (1:3) i/side, benching with PCC 1:2:4 4" th. with cement finish, including manhole cover, complete in all respects.	Each	14.00	18,969.75	265,576

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	1st Bi-Annual-2023 (Jan to Jun) Jehlum	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
19	N.S.	Supply, installation, testing, and comissioning of following equipment to be installed in already made DB Box for motor including cost of all necessary accessories i.e: contactors, relay, indication lights, with ON/OFF push button complete in all respects.				
		ii) Direct of Line (DOL) Starter for 5HP Motor	Set	1.00	57,060	57,060
		Total Cost (Part B)			**Rs.**	**322,636**
		Grand Total (Part A + Part B)			**Rs.**	**6,727,010**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

DETAILED COST ESTIMATE

ENVIRONMENTAL HEALTH & SAFETY COST

Sr No	Description	Unit	Quantity	Unit Rate (Rs.)	Amount Rs.
	Labor Safety				
1	Face Masks (3 PLY) Box	Nos	10.00	700.00	7,000
2	Safety Gum Shoes	Nos	15.00	1,350.00	20,250
3	Hand Gloves	Nos	15.00	245.00	3,675
4	First Aid Box (Including essential Medicine)	Nos	1.00	5,000.00	5,000
5	Safety Hard Helmets MSA	Nos	15.00	2,000.00	30,000
6	Safety Goggles	Nos	15.00	550.00	8,250
7	Reflective Safety Vests	Nos	15.00	550.00	8,250
				Sub Total	**82,425**
	Working Site Safety				
1	Reflective Safety Signs Boards	Nos	2.00	10,000.00	20,000
2	Reflective Safety Barricading Tape	Nos	2.00	1,500.00	3,000
3	Fire Extinguishers DCP	Nos	1.00	7,000.00	7,000
				Sub Total	**30,000**
	Total Amount (Rs)				**112,425**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

Rate Analysis - 1

Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (crushed stone aggregate and bajri used in concrete items) (Lead 180 Km)

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs.)
1	1/1	Carriage of 100 cft of all materials like stone aggregate spawl kanker lime surkhi etc or 150 cft of timber by truck or by any other means owned by the contratcor.					
		1st KM	100 Cft	1	1	305.40	305
		2nd KM	100 Cft	1	1	145.65	146
		3rd KM	100 Cft	1	1	114.65	115
		4th KM	100 Cft	1	1	81.20	81
		5th KM	100 Cft	1	1	75.85	76
		6th KM	100 Cft	1	1	74.60	75
		7th KM	100 Cft	1	1	69.60	70
		8th KM	100 Cft	1	1	68.86	69
		9th KM	100 Cft	1	1	64.75	65
		10th KM	100 Cft	1	1	60.75	61
		From 11 km to 200 km	100 Cft	170	1	52.20	8,874
		Total.					**9,935.31**
		Total Amount per 100 Cft					**9,935.31**
		Total Cost for Per Cft					**99.35**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

EARTH WORK LEAD CHART

Rate Analysis - 2

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Lead	Unit.	Qty	Rate (Rs)	Amount (Rs)
1	3/5/i	Earthowrk in ordinary soil for embankments lead upto 100 ft. (30 m), 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:-	1	1000Cft	1	9,963.35	9,963.35
		i) 95% to 100% maximum modified AASHO dry density.					
2	3/17a.b.c	**Carriage**					
		upto ¼ mile (400 m).	1	1000 Cft	1	4,472.30	4,472.30
		for every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)	12	1000 Cft	1	36.85	442.20
		for every ¼ mile (400 m) additional lead or part thereof, beyond one mile (1.6 Km.) upto 5 mile (8 Km).	8.5	1000 Cft	1	323.50	2,749.75
		for every ½ mile (800 m) additional lead or part thereof, beyond 5 miles (8 Km).	0	1000 Cft	1	305.45	-
		Total Amount I,000 (Rs.).					**17,627.60**
		Total Amount Per Cft					**17.63**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

Rate Analysis - 3

Description

Providing and laying sub-base course of stone product of approved quality and grade including, placing, mixing, spreading and compaction of sub base material to required depth, camber and grade to achieve 98% maximum dry density determined according to AASHTO T-180 method-D, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)

Crush Stone

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs)
1		**Material**					
	18-3 a(ii)	ii) Crushed stone aggregate.	100 Cft	1	1	8,915.25	8,915.25
2		**Carriage**					
		1st KM	100 Cft	1	1.2	305.40	366.48
		2nd KM	100 Cft	1	1.2	145.65	174.78
		3rd KM	100 Cft	1	1.2	114.65	137.58
		4th KM	100 Cft	1	1.2	81.20	97.44
		5th KM	100 Cft	1	1.2	75.85	91.02
	1/1	6th KM	100 Cft	1	1.2	74.60	89.52
		7th KM	100 Cft	1	1.2	69.60	83.52
		8th KM	100 Cft	1	1.2	68.86	82.63
		9th KM	100 Cft	1	1.2	64.75	77.70
		10th KM	100 Cft	1	1.2	60.75	72.90
		From 11 km to 200 km	100 Cft	6.00	1.2	52.20	375.84
		Total.					**10,564.66**
		Total Amount per 100 Cft					**10,564.66**
		Total Cost for Per Cft					**105.65**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

Rate Analysis - 4

Providing and laying base course of crushed stone (Water Bound Macadam) of approved quality and grade including, placing, mixing, spreading and compaction of base course material to required depth, camber and grade to achieve 100% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as per specifications and as directed by the engineer incharge. (Crushed stone aggregate from sargodha querry to site, actual compacted depth shall be considered for payment)

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs.)
1	18/4(a)	Crushed stone	100 Cft		1	11,965.75	11,966
2		Carriage of 100 cft of all materials like stone aggregate spawl kanker lime surkhi etc or 150 cft of timber by truck or by any other means owned by the contratcor.					
		1st KM	100 Cft	1	1.22	305.40	373
		2nd KM	100 Cft	1	1.22	145.65	178
	1/1	3rd KM	100 Cft	1	1.22	114.65	140
		4th KM	100 Cft	1	1.22	81.20	99
		5th KM	100 Cft	1	1.22	75.85	93
		6th KM	100 Cft	1	1.22	74.60	91
		7th KM	100 Cft	1	1.22	69.60	85
		8th KM	100 Cft	1	1.22	68.86	84
		9th KM	100 Cft	1	1.22	64.75	79
		10th KM	100 Cft	1	1.22	60.75	74
		From 11 km to 200 km	100 Cft	170	1.22	52.20	10,826
		Total.					**24,086.83**
		Total Amount per 100 Cft					**24,086.83**
		Total Cost for Per Cft					**240.87**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

Rate Analysis - 5

Manhole Construction 2 x 2 Ft — **Unit** **Each**

Sr. No.	1st BI-Annual-2023 (jan to june) Jehlum	Description	No.	Length	Width	Height	Qty	Unit	Rate (Rs)	Amount (Rs)
1		Excavation.								
	3-42-i	(0 to 7 feet depth)	1	3.50	3.50	3.00	36.75	1000 Cft	12,836.55	471.74
2	6-3-b	Cement concrete brick or stone ballast (1:4:8)	1	3.50	3.50	0.33	4.04	100 Cft	25,774.80	1,041.95
3	6-5-f	Base slab	1	3.50	3.50	0.25	3.06	100 Cft	37,614.70	1,151.95
4	6-6-(a)(i)	Top ring Beam Ratio 1:2:4	1	3.500	3.50	0.33	4.04	100 Cft	566.35	2,289.47
5	6/12 (c)	Steel work		3.00 kg per cft			14.15	kg	31,945.90	4,519.95
6	7-7-i	Brick Work Ratio 1:3								
		Step - 1	1	11.00	0.75	2.00	16.50	100 Cft	35,060.90	5,785.05
7	11-8-c	3/4" thick Plaster Ratio 1:3 (External)	1	11.00		2.00	22.00	100 Sft	4,850.65	1,067.14
8	11-18-a	Cement pointing struck joints, on walls (1:2) (Internal)	1	8.00		2.00	16.00	100 Sft	3,774.25	603.88
9	13-9-i	Bitumen Coating on External Plaster	1	11.00		2.00	22.00	100 Sft	2,301.00	506.22
10	19-40-ii	Supply and fitting of cast iron manhole cover ii) 45 cm (18") dia	1				1.00	Each	1,532.40	1,532.40
								Grand Total.		**18,970**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

RATE ANALYSIS

Description

Providing, laying and fixing in position Pre-Engineered shed as per drawings and manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick (50-60 gm/sqm) fixed with rivet and bolts over GI Purlins 200x6 (OSF) 200 to 500 (Web)X4 200X6 (ISF) as shown in drawing No. ST-14 with approved Colour/ paint fitted with J-Type bolt having length 500 mm as shown in drawing. This item includes all kind of leads, lifts, fitting charges etc. complete in all respect excluding Cost of substructure i.e. foundation. Approval of manufacturer must be sought from Engineer Incharge prior to placement of order.

									Unit.	**Per Sft**

Sr. No.	**Ref**	**Detail**	**Unit Rate (British System) per Sft**						
					Qty		**Rate Per Unit**		**Amount (Rs.)**
		Area 1 Sft							
		Material							
1	MR	Supply of PEB Shed			1	Sft	1,888.00	Sft	1,888
								Total.	**1,888**
		Contractor's Profit	20	%					378
		Total							**2,266**
		ITEM RATES							
		Composite rate Per Sft						**Rs.**	**2,270**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
RATE ANALYSIS

Rate Analysis for 3.50' x 7' = 24.50 Sft

Sr. No.	Ref Input Rate	Detail		Unit Rate (British System) per Sft				
				Qty.		Rate Per Unit (Rs.)		Amount (Rs.)
A		**Material**						
	12.014	**Formica sheet (8' x 4') (Rate - 1400 Per Sheet)**						
		Size 3.50' x 7' = 24.50		24.50	Sft			
				24.50	Sft			
		Wastage 5%	5 %	1.23	Sft			
		Total		25.73	Sft	43.75	P. Sft	1,125.47
							Total	**1,125.47**
B		**Fitting**						
1	12.039	Glue (Bottle) Best Quality		0.50	Kg	200.00	Kg	100.00
							Total	**100.00**
C		**Labour**						
	LB-029	Carpenters		0.10	Nos	1400.00	P. Day	140.00
	LB-024	Skilled Cooly		0.10	No	1400.00	P. Day	140.00
		Total						**280.00**
		Sundries	10 %					28.00
		Total						**308.00**
							Total (A+B+C)	**1,533.47**
		Contractor's profit	20 %					306.69
		Total for 24.50 Sft.						**1,840.16**
		Rate Per Sft						**75.11**
		Item Rates						
		Composite Rate Per Sft					**Rs.**	**75.11**
		Composite Rate Per Sqm					**Rs.**	**808.18**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

RATE ANALYSIS

Description

Supply, installation, testing, and comissioning of following equipment to be installed in already made DB Box for motor including cost of all necessary accessories i.e: contactors, relay, indication lights, with ON/OFF push button complete in all respects.

Unit. **Each**

Sr. No.	Ref	Detail	Unit Rate (British System) per Each			
			Qty	Rate Per Unit		Amount (Rs.)
		Material				
1	MR	i) Direct of Line (DOL) Starter for 5HP Motor	1.00	No.	44,600	No.
					Total.	**44,600**
2		Carriage & Installation Charges				2,945
					Total.	**47,545**
		Contractor's Profit on item No. (1&2)	20	%		9,509
		Total				**57,054**
		ITEM RATES				
		Composite rate Per Each			**Rs.**	**57,060**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

RATE ANALYSIS

Description

Supply, installation, testing, and comissioning of following equipment to be installed in already made DB Box for motor including cost of all necessary accessories i.e: contactors, relay, indication lights, with ON/OFF push button complete in all respects.

Unit. **Each**

Sr. No.	Ref	Detail	Unit Rate (British System) per Each		
			Qty	Rate Per Unit	Amount (Rs.)
		Material			
1	MR	i) Direct of Line (DOL) Starter for 3HP Motor	1.00 No.	33,500 No.	
				Total.	**33,500**
2		Carriage & Installation Charges			2,230
				Total.	**35,730**
		Contractor's Profit on item No. (1&2)	20 %		7,146
		Total			**45,106**
		ITEM RATES			
		Composite rate Per Each		**Rs.**	**45,110**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

RATE ANALYSIS

Description

Supply, Installation, testing and commissioning of following Flood Light, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.

Unit. **Each**

Sr. No.	Ref	Detail	Unit Rate (British System) per Each		
			Qty	Rate Per Unit	Amount (Rs.)
		Material			
1	MR	Flood Light	1.00 No.	5,525 No.	8,800
				Total.	**8,800**
2		Carriage & Installation Charges			276.25
				Total.	**9,076**
		Contractor's Profit on item No. (1&2)	20 %		1,815
		Total			**10,892**
		ITEM RATES			
		Composite rate Per Each		**Rs.**	**10,891**
		Say		**Rs.**	**10,900**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB

RATE ANALYSIS

Description

Supply, Installation, testing and commissioning of following size 56" ceiling fan, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.

Unit. **Each**

Sr. No.	Ref	Detail	Unit Rate (British System) per Each		
			Qty	Rate Per Unit	Amount (Rs.)
		Material			
1	MR	Ceiling Fan	1.00 No.	5,525 No.	5,525
				Total.	**5,525**
2		Carriage & Installation Charges			276.25
				Total.	**5,801**
		Contractor's Profit on item No. (1&2)	20 %		1,160
		Total			**6,962**
		ITEM RATES			
		Composite rate Per Each		**Rs.**	**6,961**
		Say		**Rs.**	**7,000**

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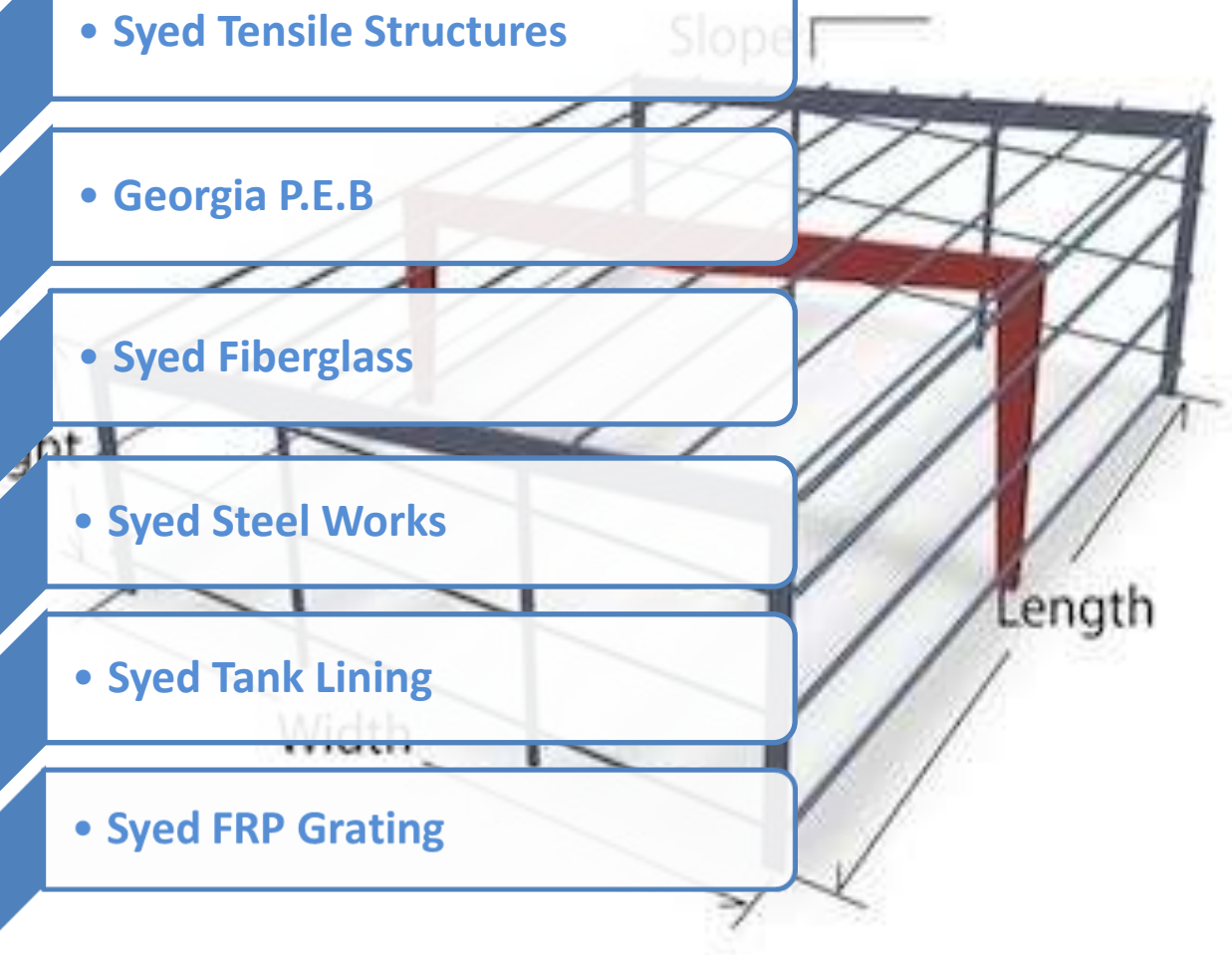


Customer Information	
Customer Name:	**JERS CONSULTANCY Pvt. Ltd.**
Address:	Lahore
Phone:	
Fax:	
Email:	

Attention: SADAT WALEED SHB

Subject: Supply & Installation of Pre-Engineered Building within Punjab

Project: Parking Sheds

Our Reference: PK-12-203

Date: 14th JAN-2023

Revision No.: 00

Dear Sir,

Thank you for giving us the opportunity to quote. This proposal is based on our prime standards for design and fabrication. However, the overall dimensions and layout are in general accordance with your inquiry.

Looking forward to serve quality and safety with firm commitments.

Regards

Syed Abdullah Awais Ghaznavi
Director Marketing
0300-8470397

Nisar Sabir Bhatti
Director Technical
03334310860

Building Descriptions

(48í x 16í x 24í): Covered Area: 768sft

Building Parameters		
1	Frame Type	Butter Fly Frame
2	Length (m)	14.630 o/o of steel line
3	Width (m)	4.876 o/o of steel line
4	Clear Height (m)	3.660
5	Roof Slope	1:10
6	Bays Spacing	4 @ 3.660
7	Left End Wall Columns Spacing	1 @ 4.876
8	Right End Wall Columns Spacing	1 @ 4.876
9	Type of End Frame	Bearing Frame at both ends
10	Eave Condition	Eave Gutter and down pipe
11	Flange Thickness	6mm ~ 10mm
12	Web Thickness	5mm ~ 8mm
13	Purlin Thickness	1.5mm

Open Wall Conditions		
1	Near Side Wall	Full height open for access.
2	Far Side Wall	Full height open for access.
3	Left End Wall	Full height open for access.
4	Right End Wall	Full height open for access.

Building Descriptions

(132í x 16í x 24í): Covered Area: 2,112sft

Building Parameters		
1	Frame Type	Butter Fly Frame
2	Length (m)	40.231 o/o of steel line
3	Width (m)	4.876 o/o of steel line
4	Clear Height (m)	3.660
5	Roof Slope	1:10
6	Bays Spacing	11 @ 3.660
7	Left End Wall Columns Spacing	1 @ 4.876
8	Right End Wall Columns Spacing	1 @ 4.876
9	Type of End Frame	Bearing Frame at both ends
10	Eave Condition	Eave Gutter and down pipe
11	Flange Thickness	6mm ~ 10mm
12	Web Thickness	5mm ~ 8mm
13	Purlin Thickness	1.5mm

Open Wall Conditions		
1	Near Side Wall	Full height open for access.
2	Far Side Wall	Full height open for access.
3	Left End Wall	Full height open for access.
4	Right End Wall	Full height open for access.

Building Descriptions

(72í x 16í x 24í): Covered Area: 1,152sft

Building Parameters		
1	Frame Type	Butter Fly Frame
2	Length (m)	21.945 o/o of steel line
3	Width (m)	4.876 o/o of steel line
4	Clear Height (m)	3.660
5	Roof Slope	1:10
6	Bays Spacing	6 @ 3.660
7	Left End Wall Columns Spacing	1 @ 4.876
8	Right End Wall Columns Spacing	1 @ 4.876
9	Type of End Frame	Bearing Frame at both ends
10	Eave Condition	Eave Gutter and down pipe
11	Flange Thickness	6mm ~ 10mm
12	Web Thickness	5mm ~ 8mm
13	Purlin Thickness	1.5mm

Open Wall Conditions		
1	Near Side Wall	Full height open for access.
2	Far Side Wall	Full height open for access.
3	Left End Wall	Full height open for access.
4	Right End Wall	Full height open for access.

Building Descriptions

(120í x 32í x 30í): Covered Area: 3,840sft

Building Parameters		
1	Frame Type	Butter Fly Frame
2	Length (m)	36.574 o/o of steel line
3	Width (m)	9.753 o/o of steel line
4	Clear Height (m)	4.572
5	Roof Slope	1:10
6	Bays Spacing	10 @ 3.660
7	Left End Wall Columns Spacing	1 @ 9.753
8	Right End Wall Columns Spacing	1 @ 9.753
9	Type of End Frame	Bearing Frame at both ends
10	Eave Condition	Eave Gutter and down pipe
11	Flange Thickness	6mm ~ 10mm
12	Web Thickness	5mm ~ 8mm
13	Purlin Thickness	1.5mm

Open Wall Conditions		
1	Near Side Wall	Full height open for access.
2	Far Side Wall	Full height open for access.
3	Left End Wall	Full height open for access.
4	Right End Wall	Full height open for access.

Building Descriptions

(60í x 32í x 30í): Covered Area: 1,920sft

Building Parameters		
1	Frame Type	Butter Fly Frame
2	Length (m)	18.3 o/o of steel line
3	Width (m)	9.753 o/o of steel line
4	Clear Height (m)	4.572
5	Roof Slope	1:10
6	Bays Spacing	5 @ 3.660
7	Left End Wall Columns Spacing	1 @ 9.753
8	Right End Wall Columns Spacing	1 @ 9.753
9	Type of End Frame	Bearing Frame at both ends
10	Eave Condition	Eave Gutter and down pipe
11	Flange Thickness	6mm ~ 10mm
12	Web Thickness	5mm ~ 8mm
13	Purlin Thickness	1.5mm

Open Wall Conditions		
1	Near Side Wall	Full height open for access.
2	Far Side Wall	Full height open for access.
3	Left End Wall	Full height open for access.
4	Right End Wall	Full height open for access.

Building Descriptions

(96í x 32í x 30í): Covered Area: 3,072sft

Building Parameters		
1	Frame Type	Butter Fly Frame
2	Length (m)	27.430 o/o of steel line
3	Width (m)	9.753 o/o of steel line
4	Clear Height (m)	4.572
5	Roof Slope	1:10
6	Bays Spacing	8 @ 3.660
7	Left End Wall Columns Spacing	1 @ 9.753
8	Right End Wall Columns Spacing	1 @ 9.753
9	Type of End Frame	Bearing Frame at both ends
10	Eave Condition	Eave Gutter and down pipe
11	Flange Thickness	6mm ~ 10mm
12	Web Thickness	5mm ~ 8mm
13	Purlin Thickness	1.5mm

Open Wall Conditions		
1	Near Side Wall	Full height open for access.
2	Far Side Wall	Full height open for access.
3	Left End Wall	Full height open for access.
4	Right End Wall	Full height open for access.

Design Loads:		
1	Design Live Load (kN/m2) on roof	0.10
2	Design Live Load (kN/m2) on frame	0.57
3	Co-lateral Load (kN/m2)	0.00
4	Wind Speed (kmph)	135
5	Earthquake Zone	Zone 2
6	Rain Fall Intensity (cm/hr)	15

Roof External Sheet

Roof Panels Specifications		
Single Skin Panel	Profile	High rib sheet
	Nominal Thickness (mm)	0.45mm
	Finish	Pre-Painted
	Color	Off white

Material Specifications

The following is the list of the material standards and specifications for which the building components have been designed:

Material Specifications	
Mezzanine decking panels	ASTM A792M Grade 345 Class 1 Coating: AZ150
Self drilling Fasteners	High grade carbon steel; 5.5mm diameter with 19mm diameter washer and 3mm EPDM Seal.

Below are standard material specifications that will be used in the project. Georgia Construction Co reserves the right to make material substitutions and changes in specifications as and when deemed necessary.			
No.	**Materials**	**Specifications**	**Minimum Strength**
1.	**Built-Up Members**	ASTM A 36	F_y = 25 kN/cm^2
2.	**Hot-Rolled Members**		
	• Beams & Columns`	ASTM A 36	F_y = 25 kN/cm^2
3.	**Cold Formed Secondary Members**		
	• Galvanized Steel	ASTM A 653M SS Grade 340 Class 1	F_y = 34.0 kN/cm^2
4.	**Sheeting & Liner Panels**		
	• Zinc Alume Steel	ASTM A 792M Grade 345B, AZM 150	F_y = 34.5 kN/cm^2
5.	**X-Bracing Members**		
	• Cables	ASTM A 475 Extra High Strength	Breaking Load = 119.7 kN
	• Rods	ASTM A 615M Grade 300	F_u = 50.0kN/cm^2
		Or ASTM A 36M	F_u = 40.0kN/cm^2
	• Angles	ASTM A 572M Grade 345 Type 1	F_u = 45.0 kN/cm^2
6.	**Anchor Bolts**	ASTM A 36M Hot Dip Galvanized to ASTM A 153M Class C	F_y = 25.0 kN/cm^2 F_u = 40.0 kN/cm^2

Fy = Yield Strength, Fu = Tensile Strength

Steel Work Finish

Primary Steel

- All primary steel members will be cleaned and painted with one coat of Red **oxide** primer.

Secondary Steel

- All secondary steel members such as purlins, girts, eave struts, gable angles and base angles are made of pre-galvanized steel coils.

Supply & Installation Period

08 to 10 weeks from the latest date of receipt and acceptance of the following.

- Signed proposal (any change must be noted and initialed by both parties)
- Down payment

Supply Price.
Covered Area: (12,700sft)

Sr. No.	Building Descriptions	Qty	Unit Price	Total
1	Pre-Engineered Steel Building with in Punjab	12,700 sft	Rs: 1,600/sft	20,320,000/-

Note: Above quoted price without any taxes and Foundations. All prices are with complete transportation andinstallation at site.

Payment Terms & Conditions

- At signing of this contract (60%) of contract.
- After delivery of Frame at site (20%) of contract.
- After Delivery of sheeting and insulation at site (10%) of contract.
- After Completion of the work (10%) of contract.

- **Bank Details:**

Allied Bank	Bank Al Habib	Meezan Bank
Account Title: **Syed Fiberglass** Account No. 0010038163870010 Branch Cod. PK00536 Allied Bank 118-Temple Road, Lahore	**Account Title:** **Georgia Construction Co.** Account No. 0293-0981-004802-01-4 Branch Cod. 0293 Bank Al Habib Saddar Cantt Lahore.	**Account Title:** **Georgia Construction Co.** Account No. 0103625707 Branch Cod. 1139 Meezan Bank Nishat Colony Branch Lahore **Account Title:** **Syed Steel Works** Account No. 0219 0104080474 Branch Cod. 0219 Meezan Bank Qartaba Chowk, Lahore

Assumptions & Deviations

The following are always excluded from our scope as a general practice.

- All civil, electrical and plumbing works
- Maintenance works
- Demolishing or removal of existing structure

Few important notes are given below.

- Price will be revised in case of the project is put on-hold (due to any reason) for more than 20 days.
- This proposal will be signed by Georgia Construction and client (or his representative). Georgia Construction will proceed following this contract proposal for scope of work. Therefore, customer (or his consultant/architect) is requested to make sure that all his requirements have been entered into this proposal.
- **Quoted prices are valid only 7 working days.**
- Advance payment is none refundable.

ANNEXURE C
ECONOMIC BENEFITS

Economic Benefits

The construction of parking shed can be beneficial for the community in multiple ways. The Economic benefits of a parking shed are given below:

- A safe yard is provided for SWM vehicles in mechanized form.
- Parking shed helps to save a lot of energy. Car parking shade can be very beneficial to save a lot of energy by protecting it from the heat sun. The shades can allow maintaining a cooler environment for the vehicles and also reduces the amount of energy required to cool down from the heat of the sun.
- The parking shed helps in prevention of vehicles from rusting, sunlight, weather conditions, etc.
- In-house workshops are provided for the repairing and maintenance of vehicles.
- The parking shed provides safety to SWM vehicles.
- The parking shed helps in prevention from heating up of engines.

Annexure-D

Gant Chart

TENTATIVE PROJECT IMPLEMENTATION SCHEDULE FOR CONSTRUCTION OF PARKING SHED FOR SWM MACHINERY

YEAR (2022-2023)

Sr.No	Activity Name	MAY -23				JUN23				JUL-23				AUG-23				SEP-23				OCT-23			
1	Construction of Boundary Wall																								
2	Building & Allied Structures																								
3	Parking Sheds																								
4	Rehabilitation of existing Workshop & Washing area																								
5	Walkways & Pathways																								

Annexure-E
E&S Checklist and SOPs

ENVIRONMENTAL & SOCIAL SCREENING CHECKLIST

Instructions:

Environmental and Social Focal Persons (ESFPs)[1] nominated by the MCs for PCP environmental and social management, will use this checklist in field for environmental and social screening and categorization of each and every sub-project proposed to be executed under the Program.

Deputy Program Officers-Environmental and Social Management deputed by PMDFC in regional offices will technically assist and support the ESFPs/MCs in filling in of this Checklist

It is to be attached with the main document[2] of sub-projects at planning stage and will be duly signed by the relevant ESFP and endorsed by the respective DPO-ESM

This checklist focuses on environmental issues and social concerns. To ensure that social dimensions are adequately considered, Involuntary Resettlement Screening Checklist will also be used

(iii) The purpose of this E&S Screening Checklists is to identify potential "Negative" impacts of environmental and social attributes or to enhance the existing environmental & social benefits. Use the "remarks" section to discuss any anticipated mitigation measures.

Name of ESFP: Shahzad Tufail (MO I)

Name of MC: Jehlum

Sub-Project Sector: Solid Waste Management

Sub-Project Title: Parking area for S.W machinery (Salman Paras) Jehlum

Sub- Project Categorization:

E-1	**S-1**
E-2	**S-2**
E-3 ✓	**S-3** ✓

Date of Screening:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Sub-Project area adjacent to or within any of the following:			
Environmentally sensitive areas?			
Legally protected Area		X	
Any surface water body (river, canal, stream, lake, wetland) within 250 meter of the proposed sub project[3]		X	
Estuarine		X	

[1] In all MCs, ESFPs are notified by Local government; MO (I&S) are focal persons for environmental sector and MO(P) are focal persons for social sectors.

[2] It is meant as PC-I and/or engineering estimates of sub-project

[3] Ibid.

Screening Questions	Yes	No	Remarks
Special area for protecting biodiversity		✗	
Buffer zone of protected area		✗	
Mangroves Forest		✗	
Man-made forest /game reserve, orchid /crops or any other area of environmental importance		✗	
Socially sensitive /important areas/communities/ people?		✗	
PCRs and or any site of cultural/religious importance (Graveyard, Shrine, Mosque, Church, *Gordwarah*, Temple, Fort, archeological/historical site) within 100 m of the proposed subproject[4]		✗	
Sensitive receptors (Schools, colleges, hospitals and clinics) within 100 meter of the proposed sub project[5]		✗	
Any graveyard of local community (Muslims or Christians)		✗	
Any demographic or socio-economic aspects of the sub-project area that are already vulnerable (e.g., high incidence of marginalized populations, rural-urban migrants, illegal settlements, squatters, ethnic minorities, people with disabilities, people in old age, socially isolated segments[6] of the society and women or children)?		✗	
Already existing infrastructure [7](including public amenities) which may be required to dismantle or may be affected temporarily by any means?		✗	
B. Potential Environmental Impacts Will the Sub-Project cause…			
1. Disturbance to habitats/biodiversity of environmentally sensitive or protected areas?		✗	
2. Cutting of trees?		✗	
3. Disruption to habitats/biodiversity of surrounding ecosystem/environment?		✗	
4. Generation of wastewater during construction or operation?		✗	
5. Pollution of surface water/ground water due to wastewater discharge from construction site or due to direct/indirect disposal of waste water?		✗	

[4] According to Environmental Assessment Guidelines adopted by Punjab EPA

[5] Ibid.

[6] due to caste, creed, religion or gender e.g. transgender

[7] Sewerage /Drainage system, Water supply lines, tube-wells, WAPDA/Telephone transmission lines/electric poles, Railway tracks, Gas pipelines, Roads, Shops/Plazas, Banks, Industry, Disposal stations etc.

Screening Questions	Yes	No	Remarks
6. Alteration of surface water hydrology of waterways resulting in increased sediment in streams/rivers or due to increased soil erosion at construction site?		X	
7. Deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		X	
8. Over pumping of ground water, leading to salinization and ground subsidence?		X	
9. Serious contamination of soil due to construction works?		X	
10. Aggravation of solid waste problems in the area?		X	
11. Generation of hazardous waste?		X	
12. Increased air pollution due to sub-project construction and operation?		X	
13. Noise and vibration due to sub-project construction or operation?		X	
14. Creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents due to solid/liquid?		X	
15. Use of chemicals during construction?		X	
C: Potential Social Impacts Will the Sub-Project cause…			
1. Impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to Physical Cultural Resources (PCRs)?			
2. Displacement or involuntary resettlement of people? (physical displacement and/or economic displacement) (If "Yes", please also fill Involuntary Resettlement Screening Checklist)		X	
3. Disproportionate impacts on the poor, women and children and or other vulnerable groups [8](mentioned above)?		X	
4. Temporary impediments in movements of people/transport and animals?		X	

[8] Women, Children, Women headed households, People in old age, people having disabilities, socially isolated community groups and or people living below the poverty line

Screening Questions	Yes	No	Remarks
5. Large population influx during sub-project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		X	
6. Social conflicts if workers from other areas are hired?		X	
7. Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		X	
8. Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?		X	
9. Community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		X	
10. Any impact on sensitive receptors (mentioned above)		X	
11. Any impact of negative nature on already existing infrastructure including public amenities		X	

Prepared By: Shahzad Tufail

Name:

Signature:

Date: 23/2/21

Endorsed By: Tehmina Kiran

Name:

Signature:

Date: 23-2-21.

PUNJAB CITIES PROGRAM

ENVIRONMENT, HEALTH AND SAFETY SOPs FOR LABOR/WORKERS

Labor /workers play key role in the infrastructure development and construction activities. The objective of preparation of the EHS SOPs for Labor/Workers is to address environment, health and safety issues related to the proposed sub-project implementation. These SOPs will provide guidelines to be followed by the contractors for effective management of EHS issues related to labor/workers/daily wagers (including women). These SOPs will be annexed in the general conditions of all the contracts carried out under the PCP. These SOPs are designed for Punjab Cities Program and will be applicable to all types of labor/workers/daily wagers (including women), hired for the construction activities under PCP. Following are the anticipated Environment, Health and Safety issues and their recommended mitigation measures.

Table 1: Construction Camp Management

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
Siting and Location of construction camps	Camp sites for construction workers are the important locations that have significant impacts such as health and safety hazards on labor/workers Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.	The Contractor shall: Locate the construction camps at areas which are acceptable from environmental, cultural or social point of view. Consider the location of construction camps away from communities in order to avoid social conflict with the surrounding communities. Submit to the relevant MC for approval of a detailed layout plan for the development of the construction camp showing the relative locations of all temporary buildings and facilities that are to be constructed together with the location of site roads, fuel storage areas (for use in power supply generators), solid waste management and dumping locations, and drainage facilities, prior to the development of the construction camps. Local authorities responsible for health, religious and security shall be duly informed on the set up of camp facilities so as to maintain effective surveillance over public health, social and security matters
Construction Camp Facilities	Lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will generate social issues and impacts on health and environment.	Contractor shall provide the following facilities in the campsites: Adequate ventilation facilities Safe and reliable drinking water supply for personal hygiene (washing or bathing) Adequate housing for all workers Safe and reliable drinking water supply. Water supply from tube wells that meets the Punjab Environment Quality Standards Hygienic sanitary facilities, hand washing facilities and sewerage system. The toilets and domestic waste water will be collected

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		through a common sewerage. Provide separate latrines and bathing places for males and females with total isolation by wall or by location. Female toilets should be clearly marked in language or signage clearly understood by the persons using them to avoid miscommunication. The minimum number of toilet facilities required is one toilet for every ten persons. Storm water drainage facilities. Both sides of roads are to be provided with shallow v drains to drain off storm water to a silt retention pond which shall be sized to provide a minimum of 20 minutes retention of storm water flow from the whole site. Channel all discharge from the silt retention pond to natural drainage via a grassed swale at least 20 meters in length with suitable longitudinal gradient. Paved internal roads. Ensure with grass/vegetation coverage to be made of the use of top soil that there is no dust generation from the loose/exposed sandy surface. Pave the internal roads of at least haring-bond bricks to suppress dusts and to work against possible muddy surface during monsoon. Provide child crèches for women working on the construction site. The crèche should have facilities for dormitory, kitchen, indoor/outdoor play area. Schools should be attached to these crèches so that children are not deprived of education whose mothers are construction workers Provide in-house community/common entertainment facilities. Dependence of local entertainment outlets by construction camps to be discouraged/prohibited to the extent possible.
Disposal of Labor Camp waste	Management of wastes is crucial to minimize impacts on the environment as well as on the health of the workers/labor	The Contractor shall: Ensure proper collection and disposal of solid wastes within the construction camps Insist waste separation by source; organic wastes in one pot and inorganic wastes in another pot at household level. Store inorganic wastes in a safe place within the household and clear organic wastes on daily basis to waste collector. Establish waste collection, transportation and disposal systems at their own. Dispose organic wastes in a designated safe place on daily basis. At the end of the day cover the organic wastes with a thin layer of sand so that flies, mosquitoes, dogs, cats, rats, are not attracted. One may dig a large hole to put organic wastes in it; take care to protect groundwater from contamination by leachate formed due to decomposition. Cover the bed of the pit with impervious layer of materials (clayey, thin concrete) to protect groundwater from

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		contamination. Locate the garbage pit/waste disposal site min 500 m away from the residence so that peoples are not disturbed with the odor likely to be produced from anaerobic decomposition of wastes at the waste dumping places. Encompass the waste dumping place by fencing and tree plantation to prevent children to enter and play with. All solid waste will be collected and removed from the work camps and disposed in approval waste disposal sites.
Fuel supplies for cooking purposes	Illegal sourcing of fuel wood by construction workers will impact the natural flora and fauna	The Contractor shall: Provide fuel to the construction camps for their domestic purpose, in order to discourage them to use fuel wood or other biomass. Make available alternative fuels like natural gas or kerosene on ration to the workforce to prevent them using biomass for cooking. Conduct awareness campaigns to educate workers on preserving the protecting of biodiversity in the project area, and relevant government regulations and punishments on wildlife protection.
Health and Hygiene	There will be a potential for diseases to be transmitted including COVID-19, malaria, exacerbated by inadequate health and safety practices. There will be an increased risk of work crews spreading sexually transmitted infections and HIV/AIDS.	The Contractor shall: Provide adequate health care facilities within construction sites. Provide first aid box facility at the construction site round the clock. Maintain stock of medicines in the first aid facility in camp sites facility and appoint fulltime designated first aider or nurse. Provide ambulance facility for the laborers during emergency to be transported to nearest hospitals and telephone/mobile facility to call for Emergency Services 1122. Initial health screening of the laborers coming from outside areas Train all construction workers in basic sanitation and health care issues and safety matters, and on the specific hazards of their work Provide HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis Provide adequate drainage facilities throughout camps to ensure that disease vectors habitats (stagnant water bodies, puddles) do not form. Regular mosquito repellant sprays in monsoon. Carryout short training sessions on best hygiene practices to

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		be mandatorily participated by all workers. Place display boards at strategic locations within the camps containing messages on best hygienic practices Place display boards of contact information of nearest dispensary/health clinic/hospital
Safety	In adequate safety facilities to the construction camps may create security problems and fire hazards	The Contractor shall: Provide appropriate security personnel (police / home guard or private security guards) and enclosures to prevent unauthorized entry in to the camp area. Maintain register to keep track on a head count of persons present in the camp at any given time. Encourage use of flame proof material for the construction of labor housing/site office. Ensure that these houses/rooms are of sound construction and capable of withstanding storms/cyclones. Provide appropriate type of firefighting equipment suitable for the construction camps Display emergency contact numbers clearly and prominently at strategic places in camps. Communicate the roles and responsibilities of laborers in case of emergency in the monthly meetings with contractor.
Food Safety	There is potential for exposure to poisonous substances by ingestion	Suitable arrangements are to be made for provision of clean eating areas where workers are not exposed to the hazardous or noxious substances
Site Restoration	Restoration of the construction camps to original condition requires demolition of construction camps.	The Contractor shall: Dismantle and remove from the site all facilities established within the construction camp including the perimeter fence and lockable gates at the completion of the construction work. Dismantle camps in phases as the work decreases (do not wait for completion of the entire work. Give prior notice to the laborers before demolishing their camps/units Maintain the noise levels within the national standards during demolition activities Different contractors should be hired to demolish different structures to promote recycling or reuse of demolished material. Reuse the demolition debris to a maximum extent. Dispose remaining debris at the designated waste disposal site by MCs/ESFPs. Handover the construction camps with all built facilities as it is if agreement between both parties (contactor and land-owner) has been made so.

Activity/ Impact Source	EHS Concerns/issues	Mitigation Measures/ Management Guidelines
		Restore the site to its original condition or to an agreed condition with the landowner defined prior to the commencement of the works (in writing). Not make false promises to the laborers for future employment in O&M of the project.

Table 2: Cultural and Religious Issues

Activity/ Impact Source	Environmental Impacts	Mitigation Measures/ Management Guidelines
Construction activities	Disturbance in performance of religious activities	The Contractor shall: Provide separate prayer facilities (men and women) to the construction workers. Show appropriate and non-biased behavior with all construction workers irrespective of their religious or cultural affinities Allow the workers to participate in praying during construction time Inform the local authorities responsible for health, religious and security duly informed before commencement of civil works so as to maintain effective surveillance over public health, social and security matters In case of working during COVID-19 pandemic, SOPs for prayers in Mosque issued by the Government of Punjab, will be applicable and it will be responsibility of contractor to sensitize the labor/workers about it

Table 3: Workers/Labor Health and Safety at Construction Site

Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
Construction Activities	Construction works may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths. The population in the proximity of the construction site and the construction workers will be exposed to a number of (i) biophysical health risk factors, (e.g. noise,	The Contractor shall: Implement suitable safety standards for all workers and site visitors which should not be less than those laid down on the international standards (e.g. International Labor Office guideline on 'Safety and Health in Construction; World Bank Group's 'Environmental Health and Safety Guidelines') and contractor's own national standards or statutory regulations, in addition to complying with the national acts and rules of the Government of Pakistan Provide the workers with a safe and healthy work environment, taking into account inherent risks in its particular construction activity and specific classes of

Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
	dust, chemicals, construction material, solid waste, waste water, vector transmitted diseases etc), (ii) risk factors resulting from human behavior (e.g. STD, HIV etc) and (iii) road accidents from construction traffic.	hazards in the work areas, Provide Personal Protection Equipment (PPEs)1 for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones. Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job Appoint an environment, health and safety manager to look after the health and safety of the workers Inform the local authorities responsible for health, religious and security before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters
	Child and pregnant labor	The Contractor shall: not hire children of less than 14 years of age and pregnant women or women who delivered a child within 8 preceding weeks, in accordance with the Employment of Children Act (2015)2 and Pakistani Labor Laws and policies respectively .

1 Table 4 presents general examples of occupational hazards and types of PPE available for different purposes.

2 The ECA 2015 defines a child as a person who has not completed his/her 14th year of age. The ECA states that no child shall be employed or permitted to work in any of the occupations set forth in the ECA (such as transport sector, railways, construction, and ports) or in any workshop wherein any of the processes defined in the Act is carried out

Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
Accidents	Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victims	Provide health care facilities and first aid facilities are readily available. Appropriately equipped first-aid stations should be easily accessible throughout the place of work Document and report occupational accidents, diseases, and incidents. Prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, so far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice. Identify potential hazards to workers, particularly those that may be life-threatening and provide necessary preventive and protective measures. Provide awareness to the construction drivers to strictly follow the driving rules Provide adequate lighting in the construction area and along the roads
Water and sanitation facilities at the construction sites	Lack of Water sanitation facilities at construction sites cause inconvenience to the construction workers and affect their personal hygiene.	The contractor shall provide separate portable toilets and hand washing facilities at the construction sites, if about 25 people are working the whole day for a month. Location of portable facilities should be at least six m away from storm drain system and surface waters. These portable toilets should be cleaned once a day and all the sewerage should be pumped from the collection tank once a day and should be brought to the common septic tank for further treatment. Contractor should provide bottled drinking water facilities to the construction workers at all the construction sites.
Other issues	Potential risks on health and hygiene of construction workers and general public	The Contractor shall follow the following management measures to reduce health risks to the construction workers and nearby community: Drainage Management Air Quality Management Noise and Vibration Management Road Transport and Road Traffic Management
Trainings	Lack of awareness and basic knowledge in health care among the construction workforce, make them susceptible to potential diseases.	The Contractor shall: Train all construction workers in basic sanitation and health care issues (e.g., how to avoid COVID-193, malaria and transmission of sexually transmitted infections (STI) HIV/AIDS. Train all construction workers in general health and safety matters, and on the specific hazards of their work Training should consist of basic hazard awareness, site specific

3 .SOPs issued by the GoPunjab during COVID-19 Pandemic will be implemented

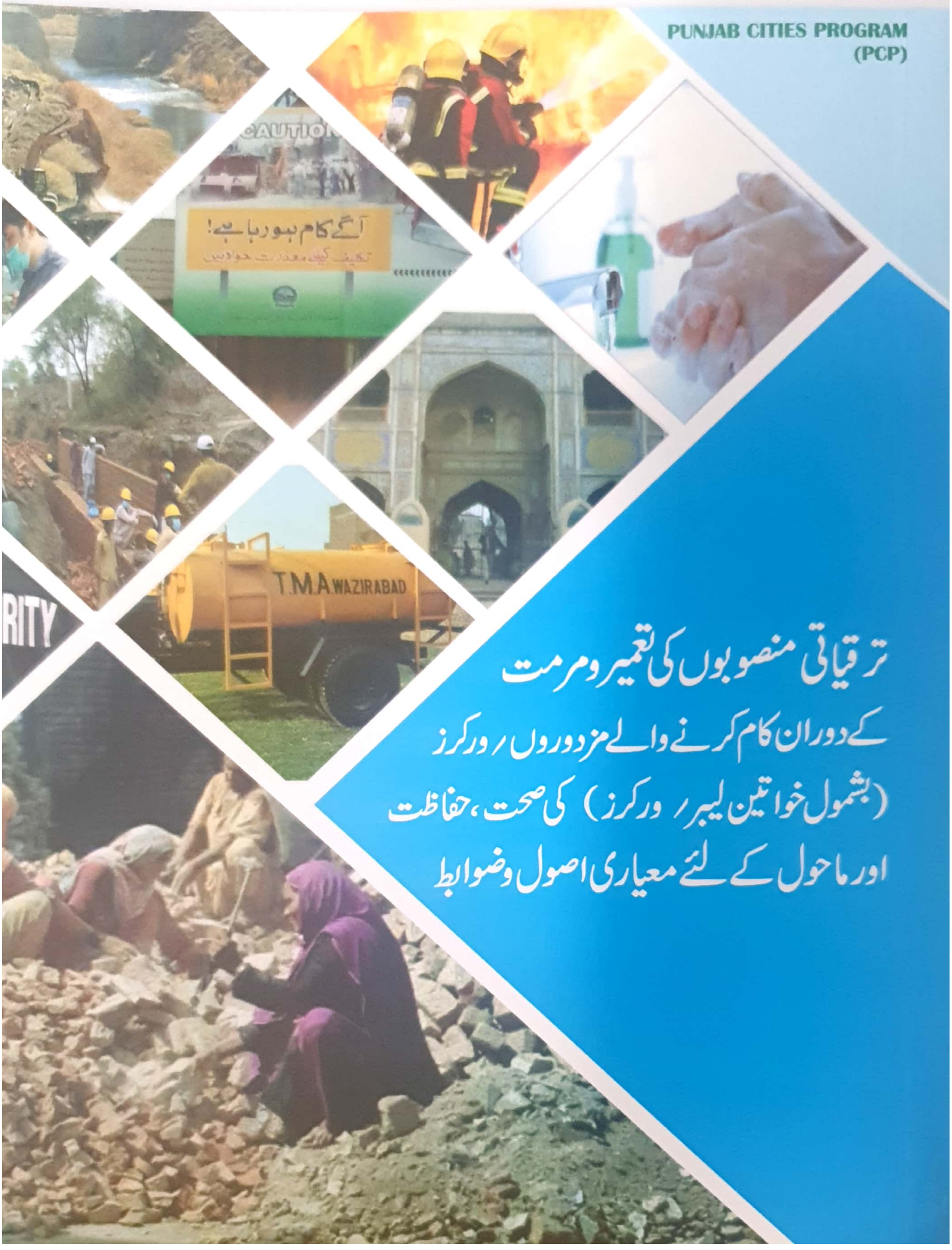
Activity/ Impact Source	Impacts	Mitigation Measures/ Management Guidelines
		hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Commence the COVID-19, malaria, HIV/AIDS and STI education campaign before the start of the construction phase and complement it with by a strong condom marketing, increased access to condoms in the area as well as to voluntary counseling and testing. Implement COVID-19, malaria, HIV/AIDS and STI education campaign targeting all workers hired, international and national, female and male, skilled, semi- and unskilled occupations, at the time of recruitment and thereafter pursued throughout the construction phase on ongoing and regular basis. This should be complemented by easy access to condoms at the workplace as well as to voluntary counseling and testing.

Table 4: Summary of Recommended Personal Protective Equipment According to Hazard[4]

Objective	Workplace Hazards	Suggested PPE
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.
	Oxygen deficiency	Portable or supplied air (fixed lines). On-site rescue equipment.
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration.	Insulating clothing, body suits, aprons etc. of appropriate materials.

4 Source: IFC Environmental, Health, and Safety (EHS) Guidelines

PUNJAB CITIES PROGRAM
(PCP)



ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں / ورکرز (بشمول خواتین لیبر / ورکرز) کی صحت، حفاظت اور ماحول کے لئے معیاری اصول وضوابط

حق اشاعت

پیش لفظ

لوکل گورنمنٹ اینڈ کمیونٹی ڈویلپمنٹ ڈیپارٹمنٹ اور پنجاب میونسپل ڈویلپمنٹ فنڈ کمپنی (PMDFC) نے ورلڈ بینک کے اشتراک سے پنجاب سیٹیز پروگرام (PCP) کا کامیابی سے اجرا کر دیا ہے. اس منصوبے کے تحت صوبہ پنجاب کے 16 چھوٹے شہروں (MCs) بشمول بہاولنگر، بوریوالا، خانیوال، کوٹ ادو، وہاڑی، گوجرہ، جھنگ، کمالیہ، اوکاڑا، ڈسکہ، حافظ آباد، جہلم، کاموکی، مریدکے [illegible] ترقیاتی کاموں پر کامیابی سے کام جاری ہے۔ ان ترقیاتی منصوبوں میں ویسٹ مینجمنٹ، پانی کی فراہمی، نکاسی آب [illegible] مرمت، کمیونٹی پارکس کی بحالی اور قدرتی آفات کی روک تھام کے منصوبہ جات شامل ہیں۔

پنجاب سیٹیز پروگرام (PCP) کے منصوبہ جات کی تکمیل کے دوران سماجی اور ماحولیاتی مسائل کی جانچ پڑتال اور اس کے حل کے لئے انوائرنمنٹل اینڈ سوشل سیف گارڈز (ESSs) ٹیم نے انوائرنمنٹل اینڈ سوشل مینجمنٹ فریم ورک (ESMF) بنایا ہے. مختلف منصوبہ جات اسی فریم ورک کی رو سے پایہ تکمیل تک پہنچ رہے ہیں۔

تعمیراتی اور ترقیاتی کاموں کی تکمیل میں تعمیراتی جگہوں پر کام کرنے والے مزدوروں/لیبر (بشمول خواتین) کی صحت اور کام کرنے کے دوران حفاظت بہت اہمیت رکھتی ہے۔ اس اہم مسئلہ کو ملحوظِ خاطر رکھتے ہوئے، پی ایم ڈی ایف سی کے زیرِ اہتمام پنجاب سٹیز پروگرام کی انوائرنمنٹ اینڈ سوشل مینجمنٹ ٹیم نے **" ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں، ورکرز (بشمول خواتین لیبر/ورکرز) کی صحت، حفاظت اور ماحول کیلئے بنیادی اصول وضوابط"** مرتب کے ہیں تاکہ متعلقہ میونسپل کمیٹیز/کارپوریشنز (MCs) کے عہدیداران اور ٹھیکیداران کو آگاہی فراہم کی جائے۔

اغراض و مقاصد

۱۔ مجوزہ معیاری اصول وضوابط پنجاب سیٹیز پروگرام (PCP) کے تحت پنجاب میونسپل ڈویلپمنٹ فنڈ کمپنی (PMDFC) کے ماہرین ماحولیات نے پروگرام ڈائریکٹر (PCP) اور ڈپٹی پروگرام ڈائریکٹر (PCP) کی زیرنگرانی تشکیل دیئے ہیں۔

۲۔ شہری ترقی کے ترقیاتی منصوبہ جات کی تعمیر ومرمت میں مزدور/ورکرز بنیادی کردار ادا کرتے ہیں۔ ان (SOPs) کا بنیادی مقصد مزدور/ورکرز (بشمول خواتین لیبر / ورکرز) کو تعمیراتی جگہوں (Constrcution sites) اور لیبر کیمپس میں ماحولیاتی اور سماجی تحفظ فراہم کرنا اور صحت، ماحولیات اور کسی خطرناک صورتحال سے بچنے کے لئے حفاظت فراہم کرنا ہے۔

۳۔ یہ SOPs (PCP) پنجاب سیٹیز پروگرام کے تحت 16 شہروں کی میونسپل کمیٹیز/کارپوریشنز میں تعمیر ومرمت کے تمام پراجیکٹس پر لاگو ہوں گے۔

۴۔ یہ SOPs مزدوروں/کام کرنے والوں/دیہاڑی دار (بشمول خواتین) پر بلاتخصیص لاگو ہوں گے۔

۵۔ ان SOPs کو موثر اور یقینی بنانے کے لئے انھیں ٹھیکیداروں کے کنٹریکٹ کا حصہ بنانا اور ان پر عمل درآمد کرانا میونسپل کمیٹیز/کارپوریشنز کی ذمہ داری ہے۔ جسے پی ایم ڈی ایف سی کی متعلقہ پروگرام ٹیم یقینی بنائے گی۔

پیغام

پاکستان کی ترقی میں تعمیراتی کاموں کے دوران کام کرنے والا مزدور طبقہ نہایت اہمیت کا حامل ہے اور انکے صحت وتندرستی سے متعلق مسائل کا مؤثر حل انتہائی ضروری ہے۔ " ترقیاتی منصوبوں کی تعمیر و مرمت کے دوران کام کرنے والے مزدوروں / ورکرز (بشمول خواتین لیبر/ورکرز) کی صحت، حفاظت اور ماحول کیلئے بنیادی اصول وضوابط " کی اشاعت و ترویج اوران پر بروقت عمل درآمد بے حد ضروری ہے جس سے اس طبقے کے بنیادی حقوق کا تحفظ یقینی بنایا جا سکے گا اور اس طرح اس طبقے کی کارکردگی میں بھی بہتری نظر آئے گی۔ ان اصولوں کے تحت ہر ٹھیکیدار کو ورکرز کی صحت اور حفاظت کی ذمہ داری دی گئی ہے۔ مزدور تعمیراتی کاموں کے دوران خطرات کے مطابق ذاتی حفاظتی سامان بھی استعمال کریں گے جس سے دوران کام حادثات میں بھی نمایاں کمی نظر آئے گی۔ ماحولیات اور صحت کے اصولوں کو مدنظر رکھتے ہوئے ہر سطح پر ہم اس بات کو یقینی بنانے کی کوشش کریں گے کہ ہماری پالیسیاں اور طرز عمل فعال ہوں۔ ماحولیات، صحت اور حفاظت (EHS) کے اصولوں کو اپنانے میں کسی بھی قسم کا سمجھوتہ نہیں کیا جائے گا۔ میں امید کرتا ہوں کہ ان اصول وضوابط کی روشنی میں مزدور/ورکرز (بشمول خواتین لیبر) کے حقوق کی پاسداری کو ایک نیا رخ ملے گا اور حکومتی عہدیداران اور ٹھیکیداران بھی اپنی ذمّہ داریوں کا احساس کریں گے۔ اوراس سلسلے میں پی ایم ڈی ایف سی اور پنجاب سیٹیز پروگرام کی انوائرنمنٹ اینڈ سوشل سیف گارڈز (ESSs) ٹیم بلاشبہ مبارکباد کی مستحق ہے اور یہ توقع کی جا سکتی ہے کہ وہ مستقبل میں ان قواعد وضوابط کی نگرانی کے لئے بھرپور اقدامات کریں گے۔

محمد عامر نذیر
پروگرام ڈائریکٹر
پنجاب سیٹیز پروگرام (PCP)

زیر نگرانی

افتخار رسول
ڈپٹی پروگرام ڈائریکٹر
پنجاب سیٹیز پروگرام (PCP)

عاشق چوھدری
سینئر پروگرام آفیسر (انفراسٹرکچر)
پنجاب سیٹیز پروگرام (PCP)

تکنیکی ٹیم

رضوانہ انجم
پروگرام آفیسر (انوائرنمنٹ اینڈ سوشل سیف گارڈز)
پنجاب سیٹیز پروگرام (PCP)

تہمینہ کرن
ڈپٹی پروگرام آفیسر (ESSs)
پنجاب سیٹیز پروگرام (PCP)

کنزیٰ ندیم
ریسرچ اینالسٹ
پنجاب سیٹیز پروگرام (PCP)

(۱) لیبر کیمپس کے لئے معیاری اصول و ضوابط

سرگرمیاں

۱. مزدور / لیبر کیلئے عارضی کیمپ / رہائش گاہ کے انتظام و قیام کے لئے جگہ کا انتخاب

مسائل

- مقامی آبادی کے وسائل پر اضافی بوجھ
- مقامی آبادی سے تنازعات کا خدشہ
- سماجی، مذہبی، اور سکیورٹی کے مسائل۔

حفاظتی اقدامات

ٹھیکیدار لیبر کیمپس کے قیام کے وقت مندرجہ ذیل باتوں کا خیال رکھے گا:

- کیمپس ایسی جگہوں پر لگائے جائیں جو ماحولیاتی، مذہبی، سماجی اور ثقافتی نقطہ نظر سے قابل قبول ہوں۔
- مقامی آبادی کے ساتھ کسی تنازعہ سے بچنے کے لیئے آبادی سے دور جگہ کا انتخاب کیا جائے
- لیبر کیمپ کی جگہ اور سہولیات سے متعلق ایک تفصیلی نقشہ تیار کر کے متعلقہ میونسپل کمیٹی/کارپوریشن میں جمع کرایا جائے۔
- دیگر مقامی ادارے جیسے صحت، سکیورٹی وغیرہ کو لیبر کیمپ کے مقام اور مدت کے بارے مطلع کیا جائے تا کہ کسی ناگہانی صورتحال سے بچا جا سکے۔
- لیبر کیمپس کے قیام کیلیئے عارضی جگہ/زمین کا حصول زمین کے مالک کی مرضی، طے کردہ کرایہ اور باقاعدہ تحریری معاہدے کی صورت میں کیا جائے۔
- لیبر کیمپس سے ملحقہ بنیادی سہولتوں جیسے پینے کا پانی اور نکاسی آب کے انتظامات سے ماحولیاتی آلودگی میں اضافہ نہ ہو

سرگرمیاں

۲۔لیبر کیمپ میں مہیا کی جانے والی سہولیات

مسائل

- مناسب انفراسٹرکچر کی کمی
- بنیادی ضروریات اور سہولیات جیسے پانی اور بجلی کی فراہمی ،صفائی ستھرائی کی سہولیات اور نکاسی آب کی فراہمی

حفاظتی اقدامات

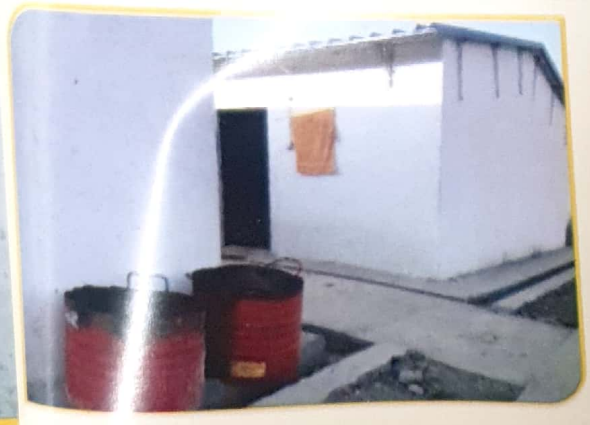
ٹھیکیدار کیمپ سائٹس پر درج ذیل باتوں کا خیال رکھے گا:

- ہوادار اور صاف ستھری رہائش گاہ
- عارضی کمروں کیلئے ایسے میٹریل کا استعمال جو جلد آگ نہ پکڑیں۔
- نہانے ،دھونے اور پانی پینے کیلیے صاف اور مناسب پانی کی فراہمی۔
- تمام مزدوروں کیلیئے مناسب جگہ کی موجودگی اور محفوظ ماحولیاتی معیار۔
- صاف ستھرے واش رومز اور نکاسی آب کا مناسب انتظام۔
- خواتین لیبر کیلیئے پردے اور پرائیویسی کا انتظام اور الگ کمروں کا قیام مزید براں خواتین لیبر کی موجودگی کی صورت میں اُنکے لیے علیحدہ ٹوائلٹس رواش رومز کا انتظام۔
- بین الاقوامی معیار کے مطابق ہر دس افراد کیلیئے مطلوبہ ٹوائلٹ کی سہولت کی تعداد ایک ہے۔
- اگر لیبر کیمپ طویل مدت کیلیئے لگایا جانا ہو تو بارشوں رسیلاب کے پانی سے بچنے کیلیئے مناسب انتظامات کا ہونا اور نکاسی آب کی فراہمی بے حد ضروری ہے۔
- ٹوائلٹس اور عارضی رہائش گاہوں میں بجلی کی فراہمی کو یقینی بنایا جائے۔ ۔

سرگرمیاں

۳۔ لیبر کیمپ سے پیدا ہونے والا سالڈ اور لیکوئڈ ویسٹ

مسائل



- تعفن اور بدبو
- صحت کے لیئے نقصان
- ماحولیات کے لیئے نقصان
- مقامی آبادی کے لیئے نقصان
- بیماریاں پیدا کرنے والے بیکٹیریا اور مچھروں کا ذریعہ

حفاظتی اقدامات

- روزمرہ پیدا ہونے والے کوڑا کرکٹ اور کچن کے کوڑا کرکٹ کے لیئے الگ الگ کوڑا دانوں کا انتظام
- میونسپل کمیٹی رکارپوریشن کی جانب سے منتخب کردہ جگہ پر روزانہ کی بنیاد پر کوڑے کو اٹھانے اور تلف کرنے کا مناسب انتظام۔
- عارضی ٹوائلٹس سے پیدا شدہ فضلے اور لیکوئیڈ ویسٹ کو حفظان صحت کے اصولوں کے مطابق ٹھکانے لگانے کا انتظام۔
- فضلے کو ٹھکانے لگانے کے لیئے رہائش گاہ سے کم از کم 500 میٹر دور جگہ کا انتخاب کیا جائے جس کے اردگرد لوگوں کی رہائش نہ ہو۔
- عارضی ٹوائلٹس سے پیدا شدہ فضلے کو ٹھکانے لگانے کے لیئے منتخب کردہ جگہ کے اردگرد باڑ لگائی جائے یا درخت لگا دیے جائیں تا کہ بچے اور دیگر رہائشی داخل نہ ہوں اور مچھر اور بدبو بھی پیدا نہ ہو۔

سرگرمیاں

٤۔ کھانا پکانے کے لئیے ایندھن کی فراہمی

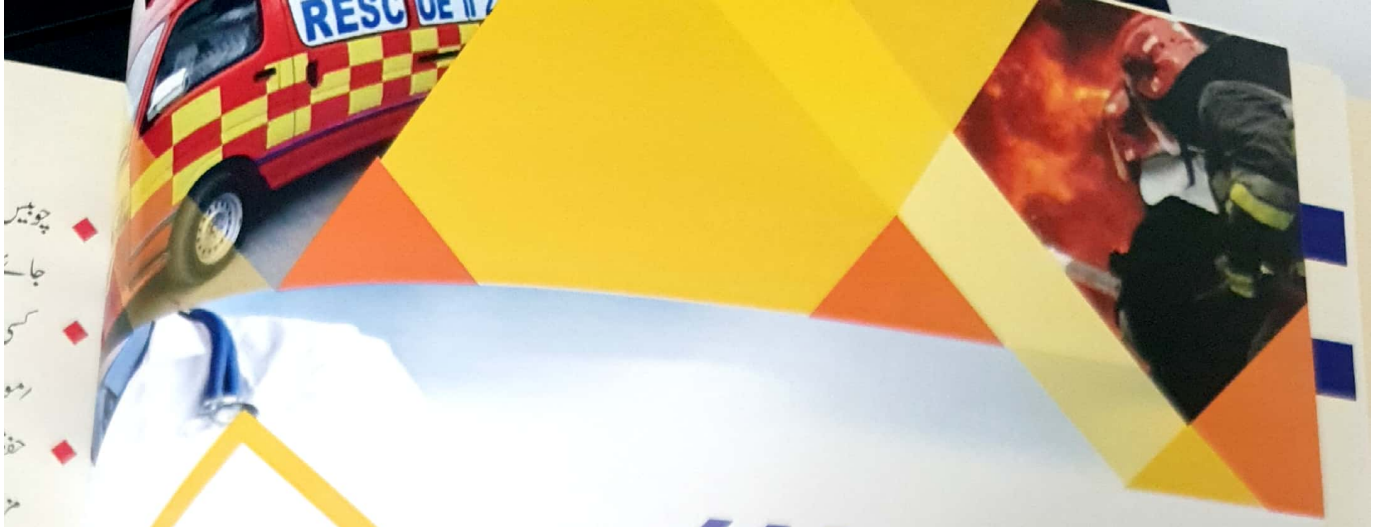
مسائل

- گیس اور دیگر ایندھن سے چلنے والے چولہوں کے پھٹنے کا اندیشہ
- ایندھن کے لیئے لکڑی کے حصول کے لیے درختوں کی کٹائی

حفاظتی اقدامات

ٹھیکیدار کیمپ سائٹس پر درج ذیل سہولیات مہیا کرے گا۔

- لیبر کیمپس میں کھانا پکانے، کمروں کو گرم رکھنے نیز سردیوں میں نہانے اور دھونے کے لیے گرم پانی کے لیے ایندھن کی لکڑی یا دیگر بائیو گیس استعمال کرنے کی حوصلہ شکنی کریں اور ایندھن کیلیے درختوں کی کٹائی نہ کریں۔
- درختوں اور اردگرد جنگلات کی حفاظت کیلیے مزدوروں رلیبر کو آگاہی دی جائے۔
- کھانا پکانے کے لیئے قدرتی گیس یا مٹی کے تیل کے محفوظ چولہے استعمال کیے جائیں۔



سرگرمیاں

۵۔جانوروں /پرندوں کا شکار خرید و فروخت

مسائل

- جنگلی حیات کو خطرات
- ماحولیاتی وسائل کو خطرات

حفاظتی اقدامات

- لیبر/مزدوروں کو گاہی فراہم کی جائے کیونکہ اردگرد موجود کسی بھی قسم کی جنگلی حیات کو نقصان پہنچانا ،ان کے گھونسلوں/ پناہ گاہوں میں کوئی مداخلت کرنا، شکار کرنا یا جانوروں/ پرندوں کو قید کرنا اور خرید و فروخت کرنا، پنجاب وائلڈ لائف (پروٹیکشن ، پریزرویشن، کنزرویشن اینڈ مینجمنٹ ایکٹ 1974) کے مطابق ممنوع اور سزا قابل تعزیر جرم ہے۔

سرگرمیاں

۶۔حفظان صحت کے اصول

مسائل

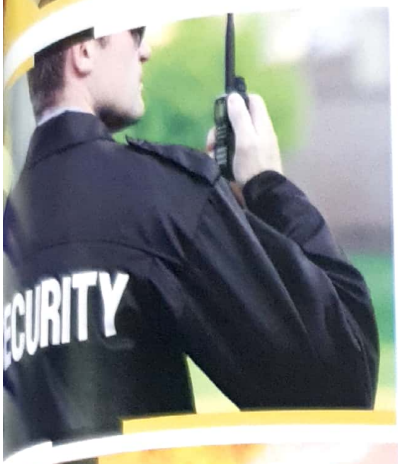
- حفظان صحت کے رہنما اصولوں پر عملدرآمد کرنے کی صورت میں مختلف بیماریاں مثلاً کرونا وائرس ، ملیریا ، ایچ آئی وی ایڈز اور دیگر انفیکشنز کے پھیلنے کا خطرہ

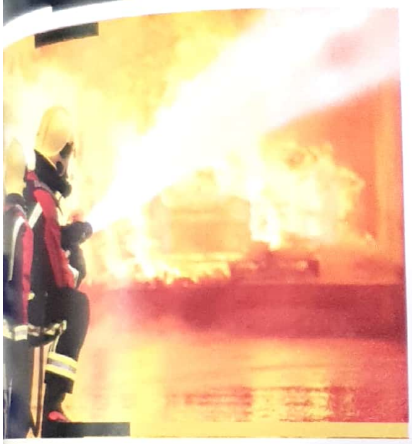
حفاظتی اقدامات

ٹھیکیدار لیبر کیمپس میں درج ذیل انتظامات مہیا کرے گا:

- لیبر کیمپس میں صحت و صفائی کی مناسب سہولیات کی فراہمی
- بیرونی علاقوں سے آنے والے مزدوروں کی صحت کی ابتدائی سکریننگ

- چوبیس گھنٹے لیبر کیمپس میں پر فرسٹ ایڈ بکس کی سہولت موجود ہو۔ کیمپ سائٹس میں ابتدائی طبی امداد سے متعلقہ دواؤں کا موجود ہونا یقینی بنایا جائے۔ اور طویل المدتی کیمپ کی صورت میں کسی ڈسپنسر/ڈاکٹر کا کیمپ میں موجود ہونا چاہیئے۔
- کسی ایمرجنسی کے دوران مزدوروں کے لیے ایمبولینس کی سہولت فراہم کی جائے اور ایمرجنسی سروسز 1122 یا 15 پر کال کرنے کے لیے ٹیلیفون /موبائل کی سہولت مہیا کی جائے ۔
- حفظان صحت کے بہترین اصولوں ، صفائی ستھرائی اور صحت کی دیکھ بھال کے امور کیلیے مزدوروں/لیبر کو تربیت فراہم کی جائے جس میں تمام مزدوروں کی شرکت کو یقینی بنایا جائے۔
- جنسی طور پر منتقل ہونے والی بیماریوں اور ایڈز وغیرہ کے بارے میں مزدوروں کو مکمل معلومات فراہم کی جائیں اور ان بیماریوں سے بچنے کے لیے حفاظتی اصول اپنانے پر زور دیا جائے۔
- مچھروں اور دیگر بیکٹیریا کو پیدا ہونے سے روکنے کیلیئے حفاظتی سپرے لازمی کرائے جائیں۔
- کرونا سے بچنے کے لیئے ابتدائی سکریننگ یقینی بنائیں اور بار بار ہاتھ دھونے پر زور دیں اور علامات ظاہر ہونے پر فوری طور پر دیگر مزدوروں سے آئسولیشن کے مکمل اصولوں پر سختی سے عمل کیا جائے۔
- لیبر کیمپس کے اندر مناسب مقامات پر حفظان صحت کے اصولوں سے متعلقہ پیغامات اور طریقے ڈسپلے کیے جائیں اور تربیتی پروگرام کا اہتمام کیا جائے۔
- قریبی ڈسپنسری/ہیلتھ کلینک/ہسپتال کے رابطہ نمبر وغیرہ واضح مقامات پر آویزاں کئے جائیں۔





سرگرمیاں

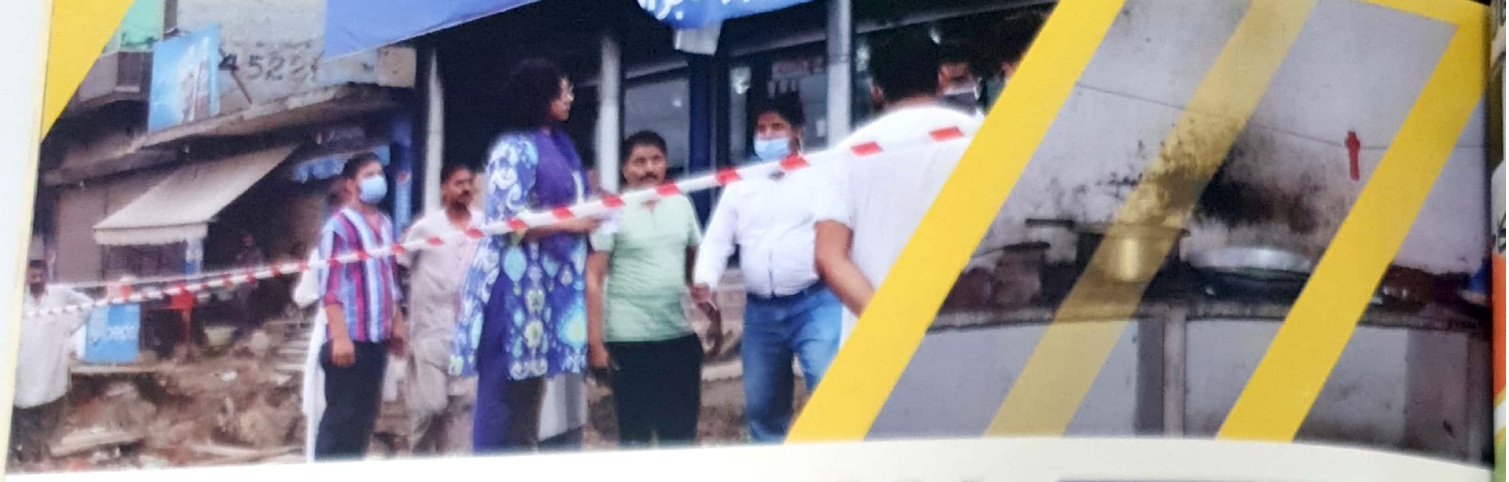
۷۔ سکیورٹی اور حفاظت کی سہولیات

مسائل

- سکیورٹی کے مسائل
- چوری کا خطرہ
- دہشت گردی کا خطرہ
- آگ لگنے کے خطرات

حفاظتی اقدامات

- کیمپ کے گرد حفاظتی باڑ کی فراہمی
- حفاظتی اہلکار (پولیس یا نجی سکیورٹی گارڈ/ہوم گارڈ وغیرہ) کی تعیناتی
- کیمپ میں موجود افراد کی صحیح تعداد اور آمد و رفت کا حساب کتاب رکھنے کے لیے رجسٹر میں اندراج۔
- آگ سے بچاؤ کے لیئے لیبر کیمپ بنانے میں ایسا کوئی میٹیریل استعمال نہ کیا جائے جس سے آگ لگنے کا اندیشہ ہو۔
- بارش، طوفان، سیلاب وغیرہ سے بچنے کیلئے اس بات کو یقینی بنایا جائے کہ کیمپ سائٹ اور عارضی کمرے/رہائش گاہیں محفوظ رہیں۔
- لیبر کیمپس میں آگ بجھانے والا آلات موجود ہوں جن پر انکی آخری معیاد کی تاریخ درج ہو۔ اور سکیورٹی گارڈ یا لیبر وغیرہ میں سے نمائندہ افراد کو آگ بجھانے والے آلہ استعمال کرنے کی تربیت دی جائے۔
- لیبر کیمپ میں واضح مقامات پر ہنگامی/ایمرجنسی رابطہ نمبر نمایاں درج ہوں۔
- ٹھیکیدار، لیبر کے ساتھ ماہانہ میٹنگز میں ایمرجنسی کی صورت میں ہر ایک مزدور کو اسکی ذمہ داریوں اور تربیت سے آگاہ کرے اور اسکی تفصیل متعلقہ کنسلٹنٹ اور میونسپل کمیٹی/کارپوریشن کو فراہم کرے۔ اور کسی بھی قسم کی شکایات ایک رجسٹر میں درج کرے۔



سرگرمیاں

۸۔ حفظان صحت کے اصولوں پر مبنی خوراک (Food Safety)

مسائل

- فوڈ پوائزننگ کا خدشہ
- بیماری کا ڈر

حفاظتی اقدامات

- مزدوروں کو صاف ستھرے اور تازہ کھانے کی فراہمی کو یقینی بنایا جائے۔

سرگرمیاں

۹۔ مذہبی و سماجی میل جول

مسائل

- مذہبی عبادات میں رکاوٹ
- سماجی تعلقات میں دشواری
- سماجی، ثقافتی اور مذہبی خیالات میں شدت پسندی یا لڑائی جھگڑا وغیرہ

حفاظتی اقدامات

- مزدوروں/لیبر کو ان کے مذہب اور فرقے کے مطابق مذہبی عبادات کی سہولیات فراہم کرنا۔
- خواتین لیبر کی موجودگی کی صورت میں ان کے لیے علیحدہ وضو، نماز اور پردے کا اہتمام کیا جائے۔
- تمام مزدوروں کی مذہبی، ثقافتی یا فرقے کی وابستگی سے قطع نظر غیر متعصّبانہ اور برابری کا سلوک کیا جائے۔
- مزدوروں کو تعمیراتی کام کے دوران نماز میں شرکت کرنے یا دیگر عبادات کی اجازت دی جائے اور اس سلسلے میں مذہبی اور سکیورٹی امور کے ذمہ دار مقامی حکام کو تعمیراتی کاموں کے آغاز سے پہلے باضابطہ طور پر آگاہ کیا جائے تاکہ صحت عامہ، معاشرتی اور حفاظتی امور پر موثر نگرانی برقرار رہ سکے۔

سرگرمیاں

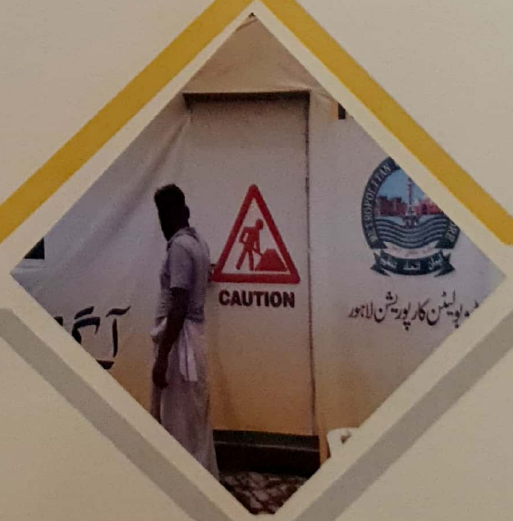
10. تعمیراتی کام ختم ہونے کے بعد کی زمہ داریاں

مسائل

- فالتو سامان اور کوڑا کرکٹ کی گندگی

حفاظتی اقدامات

- کیمپ سائٹ کو اصل حالت میں بحال کیا جائے۔
- تعمیراتی کام کے مکمل ہونے پر فریم اور باڑ لگنے والے دروازوں سمیت لیبر کیمپ میں قائم تمام سہولیات کو ایسے ختم کیا جائے کہ وہاں کا ماحول
رہے۔
- کام کم ہونے کے ساتھ لیبر کیمپ کو مرحلہ وار ختم کیا جائے (پورے کام کی تکمیل کا انتظار نہ کریں)
- لیبر کیمپ کو مسمار کرنے کے دوران شور اور کسی بھی قسم کی آلودگی مثلاً گرد و غبار، آبی آلودگی وغیرہ پھیلانے سے گریز کریں۔
- مسمار شدہ ملبہ کو دوبارہ استعمال کرنے اور دوبارہ قابل استعمال کرنے کیلیے کسی لوکل ڈیلر/ٹھیکیدار کی خدمات حاصل کریں۔
- کوڑا کرکٹ اور دوبارہ ناقابل استعمال سامان کو متعلقہ میونسپل کمیٹی/کارپوریشن کی جانب سے مقرر کردہ مقام پر مناسب طریقے سے تلف کیا جائے۔
- لیبر کیمپ کی زمین/جگہ کے مالک کے ساتھ طے شدہ معاہدے کے مطابق کام کریں اور کسی بھی قسم کے اختلاف یا جھگڑے سے گریز کریں۔
جگہ کو متفقہ منصوبہ کے مطابق اسکے حوالے کیا جائے۔
- لیبر/مزدوروں سے آئندہ کام یا مراعات کے جھوٹے وعدے ہرگز نہ کیے جائیں۔



سرگرمیاں

۱۔تمام قسم کے تعمیراتی سرگرمیاں اور کام

مسائل

- انجریز اور چوٹیں وغیرہ
- نامناسب دیکھ بھال اور بروقت امداد نہ ملنے کے باعث ہلاکت
- دہشت گردی اور سکیورٹی سے متعلق خطرات

حفاظتی اقدامات

- تمام مزدوروں/لیبر سے مقامی/بین الاقوامی معیار کے مطابق مناسب حفاظتی اور قانونی ضوابط کی پیروی کروائی جائے۔
- کام کی جگہ پر اردگرد کے علاقوں میں موجود دہشت گردی اور سکیورٹی کے خطرات کے مطابق حکمت عملی کی بروقت تیاری اور ایک محفوظ وصحت مند ماحول مہیا کیا جائے۔
- مزدوروں/لیبر کیلیے ذاتی حفاظت کے سامان (PPEs) کی فراہمی مثلاً حفاظتی جوتے، ہیلمٹ، ماسک، دستانے، حفاظتی لباس، چشمے، چہرے اور کان کی حفاظت کے سامان وغیرہ کی فراہمی
- تمام مزدوروں/لیبر کو ذاتی حفاظت کے ساز وسامان کے بارے میں مکمل آگاہی اور استعمال کے طریقے کار کے بارے تربیت کا انتظام۔
- اگر تعمیراتی کام ایک ماہ سے زائد عرصہ کیلئے جاری رہنا ہو تو تمام مدت کے لیئے صحت، صفائی اور تربیت یافتہ ماحولیات کی تعیناتی کی جائے جو مزدوروں کی صحت، صفائی اور ماحولیات کے امور کی نگرانی کرے اور انھیں تربیت وآگاہی فراہم کرے۔
- تعمیراتی کاموں کے دوران کسی چوٹ لگنے/انجریز کی صورت میں مزدور/لیبر کے علاج معالجے کی سہولت مہیا کرنا اور بروقت ہسپتال/ڈسپنسری وغیرہ پہچانا ٹھیکیدار کی ذمہ داری ہے۔
- مزید برآں دوران تعمیر تعمیراتی کام کی وجہ سے لگنے والی چوٹ/انجریز کے نتیجے میں ہلاکت ہو جانے کی وجہ سے مزدور/لیبر کی انشورنس اور اس کی بروقت ادائیگی کو یقینی بنایا جائے۔
- ایمرجنسی رابطہ نمبر مثلاً ریسکیو 1122 یا 15 اور دیگر قریبی ہسپتالوں/ڈسپنسری وغیرہ کے نمبر تعمیراتی جگہوں پر واضح درج ہونے چاہیں اور کال کی سہولت فراہم کی جائے۔
- شہری ترقی کے تعمیراتی منصوبہ جات کے اغاز سے قبل صحت، مذہبی امور اور شہری تحفظ/سکیورٹی فراہم کرنے والے مقامی اداروں کو آگاہ رکھا جائے اور اس سلسلے میں متعلقہ میونسپل کمیٹی/کارپوریشن کے تعاون سے موثر حکمت عملی تشکیل دی جائے۔

سرگرمیاں

۲۔تمام قسم کی تعمیراتی سرگرمیاں اور کنسٹرکشن کے کام

مسائل

- 15 سال سے کم عمر بچوں کی صحت اور تعلیم کا نقصان
- 18 سال اور اس سے کم عمر بچوں کی صحت کا نقصان
- حاملہ مزدور عورتوں کی صحت سے متعلقہ خطرات

حفاظتی اقدامات

- دی پنجاب رسٹرکشن آن ایمپلائمنٹ آف چلڈرن ایکٹ 2016 کے مطابق 15 سال سے کم عمر بچوں کو مزدوری یا کسی سرگرمی کے لیئے کام پر نہیں رکھا جا سکتا۔
- ویسٹ پاکستان میٹرنٹی بینیفٹ آرڈیننس 1958 کے مطابق حاملہ خواتین یا ایسی خواتین جنہوں نے چھ ہفتے قبل بچے کو جنم دیا ہو، کو مزدوری یا کسی سرگرمی کے لیئے کام پر نہیں رکھا جا سکتا۔
- دی پنجاب رسٹرکشن آن ایمپلائمنٹ آف چلڈرن ایکٹ 2016 کے مطابق 18 سال اور اس سے کم عمر کے بچوں کہ محنت مزدوری کے ایسے کام کے لیے نھیں رکھا جا سکتا جن میں صحت کو نقصان پہنچنے یا چوٹ لگنے یا کسی کیمیائی زہریلے مادے سے نقصان پہنچنے یا جہاں ہڈی ٹوٹنے کا اندیشہ ہو۔

سرگرمیاں

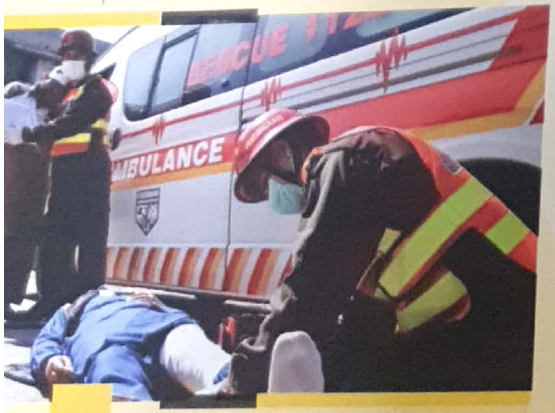
۳۔دوران تعمیر حادثات کا پیش آنا

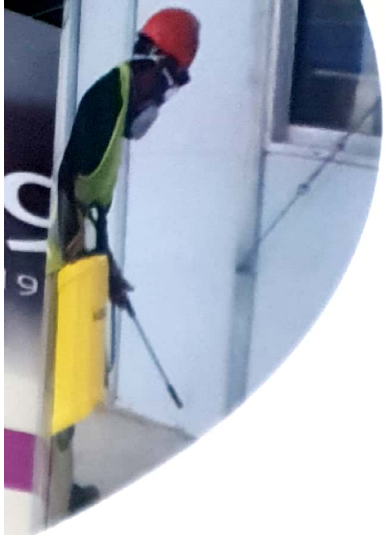
مسائل

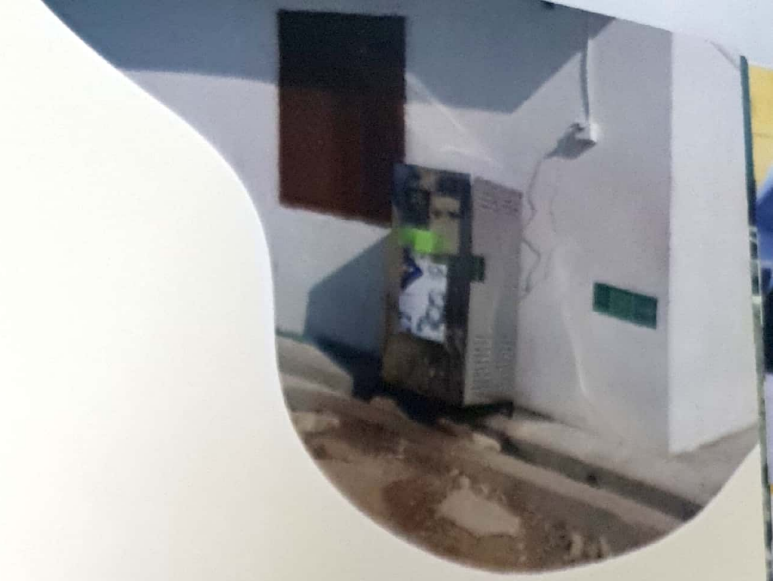
- فوری طبی امداد کی کمی
- اردگرد کے علاقوں میں ابتدائی طبی سہولیات اور صحت عامہ کا فقدان

حفاظتی اقدامات

- تعمیراتی جگہ پر فرسٹ ایڈ باکس کی موجودگی کہ یقینی بنایا جائے اور فرسٹ ایڈ باکس میں تمام ضروری ادویات اور طبی امداد کا ضروری سامان موجود ہو۔
- تعمیراتی کاموں کے دوران پیش آنے والے حادثات بیماریوں اور واقعات کا مکمل ریکارڈ رکھا جائے۔اسی طرح حادثات کی نوعیت و وجوہات کا مکمل ریکارڈ موجود ہو۔
- مزدوروں کی صحت و سکیورٹی سے متعلق ممکنہ خطرات کی بروقت نشاندہی کی جائے خاص کر وہ خطرات جو جان لیوا ثابت ہو سکتے ہیں۔اور ضروری حفاظتی اقدامات بروقت کئے جائیں۔
- تعمیراتی کاموں سے متعلق مشینری چلانے والے ڈرائیوروں کو دوران ڈرائیونگ قواعد وضوابط پر سختی سے عملدرآمد کرانے کے لئے آگاہی فراہم کی جائے۔
- تعمیراتی علاقوں اور سڑکوں کے ساتھ ساتھ روشنی کا معقول انتظام ہو۔







سرگرمیاں

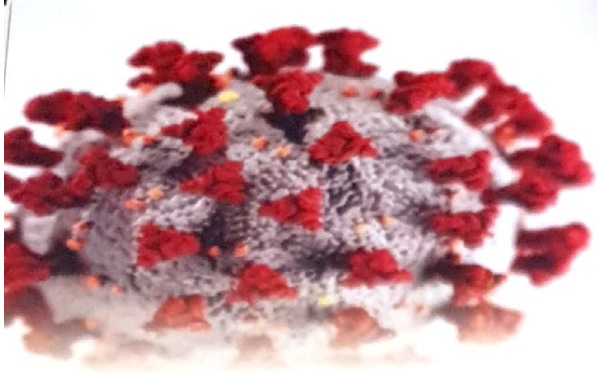
٤.تعمیراتی مقامات پر پانی اور صفائی ستھرائی کی سہولیات اور سالڈ ویسٹ مینجمنٹ

مسائل

- صحت کو خطرہ
- اردگرد علاقے کے لوگوں کے لئے ناگواری کا باعث
- مچھروں اور دیگر بیکٹیریا کی افزائش نسل کا ذریعہ

حفاظتی اقدامات

- تعمیراتی جگہوں پر تمام مزدوروں کے لئے پینے کے لئے صاف ستھرا پانی مہیا کیا جائے۔
- اگر تقریباً 25 مزدور ایک مہینہ کے لئے سارا دن کام کر رہے ہوں تو ان کے لیے تعمیراتی جگہوں پر پورٹ ایبل ٹوائلٹ کا انتظام کیا جائے جو مقامی ڈرینج سسٹم سے ملحق ہوں اور مقامی ڈرینج سسٹم کی غیر موجودگی میں مقامی ندی نالوں وغیرہ سے کم از کم 6 میٹر کے فاصلے پر ہوں۔ مزید برآں پورٹ ایبل ٹوائلٹس کی صفائی ستھرائی کو روزانہ کی بنیاد پر یقینی بنایا جائے۔
- تعمیراتی کاموں کے دوران کھدائی سے حاصل شدہ گارا، مٹی، ریت، کنکریٹ وغیرہ کو تعمیراتی جگہ پر [illegible] دن سے زائد مدت کے لئے کھلا نہ رکھا دیا جائے۔ اور روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی/کارپوریشن کی جانب سے مقرر کردہ جگہ پر مناسب طریقے سے ٹھکانے لگایا جائے۔



COVID-19
CORONAVIRUS DISEASE 2019

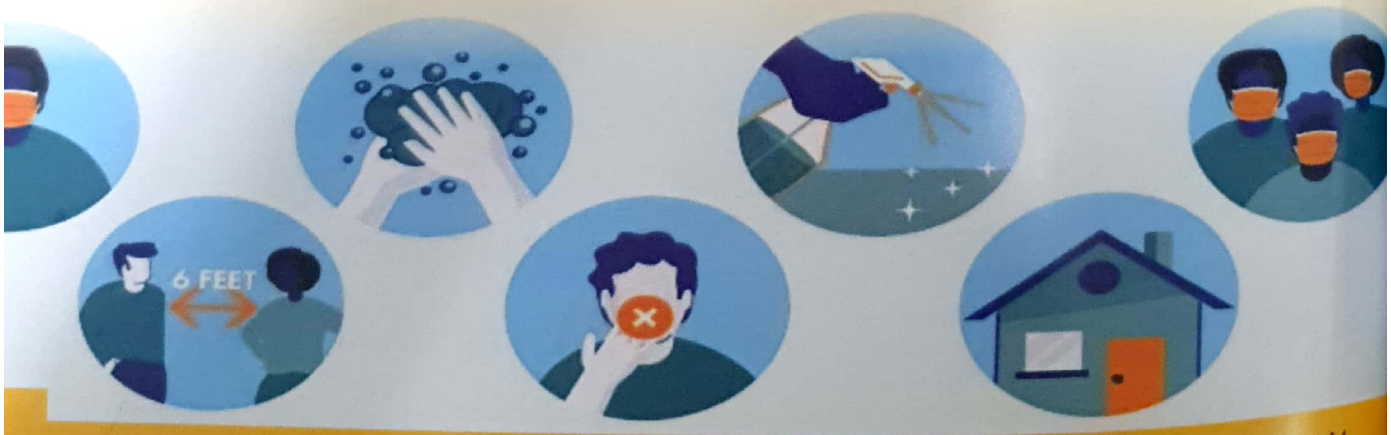
سرگرمیاں

کرونا وائرس کی وبا کے دوران حفاظتی تدابیر

حفاظتی اقدامات

گورنمنٹ آف پنجاب اور ورلڈ بنک کی ھدایات کے مطابق کرونا کی وبا کے دوران درج ذیل حفاظتی اقدامات کی پابندی کروانا کنٹریکٹر کی ذمہ داری ھے :

- کرونا وائرس کی وبا کے دنوں میں کنسٹرکشن سائٹ پر ہاتھ دھونے کیلئے پانی (پورٹ ایبل ہینڈ واشنگ کی سہولت) اور صابن مہیا کیا جائے اور لیبر کو بار بار صابن سے ہاتھ دھونے کی تلقین کی جائے۔
- لیبر کیمپس میں اور کنسٹرکشن سائٹ پر سوشل ڈیسٹینسنگ (6m کا فاصلہ) کے اصولوں کو مدنظر رکھا جائے۔
- کرونا وائرس کی وبا کے دوران اس بات کا خاص خیال رکھا جائے کہ اگر کنسٹرکشن سائٹ پر آبادی میں وبا پھیلی ہوئی ہے تو آبادی اور مقامی لوگوں سے دور رہیں اور کسی قسم کا میل جول نہ رکھیں۔ اسی طرح اگر کوئی مزدور وبا کے علاقے سے روزانہ کی بنیاد پر آ رہا ہے تو اسے باقی لوگوں/مزدوروں سے میل جول سے دور رکھا جائے۔
- اگر کسی مریض میں وائرس کی علامات (خشک کھانسی، نزلہ، زکام، بخار وغیرہ) پائی جائیں تو اسے فوراً دوسرے مزدوروں سے آئسولیٹ کر دیا جائے اور ٹیسٹ کروانے کیلئے کہا جائے۔
- وبا کے دوران کنسٹرکشن سائٹ پر دیگر PPEs کے ساتھ ساتھ مزدوروں کو ماسک لازمی استعمال کرایا جائے۔



تعمیراتی کاموں کے دوران خطرات/حادثات سے بچنے کیلئے سامان برائے ذاتی حفاظت کا خلاصہ

مقصد	تعمیراتی کام	تجویز کردہ سامان برائے ذاتی حفاظت	تصویریں
آنکھوں اور چہرے کی حفاظت/ تحفظ	اڑنے والے ذرات کا استعمال جیسے پگھلی ہوئی دھات مائع کیمیکل، گیسیں، اور بخارات، روشنی کی شعاعیں۔	حفاظتی عینکیں	
سر کی حفاظت/ تحفظ	ایسے تمام کام جن میں گرنے کا خطرہ ہو، بلندی پر کام کرنا، تعمیراتی کام کو سنبھالنے اور دوسری جگہ پر منتقل کرنے والے کام۔	اوپر اور اطراف سے نقصان سے بچاؤ کیلئے پلاسٹک کے ہیلمٹ	
سماعت کی حفاظت/ تحفظ	کھدائی/شور پیدا کرنے والے کام یا بھاری مشینری استعمال کرنے کی وجہ سے شور۔	سماعت کی حفاظت کے آلہ جات جیسے کن پوش یا ایئر پلگ	
پاؤں کی حفاظت/ تحفظ	تمام تعمیراتی کام جن میں چیزوں کا گرنا یا گھمانا، نوکیلی اشیا شامل ہوں۔ گلانے والا یا گرم مائع، کچرے کے ڈھیر سے کچرا اٹھانا۔	ملنے اور گرنے والی اشیاء، مائعات اور کیمیائی مواد سے بچاؤ کیلئے حفاظتی جوتے یا بوٹ	
ہاتھوں کی حفاظت/ تحفظ	جسمانی صحت کیلئے نقصان دہ سامان جیسے کچرے کو سنبھالنا، ایسے کام جس میں کاٹ یا گہرے زخم لگنے کا اندیشہ ہو، ارتعاش، بہت زیادہ درجہ حرارت۔	ربڑ یا مصنوعی مواد (نیوروپین)، چمڑا، سٹیل، غیر موصل مواد سے بنے گلوز	
تحفظ تنفس	دھول، دھند، شعلے، گیسیں، دھواں، بخارات	ایک جگہ سے دوسری جگہ لے جانے والے یا ایک ہی جگہ پڑے مواد کی فراہمی تعمیراتی جگہ پر بچاؤ کا سامان	
	آکسیجن کی کمی	چہرے کے ماسک جن میں دھول ہٹانے اور ہوا کو صاف رکھنے کیلئے (کیمیائی مواد، دھند، بخارات اور گیسوں سے) مناسب فلٹر لگے ہوں	 
جسم / ٹانگوں کی حفاظت/ تحفظ	تمام کام جن میں شدید درجہ حرارت، نقصان دہ مواد، حیاتیاتی ایجنٹ، چھوٹے یا گہرے زخم لگنے کا اندیشہ ہو	مناسب میٹریل سے بنے غیر موصل کپڑے، ایپرن وغیرہ	
اونچائی پر کام کرتے ہوئے حفاظت	تمام تعمیراتی کام جو 4 فٹ یا اس سے زیادہ کی اونچائی پر کیے جانے ہوں بشمول سٹریٹ لائٹس وغیرہ	ہیلمٹ، حفاظتی عینکیں، [illegible] کے گلوز اور ربڑ کے بوٹ	
اونچائی پر کام کرتے ہوئے حفاظت	تمام تعمیراتی کام جو 4 فٹ یا اس سے زائد اونچائی پر مسلسل ایک دن کیلئے کیے جانے ہوں	اینکر، بیلٹ، رسی، کنیکٹر، [illegible] جگہ اور ایک ساتھی فرد	

Summary of Recommended Personal Protective Equipment According to Hazard

Objective	Workplace Hazards	Suggested PPE	Pictures
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.	
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic Helmets with top and side impact protection.	
Hearing protection	Noise, ultra-sound.	Hearing protectors (ear plugs or ear muffs).	
Foot protection	Falling or rolling objects, pointed objects. Corrosive or hot liquids.	Safety shoes and boots for protection against moving & falling objects, liquids and chemicals.	
Hand protection	Hazardous materials, cuts or lacerations, vibrations, extreme temperatures.	Gloves made of rubber or synthetic materials (Neoprene), leather, steel, insulating materials, etc.	
Respiratory protection	Dust, fogs, fumes, mists, gases, smokes, vapors.	Facemasks with appropriate filters for dust removal and air purification (chemicals, mists, vapors and gases). Single or multi-gas personal monitors, if available.	
	Oxygen deficiency	Portable or supplied air (fixed	
Body/leg protection	Extreme temperatures, hazardous materials, biological agents, cutting and	Insulating clothing, body suits, aprons etc.	
Working at *height	Rehabilitation Projects	Helmet, Safety glasses,	
	New Construction Projects	Anchor, belt, lanyard,	

*In general, use of PPEs is required for any height of 4 ft or more. *Ref: OSHA standards*

(3) مقامی آبادی/دکانداروں اور رہائشیوں کی صحت، ماحولیات اور سماجیات سے متعلق رہنما اصول وحفاظتی تدابیر

سرگرمیاں

۱. تعمیراتی کاموں کے لئے منتخب کردہ مقام/ جگہ پر کام کا آغاز

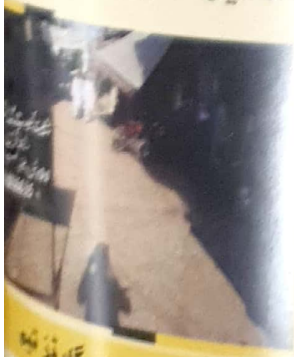
مسائل

- مقامی آبادی/رہائشیوں کیلئے تعمیراتی کام کی عدم آگاہی
- لیبر/مزدوروں کے داخلے سے رہائشی عورتوں کے پردے اور پرائیویسی کے مسائل
- مقامی آبادی کے ثقافتی، سماجی، مذہبی ورثہ، اور تاریخی مقامات/عمارتوں کو نقصان

حفاظتی اقدامات

ٹھیکیدار کو چاہئے کہ:

- متعلقہ میونسپل کمیٹی کے انوائرنمنٹ اینڈ سوشل فوکل پرسن (ز) منتخب کردہ اور متعلقہ ریجنل آفس میں موجود ڈپٹی پروگرام آفیسر (انوائرنمنٹ اینڈ سوشل سیف گارڈز) کی موجودگی میں مقامی آبادی/رہائشیوں اور دکانداروں کو تعمیراتی کام کے آغاز سے قبل تعمیراتی کام کی نوعیت، اغراض ومقاصد اور تکمیل کی معینہ مدت کے بارے میں مکمل آگاہی فراہم کرے۔
- تعمیراتی کام کے دوران پیش آنے والے ممکنہ سماجی اور ماحولیاتی مسائل اور ان کے مطابق حفاظتی اقدامات کے بارے میں مقامی رہائشیوں/دکانداروں کو کام کے آغاز سے قبل مکمل آگاہی دی جائے۔
- تعمیراتی کام کے آغاز سے پہلے مقامی رہائشیوں اور دکانداروں کو تعمیراتی کاموں کی وجہ سے سماجی/ماحولیاتی مسائل کی نشاندہی/شکایات/تجاویز کیلئے مندرجہ ذیل رابطہ نمبرز کے بارے میں مکمل آگاہی فراہم کی جائے۔
  - (a) ٹھیکیدار کا موبائل/ٹیلیفون نمبر
  - (b) متعلقہ میونسپل کمیٹی/کارپوریشن کے فوکل پرسن (ز) کے رابطہ نمبرز
  - (c) متعلقہ (PCP) ریجنل آفس میں تعینات ڈپٹی پروگرام آفیسر (ESSs) کے رابطہ نمبرز
- تعمیراتی کام کے آغاز سے پہلے تعمیراتی مقام/جگہ کو فیتہ کی مدد سے باقی علاقہ سے الگ کر دیا جائے۔



تعمیراتی جگہ/مقام پر واضح بورڈ نصب کر دیئے جائیں، جن پر درج ذیل پیغامات/احکامات لکھے ہوں:

(a) تعمیراتی کام کی نوعیت

(b) ٹریفک میں رکاوٹ کی صورت میں متبادل راستے کا نشان اور عارضی رکاوٹ کا پیغام

(c) ایمرجنسی اور شکایت کیلئے رابطہ نمبرز

(d) (PMDFC) کی جانب سے جاری کردہ سماجی و ماحولیاتی پیغامات پر مبنی پوسٹرز۔

تعمیراتی کام کی جگہ کے ارد گرد 100 میٹر تک کی حدود میں موجود ثقافتی، سماجی، مذہبی ورثہ، تاریخی عمارتوں اور مذہبی مقامات جیسے قبرستان، مساجد، مندر، گرجا گھروں وغیرہ کو کسی قسم کا نقصان نہ پہنچایا جائے اور ان کی حدود میں کوڑا کرکٹ ڈالنے یا فالتو پانی چھوڑنے سے گریز کیا جائے۔ مزید برآں کھدائی کے دوران کسی نئے آثارِ قدیمہ ملنے کی صورت میں متعلقہ مقامی محکمے سے رجوع کیا جائے اور کھدائی کا کام بند کر کے تعمیراتی کام روک دیا جائے۔

سرگرمیاں

2- کھدائی کی جگہ اور اس سے متعلقہ کام اور نالوں کی صفائی اور اس سے حاصل شدہ بھل وغیرہ

مسائل

- کھدائی سے حاصل شدہ مٹی/کنکر کے ڈھیر (Debris) سے رہائشیوں کی آمد و رفت اور ٹریفک میں رکاوٹ
- مقامی رہائشیوں کیلئے ناگواری کا باعث
- مچھروں اور دیگر بیماری پھیلانے والے جراثیم کی افزائش کا ذریعہ
- کھدائی کی جگہ پر گرنے اور حادثات کے خطرات

حفاظتی اقدامات

- تعمیر کے دوران کھدائی کے تمام مقامات کے اردگرد حفاظتی ٹیپ / پٹی لگائی جائے اور کھدائی کی جگہ کو عارضی طور پر بند کر دیا جائے جس کے باہر اس جگہ سے دور رہنے کیلئے واضح پیغامات لکھے ہوں۔
- کھدائی سے حاصل شدہ مٹی / کنکر / پتھر وغیرہ کو ایک دن سے زیادہ اس جگہ پر موجود نہ رہنے دیا جائے بلکہ روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی / کارپوریشن کی منتخب کردہ جگہ پر محفوظ طریقے سے ٹھکانے لگایا جائے۔
- نالوں کی صفائی سے حاصل شدہ بھل / ریت وغیرہ کو ایک دن سے زیادہ اس جگہ پر موجود نہ رہنے دیا جائے بلکہ روزانہ کی بنیاد پر اٹھوایا جائے اور بھل کو ایک جگہ سے دوسری جگہ منتقلی کے دوران ٹریکٹر / ٹرالی کو ترپال کی مدد سے ڈھانپ کر لے جایا جائے۔

سرگرمیاں

3-تعمیراتی مشینری / تعمیراتی مٹیریل اور تعمیراتی کاموں کی وجہ سے عارضی بندش

مسائل

- ٹریفک میں رکاوٹ۔

حفاظتی اقدامات

- ٹریفک میں ممکنہ رکاوٹ کے پیش نظر متبادل راستے کا انتخاب اور اس کی نشاندہی کیلئے پیغامات واضح درج کیے جائیں۔
- ٹریفک کونز (cones) کی مدد سے رکاوٹ والی جگہ کو الگ کر دیا جائے تاکہ حادثات سے بچا جا سکے۔
- ٹریفک میں زیادہ دنوں تک مسلسل رکاوٹ کی صورت میں مقامی ٹریفک پولیس کو آگاہ کیا جائے اور ان کے ساتھ مل کر ٹریفک مینجمنٹ پلان کو تشکیل دیا جائے جس کو واضح مقام پر نصب کیا جائے اور مقامی آبادی / رہائشیوں کو اس کے بارے میں مکمل آگاہی دی جائے۔

سرگرمیاں

4-تعمیراتی کاموں کی وجہ سے راستوں میں عارضی رکاوٹ اور زمین کا عارضی حصول

مسائل

- روزمرہ معمولات اور کاموں میں رکاوٹ
- رہائشی خواتین کیلئے آنے جانے میں رکاوٹ
- دکانداروں کے دکانوں کے آگے رکاوٹیں اور گاہکوں کیلئے مشکلات
- مستقل وعارضی سٹالز لگا کر بیچنے والے چھوٹے بڑے مستقل دکانداروں کا گاہک کم ہو جانے کی وجہ سے مالی نقصان

حفاظتی اقدامات

- تعمیراتی علاقے میں اردگرد موجود تمام چھوٹی بڑی دکانوں، ٹھیلوں، عارضی خوانچہ فروشوں اور گھروں کا مکمل سروے (تعداد اور مالی حیثیت وغیرہ) او
ان پر ممکنہ سماجی اور ماحولیاتی اثرات کا جائزہ لے کر ایک تفصیلی رپورٹ اور متعلقہ پلان میونسپل کمیٹی/کارپوریشن کے دفتر میں موجود ہونی چاہئے
جو کہ فوکل پرسنز، متعلقہ علاقائی آفس میں موجود ڈپٹی پروگرام آفیسر (ESSs) کے ساتھ تعمیراتی کاموں کی مالیت کا اندازہ لگائے وقت تیار ک
جائیگی۔ اس رپورٹ اور پلان میں موجود سماجی اور ماحولیاتی مسائل کے حل کیلئے مختص رقم اور ان کا صحیح طریقے سے استعمال ٹھیکیدار کے کنٹریکٹ
حصہ ہوگا۔
- رہائشیوں کیلئے آنے جانے اور دکانوں/گھروں تک رسائی کے لیے متبادل راستے مہیا کرنا ٹھیکیدار کی ذمہ داری ہے۔
- دکانوں/تھڑوں/ٹھیلوں وغیرہ کے باہر کسی بھی قسم کے نقصان یا توڑ پھوڑ کی صورت میں ٹھیکیدار طے شدہ ضوابط کے مطابق اس کی قیمت متاثرہ لوگوں
ادا کرے گا۔
- لیبر/مزدور کو تربیت دی جائے کہ وہ اردگرد رہائشی عورتوں اور بچوں کے آنے جانے میں کوئی رکاوٹ نہ بنیں اور رہائشیوں کے ساتھ بلاضرورت کو
میل جول نہ رکھیں۔
- تعمیراتی کیمپ لگانے، تعمیراتی کام کرنے یا مشینری اور تعمیراتی سامان رکھنے کے لیئے عارضی طور پر حاصل کی گئی زمین کا کرایہ مالک مکان کو وقت
پر ادا کی جائے گا۔ اور تحریری معاہدے کی صورت میں ٹھیکیدار تمام قواعد وضوابط کا پابند ہوگا۔
- تعمیراتی کاموں/کیمپ وغیرہ لگانے کے لیئے عارضی زمین حاصل کرنے کے لئے مقامی رہائشیوں سے مشاورت اور دنوں کے حساب سے کرایہ اور
اس کا مکمل طریقہ کار وضع کر کے باقاعدہ لکھا جائے گا۔ اور خلاف ورزی کی صورت میں ٹھیکیدار ذمہ دار ہوگا۔

سرگرمیاں

۵۔تعمیراتی کام اور ہیوی مشیری کا استعمال

مسائل

- شور غل
- پانی کی آلودگی
- ہوائی آلودگی
- دیگر ماحولیاتی مسائل

حفاظتی اقدامات

- تعمیراتی علاقے میں موجود ہسپتالوں، سکولوں/کالجوں وغیرہ اور رہائشی گھروں/دکانوں کی تمام تفصیلات کی رپورٹ متعلقہ میونسپل کمیٹی کے دفتر میں موجود ہونی چاہیئے جو کہ ٹھیکیدار کے کنٹریکٹ کا حصہ ہوگی۔ اور ٹھیکیدار ان تفصیلات کے مطابق ایسا پلان ترتیب دے گا جس سے اردگرد عمارتوں/رہائشیوں اور دکانداروں کو کم سے کم پریشانی کا سامنا کرنا پڑے مثلاً زیادہ شور پیدا کرنے والے کام دن کے اس حصے میں کئے جائیں جب ہسپتالوں، اور سکولوں/کالجوں وغیرہ کے مصروف اوقات کار نہ ہوں اور ایسے کام جن کی وجہ سے راستوں کی عارضی بندش ضروری ہوں وہ رات کو کیئے جائیں جب رہائشیوں کی آمدورفت نہ ہو۔
- تعمیراتی کاموں کے دوران پیدا شدہ فاضل پانی یا پورٹیبل ٹوائلٹس کا پانی/فضلہ وغیرہ کا محفوظ اور مناسب طریقے سے ٹھکانے لگانے کا بندوبست کیا جائے اور فاضل پانی کو پینے کے صاف پانی کے ساتھ شامل ہونے سے بچانے کا ہر ممکن قدم اٹھایا جائے۔
- واٹر سپلائی کی سکیموں یا ایسی تمام کام جن کی وجہ سے رہائشیوں کو پانی یا سیوریج وغیرہ میں عارضی بندش کا سامنا کرنا پڑ سکتا ہو۔ ایسے تمام کاموں کے آغاز سے پہلے رہائشیوں کو پیشگی اطلاع دی جائے اور متبادل انتظامات کا خاطر خواہ انتظام کیا جائے۔
- تعمیراتی کاموں کی وجہ سے درختوں کی کٹائی سے ہر حال میں گریز کیا جائے اور ناگزیر صورت حال میں ایک درخت کی کٹائی کے متبادل کے طور پر چار درخت لگانا ضروری ہیں۔
- تعمیراتی جگہ پر پیدا ہونے والے کوڑا کرکٹ کو ٹھکانے لگانے کیلئے ڈسٹ بن لگائے جائیں اور ان کو روزانہ کی بنیاد پر متعلقہ میونسپل کمیٹی کی طرف سے مقرر کردہ مقام پر ٹھکانے لگایا جائے۔
- کوڑا کرکٹ اور فاضل پانی اردگرد موجود فصلوں اور ندی نالوں میں پھینکنے سے گریز کریں۔
- گرد و غبار اور ہوائی آلودگی کی صورت میں پانی کا باقاعدہ چھڑکاؤ کریں۔
- تعمیراتی کام کی مدت اور نوعیت کے مطابق کام کے آغاز سے پہلے، کام کے دوران اور کام کے بعد شور آلودگی، ہوائی آلودگی اور آبی آلودگی کے نمونہ جات حاصل کر کے ان کی جانچ پڑتال کرانا ٹھیکیدار کی ذمہ داری ہے۔ اس سلسلے میں ریجنل آفس میں موجود ڈپٹی پروگرام آفیسر (ESSs) سے مزید رہنمائی حاصل کریں۔
- تعمیراتی کام مکمل ہو جانے کے بعد علاقے کی صفائی ستھرائی اور ماحولیاتی خوبصورتی کا خاص خیال رکھیں اور پہلے سے بہتر حالت میں چھوڑیں۔

* سپریم کورٹ آف پاکستان کے سوموٹو کیس نمبر 25 بمطابق 2009 حوالہ نمبر "کٹنگ آف ٹریز فار کینال وائیڈننگ پراجیکٹ لاہور" تعمیراتی کاموں کے دوران ہر ایک درخت کی کٹائی کے متبادل چار درخت لگائے جائیں گے۔

ترقیاتی منصوبوں کی تعمیرو مرمت کے دوران کام کرنے والے
مزدوروں ،ورکرز، (بشمول خواتین لیبر/ ورکرز) کی صحت، حفا
ظت ،اور ماحول کے لئے معیاری اصول وضوابط درج ذیل پالیسیز،
قوانین اور نوٹیفیکیشنز کا تجزیہ کر کے تجویز کئے گئے ہیں۔

- The Punjab Occupational Health & Safety Act, 2019
- General Environment, Health & Safety (EHS) Guidelines by International Finance Corporation (IFC), World Bank
- International Labour Standards of International Labour Organization (ILO)
- Punjab Tehsil/Town Municipal Administration (Works) Rules 2003 (Amendments 2016)
- The Punjab Restriction on Employment of Children Act , 2016
- The West Pakistan Maternity Benefit Ordinance , 1958
- ESF/Safeguards Interim Note: COVID-19 Considerations in Construction / Civil Works Projects - World Bank Guidelines
- Health & safety SOPs for Construction Workers/Sector for COVID 19
- Punjab Wildlife (Protection, Preservation, Conservation and Management) Act, 1974