Local Government & Community Development Department

Punjab Cities Program
Construction of SWM Parking Area in Hafizabad City

PC-I

Estimated Cost Million PKR. 36.205

August 2022

Municipal Committee Hafizabad

JERS CONSULTANCY (PVT) LTD
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Punjab Cities Program

PC-I Form for Construction of SWM Parking Area in Hafizabad City

Table of Contents

PC-I FORM
for
Construction of Parking Area in Hafizabad City

Project Serial Number

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

1. Name of the project	**Punjab Cities Program** **Construction of Parking Area in Hafizabad city**
2.Location	Hafizabad district is located between 73°-12’ to 73°-46’ East longitudes and 31°-45' to 320-20’ North latitudes. The city of Hafizabad is located at 73° 41’ East longitude and 32° 4' North latitude. Location map of the city is attached in **Annexure-A**
3. Authorities responsible for	
i- Sponsoring	Government of the Punjab (through World Bank funding)
ii- Execution	Municipal Committee Hafizabad
iii- Operation and Maintenance	Municipal Committee Hafizabad
iv-Concerned Provincial Department	Local Government and Community Development Department Punjab
4a.Plan Provision	
i. If the project is included in medium term/five year plan, specify actual allocation	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.

Total loan from World Bank	USD 200.00 million
Component-1 Infrastructure development (PforR)	USD 180.00 million
Component-2 Technical Assistance	USD 20.00 million
MCs share (20% of PforR component) equivalent to:	USD 36.00 million
Total Program cost	USD 236.00 million

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 in ADP 2022-23 - under General Serial No-1769 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 under ADP 2022-23 General Serial No 1769 as described above.
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 Hafizabad 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 Hafizabad for provision of better solid waste management facilities to the people of Hafizabad. 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 1.87 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: Kolotarar Road
<table><tr><th>S. N.</th><th>Detail of works</th></tr><tr><td>1</td><td>Boundary wall and gate</td></tr><tr><td>2</td><td>Sheds for vehicles with trusses and Aluzinc sheeting at the top</td></tr><tr><td>3</td><td>Office room with toilet</td></tr><tr><td>4</td><td>Washing ramp</td></tr><tr><td>5</td><td>Sitting room for staff with toilets</td></tr><tr><td>6</td><td>Parking aprons</td></tr><tr><td>7</td><td>Generator pad</td></tr><tr><td>8</td><td>Water supply and drainage system</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 Hafizabad 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	Office Building	1.312
2	Sitting Room	1.128
3	Parking Shed (Size 90' X 32') (2 Nos.)	16.421
4	Washing Pit	0.516
5	Generator Pad	0.154
6	Pump Pad	0.014
7	Septic Tank	0.299
8	External Boundary Wall + Tuff Paver	5.364
9	External Plumbing Work	0.695
10	External Electrical Work	7.816
11	Environmental Health & Safety Cost	0.112
	Total cost	**33.836**
	Contingencies @2%	0.676
	Punjab Sales Tax @5%	1.691
	Grand Total	**36.205**

See **Annexure-B** for details

i- Indicate date of estimation of the project cost

The project estimates have been framed during the month of July, 2022

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 Hafizabad 2nd Bi-Annual of year 2022).

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 and gate	100%
2	Sheds for vehicles with trusses and Aluzinc sheeting at the top	100%
3	Office room with toilet	100%
4	Washing ramp	100%
5	Sitting room for staff with toilets	100%
6	Parking aprons	100%
7	Generator pad	100%
8	Water supply and drainage system	100%
9	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	Office Building	1.312	1.312
2	Sitting Room	1.128	1.128
3	Parking Shed (Size 90' X 32') (2 Nos.)	16.421	16.421
4	Washing Pit	0.516	0.516
5	Generator Pad	0.154	0.154
6	Pump Pad	0.014	0.014
7	Septic Tank	0.299	0.299
8	External Boundary Wall + Tuff Paver	5.364	5.364
9	External Plumbing Work	0.695	0.695
10	External Electrical Work	7.816	7.816
11	Environmental Health & Safety Cost	0.112	0.112
	PST contingencies	**2.368**	**2.368**
	Total	**36.205**	**36.205**

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

Cost in Million = Rs. 0.638
(See details attached 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 Hafizabad 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 Hafizabad 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 12 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 Hafizabad 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>Kolotarar Road</td><td>As listed in section-7</td><td>02</td><td>1.87 Kanals</td><td>2 Nos = 90’x32’</td></tr>
</table>
2)-Parking shed is designed for 10-year life.
3)-This Parking shed is designed for 12 vehicles of SWM Machinery.</td></tr>
</table>

<table>
<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 Hafizabad will be Rs 28.964 million. The financing of the project will be as give n below:
<table>
<tr><td>Grant to MC Hafizabad from World Bank (80% of cost of PC-I)</td><td>PKR 28.964 million</td></tr>
<tr><td>20% Co-finance by MC</td><td>PKR 7.241 million</td></tr>
<tr><td>Total cost of project</td><td>PKR 36.205 million</td></tr>
</table>
B. Project Cost =Rs. 36.205 million

*The loan is from World Bank to Government of Pakistan/Punjab which will trickle down to MC Hafizabad 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 36.205 million</td></tr><tr><td>Population of the city in year 2023</td><td>293,619 persons</td></tr><tr><td>Unit capital cost per capita</td><td>PKR 123</td></tr></table>
B)-Unit R&M cost:<table><tr><td>Annual R&M cost</td><td>PKR 638,367</td></tr><tr><td>Population of the city in year 2023</td><td>293,619 persons</td></tr><tr><td>Unit R&M cost per capita</td><td>PKR 2</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 supervision of the project.</td></tr>
</table>

		c) Municipality MC Hafizabad 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 October, 2022 and to be completed by March, 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 Hafizabad 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 Hafizabad 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 Hafizabad	Stamp & Signatures	
	Chief Officer MC Hafizabad	Stamp & Signatures	
Forwarded by	Administrator MC Hafizabad	Stamp & Signatures	

Annexure-1

Annual Recurrent Cost

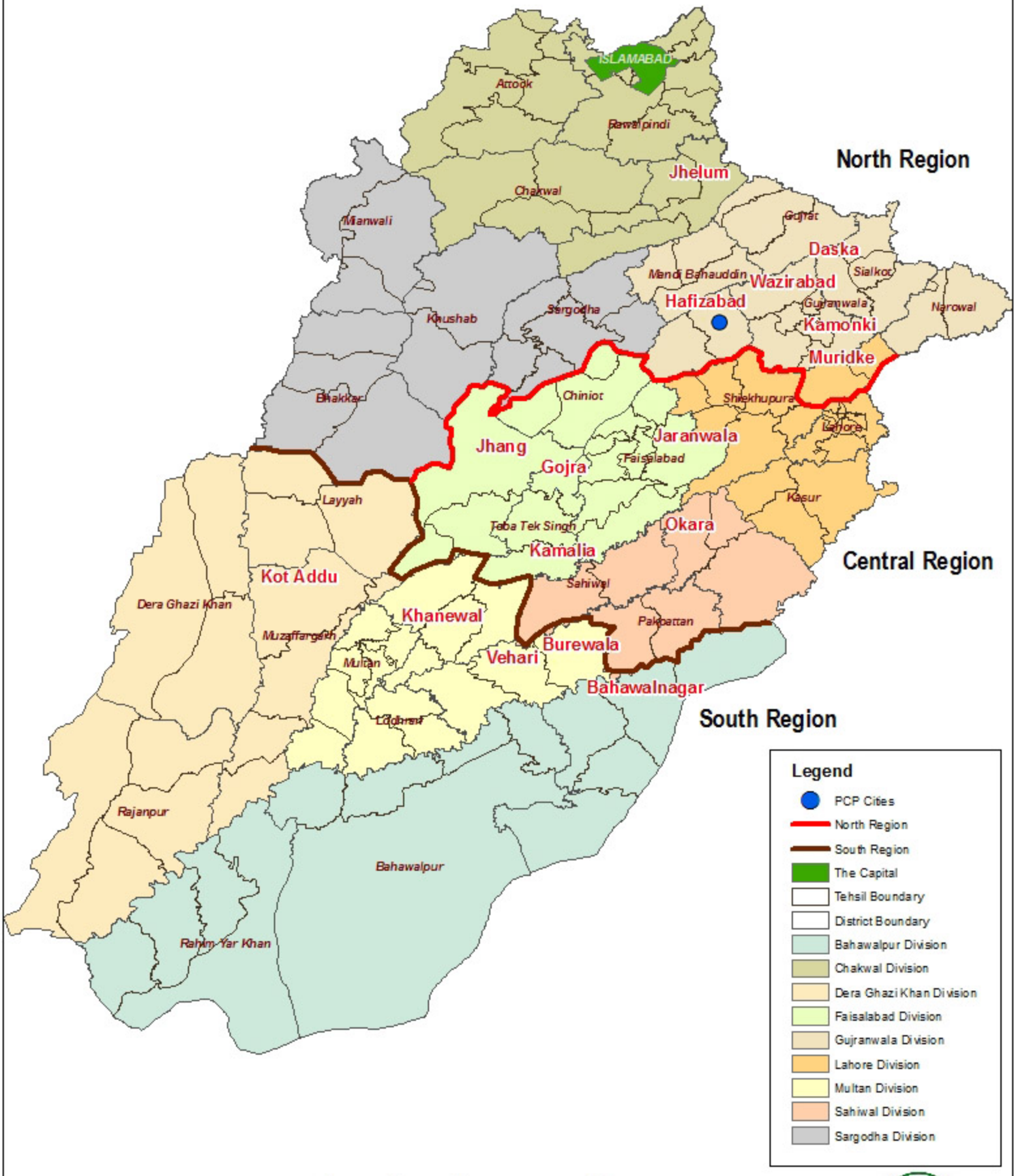
Annual Recurrent Cost after Completion of the Project

Cost Category	Cost Breakup	Cost per Annum
Annual Maintenance Cost of The Civil Works	1% of Project Cost = 0.01*(33,836,659)	338,367
Annual Manpower Cost of One Guard	Rs. 25000/month	300,000
	Total cost per Annum (Million Rs.)	638,367

Annexure-A
Location Map

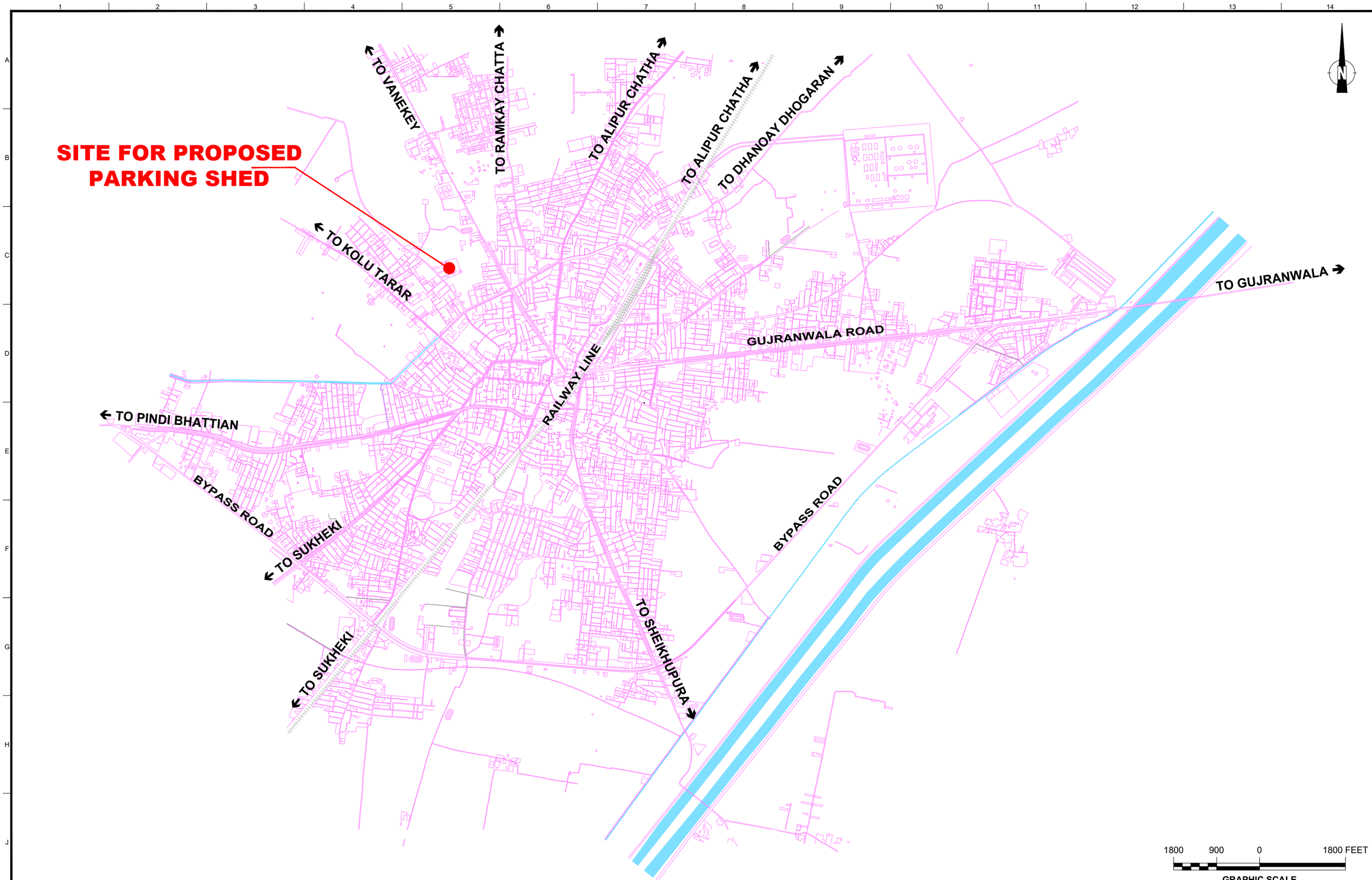
Location Map
(Punjab Cities Program)

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 (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

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

DRAWING NO: PS-01
SCALE: UNIT=FEET 1"=1800'
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 Hafizabad

Detailed Cost Estimate

August, 2022

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

DETAILED COST ESTIMATE

SWM PARKING AREA (HAFIZABAD)

SUMMARY

Sr. No.	Description	Amount (Rs)
1	**OFFICE BUILDING**	
i	Civil Work	1,016,570
ii	Plumbing Work	98,050
iii	Electrical Work	198,085
2	**SITTING ROOM**	
i	Civil Work	907,156
ii	Plumbing Work	81,892
iii	Electrical Work	139,308
3	**PARKING SHED (SIZE 90' x 32') (2 Nos.)**	
i	Civil Work	15,825,122
iii	Electrical Work	596,151
4	**WASHING PIT**	516,596
5	**GENERATOR PAD**	154,915
6	**PUMP PAD**	14,144
7	**SEPTIC TANK**	299,260
8	**EXTERNAL WORK (BOUNDARY WALL + TUFF PAVER)**	5,364,477
9	**EXTERNAL PLUMBING WORK**	695,669
10	**EXTERNAL ELECTRICAL WORK**	7,816,838
11	**ENVIRONMENTAL HEALTH & SAFETY COST**	112,425
	Total Amount (Rs)	**33,836,659**
	Contingencies @ 2%	676,733
	PRA Charges @ 5%	1,691,833
	Total Amount. Rs.	**36,205,225**

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

DETAILED COST ESTIMATE

OFFICE BUILDING

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	0.48	10,677.75	5,125
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/TerminexExin/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	808.25	9.25	7,476
		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	0.64	28,986.90	18,552
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	3.73	30,946.30	115,430
		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	0.58	8,659.85	5,023
		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:				

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

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		ii) Ratio 1:3 b) ¾ " thick (20 mm)	100 Sft	0.78	6,480.10	5,054
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	6.15	33,130.10	203,750
		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	169.00	553.30	93,508
		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	5.43	31,771.00	172,517
		Sand Filling				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	6.24	2,943.30	18,366
		Brick ballast				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft	0.75	9,023.50	6,768
		Plain Cement Concrete				
12	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				

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

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Ratio 1: 2: 4	100 Cft	0.38	38,178.90	14,508
		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	192.00	211.60	40,627
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	18.48	292.75	5,410
		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	35.00	240.00	8,400
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	168.00	292.75	49,182

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

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	2.27	3,708.60	8,419
		Cement Plaster				
18	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	7.46	4,379.60	32,672
		Pointing				
19	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	7.72	3,518.35	27,162
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	7.72	652.50	5,037
		Distempering				
21	11/23	Distempering:-				
		iii) three coats	100 Sft	9.73	1,295.00	12,600
		Wooden Door				
22	12/50-i	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)	Per Sft	42.00	1,490.70	62,609
		Lock				
23	12/22	Providing and fixing, approved quality mortice lock.	Each	2.00	771.50	1,543
		Paint				
24	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	1,292.00	1,085
		ii) Second coat	100 Sft	0.84	711.40	598

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

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Steel Window				
25	25/41/b	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-				
		b) fixed with wire gauze, 22 SWG				
		v) glass pane 5 mm thick	Per Sft	52.00	1,081.70	56,248
		Roof Insulation				
26	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	2.92	11,646.40	34,007
27	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	7.85	2,292
		Khurras				
28	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	855.00	855
		Bottom Khuras				
29	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	1,746.40	1,746
		Total Rs.				**1,016,570**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
OFFICE BUILDING
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	1	59.00	2.50	2.50	368.75	Cft
	Toilet wall	1	18.50	2.50	2.50	115.63	Cft
					Total	484.38	Cft
					Total	**0.48**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/TerminexExin/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	1	59.00	7.50		442.50	Sft
	Toilet wall	1	18.50	7.50		138.75	Sft
	Floor	1	16.00	12.00		192.00	Sft
		1	7.00	5.00		35.00	Sft
					Total	**808.25**	**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	1	59.00	2.50	0.33	48.68	Cft
	Toilet wall	1	18.50	2.50	0.33	15.26	Cft
					Total	63.94	Cft
					Total	**0.64**	**%Cft**

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						
	Office wall						
	Step - 1	1	59.00	1.875	0.25	27.66	Cft
	Step - 2	1	59.00	1.500	0.25	22.13	Cft
	Step - 3	1	59.00	1.125	0.25	16.59	Cft
	Step - 4	1	59.00	0.750	4.92	217.71	Cft
	Toilet wall						
	Step - 1	1	18.50	1.875	0.25	8.67	Cft
	Step - 2	1	18.50	1.500	0.25	6.94	Cft
	Step - 3	1	18.50	1.125	0.25	5.20	Cft
	Step - 4	1	18.50	0.750	4.92	68.27	Cft
					Total	373.16	Cft
					Total	**3.73**	**%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	1	59.00	0.75		44.25	Sft
	Toilet wall	1	18.50	0.75		13.88	Sft
					Total	58.13	Sft
					Total	**0.58**	**%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 b) ¾ " thick (20 mm)						
	Office wall	1	59.00		1.00	59.00	Sft
	Toilet wall	1	18.50		1.00	18.50	Sft
					Total	77.50	Sft
					Total	**0.78**	**%Sft**
	Brick work in Super Structure						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Office wall	1	59.00	0.75	10.50	464.63	Cft
	Toilet wall	1	18.50	0.75	10.50	145.69	Cft
	Parapet Wall	1	73.50	0.38	2.50	68.91	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
	D-2	-1	2.50	0.75	7.00	(13.13)	Cft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	-2	6.00	0.75	4.00	(36.00)	Cft
	V-1	-1	2.00	0.70	2.00	(2.80)	Cft
					Total	614.92	Cft
					Total	**6.15**	**%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	17.50	13.50	0.50	118.13	Cft
	Toilet Slab	1	6.50	8.50	0.50	27.63	Cft
	Sun shade	1	5.50	1.50	0.25	2.06	Cft
	Sun shade	2	8.00	1.50	0.25	6.00	Cft
	Sun shade	1	3.00	1.50	0.25	1.13	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.75	0.75	2.53	Cft
	D-2	1	3.50	0.75	0.75	1.97	Cft
	W-1	2	7.00	0.75	0.75	7.88	Cft
	V-1	1	3.00	0.75	0.75	1.69	Cft
					Total	**169.00**	**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)					169.00	Cft
	Top Slab & lintel @ 6.75 lbs / Cft		6.75		=	1,140.75	lbs/cft
				Total	=	1,140.75	lbs/cft
				Total	=	517.58	Kg.
			Add 5% Wastage.		=	25.88	Kg.
				Total	**=**	**543**	**Kg**
					Total	**5.43**	**%kg**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Sand Filling						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	12.00	16.00	2.75	528.00	Cft
	toilet	1	7.00	5.00	2.75	96.25	Cft
					Total	624.25	Cft
					Total	**6.24**	**%Cft**
	Brick ballast						
11	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.						
	Floor	1	12.00	16.00	0.33	63.36	Cft
	toilet	1	7.00	5.00	0.33	11.55	Cft
					Total	74.91	Cft
					Total	**0.75**	**%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	12.00	16.00	0.17	32.00	Cft
	toilet	1	7.00	5.00	0.17	5.83	Cft
					Total	**0.38**	**%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.						
	d) (Non-Skid Chequred Tiles) 300mmx300mm	1	12.00	16.00		192.00	Sft
					Total	**192.00**	**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	56.00		0.33	18.48	Sft
					Total	**18.48**	**Sft**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	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	7.00	5.00		35.00	Sft
					Total	**35.00**	**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"	2	7.00		7.00	98.00	Sft
		2	5.00		7.00	70.00	Sft
					Total	**168.00**	**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	12.00	16.00		192.00	Sft
		1	7.00	5.00		35.00	Sft
					Total	**2.27**	**%Sft**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Cement Plaster						
18	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Office Room						
		2	12.00		10.50	252.00	Sft
		2	16.00		10.50	336.00	Sft
	Toilet						
		2	7.00		10.50	147.00	Sft
		2	5.00		10.50	105.00	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	-2	6.00		4.00	(48.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	746.00	Sft
					Total	**7.46**	**%Sft**
	Pointing						
19	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	73.50		10.50	771.75	Sft
					Total	771.75	Sft
					Total	**7.72**	**%Sft**
20	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**7.72**	**%Sft**
	Distempering						
21	Distempering:-						
	iii) three coats						
	Office Room						
		2	12.00		10.50	252.00	Sft
		2	16.00		10.50	336.00	Sft
	Toilet						
		2	7.00		10.50	147.00	Sft
		2	5.00		10.50	105.00	Sft
	Slab	1	12.00	16.00		192.00	Sft
		1	7.00	5.00		35.00	Sft

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	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	-2	6.00		4.00	(48.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	973.00	Sft
					Total	**9.73**	**%Sft**
	Wooden Door						
22	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)						
	D-1	1	3.50		7.00	24.50	Sft
	D-2	1	2.50		7.00	17.50	Sft
					Total	**42.00**	**Sft**
	Lock						
23	Providing and fixing, approved quality mortice lock.	2				**2.00**	**Each**
	Paint						
24	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii) Second coat				**Total**	**0.84**	**Sft**
	Steel Window						
25	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-						
	b) fixed with wire gauze, 22 SWG						
	v) glass pane 5 mm thick						

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	W-1	2	6.00		4.00	48.00	Sft
	V-1	1	2.00		2.00	4.00	Sft
					Total	**52.00**	**Sft**
	Roof Insulation						
26	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	17.50	13.50		236.25	Sft
		1	6.50	8.50		55.25	Sft
					Total	291.50	Sft
					Total	**2.92**	**%Sft**
27	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						
28	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				**1.00**	**Each**
	Bottom Khuras						
29	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**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
DETAILED COST ESTIMATE
OFFICE BUILDING
PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	1.00	2,218.35	2,218
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	2,649.35	2,649
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	5,169.95	5,170
4	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.00	2,228.75	2,229
6	19-16	Providing and fixing, chromium plated soap dish.	Each	1.00	278.75	279
8	19-20	Providing and fixing looking glass 55x40 cm (22"x16") size	Each	1.00	638.15	638
9	19-27	Providing and fixing chromium plated bib cock:-				
		i) 2 cm (¾")	Each	1.00	1,015.00	1,015
10	19-28	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	3.00	955.00	2,865
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	1.00	627.95	628
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	1.00	1,120.85	1,121

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PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
13	19-35-ii	Providing and fitting "P" trap:-				
		ii) 10 cm (4") glazed.	Each	2.00	283.15	566
		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				
		(ii) (3/4") 25 mm	Rft	50.00	66.50	3,325
		(iii) (1") 32 mm	Rft	50.00	106.90	5,345
		Valve				
15	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	1,434.00	1,434
		iii) 1" dia	Each	1.00	1,674.00	1,674
		uPVC Pipe				
16	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	88.45	1,769
		(v) 4"(110 mm)	Rft	80.00	217.25	17,380
		(vi) 6"(160 mm)	Rft	20.00	420.65	8,413

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PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		HDPE Tank				
17	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	200.00	106.60	21,320
		Total Rs. (A)				**80,038**
		Non-Schedule Item				
18	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	18,011.67	18,012
		Total Rs. (B)				**18,012**
		Total Amount Rs. (A + B)				**98,050**

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DETAILED COST ESTIMATE

OFFICE BUILDING

ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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.	500.00	81.70	40,850
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.	300.00	94.60	28,380
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.	1,200.00	25.70	30,840
4	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.	900.00	40.75	36,675
5	C-24/10a.iv	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.	450.00	53.80	24,210
6	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	6.00	270.50	1,623
7	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	372.25	745

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ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
8	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	10.00	87.35	874
9	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	2.00	112.00	224
10	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	6.00	149.80	899
11	C-24/43	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
		i) double rod (80 watts) with two chokes and 2 starters.	Each	6.00	2,164.65	12,988
12	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	1.00	3,133.00	3,133
		Sub Total (A)				**181,440**
13	N.S	Supply, installation and commissioning of wall mounted mirror LED light 10 watt with tube rod and frame all necessary fixing accessories, complete in all respects	Each	1.00	1,215.00	1,215
14	N.S	Supply, installation and commissioning recessed 10W LED Down Light complete in all respects	Each	1.00	1,430.00	1,430
15	N.S	Supply, Installation, testing and commissioning of following size 56" steel body, complete with capacitor, hanging rod, canopy, blades, dimmers nuts and bolts complete in all respect.	Each	2.00	7,000.00	14,000
		Sub Total (B)				**16,645**
		Sub Total (A+B)				**198,085**

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DETAILED COST ESTIMATE
SITTING ROOM
CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	0.45	10,677.75	4,805
		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	716.25	9.25	6,625
		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	0.59	28,986.90	17,102
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	3.44	30,946.30	106,455
		Horizontal D.P.C				
5	6/35	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	0.54	8,659.85	4,676
		Vertical D.P.C				
6	6/35	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:				

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CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		ii) Ratio 1:3 ¾ " thick (20 mm)	100 Sft	0.72	6,480.10	4,666
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	5.64	33,130.10	186,854
		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	142.50	553.30	78,845
		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	4.58	31,771.00	145,511
		Sand Filling				
10	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	4.95	2,943.30	14,569
		Brick ballast				
11	6/2	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.	100 Cft	0.59	9,023.50	5,324

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SITTING ROOM
CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	0.30	38,178.90	11,454
		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	150.00	211.60	31,740
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	16.50	292.75	4,830
		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	30.00	240.00	7,200

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CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
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	154.00	292.75	45,084
		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	1.80	3,708.60	6,675
		Cement Plaster				
18	11/9	Cement plaster 1:4 upto 20' (6.00 m) height:-				
		3/4" (20 mm) thick	100 Sft	6.62	4,379.60	28,993
		Pointing				
19	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	7.30	3,518.35	25,684
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	7.30	652.50	4,763
		Distempering				
21	11/23	Distempering:-				
		iii) three coats	100 Sft	8.42	1,295.00	10,904
		Wooden Door				
22	12/50-i	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)	Per Sft	42.00	1,490.70	62,609

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CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Lock				
23	12/21	Providing and fixing, approved quality mortice lock.	Each	2.00	771.50	1,543
		Paint				
24	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	1,292.00	1,085
		ii) Second coat	100 Sft	0.84	711.40	598
		Steel Window				
25	25/41/b	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-				
		b) fixed with wire gauze, 22 SWG				
		v) glass pane 5 mm thick	Per Sft	52.00	1,081.70	56,248
		Roof Insulation				
26	9/35	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	2.39	11,646.40	27,835
27	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	239.00	7.85	1,876
		Khurras				
28	9/15	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	1.00	855.00	855

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SITTING ROOM

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Bottom Khuras				
29	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	1,746.40	1,746
		Total Rs.				**907,156**

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SITTING 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	53.00	2.50	2.50	331.25	Cft
	Toilet wall	1	18.50	2.50	2.50	115.63	Cft
					Total	446.88	Cft
					Total	**0.45**	**%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	53.00	7.50		397.50	Sft
	Toilet wall	1	18.50	7.50		138.75	Sft
	Floor	1	15.00	10.00		150.00	Sft
		1	6.00	5.00		30.00	Sft
					Total	**716.25**	**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	53.00	2.50	0.33	43.73	Cft
	Toilet wall	1	18.50	2.50	0.33	15.26	Cft
					Total	58.99	Cft
					Total	**0.59**	**%Cft**

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SITTING 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	53.00	1.875	0.25	24.84	Cft
	Step - 2	1	53.00	1.500	0.25	19.88	Cft
	Step - 3	1	53.00	1.125	0.25	14.91	Cft
	Step - 4	1	53.00	0.750	4.92	195.57	Cft
	Toilet wall						
	Step - 1	1	18.50	1.875	0.25	8.67	Cft
	Step - 2	1	18.50	1.500	0.25	6.94	Cft
	Step - 3	1	18.50	1.125	0.25	5.20	Cft
	Step - 4	1	18.50	0.750	4.92	68.27	Cft
					Total	344.27	Cft
					Total	**3.44**	**%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	1	53.00	0.75		39.75	Sft
	Toilet wall	1	18.50	0.75		13.88	Sft
					Total	53.63	Sft
					Total	**0.54**	**%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	53.00		1.00	53.00	Sft
	Toilet wall	1	18.50		1.00	18.50	Sft
					Total	71.50	Sft
					Total	**0.72**	**%Sft**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
SITTING 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	53.00	0.75	10.50	417.38	Cft
	Toilet wall	1	18.50	0.75	10.50	145.69	Cft
	Parapet Wall	1	69.50	0.38	2.50	65.16	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
	D-2	-1	2.50	0.75	7.00	(13.13)	Cft
	W-1	-2	6.00	0.75	4.00	(36.00)	Cft
	V-1	-1	2.00	0.70	2.00	(2.80)	Cft
					Total	563.92	Cft
					Total	**5.64**	**%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	16.50	11.50	0.50	94.88	Cft
	Toilet Slab	1	7.50	6.50	0.50	24.38	Cft
	Sun shade	1	5.50	1.50	0.25	2.06	Cft
	Sun shade	2	8.00	1.50	0.25	6.00	Cft
	Sun shade	1	3.00	1.50	0.25	1.13	Cft
	Doors and window Lintels						
	D-1	1	4.50	0.75	0.75	2.53	Cft
	D-2	1	3.50	0.75	0.75	1.97	Cft
	W-1	2	7.00	0.75	0.75	7.88	Cft
	V-1	1	3.00	0.75	0.75	1.69	Cft
					Total	**142.50**	**Cft**

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SITTING ROOM
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)					142.50	Cft
	Top Slab & lintel @ 6.75 lbs / Cft		6.75		=	961.88	lbs/cft
				Total	=	961.88	lbs/cft
				Total	=	436.42	Kg.
			Add 5% Wastage.		=	21.82	Kg.
				Total	**=**	**458**	**Kg**
					Total	**4.58**	**%kg**
	Sand Filling						
10	Supplying and filling sand under floor; or plugging in wells.						
	Floor	1	15.00	10.00	2.75	412.50	Cft
	toilet	1	6.00	5.00	2.75	82.50	Cft
					Total	495.00	Cft
					Total	**4.95**	**%Cft**
	Brick ballast						
11	Dry rammed brick or stone ballast, 1½" to 2"(40 mm to 50 mm) gauge.						
	Floor	1	15.00	10.00	0.33	49.50	Cft
	toilet	1	6.00	5.00	0.33	9.90	Cft
					Total	59.40	Cft
					Total	**0.59**	**%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	15.00	10.00	0.17	25.00	Cft
	toilet	1	6.00	5.00	0.17	5.00	Cft
					Total	**0.30**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
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SITTING ROOM

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	15.00	10.00		150.00	Sft
					Total	**150.00**	**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	50.00		0.33	16.50	Sft
					Total	**16.50**	**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	6.00	5.00		30.00	Sft
					Total	**30.00**	**Sft**

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SITTING ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

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"	2	6.00		7.00	84.00	Sft
		2	5.00		7.00	70.00	Sft
					Total	**154.00**	**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	15.00	10.00		150.00	Sft
		1	6.00	5.00		30.00	Sft
					Total	**1.80**	**%Sft**
	Cement Plaster						
18	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Sitting Room						
		2	15.00		10.50	315.00	Sft
		2	10.00		10.50	210.00	Sft
	Toilet						
		2	6.00		10.50	126.00	Sft
		2	5.00		10.50	105.00	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	-2	6.00		4.00	(48.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	662.00	Sft
					Total	**6.62**	**%Sft**

PUNJAB CITIES PROGRAM (PCP)
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SITTING ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Pointing						
19	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	69.50		10.50	729.75	Sft
					Total	729.75	Sft
					Total	**7.30**	**%Sft**
20	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**7.30**	**%Sft**
	Distempering						
21	Distempering:-						
	iii) three coats						
	Sitting Room						
		2	15.00		10.50	315.00	Sft
		2	10.00		10.50	210.00	Sft
	Toilet						
		2	6.00		10.50	126.00	Sft
		2	5.00		10.50	105.00	Sft
	Slab	1	15.00	10.00		150.00	Sft
		1	6.00	5.00		30.00	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	-2	6.00		4.00	(48.00)	Sft
	V-1	-1	2.00		2.00	(4.00)	Sft
					Total	842.00	Sft
					Total	**8.42**	**%Sft**

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SITTING ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Wooden Door						
22	Providing and fixing 1½" (40 mm) thick hollow flush doors and windows with commercial ply (3 ply) on both faces of deodar wood shutter frame 1¼" (30 mm) thick and partal wood braces at about 3" (75 mm) apart and deodar wood lipping 1½"x3/8" (40 mmx10 mm) fixed with M.S. chowkat (frame) including chromium plated fittings, etc. complete in all respects (without sliding bolt or lock):- M.S. angle iron 1½"x1½"x¼", welded (40 mmx40 mmx 6mm) with M.S. flat 2"x¼" (50 mm x 6 mm)						
	D-1	1	3.50		7.00	24.50	Sft
	D-2	1	2.50		7.00	17.50	Sft
					Total	**42.00**	**Sft**
	Lock						
23	Providing and fixing, approved quality mortice lock.	2				**2.00**	**Each**
	Paint						
24	Painting new surface:- Preparing surface and painting of doors and windows any type (including edges):-						
	i) priming coat.						
	ii) Second coat				**Total**	**0.84**	**Sft**
	Steel Window						
25	Providing and fixing steel windows with openable glazed panels, using beam section for frame 1½"x1"x5/8"x1/8" (40x25x16x3 mm), Z-section for leaves ¾"x1"x¾"x1/8" (20x25x20x3 mm), T-section sashes 1"x1"x1/8" (25x25x3 mm), glass panes, wooden screed for glazing embedded over a thin layer of putty duly screwed with leaves, brass fittings, holdfast, duly painted, complete in all respects, including all cost of material and labour, etc. as per approved design and as directed by the Engineer-in-charge:-						
	b) fixed with wire gauze, 22 SWG						
	v) glass pane 5 mm thick						
	W-1	2	6.00		4.00	48.00	Sft
	V-1	1	2.00		2.00	4.00	Sft
					Total	**52.00**	**Sft**

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SITTING ROOM

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Roof Insulation						
26	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	16.50	11.50		189.75	Sft
		1	7.50	6.50		48.75	Sft
					Total	238.50	Sft
					Total	**2.39**	**%Sft**
27	Supplying and laying polythene sheet over D.P.C. under floors and on roofs, etc.						
	ii) 500 gauge (.005" thick)				**Total**	**239.00**	**Sft**
	Khurras						
28	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	1				**1.00**	**Each**
	Bottom Khuras						
29	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**

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
DETAILED COST ESTIMATE
SITTING ROOM
PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	1.00	2,218.35	2,218
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	2,649.35	2,649
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	5,169.95	5,170
4	19-30	Providing and fixing, chromium plated mixing valve, for wash hand basin, sink or shower.	Each	1.00	2,228.75	2,229
6	19-15	Providing and fixing, chromium plated soap dish.	Each	2.00	278.75	558
8	19-20	Providing and fixing looking glass 55x40 cm (22"x16") size	Each	1.00	638.15	638
9	19-27	Providing and fixing chromium plated bib cock:-				
		i) 2 cm (¾")	Each	1.00	1,015.00	1,015
10	19-28	Providing and fixing chromium plated tee stop cock 15mm (½").	Each	3.00	955.00	2,865
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	1.00	627.95	628
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	1.00	1,120.85	1,121
13	19-35-ii	Providing and fitting "P" trap:-				
		ii) 10 cm (4") glazed.	Each	2.00	283.15	566

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DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB
DETAILED COST ESTIMATE
SITTING ROOM
PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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				
		(ii) (3/4") 25 mm	Rft	22.00	66.50	1,463
		(iii) (1") 32 mm	Rft	33.00	106.90	3,528
		Valve				
15	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	1,434.00	1,434
		iii) 1" dia	Each	1.00	1,674.00	1,674
		uPVC Pipe				
16	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	88.45	1,769
		(v) 4"(110 mm)	Rft	60.00	217.25	13,035

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DETAILED COST ESTIMATE
SITTING ROOM
PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		HDPE Tank				
17	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	200.00	106.60	21,320
		Total Rs. (A)				**63,880**
		Non-Schedule Item				
18	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	18,011.67	18,012
		Total Rs. (B)				**18,012**
		Total Amount Rs. (A + B)				**81,892**

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

SITTING ROOM

ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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.	400.00	81.70	32,680
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.	200.00	94.60	18,920
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.	1,000.00	25.70	25,700
4	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.	600.00	40.75	24,450
5	C-24/10a.iv	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.	300.00	53.80	16,140
6	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	6.00	270.60	1,624
7	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	372.35	745

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DETAILED COST ESTIMATE

SITTING ROOM

ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
8	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	6.00	87.35	524
9	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	1.00	112.00	112
10	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	5.00	149.80	749
11	C-24/43	Supply and erection of tube light, including rod, choke, starter with frame, flexible wire, including connection from ceiling rose, etc., complete				
		ii) single rod (40 watts) with one choke and one starter.	Each	4.00	1,221.70	4,887
12	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	1.00	3,133.00	3,133
		Sub Total (A)				**129,663**
13	N.S	Supply, installation and commissioning of wall mounted mirror LED light 10 watt with tube rod and frame all necessary fixing accessories, complete in all respects	Each	1.00	1,215.00	1,215
14	N.S	Supply, installation and commissioning recessed 10W LED Down Light complete in all respects	Each	1.00	1,430.00	1,430
15	N.S	Supply, Installation, testing and commissioning of following size 56" steel body, 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)				**9,645**
		Sub Total (A+B)				**139,308**

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.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	2.34	10,677.75	24,986
		Anti-Termite				
2	26/43	Spraying termite proofing by using liquid FMC/Biflex/TerminexExin/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	4,562.48	9.25	42,203
		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	1.68	28,986.90	48,698
		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:-				

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.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		(2) Type C (nominal mix 1: 2: 4)	P.Cft	560.00	454.60	254,576
		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:-				
		(2) Type B (nominal mix 1: 1½: 3)	P.Cft	132.00	609.30	80,428
		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	39.56	31,771.00	1,256,861
		Sand Filling				
6	7/30	Supplying and filling sand under floor; or plugging in wells.	100 Cft	28.80	2,943.30	84,767
		Sub Base Course				
7	18/3/a/ (i) + 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. (Pit run or bed run gravel from sargodha querry to site, actual compacted depth shall be considered for payment)	100Cft	9.50	16,063.80	152,606

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DETAILED COST ESTIMATE

PARKING SHED (SIZE 90' x 32')

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	9.50	23,381.53	222,125
		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	194.90	561,312
		Parking Shed				
10	N.S	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. 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 prior to placing order.	Sft	2,880.00	1,800.00	5,184,000
		No of One unit cost				**7,912,561**
		No of two unit cost				**15,825,122**

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	8	8.50	7.50	4.58	2,335.80	Cft
					Total	2,335.80	Cft
					Total	**2.34**	**%oCft**
	Anti-Termite						
2	Spraying termite proofing by using liquid FMC/Biflex/TerminexExin/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	8	32.00	4.58		1,172.48	Sft
		8	8.50	7.50		510.00	Sft
					Total	**4,562.48**	**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	8.50	7.50	0.33	168.30	Cft
					Total	168.30	Cft
					Total	**1.68**	**%Cft**

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	8	8.00	7.00	1.25	560.00	Cft
					Total	**560.00**	**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:-						
	(2) Type B (nominal mix 1: 1½: 3)						
	Columns	8	1.50	2.00	5.50	132.00	Cft
					Total	**132.00**	**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)					692.00	Cft
	Columns @ 12 lbs / Cft		12.00		=	8,304	lbs/cft
				Total	=	8,304	lbs/cft
				Total	=	3,768	Kg.
			Add 5% Wastage.		=	188	Kg.
				Total	**=**	**3,956**	**Kg**
					Total	**39.56**	**%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

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
					Total	**28.80**	**%Cft**
	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. (Pit run or bed run gravel 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**
	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)						
	c) 80-mm thick						
	Shed	1	90.00	32.00		**2,880**	**Sft**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Parking Shed						
10	Providing, laying and fixing in position shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. 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 prior to placing 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.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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.	500.00	94.60	47,300
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.	1,000.00	25.70	25,700
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.	300.00	40.75	12,225
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-24/14-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	372.35	745
6	C-24/32-ii	Supply and erection of switches 10/15 Amp. (Recessed Type)	Each	6.00	87.35	524
1	C-24/36-i	Supply and erection of 3 pin switch and Plug combined, recessed type. (5Amps)	Each	1.00	112.00	112
2	C-24/36-ii	Supply and erection of 3 pin switch and Plug combined recessed type (10/15Amps)	Each	1.00	149.80	150
		Sub Total (A)				**87,865**
7	N.S	Supply, installation and commissioning high bay light 100W with 120lm/w LED hanging with all accessories complete in all respects	Each	6.00	35,035	210,210
		Sub Total (B)				**210,210**
		Sub Total (A+B)				**298,075**
		No of One unit cost				**298,075**
		No of two unit cost				**596,150.60**

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

DETAILED COST ESTIMATE

WASHING PIT

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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	0.96	10,677.75	10,251
		Sand Filling				
2	7/30	Supplying and filling sand under floor; or plugging in wells.	100Cft	1.12	2,943.30	3,296
		Plain Cement Concrete				
3	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(c) Ratio 1: 1½: 3	100 Cft	0.57	43,876.50	25,010
		(f) Ratio 1: 2: 4	100 Cft	0.15	38,178.90	5,727
		(i) Ratio 1: 4: 8	100 Cft	1.12	28,986.90	32,465
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:4	100 Cft	11.04	30,946.30	341,647
		Plaster				
5	11/8/b	Cement plaster 1:3 upto 20' (6.00 m) height:-				
		b) ½" (13 mm) thick	100 Sft	3.32	3,424.50	11,369
		Mosaic flooring				
6	10/22/a	1½"(40 mm) thick mosaic flooring, consisting of ½ "(13 mm) mosaic topping of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1"(25 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing :-				
		(a) using grey cement	100 Sft	0.88	19,573.00	17,224

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

WASHING PIT

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Mosaic dado or skirting				
7	10/37	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing:				
		(a) using grey cement:				
		ii) ½"(13 mm) thick	100 Sft	3.32	20,965.90	69,607
		Total Amount Rs.				**516,596**

PUNJAB CITIES PROGRAM (PCP)
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WASHING PIT
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.						
	Washing Pit	1	35.00	9.67	2.83	958.93	Cft
					Total	**0.96**	**%oCft**
2	Supplying and filling sand under floor; or plugging in wells.	1	35.00	9.67	0.33	111.69	Cft
					Total	**1.12**	**%Cft**
	Plain Cement Concrete						
3	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(c) Ratio 1: 1½: 3	2	35.00	3.25	0.25	56.88	Cft
					Total	**0.57**	**%Cft**
	(f) Ratio 1: 2: 4	1	35.00	2.50	0.17	14.58	Cft
					Total	**0.15**	**%Cft**
	(i) Ratio 1: 4: 8						
	Washing Pit	1	35.00	9.67	0.33	111.69	Cft
					Total	**1.12**	**%Cft**
	Brick work in Foundation						
4	Pacca brick work in foundation and plinth in:-						
	Cement, sand mortar:- Ratio 1:4						
	Washing Pit						
	Step - 1	1	9.00	1.875	0.50	8.44	Cft
	Step - 2	1	9.00	1.500	0.50	6.75	Cft
	Step - 3	1	9.00	1.125	5.50	55.69	Cft
	Side walls	2	19.00	3.250	6.00	741.00	Cft
		2	15.00	3.250	3.00	292.50	Cft
					Total	1,104.38	Cft
					Total	**11.04**	**%Cft**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Plaster						
5	Cement plaster 1:3 upto 20' (6.00 m) height:-						
	b) ½" (13 mm) thick						
	Wall	1	2.50		5.50	13.75	Sft
	Side Wall	2	19.00		6.00	228.00	Sft
		2	15.00		3.00	90.00	Sft
					Total	331.75	Sft
					Total	**3.32**	**%Sft**
	Mosaic flooring						
6	1½"(40 mm) thick mosaic flooring, consisting of ½ "(13 mm) mosaic topping of one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over 1"(25 mm) thick floor of 1:2:4 cement concrete, including rubbing and polishing complete with finishing :-						
	(a) using grey cement	1	35.00	2.50		87.50	Sft
					Total	**0.88**	**%Sft**
	Mosaic dado or skirting						
7	Mosaic dado or skirting with one part of cement and marble powder in the ratio of 3:1 and two parts of marble chips, laid over ½"(13 mm) thick cement plaster 1:3, including rubbing and polishing, complete with finishing:						
		1	2.50		5.50	13.75	Sft
		2	19.00		6.00	228.00	Sft
		2	15.00		3.00	90.00	Sft
					Total	331.75	Sft
					Total	**3.32**	**%Sft**

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

DETAILED COST ESTIMATE

GENERATOR PAD

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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	0.08	10,677.75	854
		Plain Cement Concrete				
2	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	0.17	28,986.90	4,928
		Concrete Work				
3	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	80.00	454.60	36,368
		Steel Work.				
4	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	3.05	31,771.00	96,902

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

DETAILED COST ESTIMATE

GENERATOR PAD

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		Theremopore Sheet				
5	6/35	Providing and fixing theremopore (foamed polythene) sheet in horizontal and vertical expansion joints:				
		a) 1" (25 mm) thick thermopore sheet	Sft	34.58	18.10	626
		Heavy Steel Work				
6	25/10	Fabrication of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, revitting, handling, assembling and fixing, but excluding erection in position.	100Kg	0.45	32,465.20	14,661
7	25/11	Erection and fitting in position iron trusses, staging of water tanks, etc.	100Kg	0.45	1,277.25	577
		Total Amount Rs.				**154,915**

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

GENERATOR PAD

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.						
	Generator Pad	1	8.84	5.84	1.50	77.44	Cft
					Total	77.44	Cft
					Total	**0.08**	**%oCft**
	Plain Cement Concrete						
2	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Generator Pad	1	8.84	5.84	0.33	17.04	Cft
					Total	17.04	Cft
					Total	**0.17**	**%Cft**
	Concrete Work						
3	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:-						
		1	8.00	5.00	2.00	80.00	Cft
					Total	**80.00**	**Cft**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Steel Work.						
4	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)					80.00	Cft
	Pad @ 8 lbs / Cft		8.00		=	640.00	lbs/cft
				Total	=	640.00	lbs/cft
				Total	=	290.38	Kg.
			Add 5% Wastage.		=	14.52	Kg.
				Total	**=**	**305**	**Kg**
					Total	**3.05**	**%kg**
	Theremopore Sheet						
5	Providing and fixing theremopore (foamed polythene) sheet in horizontal and vertical expansion joints:						
	a) 1" (25 mm) thick thermopore sheet	1	26.00		1.33	**34.58**	**Sft**
	Heavy Steel Work						
6	Fabrication of heavy steel work, with angle, tees, flat iron round iron and sheet iron for making trusses, girders, tanks, etc., including cutting, drilling, revitting, handling, assembling and fixing, but excluding erection in position.						
	Angle Iron 1-1/2" x1-1/2"x3/8"	1	26.00	0.25	0.03	0.20	Cft
	Steel Density 490lbs/cft					99.53	lbs
						45.16	Kg
					Total	**0.45**	**%Kg**
7	Erection and fitting in position iron trusses, staging of water tanks, etc.				**Total**	**0.45**	**%Kg**

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

DETAILED COST ESTIMATE

PUMP PAD

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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	0.01	10,677.75	107
		Plain Cement Concrete				
2	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	0.03	28,986.90	870
		Concrete Work				
3	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	8.00	454.60	3,637
		Steel Work.				
4	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	0.30	31,771.00	9,531
		Total Amount Rs.				**14,144**

PUNJAB CITIES PROGRAM (PCP)
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PUMP PAD

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.						
	Pump Pad	1	2.50	2.50	1.00	6.25	Cft
					Total	**0.01**	**%oCft**
	Plain Cement Concrete						
2	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(i) Ratio 1: 4: 8						
	Pump Pad	1	2.50	2.50	0.50	3.13	Cft
					Total	3.13	Cft
					Total	**0.03**	**%Cft**
	Concrete Work						
3	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:-						
		1	2.00	2.00	2.00	8.00	Cft
					Total	**8.00**	**Cft**

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Steel Work.						
4	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)					8.00	Cft
	Pad @ 8 lbs / Cft		8.00		=	64.00	lbs/cft
				Total	=	64.00	lbs/cft
				Total	=	29.04	Kg.
			Add 5% Wastage.		=	1.45	Kg.
				Total	**=**	**30**	**Kg**
					Total	**0.30**	**%kg**

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

SEPTIC TANK

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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	0.71	10,677.75	7,581
		Plain Cement Concrete				
2	6/5	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):				
		(f) Ratio 1: 2: 4	100 Cft	0.34	38,178.90	12,981
		(i) Ratio 1: 4: 8	100 Cft	0.55	28,986.90	15,943
		Brick work				
3	7/7/i	Pacca brick work other than building upto 10ft. (3 m)				
		Ratio 1:3	100 Cft	4.21	34,416.10	144,892
		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.):-				
		(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	50.63	553.30	28,011

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DETAILED COST ESTIMATE

SEPTIC TANK

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	1.27	31,771.00	40,210
		Cement Pointing				
6	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100Sft	5.19	3,518.35	18,260
		RCC Manhole Cover				
7	21/15	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	2.00	11,558.40	23,117
		Angle Iron Step				
8	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	14.00	590.40	8,266
		Total Amount Rs.				**299,260**

PUNJAB CITIES PROGRAM (PCP)
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SEPTIC TANK

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.						
	Septic tank	1	13.50	7.50	7.00	708.75	Cft
					Total	708.75	Cft
					Total	**0.71**	**%oCft**
	Plain Cement Concrete						
2	Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate):						
	(f) Ratio 1: 2: 4	3	3.75	6.00	0.50	33.75	Cft
					Total	33.75	Cft
					Total	**0.34**	**%Cft**
	(i) Ratio 1: 4: 8						
	Septic tank	3	3.75	6.00	0.33	22.50	Cft
	Outer Wall	1	39.00	2.00	0.33	26.00	Cft
	Baffle wall	2	6.00	1.50	0.33	6.00	Cft
					Total	54.50	Cft
					Total	**0.55**	**%Cft**
	Brick work						
3	Pacca brick work other than building upto 10ft. (3 m)						
	Ratio 1:3						
	Outer wall	1	39.00	1.88	0.50	36.56	Cft
		1	39.00	1.50	0.50	29.25	Cft
		1	39.00	1.13	0.50	21.94	Cft
		1	39.00	0.75	9.00	263.25	Cft
	Baffle wall	2	6.00	1.13	0.50	6.75	Cft
		2	6.00	0.75	7.00	63.00	Cft
					Total	420.75	Cft
					Total	**4.21**	**%Cft**

PUNJAB CITIES PROGRAM (PCP)
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SEPTIC TANK

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.):-						
	(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)	1	13.50	7.50	0.50	**50.63**	**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)		2.50 kg/cft			126.56	Kg
					Total	**1.27**	**%Kg**
	Cement Pointing						
6	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2	1	39.00		9.00	351.00	Sft
		4	6.00		7.00	168.00	Sft
					Total	519.00	Sft
					Total	**5.19**	**%Sft**
	RCC Manhole Cover						
7	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.	2				**2.00**	**Nos.**

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SEPTIC TANK

CALCULATION OF QUANTITIES

CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Angle Iron Step						
8	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.	14				**14.00**	**Nos.**

PUNJAB CITIES PROGRAM (PCP)
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DETAILED COST ESTIMATE

EXTERNAL WORK

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	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	2.31	10,677.75	24,666
		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	2,793.00	9.25	25,835
		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	3.05	28,986.90	88,410
		Brick work in Foundation				
4	7/4/i	Pacca brick work in foundation and plinth in:-				
		Cement, sand mortar:- Ratio 1:5	100 Cft	13.54	30,946.30	419,013
		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	2.75	8,659.85	23,815

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DETAILED COST ESTIMATE
EXTERNAL WORK
CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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	3.50	6,480.10	22,680
		Brick work in Super Structure				
7	7/5	Pacca brick work in ground floor:-				
		i) Cement, sand mortar:- Ratio 1:5	100 Cft	22.56	33,130.10	747,415
		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	36.75	454.60	16,707
		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	52.36	553.30	28,970
		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	5.09	31,771.00	161,714

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DETAILED COST ESTIMATE
EXTERNAL WORK
CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	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	28.87	4,379.60	126,439
		Pointing				
11	11/18/a	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-				
		a) ratio 1:2	100 Sft	28.87	3,518.35	101,575
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	28.87	652.50	18,838
		Distempering				
13	11/23	Distempering:-				
		iii) three coats	100 Sft	50.40	1,295.00	65,268
		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	120.00	1,927.75	231,330
		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	2.40	824.15	1,978
		ii) each subsequent coat of paint.	100 Sft	2.40	490.55	1,177
		Razor Wire				
16	26/46	Providing and fixing anti climb high security galvanized razor cut wire having double sharp four U-shaped pointed 0.5 mm thick (22mmx15 mm barbs) spaced @ 33 mm c/c cladded over 2.5 mm dia high tensile Core wire making coil fencing of specified diameter @ 4" c/c fixed on 2'-3" high M/S angle iron post 1½"x1½"x3/16" embeded in base of PCC (1:2:4) (4"x4"x9") @ 4' apart i/c the cost of 2 No. bars 3/8" dia welded horizantally with angle iron posts , binding wire, painting of posts, etc. complete in all respects as pproved and directed by the Engineer incharge.				
		(ii) 18 " diameter	Rft	630.00	499.90	314,937
		Total Rs. "A"				**2,420,767**

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DETAILED COST ESTIMATE

EXTERNAL WORK

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	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	8.60	17,222.30	148,112
		Sub Base Course				
18	18/3/a/ (i) + 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. (Pit run or bed run gravel from sargodha querry to site, actual compacted depth shall be considered for payment)	100Cft	28.38	16,063.80	455,891
		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	28.38	23,381.53	663,568

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EXTERNAL WORK

CIVIL WORK

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
		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	8,600.00	194.90	1,676,140
		Total Rs. "B"				**2,943,710**
		Total Rs. "A+B"				**5,364,477**

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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	350.00	2.50	2.50	2,187.50	Cft
	Columns	3	4.00	4.00	2.50	120.00	Cft
					Total	2,307.50	Cft
					Total	**2.31**	**%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	350.00	7.50		2,625.00	Sft
	Columns	3	16.00	2.50		120.00	Sft
		3	4.00	4.00		48.00	Sft
					Total	**2,793.00**	**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	350.00	2.50	0.33	288.75	Cft
	Columns	3	4.00	4.00	0.33	15.84	Cft
					Total	304.59	Cft
					Total	**3.05**	**%Cft**
	Brick work in Foundation						
4	Pacca brick work in foundation and plinth in:-						
	Cement, sand mortar:- Ratio 1:5						

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EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Boundary wall						
	Step - 1	1	350.00	1.875	0.25	164.06	Cft
	Step - 2	1	350.00	1.500	0.25	131.25	Cft
	Step - 3	1	350.00	1.125	0.25	98.44	Cft
	Step - 4	1	317.38	0.750	3.42	814.07	Cft
	Columns						
	Step - 1	29	1.13	1.13	3.42	125.52	Cft
	Gate Columns	3	6.50	0.38	2.84	20.77	Cft
					Total	1,354.11	Cft
					Total	**13.54**	**%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	317.38	0.75		238.03	Sft
	Columns	29	1.13	1.13		36.70	Sft
					Total	274.73	Sft
					Total	**2.75**	**%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	317.38		1.00	317.38	Sft
	Columns	29	1.13		1.00	32.63	Sft
					Total	350.00	Sft
					Total	**3.50**	**%Sft**
	Brick work in Super Structure						
7	Pacca brick work in ground floor:-						
	i) Cement, sand mortar:- Ratio 1:5						
	Boundary wall	1	317.38	0.75	8.00	1,904.25	Cft
	Columns	29	1.13	1.13	8.00	293.63	Cft
	Gate Columns	3	6.50	0.38	8.00	58.50	Cft
					Total	2,256.38	Cft

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EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
					Total	**22.56**	**%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	3	3.50	3.50	1.00	36.75	Cft
					Total	**36.75**	**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	3	1.25	1.25	11.17	52.36	Cft
					Total	**52.36**	**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)					89.11	Cft
	Columns @ 12 lbs / Cft		12.00		=	1,069.31	lbs/cft
				Total	=	1,069.31	lbs/cft
				Total	=	485.17	Kg.

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EXTERNAL WORK
CALCULATION OF QUANTITIES
CIVIL WORK

Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
			Add 5% Wastage.		=	24.26	Kg.
				Total	=	**509**	**Kg**
					Total	**5.09**	**%kg**
	Cement Plaster						
10	Cement plaster 1:4 upto 20' (6.00 m) height:-						
	3/4" (20 mm) thick						
	Boundary wall	1	317.38		8.00	2,539.00	Sft
	Columns	29	1.50		8.00	348.00	Sft
					Total	2,887.00	Sft
					Total	**28.87**	**%Sft**
	Pointing						
11	Cement pointing struck joints, on walls, upto 20' (6.00 m) hiehgt:-						
	a) ratio 1:2						
	Outer Walls	1	317.38		8.00	2,539.00	Sft
	Columns	29	1.50		8.00	348.00	Sft
					Total	2,887.00	Sft
					Total	**28.87**	**%Sft**
12	Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.				**Total**	**28.87**	**%Sft**
	Distempering						
13	Distempering:-						
	iii) three coats						
	Boundary wall	1	630.00		8.00	5,040.00	Sft
					Total	5,040.00	Sft
					Total	**50.40**	**%Sft**
	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	20.00		6.00	**120.00**	**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:-						

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	i) priming coat.					**2.40**	**%Sft**
	ii) each subsequent coat of paint.					**2.40**	**%Sft**
	Razor Wire						
16	Providing and fixing anti climb high security galvanized razor cut wire having double sharp four U-shaped pointed 0.5 mm thick (22mmx15 mm barbs) spaced @ 33 mm c/c cladded over 2.5 mm dia high tensile Core wire making coil fencing of specified diameter @ 4" c/c fixed on 2'-3" high M/S angle iron post 1½"x1½"x3/16" embeded in base of PCC (1:2:4) (4"x4"x9") @ 4' apart i/c the cost of 2 No. bars 3/8" dia welded horizantally with angle iron posts , binding wire, painting of posts, etc. complete in all respects as pproved and directed by the Engineer incharge.						
	(ii) 18 " diameter	1	630.00			**630.00**	**Rft**
	Tuff Paver						
	Borrow Earth						
1	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	8,600	1.00	1.00	8,600	Cft
					Total	8,600	Cft
					Total	**8.60**	**%oCft**

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Sr. No.	Description	No.	Length	Width	Height	Qty.	Unit
	Sub Base Course						
2	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)						
		1	8,600	1.00	0.33	2,838.00	Cft
					Total	**28.38**	**%Cft**
	Water Bound Macadam						
3	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	8,600	1.00	0.33	2,838.00	Cft
					Total	**28.38**	**%Cft**
	Tuff Paver						
4	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	8,600	1.00		**8,600**	**Sft**

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DETAILED COST ESTIMATE
EXTERNAL WORKS
PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	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	1.80	7,622.75	13,721
		PPRC Pipe				
2	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				
		(iii) (1") 32 mm	Rft	100.00	106.90	10,690
		(iv) (1-1/4") 40 mm	Rft	50.00	161.30	8,065
		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	2.00	2,130.00	4,260
		vi) 2" dia	Each	2.00	2,550.00	5,100
		uPVC Pipe				
4	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)				
		(vi) 6"(160 mm)	Rft	280.00	420.65	117,782

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PLUMBING WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
5	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	9.00	18,011.67	162,105
		HDPE Tank				
6	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	1,500	106.60	159,900
		Ejector Pump				
7	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	17,905.90	17,906
		Boring				
8	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	581.05	58,105
9	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	50.00	973.80	48,690

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Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
10	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	483.60	24,180
11	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	150.00	158.25	23,738
		c) 2" i/d (50 mm)	Rft	70.00	230.00	16,100
12	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	174.70	5,241
13	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	86.25	86
		Booster Pump				
14	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				**695,669**

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CALCULATION OF QUANTITIES
PLUMBING WORKS

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+Drainage pipe	1	400.00	1.50	3.00	1,800.00	Cft
					Total	**1.80**	**%oCft**
	PPRC Pipe						
2	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						
	(iii) (1") 32 mm	1	100.00			**100.00**	**Rft**
	(iv) (1-1/4") 40 mm	1	50.00			**50.00**	**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	2				**2.00**	**Nos.**
	vi) 2" dia	2				**2.00**	**Nos.**
	uPVC Pipe						
4	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)						
	(vi) 6"(160 mm)	1	250.00			**250.00**	**Rft**

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CALCULATION OF QUANTITIES

PLUMBING WORKS

Sr. No.	Description	No	Length	Width	Height	Qty.	Unit
5	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.	9				**9.00**	**Nos.**
	HDPE Tank						
6	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.	1500				**1,500.00**	**Gln**

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DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	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	3.34	10,677.75	35,685
		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:-				
		(2) Type B (nominal mix 1: 1½: 3)	Cft	192.00	515.95	99,062
		Steel Work				
3	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):-				
		('c) Deformed bars (Grade-60)	100Kg	4.80	31,771.00	152,501

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EXTERNAL ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
4	24/6	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	1,100.00	185.85	204,435
5	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	1,000.00	117.70	117,700
		iv) 16 mm sq (7/0.064")	Rft	100.00	173.95	17,395
6	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")	Rft	700.00	160.20	112,140
		b) PVC insulated, PVC sheathed 3 core, 600/1000 volts				
		v) 7/1.12 mm (7/0.044")	Rft	300.00	246.85	74,055
		c) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-				
		vi) 10 mm (7/0.052")	Rft	250.00	523.85	130,963
		vii) 16 mm (7/0.064")	Rft	250.00	642.90	160,725
7	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	5.00	106,223.10	531,116
		b) Double Arm				
		(i) 10 mtr height	Each	2.00	109,865.10	219,730

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EXTERNAL ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
8	24/69/c	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				
		(v) 90 Watt with 10800 Lumens	Each	9.00	51,675.00	465,075
9	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	14,693.25	14,693
10	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-Office,Shed,Pump	Each	9.00	1,101.75	9,916
		LCP Ext	Each	1.00	1,101.75	1,102
		b) Double Pole				
		(ii) 6-40 Amp (6 KA)	Each			
		LCP Ext	Each	5.00	3,351.75	16,759
		MPB	Each	2.00	3,351.75	3,351.75
		c) Tripple Pole				
		(ii) 6-40 Amp (6 KA)	Each			
		DB-Office,WS,GR	Each	3.00	6,753.00	20,259.00
		MPB	Each	2.00	6,753.00	13,506.00

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DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
11	24/88	Supplying, Installation and commissioning of MCCB (Moulded Case Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY / TERASAKI JAPAN/ABB SWITZERL(with adjustable Thermal-Magnetic Trip) in prelaid DBs and Panels i/c the cost of screws, necessary wire complete in all respect as approved and directed by the Engineer Incharge				
		a) Tripple Pole With Adjustable Thermal-Magnetic Trip /Electronic Trip (60-100%)				
		(i) 25-100 Amp(25 KA)				
		MPB	Each	1.00	26,853.00	26,853
12	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 (18"x24"x6")				
		DB-Office,Shed,Pump	Cft	1.50	18,634.45	27,952
		LCP Ext	Cft	1.50	18,634.45	27,952
		MPB	Cft	1.50	18,634.45	27,952

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DETAILED COST ESTIMATE

EXTERNAL ELECTRICAL WORKS

Sr. No.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
13	24/92	P/F floor mounted ATS (Auto Transfer Switch) panel board , fabricarted with 14S WG M.S sheet (Indoor Type) duly painted with 100 microns powder coated paint in approved colour , front access ,extendable,insulation class of 600 volts IP-44, incomimg & outgoing connections from bottom with flexible copper cable suitable for 415 VAC, 3-phase 4 wire, 50 HZ TPN&E system having rated service, short circuit breaking capacity at 400VAC conformimg to IEC-947-2 to accomodate given no of circuit components, instruments & accessories,assembled & wired with Electrolitic Copper bus bars at 50 deg and cables duly cleaned down to bare shining metal phosphate, manual change Over i/c the cost of Lock, Indication lights,thimbles, Copper Comb, Wiring, Netural & Earth Bar,CTs,Contactors,Relays, Door Earthing, Brass glands complete in all respects as approved and directed by the Engineer Incharge. (Breakers wil be paid additionally)				
		a) 1.00 Ft deep				
		(i) 15-40 KVA	Each	1.00	789,790.75	789,791
14	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	329,487.70	329,488

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.	2nd BI-Annual-2022 (July to Dec) Sialkot	Description	Unit.	Quantity	Rate (Rs.)	Amount (Rs.)
15	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	10.00	9,592.65	95,927
16	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.	150.00	23.25	3,488
		Sub Total Scheduled Items: (A)				**3,729,568**
17	N.S	Supply at site brand new 20KVA Prime Power Diesel Generator with fuel tank for 8 hour opration and Sound and Weather Proof canopy installed and commission at site on RCC PAD as per Manufacturer specifications to bear the Load of 20KVA DGSet complete in all respect, Loding and unloading on site to install on PAD and Control wires from ATS panel to DG Set for smooth operation including all necessary accessories required to complete this job as per enigneer incharge instructions.	Set	1.00	3,956,850	3,956,850
18	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.				
		i) Direct of Line (DOL) Starter for 3kW Motor	Set	1.00	56,200	56,200
		ii) Automatic Star Delta Starter ASDS for 7.5kW Motor	Set	1.00	74,220	74,220
		Total Cost (Part B)			**Rs.**	**4,087,270**
		Grand Total (Part A + Part B)			**Rs.**	**7,816,838**

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)	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

EARTH WORK LEAD CHART

Rate Analysis Road- 1

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	9,527.90	9,527.90
		i) 95% to 100% maximum modified AASHO dry density.					
2	3/17a.b.c	**Carriage**					
		upto ¼ mile (400 m).	1	1000 Cft	1	4,248.00	4,248.00
		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	47.50	570.00
		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	338.40	2,876.40
		for every ½ mile (800 m) additional lead or part thereof, beyond 5 miles (8 Km).	0	1000 Cft	1	320.35	-
		Total Amount I,000 (Rs.).					**17,222.30**
		Total Amount Per Cft					**17.22**

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

Rate Analysis Road- 2

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. (Pit run or bed run gravel from sargodha querry to site, actual compacted depth shall be considered for payment)

Crush Stone

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs)
1		**Material**					
	18-3 a(i)	Pit run or bed run gravel.	100 Cft	1	1	6,513.00	6,513.00
2		**Carriage**					
		1st KM	100 Cft	1	1.2	299.40	359.28
		2nd KM	100 Cft	1	1.2	145.25	174.30
		3rd KM	100 Cft	1	1.2	116.85	140.22
		4th KM	100 Cft	1	1.2	85.30	102.36
		5th KM	100 Cft	1	1.2	80.20	96.24
	1/1	6th KM	100 Cft	1	1.2	79.00	94.80
		7th KM	100 Cft	1	1.2	74.25	89.10
		8th KM	100 Cft	1	1.2	73.50	88.20
		9th KM	100 Cft	1	1.2	69.55	83.46
		10th KM	100 Cft	1	1.2	65.70	78.84
		From 11 km to 200 km	100 Cft	120.00	1.2	57.25	8,244.00
		Total.					**16,063.80**
		Total Amount per 100 Cft					**16,063.80**
		Total cast for Per Cft					**160.64**

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

Rate Analysis Road - 3

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.	2nd BI-Annual-2022 (July to Dec) Hafizabad	Description	Unit	Lead (Km)	Qty	Rate (Rs)	Amount (Rs.)
1	18/4(a)	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)	100 Cft		1	13,671.55	13,671.55
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.					
	1/1	1st KM	100 Cft	1	1.22	299.40	365.27
		2nd KM	100 Cft	1	1.22	145.25	177.21
		3rd KM	100 Cft	1	1.22	116.85	142.56
		4th KM	100 Cft	1	1.22	85.30	104.07
		5th KM	100 Cft	1	1.22	80.20	97.84
		6th KM	100 Cft	1	1.22	79.00	96.38
		7th KM	100 Cft	1	1.22	74.25	90.59
		8th KM	100 Cft	1	1.22	73.50	89.67
		9th KM	100 Cft	1	1.22	69.55	84.85
		10th KM	100 Cft	1	1.22	65.70	80.15
		From 11 km to 200 km	100 Cft	120.00	1.22	57.25	8,381.40
		Total.					**23,381.53**
		Total Amount per 100 Cft					**23,381.53**
		Total cast for Per Cft					**233.82**

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

Rate Analysis Road - 4

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

Sr. No.	2nd BI-Annual-2022 (July to Dec) Hafizabad	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	########	431.46
2	6-3-b	Cement concrete brick or stone ballast (1:4:8)	1	3.50	3.50	0.33	4.04	100 Cft	########	1,007.05
3	6-5-f	Base slab	1	3.50	3.50	0.25	3.06	100 Cft	########	1,169.23
4	6-6-(a)(iii)	Top ring Beam Ratio 1:2:4	1	3.500	3.50	0.33	4.04	100 Cft	454.60	1,837.72
5	6/12 (c)	Steel work		3.00 kg per cft			14.15	kg	########	4,495.20
6	7-7-i	Brick Work Ratio 1:3								
		Step - 1	1	11.00	0.75	2.00	16.50	100 Cft	########	5,678.66
7	11-8-c	3/4" thick Plaster Ratio 1:3 (External)	1	11.00		2.00	22.00	100 Sft	4,589.85	1,009.77
8	11-18-a	Cement pointing struck joints, on walls (1:2) (Internal)	1	8.00		2.00	16.00	100 Sft	3,518.35	562.94
9	13-9-i	Bitumen Coating on External Plaster	1	11.00		2.00	22.00	100 Sft	2,168.85	477.15
10	19-40-ii	Supply and fitting of cast iron manhole cover ii) 45 cm (18") dia	1				1.00	Each	1,342.50	1,342.50
								Grand Total.		**18,012**

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

RATE ANALYSIS

Description

Supply, installation and commissioning of wall mounted mirror LED light 10 watt with tube rod and frame all necessary fixing accessories, 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	Mirror Light			1.00	No	850	No.	850.00
								Total.	**850.00**
2		Carriage & Installation Charges	5	%					42.50
								Total.	**892.50**
		GST 17% on item No. 1	17	%					144.50
		Contractor's Profit on item No. (1&2)	20	%					178.50
		Total							**1,215.50**
		ITEM RATES							
		Composite rate Per Each						Rs.	**1,215.00**

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

RATE ANALYSIS

Description

Supply, installation and commissioning recessed 10W LED Down Light 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	LED Down Light			1.00	No.	1,000	No.	1,000.00
								Total.	**1,000.00**
2		Carriage & Installation Charges	5	%					50.00
								Total.	**1,050.00**
		GST 17% on item No. 1	17	%					170.00
		Contractor's Profit on item No. (1&2)	20	%					210.00
		Total							**1,430.00**
		ITEM RATES							
		Composite rate Per Each						Rs.	**1,430.00**

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

RATE ANALYSIS

Description

Supply, installation and commissioning high bay light 100W with 120lm/w LED hanging with all accessories 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	Highbay Light			1.00	No.	24,500	No.	24,500
								Total.	**24,500**
2		Carriage & Installation Charges	5	%					1,225
								Total.	**25,725**
		GST 17% on item No. 1	17	%					4,165
		Contractor's Profit on item No. (1&2)	20	%					5,145
		Total							**35,035**
		ITEM RATES							
		Composite rate Per Each						**Rs.**	**35,035**

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	ii) Automatic Star Delta Starter ASDS for 7.5kW Motor			1.00	No.	51,900	No.	51,900
								Total.	**51,900**
2		Carriage & Installation Charges	5	%					2,595
								Total.	**54,495**
		GST 17% on item No. 1	17	%					8,823
		Contractor's Profit on item No. (1&2)	20	%					10,899
		Total							**74,217**
		ITEM RATES							
		Composite rate Per Each						**Rs.**	**74,220**

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 3kW Motor			1.00	No.	39,300	No.	39,300
								Total.	**39,300**
2		Carriage & Installation Charges	5	%					1,965
								Total.	**41,265**
		GST 17% on item No. 1	17	%					6,681
		Contractor's Profit on item No. (1&2)	20	%					8,253
		Total							**56,199**
		ITEM RATES							
		Composite rate Per Each						**Rs.**	**56,200**

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 shed as per drawings, manufacturer's specifications and as directed by Engineer Incharge. This item includes Aluzinc corrugated sheet of 0.5 to 0.6 mm thick fixed with rivet and bolts over Purlins and truss frame of 50X50X4.75 mm with approved Colour/ paint supported with Steel Hexagonal / round shaped Columns size 200 to 300 mm diameter fitted with J-Type bolt having length 450 to 500 mm and not less than 38mm diameter. 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 prior to placing order.

									Unit.	**Per Sft**
Sr. No.	**Ref**	**Detail**			**Unit Rate (British System) per Sft**					
					Qty		**Rate Per Unit**			**Amount (Rs.)**
		Area 1920 Sft								
		Material								
1	MR	Supply of PEB Shed (32' x 60')			1	Sft	2,421,927		Sft	2,421,927
		GST	17	%						411,728
									Total.	**2,833,655**
2	MR	Installation Charges								100,914
		PST	16	%						16,146
									Total.	**117,061**
		Contractor's Profit on item No. (1&2)	20	%						504,568
		Total								**3,455,284**
		ITEM RATES								
		Composite rate 1920 Sft							**Rs.**	**3,455,290**
		Composite rate Per Sft							**Rs.**	**1,800**

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	5	%					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**

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

RATE ANALYSIS

Description

Supply at site brand new 20KVA Prime Power Diesel Generator with fuel tank for 8 hour opration and Sound and Weather Proof canopy installed and commission at site on RCC PAD as per Manufacturer specifications to bear the Load of 20KVA DGSet complete in all respect, Loding and unloading on site to install on PAD and Control wires from ATS panel to DG Set for smooth operation including all necessary accessories required to complete this job as per enigneer incharge instructions.

Unit. **Each**

Sr. No.	Ref	Detail	Unit Rate (British System) per Each			
			Qty		Rate Per Unit	Amount (Rs.)
		Material			1 $ = 225	
1	MR	Brand New KOHLER-SDMO France Diesel Generator Set, Model K22; 20 kVA Prime Power	1	No.	2,522,025	2,522,025
2	MR	Sound and Weather Proof Canopy	1	No.	245,000	245,000
					Total.	**2,767,025**
3		Transportation & Installation Charges	5	%		138,351
					Total.	**2,905,376**
		GST 17% on item No. (1&2)	17	%		470,394
		Contractor's Profit on item No. (1,2&3)	20	%		581,075
		Total				**3,956,846**
		ITEM RATES				
		Composite rate Per Each			**Rs.**	**3,956,850**

WAHDAT INDUSTRIAL SERVICES (PRIVATE) LIMITED
Address: 189/190 – Commercial Area, Airline Society, Khayaban-e-Jinnah, Lahore

Date: April 26th, 2022

Client: M/s Jers Consultancy

Reference No: PEBS-22-069
Project Name: Parking Shed

Dear Sir,
Thank you for giving us the opportunity to submit our proposal for the above-mentioned project.

PEBS proposal is based on the drawings and data provided by you and is in accordance with PEBS standard design practices and terms & conditions of sale.

PEBS scope of work covers design, fabrication, supply and installation of Pre-Engineered Building in strict accordance to the standards and specifications of PEBS, unless otherwise stated in the proposal.

PEBS intends to comply with your project requirement however kindly refer Section 9 of this proposal for exclusions, deviations and assumptions which are applicable to this offer.

Prices are valid for a period of 3 days from the date of this quote.

We are keen to secure this project and start new business relations with your esteemed company.

We assure you of superior quality of our buildings and best after sale services.

Sincerely

Director

Tel: +92-42-35955162-64, +92-306-1111-611

Table of Content

Section No.1: Building Parameters

Sr.	Building Description			
1	Frame Type		**Mono-Slope**	
2	Number of interior Columns		-	
3	Width (m)		*9.753 O/O of Steel Line*	
4	Length (m)		*18.287* *27.431* *36.574* *45.718*	*O/O of Steel Line*
5	Clear Height (m)		*6.096*	
6	Roof Slope (Rise: Run)		As per design	
7	Bay Spacing (m)		As per design	
8	Width Module		-	
9	Base Condition	Exterior Column	Pinned	
		Interior Column	Pinned	
10	Bracing Types	At Roof	Cable Bracing	
		At Wall		
11	Type of Eave		Eave Gutters & Downspouts	
12	Type of Gable		Gable Trim	
13	Fillet Weld of Built up Sections		Single Side Welding for all Built up Sections	

Sr.	Wall Conditions	
1	Front Side Wall	Open
2	Back Side Wall	Open
3	Left End Wall	Open
4	Right End Wall	Open

Tel: +92-42-35955162-64, +92-306-1111-611

Item	Roof and Wall Cladding	
Roof Cladding	Outer Sheet	**0.5mm (Nominal) Pre-Painted Aluzinc Sheets (Imported)**
	Insulation	**Not Applicable**
	Inner Sheet	**Not Applicable**
Wall Cladding	Outer Sheet	**Not Applicable**
	Insulation	**Not Applicable**
	Inner Sheet	**Not Applicable**

Exclusions

- All kind of works not offered in our scope of supplies & services.
- Any civil works including but not limited to RCC Screed, Brick Masonry, Excavation, Foundation Works, D.P.C, Flooring, and Plastering is not included in our scope.
- Doors, window, false ceiling, Glasswork, Fascia etc.
- Anchor bolts fixing, Foundations, Electrification and Plumbing etc.
- Electricity and water at site during erection

Tel: +92-42-35955162-64, +92-306-1111-611

Section No.2 Building Loads

Sr.	Design Load	Value
1	Design Live Load on Roof (kN/m^2)	0.57
2	Design Live Load on Frame (kN/m^2)	0.57
3	**Co-lateral Load (kN/m^2)**	**0.00**
4	Wind Speed (km/hr)	135
5	Wind Exposure Category	B
6	Seismic Zone	2B (as per UBC 1997)
7	Rainfall Intensity (mm/hr)	150 mm/hr.
8	**Solar Loading (kN/m^2)**	**0.00**

Section No.3 Applicable Codes

Loads applied on buildings and tolerances for fabrication and erection are in accordance with:

The2010editionoftheLowRiseBuildingSystems
ManualByMetal Building Manufacturers Association, Inc.
(MBMA) 1300 Summer Ave., Cleveland, Ohio 44115,USA

Hot rolled sections and built up sections are designed in accordance with:

The 2005 edition of the Manual of Steel Construction,
By American Institute of Steel Construction, Inc. (AISC)
1 East Wacker Drive, Suite 3100, Chicago, Illinois 606012001,

Cold formed members are designed in accordance with:
The 2001 Edition of Cold Formed Steel design
Manual By American Iron and Steel Institute (AISI) 1000
16th Street, NW, Washington, DC 20036, USA

Welding and its inspection / testing for Steel Structure Fabrication will be in accordance with:
The latest Edition of Structural Welding Code - Steel (AWS D1.1: 2008)
By American Welding Society (AWS)
550 NW LeJeune Road, Miami, FL 33126, USA

Section No.4: Material Specifications

Sr.	Building Component		Material Specification	Strength
1	Built-up Section		**ASTM A-36**	**Fy:25.00 kN/cm2**
2	Hot Rolled Sections	I-Sections		
		Channels		
3	Cold Formed Secondary Members	Purlins	ASTM A653M Grade 340 Class 1 Z275	Fy:34.0 kN/cm2
		Girts		
4	Sheeting Panels	Roof	PPGL as per ASTM A792M Grade 345B Class 1 AZM150	Fy:34.0 kN/cm2
		Wall		
5	Diagonal "X" Bracing	Bracing Cable	ASTM A475 Extra High Strength Class A	Pu: 120kN
		Bracing Rods	ASTM A36M (or Equivalent)	Fy:25.0 kN/cm2
		Flange Braces	ASTM A36 (or Equivalent)	Fy: 25 kN/cm2
6	Sag Rods		ASTM A36M (or Equivalent)	Fy:25.0 kN/cm2
7	Base and Gable Angles		ASTM A653M Grade 340 Class 1 Z275	Fy:34.0 kN/cm2
8	Anchor Bolts		ASTM A36M (or Equivalent)	Fy:25.0 kN/cm2
9	High Strength Bolts		ASTM A325 Type 1 (Hot-dip Galvanized)	Fy:66.0 kN/cm2

Material Finish

- All primary members will be cleaned and then painted **with single coat of red oxide primer (DFT 30-40 microns)** and then painted with **final enamel paint. (70-80 microns)**
- All secondary members will be made of pre-galvanized coil.

Section No.5: Approval Drawings

Approval drawings under this agreement will be submitted in 2 weeks from the date of receipt of the following:

- Signed Contract
- Advance Payment

Client must sign and return the Approval drawings to PEBS within 1 week of receipt of these drawings.

Variation requested by client after submission of Approval drawings will result in change in contract price and delivery period. Such change must be mutually agreed in writing as Variation Order.

Section No.6 Delivery Schedule

PEBS will design, fabricate and dispatch the material to Job site in 08-10 weeks. However, this period will begin from the latest date of receipt and acceptance of the following:

- Signed Contact
- Advance Payment
- Receipt of Signed Approval Drawings from client
- In case of any variation, Clients written acceptance for variation in price and delivery period.

Delivery period mentioned above is dependent on client fulfilling all its obligation in a timely manner, including the return of approval drawings and adhering to agreed payment schedule.

Erection of the Building will start after the arrival of first dispatch material at job site. **Erection schedule will be established at the finalization stage.**

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Section No. 7: Prices

Sr. #	Description	Price (PKR)
1	*Supply of PEB Shed (32' x 60')*	*2,421,927/-*
2	*Supply of PEB Shed (32'x 90')*	*3,632,891/-*
3	*Supply of PEB Shed (32' x 120')*	*4,843,855/-*
4	*Supply of PEB Shed (32' x 150')*	*6,054,818/-*
Total Supply Amount (Exclusive of GST)		***16,953,491/-***
GST @ 17%		*2,882,094/-*
Total Amount (Inclusive of GST)		*19,835,585/-*

1	*Installation Services (32' x 60')*	*100,914/-*
2	*Installation Services (32'x 90')*	*151,371/-*
3	*Installation Services (32' x 120')*	*201,827/-*
4	*Installation Services (32' x 150')*	*252,283/-*
Total Installation Services Amount (Exclusive of PST)		***706,395/-***
PST 16%		*113,023/-*
Total Amount Inclusive of PST)		*819,419/-*

The Supply amount is subjected to sales tax on supplies. Applicable percentage (17%) will be added to our bill and sales tax invoice will be provided of the same upon receipt by Wahdat Industrial Services (Pvt) Ltd.

The Supply amount is subjected to 4% income tax under section 153(1)(a)(Income tax Ordinance). Client shall provide withholding challans of the same.

The Installation services amount is subjected to sales tax on services. Applicable percentage (16%) will be added to our bill and sales tax invoice will be provided of the same upon receipt by Ittefaq Building Solutions (Pvt) Ltd.

The Installation services amount is subjected to 8% income tax under section 153(1)(B)(Income tax Ordinance 2001). Client shall provide withholding challans of the same.

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Section No.8 Payment Terms

Supply Payment

- ***50% - Advance on Signing of Contract or Receipt of PO***
- ***25% - Before Dispatch of Building Framing***
- ***25% - Before Dispatch of Building Sheeting***

Installation Services Payment

- ***50% - Before Installation Services***
- ***50% - After completion of Installation Services***

Section No.9: Deviations, Exclusions and Assumptions

Manufacturing and supply will be initiated only after receipt of complete engineering package duly approved by the Client.

Both parties agreed that the price quoted in this quotation is based on a lump sum basis calculated according to the building descriptions as well as the required loading and codes shown above and not as a re-measurable basis. Hence, the project weight given at the quotation stage is only indicative and no claim will be entertained in case of a reduction in the building weight after the final design or the shipment. However, should there be any revision to the scope of the work after signing of the contract which may result in an increase or decrease in the contract value.

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Section No. 10 Standard Terms and Conditions

- **Changes / Revisions**
  Any change or revision to the above stated scope of supply may lead to a variation in the price and the delivery period. A change must not hold payment for work completed as per original contract.

- **Additional Works**
  For any additional work (which is not included in our scope of work) cost will be charged separately from given price

- **Escalation clause**
  Prices are quoted as per prevailing market conditions: any change in material price can affect the quoted price after expiry of quotation validity period.

- **Proposal Validity**
  Prices are valid for a period of 3 days from the date of this quote.

  If the job (project) is not “Finalized by the client” within 3 days from the date of entering this order, it will be subject to delivery change and price change in accordance with the prevailing delivery schedules and prices at the end of above noted period.

- **Termination of Agreement**

  If clients terminate the agreement after payment of advance and submission of approval drawings by PEBS then PEBS have right to keep the advance payment to cover the expenses that occurred during that period and client will have no claim on that payment.

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OPPLE
See Beyond
URFA ELECTRIC (SMC) PVT LTD.
NTN# . 5381194 , SRTN# 3277876163771

HOUSE NO E279/1, STREET NO 2,
RIFFLE RANGE ROAD WALTON ROAD
LAHORE CANTT.
WWW.OPPLE.COM
Email: OPPLE.ECOTEK@GMAIL.COM
Mobile : 0301-8440368, 0332-3877786

QUOTATION

QTN-01544-1

Customer Name	**JERS CONSULTANCY PVT LTD**	**Date**	05-08-2022
Contact	JERS CONSULTANCY PVT LTD		
Mobile No	MR ASAD: 03004315935		

Sr	Description	Quantity	Rate	Amount
1	**140053331** LED-HML455A-D0.2*40-6500K-Knight	Nos 1	Rs 4,000.00	Rs 4,000.00
2	**503002016210** LED-E1-T5 batten-870mm-10.5W-4000K	Nos 1	Rs 850.00	Rs 850.00
3	**540001136310** LEDDownlight RC-US R150-12W-6500-WH-SASA - PF >.95	Nos 1	Rs 1,000.00	Rs 1,000.00
4	**540001136310 WITH BACK BOX** LEDDownlight RC-US R150-12W-6500-WH-SASA - PF >.95	Nos 1	Rs 1,500.00	Rs 1,500.00
5	**545001007410** LEDHighbay-P4 110W-5700-60+100D-GY-GP	Nos 1	Rs 24,500.00	Rs 24,500.00

Total	Rs 31,850.00
Grand Total	Rs 31,850.00
Rounded Total	**Rs 31,850.00**
In Words	PKR Thirty One Thousand, Eight Hundred And Fifty only.

Terms & Conditions:

PRICE:	Ex-Warehouse
PAYMENT:	100% Advance payment.
DELIVERY:	Subject to availability of stock otherwise 7-8 weeks from the date of confirmed PO/Advance.

TAXES & DUTIES:	Quoted Price Ex-clusive of GST 17% , Incom Tax 4.5% not be deducted , exemption certificate available.
DUTIES:	As per Govt. rules and regulations, In case of any change in the terrif from Govt. of Pakistan that will be applicable accordingly.
VALIDITY:	20 days.
WARRANTY:	2 Year Warranty against any manufacturing defect.
OTHER:	Force majour clause is applicable, partial payment and partial payment is allowed.

RIZWAN HUSSAIN

Cell: +92 301 8440368

JUBILEE CORPORATION

Switchgear • Automation • Instrumentation • Controls

Technology Driven Quality Service

First Floor, Fakhri Trade Centre, Shahrah-e-Liaquat, P.O. Box: 677,
Karachi-74200 Pakistan. UAN: 021 111 000 520
Tel: +92 21 3260 2200-07 (8 lines), Fax: +92 21 3260 2211
Web: www.jubileecorporation.com
Email: jubilee.corp@cyber.net.pk

Dated: Wednesday, 10 August 2022
Messers: JERS CONSULTANT
To: Mr. Asad Malik
SUB: Quotation for switchgear components
REF: PS/10082022

SR NO:	DESCRIPTION	RATING	MODEL	MAKE	ORIGIN	QTY	U/P	TOTAL
	3KW DOL STARTER COMPONENTS BASED ON TERASAKI							
1	MCCB TP ADJ.	12.5A TO 20A 30KA	S125NJ	TERASAKI	JAPAN	1	25,000	25,000
2	MAGNETIC CONTACTOR TP	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300
3	THERMAL OVERLOAD RELAY	6~9A	TK32a	TERASAKI	KOREA	1	8,000	8,000
								39,300
								Errors & Omissions Expected (E&OE)
	7.5 KW STAR DELTA STARTER COMPONENTS BASED ON TERASAKI							
1	MCCB TP	20~32A 36KA	S125NJ	TERASAKI	JAPAN	1	25,000	25,000
2	MAGNETIC CONTACTOR TP (MAIN)	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300
3	MAGNETIC CONTACTOR TP (DELTA)	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300
4	MAGNETIC CONTACTOR TP (STAR)	18A @AC3	TC-18b	TERASAKI	KOREA	1	6,300	6,300
5	THERMAL OVERLOAD RELAY	9~13A	TK32a	TERASAKI	KOREA	1	8,000	8,000
								51,900
								Errors & Omissions Expected (E&OE)

TERMS & CONDITIONS

Price Validity:

7 days from the date of offer submission. For further extension in validity, our confirmation in writing is necessary.

Our prices are calculated on current date of currency parity against PKR. In the event of any change in international currency rates / currency devaluation by government until final supply of order, rate difference will be on customer account.

Prices are calculated on present custom duties and government taxes. Any change in government regulation or duties and taxes at the time of import of material or during execution of order against customer's confirmed Purchase order will be on customer account.

Delivery Period:

Mostly from ready stocks. Remaining about 12-14 weeks from the date of confirmed purchase order and advance payment, whichever is later.

Any changes / revision / addition in purchase order after confirmation, delivery date will reset accordingly.

Force Majeure:

Our offer is subject to usual Force Majeure clause.

General Sales Tax:

General Sales Tax will be charged on the offered prices adhering to the law of Government of Pakistan. [Note: Sales Tax @ 17% will charge to you if you are a registered person (under Sales Tax Act, 1990). If you are unregistered person (as per law) then additional 3% will charge as further tax.]

Our supplies are excluded from SWHT under SRO 897 of 2013 (Point (c)) issued by FBR on October 4, 2013 as the commercial importers who paid value addition tax on such goods at the time of import as prescribed under Chapter X of the Sales Tax Special Procedure Rules, 2007 are excluded from the provision of these rules and the Sales Tax Special (Withholding) Rules, 2007 shall not be applicable on such supplies.

Payment terms:

100% advance payment along with confirm purchase order with Sales Tax.

Income Tax:

Our supplies are exempted from WHT u/s 153(5) of the Income Tax Ordinance, 2001 as all taxes are duly paid at import stage u/s 148 against the supplies made to you by us.

Warranty:

One-year warranty against any manufacturing defects. Our liability excludes natural wear & tear, defects arising after transfer of risk owing transport risks, installation, operation, maintenance contrary to manuals and instructions, mishandling or negligence on part of the customer.

Upon receipt of customer's intimation, we shall within adequate time repair or replace, at our option, the defective part, to bring the product in working condition.

ADIL SHER
DEPUTY MANAGER PROJECTS

MANSOOR PASHA
GM PROJECTS

GREAVES PAKISTAN PRIVATE LIMITED

KOHLER SDMO

JERS CONSULTANCY (PVT.) LTD.

PROPOSAL FOR 20 kVA & 30 kVA KOHLER-SDMO FRANCE BRANDED DGSETS

Greaves Pakistan (Pvt) ltd

HEAD OFFICE

Modern Motor House, Beaumont Road,
Karachi-75530, Pakistan
UAN: 021-111-354-111

Branch Offices

LAHORE

3, Sunder Das Road,
Lahore.
UAN: (042) 111-354-111
Tel: (042) 36362241-2

Islamabad

1st Floor, Razia Sharif Plaza,
Blue Area, Islamabad.
UAN: (051)-111-354-111 Ext: 5117
Tel: (051) 2344543-7

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2.	Executive Summary	Annex-B
3.	Price Summary	Annex-C
4.	Terms and condition	Annex-D
5.	Data Sheet Of Generators	

KOHLER

TO WHOM IT MAY CONCERN

Subject : SALE AUTHORIZATION FOR 2022

We undersigned SDMO INDUSTRIES, 270 rue Kérervern, 29490 Guipavas, FRANCE,

Hereby confirm that the company GREAVES PAKISTAN (Pvt) Limited having its principal place of business at Modern Motors House, Beaumont Road, Post Box 4908, Karachi 75530, PAKISTAN, is authorized on its behalf to sell, install and maintain the KOHLER-SDMO branded products in the territory of PAKISTAN.

This agreement is valid for one year from the date of signature of this authorization and might be renewed for a one-year period with the written agreement of SDMO Industries.

Each party shall be entitled to terminate this agreement at any moment by giving a 3 (Three) month notice by registered mail.

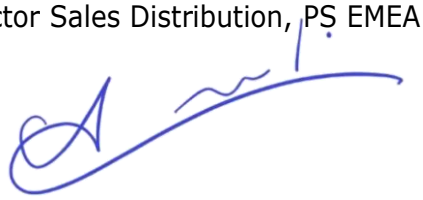
Neither party shall be required to compensate the other solely by virtue of termination of this agreement.

The sale of our products to GREAVES PAKISTAN (Pvt) Limited is subject to our General Conditions of Sale in force on the date of the order of which GREAVES PAKISTAN (Pvt) Limited has been informed.

This authorization cancels and replaces any previous contracts, correspondence or exchanges of any nature which have the same or similar purpose.

Made in Brest on November 30, 2021.

Olivier ANDRIEU
Director Sales Distribution, PS EMEA



GREAVES PAKISTAN (PVT.) LIMITED

Razia Sharif Plaza, 1st Floor, 90-Jinnah Avenue, Blue Area,
Islamabad, Pakistan

Ghulam Faruque Group

Ref # GFG/LHR/0596/TI AUG 11, 2022
NTN # 0698508-4

M/s. Jers Consultancy (Pvt.) Limited
24 Civic Center Street,
Township Commercial Area,
Lahore – Pakistan

Kind Atten. **: Mr. Asad Khalid**

SUBJECT **: PROPOSAL FOR KOHLER-SDMO 20 kVA & 30 kVA PRIME RATINGDIESEL GENERATORS**

Dear Sir,

We are pleased to submit our competitive proposal formulated for subject mentioned rating along with salient features of our branded **Diesel GenSet – KOHLER-SDMO (Made in France)** for your review and kind consideration.

We **Greaves Pakistan** is one of the leading names in the business hub of Pakistan, We are authorized dealer of Kohler-SDMO DG Sets (100 Years Old) which has achieved an enormous success throughout the world complying with ISO 9001 quality standards. A strong and committed team from Greaves Pakistan ensures that the offered package gives you best value for your investment.

Greaves Pakistan has its head office in **Karachi,** offices located at **Islamabad, Lahore, Faisalabad, Multan, Hyderabad and Peshawar**. Our trained and qualified Engineers are available to provide complete backup support after sales services at your door step 24/7 any time. A complete range of spare parts are kept in order to meet any emergency requirement both during and after the warranty period.

We are also leading business oriented company in Cement Industry-Cherat Cement, CNG-Comp Air, Air conditioning-York, and UPS-ETN Power.

Sincerely,

Engr. Tahir Imran
Deputy Manager Sales
Power Generation Division
Contact: 0336-5366494
tahir.imran@gfg.com.pk

KOHLER-SDMO FRANCE (FOREIGN COUPLED)
BRANDED DIESEL GENERATING SET
20 kVA Prime & 30 kVA Prime

Technical Description

Kohler-SDMO: Powered with Kohler France Engine & Leroy Somer Alternator commercially branded as Kohler.

Complete Machine Manufactured & Shipped from France factory

Diesel Generator 1500 RPM, 400 Volts, 0.8 P.F, 50 HZ

Salient Features:

- IP23 Protection
- Class H Insulation
- Automatic Voltage Regulator
- Emergency Push Button
- User O&M Manual
- First Oil Filled
- First Coolant Filled.
- Engine Sump Oil Drain Tap
- Engine Coolant Drain
- Control Systems
- One Set Instruction Manual And Electrical Wiring Diagram
- Automatic Engine Shutdown Protections
- Batteries

PRICE SUMMARY SHEET

(Seller's Scope of Supply)
20kVA & 30 kVA PRIME RATING
DG SETS

IMPORTED ITEMS:

Sr.	Description of Stores	Qty.	Unit Price ($)	Total Price ($)
1.	**Brand New KOHLER-SDMO France Diesel Generator Set, Model K22; 20 kVA Prime Power and 22 kVA Standby Power @ 50 Hz, 0.8 PF, 400 V, 1500 RPM** (as per specifications attached) Kohler Made in France Engine ***(Complete Machine Manufactured & Shipped from France Factory)***	**1 No.**	**11,209/- $**	**11,209/- $**
2.	**Brand New KOHLER-SDMO France Diesel Generator Set, Model K33; 30 kVA Prime Power and 33 kVA Standby Power @ 50 Hz, 0.8 PF, 400 V, 1500 RPM** (as per specifications attached) Kohler Made in France Engine ***(Complete Machine Manufactured & Shipped from France Factory)***	**1 No.**	**11,628/- $**	**11,628/- $**
TOTAL AMOUNT (Excluding GST) – FOR Karachi Rate				**22,837/- $**

LOCAL EQUIPMENT & WORKS:

Sr.	Description of stores.	Qty.	Unit Price	Total Price
1.	Supply of sound and weather proof canopy approximate size of provided drawing is 14 SWG base frame and 14/16 swg structure fabricated of Mild steel with less than 85 dba at 3 mtrs in open area – 20 kVA DG	1 No.	**245,000**	**245,000**
2.	Supply of sound and weather proof canopy approximate size of provided drawing is 14 SWG base frame and 14/16 swg structure fabricated of Mild steel with less than 85 dba at 3 mtrs in open area – 30 kVA DG	1 No.	**265,000**	**265,000**
3.	Charges for Transportation of Power Generating Sets from Karachi till site on ground (including loading, unloading)	2 JOB	**75,000**	**150,000**
TOTAL AMOUNT (Excluding GST/PST)				**660,000**
ADD 17% GST ON SUPPLIES				**86,700**
ADD 16% PST ON SERVICES				**24,000**
TOTAL AMOUNT (Including GST/PST)				**770,700**

GENERAL TERMS & CONDITIONS

VALIDITY	**1 week** only from quotation date, thereafter, subject to our re-confirmation.
AVAILABILITY	**Lead Time: 30 kVA: Available ex stock subject to prior sale** **20 kVA: 4-5 Months. Please confirm at the time of award of order.** **Local Items: 04 Weeks** after issuance of PO & approval of technical submittal.
PAYMENT TERMS	100% of advance payment with confirmed purchase order.
WARRANTY	**1 year warranty or 1000hrs*** after Delivery/Commissioning whichever comes first. (Standard KOHLER SDMO Warranty Certificate will govern) *For manufacturing default only
FORCE MAJEURE	This offer is subject to standard force majeure conditions
PRICING	Our prices are based on current exchange rates (1$ = PKR 220/-) and will be revised if there are any escalation in exchange rates. Please note that the quoted rate for 30 kVA DG Set is subject to revision for more than 1% downward fluctuation in dollar price. Any further duties (including regulatory duty) and taxes, imposed after the date of quotation or agreement, will be borne by the customer
CUSTOMER RESPONSIBITITY	Any other work which has not been quoted specifically in the seller's scope of Supply/Work.
TAXES	The subject DG Set is imported and will be supplied to you without any value addition. Advance Income Tax has already been paid at the import stage U/S 148 of the Income Tax Ordinance 2001, this is in compliance to circular No.5 of 2002 dated 11th April, 2002 issued by CBR. Hence tax under section 153 shall not be deducted from the payment of the cost of Generators (imported) under clause 47 (A) of Part IV of the second schedule to the income tax ordinance 2001, therefore income tax deduction is also not applicable on it.

L/C TERMS	Establishment of 100% Irrevocable Letter of Credit at sight is required either by the Supplier or Client against PRINCIPLE PROFORMA INVOICE which will be provided from KOHLER-SDMO FRANCE. All charges pertaining to LC establishment and confirmation will be borne by the customer.

(1) WhatsApp | GFC | Ceiling Fans - Classic Series | Pak

pakfansofficial.com/en/catalogs/ceiling-fans-classic-series.html

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0

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Deluxe

Price from
5,525 Rs

1 color available

Buy Online

Jazz

Price from
5,795 Rs

2 colors available

Buy Online

Classic Super

Price from
5,895 Rs

1 color available

Buy Online

Classic

Price from
5,895 Rs

1 color available

Buy Online

Hilux

Price from
5,975 Rs

2 colors available

Out of stock

Classic Gold

Price from
5,995 Rs

1 color available

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	OCT-22				NOV -22				DEC -22				JAN-23				FEB-23				MAR-23			
1	Boundary wall & Gate																								
2	Building & Allied Structures																								
3	Parking Shed																								
4	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: M. Bilal MoP

Name of MC: Hafizabad

Sub-Project Sector: Parking area for S.W Machinery

Sub-Project Title: Near disposal

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	Less then 1 km distance there is same Na
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		X	
Buffer zone of protected area		X	
Mangroves Forest		X	
Man-made forest /game reserve, orchid /crops or any other area of environmental importance		X	
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]		X	
Sensitive receptors (Schools, colleges, hospitals and clinics) within 100 meter of the proposed sub project[5]		X	
Any graveyard of local community (Muslims or Christians)		X	
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)?		X	
Already existing infrastructure [7](including public amenities) which may be required to dismantle or may be affected temporarily by any means?		X	
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?		X	
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?		X	

[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)?		X	
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	

Endorsed By: Tehmina Kiran

Name: Tehmina Kiran

Signature: Teyla.

Date: 16-2-2021

Prepared By: M. Bilal MOP

Name: M. Bilal

Signature:

Date: 16-2-2021

Appendix A-ENVIRONMENTAL AND SOCIAL CATEGORIZATION OF SUB-PROJECTS

Using the Environmental and Social Screening Checklist, E & S Categorization of sub-projects of PCP is and will be carried out as following:

For Environmental Category:

E-1 = All those sub-projects having adverse environmental impacts and or those sub-projects that come under Schedule I and II of Pakistan Environment Protection Agency Review of IEE and EIA Regulations 2000 will need to submit **Initial Environmental Examination (IEE)** or **Environmental Impact Assessment (EIA)**[9] report

[9] .All the social impacts (except those that come under S1 and S2 Category of land acquisition) of E1 Category sub-projects will be covered in IEE/EIA report

E-2 = All those sub-projects which will have moderate negative environmental impacts will need to submit **Environmental and Social Management Plans (ESMP)**[10]

E-3 = All those sub-projects which will have no negative environmental impacts will be categorized as E3 and for those, no further process will be required[11] after E &S Screening

For Social Category:

S-1= All those sub-projects having negative social impacts of significant nature on > 40 households and or it require displacement/resettlement of > 40 households for land acquisition, will need to submit Social Assessment (SAR),Social Management Plan (SMP) and Resettlement Action Plan (RAP)

S-2= All those sub-projects having negative social impacts of significant nature on 1 – 40 households and or it require displacement/resettlement of 1- 40 households for land acquisition, will need to submit Social Assessment (SAR),Social Management Plan (SMP) and Abbreviated Resettlement Action Plan (ARAP)

S-3= All those sub-projects having no negative social impacts and or they are not involved in displacement/resettlement of any nature, will be categorized as S3 and No further process will be required after E &S Screening

[10] .All the social impacts (except those that come under S1 and S2 Category of land acquisition) of E2 Category sub projects will be covered in the ESMP

[11] .For all those sub-projects which will have no negative environmental impacts and are categorized as E3 but th require construction labor/workers for the execution ,will follow the Environment, Health and Safety SO prepared for PCP and they will follow the instructions given by ESM team of PCP

Appendix B-Important Definitions

1. **Environmentally sensitive areas** [12]
   Environmentally sensitive areas are landscape elements or places which are vital to the long-term maintenance of biological diversity, soil, water or other natural resources both on the site and in a regional context.
2. **Cultural heritage**[13]
   - **Tangible cultural heritage:**
     - movable cultural heritage (paintings, sculptures, coins, manuscripts)
     - immovable cultural heritage (monuments, archaeological sites, and so on)
     - underwater cultural heritage (shipwrecks, underwater ruins and cities)
   - Intangible cultural heritage: oral traditions, performing arts, rituals
3. **Wetlands**
   - Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season.[14]
   - areas of marsh, fen, petal and or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters".[15]
4. **Buffer zone of protected area**
   Areas peripheral to a specific protected area, where restrictions on resource use and special development measures are undertaken in order to enhance the conservation value of the protected area.[16]
5. **Special area for protecting biodiversity/ Key Biodiversity Areas (KBA)**
   Sites that contribute significantly to the global persistence of biodiversity, in terrestrial, freshwater and marine ecosystems [17]
6. **Estuarine**
   Area of the mouth of a river where it broadens into the sea, and where fresh and seawater intermingle to produce brackish water.The estuarine environment is very rich in wildlife, particularly aquatic, but it is very vulnerable to damage as a result of human activities.[18]
7. **Hazardous substance means-**

   (a) A substance or mixture of substance, other than a pesticide as defined in the Agricultural Pesticide Ordinance, 1971 (II of 1971), which, by reason of its chemical activity is toxic, explosive, flammable, corrosive, radioactive or other characteristics causes, or is likely to cause, directly or in combination with other matters, an adverse environmental effect; and

   (b) Any substance which may be prescribed as a hazardous substance;

   Hazardous waste means waste which is or which contains a hazardous substance or which may be prescribed as hazardous waste, and includes hospital waste and nuclear waste; [19]

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[12] https://www.sciencedirect.com/science/article/abs/pii/0169204694020169
[13] http://www.unesco.org/new/en/culture/themes/illicit-trafficking-of-cultural-property/unesco-database-of-national cultural-heritage-laws/frequently-asked-questions/definition-of-the-cultural-heritage/
[14] https://www.epa.gov/wetlands/what-wetland
[15] https://www.ramsar.org/sites/default/files/documents/library/info2007-01-e.pdf
[16] https://www.biodiversitya-z.org/content/buffer-zones.pdf
[17] https://biodiversitya-z.org/content/key-biodiversity-areas-kba
[18] https://biodiversitya-z.org/content/estuary
[19] Punjab Environmental Protection Act 2012

Waste

Waste means any substance or object which has been, is being or is intended to be, discarded or disposed of, and includes liquid waste, solid waste, waste gases, suspended waste, industrial waste, agricultural waste, nuclear waste, municipal waste, hospital waste, used polyethylene bags and residues from the incineration of all types of waste. [20]

[20] Ibid.

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.

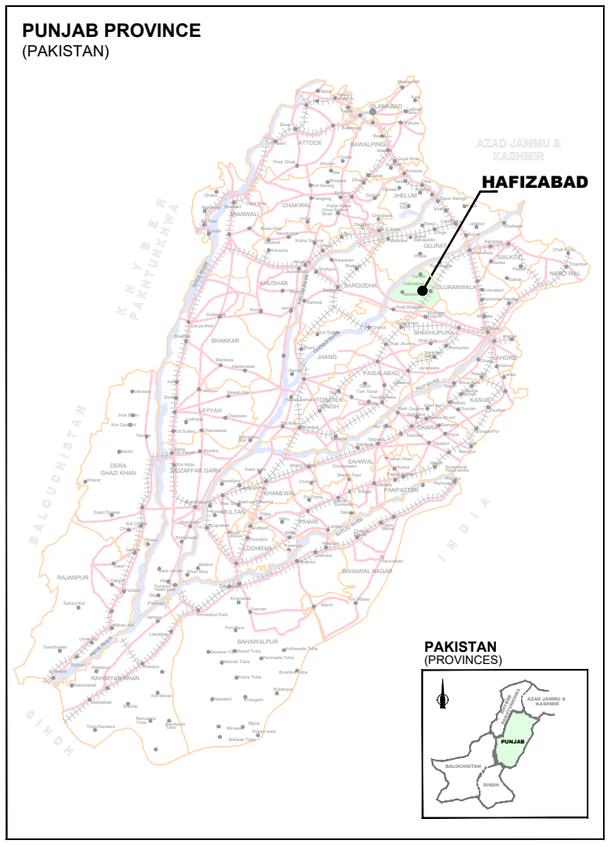
Table 4: Summary of Recommended Personal Protective Equipment According to Hazard[4]

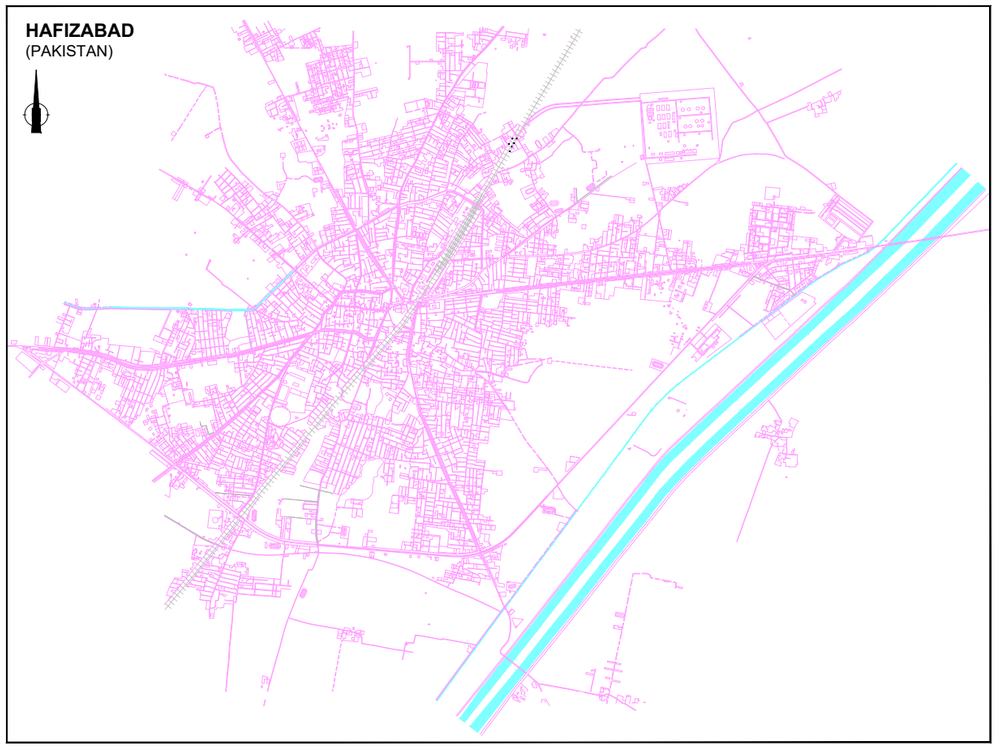
Objective	Workplace Hazards	Suggested PPE
Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation.	Safety Glasses with side-shields, protective shades, etc.
Head protection	Falling objects, inadequate height clearance, and overhead power cords.	Plastic 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

Annexure-F
Project Drawings

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





DESIGN DRAWINGS OF SWM PARKING AREA

MC HAFIZABAD

PUNJAB, PAKISTAN

AUGUST, 2022

CLIENT:

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANT:

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LIST OF DRAWINGS

Sr.No.	DESCRIPTION	DRAWING NO.
	SWM PARKING SHED DRAWINGS	
1	PROJECT KEY PLAN	PS-01
2	PARKING SHED TOPOGRAPHIC SURVEY	PS-02
3	PROPOSED SWM PARKING SHED LAYOUT PLAN	PS-03
4	GROUND FLOOR PLAN PARKING SHED-1 & 2	PS-04
5	ROOF PLAN PARKING SHED-1 & 2	PS-05
6	RIGID FRAME ELEVATION PARKING SHED-1 & 2	PS-06
7	WASHING PIT DETAIL	PS-07
8	BOUNDARY WALL DETAIL	PS-08
9	GENERATOR PAD FOUNDATION DETAIL	PS-09
10	ENTERANCE GATE	PS-10
11	TYPICAL ROAD CROSS SECTION	PS-11
12	PUMP PAD FOUNDATION & SEPTIC TANK DETAIL	PS-12
	ARCHITECTURAL DRAWINGS	
13	LEGEND & NOTES (OFFICE BLOCK)	A-01
14	GROUND FLOOR PLAN (OFFICE BLOCK)	A-02
15	ROOF PLAN (OFFICE BLOCK)	A-03
16	ELEVATION-01,02 (OFFICE BLOCK)	A-04
17	ELEVATION-03 (OFFICE BLOCK)	A-05
18	SECTION A-A (OFFICE BLOCK)	A-06
19	DOOR WINDOW SCHEDULE (OFFICE BLOCK)	A-07
20	LEGEND & NOTES (SITTING AREA)	A-08
21	GROUND FLOOR PLAN (SITTING AREA)	A-09
22	ROOF PLAN (SITTING AREA)	A-10
23	ELEVATION-01,02 & 03 (SITTING AREA)	A-11
24	SECTION A-A (SITTING AREA)	A-12
25	DOOR WINDOW SCHEDULE (SITTING AREA)	A-13

Sr.No.	DESCRIPTION	DRAWING NO.
	PLUMBING DRAWINGS	
26	LEGEND & NOTES	G-00
27	PROPOSED SWM PARKING SHED, EXTERNAL WATER SUPPLY SYSTEM	EW-01
28	GROUND FLOOR & ROOF WATER SUPPLY LAYOUT PLAN OFFICE BLOCK	W-01
29	WATER SUPPLY LAYOUT PLAN SITTING ROOM	W-02
30	PROPOSED SWM PARKING SHED, SEWER SYSTEM	ES-01
31	GROUND FLOOR & ROOF SEWER LAYOUT PLAN OFFICE BLOCK	S-01
32	GROUND FLOOR & ROOF LAYOUT PLAN SITTING ROOM	S-02
33	DRAINAGE LAYOUT GROUND FLOOR PLAN PARKING SHED-1	D-01
34	DRAINAGE LAYOUT ROOF PLAN PARKING SHED-1	D-02
35	DRAINAGE LAYOUT RIGID FRAME ELEVATION PARKING SHED-1	D-03
36	MISCLLANEOUS DETAIL 01	M-01
37	MISCLLANEOUS DETAIL 02	M-02

	ELECTRICAL DRAWINGS	
38	LEGEND & NOTES	E-00
39	ELECTRICAL CABLE ROUTE LAYOUT PLAN	E-01
40	EXTERNAL ROAD LIGHTING LAYOUT PLAN	E-02
41	LIGHTING & SMALL POWER LAYOUT PLAN OFFICE BLOCK	E-03
42	LIGHTING LAYOUT PLAN SITTINNG ROOM	E-04
43	SMALL POWER LAYOUT PLAN SITTING AREA	E-05
44	LIGHTING LAYOUT PLAN (SHED)	E-06
45	MISCELLANEOUS DETAIL	E-07
46	MISCELLANEOUS DETAIL	E-08
47	SINGLE LINE DIAGRAM OF MAIN PANEL BOARD	SLD-01
48	DETAIL OF DISTRIBUTION BOARD	SLD-02
49	DETAIL OF DISTRIBUTION BOARD	SLD - 03

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

DRAWING TITLE:
LIST OF DRAWINGS (OKARA CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Asif
CHECKED BY: Fizza
DATE: August,2022
DRAWING NO: **PS-00**
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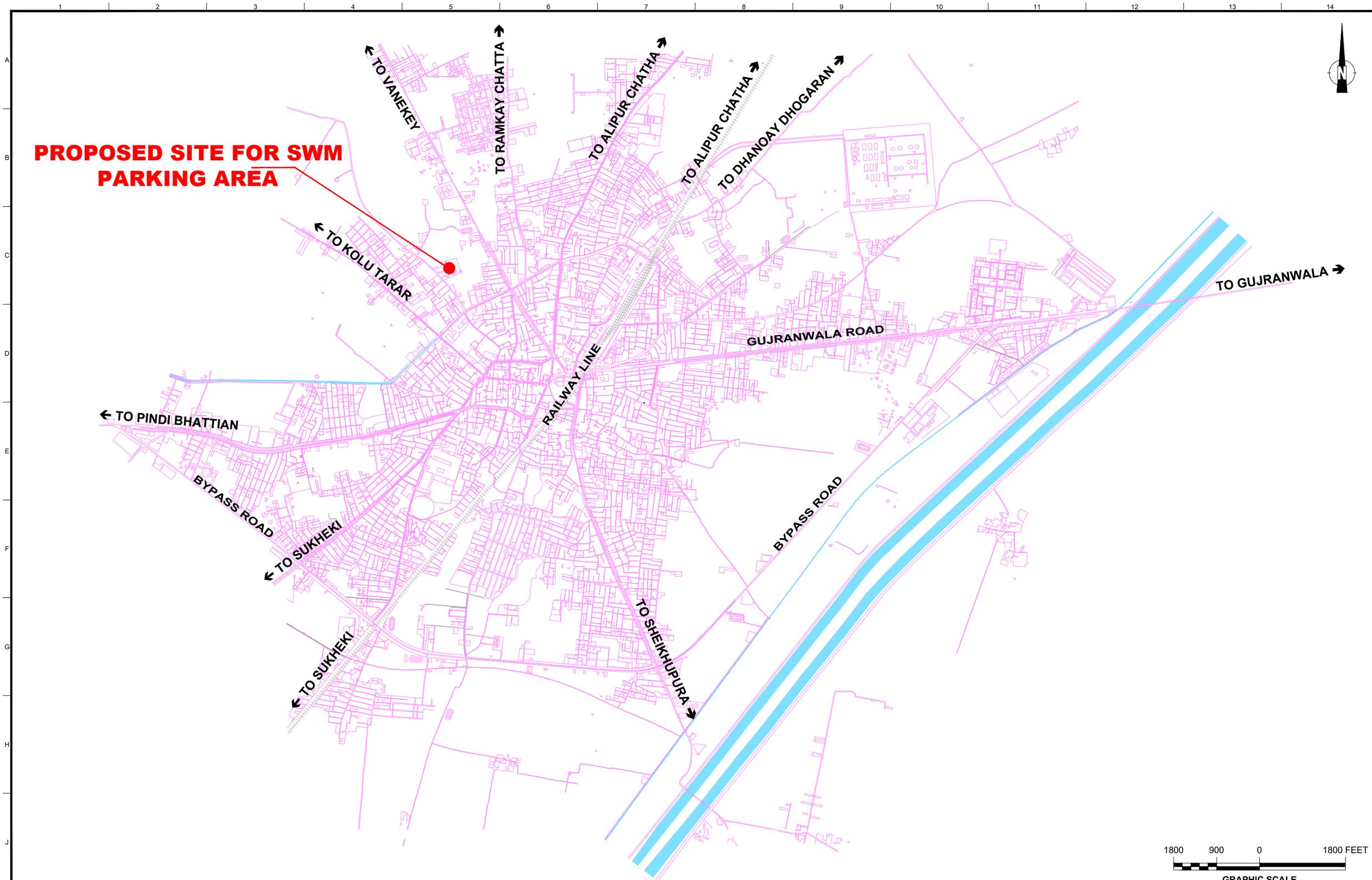
SHEET: -
JOB NO: 488-01



CLIENT:

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PROJECT:

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

DRAWING TITLE:

PROJECT KEY PLAN (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
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CHECKED BY: Sadat Waleed
DATE: August,2022
DRAWING NO: PS-01
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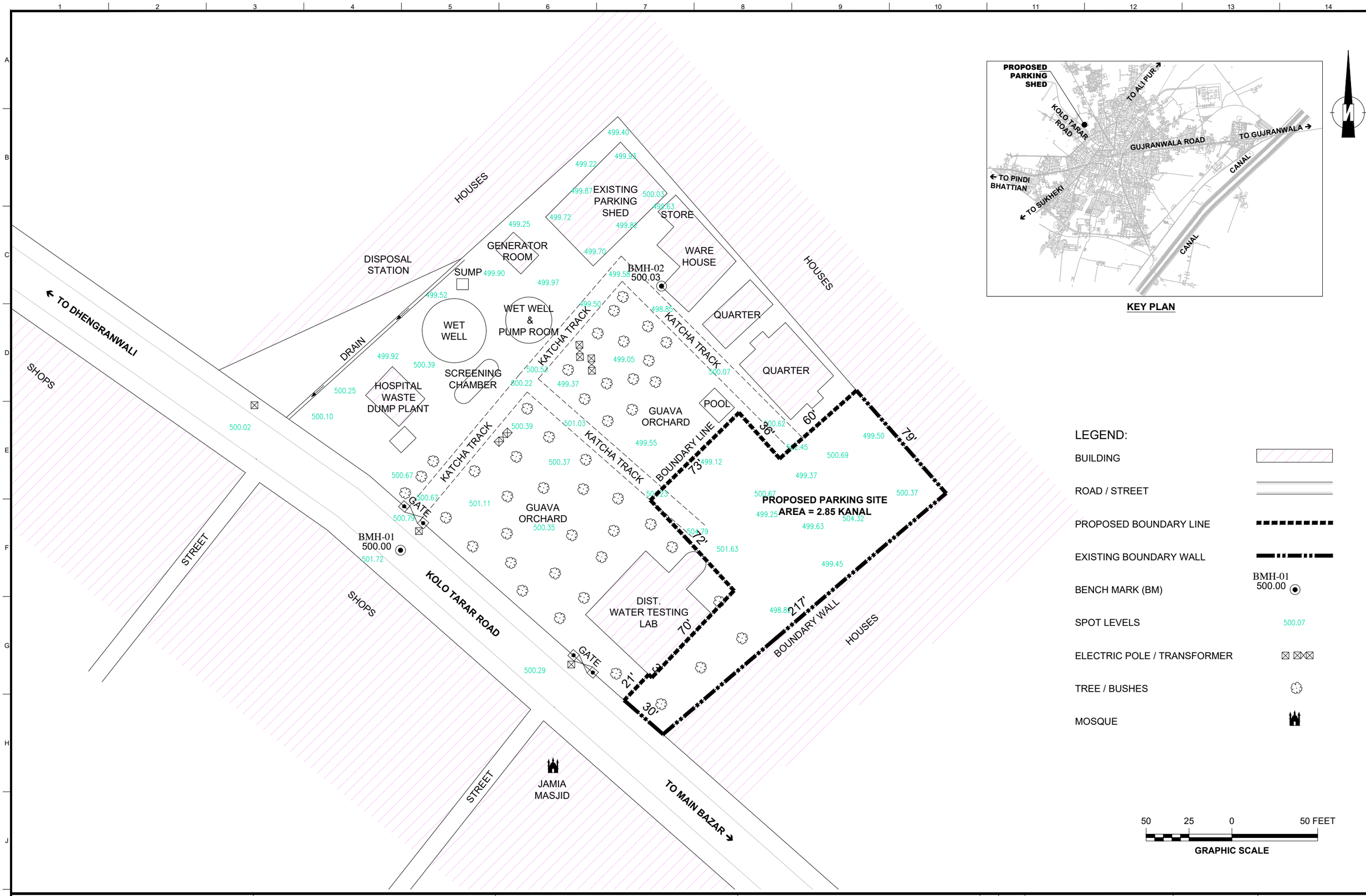
SHEET: -
JOB NO: 488-01



KEY PLAN

N

LEGEND:

BUILDING	
ROAD / STREET	
PROPOSED BOUNDARY LINE	
EXISTING BOUNDARY WALL	
BENCH MARK (BM)	BMH-01 500.00
SPOT LEVELS	500.07
ELECTRIC POLE / TRANSFORMER	
TREE / BUSHES	
MOSQUE	

50 25 0 50 FEET

GRAPHIC SCALE

CLIENT:

HELP BUILD PMDFC HEALTHY CITIES

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD

24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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.
168

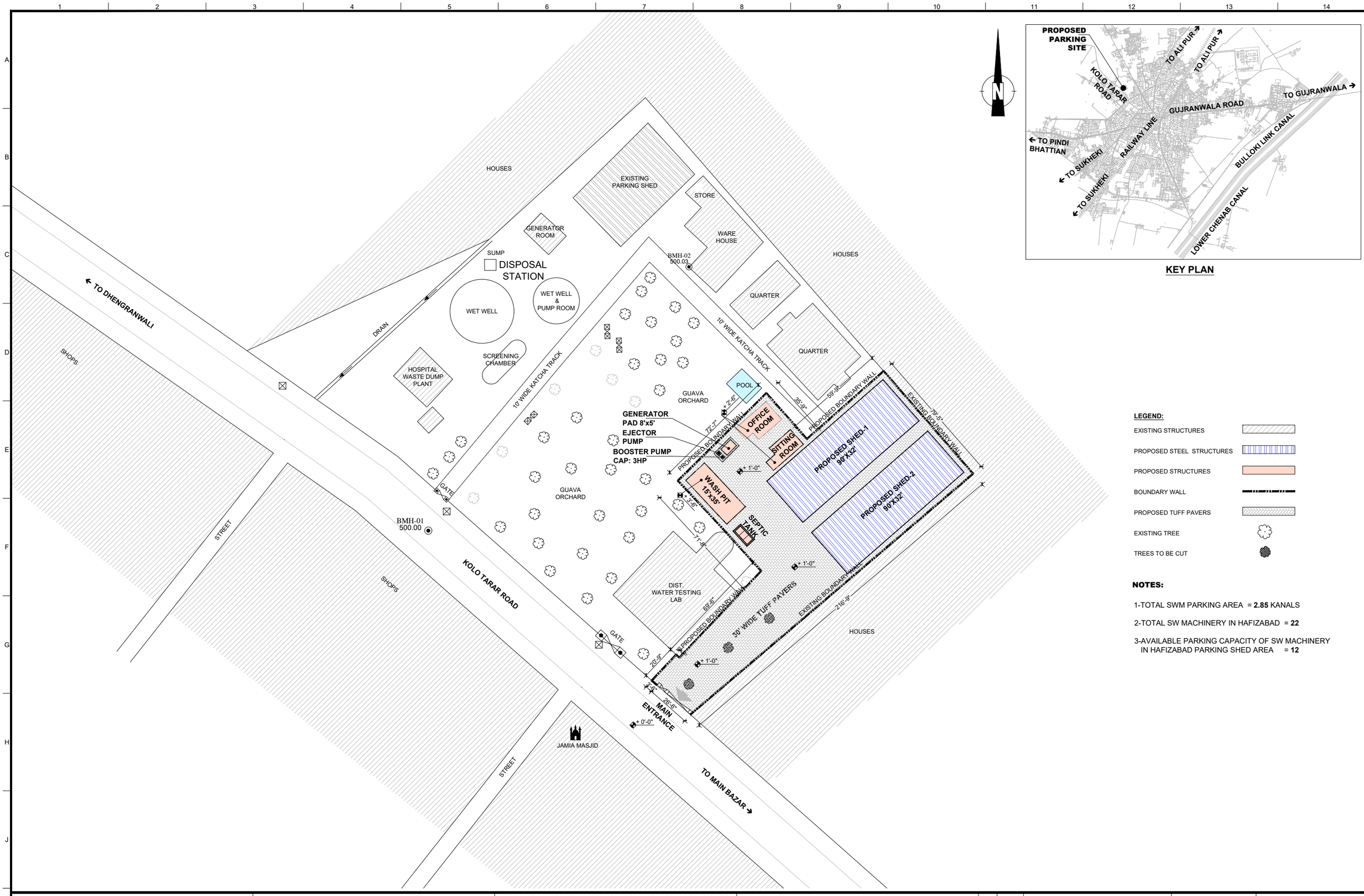
DRAWING TITLE:

TOPOGRAPHIC SURVEY LAYOUT PROPOSED PARKING AREA (HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: MUNIR
CHECKED BY: SADAT WALEED
DATE: August,2022

DRAWING NO: **PS-02**
SCALE: UNIT=FEET 1"=50'
SHEET: 1 OF 1
JOB NO: 488-01



KEY PLAN

LEGEND:

- EXISTING STRUCTURES
- PROPOSED STEEL STRUCTURES
- PROPOSED STRUCTURES
- BOUNDARY WALL
- PROPOSED TUFF PAVERS
- EXISTING TREE
- TREES TO BE CUT

NOTES:

1-TOTAL SWM PARKING AREA = **2.85** KANALS

2-TOTAL SW MACHINERY IN HAFIZABAD = **22**

3-AVAILABLE PARKING CAPACITY OF SW MACHINERY IN HAFIZABAD PARKING SHED AREA = **12**

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
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24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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. 169

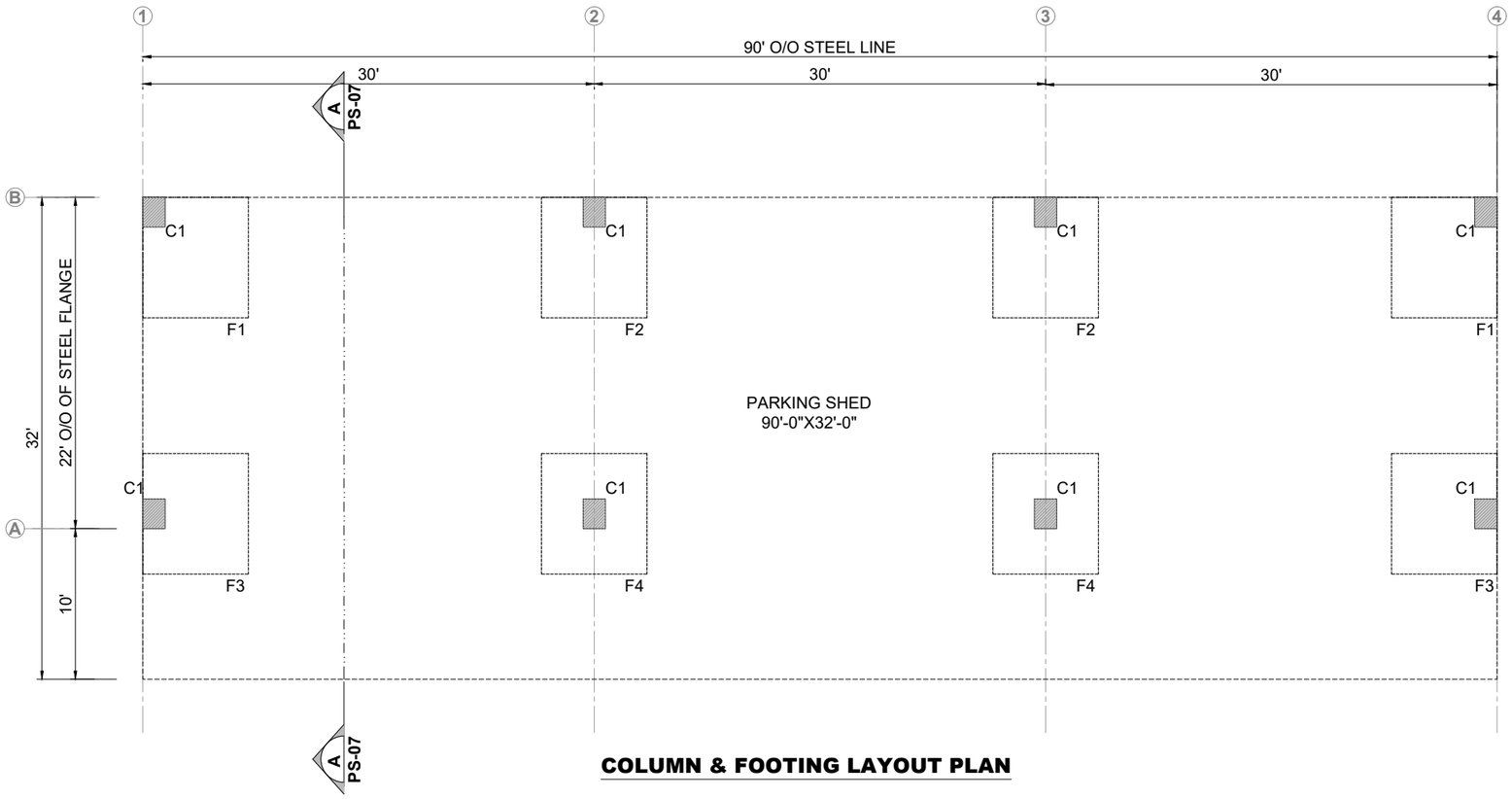
DRAWING TITLE:
PROPOSED SWM PARKING AREA LAYOUT (HAFIZABAD - KOLOTARAR ROAD)

REV.	DATE	DESCRIPTION
-	-	-

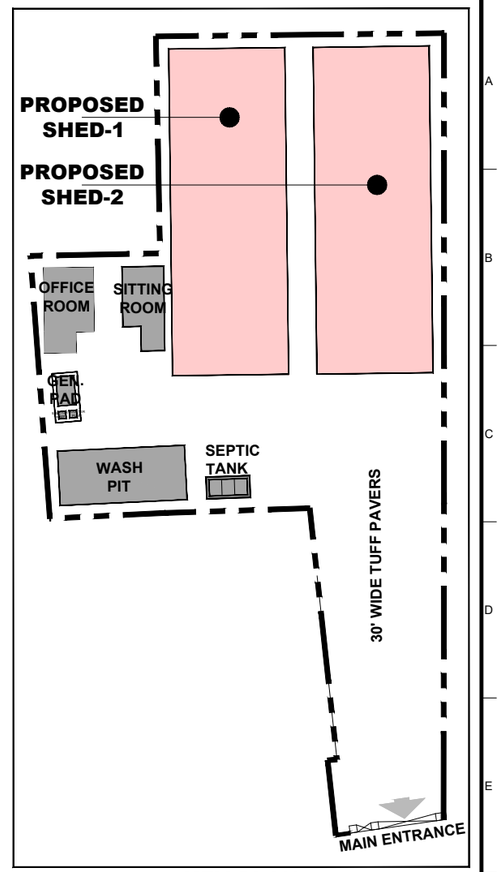
DRAWN BY: Asif
CHECKED BY: Sadat Waleed
DATE: August,2022

DRAWING NO: **PS-03**
SCALE: UNIT=FEET 1"=600'
SHEET: 1 OF 1
JOB NO: 488-01

PARKING SHED



COLUMN & FOOTING LAYOUT PLAN



KEY PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
JERS CONSULTANCY (PVT) LTD
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

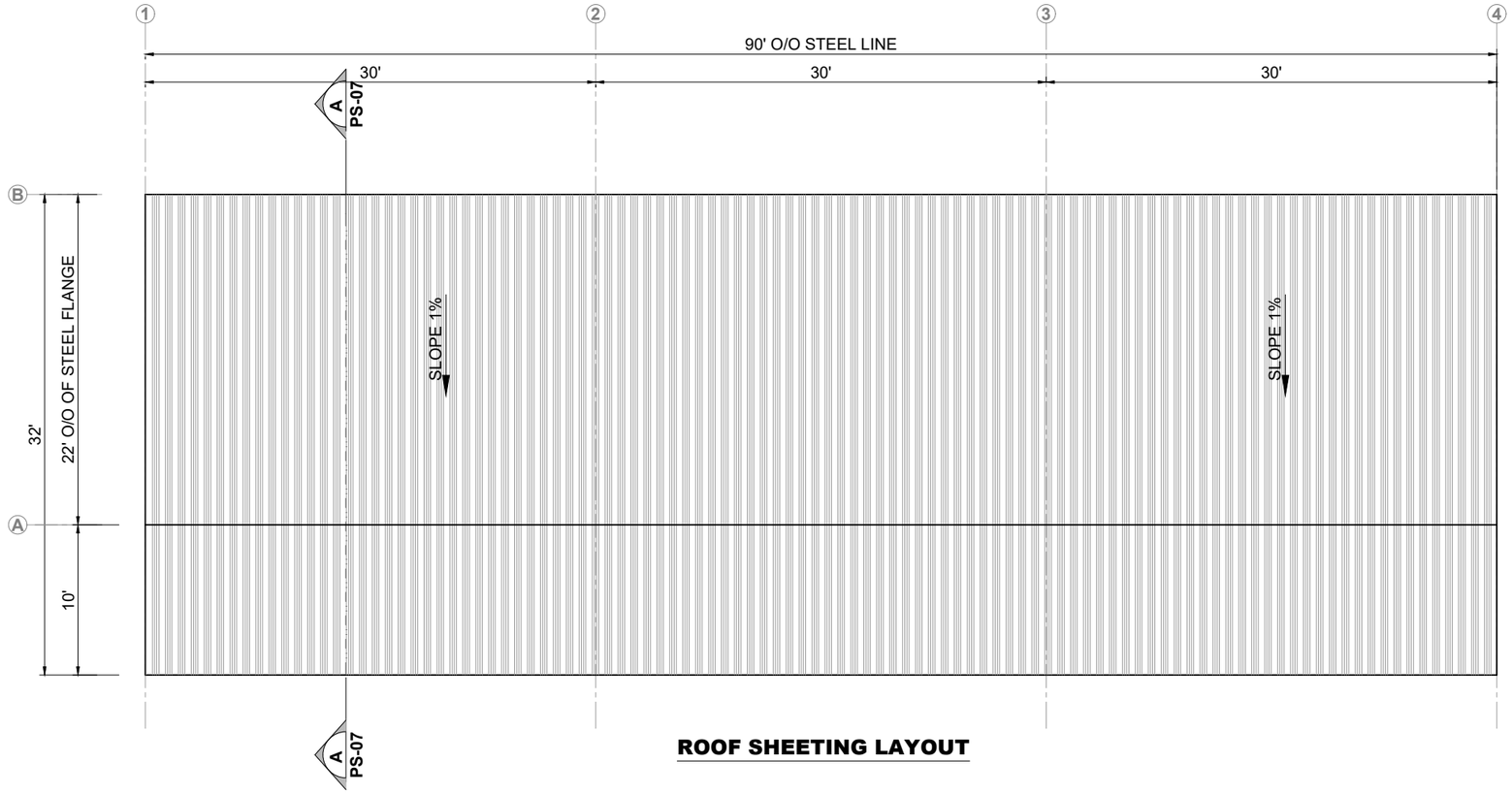
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
171

DRAWING TITLE:
GROUND FLOOR PLAN PARKING SHED-01 & 02 (HAFIZABAD CITY)

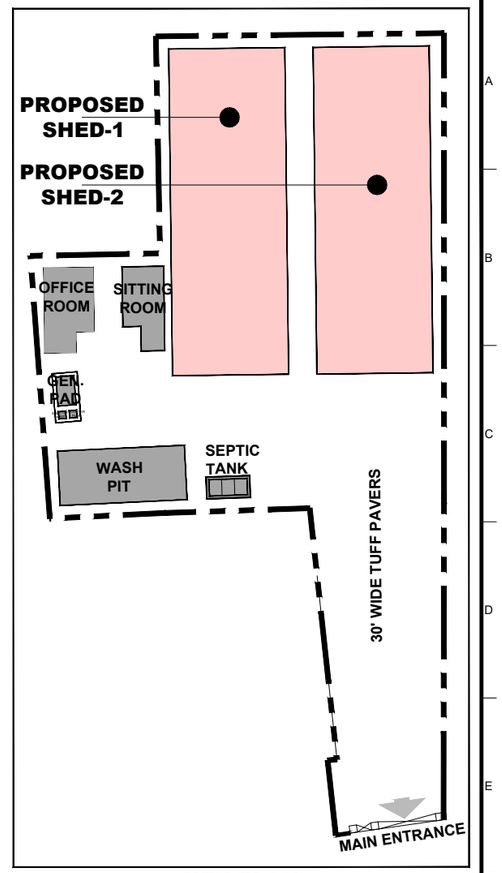
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

DRAWING NO: **PS-04**
SCALE: UNIT=FEET 1"=120'
SHEET: 1 OF 1
JOB NO: 488-01



ROOF SHEETING LAYOUT



KEY PLAN

CLIENT:

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD

24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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.
172

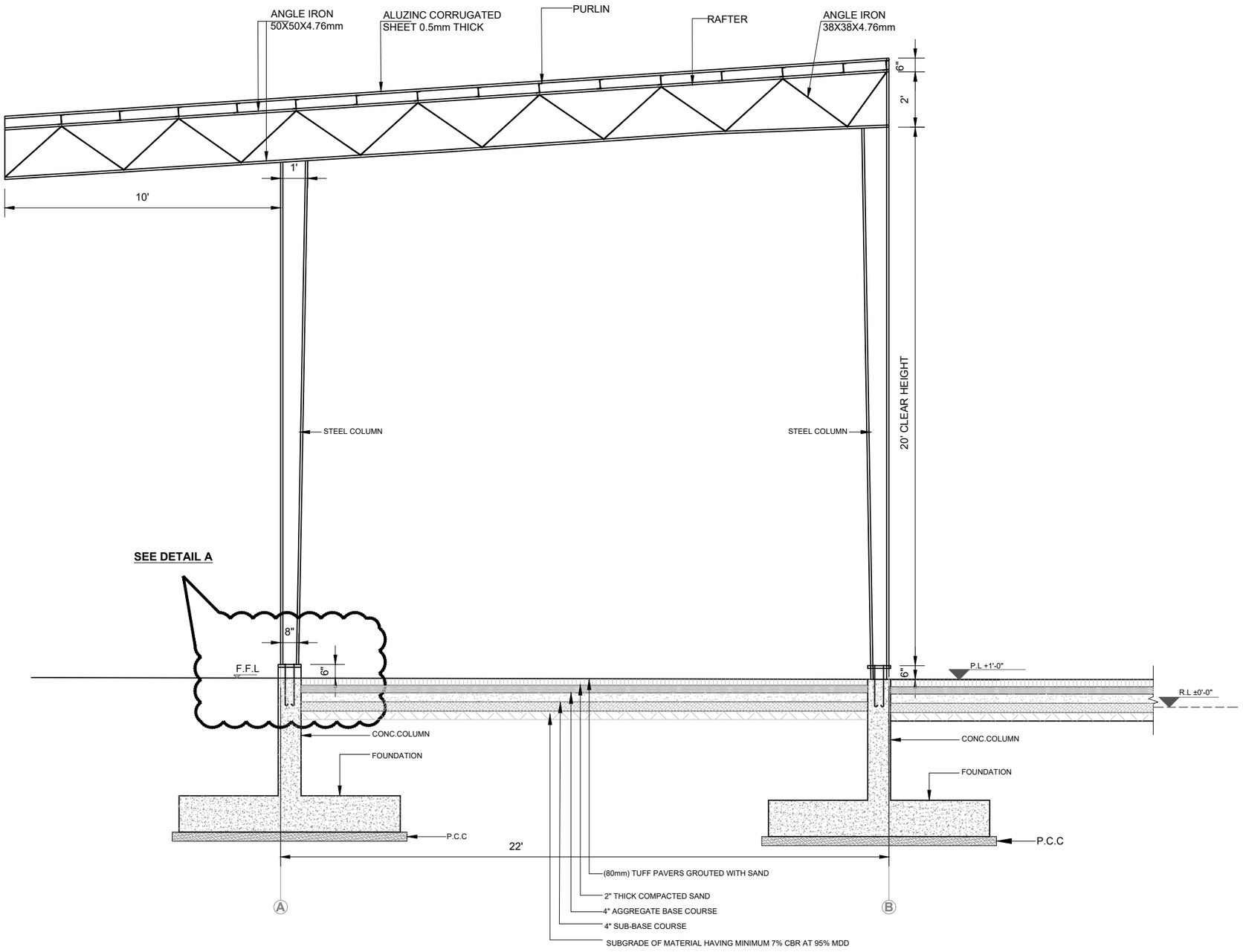
DRAWING TITLE:

ROOF PLAN
PARKING SHED-01 & 02
(HAFIZABAD CITY)

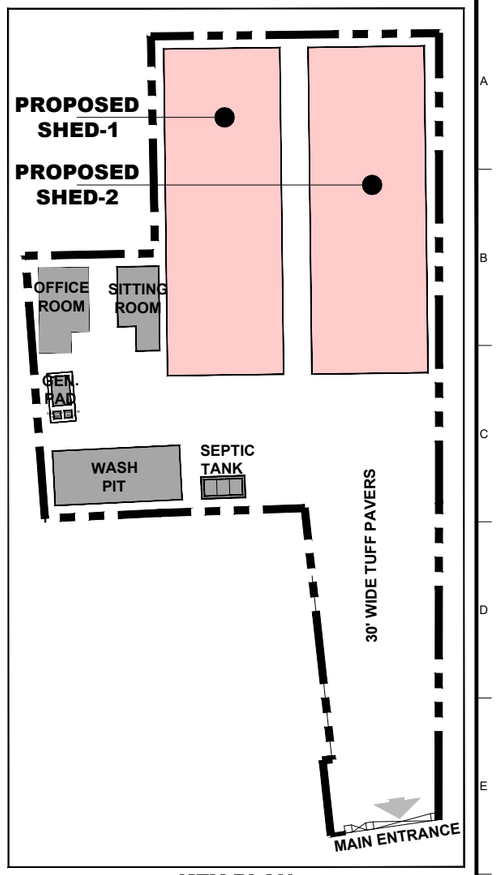
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

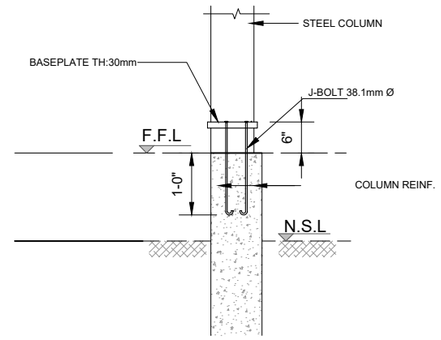
DRAWING NO: **PS-05**
SCALE: UNIT=FEET 1"=120'
SHEET: 1 OF 1
JOB NO: 488-01



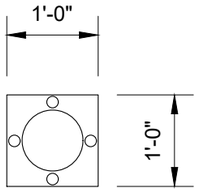
RIGID FRAME SECTIONAL ELEVATION A-A



KEY PLAN

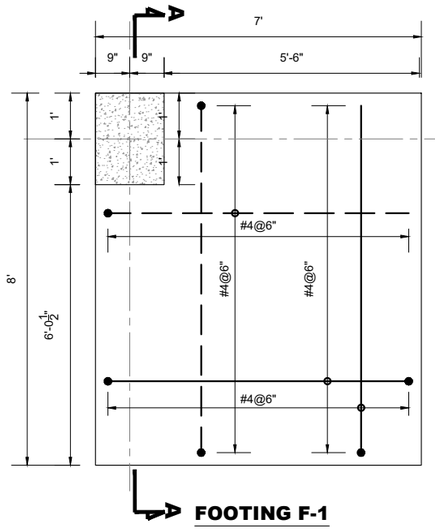


DETAIL A

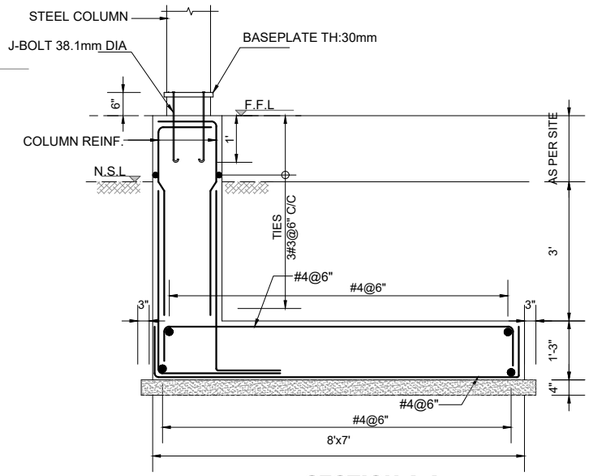


BASEPLATE

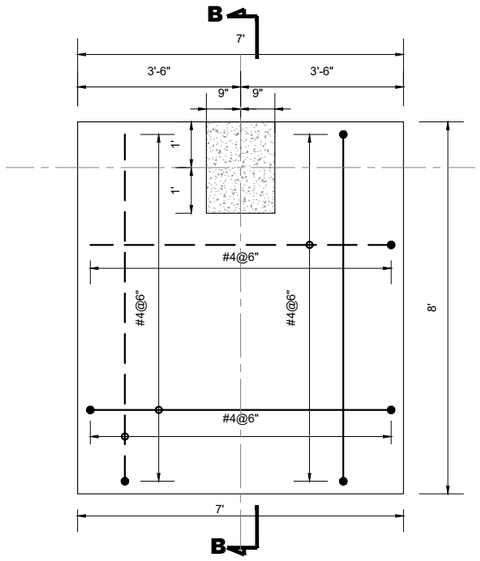
CLIENT:	PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)
CONSULTANTS:	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk
PROJECT:	PUNJAB CITIES PROGRAM (PCP) DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 173
DRAWING TITLE:	**RIGID FRAME ELEVATION PARKING SHED-01 & 02 (HAFIZABAD CITY)**
REV. / DATE / DESCRIPTION	- / - / -
DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
DRAWING NO:	PS-06
SCALE:	UNIT=FEET 1"=50'
SHEET:	1 OF 1
JOB NO:	488-01



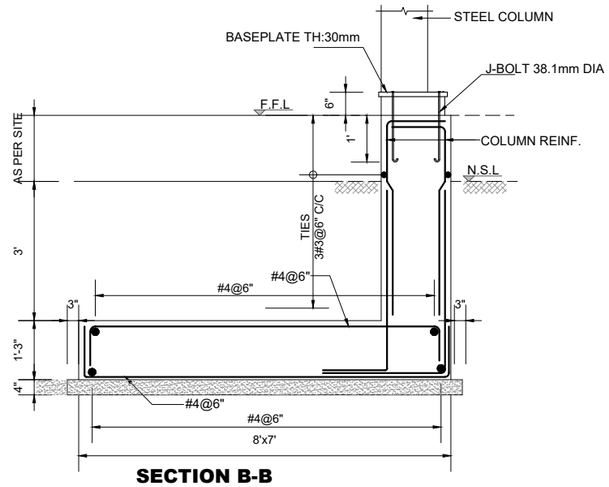
FOOTING F-1



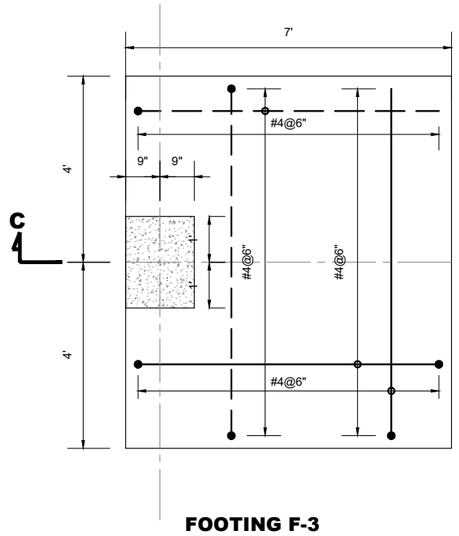
SECTION A-A



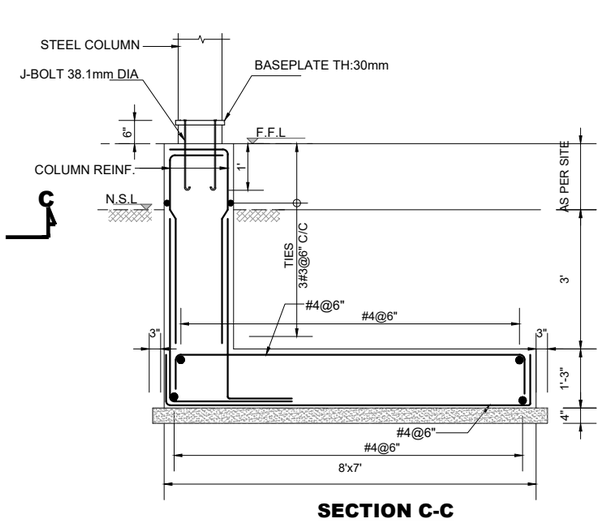
FOOTING F-2



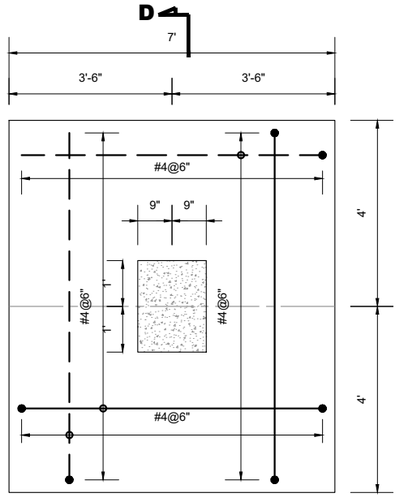
SECTION B-B



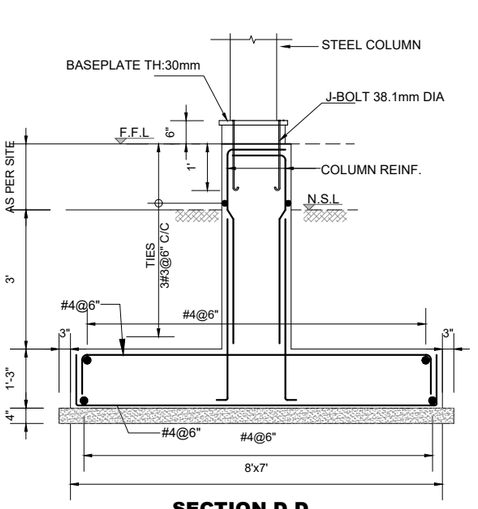
FOOTING F-3



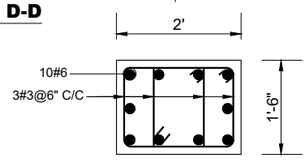
SECTION C-C



FOOTING F-4

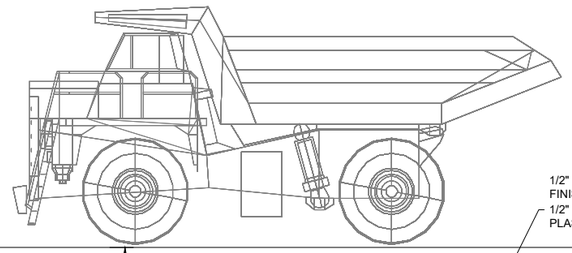


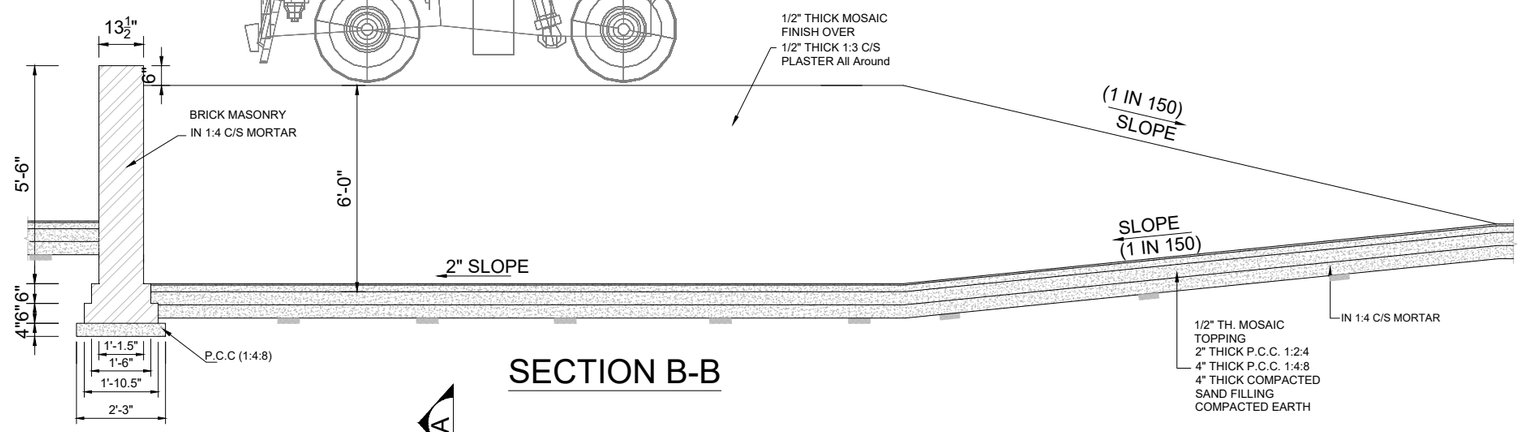
SECTION D-D



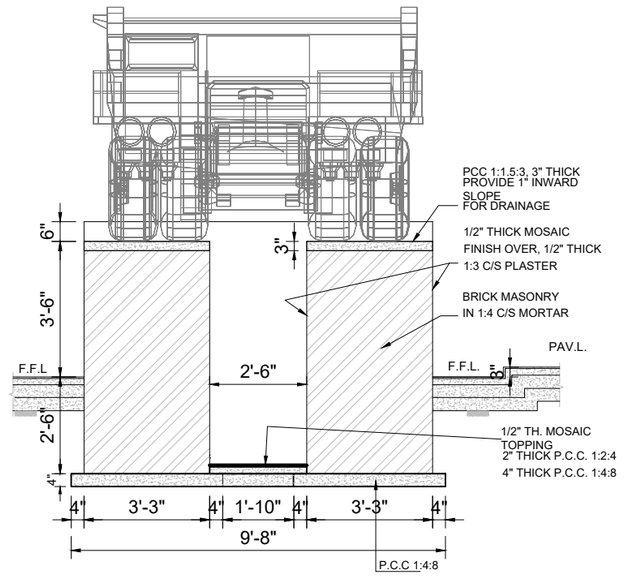
TYPICAL COLUMN C-1

CLIENT:	PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)
CONSULTANTS:	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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. 174
DRAWING TITLE:	**FOOTING DETAILS PARKING SHED-01 & 02 (HAFIZABAD CITY)**
REV. / DATE / DESCRIPTION	- - -
DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
DRAWING NO:	PS-07
SCALE:	UNIT=FEET 1"=40'
SHEET:	1 OF 1
JOB NO:	488-01

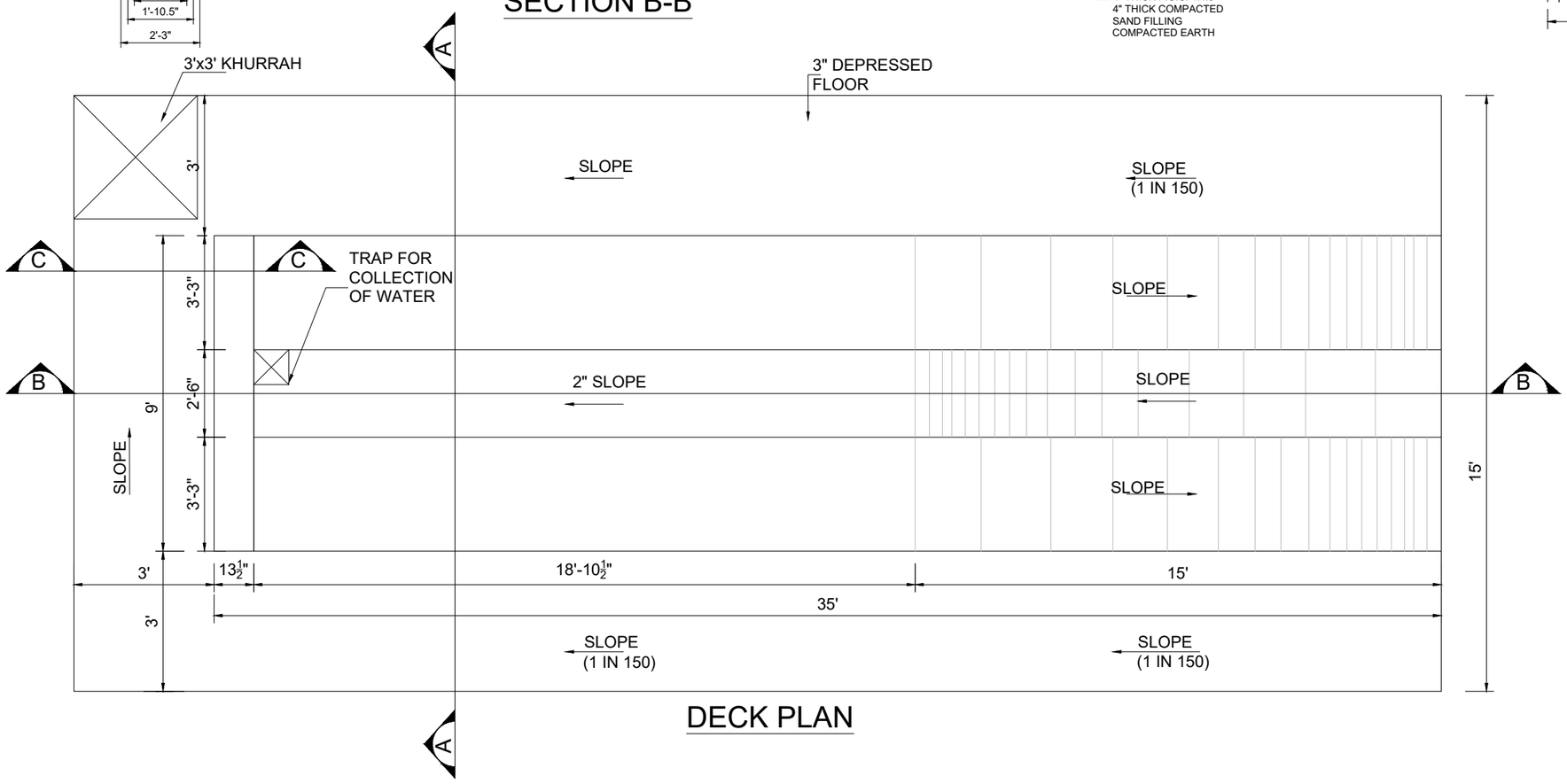




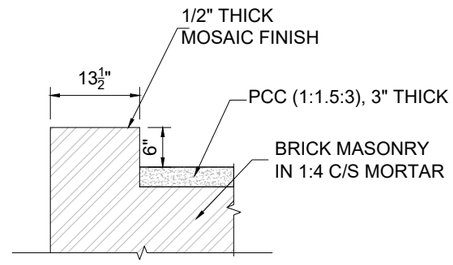
SECTION B-B



SECTION A-A

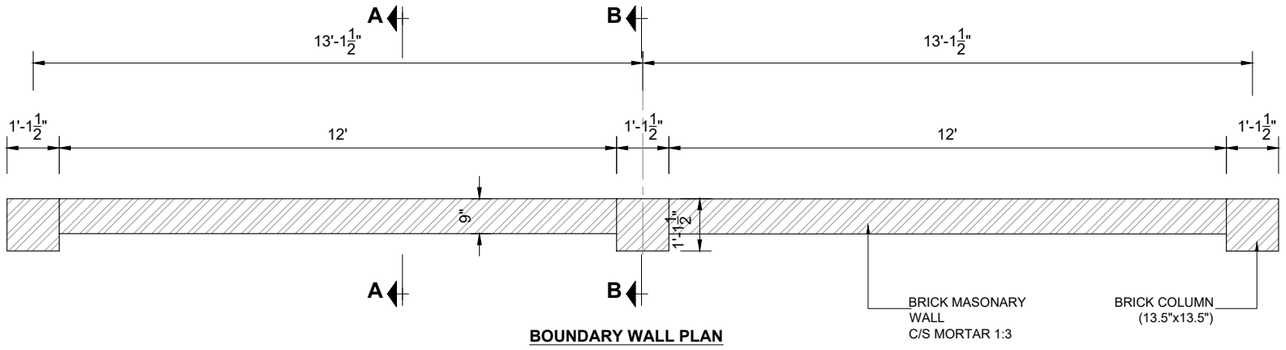


DECK PLAN

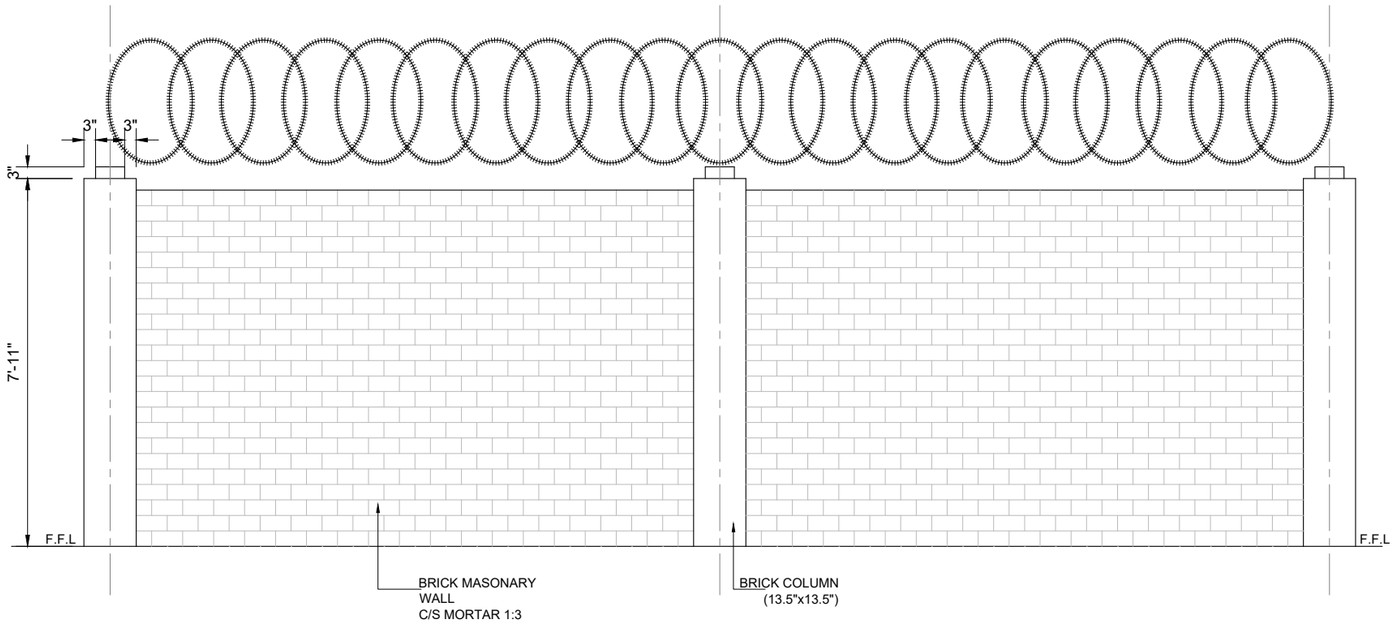


SECTION C-C

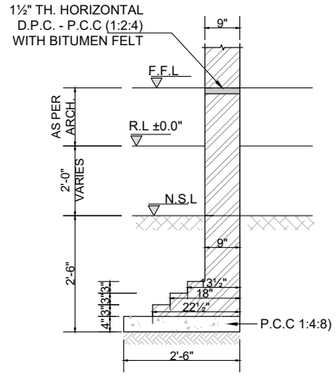
CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: JERS CONSULTANCY (PVT) LTD, 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan), Tel: +92 42 35113123, +92 42 35113124, Fax: +92 42 35113125, E-mail: info@jers.com.pk, mail@jers.com.pk, Web: http://www.jers.com.pk	PROJECT: PUNJAB CITIES PROGRAM (PCP) DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 175
DRAWING TITLE: WASHING PIT DETAIL HAFIZABAD	REV. - DATE - DESCRIPTION -	DRAWN BY: Asif; CHECKED BY: Sadat Waleed; DATE: August,2022
DRAWING NO: PS-08	SCALE: UNIT=FEET 1=40	SHEET: 1 OF 1; JOB NO: 488-01



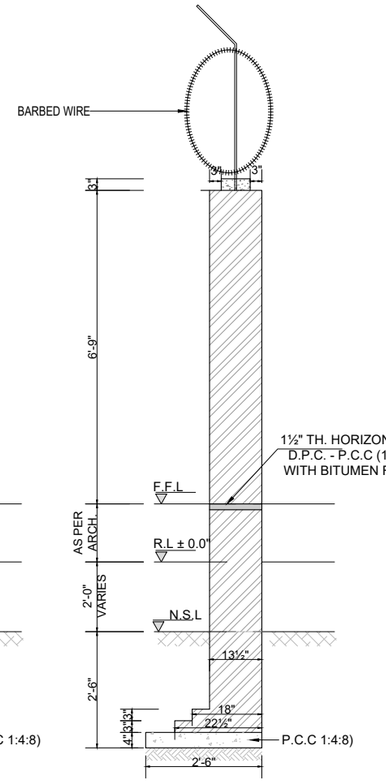
BOUNDARY WALL PLAN



BOUNDARY WALL ELEVATION

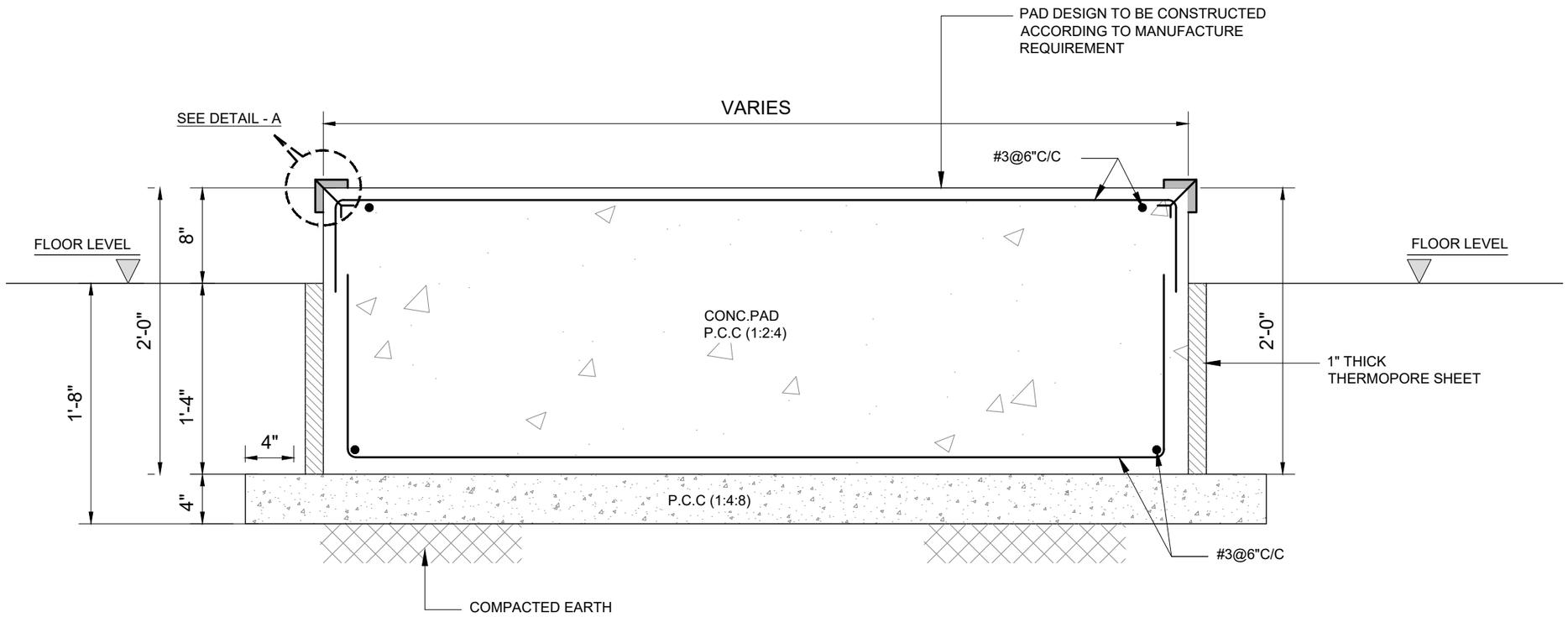


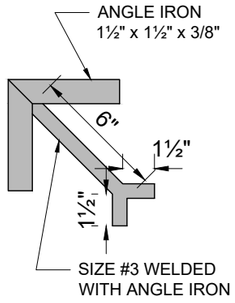
SECTION A-A
BOUNDRY WALL FOUNDATION DETAIL



SECTION B-B
COLUMN FOUNDATION DETAIL

CLIENT:	PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)
CONSULTANTS:	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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. 176
DRAWING TITLE:	**BOUNDARY WALL DETAIL (HAFIZABAD)**
REV. / DATE / DESCRIPTION	- / - / -
DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
DRAWING NO:	**PS-09**
SCALE:	UNIT=FEET 1"=40'
SHEET:	1 OF 1
JOB NO:	488-01





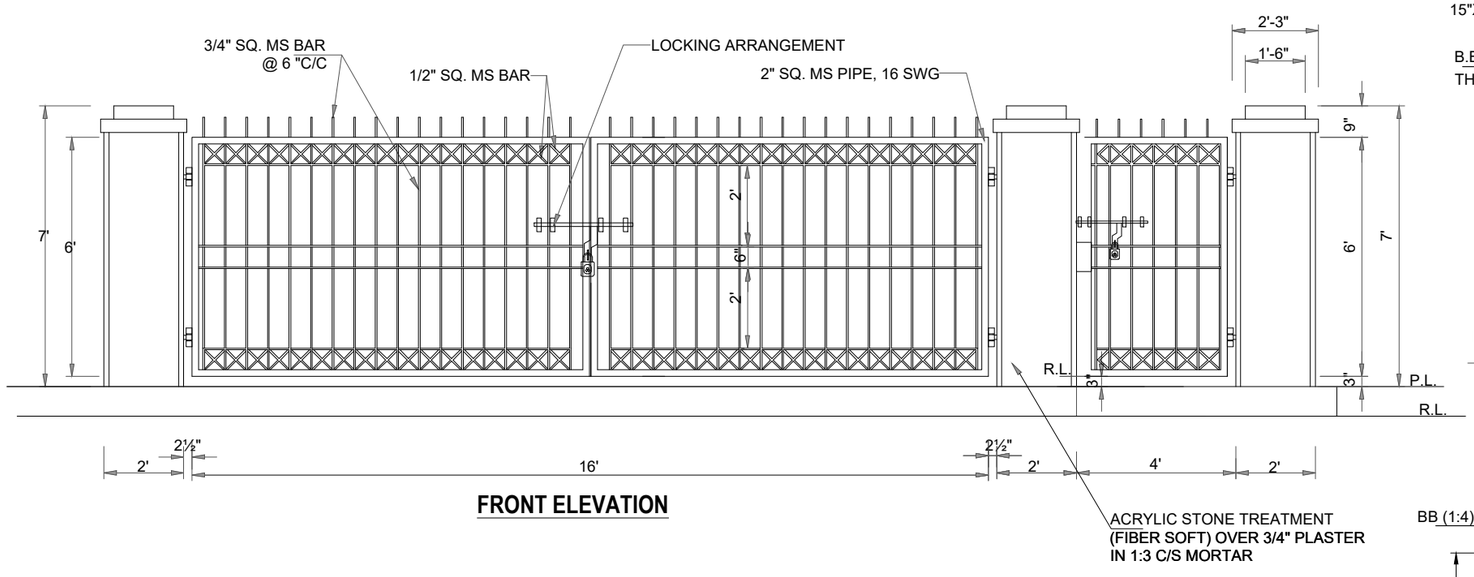
DETAIL - A

TYP. DETAIL OF PAD FOUNDATION FOR GENERATOR

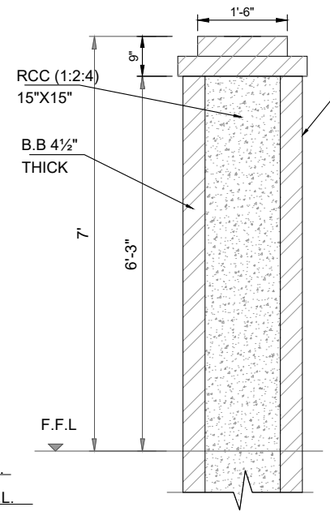
CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: JERS CONSULTANCY (PVT) LTD, 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan), Tel: +92 42 35113123, +92 42 35113124, Fax: +92 42 35113125, E-mail: info@jers.com.pk, mail@jers.com.pk, Web: http://www.jers.com.pk	PROJECT: PUNJAB CITIES PROGRAM (PCP) DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 177	DRAWING TITLE: GENERATOR PAD FOUNDATION DETAIL (HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

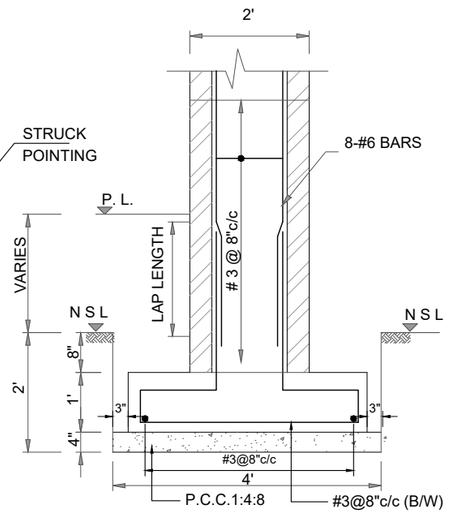
DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
SCALE:	UNIT=FEET 3/8"=1'-0"
SHEET:	1 OF 1
JOB NO:	488-01
DRAWING NO:	PS-10



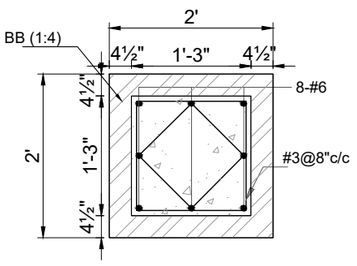
FRONT ELEVATION



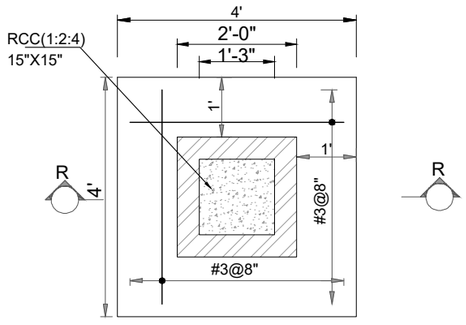
SECTION Q-Q



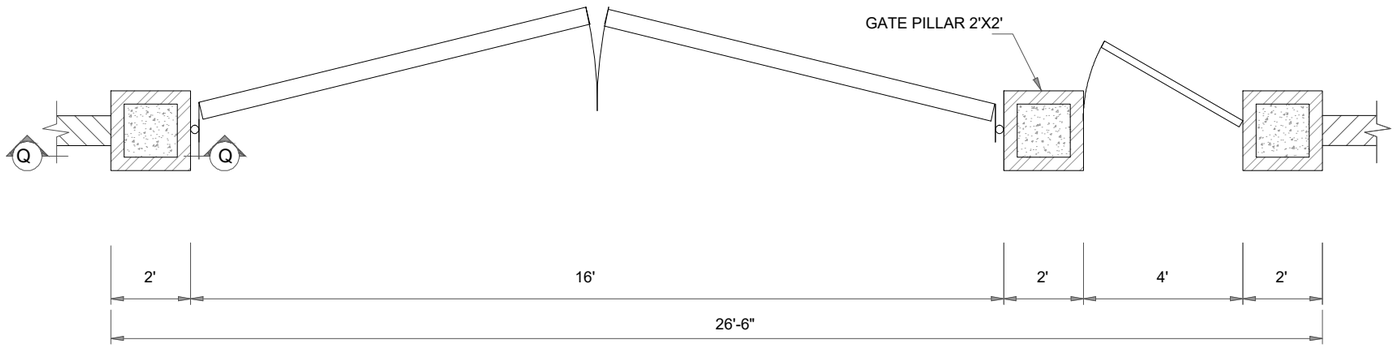
SECTION R-R



COLUMN PLAN



COLUMN FOOTING



PLAN

NOTES

1. FOUNDATION HAS BEEN DESIGNED WITH A BEARING CAPACITY OF 0.75 TON/SFT.AT A DEPTH OF 3 FEET FROM N.S.L.
2. USE CONCRETE HAVING MINIMUM CUBE STRENGTH OF 3,000 PSI (NOMINAL MIX 1:2:4) FOR ALL CONCRETE WORKS.
3. USE DEFORMED STEEL HAVING MINIMUM YIELD STRENGTH OF 60,000 PSI.
4. ALL STEEL STRUCTURAL SURFACES TO BE TREATED WITH ONE COAT OF PRIMER (RED OXIDE) AND TWO COATS OF ENAMEL PAINT OF APPROVED BRAND & SPECIFICATIONS. THE COST OF PAINTING SHOULD BE INCLUDED IN CONTRACTOR'S APPROVED/BID RATE.
5. HORIZONTAL DPC IS OF CEMENT CONCRETE (1:2:4), 2" THICK WITH ONE COAT OF BITUMEN AND A LAYER OF POLYTHENE SHEET OF 500 GAUGE.

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD
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Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

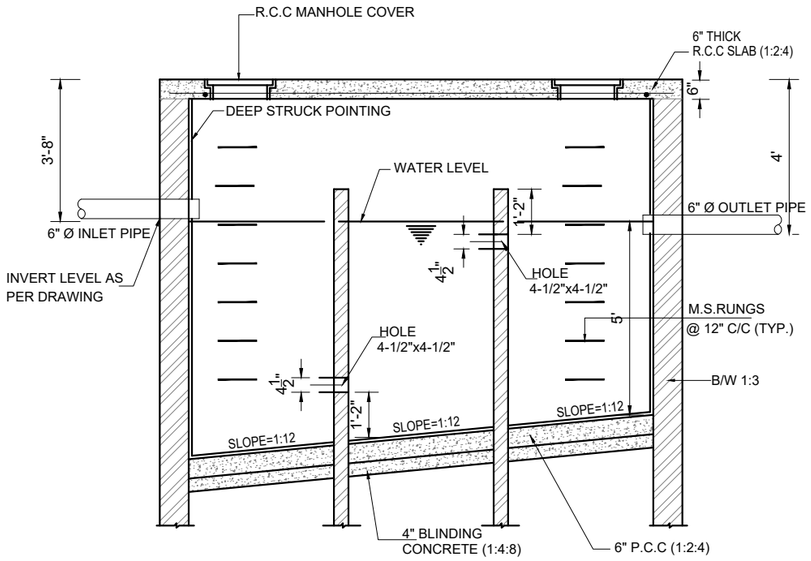
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
178

DRAWING TITLE:
PROPOSED ENTERANCE GATE (HAFIZABAD CITY)

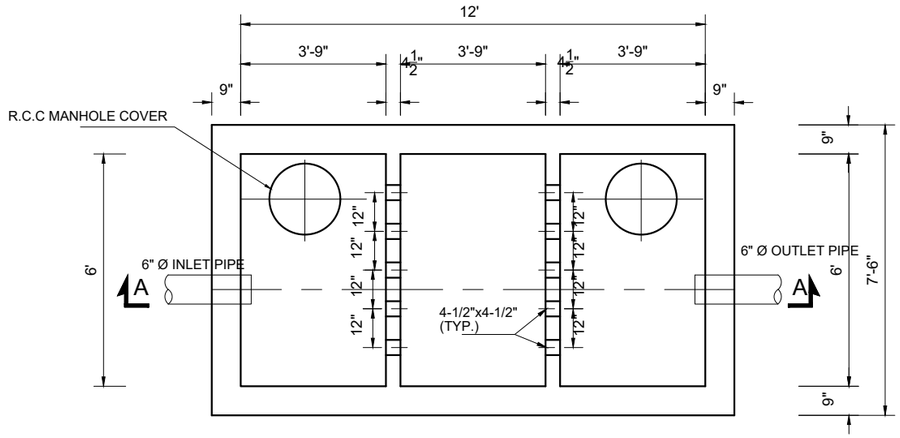
REV.	DATE	DESCRIPTION
-	-	-

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

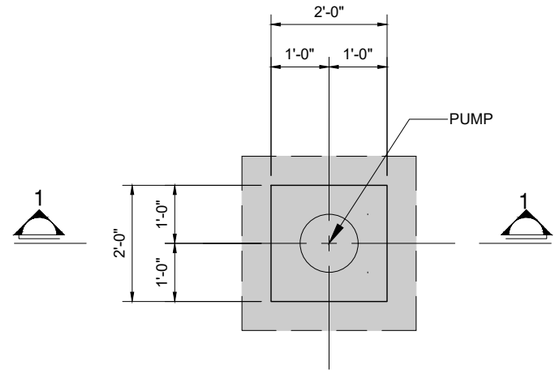
DRAWING NO: PS-11
SCALE: UNIT=FEET -
SHEET: -
JOB NO: 488-01



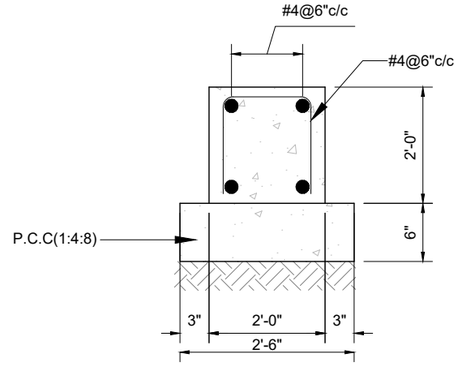
SECTION A-A



SEPTIC TANK PLAN
12-0" x 6'-0"



PUMP FOUNDATION PLAN



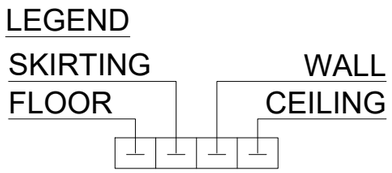
SECTION 1-1

CLIENT:	PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)
CONSULTANTS:	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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:	**PUMP PAD FOUNDATION & SEPTIC TANK DETAIL (HAFIZABAD CITY)**
REV. / DATE / DESCRIPTION	- / - / -
DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
DRAWING NO:	PS-12
SCALE:	UNIT=FEET 1/4"=1'-0"
SHEET:	1 OF 1
JOB NO:	488-01

ARCHITECTURAL DRAWINGS

SCHEDULE OF INTERNAL FINISHES

LEGEND



1. PORCELAIN TILES OF APPROVED SIZE PATTERN AND COLOR
2. CERAMIC TILES OF APPROVED SIZE PATTERN AND COLOR
   7'-0" HIGH WITH VENILE EMULSION PAINT TILL CEILING.
   (MATT FINISH ON FLOOR & GLAZZED ON WALL)
3. PORCELAIN SLABS FOR TREADS & RISER OF APPROVED COLOR & PATTERN
4. DISTAMPER ON C.S PLASTER (APPROVED MAKE & SHADE)
5. DISTAMPER PAINT
6. P.C.C TUFF PAVERS 80mm THICK HAVING 7000 PSI GRADING STRENGTH OVER 2" THICK SAND
7. 4" HIGH PORCELAIN TILES SKIRTING

SCHEDULE OF EXTERNAL FINISHES

8. DEEP STRUCK POINTING
9. 9"X4½"X1½" TH. TILES

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

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Web: http://www.jers.com.pk

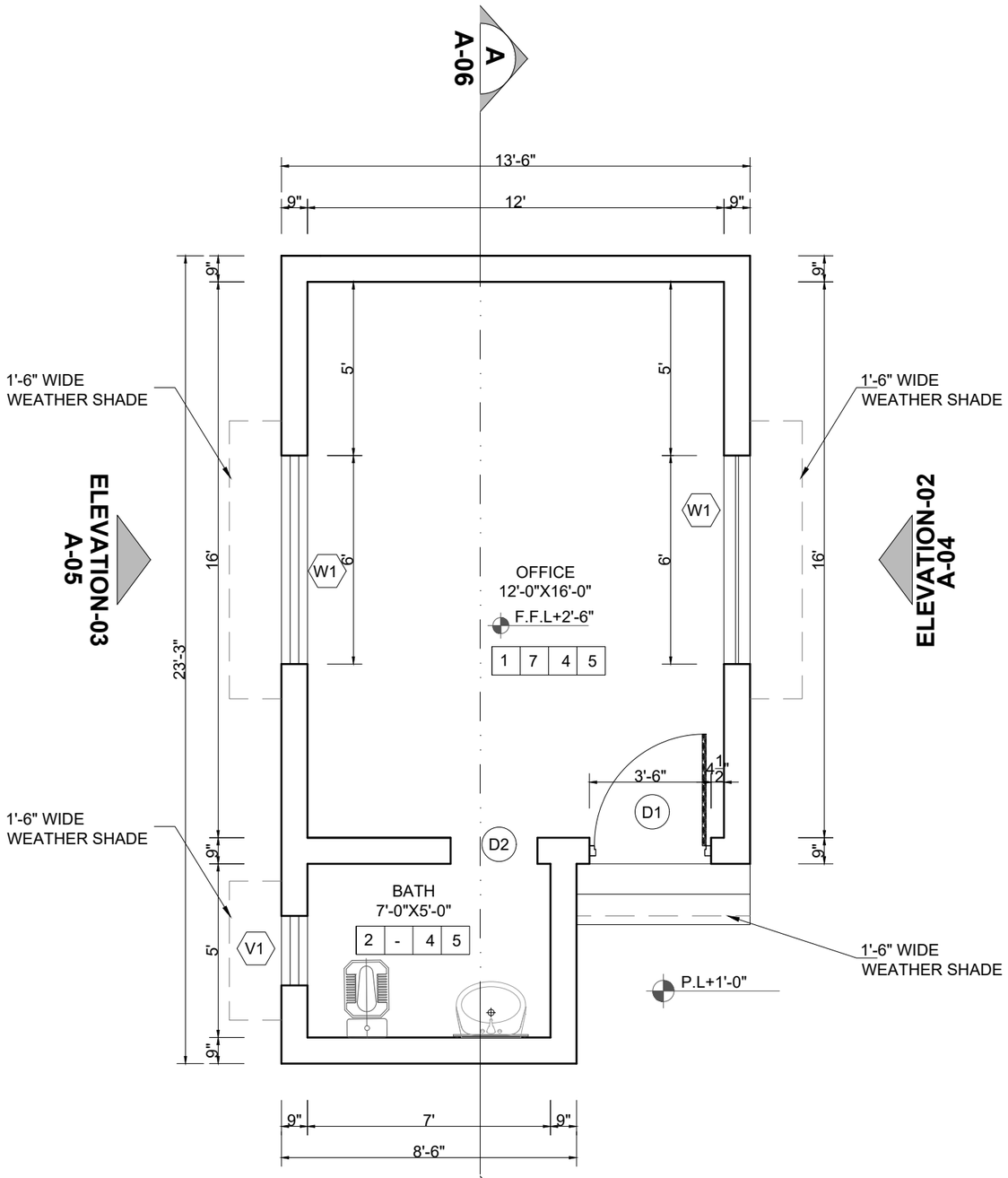
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
181

DRAWING TITLE:
LEGEND & NOTES
OFFICE BLOCK
(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

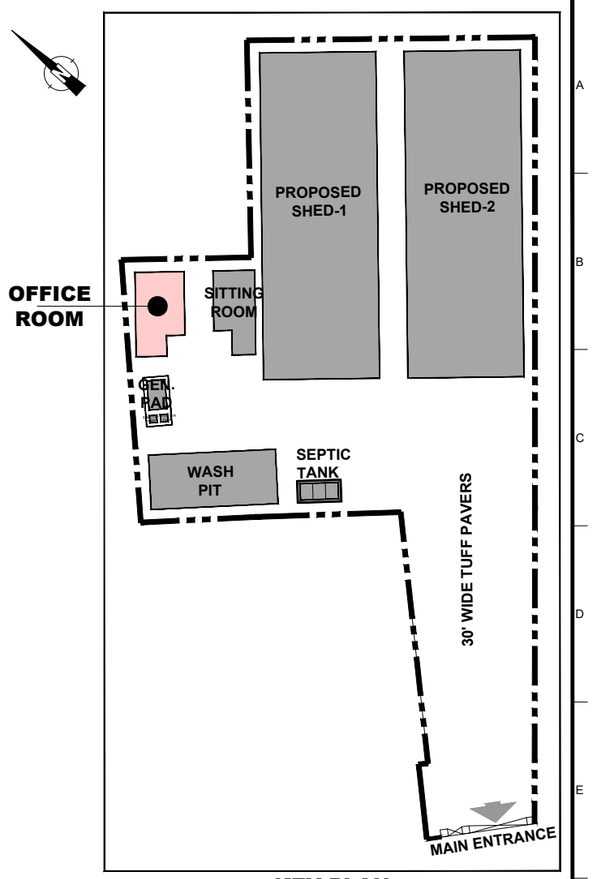
DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

DRAWING NO: **A-01**
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
JOB NO: 488-01



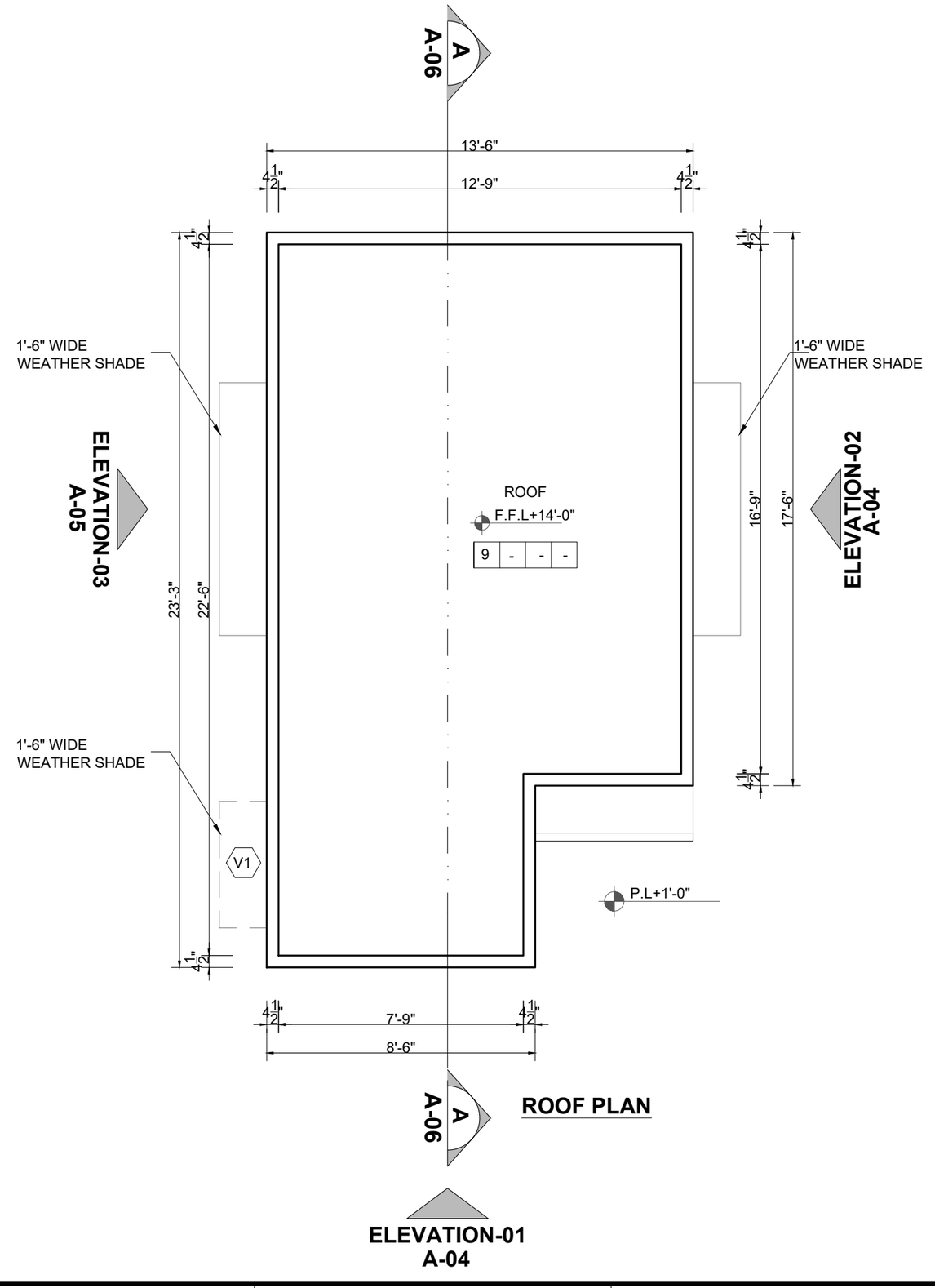
GROUND FLOOR PLAN

ELEVATION-01
A-04

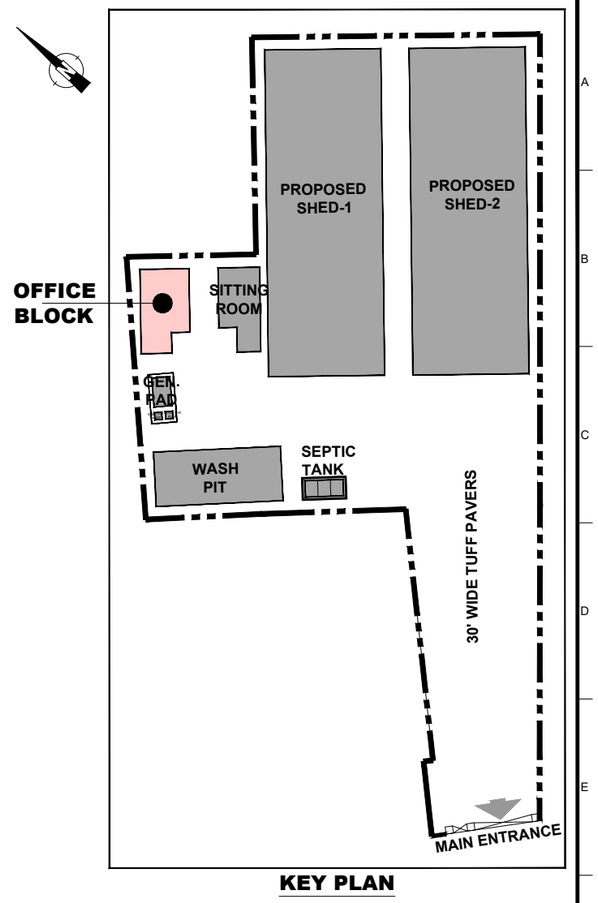


KEY PLAN

CLIENT:	PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)
CONSULTANTS:	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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. 182
DRAWING TITLE:	**GROUND FLOOR PLAN** **OFFICE BLOCK** **(HAFIZABAD CITY)**
REV. / DATE / DESCRIPTION	- / - / -
DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
DRAWING NO:	A-02
SCALE:	UNIT=FEET 1/4"=1'-0"
SHEET:	2 OF 7
JOB NO:	488-01



ROOF PLAN



KEY PLAN

ELEVATION-01
A-04

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
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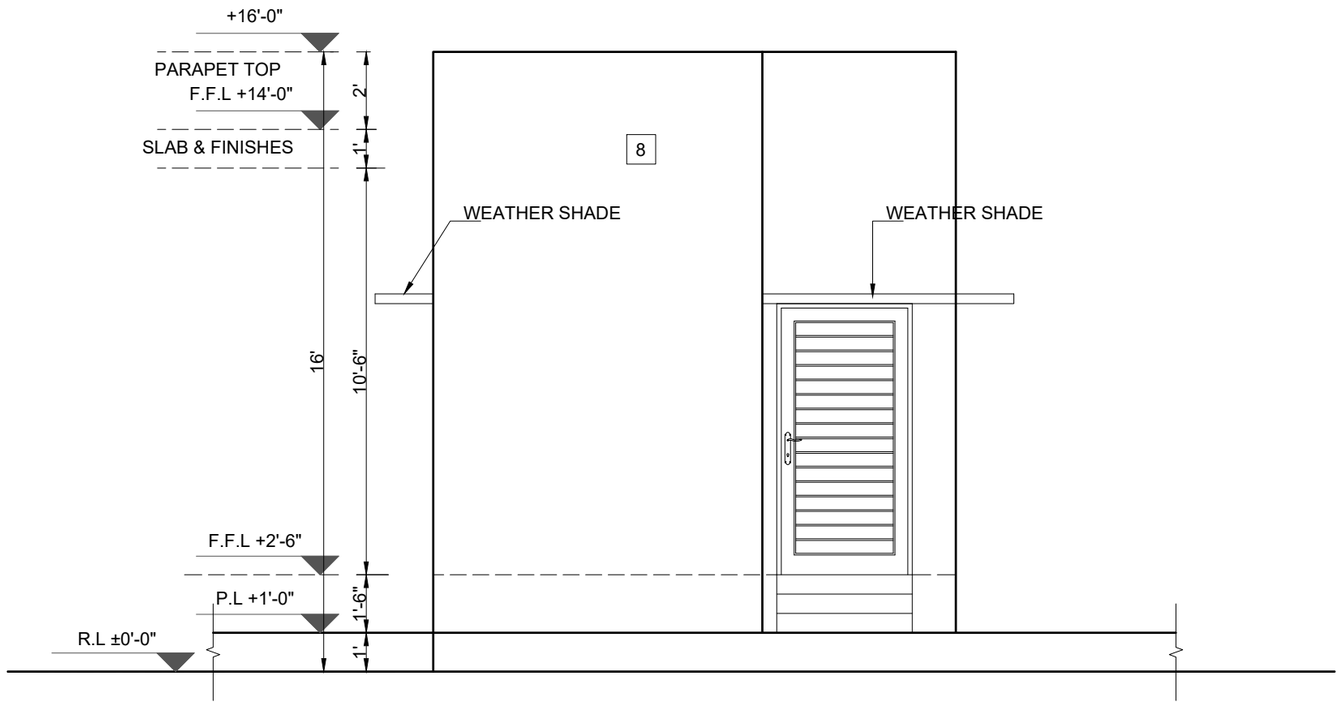
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
183

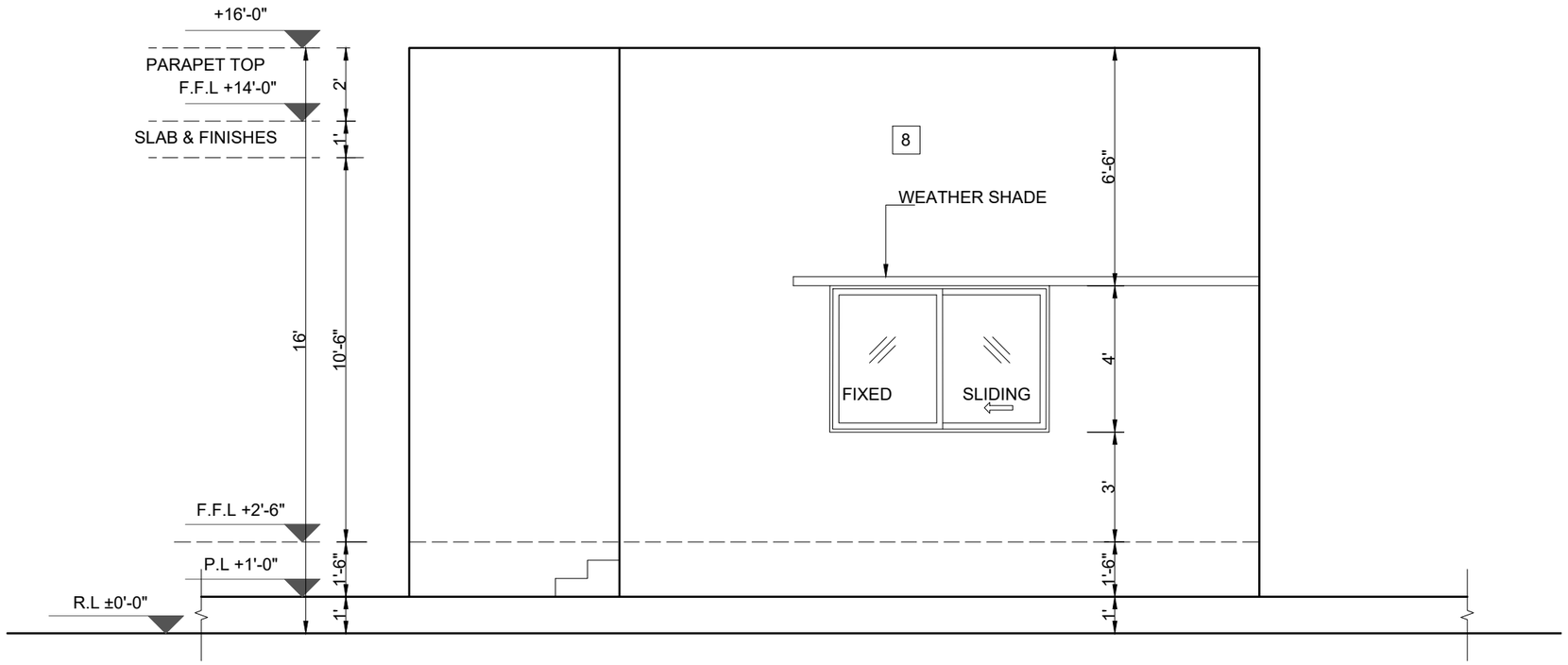
DRAWING TITLE:
ROOF PLAN
OFFICE BLOCK
(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022
DRAWING NO: A-03
SCALE: UNIT=FEET 1/4"=1'-0"
SHEET: 3 OF 7
JOB NO: 488-01



ELEVATION-01



ELEVATION-02

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

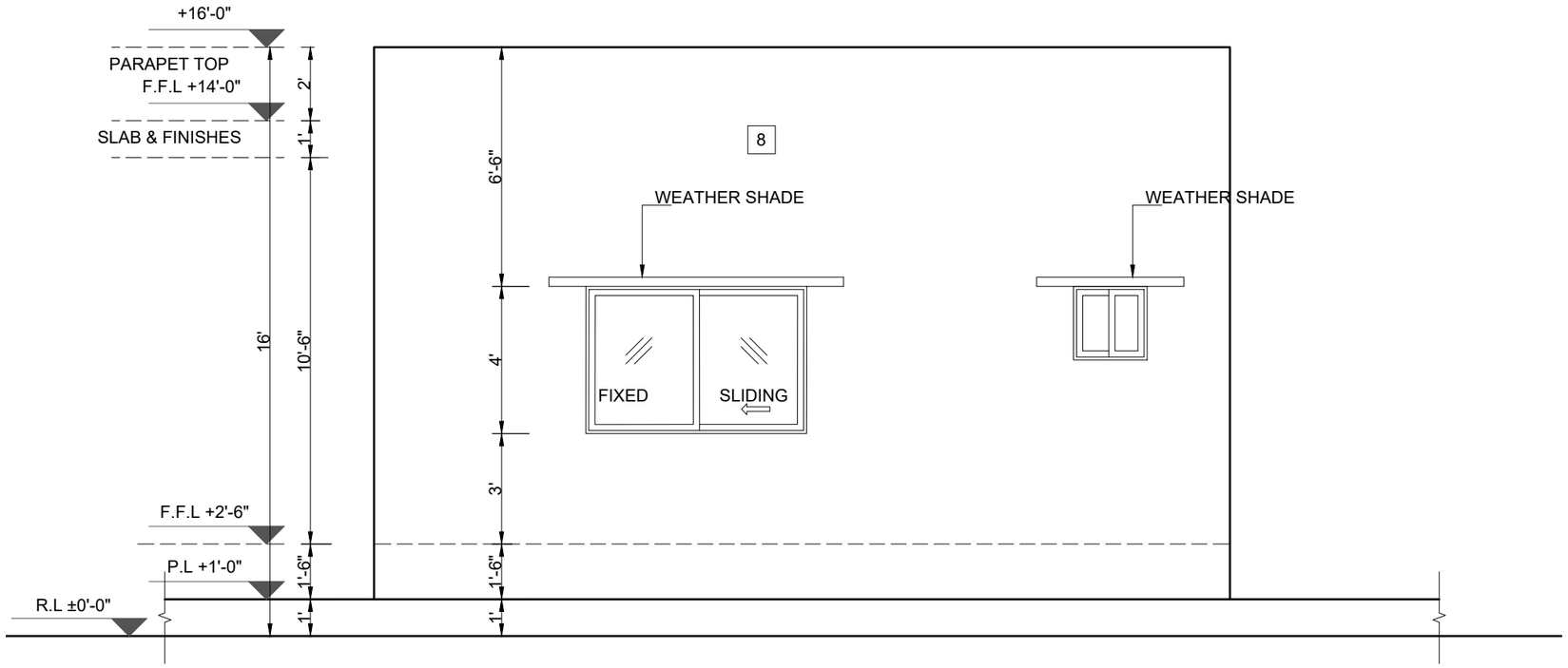
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
184

DRAWING TITLE:
ELEVATION-01,02
OFFICE BLOCK
(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

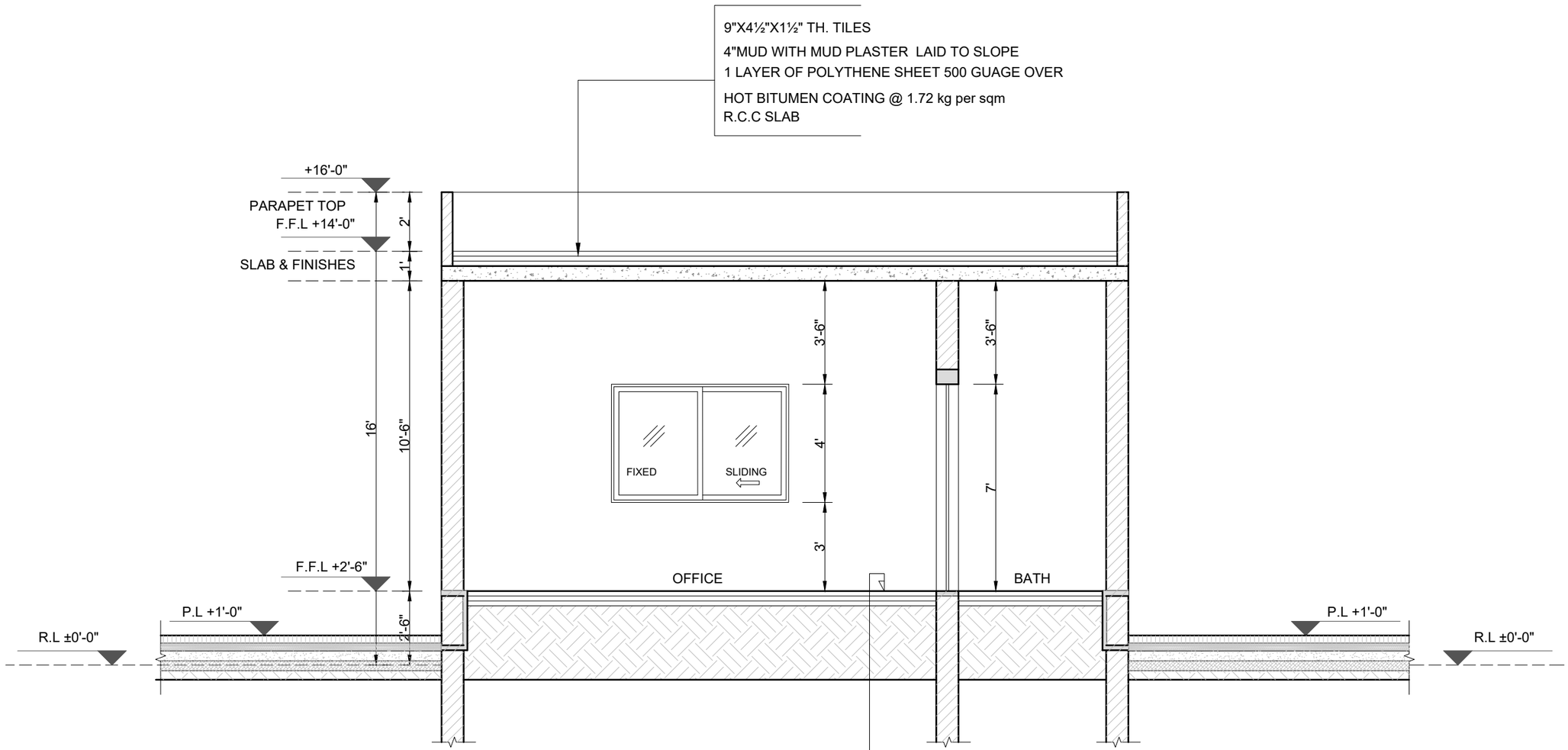
DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

DRAWING NO: A-04
SCALE: UNIT=FEET 1/4"=1'-0"
SHEET: 4 OF 7
JOB NO: 488-01



ELEVATION-03

CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: JERS CONSULTANCY (PVT) LTD, 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan), Tel: +92 42 35113123, +92 42 35113124, Fax: +92 42 35113125, E-mail: info@jers.com.pk, mail@jers.com.pk, 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. 185
DRAWING TITLE: ELEVATION-03 OFFICE BLOCK (HAFIZABAD CITY)	REV. - DATE - DESCRIPTION -	DRAWN BY: Munir; CHECKED BY: Sadat Waleed; DATE: August,2022
DRAWING NO: A-05	SCALE: UNIT=FEET 1/4"=1'-0"	SHEET: 5 OF 7; JOB NO: 488-01



SECTION A-A

CLIENT:

HELP BUILD PMDFC HEALTHY CITIES

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD

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PROJECT:

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
186

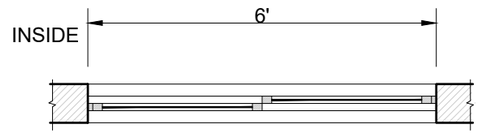
DRAWING TITLE:

SECTION A-A
OFFICE BLOCK
(HAFIZABAD CITY)

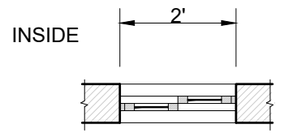
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

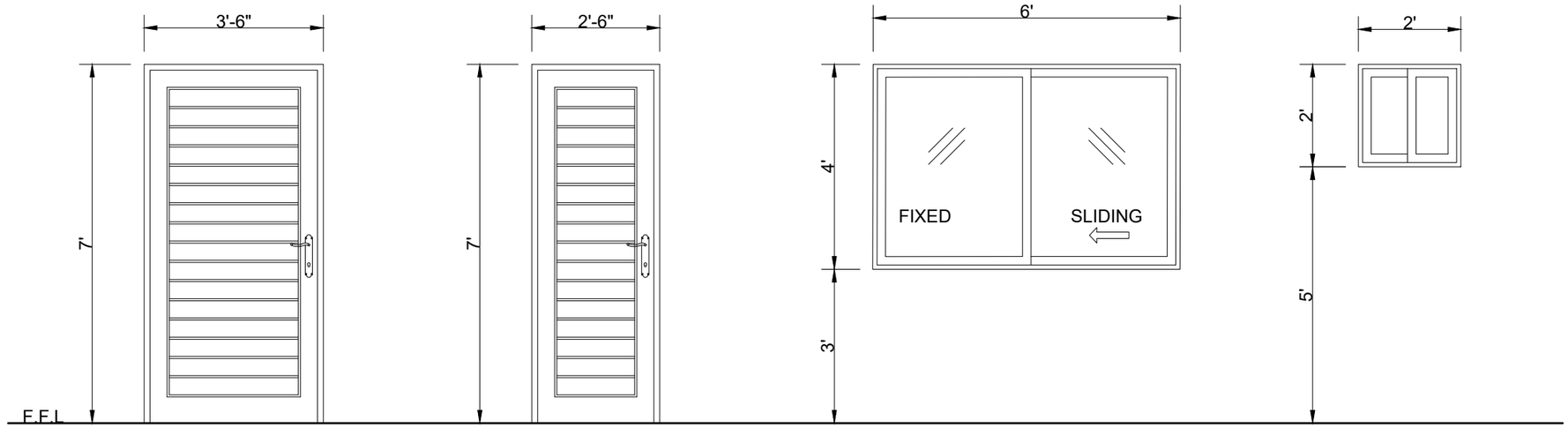
DRAWING NO: **A-06**
SCALE: UNIT=FEET 1/4"=1'-0"
SHEET: 6 OF 7
JOB NO: 488-01



PLAN OF W1



PLAN OF V1



ELEVATION OF D1

SIZE=3'-6"x7'-0"
QUANTITY= 01 NOS. HOLLOW FLUSH DOOR WITH COMMERCIAL PLY(3 PLY)

ELEVATION OF D2

SIZE=2'-6"x7'-0"
QUANTITY= 01 NOS. HOLLOW FLUSH DOOR WITH COMMERCIAL PLY(3 PLY)

ELEVATION OF W1

SIZE=6'-0"x4'-0"
QUANTITY= 02 NOS.
STEEL SLIDING WINDOW, FIXED WITH 5MM THICK GLASS INCLUDING WIRE GAUZE

ELEVATION OF V1

SIZE=2'-0"x2'-0"
QUANTITY= 01 NOS.
STEEL SLIDING WINDOW, FIXED WITH 5MM THICK GLASS INCLUDING WIRE GAUZE

CLIENT:
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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.
187

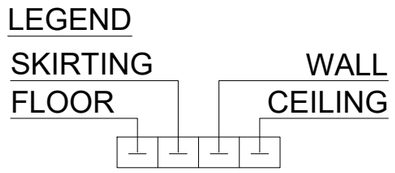
DRAWING TITLE:
DOOR WINDOW SCHEDULE OFFICE BLOCK (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022
DRAWING NO: A-07
SCALE: UNIT=FEET 3/8"=1'-0"
SHEET: 7 OF 7
JOB NO: 488-01

SCHEDULE OF INTERNAL FINISHES

LEGEND



1. PORCELAIN TILES OF APPROVED SIZE PATTERN AND COLOR
2. CERAMIC TILES OF APPROVED SIZE PATTERN AND COLOR
   7'-0" HIGH WITH VENILE EMULSION PAINT TILL CEILING.
   (MATT FINISH ON FLOOR & GLAZZED ON WALL)
3. PORCELAIN SLABS FOR TREADS & RISER OF APPROVED COLOR & PATTERN
4. DISTAMPER ON C.S PLASTER (APPROVED MAKE & SHADE)
5. DISTAMPER PAINT
6. P.C.C TUFF PAVERS 80mm THICK HAVING 7000 PSI GRADING STRENGTH OVER 2" THICK SAND
7. 4" HIGH PORCELAIN TILES SKIRTING

SCHEDULE OF EXTERNAL FINISHES

8. DEEP STRUCK POINTING
9. 9"X4½"X1½" TH. TILES

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
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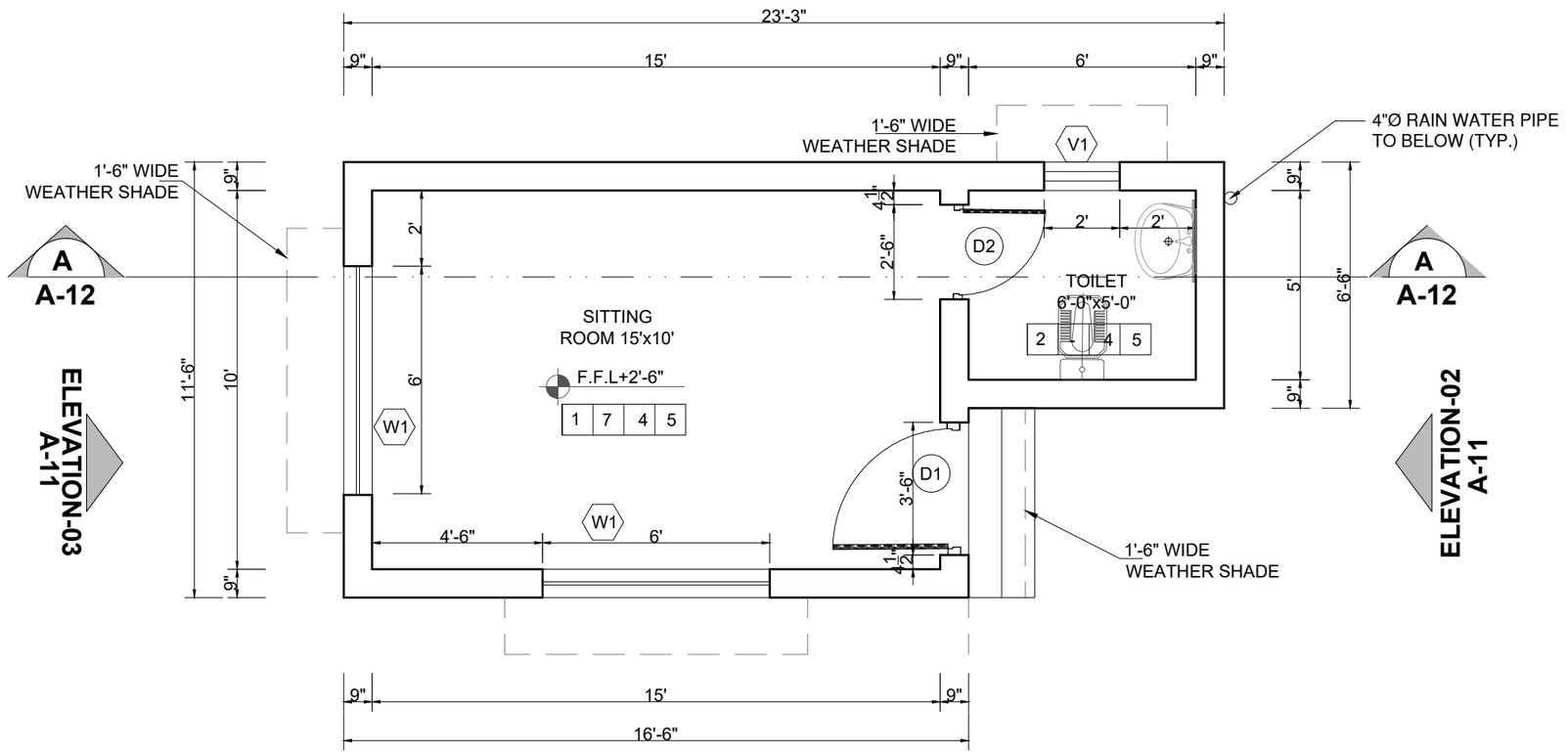
Web: http://www.jers.com.pk

PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
188

DRAWING TITLE:
LEGEND & NOTES SITTING AREA (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

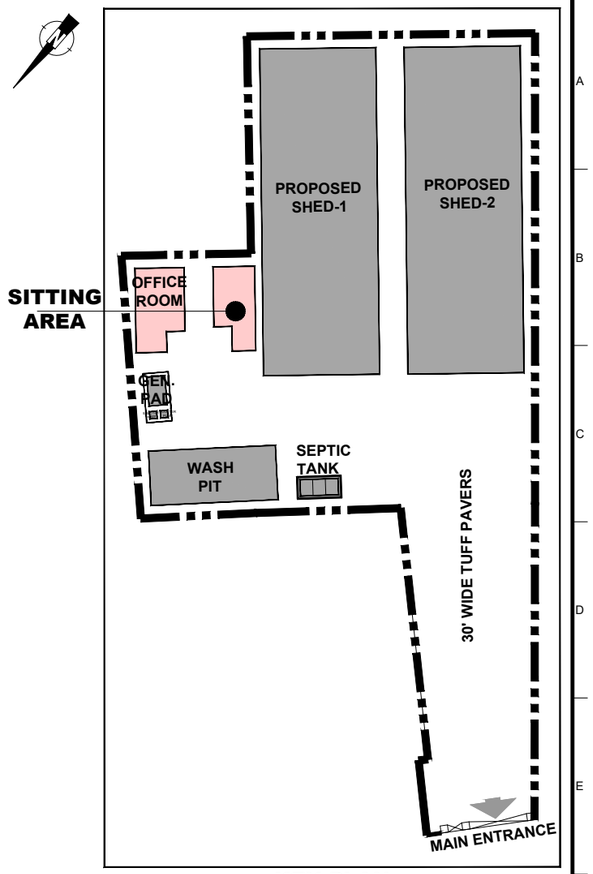
DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022
SCALE: UNIT=FEET NTS
DRAWING NO: A-08
SHEET: 1 OF 6
JOB NO: 488-01



GROUND FLOOR PLAN

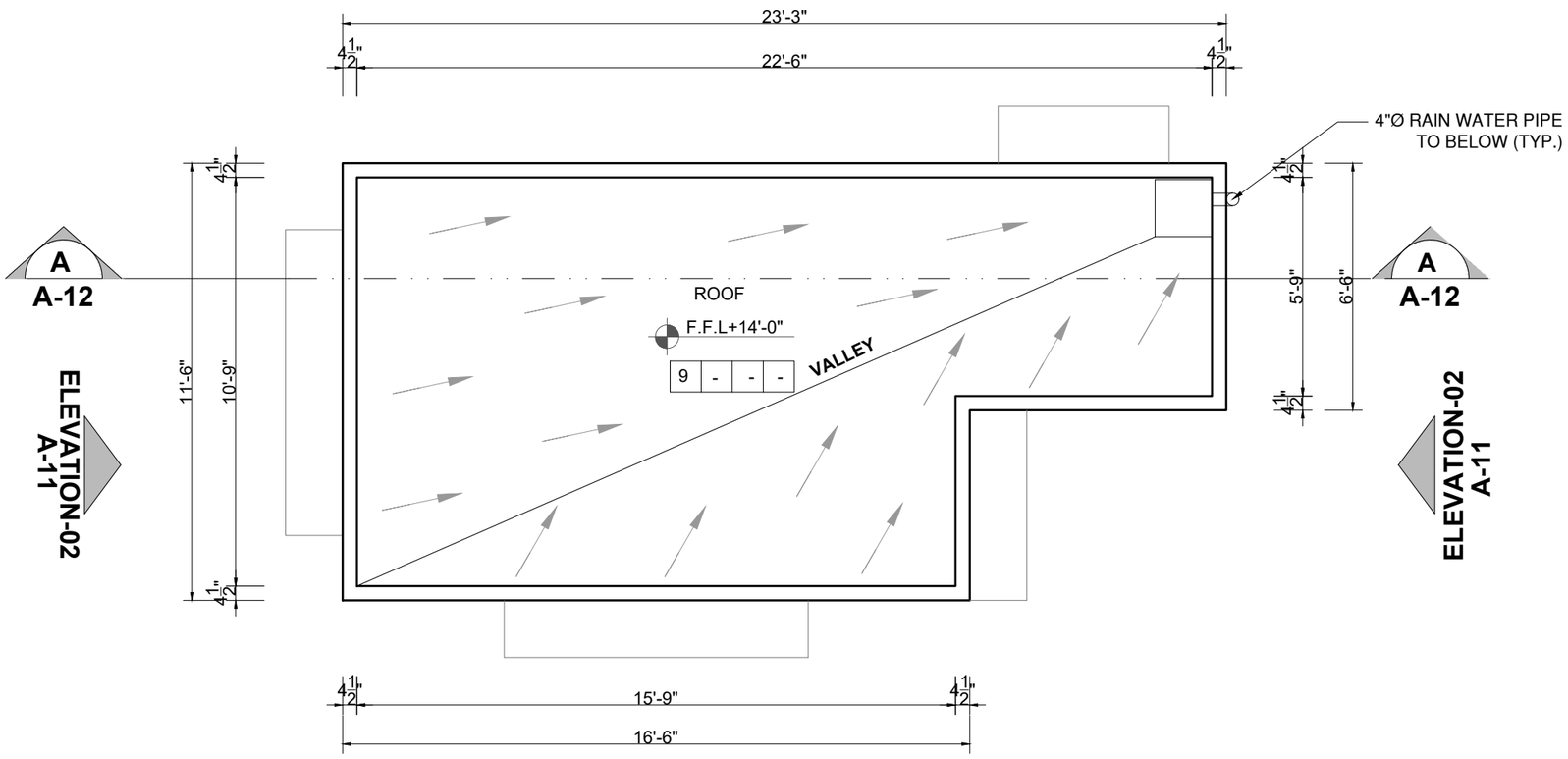
P.L+1'-0"

ELEVATION-01
A-11



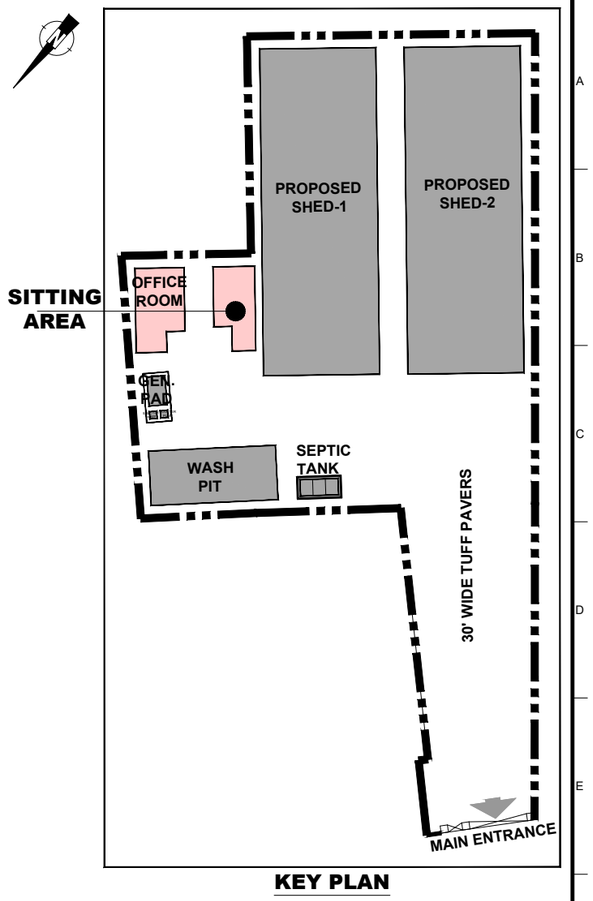
KEY PLAN

CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: **JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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. 189
DRAWING TITLE: **GROUND FLOOR SITTING AREA (HAFIZABAD CITY)**	REV. - DATE - DESCRIPTION -	DRAWN BY: Munir; CHECKED BY: Sadat Waleed; DATE: August,2022
DRAWING NO: **A-09**	SCALE: UNIT=FEET 1/4"=1'-0"	SHEET: 2 OF 6; JOB NO: 488-01



ROOF PLAN

ELEVATION-01
A-11



KEY PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
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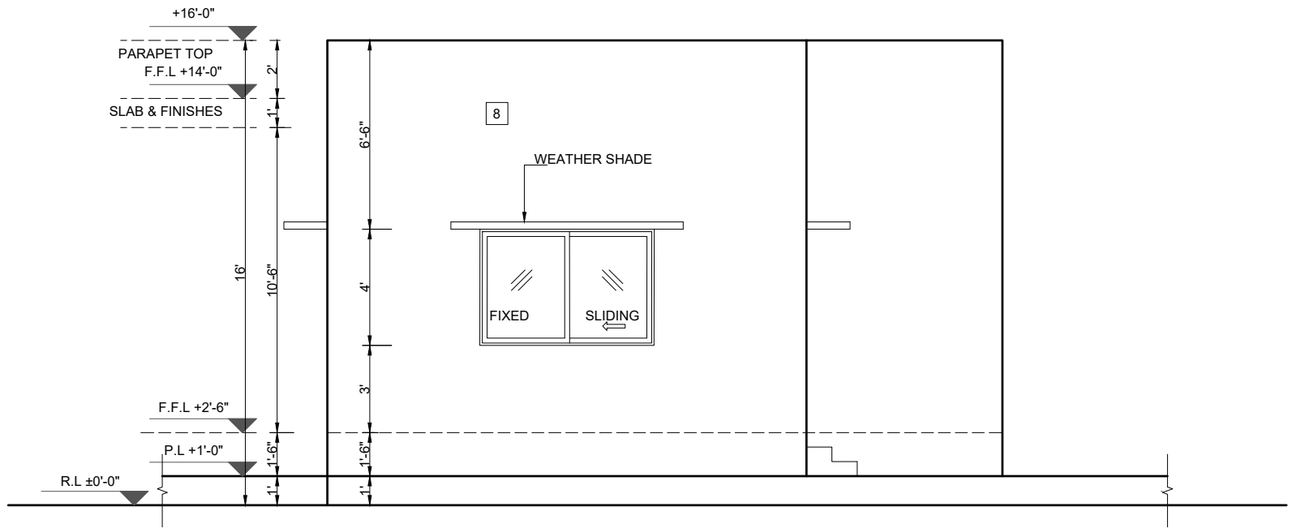
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
190

DRAWING TITLE:
ROOF PLAN SITTING AREA (HAFIZABAD CITY)

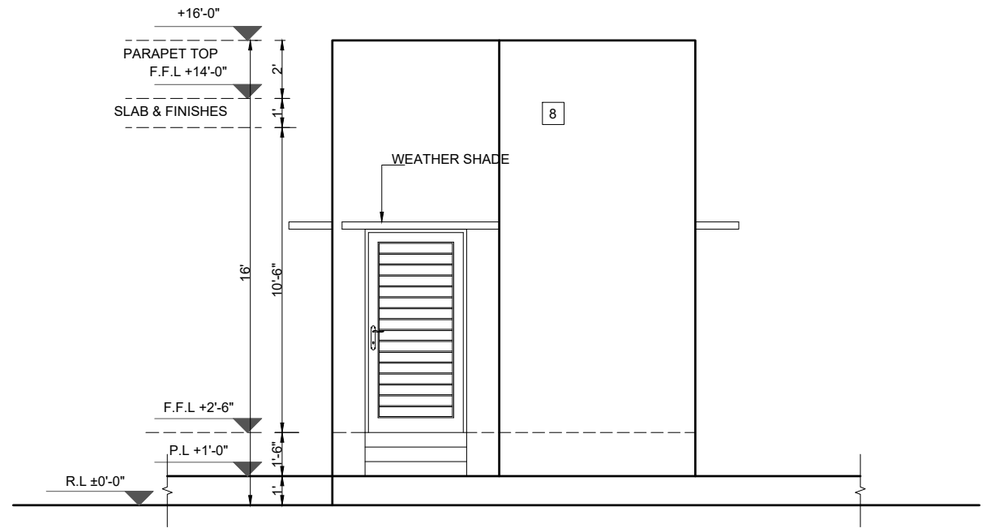
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

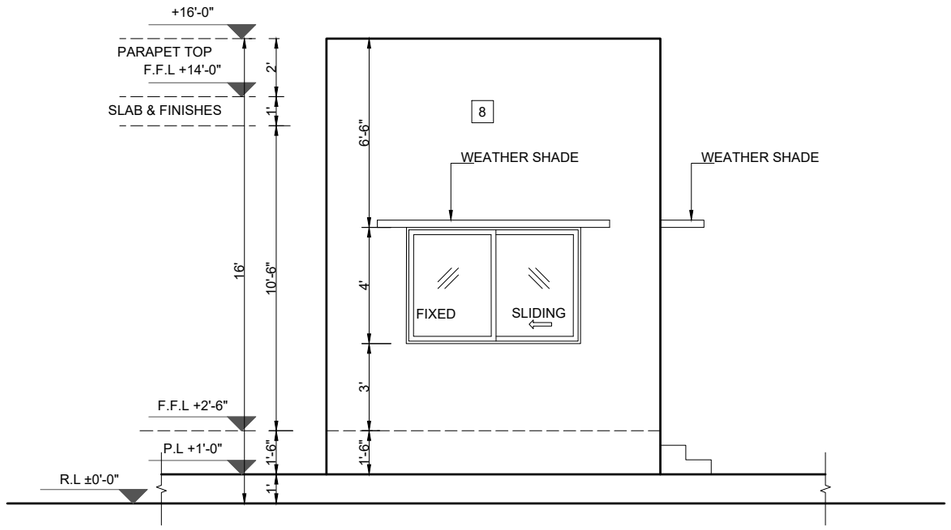
DRAWING NO: A-10
SCALE: UNIT=FEET 1/4"=1'-0"
SHEET: 3 OF 6
JOB NO: 488-01



ELEVATION-01



ELEVATION-02

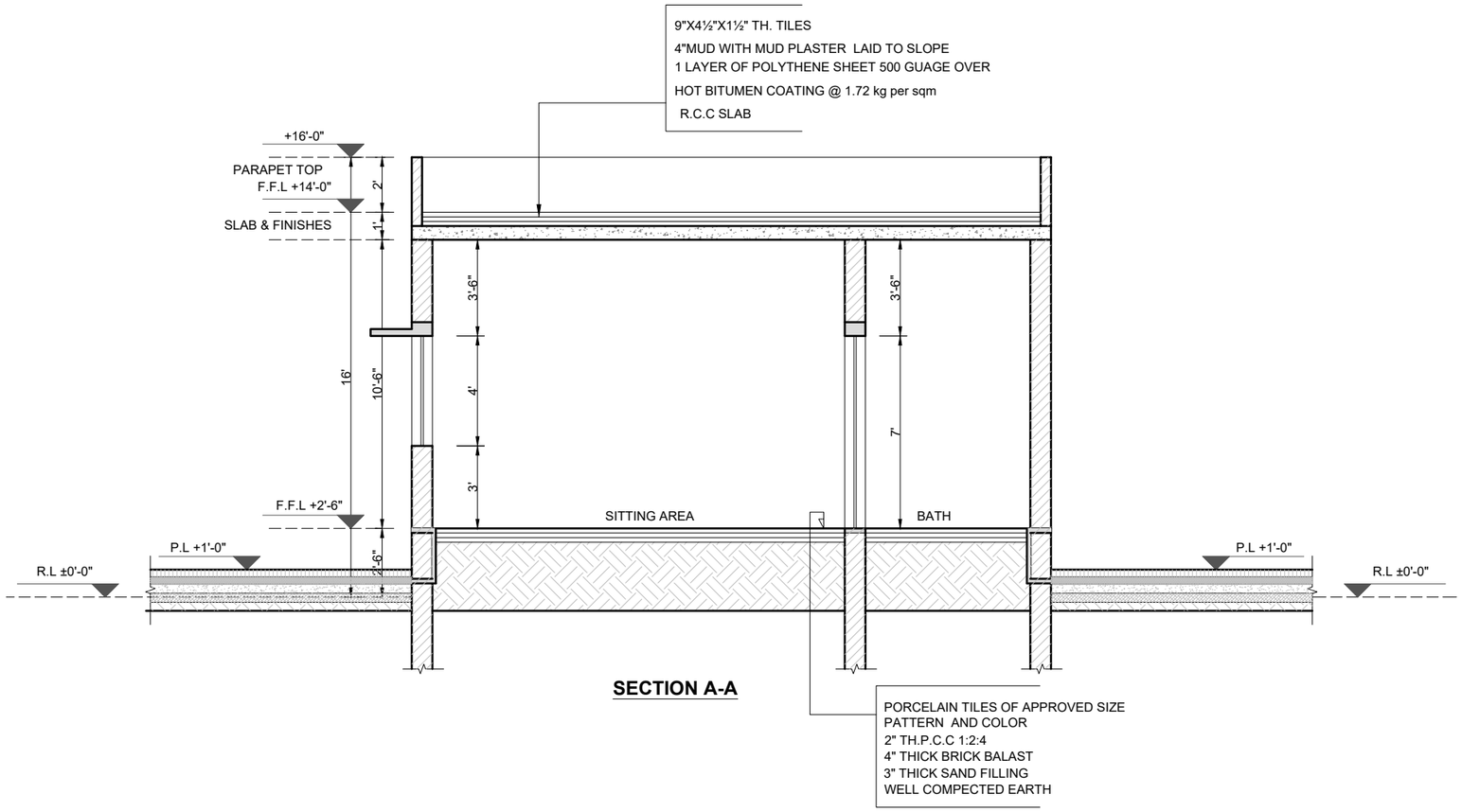


ELEVATION-03

CLIENT: HELP BUILD PMDFC HEALTHY CITIES — **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**	CONSULTANTS: **JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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. 191	DRAWING TITLE: **ELEVATION-01 & 02 SITTING AREA (HAFIZABAD CITY)**

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:	Munir
CHECKED BY:	Sadat Waleed
DATE:	August,2022
DRAWING NO:	A-11
SCALE:	UNIT=FEET 3/16"=1'-0"
SHEET:	4 OF 6
JOB NO:	488-01



SECTION A-A

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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Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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.

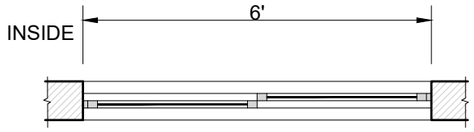
DRAWING TITLE:

SECTION A-A
SITTING AREA
(HAFIZABAD CITY)

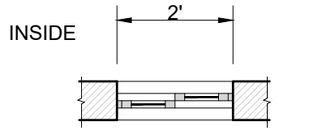
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

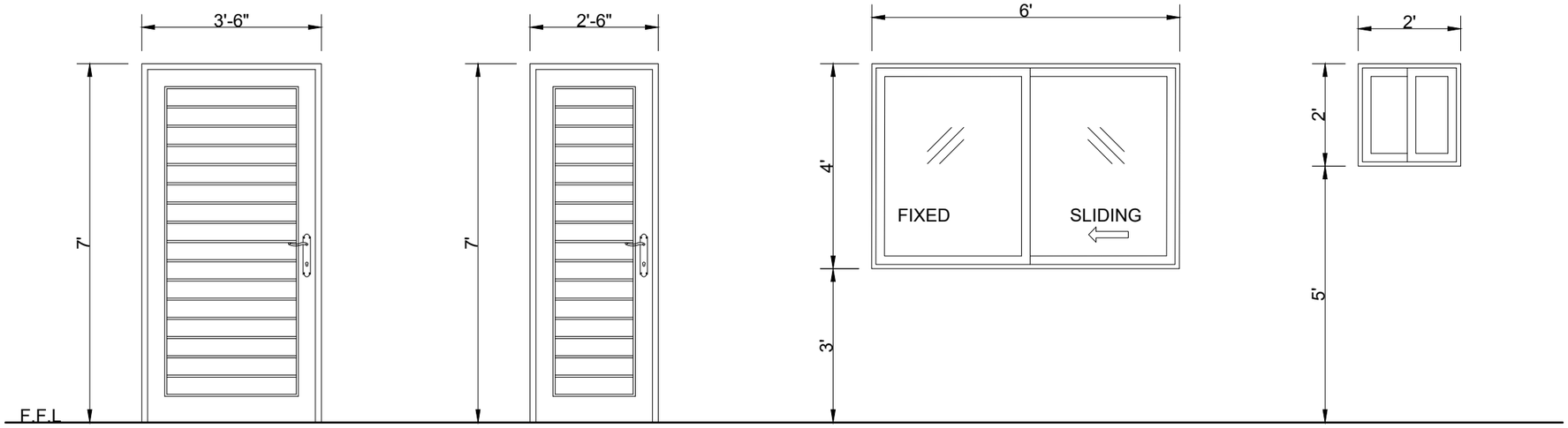
DRAWING NO: **A-12**
SCALE: UNIT=FEET 3/16"=1'-0"
SHEET: 5 OF 6
JOB NO: 488-01



PLAN OF W1



PLAN OF V1



ELEVATION OF D1

SIZE=3'-6"x7'-0"
QUANTITY= 01 NOS. HOLLOW FLUSH DOOR WITH COMMERCIAL PLY(3 PLY)

ELEVATION OF D2

SIZE=2'-6"x7'-0"
QUANTITY= 01 NOS. HOLLOW FLUSH DOOR WITH COMMERCIAL PLY(3 PLY)

ELEVATION OF W1

SIZE=6'-0"x4'-0"
QUANTITY= 02 NOS.
STEEL SLIDING WINDOW, FIXED WITH 5MM THICK GLASS INCLUDING WIRE GAUZE

ELEVATION OF V1

SIZE=2'-0"x2'-0"
QUANTITY= 01 NOS.
STEEL SLIDING WINDOW, FIXED WITH 5MM THICK GLASS INCLUDING WIRE GAUZE

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

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Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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.
193

DRAWING TITLE:
DOOR WINDOW SCHEDULE SITTING AREA (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: Munir
CHECKED BY: Sadat Waleed
DATE: August,2022

DRAWING NO: A-13
SCALE: UNIT=FEET 3/8"=1'-0"
SHEET: 6 OF 6
JOB NO: 488-01

PLUMBING DRAWINGS

LEGEND & NOTES:

WATER SUPPLY, FIRE FIGHTING

LEGEND

COLD WATER PIPE (C.W)

HOT WATER PIPE (H.W)

HOT WATER RETURN PIPE (H.W.R)

FIRE FIGHTING PIPE — FF — FF —

GAS SUPPLY PIPE — GAS — GAS — GAS —

FIRE CABINET

SPRINKLER

ISOLATION VAVLE

NOTES

1. ALL WATER SUPPLY PIPE DIAMETERS MENTIONED ARE EXTERNAL DIAMETERS UNLESS OTHERWISE MENTIONED
2. PROVIDE ISOLATION (GATE) VALVE ON ALL COLD & HOT WATER SUPPLY LINES AT THE INLET TO EACH TOILET. VALVES SHALL BE INSTALLED AT ACCESSIBLE LOCATIONS
3. ALL WATER SUPPLY PIPES ARE POLYPROPYLENE RANDOM PIPE (PPR-PN 20) UNLESS OTHERWISE MENTIONED
4. ALL WATER SUPPLY PIPES FITTINGS SUCH AS BENDS, TEES, SOCKETS, ARE PPR (PN 25) UNLESS OTHERWISE MENTIONED
5. PROVIDE THERMAL INSULATION ON ALL HOT WATER & HOT WATER RETURN PIPES
6. ALL WATER SUPPLY PIPES ARE SUSPENDED ALONG CEILING OR CONCEALED IN WALLS.
7. ALL WATER SUPPLY PIPES WITHIN THE BUILDING SHALL RUN AT HIGH LEVEL UNLESS OTHERWISE SPECIFIED
8. ALL WCs, WASH BASINS AND SINKS TO BE PROVIDED WITH T STOP COCKS
9. CONTRACTOR SHALL VERIFY THE PUMPING FOR ALL PUMPS AS PER THE SITE CONDITION AND SHALL INFORM TO THE ENGINEER FOR ANY VARIATION

10 ALL PUMP SHALL BE PROVIDED WITH FLEXIBLE CONNECTOR AT SUCTION AND DISCHARGE

11. PROVIDE ISOLATION / STOP COCKS AT ALL GAS CONNECTIONS BURNERS
12. FIRE WATER PIPE SHALL BE M.S SCHEDULE 40 UNLESS OTHER WISE MENTIONED
13. PROVIDE PRESSURE REDUCING VALVES (PRV) ON HOT & COLD WATER PIPES ABOVE FALSE CEILING IN EACH BATHROOM, KITCHEN, etc WITH INLET PRESSURE AT 120 PSI AND OUT PRESSURE UPTO 30 PSI.

SEWERAGE SYSTEM

LEGEND

WASTE WATER PIPE

SOIL PIPE

SEWER PIPE

4"Ø FLOOR DAIN WITH P- TRAP — FD

GULLY TRAP — GT

MANHOLE (3'x3') — MH

NOTES

1. ALL SOIL,WASTE,VENT & DRAINAGE PIPES DIAMETERS MENTIONED ARE NOMINAL DIAMETERS UNLESS OTHERWISE MENTIONED
2. ALL SOIL, WASTE AND VENT PIPES ARE uPVC (UNPLASTICSED POLYVINYL CHLORIDE) CLASS B UNLESS OTHERWISE MENTIONED
3. ALL MANHOLE COVERS SHALL BE OF HEAVY DUTY CAST IRON
4. INVERT LEVELS WILL BE ADJUSTED AS PER SITE CONDITION
5. ALL DIAMETERS MENTIONED ARE NOMINAL DIAMETERS
6. ALL VERTICAL WC'S & URINALS WILL BE PROVIDED WITH MUSLIM SHOWER
7. ALL RAIN WATER DISPOSAL PIPES SHALL BE OF uPVC CLASS-B & HORIZONTAL (ON LOWER FLOOR) SHALL BE uPVC CLASS D.
8. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS
9. ALL SEWEAGE PIPING FROM FIXTURES TO MANHOLES AND GULLY TRAPS SHALL BE OF uPVC
10. ALL CLEAN OUTS & FLOOR DRIANS SHALL BE COORDINATE WITH INTERIOR
11. MINIMUM SLOPE OF SOIL AND WASTE PIPES ARE AS UNDER

PIPE DIA.	SLOPE
3"	1:50
4"	1:100
6"	1:150
9"	1:200

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

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Web: http://www.jers.com.pk

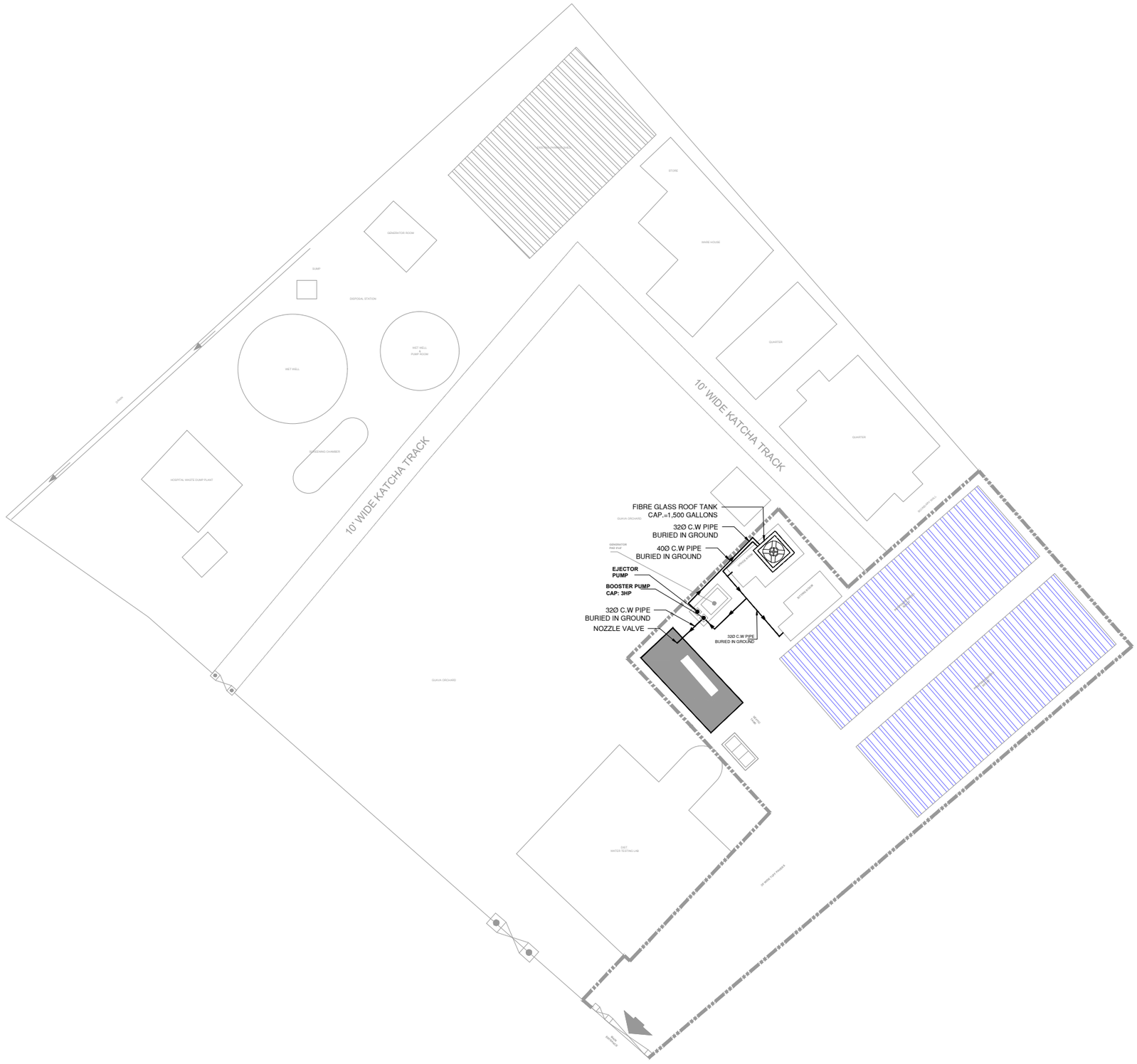
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.

DRAWING TITLE:
LEGEND & NOTES
HAFIZABAD

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: JUNE,2022
DRAWING NO: G-00
SCALE: UNIT=FEET 1/4"=1'-0"
SHEET: 1 OF 1
JOB NO: 488-01

WATER SUPPLY



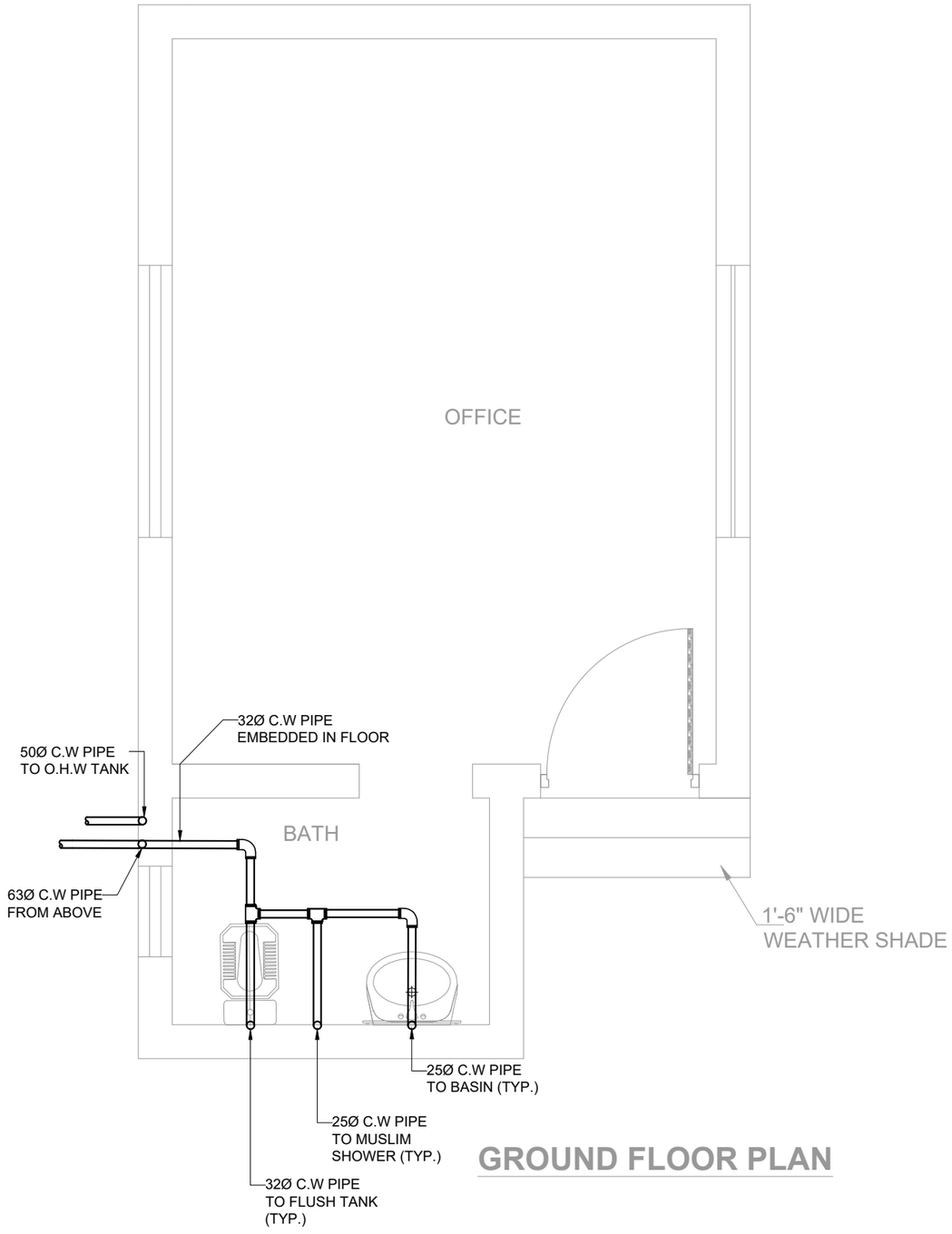
CLIENT:	CONSULTANTS:	PROJECT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	JERS CONSULTANCY (PVT) LTD 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PUNJAB CITIES PROGRAM (PCP) DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 197

DRAWING TITLE:

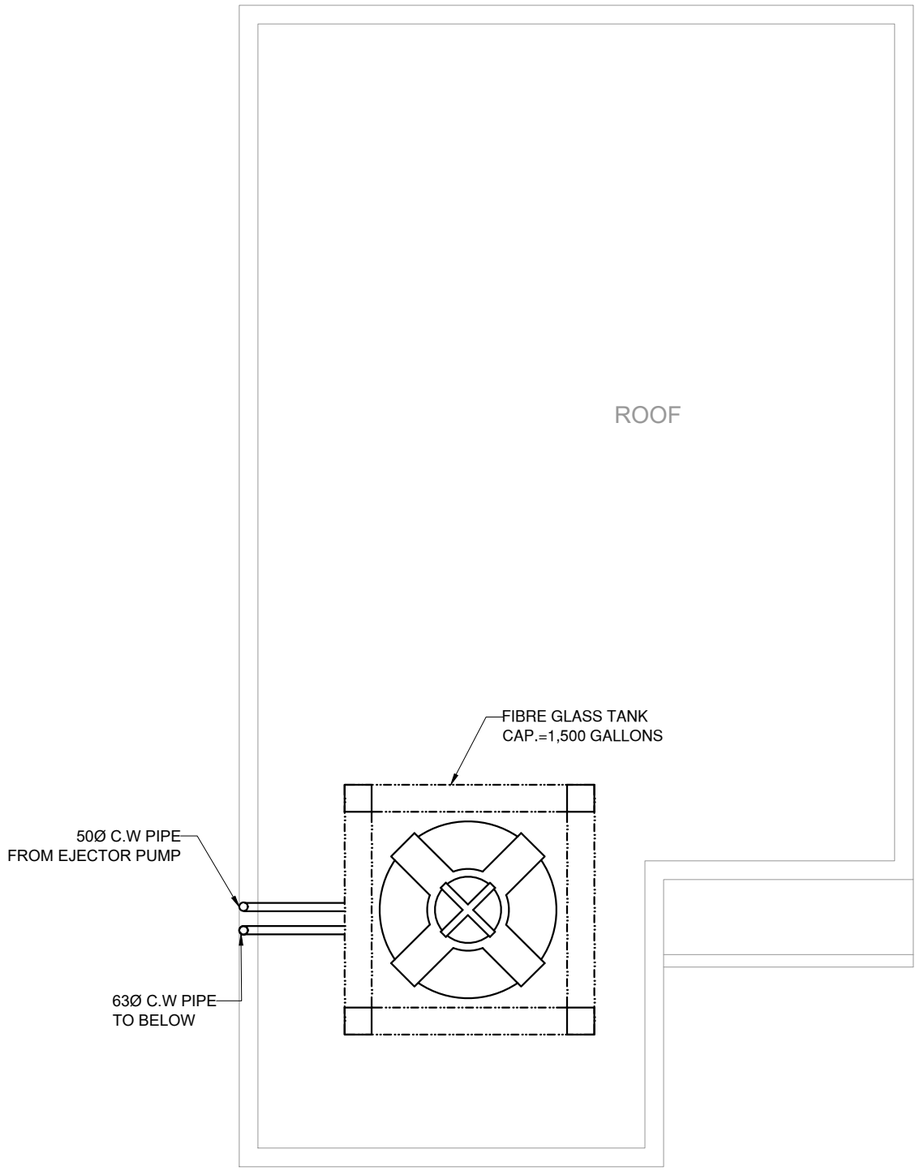
PROPOSED SWM PARKING SHED, EXTERNAL WATER SUPPLY SYSTEM(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:	FATIMA ZAHRA
CHECKED BY:	MUNIR
DATE:	July,2022
DRAWING NO:	EW-01
SCALE:	UNIT=FEET NTS
SHEET:	1 OF 7
JOB NO:	488-01



GROUND FLOOR PLAN



ROOF PLAN

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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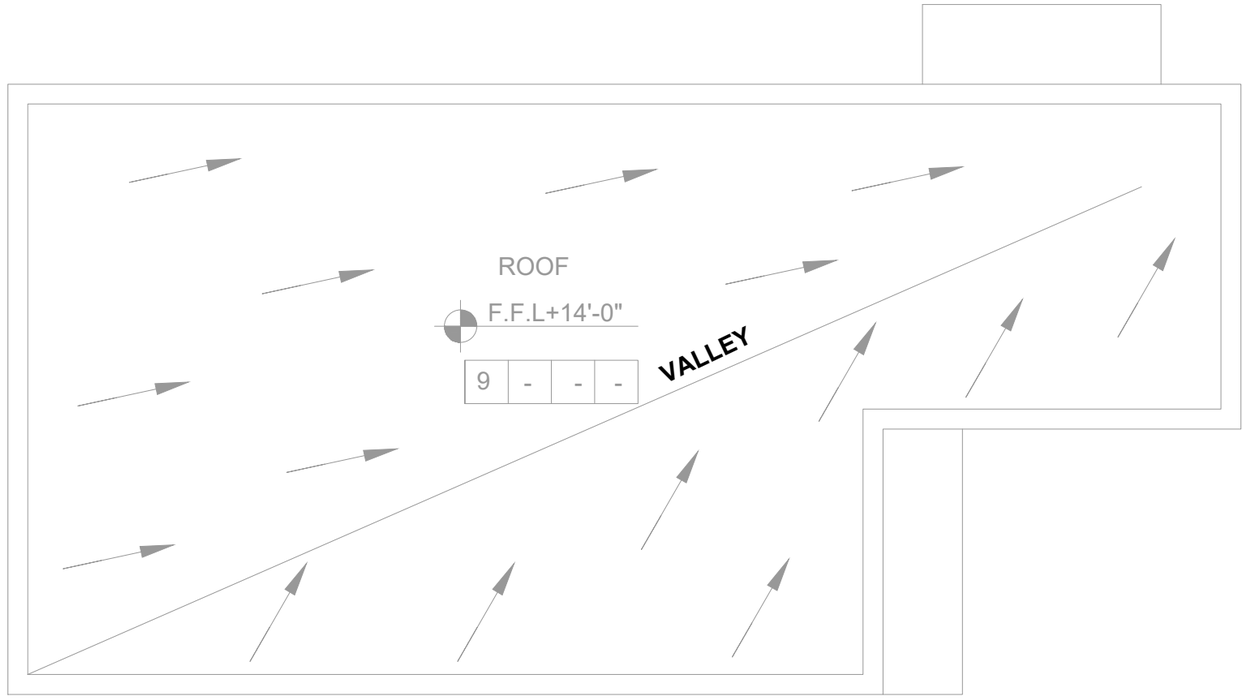
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
198

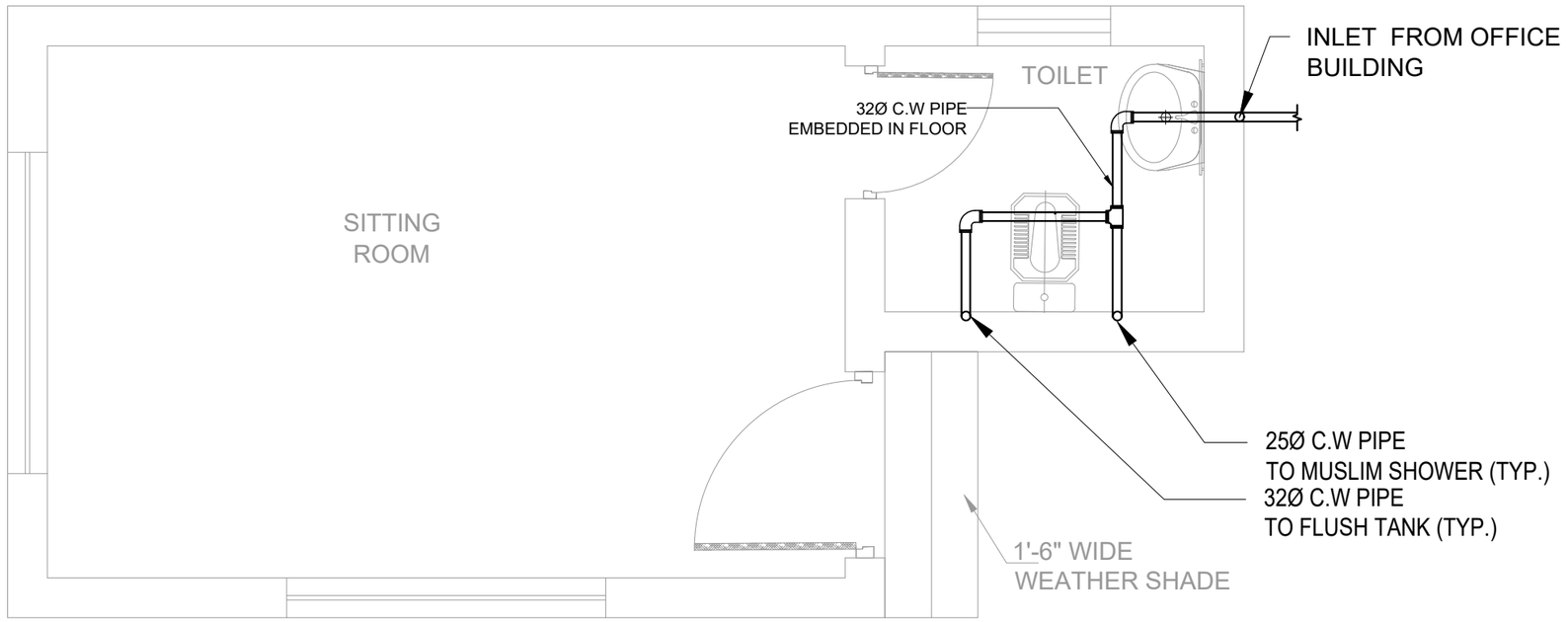
DRAWING TITLE:
GROUND FLOOR & ROOF WATER SUPPLY LAYOUT PLAN OFFICE BLOCK (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: July,2022
DRAWING NO: W-01
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
JOB NO: 488-01



ROOF PLAN



GROUND FLOOR PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
JERS CONSULTANCY (PVT) LTD
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Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

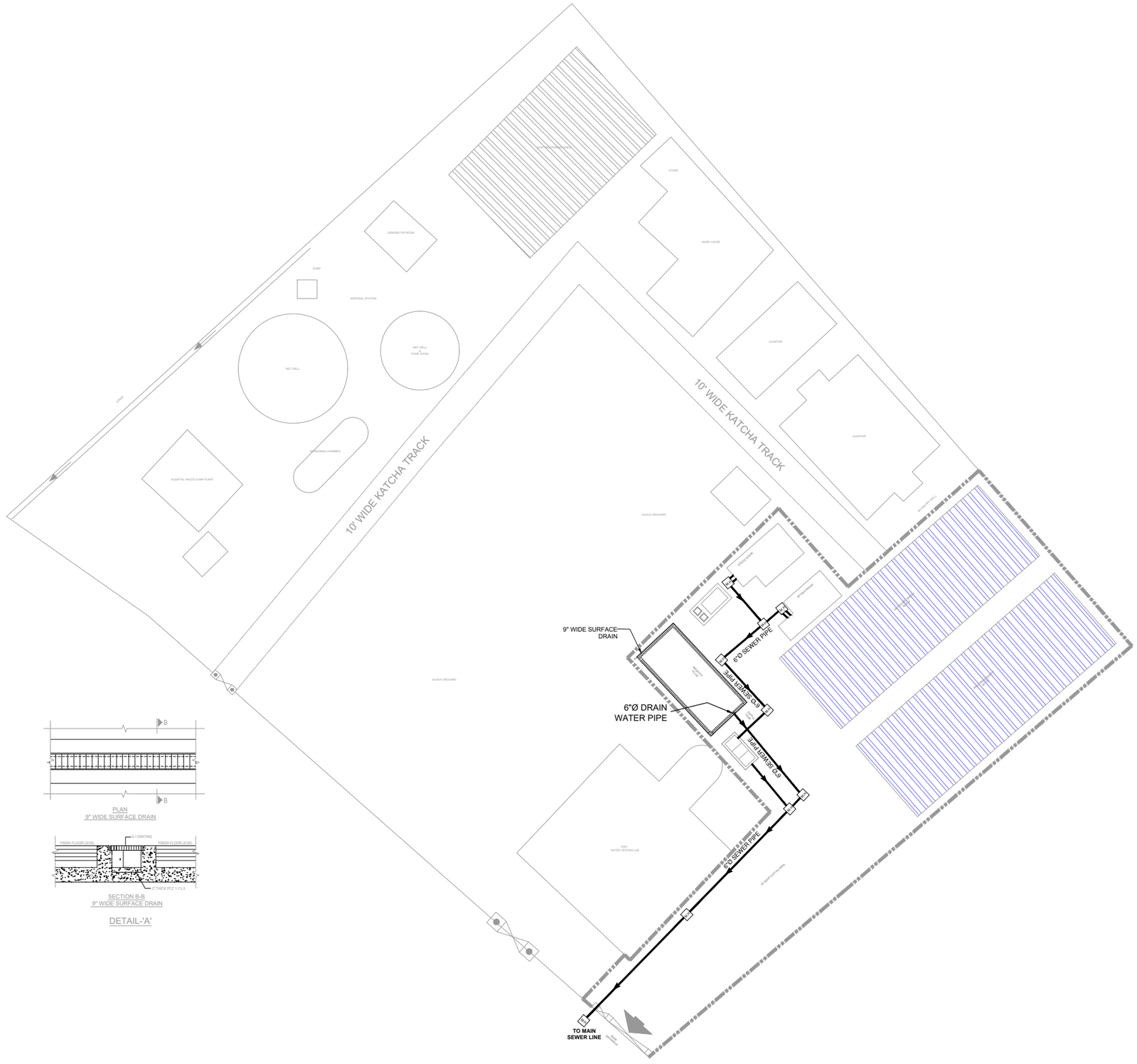
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
199

DRAWING TITLE:
WATER SUPPLY LAYOUT PLAN SITTING ROOM (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: Sadat Waleed
DATE: July,2022
DRAWING NO: W-02
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
JOB NO: 488-01

SEWERAGE



PLAN
9" WIDE SURFACE DRAIN

SECTION B-B
9" WIDE SURFACE DRAIN

DETAIL-'A'

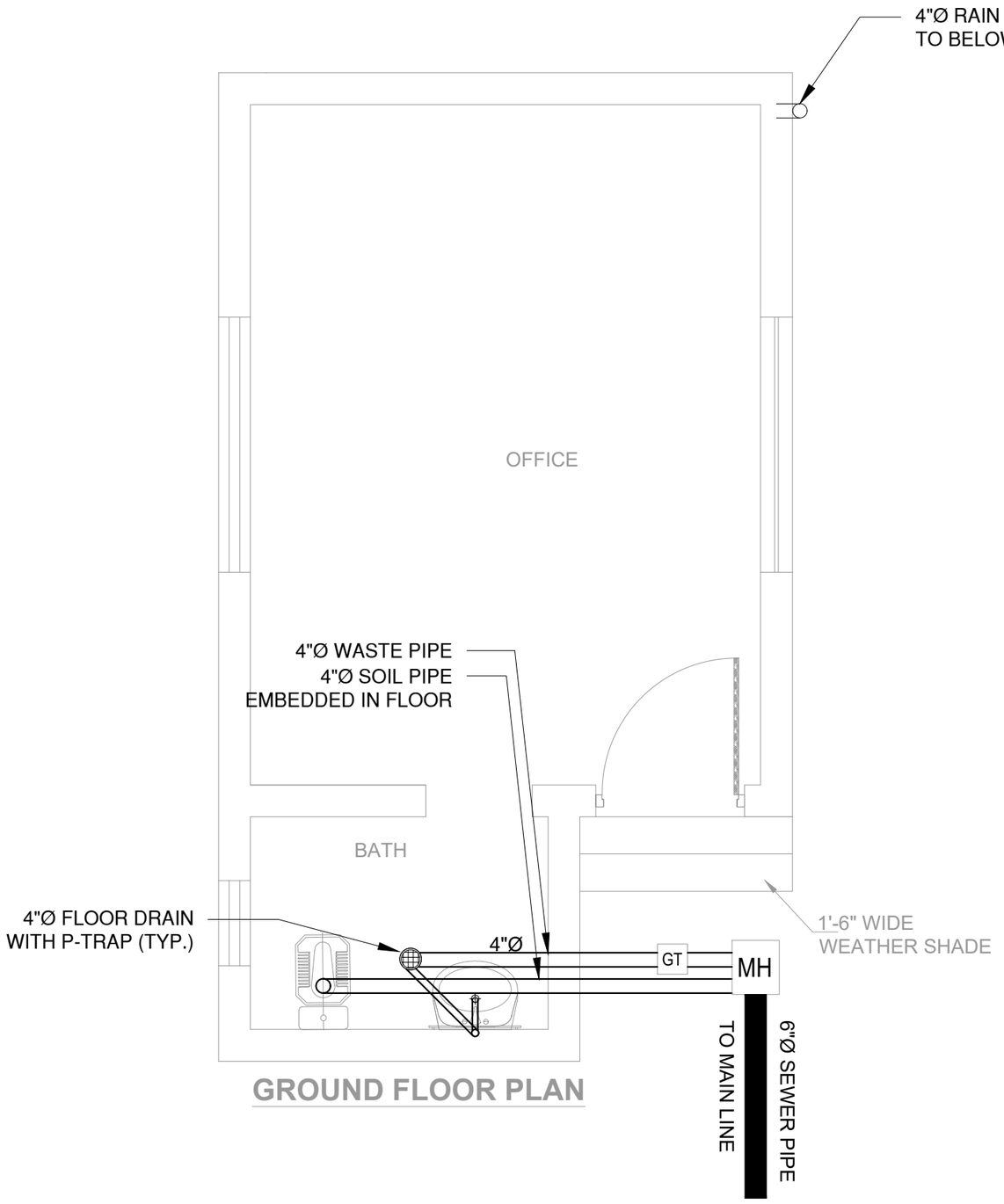
CLIENT:	CONSULTANTS:	PROJECT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	PUNJAB CITIES PROGRAM (PCP) DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 201

DRAWING TITLE:

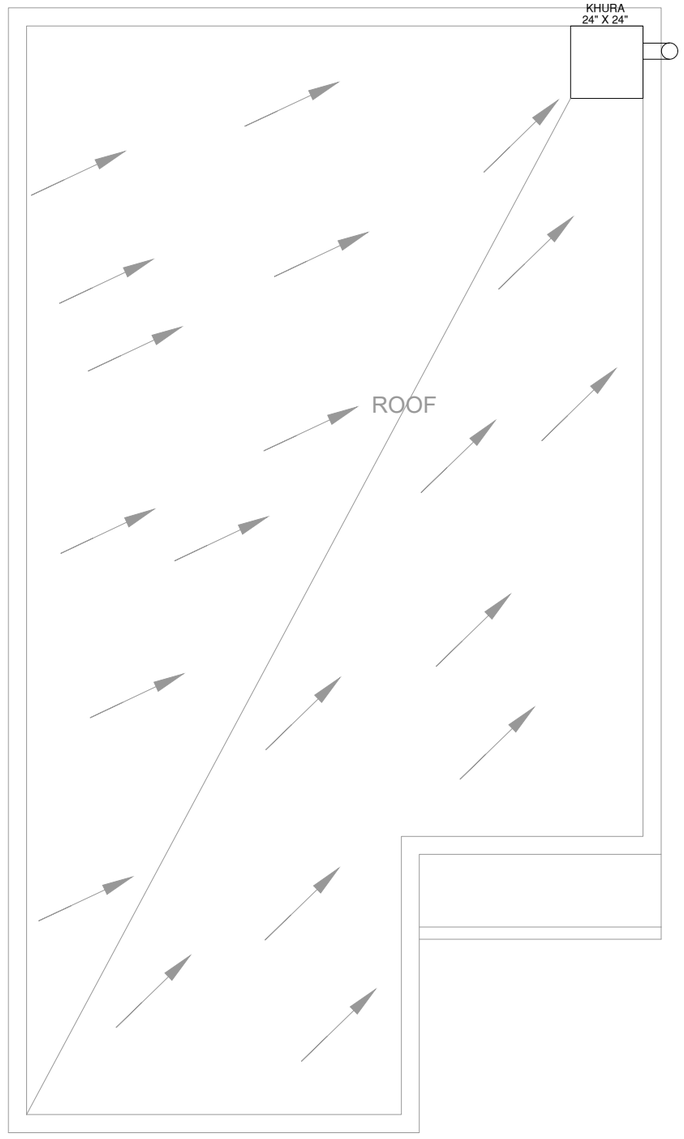
PROPOSED SWM PARKING SHED, SEWER SYSTEM (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY:	FATIMA ZAHRA
CHECKED BY:	MUNIR
DATE:	July,2022
DRAWING NO:	ES-01
SCALE:	UNIT=FEET NTS
SHEET:	1 OF 7
JOB NO:	488-01

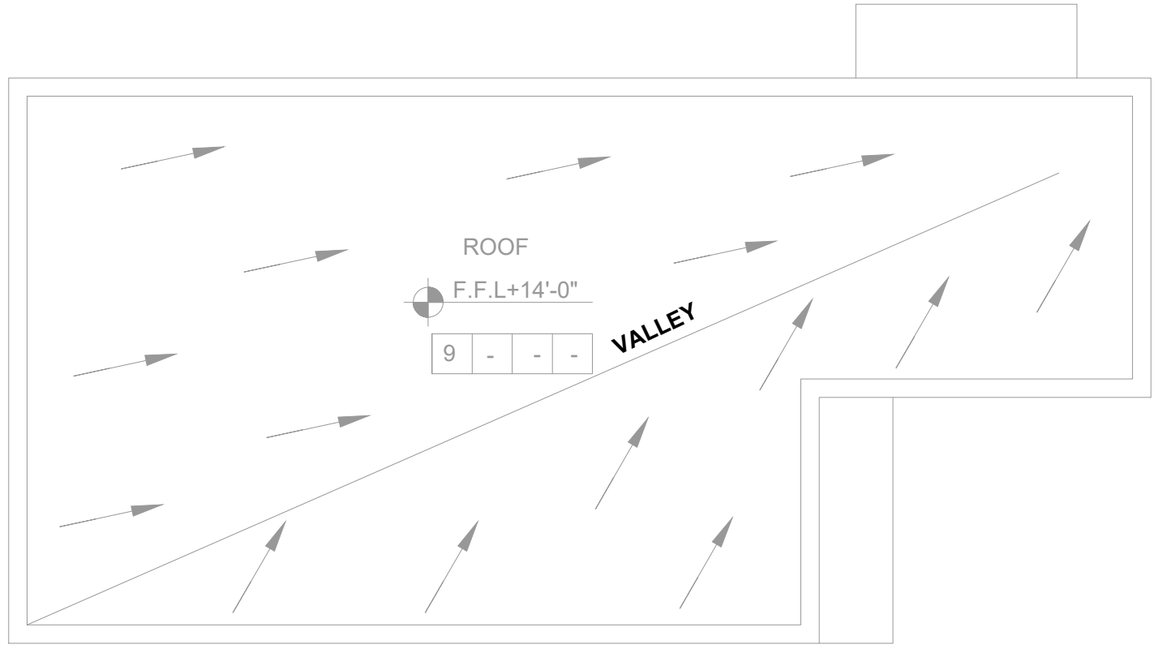


GROUND FLOOR PLAN

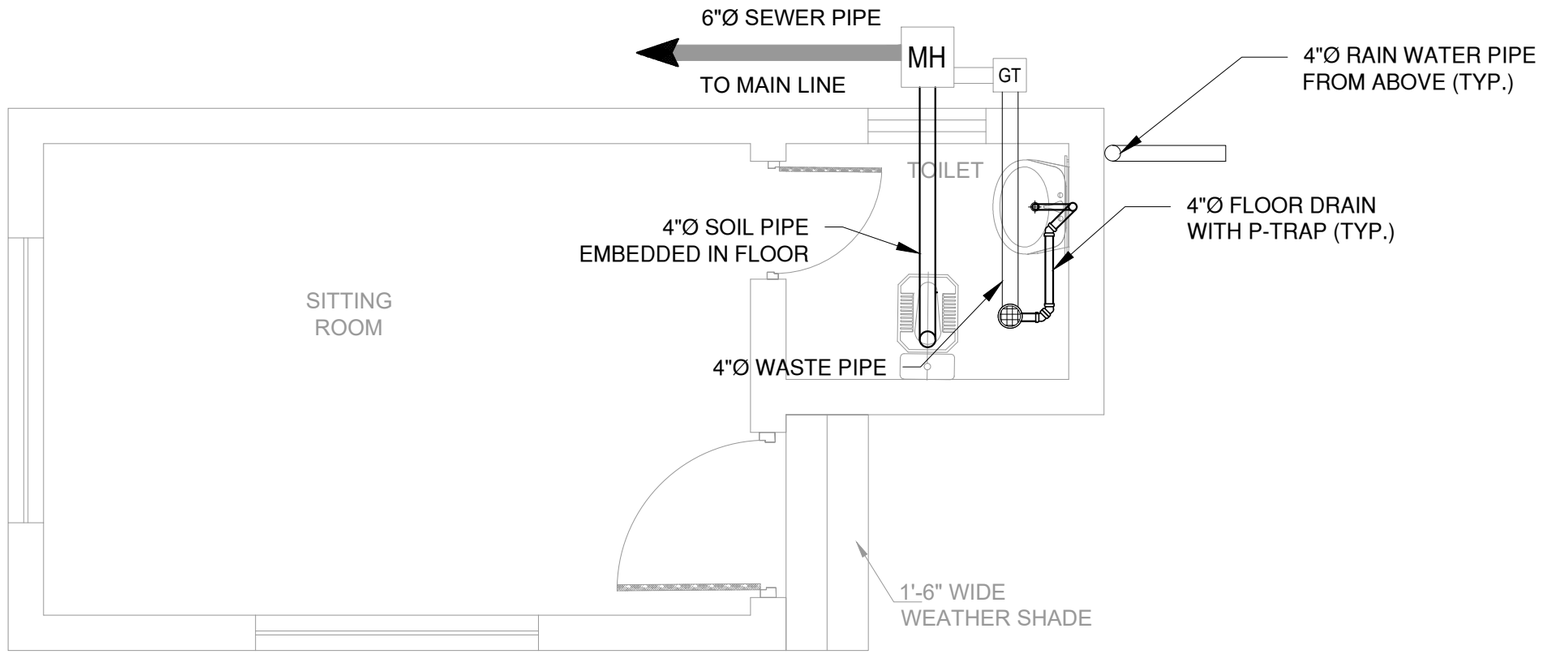


ROOF PLAN

CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: JERS CONSULTANCY (PVT) LTD, 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan), Tel: +92 42 35113123, +92 42 35113124, Fax: +92 42 35113125, E-mail: info@jers.com.pk, mail@jers.com.pk, 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. 202
DRAWING TITLE: GROUND FLOOR & ROOF SEWER LAYOUT PLAN OFFICE BLOCK (HAFIZABAD CITY)	REV. - DATE - DESCRIPTION -	DRAWN BY: FATIMA ZAHRA; CHECKED BY: MUNIR; DATE: July,2022
DRAWING NO: S-01	SCALE: UNIT=FEET NTS	SHEET: 1 OF 7; JOB NO: 488-01



ROOF PLAN



GROUND FLOOR PLAN

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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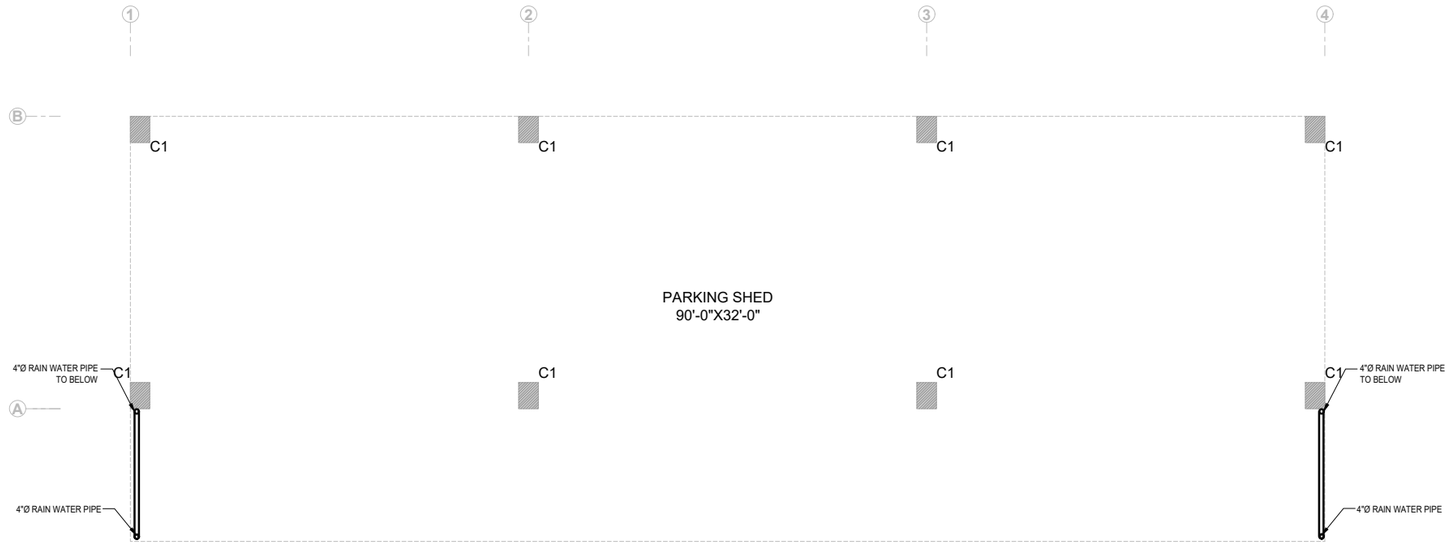
Web: http://www.jers.com.pk

PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
203

DRAWING TITLE:
GROUND FLOOR & ROOF LAYOUT PLAN
SITTING ROOM
(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: Sadat Waleed
DATE: July,2022
DRAWING NO: S-02
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
JOB NO: 488-01



GROUND FLOOR LAYOUT PLAN

CLIENT:

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD

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Web: http://www.jers.com.pk

PROJECT:

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DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
204

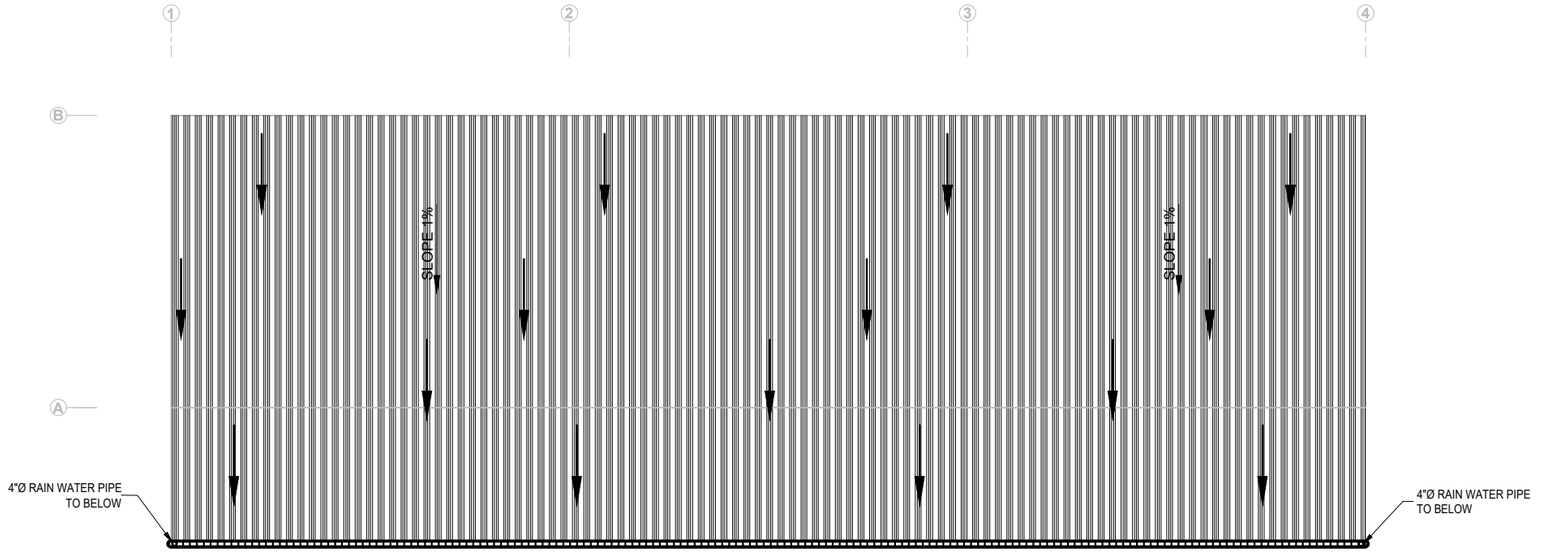
DRAWING TITLE:

DRAINAGE LAYOUT
GROUND FLOOR PLAN
PARKING SHED-1
(HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: July,2022

DRAWING NO: D-01
SCALE: UNIT=FEET 1"=120'
SHEET: 1 OF 1
JOB NO: 488-01



ROOF SHEETING LAYOUT

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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Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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. 205

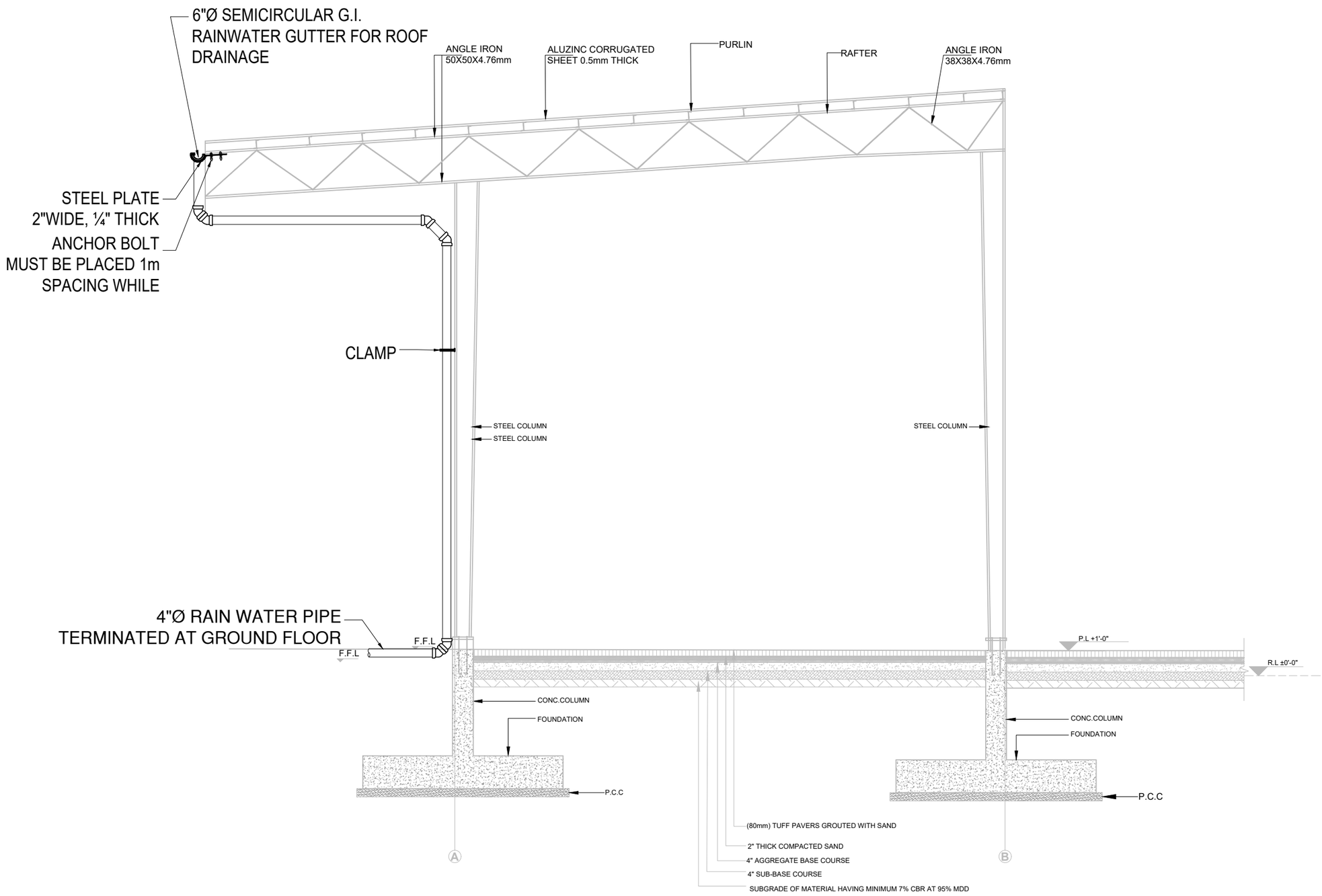
DRAWING TITLE:

DRAINAGE LAYOUT
ROOF PLAN
PARKING SHED-1
(HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: July,2022

DRAWING NO: **D-02**
SCALE: UNIT=FEET 1"=120'
SHEET: 1 OF 1
JOB NO: 488-01



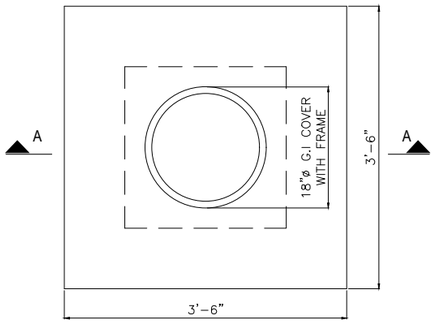
RIGID FRAME SECTIONAL ELEVATION A-A

CLIENT:	CONSULTANTS:	PROJECT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	**PUNJAB CITIES PROGRAM (PCP)** DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 206

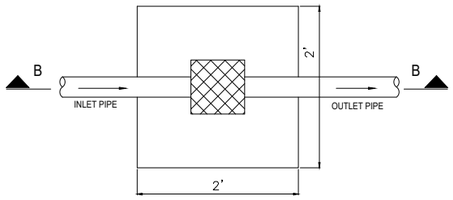
DRAWING TITLE:
DRAINAGE LAYOUT
RIGID FRAME ELEVATION
PARKING SHED-1
(HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

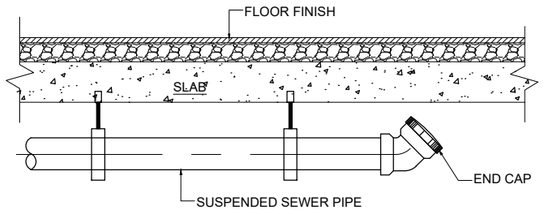
DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: July,2022
SCALE: UNIT=FEET 1"=50'
DRAWING NO: D-03
SHEET: 1 OF 1
JOB NO: 488-01



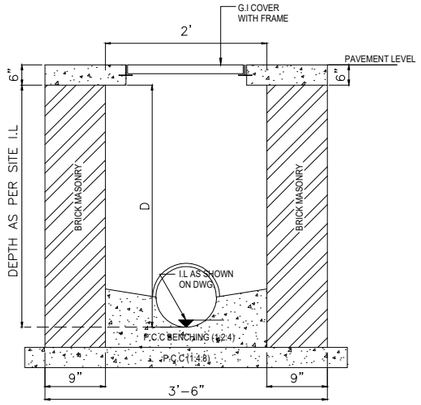
PLAN
TYPICAL SEWER MANHOLE



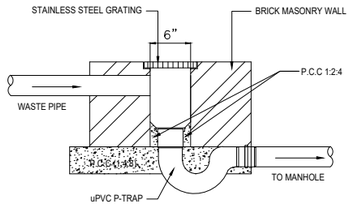
PLAN
GULLY TRAP



CLEAN OUT DETAIL
AT START OF PIPE



SECTION A-A



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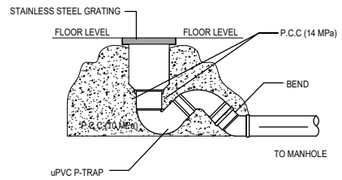
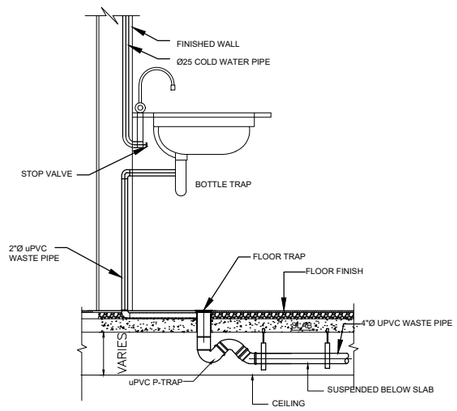
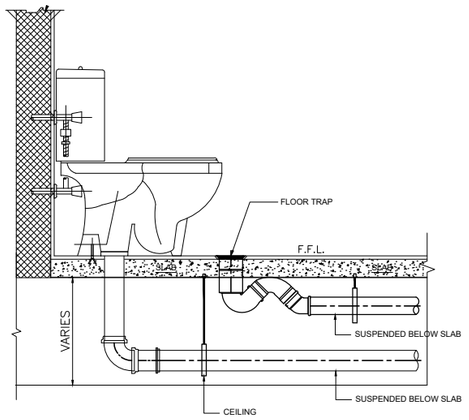


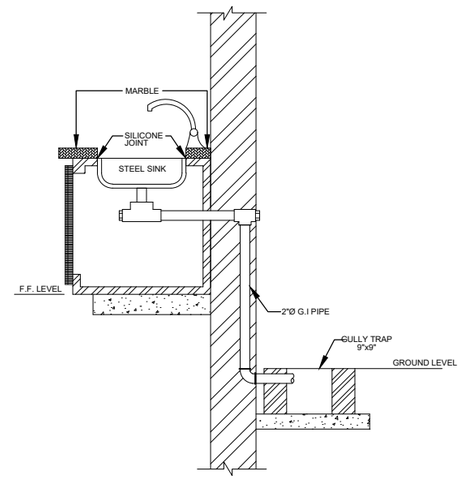
P-TRAP DETAIL



DETAIL OF BASIN CONNECTION
WITH HANGING P-TRAP



DETAIL OF W.C
WITH HANGING PIPING



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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PROJECT:

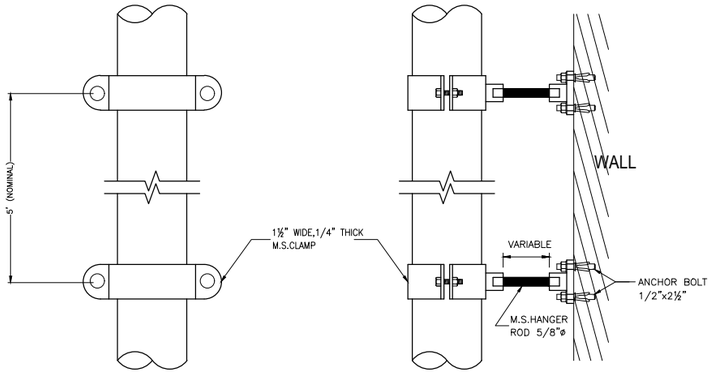
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.

DRAWING TITLE:

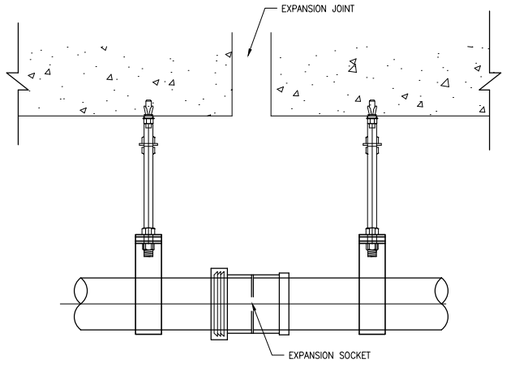
MISCLLANEOUS DETAIL-01 (HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

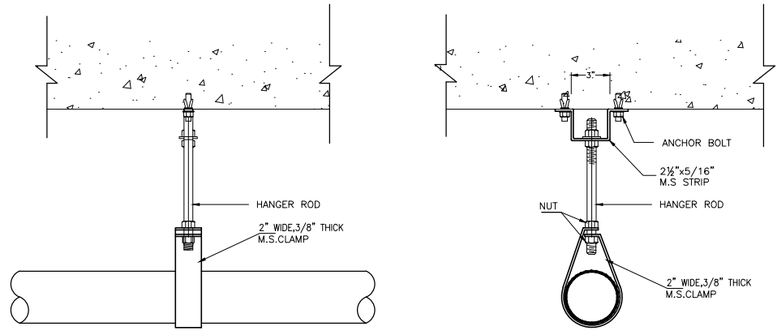
DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: June,2022
DRAWING NO: M-01
SCALE: UNIT=FEET -
SHEET: -
JOB NO: 488-01



ELEVATION SIDE ELEVATION



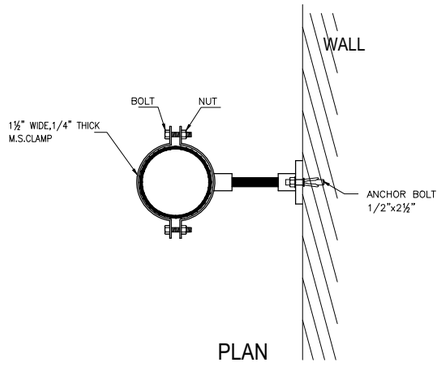
PIPE JOINT UNDER EXPANSION JOINT



ELEVATION SIDE ELEVATION

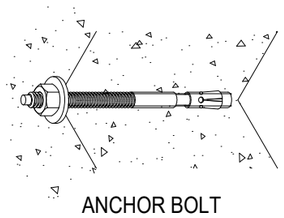
HORIZONTAL PIPE HANGER

PIPE SIZE	MAX. SPACING	HANGER ROD Ø	ANCHOR BOLT
3/4" — 2"	5'-0"	1/2"	1/2" x 2½"
2½" — 3"	6'-0"	5/8"	1/2" x 2½"
4" — 6"	6'-0"	3/4"	5/8" x 3"

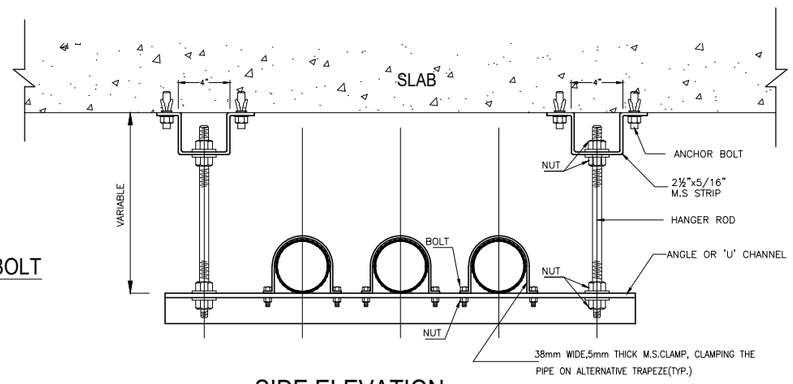


PLAN

VERTICAL PIPE HANGERS
(UP TO 4"Ø PIPE)



ANCHOR BOLT
SEISMICALLY RATED WEDGE ANCHOR BOLT



SIDE ELEVATION

HORIZONTAL PIPE HANGER (TRAPEZE)

PIPE SUPPORT SCHEDULE					
PIPE SIZE	HANGER ROD Ø	ANGLE SIZE	U-CHANNEL	SPACING	ANCHOR BOLT
1/2 TO 3/4"	3/8"	1½"x1½"x3/16"	--	5'	1/2" x 2½"
1" TO 1¼"	3/8"	2"x2"x1/4"	--	5'	1/2" x 2½"
1½" TO 2½"	1/2"	2½"x2½"x1/4"	--	6'	1/2" x 2½"
3" TO 4"	1/2"	2½"x2½"x3/8"	--	6'	5/8" x 3"
5"	3/4"	3"x3"x3/8"	--	6'	3/4" x 4"
6"	1"	--	3"x1½"x1/4"	7'	3/4" x 4"
8"	1"	--	4"x1¾"x5/16"	7'	3/4" x 4"
10"	1"	--	4"x1¾"x5/16"	7'	3/4" x 4"
12"	1¼"	--	4"x1¾"x5/16"	7'	3/4" x 4"

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PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
208

DRAWING TITLE:
MISCLLANEOUS DETAIL-02 (HAFIZABAD)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: MUNIR
DATE: June,2022

DRAWING NO: M-02
SCALE: UNIT=FEET -
SHEET: -
JOB NO: 488-01

ELECTRICAL DRAWINGS

LEGEND

1 LIGHT FITTINGS & FIXTURES

S.NO	SYMBOLS	DESCRIPTION	MOUNTING HEIGHT
1		WASHROOM MIRROR LIGHT 9 WATTS LED	6" ABOVE MIRROR
2		SURFACE MOUNTED TUBE LIGHT WITH 2x40 WATTS LED ROD	SURFACE MOUNTED
3		DOWN LIGHT 12 WATTS LED LAMP	SURFACE MOUNTED
4		HIGH BAY HANGING LIGHT 50 WATTS LED LAMP	HANGING OF STEEL STRUCTURE
5		100 WATTS LED FLOOD LIGHT ON 10M HIGH M.S POLE WITH FOUNDATION	ON GROUND
6		EXHAUST FAN	7'-0 ABOVE FFC
7		DISTRIBUTION BOARD	4'-0" FROM FFC
8		SURFACE MOUNTED TUBE LIGHT WITH 1x40 WATTS LED ROD	SURFACE MOUNTED

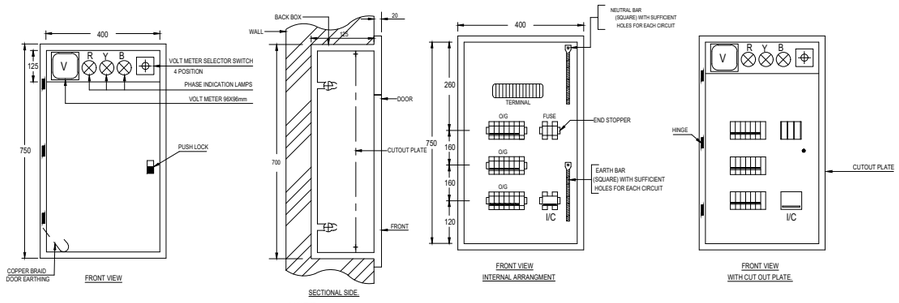
2 WIRING ACCESSORIES

S.NO	SYMBOLS	DESCRIPTION	MAKE	MOUNTING HEIGHT
1		GANG TYPE SWITCH 10AMPS,INDICATES NUMBER OF SWITCHES ON GANG PLATE	---	AT WALL +3'-0" FROM F.F.L
2	SAC:1	16 AMP SWITCH SOCKET FOR SPLIT AC ON GANG PLATE	---	AT WALL 7'-6" FROM F.F.L NEAR AC
3		3 PIN COMBINED SWITCH SOCKET 15 AMPS ON M.S JUNCTION BOX	---	AT WALL +0'-0" FROM F.F.L
4		3 PIN COMBINED SWITCH SOCKET UNIVERSAL 13 AMP SOCKET ON M.S JUNCTION BOX	---	AT WALL +0'-0" FROM F.F.L
5		CELING FAN POINT WITH 5/8"Ø M.S HOOK	---	ROOF SUSPENDED
		2x3 PIN COMBINED SWITCH SOCKET UNIVERSAL 13AMP SOCKET	---	AT WALL +0'-0" FROM F.F.L

CAPACITY OF CONDUITS

S.NO	CAPACITY OF CONDUITS			MAXIMUM NUMBER OF CABLES IN PVC CONDUITS SIZES		
1	NOMINAL CONDUCTOR SIZE-mmSq	NO & DIA OF WIRES	OVER ALL DIAMETER	3/4" DIA (20mm DIA)	1" DIA (25mm DIA)	1-1/4" DIA (32mm DIA)
2	1.5	1/1.38	3.1	10	18	30
3	2.5	1/1.78	3.5	8	14	23
4	2.5	7/0.67	3.8	7	12	20
5	4	7/0.85	4.3	5	9	15
6	10	7/1.04	4.9	4	7	12
7	16	7/1.35	6.2	2	4	7
8	16	7/1.78	7.3	-	3	5
9	25	7/2.14	9.0	-	2	3
10	35	19/1.53	10.3	-	-	2

TENTATIVE CONSTRUCTIONAL DETAIL OF:- DISTRIBUTION BOARD (DB) RECESSED TYPE.



NOTE:-

DIMENSIONS SHOWN ARE INDICATIVE ONLY AND NOT NECESSARILY BE FOLLOWED. HOWEVER ACTUAL DIMENSIONS OF DB SHALL BE GIVEN BY DB MANUFACTURER/SUPPLIER

GENERAL NOTES:-

A LEGEND.

1 REFER TO LEGEND FOR THOSE SYMBOLS ONLY MENTIONED ON ALL LAYOUT PLANS. OTHER SYMBOLS SHOWN IN LEGEND BUT NOT ACTUALLY SHOWN ON LAYOUT DRAWINGS MAY PLEASE BE IGNORED.

B ELECTRICAL WORKS.

1 THE FOLLOWING NOTES SHALL IN GENERAL APPLY TO ALL ELECTRICAL DRAWINGS. THE INSTRUCTIONS IN THESE NOTES SHALL BE FOLLOWED UNLESS ALL ELECTRICAL WORKS PERTAINING TO WIRING OF ELECTRICAL SYSTEMS SHALL STRICTLY CONFORM TO I.E.E LATEST EDITION OF RULES & REGULATIONS.

2 ELECTRICAL DRAWINGS

ALL ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH BOQ, TECHNICAL SPECIFICATIONS AND IN CO-ORDINATION WITH ARCHITECTURAL, STRUCTURAL, PLUMBING AND HVAC DRAWINGS.

3 DIMENSIONS ON ELECTRICAL LAYOUT PLANS

ALL DIMENSIONS IF SHOWN ON THE ELECTRICAL LAYOUT PLANS ARE APPROXIMATE. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO DO ALL NECESSARY CALCULATIONS TO ARRIVE AT THE ACTUAL DIMENSIONS/MEASUREMENTS IN CO-ORDINATION WITH ALL OTHER RELEVANT DRAWINGS OF OTHER SERVICES.

4 SHOP DRAWINGS

THE ELECTRICAL CONTRACTOR SHALL PREPARE ELECTRICAL SHOP DRAWINGS WITH ALL NECESSARY RELEVANT DETAILS. THE SHOP DRAWINGS SHALL BE SUBMITTED TO ENGINEER TENDER DRAWING BEFORE THE COMMENCEMENT OF ANY WORKS AT SITE.

5 CO-ORDINATION

THE ELECTRICAL CONTRACTOR SHALL DO ALL NECASSARY CO-ORDINATION OF ELECTRICAL WORKS AND ALLIED SYSTEMS WITH ALL OTHER SERVICES AT SITE.

6 BALANCING OF ELECTRICAL LOADS

ELECTRICAL LOADS ON ALL 3 PHASES SHALL BE BALANCED ON THE ELECTRICAL WORKS AT THE TIME OF TESTING AND COMMISSIONING OF THE ELECTRICAL INSTALLATIONS.

7 ELECTRICAL WIRING.

ALL WIRING SHALL BE DONE IN PVC CONDUIT TO BE CONCEALED IN WALLS,SLABS,COLUMNS AND FLOORS OR AS SHOWN ON DRAWINGS.

8 THE WIRING SHOULD BE STARTED ONLY AFTER THE CONDUIT SYSTEM HAS BEEN COMPLETED AND ALL OUTLET BOXES ARE FIXED AT THEIR RESPECTIVE POSITIONS.

9 PVC CONDUITS.

ALL PVC CONDUIT SHALL BE OF 3/4" OR 1" DIA (DEPENDING UPON NUMBER OF WIRES) FROM SWITCH BOARD TO LIGHT POINTS & 1" D1A FROM DBs TO SWITCH BOARDS AND POWER SOCKETS OR AS SHOWN ON DRAWINGS.

10 LUBRICATION.

NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED FOR PULLING OF WIRES IN PVC CONDUITS. NO OIL OF ANY KIND SHALL BE USED.

11 COLOUR CODING

COLOUR CODING FOR WIRING SHALL BE AS FOLLOWS: RED,YELLOW AND BLUE FOR PHASES, BLACK FOR NEUTRAL AND GREEN / YELLOW FOR CPC (EARTH).

12 SIZE OF WIRES

FOLLOWING SIZES OF PVC INSULATED WIRES WITH COPPER CONDUCTORS SHALL BE USED FOR INTERNAL WIRING,UNLESS STATED OTHERWISE.

12.1 1.5mm sq PVC INSULATED WIRES SHALL BE USED FROM SWITCH BOARD TO LIGHT POINTS AND 5 Amps SOCKETS OR AS SPECIFIED IN B.O.Q

12.2 2.5mm sq PVC INSULATED WIRES SHALL BE USED FROM DB TO SWITCH BOARDS FOR LIGHTING CIRCUITS.

12.3 4mm sq OR 6mm sq PVC INSULATED WIRES OR AS SHOWN ON DRAWING/BOQ SHALL BE USED FOR WIRING FROM DB TO POWER SOCKETS.

12.4 BACK BOXES

ALL BACK BOXES FOR SWITCHES & SOCKETS SHALL MADE OF POLYECARBUNATE SHEET 16SWG OR AS SPECIFIED IN BOQ WITH EARTH TERMINAL. SIZE OF BACK BOX SHALL CORRESPOND TO THE SIZE OF SWITCHES/SOCKETS.

13 EARTHING OF POINTS.

ALL ELECTRICAL AND POWER SOCKETS SHALL BE PROPERLY EARTHED WITH 2.5mm sq PVC INSULATED WIRES OF COLOUR GREEN-YELLOW.

14 CAPACITY OF CONDUITS.

THE NUMBER OF WIRES TO BE PULLED IN ANY CONDUIT FOR WIRING PURPOSES SHALL CONFORM TO I.E.E RULES & REGULATIONS

15 CONDUIT FOR LIGHT WIRING.

WIRING SHALL BE DONE IN 3/4" & 1" DIA PVC CONDUIT FOR LIGHT POINTS AND CIRCUIT WIRING ON NORMAL/ GENERATOR SUPPLY OR AS SPECIFIED IN BOQ OR AS SHOWN ON DRAWINGS.

16 DISTRIBUTION BOARDS "LIGHT" & "POWER"

ALL DISTRIBUTION BOARDS SHOWN ON DRAWINGS SHALL BE CONCEALED IN WALL & INSTALLED AT 4FT (1000mm) F.F.L OR AS SHOWN IN LEGEND/DRAWINGS.

C TELEPHONE CONDUIT

1 PVC CONDUIT SHALL BE 1"(25mm) DIA FOR WIRING OF TELEPHONE POINTS,PVC CONDUIT SHALL BE BURIED IN FLOOR /SLAB & WALLS FROM TDBs TO TELEPHONE POINTS, OR AS SHOWN ON DRAWINGS./B.O.Q

D FIRE ALARM WIRING.

1 PVC CONDUIT SHALL BE 1"(25mm) DIA FOR WIRING OF FIRE ALARM POINTS,PVC CONDUIT SHALL BE BURIED IN FLOOR /SLAB & WALLS FROM FACP TO FIRE ALARM POINTS, OR AS SHOWN ON DRAWINGS./B.O.Q

2 FIRE ALARM JUNCTION BOX (FAJB).

G.I JUNCTION BOX 225x150x100mm 16 SWG WITH COVER CONCEALED IN WALL AT 225mmBELOW SLAB TO FACILITATE PULLING OF FIRE ALARM CABLES.

E CLOSE CIRCUIT TV (CCTV) WIRING.

1 PVC CONDUIT SHALL BE 1"(25mm) DIA FOR WIRING OF CCTV SYSTEM.PVC CONDUIT SHALL BE BURIED IN SLAB, WALLS & COLUMNS OR AS SHOWN ON DRAWING/BOQ

CLOSE CIRCUIT TV JUNCTION BOX (CCJB).

2 G.I JUNCTION BOX 225x150x100mm 16 SWG WITH COVER CONCEALED IN WALL AT 225BELOW SLAB TO FACILITATE PULLING OF CLOSE CIRCUIT TV CABLES.

F OTHER SYSTEMS.

1 25mm DIA PVC CONDUIT SHALL BE USED FOR WIRING OF ALL OTHER SYSTEMS UNLESS OTHERWISE MENTIONED ON PLANS OR AS SPECIFIED IN B.O.Q

G ELECTRICAL CONSULATANT.

1 ELECTRICAL CONTRACTOR TO CONSULT ELECTRICAL CONSULTANT/ENGINEER FOR ANY FURTHER CLARIFICATIONS. NO ASSUMPTIONS SHOULD BE MADE.

H ELECTRICAL TESTS.

CONTRACTOR SHALL CARRY OUT ALL ELECTRICAL TESTS AT HIS EXPENSE THROUGH LICENSED ELECTRICAL SUPERVISOR IN THE PRESENCE OF ENGINEER INCHARGE OR HIS REPRESENTATIVE.

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

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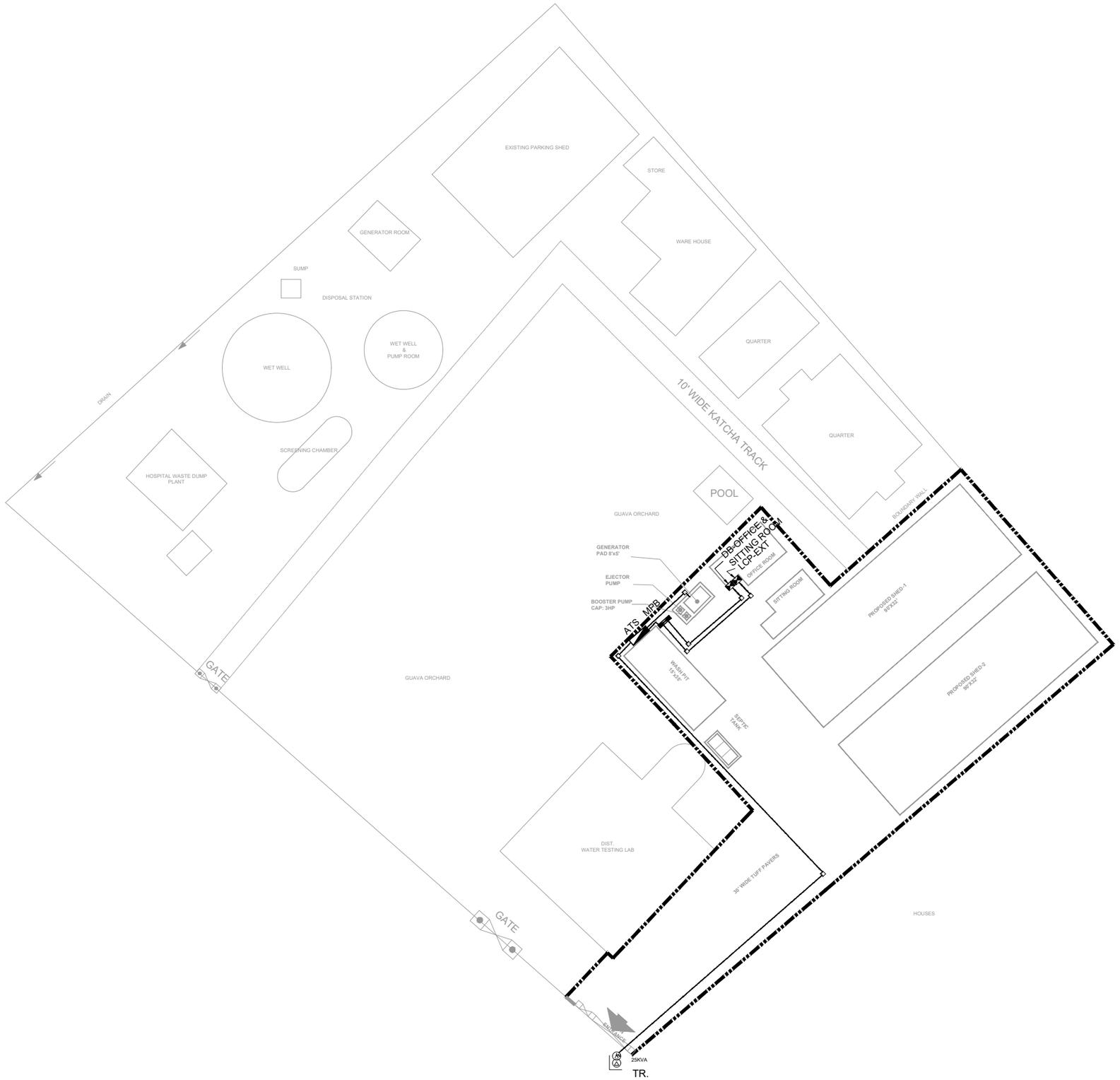
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
210

DRAWING TITLE:
LEGEND & NOTES HAFIZABAD

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: June,2022
DRAWING NO: E-00
SCALE: UNIT=FEET NTS
SHEET: 1 OF 1
JOB NO: 488-01



CLIENT:

HELP BUILD PMDFC HEALTHY CITIES

PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

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24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
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PROJECT:

PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 211

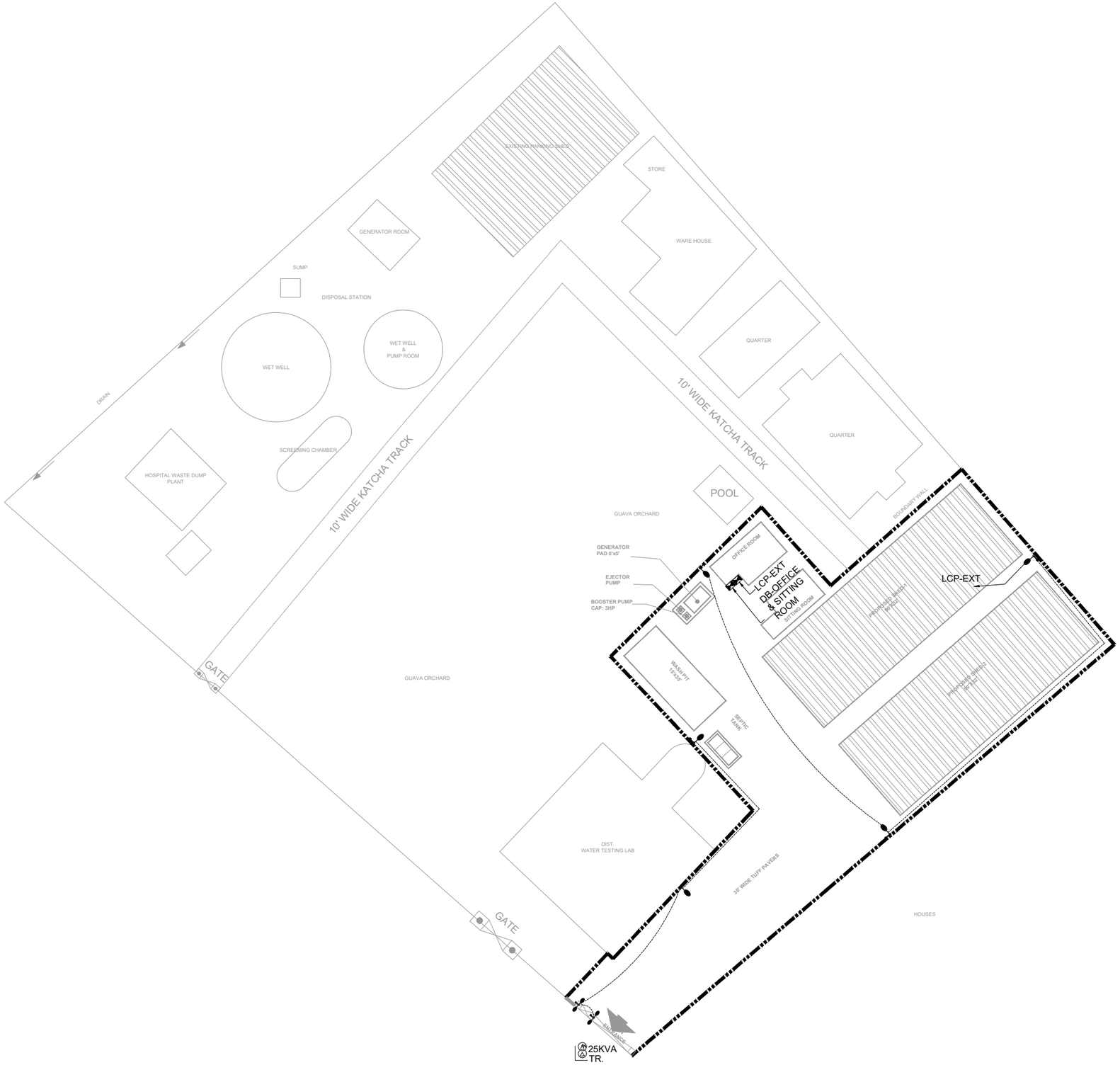
DRAWING TITLE:

CABLE ROUTE LAYOUT PLAN

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022

DRAWING NO: E-01
SCALE: UNIT=FEET 1"=600'
SHEET: 1 OF 1
JOB NO: 488-01



CLIENT:	CONSULTANTS:	PROJECT:
HELP BUILD PMDFC HEALTHY CITIES **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**	**JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk Web: http://www.jers.com.pk	**PUNJAB CITIES PROGRAM (PCP)** DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 212

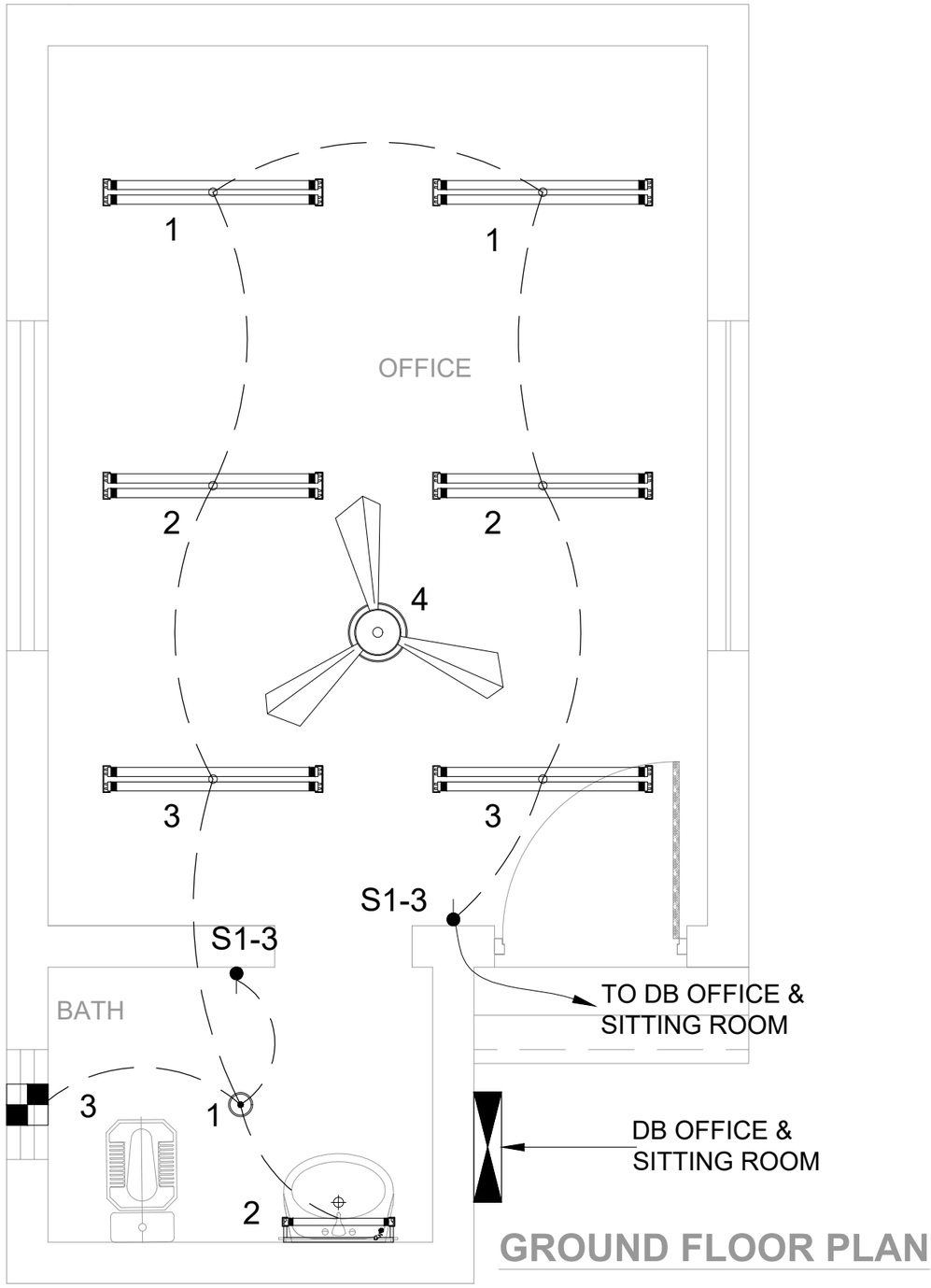
DRAWING TITLE:

EXTERNAL LIGHT LAYOUT PLAN

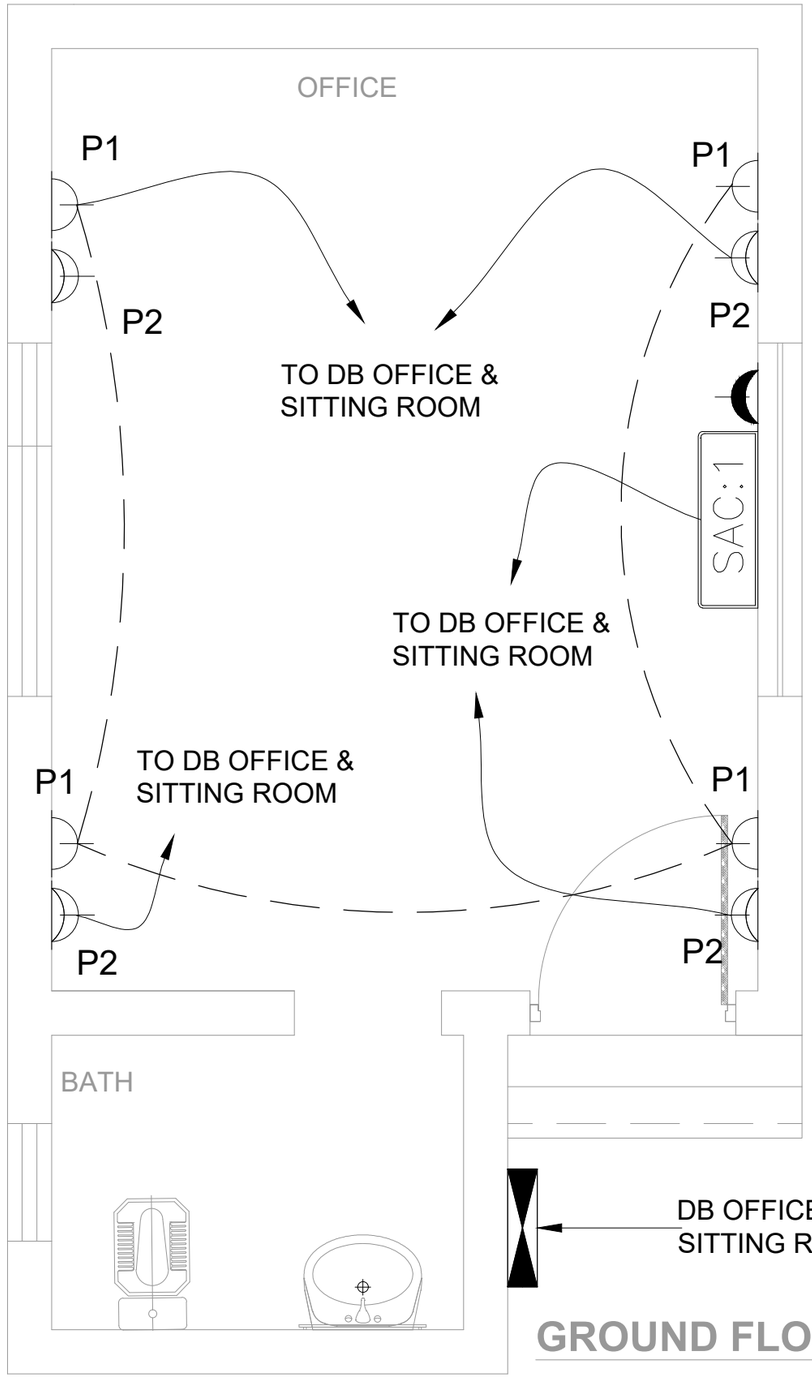
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022

DRAWING NO: **E-02**
SCALE: UNIT=FEET 1"=600'
SHEET: 1 OF 1
JOB NO: 488-01



GROUND FLOOR PLAN



GROUND FLOOR PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
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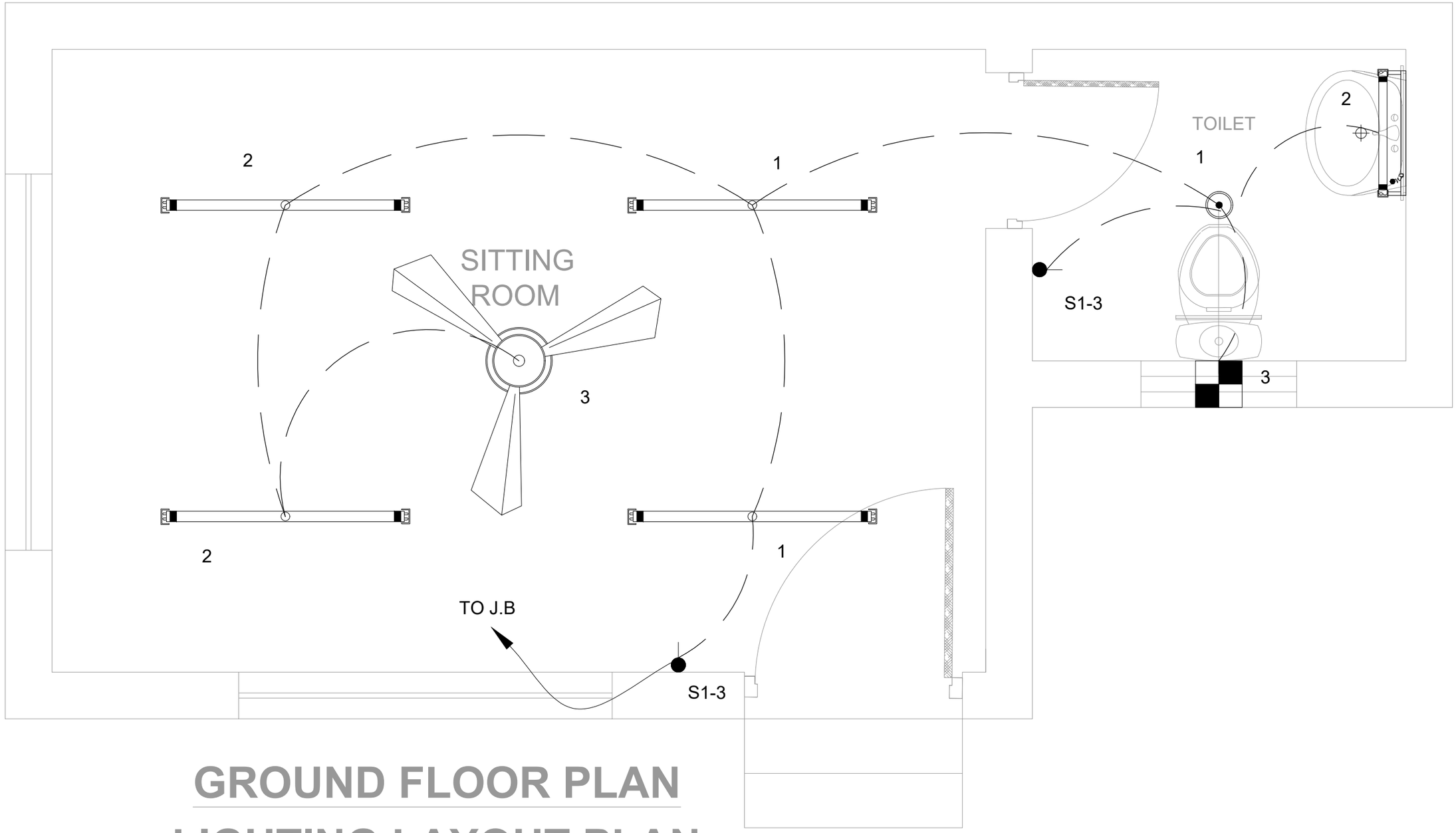
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
213

DRAWING TITLE:
LIGHT & SMALL POWER
OFFICE BLOCK
(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
DRAWING NO: E-03
JOB NO: 488-01



GROUND FLOOR PLAN
LIGHTING LAYOUT PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
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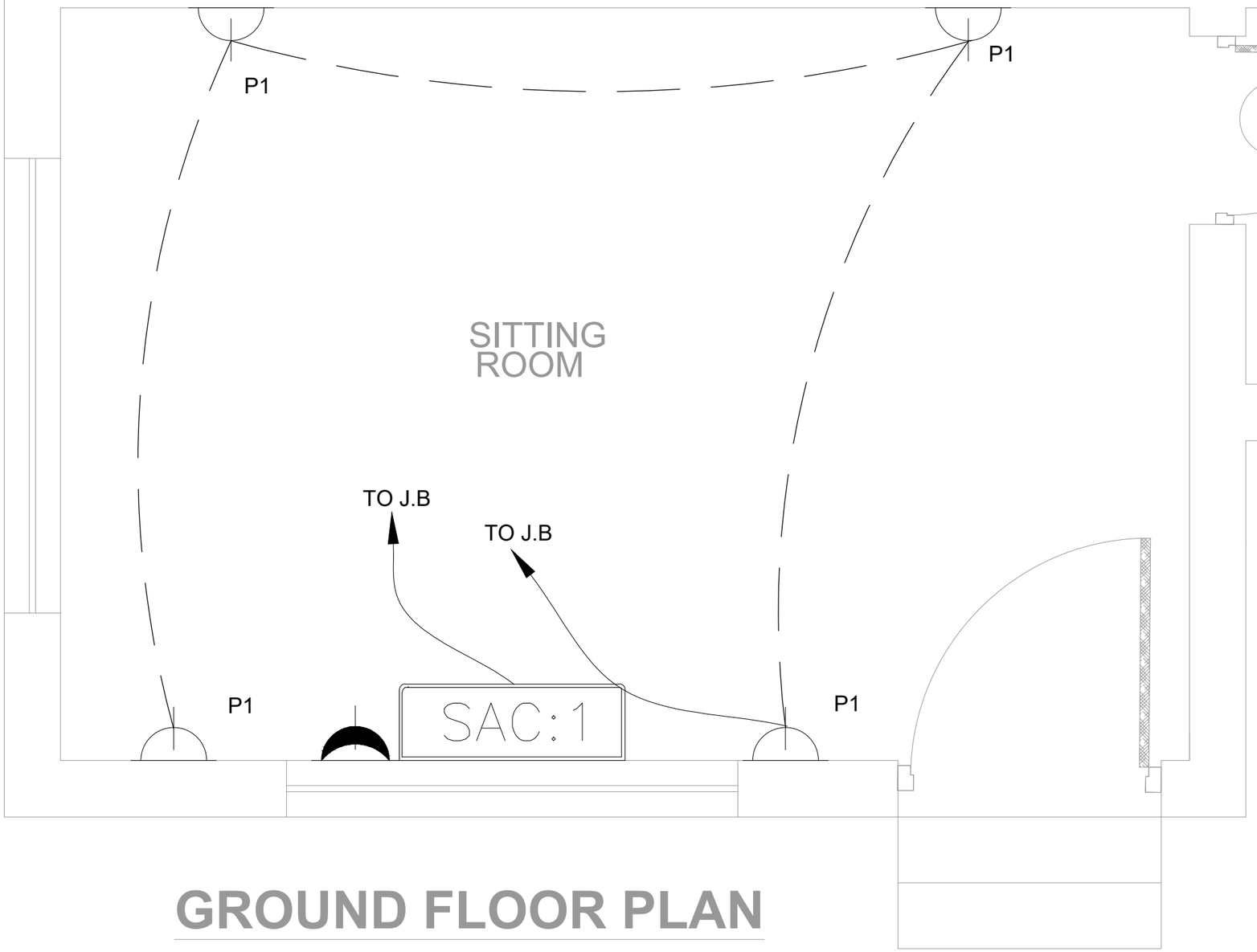
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
214

DRAWING TITLE:
LIGHTING LAYOUT PLAN SITTING ROOM (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022
DRAWING NO: E-04
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
JOB NO: 488-01



GROUND FLOOR PLAN
SMALL POWER LAYOUT PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
JERS CONSULTANCY (PVT) LTD
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
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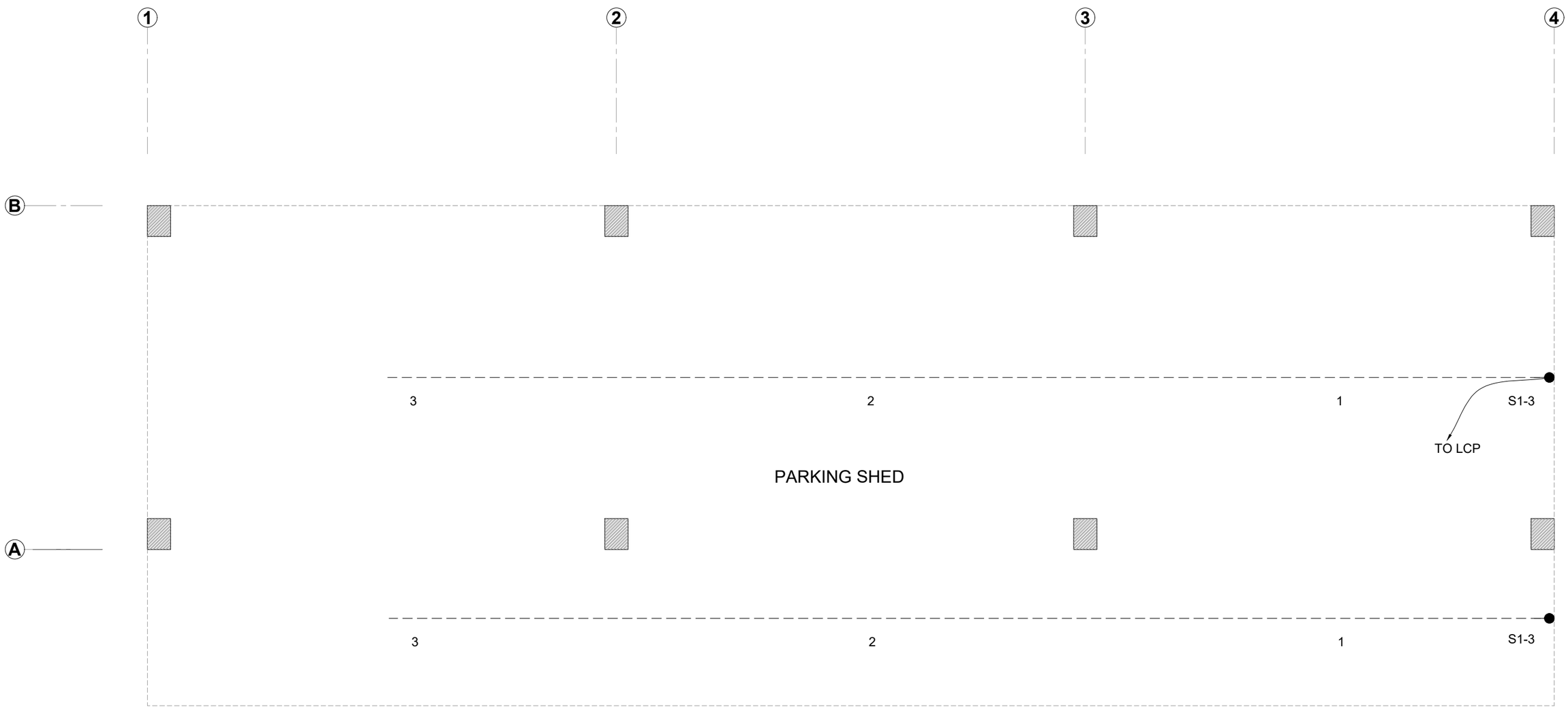
Web: http://www.jers.com.pk

PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB. 215

DRAWING TITLE:
SMALL POWER LAYOUT PLAN
SITTING ROOM
(HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022
DRAWING NO: E-05
SCALE: UNIT=FEET NTS
SHEET: 1 OF 7
JOB NO: 488-01



COLUMN & FOOTING LAYOUT PLAN

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:

JERS CONSULTANCY (PVT) LTD
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
Web: http://www.jers.com.pk

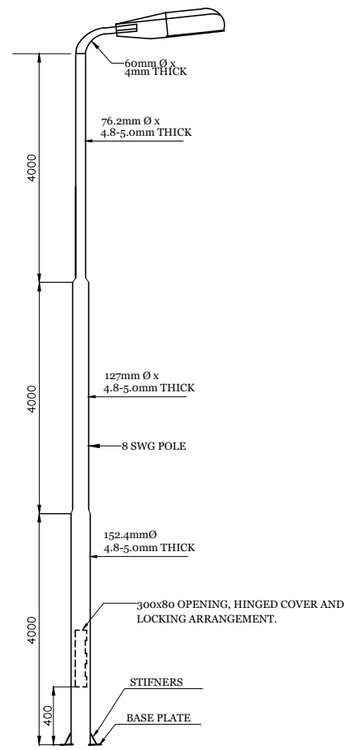
PROJECT:
PUNJAB CITIES PROGRAM (PCP)
DETAILED DESIGN OF INFRASTRUCTURE SUB-PROJECTS AND RESIDENTS SUPERVISION IN 16 CITIES OF PUNJAB.
216

DRAWING TITLE:
SHED LIGHTING LAYOUT PLAN

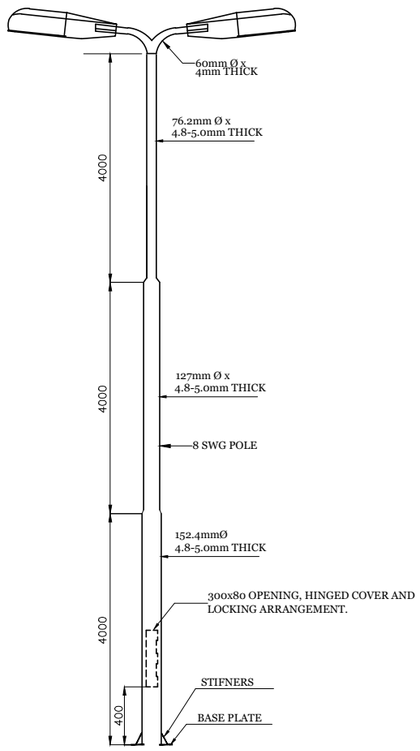
REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022

DRAWING NO: **E-06**
SCALE: UNIT=FEET 1"=600'
SHEET: 1 OF 1
JOB NO: 488-01

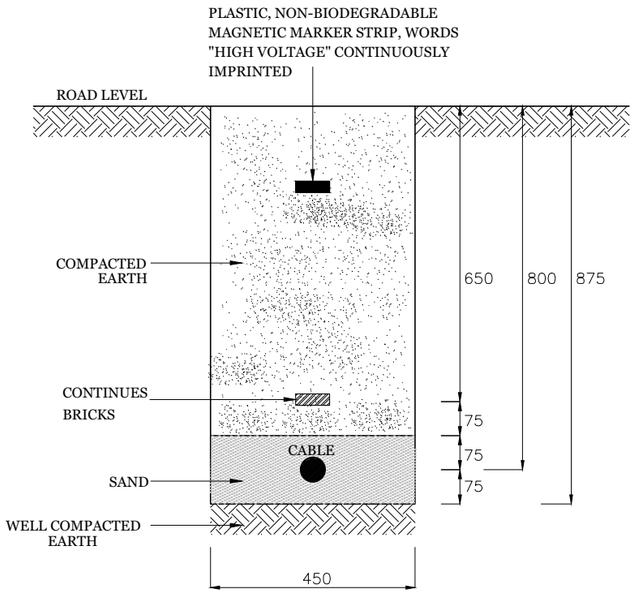


DETAIL-A
SINGLE ARM POLE LIGHT
FIXING DETAIL

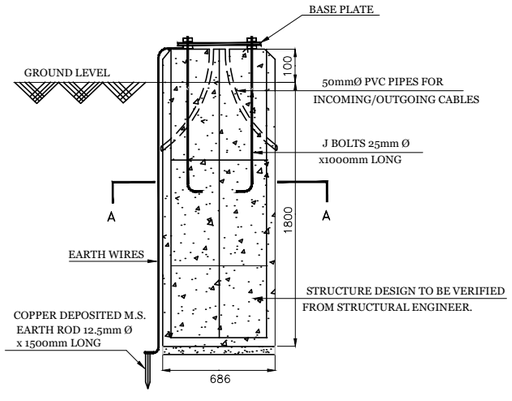


DETAIL-B
DOUBLE ARMS POLE
LIGHT FIXING DETAIL

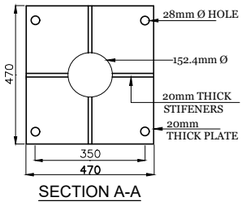
SINGLE & DOUBLE ARM HOT DIP GALVANIZED
OCTAGONAL POLE WITH DETAILS



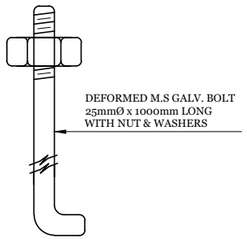
LOW TENSION (LT) CABLE
LAYING DETAIL



POLE FOUNDATION

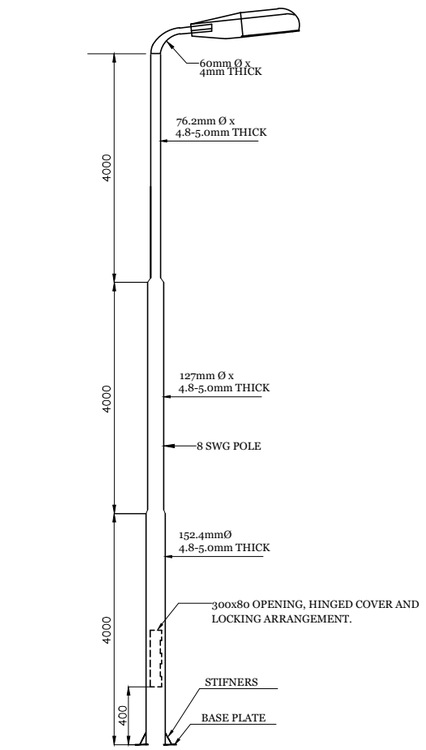


SECTION A-A
BASE PLATE FOR POLES

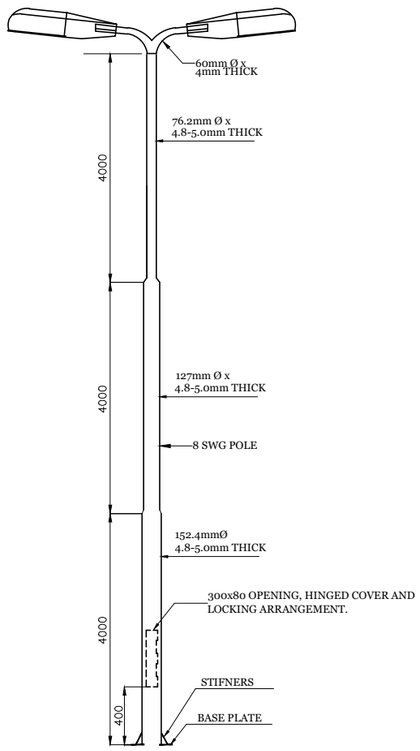


J- BOLT

CLIENT: HELP BUILD PMDFC HEALTHY CITIES — **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**	CONSULTANTS: **JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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: **MISCELLANEOUS DETAIL-01**		DRAWN BY: FATIMA ZAHRA CHECKED BY: ASAD KHALID DATE: JUNE,2022 SCALE: UNIT=FEET 1"=80' SHEET: 01 OF 01 JOB NO: 488-01	DRAWING NO: **E-07**

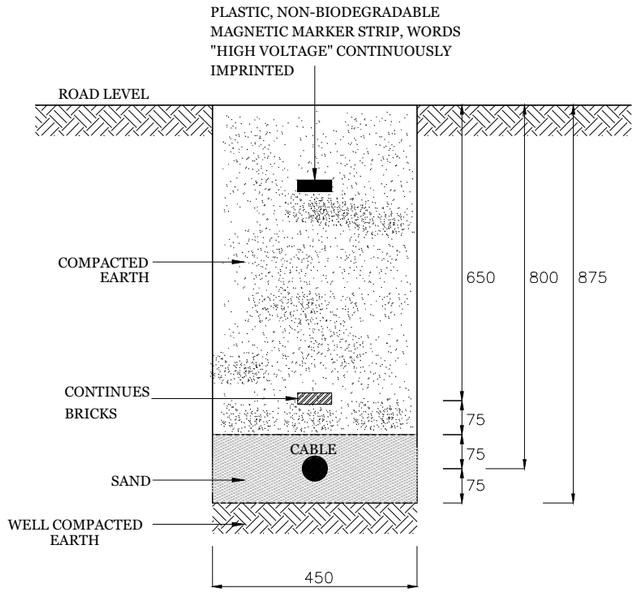


DETAIL-A
SINGLE ARM POLE LIGHT
FIXING DETAIL

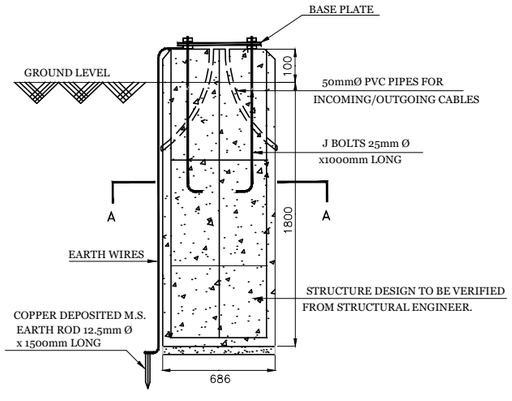


DETAIL-B
DOUBLE ARMS POLE
LIGHT FIXING DETAIL

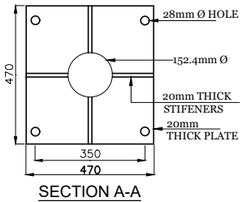
SINGLE & DOUBLE ARM HOT DIP GALVANIZED
OCTAGONAL POLE WITH DETAILS



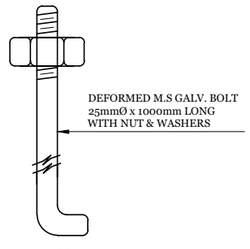
LOW TENSION (LT) CABLE
LAYING DETAIL



POLE FOUNDATION

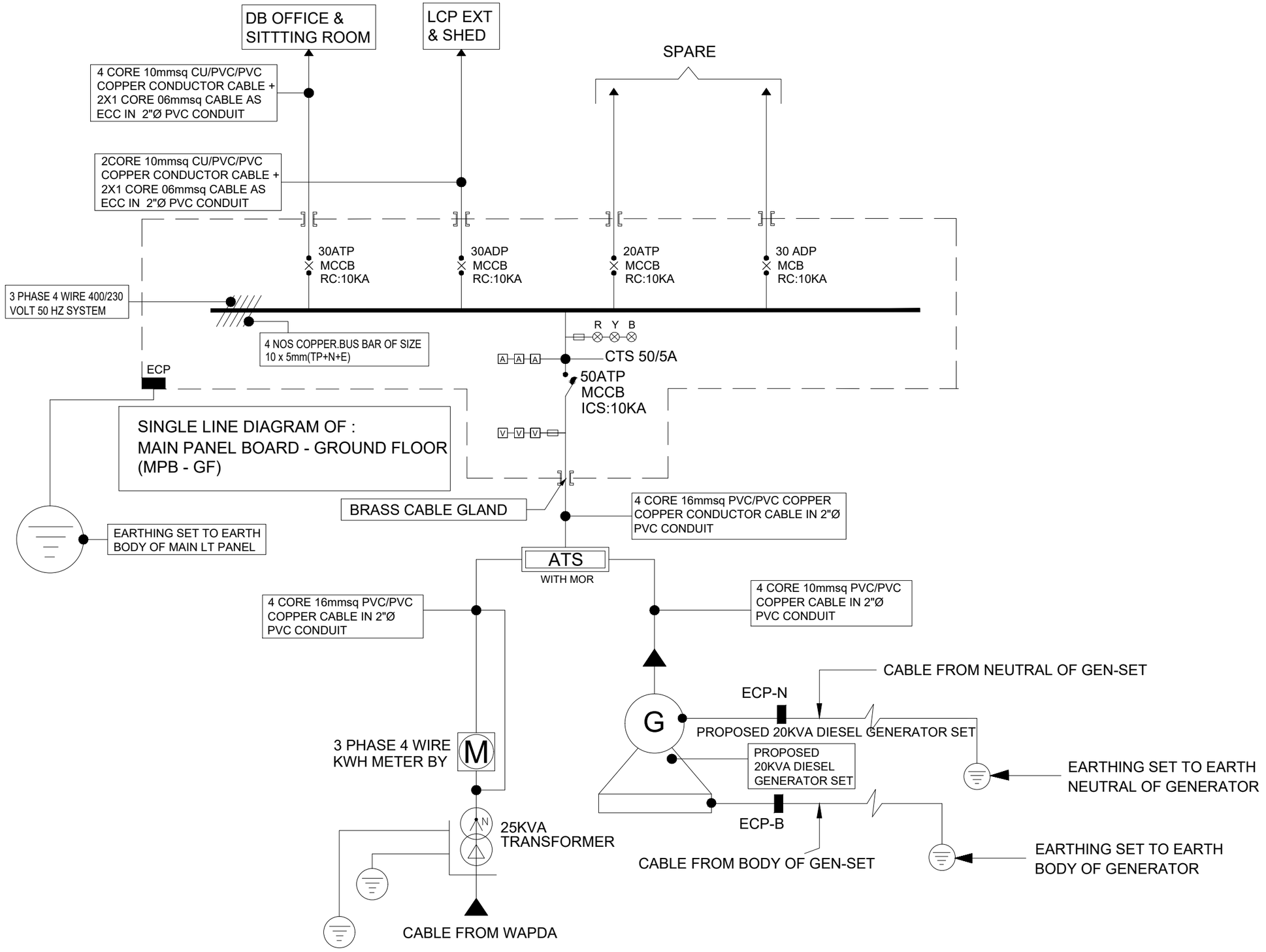


SECTION A-A
BASE PLATE FOR POLES

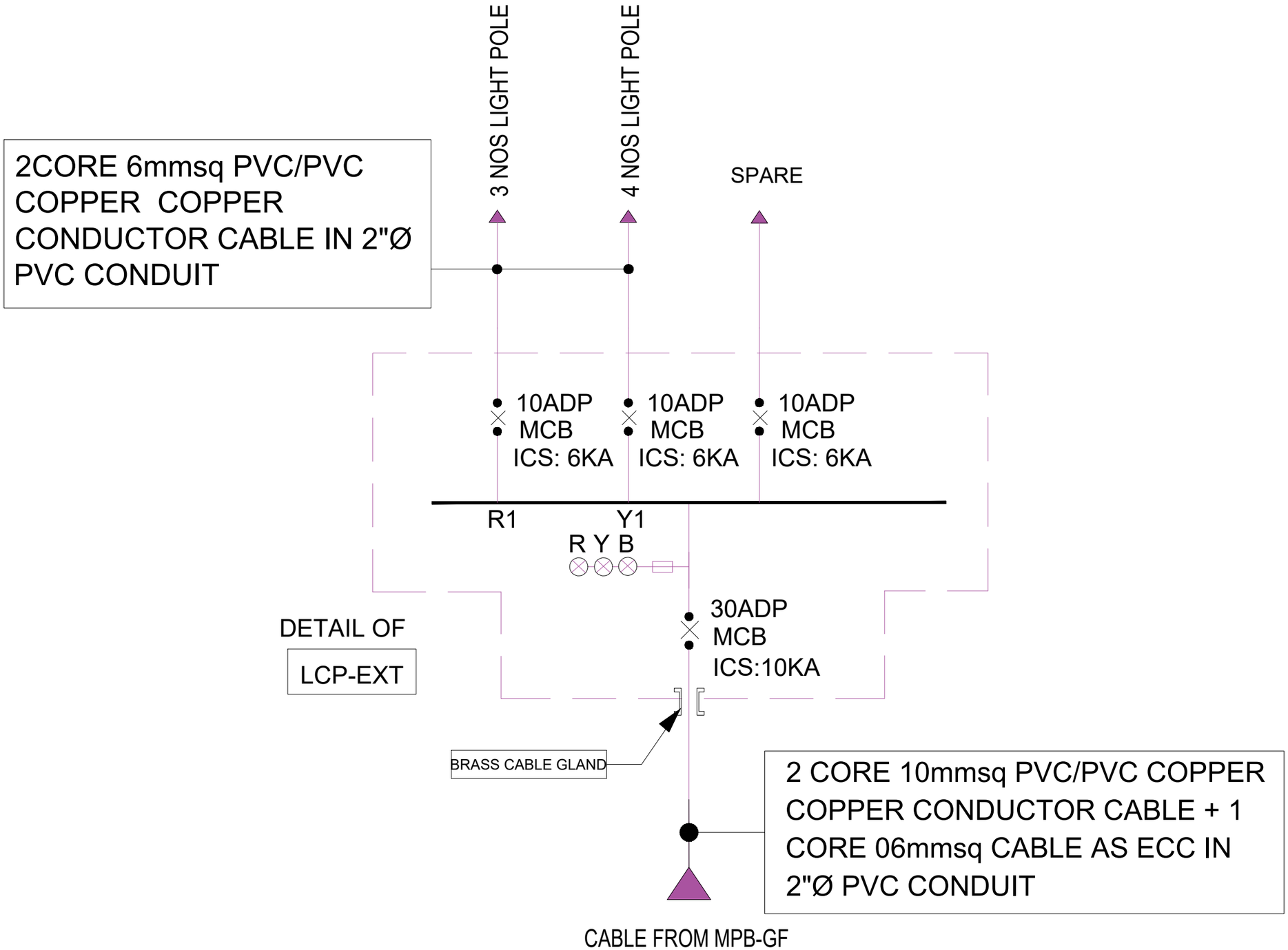


J- BOLT

CLIENT: HELP BUILD PMDFC HEALTHY CITIES — **PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)**	CONSULTANTS: **JERS CONSULTANCY (PVT) LTD** 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan) Tel: +92 42 35113123, +92 42 35113124 Fax: +92 42 35113125 E-mail: info@jers.com.pk, mail@jers.com.pk 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: **MISCELLANEOUS DETAIL-01**		DRAWN BY: FATIMA ZAHRA CHECKED BY: ASAD KHALID DATE: JUNE,2022 SCALE: UNIT=FEET 1"=80' SHEET: 01 OF 01 JOB NO: 488-01	DRAWING NO: **E-07**



CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: JERS CONSULTANCY (PVT) LTD, 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan), Tel: +92 42 35113123, +92 42 35113124, Fax: +92 42 35113125, E-mail: info@jers.com.pk, mail@jers.com.pk, 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. 219	DRAWING TITLE: SINGLE LINE DIAGRAM OF MAIN PANEL BOARD (HAFIZABAD CITY)	REV. / DATE / DESCRIPTION: - / - / -	DRAWN BY: FATIMA ZAHRA; CHECKED BY: ASAD KHALID; DATE: JULY,2022; DRAWING NO: SLD-01; SCALE: UNIT=FEET 1"=120'; SHEET: 1 OF 1; JOB NO: 488-01



CLIENT: PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)	CONSULTANTS: JERS CONSULTANCY (PVT) LTD, 24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan), Tel: +92 42 35113123, +92 42 35113124, Fax: +92 42 35113125, E-mail: info@jers.com.pk, mail@jers.com.pk, 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. 220	DRAWING TITLE: SINGLE LINE DIAGRAM (HAFIZABAD CITY)
			DRAWN BY: FATIMA ZAHRA
			CHECKED BY: ASAD KHALID
			DATE: JULY,2022
			DRAWING NO: SLD-02
			SCALE: UNIT=FEET 1"=120'
			SHEET: 1 OF 1
			JOB NO: 488-01

REV.	DATE	DESCRIPTION
-	-	-

TO FEED LIGHT/ SMALL POWER CURCUIT

3x2.5mmsq (P+N+E)
IN 1" DIA PVC CONDUIT

3x4mmsq (P+N+E)
IN 1" DIA PVC CONDUIT

MCB RATING IN AMPERES	10	10	20	20	10	20	20	20	10
MCB NO:	1	2	3	1	2	3	1	2	3
PHASE	RED			YELLOW			BLUE		

R Y B

DB-OFFICE &
SITTING ROOM

30ATP
MCCB
ICS:10KA

BRASS CABLE GLAND

4 CORE 10mmsq PVC/PVC
COPPER CONDUCTOR
CABLE=1 CORE 6mmsq AS ECC
IN 2"Ø PVC CONDUIT

CABLE FROM MPB

CLIENT:
PUNJAB MUNICIPAL DEVELOPMENT FUND COMPANY (PMDFC)

CONSULTANTS:
JERS CONSULTANCY (PVT) LTD
24-Civic Center, Quaid-e-Azam Town, Township, Lahore (Pakistan)
Tel: +92 42 35113123, +92 42 35113124
Fax: +92 42 35113125
E-mail: info@jers.com.pk, mail@jers.com.pk
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. 221

DRAWING TITLE:
SINGLE LINE DIAGRAM (HAFIZABAD CITY)

REV.	DATE	DESCRIPTION
-	-	-

DRAWN BY: FATIMA ZAHRA
CHECKED BY: ASAD KHALID
DATE: JULY,2022

DRAWING NO: **SLD-03**
SCALE: UNIT=FEET 1"=120'
SHEET: 1 OF 1
JOB NO: 488-01