

**GOVERNMENT OF PAKISTAN**

**HQ NATIONAL LOGISTICS CORPORATION**

**INVITATION TO TENDER FOR SUPPLY FIRE FIGHTING SYSTEM**

**WORDS OF CAUTION**

1. **Participation of Tender**

- a. NLC invites sealed bids for supply, installation and commissioning of Fire Fighting System at NLC Log Park Harakka on FOR basis, in the light of PPRA rule 36(b).
- b. The tender can be participated by following: -
  - (1) OEMs (Original Equipment Manufacturers)
  - (2) Authorized Dealers of OEM, having Backup Support Services in Pakistan with sustained financial capability.

2. **Eligibility / Bid Qualification Criteria**. The bidder must prove his eligibility by completing the Bid Qualification Criteria as following: -

<b>Ser</b>	<b>Check List</b>	<b>Yes/No</b>	<b>Remark</b>
a.	Tender Fee		
b.	Earnest Money		
c.	Company Registration		
d.	Copy of NTN / STRN and Active Tax Filler Certificate		
e.	Authorization Letter from OEM (for dealers)		
f.	Complete Tech Data of Equipment and OEM Brochure/technical manual (Annex 'B')		
g.	120 x Days Offer Validity		
h.	Confirmation of Delivery Period		
i.	Comparison Chart with user proposed specification (Annex 'B') response to all queries/requirements in full (Annex 'B').		
j.	Not Blacklisting Affidavit (Stamp Paper)		
k.	Compliance to warranty		
l.	Certificate to accept all conditions of tender without exception.		
m.	List of Major Clients and equipment provide (Annex 'B').		

n.	Proof of 3 x projects of same level completed in last 5 x years		
o.	Hierarchy of the firm along with portfolio of owner & top management be attached		
p.	Firms with sound Financial Capability having annual turnover of Rs 600 Mn dully supported by Annual Audit Reports which should be signed by Quality Control Review (QCR) Rated CA firms.		

**Note:** No row of remarks column to be left blank. Blank row will be considered non-compliant

3. **Scope of Work.** Delivery, installation and commissioning of Firefighting equipment at 4 x warehouses in NLC log Park Harraka (Rawalpindi) as per specifications/drawings attached at Annex 'B & C'.

4. **Special Conditions**

a. The offer must include following as responsibility of the contractors: -

- (1) Commissioning of the equipment
- (2) Warranty as per requirement of NLC / OEM provided upto international standards.
- (3) Technical Brochure (English).
- (4) Software (English Version).
- (5) After sales support in terms of spares and maintenance.

b. The offer should also accompany complete technical data of the stores. Any change in technical offer and final contract specification sheet would render the supplier liable to forfeit use of earnest money and cancellation of order unless permitted by the purchaser during technical evaluation.

c. Prices should be quoted on **FOR basis Harraka, Rawalpindi.**

d. Offer must accompany the schedule to this tender (NL-2) duly completed.

e. Warranty of 5 x years of complete equipment.

f. Collaboration of License/Certificates by OEM.

g. Location of major equipment's manufacturer / Supplier / Manufacturing facility be attached.

h. Quoted item/equipment should be Branded and Brand new.

i. NLC reserves the right to reject all bids at any time prior to the acceptance or to increase / decrease the quantity during or before finalization of contract.

- j. For local supplier/manufacturer only those firms can participate who are on the Active tax Payer List of FBR.
- k. Certificate from the OEM that all major assemblies / components (including tyres) fitted with quoted equipment are from same origin/region
- l. OEM to also certify that no Indian made assembly/part has been fitted in the equipment.
- m. Financial quotes (duly sealed) for each of the equipment be submitted in a separate envelope. **(Financial quotes should be in separate envelope for every item quoted).**
- n. Maintenance schedule requiring change of consumable parts be also submitted with each equipment/technical offer with price list of those consumable parts.
- o. Firm will carry out inspection and maintenance of the equipment after every 3 months free of cost and will sign a certificate to the serviceability effect of the equipment during the warranty period.
- p. Offer through fax/ email will not be accepted.
- q. Offer not received as per NLC requirement is liable to be rejected at any stage of the tender.
- r. **Stamp duties** as applicable through Government of Pakistan rules i.e, @ 0.25 % of value of contract will be paid by winning firm at the time of signing of contract.
- t. In case of any firm fail to supply the tendered store as per the Letter of Acceptance / Contract Agreement, The NLC has the right to take punitive action against defaulter firm that include confiscation of its Bid Security, Performance Bank Guarantee and ban to participate in the tender etc

5. **Rejection of Bid.** A bid can be rejected under following circumstances: -

- a. Bids not qualifying the bid evaluation criteria as mention above.
- b. Offers not accompanied with complete technical specifications of items being offered and not supported with detailed technical brochures.
- c. Non responsive bid to any required criteria / specification
- d. Non submission of Tender Fee & Bid Security
- e. Late submission of tender from given date & time

- f. Offers not complying with the special conditions (para 3) in addition to other conditions
6. **Particulars and Specifications**. Standard particulars, and specifications is attached as **Annex 'A'**. The bidder must conform to the asked specification and acceptance criteria for each category/item.
7. **Delivery of Tender**. The original copy of the tender is to be enclosed in double cover. (i) Technical Offer (ii) Commercial Offer, separately. The covers should be sealed and bear tender Enquiry Number and date of opening, while the outer cover should bear only address of this office without any indications.
8. **Date and Time for Submission of Tender**
- a. Tender must reach HQ NLC Harding Road RA Bazar Near AFIRM Rawalpindi by the date and time specified in tender notice by hand or by post.
  - b. Tender must be dropped in the tender box before given time.
  - c. NLC will not be responsible for delay occurred in post.
  - d. Prebid meeting will be held on **5<sup>th</sup> working day** from the date of publish of tender.
9. **Price**
- a. The prices quoted must be as per accounting unit as shown in the schedule to tender, inclusive all Taxes/duties, packing and delivery charges as and when required.
  - b. Firms to quote separate price for accessories/allied components being manufactured/supplied locally in PKR.
  - c. The prices must be quoted in figure and words at the appropriate space of the schedule to tender on **FOR Basis (Harraka Rawalpindi)**. Additional information, if any, must be linked with entries on the schedule of tender.
  - d. The firms must quote prices inclusive of all taxes, packing, delivery charges or installation etc as per format attached at **Annex "B"**.
  - e. Quoted price must be supported by original Proforma invoice of the OEM/Manufacturer/Principle giving following details/breakdown: -
    - (1) Cost of the equipment in FOR Basis.
    - (2) Cost of Locally supplied item (if any) – OEM to specify the details of locally supplied parts/items (in Pak Rs).

- (3) Cost of optional items (if any).
- f. Prices must be firm and final.
- g. Tax exemption (if any) may be provided with the tender documents.
10. **Validity of Offers.** The validity period of quoted rates must be indicated and should be at **least 120 days** from the date of opening the tender without any condition, extendable for further processing of the case, if required.
11. **Delivery Period.** The delivery/installation of the stores is required as stated in the schedule to, tender i.e. within **120 x days after issuance of LOA or Award of Contract (whichever is earlier)** at prescribed location, beyond which Late Delivery Charges will apply.
13. **Packing.** Equipment packing will be of international standard and seaworthy so as to withstand rough handling during loading, unloading and transportation. Marking in suitable size bold letter provided that the parts thereof shall be appropriately packed according to the manufacturer's standard.

Consignee: \_\_\_\_\_

Manufacturer's Name and Address: \_\_\_\_\_

14. **Inspection**

a. **Pre-Delivery Inspection (If Required)**

- (1) Pre-delivery inspection may be carried out at firm's premises before supply, by team of HQ NLC (If Required).
- (2) Inspection will include Quantity, Quality, Conformation to the agreed specification as per LOA / Contract agreement.
- (3) Firm will dispatch the items / equipment to prescribed location as mentioned in schedule of tender.
- (4) Inspection should preferably be kept at Rawalpindi / Islamabad. Inspection out of Rawalpindi / Islamabad will be carried out on the expenses of firm including travelling, boarding / lodging etc.
- b. **Stage Inspection.** Team of NLC may conduct stage inspections during the installation of the equipment (If deemed necessary).
- c. **Final Inspection.** Final inspection of the equipment will be carried out after delivery, installation and commissioning at site, by the team of NLC.

15. **Arbitration.** Any bidder feeling aggrieved by any act of procuring agency after submission of his bid and prior to award of the contract may lodge a written complaint to procurement agency under Rule - 48 PPRA.
16. **Publication** The supplier will provide the following publication pertaining to equipment under purchase in English language free of cost in hard and soft copies: -
  - a. Operator Manual
  - b. Maintenance Manual
  - c. Part Catalogue
  - d. Workshop Manual
  - e. Software backup
  - f. One set per piece in addition three extra sets will be supplied with the equipment. CDs of the same will also be provided
  - g. CDs/ Online Part Catalogue Book be provided for demanding spare parts/ tool items.
  - h. Diagnostic Equipment (**Free of cost if any**)
17. **Tools and Accessories.** The supplier will provide the standard tools (**OEM**) of the Fire Fighting System separately free of cost in steel boxes along with locking arrangements.
18. **Risk and Expense.** Failure to supply the goods quoted or failure to meet the commitment made regarding delivery schedule, specifications, short supplies etc, will authorize HQ NLC to purchase the items at firm's risk and cost.
19. **Training.** Supplier will provide OEM certified operational training and maintenance training to NLC Staff at delivery site free of cost.
20. **After Sales Services Support**
  - a. The firm's principals will guarantee availability of stores, spare parts, accessories, software updates and technical/ repair/ maintenances including Technicians for the next 10 years and that the cost will not be increased more than **2% every year.**
  - b. **1<sup>st</sup> service after installation will be the responsibility of the bidder free of cost.**

21. **Clientele List and Population of Equipment.** The quote must be supported by the client age / customers list with quantities / units of each category provided in Pakistan and outside Pakistan in Last 5 years
22. **Force Majeure.** The supplier will not be held responsible for any delay occurring the supply of contracted stores due to event of force majeure such as Act of God, War, Riots, Civil Commotion's Strikes, lock out or disturbance directly affecting the supply over which the supplier has no control. In such an event the contractor shall inform the Purchaser within 15 days of the happening in writing. Non-availability of raw material for the manufacture of stores or the export permit for the export of the contracted stores from the country of its origin shall not constitute Force Majeure.
23. **Late Delivery.** Late Delivery charges will be imposed @ 2% per month on total cost of contract with effect from original delivery date and will be calculable accordingly in days also.
24. **Terms of Payment**
- a. 100% will be made after delivery, Final Inspection after installation and issuance of CRV (Certified Receipt Voucher) by the consignee.
  - b. No advance payment is allowed
25. **Tender Fee and Bid Security.** Both will be prepared in the shape of bank draft in favour of NATIONAL LOGISTICS CORPORATION HQ MAIN ACCOUNT and submitted as following: -
- a. **Tender Fee.** Rs. 2,000 must be attached with Technical offer.
  - b. **Bid Security.** Rs. 2,000,000/- in sealed envelope (**mentioning Name of Bank and Draft Number & Date**) must be attached with Technical offer. Same will be opened with financial offer.
26. **Bank Guarantee**
- a. Performance Bank guarantee valuing 5% of the contract value must be provided / deposited by the successful firm for award of contract, within 15 days from the signing of the contract / issuance of Letter of Intent (whichever is earlier).
  - b. The Guarantee should be from a schedule bank of "AA" rating and valid till one month after warranty period.
27. **Warranty Period.** Firm will provide comprehensive warranty of complete equipment of **5 x years** or for duration specified by OEM (whichever is more).

28. **Comparison Chart.** Firms will also attach comparison chart and response to all queries/ requirement in **Annex 'B'** as part of their technical offer: -

NLC Specification	Firms Specification	Complied with or Not	Ref of OEM Brochure/Technical Manual

29. **Evaluation.** Technical offer of bidders found eligible and qualified as per “**Bid Qualification criteria**” will be evaluated as per specifications (Annex “B”). Financial offers of technically approved bidders will be opened and bidder with the lowest financial proposal will be considered most advantageous bid.



General Manager Procurement  
HQ NLC

**HEADQUARTERS NATIONAL LOGISTICS CORPORATION**

**GENERAL CONDITIONS GOVERNING CONTRACT**

1. Tender will be opened at HQ NLC Harding Road RA Bazar Near AFIRM Rawalpindi at Date and Time mentioned in the newspaper ad.
2. Tender will be submitted in accordance with PPRA Rule 36 (b) i.e. Single Stage – Two Envelope Procedure
3. Details of Plant/equipment required to be procured are attached at **Annex 'B'**



**NL-3**

Address \_\_\_\_\_

Telephone \_\_\_\_\_

Code Used \_\_\_\_\_

From: \_\_\_\_\_

To: **THE DIRECTOR GENERAL**  
**NATIONAL LOGISTICS CORPORATION QMG's BRANCH**  
**R.A. BAZAAR GHQ RAWALPINDI**

Dear Sir,

1. I/We hereby offer to supply to the Director General NLC, stores as per detail in the Scheduled hereto or such portion thereof as you may specify in the contract at the prices given in the said schedule and agree to hold this offer open till \_\_\_\_\_ . I/We shall be bound by a communication of acceptance dispatched within the prescribed time.

2. I/We hereby certify own eligibility as per Annex 'A' to NL-1.

3. I/We have understood the instructions to Tenders and Conditions of Contract as laid down in form NL-2 to "General Conditions Governing Contracts" and have thoroughly examined the specificity/drawing and or pattern quoted in the schedule hereto and am/are fully aware to the nature of the stores required and my/our offer is to supply stores strictly in accordance with the requirements.

4. Recommended technical manual/ data are also enclosed with the offer.

5. The following pages have been added to and form part of this tender.

Your faithfully

(Signature of Tendered)

Address \_\_\_\_\_

Dated \_\_\_\_\_

Signature of witness \_\_\_\_\_

Address \_\_\_\_\_

National Logistics Corporation Harraka Logistics Park Rawalpindi				
SUMMARY OF FIRE FIGHTING SYSTEM				
SUMMARY OF FIRE FIGHTING SYSTEM				
Item no.	Item Description	Excluding Sprinklers	Sprinklers	External
	This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.			
	<b>DESCRIPTION</b>			
1	Warehouse-4			
2	Warehouse-5			
3	Warehouse-6			
4	Warehouse-7			
5	Fire Fighting External Works			
<b>Total (PKR)</b>		-	-	-

SUMMARY OF FIRE DETECTION SYSTEM			
Item no.	Item Description	Unit Rate (PKR)	Amount (PKR)
	<b>DESCRIPTION</b>		
1	Warehouse-4		
2	Warehouse-5		
3	Warehouse-6		
4	Warehouse-7		
<b>Total (PKR)</b>			-

<b>Grand Total (PKR)</b>	-
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National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan  
**WAREHOUSE-04**  
 (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<p><b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions and as directed by the Engineer.</b></p>				
1	Supply and Installation of <b>Fire Extinguishers</b> of specified type and capacities with wall mounting brackets etc as indicated in drawings. the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects.				
1.1	<b>03 Liters Wet Chemical Fire Extinguisher</b>	<b>No.</b>	<b>1</b>		
1.2	<b>5kg CO2 Fire Extinguisher</b>	<b>No.</b>	<b>31</b>		
1.3	<b>6kg DCP Fire Extinguisher</b>	<b>No.</b>	<b>31</b>		
1.4	<b>6kg Ceiling Mounted Automatic Fire Extinguisher (Halotron)</b>	<b>No.</b>	<b>2</b>		
4	Supply, Installation, testing and commissioning of wall mounted <b>Dual Fire Hose Cabinet</b> with double vertical cabinet as per NFPA-14, Upper compartment consisting of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve and lower compartment consisting of 2.5" x 100 ft polyester collapsible fire hose and with 2.5" diameter landing valve with quick coupling, the cabinet shall be made with mild steel 16 gauge sheet with approved color and polyester powder coating finish, and with valve and nozzle and accessories.				
4.1	<b>Dual Compartment Fire Hose Cabinets</b>	<b>Nos.</b>	<b>6</b>		
5	Supply, Installation, testing and commissioning of wall mounted <b>Fire Hose Reel with Cabinet</b> (Class-II) as per NFPA-14, Fire Hose Reel shall be of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish with valve and nozzle and accessories.				
5.1	<b>Fire Hose Reel with Cabinet</b>	<b>Nos.</b>	<b>1</b>		
6	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tussocks, elbows, bends, unions, reducers etc, and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
6.2	<b>1-1/2" diameter</b>	<b>Rft</b>	<b>155</b>		
6.4	<b>2-1/2" diameter</b>	<b>Rft</b>	<b>60</b>		
7	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc complete in all respects				
7.1	<b>Pressure Reducing Valve</b>				
7.1.1	2-1/2" diameter	<b>No.</b>	<b>6</b>		

National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan  
**WAREHOUSE-04**  
 (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

8	Supply and Installation of <b>50 KG DCP Trolley Mounted Fire Extinguisher</b> with portable trolley of specified type and capacities, the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
8.1	<b>50 KG DCP Trolley Mounted Fire Extinguishers</b>	<b>Nos.</b>	<b>4</b>		
9	Supply, installation, testing and commissioning of approved <b>Fire Rated Door &amp; Assemblies</b> at locations shown on drawings, complete in all respects, in accordance with NFPA 80, NFPA 101 and applicable codes comprising UL Listed fire rated doors and frames of specified ratings in NFPA including all components of the tested assembly such as fire rated glazing (if applicable), intumescent and smoke seals, frames, anchors, and approved hardware (hinges, door closers, panic devices, locks, handles ensuring compliance with installation tolerances, clearances, self-closing and positive latching requirements, scope shall also include all necessary civil works (cutting, modifications, grouting, plastering, making good of openings), surface finishing/painting, labeling and certification, submission of shop drawings and material submittals for approval, coordination with other trades and carrying out inspection and functional testing to ensure full compliance complete in all respects as per specifications, drawings.				
9.1	<b>Fire Rated Door &amp; Assemblies</b>	<b>Each</b>	<b>4</b>		
10	Providing and installation of <b>Fire Blankets</b> conforming ASTM F 1989-05 standard as indicated in drawings with a protective cover with clear indication that how to extract and use it, complete in all respects as per specification and drawings.				
10.1	<b>Fire Blankets</b>	<b>Each</b>	<b>1</b>		
11	Providing and installation of <b>Personal Protective Equipment (PPE)</b> , this includes safety cabinet, front Glass door with locking arrangements, fire blanket, safety helmets (minimum two), safety leather gloves (minimum two), Safety goggles Dark/Clear x2, Safety Shoes x2 pair, Fire Fighting gum shoes x1, Safety vest reflecting jacket (minimum two), Fireman Hammer x1, Fireman Axe x1, Half face mask x1, Portable rechargeable search light x1, fire escape mask x1 complete in all respects.				
11.1	<b>Personal Protective Equipment (PPE)</b>	<b>Each</b>	<b>6</b>		
<b>Miscellaneous:</b>					
12	Supply, installation, inspection and completion of <b>Passive Fire Protection works</b> at locations indicated on drawings and in accordance with NFPA-101, NFPA-5000, other applicable standards and local authority requirements including but not limited to Anti Slip walk tape, Anti Shatter sheet on glass, Fire Cement, Duct fire rated, protection, sealing of any openings with fire resistant material with approved sealants, shall be completed in all respects.				
12.1	<b>Passive Fire Protection works</b>	<b>Lot</b>	<b>1</b>		
13	The Contractor shall carry out all <b>Civil Works</b> required to complete the firefighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labor in order to install firefighting equipment and piping etc, openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.				
13.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		

National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan  
**WAREHOUSE-04**  
 (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

14	Providing and installation of <b>Pipe Sleeves in masonry works</b> , all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.				
14.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
15	Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed where advised for required for Fire Fighting complete in all respects as per specification and drawings.				
15.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
16	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
17	Supplementary works				
17.1	<b>Shop Drawings &amp; As Built Drawings</b>	<b>Lot</b>	<b>1</b>		
17.2	<b>Operation &amp; Maintenance Manuals</b>	<b>Lot</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

## WAREHOUSE-04

tem no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<p><b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b></p>				
1	<p>Providing, fixing, testing and commissioning of recessed <b>Pendent Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be ESFR (Early Suppression Fast Response) type having 3/4-inch NPT threads with approved K factor (16.8) and temperature rating with chrome finish &amp; UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.</p>				
1.1	<b>Fire Sprinklers</b>	<b>Each</b>	<b>1,196</b>		
2	<p>Providing, fixing, testing and commissioning of recessed <b>Pendent/Upright Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be quick response type having 1/2-inch NPT threads with approved K factor (5.6) and temperature rating with chrome finish &amp; UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.</p>				
2.1	<b>Fire Sprinklers (Inside Office Space)</b>	<b>Each</b>	<b>41</b>		
3	<p>Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc., and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects.</p>				
3.1	<b>1" diameter</b>	<b>Rft</b>	<b>284</b>		
3.2	<b>1-1/4" diameter</b>	<b>Rft</b>	<b>5,634</b>		
3.3	<b>1-1/2" diameter</b>	<b>Rft</b>	<b>2,015</b>		
3.4	<b>2" diameter</b>	<b>Rft</b>	<b>1,584</b>		
3.5	<b>2-1/2" diameter</b>	<b>Rft</b>	<b>1,335</b>		
3.6	<b>3" diameter</b>	<b>Rft</b>	<b>1,416</b>		
3.7	<b>4" diameter</b>	<b>Rft</b>	<b>702</b>		
3.8	<b>6" diameter</b>	<b>Rft</b>	<b>1,198</b>		
4	<p>Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc. complete.</p>				
4.1	<b>Gate Valve Rising Stem</b>				
4.1.1	2" diameter	<b>No.</b>	<b>6</b>		
4.1.2	6" diameter	<b>No.</b>	<b>3</b>		
4.2	<b>Non-Return Valve</b>				
4.2.1	6" diameter	<b>No.</b>	<b>3</b>		
4.3	<b>Pressure Reducing Valve</b>				
4.3.1	6" diameter	<b>No.</b>	<b>3</b>		

4.4	<b>Flow Switch</b>	<b>Each</b>	<b>3</b>		
4.5	<b>Pressure Gauge</b>	<b>Each</b>	<b>3</b>		
4.6	<b>Sight Glass</b>	<b>Each</b>	<b>3</b>		
<b>Miscellaneous:</b>					
5	<p>The Contractor shall carry out all <b>Civil Works</b> required to complete the fire fighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labor in order to install firefighting equipment and piping etc., openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.</p>				
5.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		
6	<p>Providing and installation of <b>Pipe Sleeves in masonry works</b>, all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.</p>				
6.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
7	<p>Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed where advised for required for Fire Fighting complete in all respects as per specification and drawings.</p>				
7.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
8	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

**National Logistics Corporation Harraka Logistics Park Rawalpindi**

**WAREHOUSE-4**

**FIRE DETECTION SYSTEM WAREHOUSE-4**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b>				
<b>1.1</b>	<b><u>ADDRESSABLE FIRE ALARM CONTROL PANEL ( FACP)</u></b>				
1.1.1	Supply, Installation, Testing and commissioning of microprocessor- based addressable Fire Alarm Control Panel. System shall be fully addressable, intelligent and modular. 2 loops expandable up to required capacity. Capable of integration with Fire Detection Devices, Fire Suppression Systems and BMS if required. The Fire Alarm Control Panel shall be provided with a sealed maintenance-free battery backup system with sufficient capacity to operate the system under normal supervisory conditions, followed by alarm condition operation, in accordance with NFPA 72 requirements. Complete in all respects.	<b>Nos</b>	<b>1</b>		-
<b>1.2</b>	<b><u>ADDRESSABLE BEAM DETECTORS</u></b>				
1.2.1	Supply, Installation, Testing and commissioning of reflective type projected beam detectors EN-54-12 compliant complete with reflective plates, mounting accessories, and all required interfaces complete in all respects.	<b>Nos</b>	<b>20</b>		-
<b>1.3</b>	<b><u>ADDRESSABLE SMOKE DETECTORS</u></b>				
1.3.1	Supply, Installation, Testing and Commissioning of addressable smoke detectors EN-54-7 compliant compatible with the proposed Fire Alarm Control Panel. Detector shall be supplied with Standard mounting base, locking mechanism to prevent unauthorized removal, and compatible with standard junction boxes, complete in all respects.	<b>Nos</b>	<b>17</b>		-
<b>1.4</b>	<b><u>ZONE CONTROL INTERFACE</u></b>				

**FIRE DETECTION SYSTEM WAREHOUSE-4**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
1.4.1	Supply, Installation, Testing and Commissioning of Zone Control Assembly Interface module complete with all accessories, wiring, containment and integration with the Fire Alarm System (As per Firefighting drawings).	<b>Nos</b>	<b>3</b>		

<b>1.5</b>	<b><u>ADDRESSABLE ALARM SOUNDERS</u></b>				
1.5.1	Supply, installation, Testing and commissioning of addressable wall mount electronic sounder. Loop powered, with selectable tones and minimum 90 dB output, complete with all accessories, complying with NFPA 72 / EN 54-3.	<b>Nos.</b>	<b>12</b>		-
<b>1.6</b>	<b><u>ADDRESSABLE FLASHERS</u></b>				
1.6.1	Supply, installation, testing and commissioning of wall mount addressable visual alarm device (strobe), high-intensity LED type, compliant with EN 54-23, complete with all accessories.	<b>Nos.</b>	<b>12</b>		-
<b>1.7</b>	<b><u>MANUAL CALL POINTS</u></b>				
1.7.1	Supply, installation, testing, and commissioning of wall mount manual call point (MCP), break glass or resettable type, red colored, loop powered, compatible with fire alarm control panel, complete with back box, LED indicator, key reset facility, and all necessary accessories including interconnection with fire alarm loop wiring and testing as per EN 54 / NFPA standards.	<b>Nos.</b>	<b>12</b>		
<b>1.8</b>	<b><u>FIRE ALARM LOOP CABLE</u></b>				
1.8.1	Supply, installation, testing and commissioning of 2-core x 1.5mm <sup>2</sup> + ECC shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387 <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	<b>RM</b>	<b>2466</b>		-
<b>1.9</b>	<b><u>EMERGENCY LIGHTS CABLE</u></b>				
1.9.1	Supply, installation, testing and commissioning of 3 x 2.5 mm <sup>2</sup> shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification. All wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387. <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	<b>RM</b>	<b>1524</b>		

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WAREHOUSE-05

(Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

FIRE DETECTION SYSTEM WAREHOUSE-4					
Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
<b>1.10</b>	<b><u>CONDUITS</u></b>				
1.10.1	Supply and installation of Electrical Metal Tube (EMT) conduits with all fittings, supports, and accessories complete in all respects or as approved by the Consultant. <b>Note: Actual length of conduits to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of conduits are shown herewith. Payments shall be made as per actual length installed.</b>	RM	3990		
<b>1.11</b>	<b><u>EMERGENCY LIGHTS</u></b>				
1.11.1	Supply, installation, testing and commissioning of self-contained LED emergency light fitting, complete with backup (minimum 120 minutes), automatic operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / IEC standards.	Nos	76		-
<b>1.12</b>	<b><u>FIRE EXIT SIGN</u></b>				
1.12.1	Supply, installation, testing and commissioning of LED illuminated fire exit sign (running man type), double sided, complete with backup (minimum 120 minutes), maintained operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / ISO 7010 standards.	Nos	6		-
<b>1.13</b>	<b><u>MISCELLANEOUS</u></b>				
1.13.1	<b>Civil works related to Fire Alarm</b> The contractor shall carry out all Civil Works required to complete the Fire Alarm works, This includes (but not limited to) Provision of opening, chases, core cutting, in RCC / Steel / Masonry and civil works with contractors own tool and labour in order to install Fire Alarm equipment, openings in slabs, or walls, closing of openings, repair work etc. The Contractor is advised to visit the site before filing the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.	Job	1		
1.13.2	One Year Maintenance	Job	1		
1.13.3	<b>Supplementary Works</b>				
1.13.3.1	Shop Drawing & As-build Drawings	Lot	1		
1.13.3.2	Operation and Maintenance Manuals	Lot	1		
<b>Total (PKR)</b>					-

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WAREHOUSE-05

(Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions and as directed by the Engineer.</b>				
1	Supply and Installation of <b>Fire Extinguishers</b> of specified type and capacities with wall mounting brackets etc as indicated in drawings. the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
1.1	<b>03 Liters Wet Chemical Fire Extinguisher</b>	No.	1		
1.2	<b>5kg CO2 Fire Extinguisher</b>	No.	31		
1.3	<b>6kg DCP Fire Extinguisher</b>	No.	31		
1.4	<b>6kg Ceiling Mounted Automatic Fire Extinguisher (Halotron)</b>	No.	2		
4	Supply, Installation, testing and commissioning of wall mounted <b>Dual Fire Hose Cabinet</b> with double vertical cabinet as per NFPA-14, Upper compartment consisting of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve and lower compartment consisting of 2.5" x 100 ft polyester collapsible fire hose and with 2.5" diameter landing valve with quick coupling, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish, and with valve and nozzle and accessories, complete in all respects as per specifications, drawing.				
4.1	<b>Dual Compartment Fire Hose Cabinets</b>	Nos.	6		
5	Supply, Installation, testing and commissioning of wall mounted <b>Fire Hose Reel with Cabinet</b> (Class-II) as per NFPA-14, Fire Hose Reel shall be of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish with valve and nozzle and accessories, complete in all respects as per specifications, drawings and as approved by the Consultant.				
5.1	<b>Fire Hose Reel with Cabinet</b>	Nos.	1		
6	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc, and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
6.2	<b>1-1/2" diameter</b>	Rft	155		
6.4	<b>2-1/2" diameter</b>	Rft	60		
7	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc complete in all respects.				
7.1	<b>Pressure Reducing Valve</b>				
7.1.1	2-1/2" diameter	No.	6		

# National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan

## WAREHOUSE-05

### (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

8	Supply and Installation of <b>50 KG DCP Trolley Mounted Fire Extinguisher</b> with portable trolley of specified type and capacities, the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
8.1	<b>50 KG DCP Trolley Mounted Fire Extinguishers</b>	<b>Nos.</b>	<b>4</b>		
9	Supply, installation, testing and commissioning of approved <b>Fire Rated Door &amp; Assemblies</b> at locations shown on drawings, complete in all respects, in accordance with NFPA 80, NFPA 101 and applicable codes comprising UL Listed fire rated doors and frames of specified ratings in NFPA including all components of the tested assembly such as fire rated glazing (if applicable), intumescent and smoke seals, frames, anchors, and approved hardware (hinges, door closers, panic devices, locks, handles ensuring compliance with installation tolerances, clearances, self-closing and positive latching requirements, scope shall also include all necessary civil works (cutting, modifications, grouting, plastering, making good of openings), surface finishing/painting, labeling and certification, submission of shop drawings and material submittals for approval, coordination with other trades and carrying out inspection and functional testing to ensure full compliance complete in all respects as per specifications, drawings.				
9.1	<b>Fire Rated Door &amp; Assemblies</b>	<b>Each</b>	<b>4</b>		
10	Providing and installation of <b>Fire Blankets</b> conforming ASTM F 1989-05 standard as indicated in drawings with a protective cover with clear indication that how to extract and use it, complete in all respects as per specification and drawings.				
10.1	<b>Fire Blankets</b>	<b>Each</b>	<b>1</b>		
11	Providing and installation of <b>Personal Protective Equipment (PPE)</b> , this includes safety cabinet, front Glass door with locking arrangements, fire blanket, safety helmets (minimum two), safety leather gloves (minimum two), Safety goggles Dark/Clear x2, Safety Shoes x2 pair, Fire Fighting gum shoes x1, Safety vest reflecting jacket (minimum two), Fireman Hammer x1, Fireman Axe x1, Half face mask x1, Portable rechargeable search light x1, fire escape mask x1 complete in all respects as per specifications, drawing.				
11.1	<b>Personal Protective Equipment (PPE)</b>	<b>Each</b>	<b>6</b>		
<b>Miscellaneous:</b>					
12	Supply, installation, inspection and completion of <b>Passive Fire Protection works</b> at locations indicated on drawings and in accordance with NFPA-101, NFPA-5000, other applicable standards and local authority requirements including but not limited to Anti Slip walk tape, Anti Shatter sheet on glass, Fire Cement, Duct fire rated, protection, sealing of any openings with fire resistant material with approved sealants, shall be completed in all respects.				
12.1	<b>Passive Fire Protection works</b>	<b>Lot</b>	<b>1</b>		
13	The Contractor shall carry out all <b>Civil Works</b> required to complete the firefighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labor in order to install firefighting equipment and piping etc., openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respect.				
13.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		

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WAREHOUSE-05

(Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

14	Providing and installation of <b>Pipe Sleeves in masonry works</b> , all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.				
14.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
15	Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed were advised for required for Fire Fighting complete in all respects as per specification and drawings.				
15.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
16	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
17	Supplementary works				
17.1	<b>Shop Drawings &amp; As Built Drawings</b>	<b>Lot</b>	<b>1</b>		
17.2	<b>Operation &amp; Maintenance Manuals</b>	<b>Lot</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

**WAREHOUSE-05**

**(Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)**

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions and as directed by the Engineer.</b>				
1	Providing, fixing, testing and commissioning of recessed <b>Pendent Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be ESFR (Early Suppression Fast Response) type having 3/4-inch NPT threads with approved K factor (16.8) and temperature rating with chrome finish & UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specification.				
1.1	<b>Fire Sprinklers</b>	<b>Each</b>	<b>1,196</b>		
2	Providing, fixing, testing and commissioning of recessed <b>Pendent/Upright Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be quick response type having 1/2-inch NPT threads with approved K factor (5.6) and temperature rating with chrome finish & UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.				
2.1	<b>Fire Sprinklers (Inside Office Space)</b>	<b>Each</b>	<b>41</b>		
3	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc, and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specification.				
3.1	<b>1" diameter</b>	<b>Rft</b>	<b>284</b>		
3.2	<b>1-1/4" diameter</b>	<b>Rft</b>	<b>5,634</b>		
3.3	<b>1-1/2" diameter</b>	<b>Rft</b>	<b>2,015</b>		
3.4	<b>2" diameter</b>	<b>Rft</b>	<b>1,584</b>		
3.5	<b>2-1/2" diameter</b>	<b>Rft</b>	<b>1,335</b>		
3.6	<b>3" diameter</b>	<b>Rft</b>	<b>1,416</b>		
3.7	<b>4" diameter</b>	<b>Rft</b>	<b>702</b>		
3.8	<b>6" diameter</b>	<b>Rft</b>	<b>1,198</b>		
4	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc complete in all respects.				
4.1	<b>Gate Valve Rising Stem</b>				
4.1.1	2" diameter	<b>No.</b>	<b>6</b>		
4.1.2	6" diameter	<b>No.</b>	<b>3</b>		
4.2	<b>Non-Return Valve</b>				
4.2.1	6" diameter	<b>No.</b>	<b>3</b>		
4.3	<b>Pressure Reducing Valve</b>				
4.3.1	6" diameter	<b>No.</b>	<b>3</b>		

**WAREHOUSE-05**

**(Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)**

4.4	<b>Flow Switch</b>	<b>Each</b>	<b>3</b>		
4.5	<b>Pressure Gauge</b>	<b>Each</b>	<b>3</b>		
4.6	<b>Sight Glass</b>	<b>Each</b>	<b>3</b>		
<b>Miscellaneous:</b>					
5	<p>The Contractor shall carry out all <b>Civil Works</b> required to complete the fire fighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labour in order to install firefighting equipment and piping etc, openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.</p>				
5.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		
6	<p>Providing and installation of <b>Pipe Sleeves in masonry works</b>, all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.</p>				
6.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
7	<p>Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed where advised for required for Fire Fighting complete.</p>				
7.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
8	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

**National Logistics Corporation Harraka Logistics Park Rawalpindi  
WAREHOUSE-5**

**FIRE DETECTION SYSTEM WAREHOUSE-5**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions and as directed by the Engineer.</b>				
<b>1.1</b>	<b><u>ADDRESSABLE FIRE ALARM CONTROL PANEL ( FACP)</u></b>				
1.1.1	Supply, Installation, Testing and commissioning of microprocessor- based addressable Fire Alarm Control Panel. System shall be fully addressable, intelligent and modular. 2 loops expandable upto required capacity. Capable of integration with Fire Detection Devices, Fire Suppression Systems and BMS if required. The Fire Alarm Control Panel shall be provided with a sealed maintenance-free battery backup system with sufficient capacity to operate the system under normal supervisory conditions, followed by alarm condition operation, in accordance with NFPA 72 requirements. Complete in all respects.	<b>Nos</b>	<b>1</b>		-
<b>1.2</b>	<b><u>ADDRESSABLE BEAM DETECTORS</u></b>				
1.2.1	Supply, Installation, Testing and commissioning of reflective type projected beam detectors EN-54-12 compliant complete with reflective plates, mounting accessories, and all required interfaces complete in all respects.	<b>Nos</b>	<b>20</b>		-
<b>1.3</b>	<b><u>ADDRESSABLE SMOKE DETECTORS</u></b>				
1.3.1	Supply, Installation, Testing and Commissioning of addressable smoke detectors EN-54-7 compliant compatible with the proposed Fire Alarm Control Panel. Detector shall be supplied with Standard mounting base, locking mechanism to prevent unauthorized removal, and compatible with standard junction boxes, complete in all respects.	<b>Nos</b>	<b>17</b>		-
<b>1.4</b>	<b><u>ZONE CONTROL INTERFACE</u></b>				

**FIRE DETECTION SYSTEM WAREHOUSE-5**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
1.4.1	Supply, Installation, Testing and Commissioning of Zone Control Assembly Interface module complete with all accessories, wiring, containment and integration with the Fire Alarm System (As per Firefighting drawings).Complete in all respects.	<b>Nos</b>	<b>3</b>		
<b>1.5</b>	<b><u>ADDRESSABLE ALARM SOUNDERS</u></b>				

1.5.1	Supply, Installation, Testing and commissioning of addressable wall mount electronic sounder. Loop powered, with selectable tones and minimum 90 dB output, complete with all accessories, complying with NFPA 72 / EN 54-3. Complete in all respects or as approved by the Consultant.	Nos.	12	-
<b>1.6</b>	<b><u>ADDRESSABLE FLASHERS</u></b>			
1.6.1	Supply, installation, testing and commissioning of wall mount addressable visual alarm device (strobe), high-intensity LED type, compliant with EN 54-23, complete with all accessories. Complete in all respects.	Nos.	12	-
<b>1.7</b>	<b><u>MANUAL CALL POINTS</u></b>			
1.7.1	Supply, installation, testing, and commissioning of wall mount manual call point (MCP), break glass or resettable type, red colored, loop powered, compatible with fire alarm control panel, complete with back box, LED indicator, key reset facility, and all necessary accessories including interconnection with fire alarm loop wiring and testing as per EN 54 / NFPA standards. Complete in all respects.	Nos.	12	
<b>1.8</b>	<b><u>FIRE ALARM LOOP CABLE</u></b>			
1.8.1	Supply, installation, testing and commissioning of 2-core x 1.5mm <sup>2</sup> + ECC shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387 <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	RM	2466	-
<b>1.9</b>	<b><u>EMERGENCY LIGHTS CABLE</u></b>			
1.9.1	Supply, installation, testing and commissioning of 3 x 2.5 mm <sup>2</sup> shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification. All wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387. <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	RM	1524	

## National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan

## WAREHOUSE-06

## (Internal Fire Fighting Works Excluding Sprinklers &amp; Associated Piping)

FIRE DETECTION SYSTEM WAREHOUSE-5					
Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
<b>1.10</b>	<b><u>CONDUITS</u></b>				
1.10.1	Supply and installation of Electrical Metal Tube (EMT) conduits with all fittings, supports, and accessories complete in all respects or as approved by the Consultant. <b>Note: Actual length of conduits to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of conduits are shown herewith. Payments shall be made as per actual length installed.</b>	RM	3990		
<b>1.11</b>	<b><u>EMERGENCY LIGHTS</u></b>				
1.11.1	Supply, installation, testing and commissioning of self-contained LED emergency light fitting, complete with backup (minimum 120 minutes), automatic operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / IEC standards.	Nos	76		-
<b>1.12</b>	<b><u>FIRE EXIT SIGN</u></b>				
1.12.1	Supply, installation, testing and commissioning of LED illuminated fire exit sign (running man type), double sided, complete with backup (minimum 120 minutes), maintained operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / ISO 7010 standards.	Nos	6		-
<b>1.13</b>	<b><u>MISCELLANEOUS</u></b>				
1.13.1	<b>Civil works related to Fire Alarm</b> The contractor shall carry out all Civil Works required to complete the Fire Alarm works, This includes (but not limited to) Provision of opening, chases, core cutting, in RCC / Steel / Masonry and civil works with contractors own tool and labour in order to install Fire Alarm equipment, openings in slabs, or walls, closing of openings, repair work etc. The Contractor is advised to visit the site before filing the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.	Job	1		
1.13.2	One Year Maintenance	Job	1		
1.13.3	<b>Supplementary Works</b>				
1.13.3.1	Shop Drawing & As-build Drawings	Lot	1		
1.13.3.2	Operation and Maintenance Manuals	Lot	1		
<b>Total (PKR)</b>					-

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# National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan

## WAREHOUSE-06

### (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b>				
1	Supply and Installation of <b>Fire Extinguishers</b> of specified type and capacities with wall mounting brackets etc as indicated in drawings. the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
1.1	<b>03 Liters Wet Chemical Fire Extinguisher</b>	No.	1		
1.2	<b>5kg CO2 Fire Extinguisher</b>	No.	35		
1.3	<b>6kg DCP Fire Extinguisher</b>	No.	35		
1.4	<b>6kg Ceiling Mounted Automatic Fire Extinguisher (Halotron)</b>	No.	2		
4	Supply, Installation, testing and commissioning of wall mounted <b>Dual Fire Hose Cabinet</b> with double vertical cabinet as per NFPA-14, Upper compartment consisting of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve and lower compartment consisting of 2.5" x 100 ft polyester collapsible fire hose and with 2.5" diameter landing valve with quick coupling, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish, and with valve and nozzle and accessories, complete in all respects as per specifications, drawings.				
4.1	<b>Dual Compartment Fire Hose Cabinets</b>	Nos.	6		
5	Supply, Installation, testing and commissioning of wall mounted <b>Fire Hose Reel with Cabinet</b> (Class-II) as per NFPA-14, Fire Hose Reel shall be of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish with valve and nozzle and accessories, complete in all respects as per specifications.				
5.1	<b>Fire Hose Reel with Cabinet</b>	Nos.	1		
6	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc, and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
6.2	<b>1-1/2" diameter</b>	Rft	105		
6.4	<b>2-1/2" diameter</b>	Rft	60		
7	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc complete in all respects.				
7.1	<b>Pressure Reducing Valve</b>				
7.1.1	<b>2-1/2" diameter</b>	No.	6		

# National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan

## WAREHOUSE-06

### (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

8	Supply and Installation of <b>50 KG DCP Trolley Mounted Fire Extinguisher</b> with portable trolley of specified type and capacities, the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
8.1	<b>50 KG DCP Trolley Mounted Fire Extinguishers</b>	<b>Nos.</b>	<b>4</b>		
9	Supply, installation, testing and commissioning of approved <b>Fire Rated Door &amp; Assemblies</b> at locations shown on drawings, complete in all respects, in accordance with NFPA 80, NFPA 101 and applicable codes comprising UL Listed fire rated doors and frames of specified ratings in NFPA including all components of the tested assembly such as fire rated glazing (if applicable), intumescent and smoke seals, frames, anchors, and approved hardware (hinges, door closers, panic devices, locks, handles ensuring compliance with installation tolerances, clearances, self-closing and positive latching requirements, scope shall also include all necessary civil works (cutting, modifications, grouting, plastering, making good of openings), surface finishing/painting, labeling and certification, submission of shop drawings and material submittals for approval, coordination with other trades and carrying out inspection and functional testing to ensure full compliance complete in all respects as per specifications, drawings.				
9.1	<b>Fire Rated Door &amp; Assemblies</b>	<b>Each</b>	<b>4</b>		
10	Providing and installation of <b>Fire Blankets</b> conforming ASTM F 1989-05 standard as indicated in drawings with a protective cover with clear indication that how to extract and use it, complete in all respects as per specification and drawings.				
10.1	<b>Fire Blankets</b>	<b>Each</b>	<b>1</b>		
11	Providing and installation of <b>Personal Protective Equipment (PPE)</b> , this includes safety cabinet, front Glass door with locking arrangements, fire blanket, safety helmets (minimum two), safety leather gloves (minimum two), Safety goggles Dark/Clear x2, Safety Shoes x2 pair, Fire Fighting gum shoes x1, Safety vest reflecting jacket (minimum two), Fireman Hammer x1, Fireman Axe x1, Half face mask x1, Portable rechargeable search light x1, fire escape mask x1 complete in all respects as per specifications, drawings.				
11.1	<b>Personal Protective Equipment (PPE)</b>	<b>Each</b>	<b>6</b>		
<b>Miscellaneous:</b>					
12	Supply, installation, inspection and completion of <b>Passive Fire Protection works</b> at locations indicated on drawings and in accordance with NFPA-101, NFPA-5000, other applicable standards and local authority requirements including but not limited to Anti Slip walk tape, Anti Shatter sheet on glass, Fire Cement, Duct fire rated, protection, sealing of any openings with fire resistant material with approved sealants, shall be completed in all respects.				
12.1	<b>Passive Fire Protection works</b>	<b>Lot</b>	<b>1</b>		
13	The Contractor shall carry out all <b>Civil Works</b> required to complete the firefighting works, This includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labor in order to install firefighting equipment and piping etc, openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.				
13.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		

# National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan

## WAREHOUSE-06

### (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

14	Providing and installation of <b>Pipe Sleeves in masonry works</b> , all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.				
14.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
15	Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed were advised for required for Fire Fighting complete in all respects as per specification.				
15.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
16	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
17	Supplementary works				
17.1	<b>Shop Drawings &amp; As Built Drawings</b>	<b>Lot</b>	<b>1</b>		
17.2	<b>Operation &amp; Maintenance Manuals</b>	<b>Lot</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan  
**WAREHOUSE-06**  
**Fire Detection System warehouse-06**

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b>				
1	Providing, fixing, testing and commissioning of recessed <b>Pendent Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be ESFR (Early Suppression Fast Response) type having 3/4-inch NPT threads with approved K factor (16.8) and temperature rating with chrome finish & UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.				
1.1	<b>Fire Sprinklers</b>	<b>Each</b>	<b>1,207</b>		
2	Providing, fixing, testing and commissioning of recessed <b>Pendent/Upright Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be quick response type having 1/2-inch NPT threads with approved K factor (5.6) and temperature rating with chrome finish & UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.				
2.1	<b>Fire Sprinklers (Inside Office Space)</b>	<b>Each</b>	<b>41</b>		
3	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc, and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
3.1	<b>1" diameter</b>	<b>Rft</b>	<b>265</b>		
3.2	<b>1-1/4" diameter</b>	<b>Rft</b>	<b>5,965</b>		
3.3	<b>1-1/2" diameter</b>	<b>Rft</b>	<b>1,750</b>		
3.4	<b>2" diameter</b>	<b>Rft</b>	<b>1,668</b>		
3.5	<b>2-1/2" diameter</b>	<b>Rft</b>	<b>1,435</b>		
3.6	<b>3" diameter</b>	<b>Rft</b>	<b>1,140</b>		
3.7	<b>4" diameter</b>	<b>Rft</b>	<b>708</b>		
3.8	<b>6" diameter</b>	<b>Rft</b>	<b>1,195</b>		
4	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc complete in all respects.				
4.1	<b>Gate Valve Rising Stem</b>				
4.1.1	2" diameter	<b>No.</b>	<b>6</b>		
4.1.2	6" diameter	<b>No.</b>	<b>3</b>		
4.2	<b>Non-Return Valve</b>				
4.2.1	6" diameter	<b>No.</b>	<b>3</b>		
4.3	<b>Pressure Reducing Valve</b>				
4.3.1	6" diameter	<b>No.</b>	<b>3</b>		

4.4	<b>Flow Switch</b>	<b>Each</b>	<b>3</b>		
4.5	<b>Pressure Gauge</b>	<b>Each</b>	<b>3</b>		
4.6	<b>Sight Glass</b>	<b>Each</b>	<b>3</b>		
<b>Miscellaneous:</b>					
5	<p>The Contractor shall carry out all <b>Civil Works</b> required to complete the fire fighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labor in order to install firefighting equipment and piping etc, openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respect.</p>				
5.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		
6	<p>Providing and installation of <b>Pipe Sleeves in masonry works</b>, all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.</p>				
6.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
7	<p>Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed where advised for required for Fire Fighting complete in all respects as per specification.</p>				
7.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
8	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

**National Logistics Corporation Harraka Logistics Park Rawalpindi**

**WAREHOUSE-6**

**FIRE DETECTION SYSTEM WAREHOUSE-6**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions and as directed by the Engineer.</b>				
<b>1.1</b>	<b><u>ADDRESSABLE FIRE ALARM CONTROL PANEL ( FACP)</u></b>				
1.1.1	Supply, Installation, Testing and commissioning of microprocessor- based addressable Fire Alarm Control Panel. System shall be fully addressable, intelligent and modular. 2 loops expandable up to required capacity. Capable of integration with Fire Detection Devices, Fire Suppression Systems and BMS if required. The Fire Alarm Control Panel shall be provided with a sealed maintenance-free battery backup system with sufficient capacity to operate the system under normal supervisory conditions, followed by alarm condition operation, in accordance with NFPA 72 requirements. Complete in all respects.	<b>Nos</b>	<b>1</b>		-
<b>1.2</b>	<b><u>ADDRESSABLE BEAM DETECTORS</u></b>				
1.2.1	Supply, Installation, Testing and commissioning of reflective type projected beam detectors EN-54-12 compliant complete with reflective plates, mounting accessories, and all required interfaces complete in all respects.	<b>Nos</b>	<b>20</b>		-
<b>1.3</b>	<b><u>ADDRESSABLE SMOKE DETECTORS</u></b>				
1.3.1	Supply, Installation, Testing and Commissioning of addressable smoke detectors EN-54-7 compliant compatible with the proposed Fire Alarm Control Panel. Detector shall be supplied with Standard mounting base, locking mechanism to prevent unauthorized removal, and compatible with standard junction boxes, complete in all respects.	<b>Nos</b>	<b>16</b>		-
<b>1.4</b>	<b><u>ZONE CONTROL INTERFACE</u></b>				

**FIRE DETECTION SYSTEM WAREHOUSE-6**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
1.4.1	Supply, Installation, Testing and Commissioning of Zone Control Assembly Interface module complete with all accessories, wiring, containment and integration with the Fire Alarm System (As per Firefighting drawings). Complete in all respects.	<b>Nos</b>	<b>3</b>		
<b>1.5</b>	<b><u>ADDRESSABLE ALARM SOUNDERS</u></b>				

1.5.1	Supply, Installation, Testing and commissioning of addressable wall mount electronic sounder. Loop powered, with selectable tones and minimum 90 dB output, complete with all accessories, complying with NFPA 72 / EN 54-3. Complete in all respects.	Nos.	13		-
<b>1.6</b>	<b><u>ADDRESSABLE FLASHERS</u></b>				
1.6.1	Supply, installation, testing and commissioning of wall mount addressable visual alarm device (strobe), high-intensity LED type, compliant with EN 54-23, complete with all accessories.	Nos.	13		-
<b>1.7</b>	<b><u>MANUAL CALL POINTS</u></b>				
1.7.1	Supply, installation, testing, and commissioning of wall mount manual call point (MCP), break glass or resettable type, red colored, loop powered, compatible with fire alarm control panel, complete with back box, LED indicator, key reset facility, and all necessary accessories including interconnection with fire alarm loop wiring and testing as per EN 54 / NFPA standards. Complete in all respects.	Nos.	13		
<b>1.8</b>	<b><u>FIRE ALARM LOOP CABLE</u></b>				
1.8.1	Supply, installation, testing and commissioning of 2-core x 1.5mm <sup>2</sup> + ECC shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification. All wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387 <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	RM	2110		-
<b>1.9</b>	<b><u>EMERGENCY LIGHTS CABLE</u></b>				
1.9.1	Supply, installation, testing and commissioning of 3 x 2.5 mm <sup>2</sup> shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification. All wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387. <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	RM	1400		

**FIRE DETECTION SYSTEM WAREHOUSE-6**

<b>Item no.</b>	<b>Item Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Unit Rate (PKR)</b>	<b>Amount (PKR)</b>
<b>1.10</b>	<b><u>CONDUITS</u></b>				
1.10.1	Supply and installation of Electrical Metal Tube (EMT) conduits with all fittings, supports, and accessories complete in all respects or as approved by the Consultant. <b>Note: Actual length of conduits to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of conduits are shown herewith. Payments shall be made as per actual length installed.</b>	<b>RM</b>	<b>3510</b>		
<b>1.11</b>	<b><u>EMERGENCY LIGHTS</u></b>				
1.11.1	Supply, installation, testing and commissioning of self-contained LED emergency light fitting, complete with backup (minimum 120 minutes), automatic operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / IEC standards.	<b>Nos</b>	<b>77</b>		-
<b>1.12</b>	<b><u>FIRE EXIT SIGN</u></b>				
1.12.1	Supply, installation, testing and commissioning of LED illuminated fire exit sign (running man type), double sided, complete with backup (minimum 120 minutes), maintained operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / ISO 7010 standards.	<b>Nos</b>	<b>6</b>		-
<b>1.13</b>	<b><u>MISCELLANEOUS</u></b>				
1.13.1	<b>Civil works related to Fire Alarm</b> The contractor shall carry out all Civil Works required to complete the Fire Alarm works, This includes (but not limited to) Provision of opening, chases, core cutting, in RCC / Steel / Masonry and civil works with contractors own tool and labour in order to install Fire Alarm equipment, openings in slabs, or walls, closing of openings, repair work etc. The Contractor is advised to visit the site before filing the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.	<b>Job</b>	<b>1</b>		
1.13.2	One Year Maintenance	<b>Job</b>	<b>1</b>		
1.13.3	<b>Supplementary Works</b>				
1.13.3.1	Shop Drawing & As-build Drawings	<b>Lot</b>	<b>1</b>		
1.13.3.2	Operation and Maintenance Manuals	<b>Lot</b>	<b>1</b>		
<b>Total (PKR)</b>					-

National Logistics Corporation Harraka Logistics Park,  
Rawalpindi, Pakistan

WAREHOUSE-07

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b>				
1	Supply and Installation of <b>Fire Extinguishers</b> of specified type and capacities with wall mounting brackets etc as indicated in drawings. the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
1.1	<b>03 Liters Wet Chemical Fire Extinguisher</b>	<b>No.</b>	<b>1</b>		
1.2	<b>5kg CO2 Fire Extinguisher</b>	<b>No.</b>	<b>35</b>		
1.3	<b>6kg DCP Fire Extinguisher</b>	<b>No.</b>	<b>35</b>		
1.4	<b>6kg Ceiling Mounted Automatic Fire Extinguisher (Halotron)</b>	<b>No.</b>	<b>2</b>		
4	Supply, Installation, testing and commissioning of wall mounted <b>Dual Fire Hose Cabinet</b> with double vertical cabinet as per NFPA-14, Upper compartment consisting of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve and lower compartment consisting of 2.5" x 100 ft polyester collapsible fire hose and with 2.5" diameter landing valve with quick coupling, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish, and with valve and nozzle and accessories, complete in all respects as per specifications, drawings.				
4.1	<b>Dual Compartment Fire Hose Cabinets</b>	<b>Nos.</b>	<b>6</b>		
5	Supply, Installation, testing and commissioning of wall mounted <b>Fire Hose Reel with Cabinet</b> (Class-II) as per NFPA-14, Fire Hose Reel shall be of 1" diameter swinging arm type 100 feet long fire hose reel with Pressure Reducing Valve, the cabinet shall be made with mild steel 16-gauge sheet with approved color and polyester powder coating finish with valve and nozzle and accessories, complete in all respects as per specifications, drawings.				
5.1	<b>Fire Hose Reel with Cabinet</b>	<b>Nos.</b>	<b>1</b>		
6	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc, and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
6.2	<b>1-1/2" diameter</b>	<b>Rft</b>	<b>105</b>		
6.4	<b>2-1/2" diameter</b>	<b>Rft</b>	<b>60</b>		
7	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc. complete in all respects.				
7.1	<b>Pressure Reducing Valve</b>				
7.1.1	2-1/2" diameter	<b>No.</b>	<b>6</b>		

National Logistics Corporation Harraka Logistics Park,  
Rawalpindi, Pakistan

**WAREHOUSE-07**

8	Supply and Installation of <b>50 KG DCP Trolley Mounted Fire Extinguisher</b> with portable trolley of specified type and capacities, the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
8.1	<b>50 KG DCP Trolley Mounted Fire Extinguishers</b>	<b>Nos.</b>	<b>4</b>		
9	Supply, installation, testing and commissioning of approved <b>Fire Rated Door &amp; Assemblies</b> at locations shown on drawings, complete in all respects, in accordance with NFPA 80, NFPA 101 and applicable codes comprising UL Listed fire rated doors and frames of specified ratings in NFPA including all components of the tested assembly such as fire rated glazing (if applicable), intumescent and smoke seals, frames, anchors, and approved hardware (hinges, door closers, panic devices, locks, handles ensuring compliance with installation tolerances, clearances, self-closing and positive latching requirements, scope shall also include all necessary civil works (cutting, modifications, grouting, plastering, making good of openings), surface finishing/painting, labeling and certification, submission of shop drawings and material submittals for approval, coordination with other trades and carrying out inspection and functional testing to ensure full compliance complete in all respects as per specifications, drawings.				
9.1	<b>Fire Rated Door &amp; Assemblies</b>	<b>Each</b>	<b>4</b>		
10	Providing and installation of <b>Fire Blankets</b> conforming ASTM F 1989-05 standard as indicated in drawings with a protective cover with clear indication that how to extract and use it, complete in all respects as per specification and drawings.				
10.1	<b>Fire Blankets</b>	<b>Each</b>	<b>1</b>		
11	Providing and installation of <b>Personal Protective Equipment (PPE)</b> , this includes safety cabinet, front Glass door with locking arrangements, fire blanket, safety helmets (minimum two), safety leather gloves (minimum two), Safety goggles Dark/Clear x2, Safety Shoes x2 pair, Fire Fighting gum shoes x1, Safety west reflecting jacket (minimum two), Fireman Hammer x1, Fireman Axe x1, Half face mask x1, Portable rechargeable search light x1, fire escape mask x1 complete in all respects as per specifications, drawings.				
11.1	<b>Personal Protective Equipment (PPE)</b>	<b>Each</b>	<b>6</b>		
<b>Miscellaneous:</b>					
12	Supply, installation, inspection and completion of <b>Passive Fire Protection works</b> at locations indicated on drawings and in accordance with NFPA-101, NFPA-5000, other applicable standards and local authority requirements including but not limited to Anti Slip walk tape, Anti Shatter sheet on glass, Fire Cement, Duct fire rated, protection, sealing of any openings with fire resistant material with approved sealants, shall be completed in all respect.				
12.1	<b>Passive Fire Protection works</b>	<b>Lot</b>	<b>1</b>		
13	The Contractor shall carry out all <b>Civil Works</b> required to complete the firefighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labour in order to install firefighting equipment and piping etc., openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.				
13.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		

National Logistics Corporation Harraka Logistics Park,  
Rawalpindi, Pakistan

**WAREHOUSE-07**

14	Providing and installation of <b>Pipe Sleeves in masonry works</b> , all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.				
14.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
15	Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed were advised for required for Fire Fighting complete in all respects as per specification				
15.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
16	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
17	Supplementary works				
17.1	<b>Shop Drawings &amp; As Built Drawings</b>	<b>Lot</b>	<b>1</b>		
17.2	<b>Operation &amp; Maintenance Manuals</b>	<b>Lot</b>	<b>1</b>		
<b>Total</b>					-

National Logistics Corporation Harraka Logistics Park, Rawalpindi, Pakistan  
**WAREHOUSE-07**  
 (Internal Fire Fighting Works Excluding Sprinklers & Associated Piping)

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b>				
1	Providing, fixing, testing and commissioning of recessed <b>Pendent Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be ESFR (Early Suppression Fast Response) type having 3/4-inch NPT threads with approved K factor (16.8) and temperature rating with chrome finish & UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.				
1.1	<b>Fire Sprinklers</b>	Each	1,207		
2	Providing, fixing, testing and commissioning of recessed <b>Pendent/Upright Sprinklers</b> or as required with slip on style escutcheons plates (where required) of color and design, the sprinkler shall be quick response type having 1/2-inch NPT threads with approved K factor (5.6) and temperature rating with chrome finish & UL/ULC Listed for approved manufacturer, complete in all respects as per drawings, specifications.				
2.1	<b>Fire Sprinklers (Inside Office Space)</b>	Each	41		
3	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc., and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
3.1	<b>1" diameter</b>	Rft	265		
3.2	<b>1-1/4" diameter</b>	Rft	5,965		
3.3	<b>1-1/2" diameter</b>	Rft	1,750		
3.4	<b>2" diameter</b>	Rft	1,668		
3.5	<b>2-1/2" diameter</b>	Rft	1,435		
3.6	<b>3" diameter</b>	Rft	1,140		
3.7	<b>4" diameter</b>	Rft	708		
3.8	<b>6" diameter</b>	Rft	1,195		
4	Supply and installation of <b>Water Flow Devices</b> of PN-20 pressure rating, these shall be complete with flanges, nut bolts, gaskets, union etc. complete in all respects.				
4.1	<b>Gate Valve Rising Stem</b>				
4.1.1	2" diameter	No.	6		
4.1.2	6" diameter	No.	3		
4.2	<b>Non-Return Valve</b>				
4.2.1	6" diameter	No.	3		
4.3	<b>Pressure Reducing Valve</b>				
4.3.1	6" diameter	No.	3		

4.4	<b>Flow Switch</b>	<b>Each</b>	<b>3</b>		
4.5	<b>Pressure Gauge</b>	<b>Each</b>	<b>3</b>		
4.6	<b>Sight Glass</b>	<b>Each</b>	<b>3</b>		
<b>Miscellaneous:</b>					
5	<p>The Contractor shall carry out all <b>Civil Works</b> required to complete the fire fighting works, this includes (but not limited to) Provision of opening, chases, core cutting in RCC/masonry and civil works with contractor's own tool plant and labor in order to install firefighting equipment and piping etc., openings in slab or walls, closing of openings, repair work etc. The contractor is advised to visit the site before filling the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.</p>				
5.1	<b>Civil Works related to Fire Fighting Works</b>	<b>Lot</b>	<b>1</b>		
6	<p>Providing and installation of <b>Pipe Sleeves in masonry works</b>, all the sleeves shall be of approved quality and make and shall be installed as recommended by the manufacturer, the sleeves shall be of adequate size and material with proper sealant and shall be placed where advised for required for Fire Fighting pipes complete in all respects as per specification and drawings.</p>				
6.1	<b>Sleeves</b>	<b>Lot</b>	<b>1</b>		
7	<p>Providing and installation of <b>Escutcheon Plates</b> where all pipes passing through wall floor or slab, the construction of Escutcheon plates shall be as per specifications and shall be installed as recommended by the manufacturer, the Escutcheon plates shall be of adequate size and material with proper installation and shall be placed where advised for required for Fire Fighting complete in all respects as per specification.</p>				
7.1	<b>Escutcheon Plates</b>	<b>Lot</b>	<b>1</b>		
8	<b>One Year Maintenance</b>	<b>Job</b>	<b>1</b>		
<b>Total</b>					<b>-</b>

**National Logistics Corporation Harraka Logistics Park Rawalpindi  
WAREHOUSE-7**

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions and as directed by the Engineer.</b>				
<b>1.1</b>	<b><u>ADDRESSABLE FIRE ALARM CONTROL PANEL ( FACP)</u></b>				
1.1.1	Supply, Installation, Testing and commissioning of microprocessor- based addressable Fire Alarm Control Panel. System shall be fully addressable, intelligent and modular. 2 loops expandable up to required capacity. Capable of integration with Fire Detection Devices, Fire Suppression Systems and BMS if required. The Fire Alarm Control Panel shall be provided with a sealed maintenance-free battery backup system with sufficient capacity to operate the system under normal supervisory conditions, followed by alarm condition operation, in accordance with NFPA 72 requirements. Complete in all respects.	Nos	1		-
<b>1.2</b>	<b><u>ADDRESSABLE BEAM DETECTORS</u></b>				
1.2.1	Supply, Installation, Testing and commissioning of reflective type projected beam detectors EN-54-12 compliant complete with reflective plates, mounting accessories, and all required interfaces complete in all respects.	Nos	20		-
<b>1.3</b>	<b><u>ADDRESSABLE SMOKE DETECTORS</u></b>				
1.3.1	Supply, Installation, Testing and Commissioning of addressable smoke detectors EN-54-7 compliant compatible with the proposed Fire Alarm Control Panel. Detector shall be supplied with Standard mounting base, locking mechanism to prevent unauthorized removal, and compatible with standard junction boxes, complete in all respects.	Nos	16		-
<b>1.4</b>	<b><u>ZONE CONTROL INTERFACE</u></b>				

**FIRE DETECTION SYSTEM WAREHOUSE-7**

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
1.4.1	Supply, Installation, Testing and Commissioning of Zone Control Assembly Interface module complete with all accessories, wiring, containment and integration with the Fire Alarm System (As per Firefighting drawings). Complete in all respects.	Nos	3		
<b>1.5</b>	<b><u>ADDRESSABLE ALARM SOUNDERS</u></b>				
1.5.1	Supply, Installation, Testing and commissioning of addressable wall mount electronic sounder. Loop powered, with selectable tones and minimum 90 dB output, complete with all accessories, complying with NFPA 72 / EN 54-3. Complete in all respects.	Nos.	13		-

<b>1.6</b>	<b><u>ADDRESSABLE FLASHERS</u></b>				
1.6.1	Supply, installation, testing and commissioning of wall mount addressable visual alarm device (strobe), high-intensity LED type, compliant with EN 54-23, complete with all accessories. Complete in all respects.	<b>Nos.</b>	<b>13</b>		<b>-</b>
<b>1.7</b>	<b><u>MANUAL CALL POINTS</u></b>				
1.7.1	Supply, installation, testing, and commissioning of wall mount manual call point (MCP), break glass or resettable type, red colored, loop powered, compatible with fire alarm control panel, complete with back box, LED indicator, key reset facility, and all necessary accessories including interconnection with fire alarm loop wiring and testing as per EN 54 / NFPA standards. Complete in all respects.	<b>Nos.</b>	<b>13</b>		
<b>1.8</b>	<b><u>FIRE ALARM LOOP CABLE</u></b>				
1.8.1	Supply, installation, testing and commissioning of 2-core x 1.5mm <sup>2</sup> + ECC shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387 <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	<b>RM</b>	<b>2110</b>		<b>-</b>
<b>1.9</b>	<b><u>EMERGENCY LIGHTS CABLE</u></b>				
1.9.1	Supply, installation, testing and commissioning of 3 x 2.5 mm <sup>2</sup> shielded LPCB approved Fire resistant, 2-hour rated cable for fire alarm loop wiring, fire alarm critical circuits, complete with conduit, accessories, terminations, and identification. All wiring shall be in accordance with NFPA 72, EN-50200, IEC 60331 and BS 6387. <b>Note: Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed.</b>	<b>RM</b>	<b>1400</b>		

FIRE DETECTION SYSTEM WAREHOUSE-7					
Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
<b>1.10</b>	<b><u>CONDUITS</u></b>				
1.10.1	Supply and installation of Electrical Metal Tube (EMT) conduits with all fittings, supports, and accessories complete in all respects or as approved by the Consultant. <b>Note: Actual length of conduits to be installed shall be practically measured at site by the Contractor, duly authenticated by the design consultant before placing the order with the manufacturer, however, approximate length of conduits are shown herewith. Payments shall be made as per actual length installed.</b>	RM	3510		
<b>1.11</b>	<b><u>EMERGENCY LIGHTS</u></b>				
1.11.1	Supply, installation, testing and commissioning of self-contained LED emergency light fitting, complete with backup (minimum 120 minutes), automatic operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / IEC standards.	Nos	77		-
<b>1.12</b>	<b><u>FIRE EXIT SIGN</u></b>				
1.12.1	Supply, installation, testing and commissioning of LED illuminated fire exit sign (running man type), double sided, complete with backup (minimum 120 minutes), maintained operation, and all accessories, complete in all respects complying with NFPA 101 / EN 1838 / ISO 7010 standards.	Nos	6		-
<b>1.13</b>	<b><u>MISCELLANEOUS</u></b>				
1.13.1	<b>Civil works related to Fire Alarm</b> The contractor shall carry out all Civil Works required to complete the Fire Alarm works, this includes (but not limited to) Provision of opening, chases, core cutting, in RCC / Steel / Masonry and civil works with contractors own tool and labor in order to install Fire Alarm equipment, openings in slabs, or walls, closing of openings, repair work etc. The Contractor is advised to visit the site before filing the BOQ and workout the exact quantum of civil works, which shall be completed in all respects.	Job	1		
1.13.2	One Year Maintenance	Job	1		
1.13.3	<b>Supplementary Works</b>				
1.13.3.1	Shop Drawing & As-build Drawings	Lot	1		
1.13.3.2	Operation and Maintenance Manuals	Lot	1		
<b>Total (PKR)</b>					-

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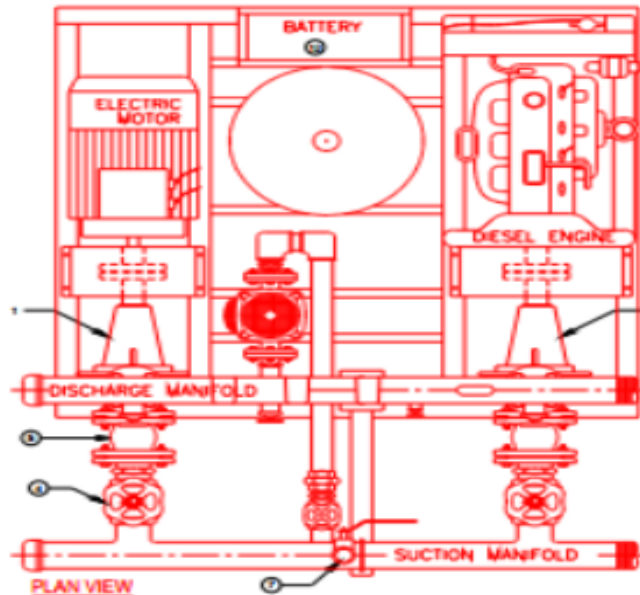
**FIRE FIGHTING EXTERNAL WORKS**

Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
	<b>This BOQ shall be read in conjunction with Drawings, Technical Specifications and Conditions of the Contract and all under mentioned works shall be completed, tested and commissioned in all respects as per Tender Documents and as per instructions of the Consultant. The quantities given in this BOQ are not the exact quantities. If there any discrepancies found in tender documents, it must be brought to Consultant's knowledge before quoting the prices. Supply, installation, Testing and commissioning of the following items /Equipment of work, including all material and for proper completion of each item as per specifications shall be as per instructions.</b>				
	<b>Fire Fighting:</b>				
1	Supply, Installation, testing, commissioning, adjusting and balancing of <b>Fire Fighting Pumping set (UL Listed)</b> , fire pump set shall be including one main electric motor driven pump, one diesel engine driven pump and one jockey pump in accordance with NFPA-20, and shall deliver 1500 US Gallons capacity at 11 bar discharge pressure, the complete pumping set shall be skid mounted with operating panel, fuel tank all controls as described in NFPA-20, this also includes the fire rated electric power supply, earthing etc. to the pumping set from main panel as recommended by NFPA, preparation of foundation, electric and water supply connections, the pumping set shall be installed as recommended by NFPA, UL Listed and shall be complete in all respects as per specifications, drawings.				
1.1	<b>Fire Pump Set (UL Listed) 1500 US GPM, 11 bar Pressure</b>	Each	1		
2	Supply, Installation, testing and commissioning of wall mounted <b>2-way Breaching Inlet</b> with cabinet & built-in non-return valve, the cabinet shall have 02 number water connection for 2-1/2 coupling with cover and 4-inch diameter outlet flange, the cabinet shall be made of mild steel with cover having glass and stainless steel connections, complete in all respects as per specifications, drawings.				
2.1	<b>2-way Breaching Inlet and Cabinet</b>	Each	4		
3	Supply, Installation, testing and commissioning of Black seamless <b>M.S schedule 40 Piping</b> with all type fittings and specials such as tees, sockets, elbows, bends, unions, reducers etc., and painting with primer and final finish coats, and fixing with approved quality pipe hanging and support system hot dipped galvanized and specially designed for firefighting installations, complete in all respects as per drawings, specifications.				
3.1	<b>2-1/2" diameter</b>	Rft	672		
3.2	<b>4" diameter</b>	Rft	2,659		
3.3	<b>6" diameter</b>	Rft	3,769		
3.4	<b>8" diameter</b>	Rft	2,396		
4	Supply and installation of <b>Water Flow Devices PN-20</b> for fire protection systems, complete in all respects in strict compliance with NFPA 13 and manufacturers UL/FM listing requirements. Each unit shall be provided with flanged connections complete with mating flanges, nuts, bolts, washers, gaskets, and required pipe fittings/adapters, ensuring leak free installation complete in all respects.				
4.1	<b>Gate Valve Rising Stem</b>				
4.1.1	8" diameter OS & Y	No.	1		
4.1.2	8" diameter Pressure Relief Valve with test Cone (Pump Discharge Line)	No.	1		
4.1.3	Flow Meter (Pump Discharge Line)	No.	1		
4.2	<b>Anti-Vortex Plate (complete in all respects as approved by the Consultant)</b>	Each	1		
5	Supply and installation of <b>50 KG DCP Trolley Mounted Fire Extinguisher</b> with portable trolley of specified type and capacities, the fire extinguishers shall be installed as specified in NFPA-10 complete in all respects as per specifications drawings.				
5.1	<b>50 KG DCP Trolley Mounted Fire Extinguishers</b>	Nos.	1		

**FIRE FIGHTING EXTERNAL WORKS**

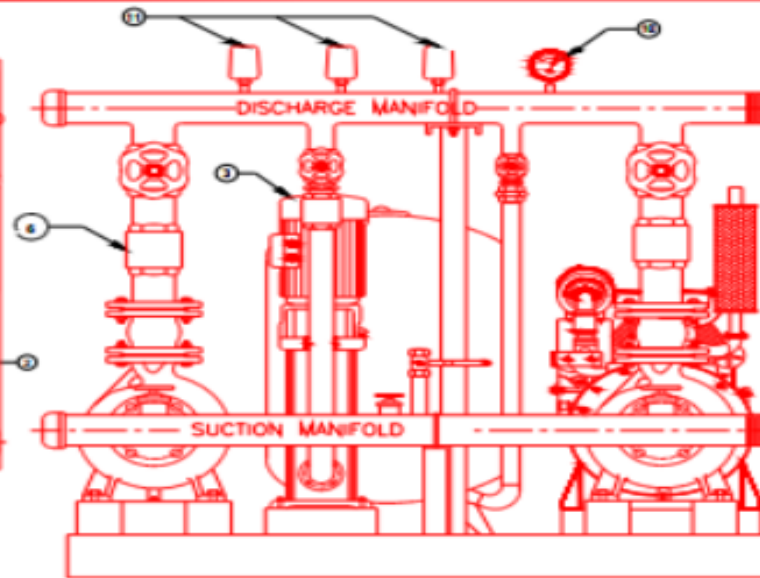
Item no.	Item Description	Unit	Quantity	Unit Rate (PKR)	Amount (PKR)
6	<p>Supply, Installation, testing and commissioning of <b>Two-Way Wet type (Wet Barrel) Pillar Fire Hydrants</b> in accordance with NFPA-24, NFPA-291 &amp; requirements of local authority having jurisdiction (AHJ), Pillar Hydrant must withstand system designed pressure &amp; test pressure 50 psi (3.5 Bar) above maximum working pressure and deliver required fire flow at minimum 20 psi residual pressure as per NFPA 291, Hydrant bodies shall be factory tested at pressures not less than 300 psi. The Pillar hydrant shall be made of cast iron to BS 1561 and 2 x 65 mm (2½") hose outlet connections shall be of copper alloy BS 1982; Flanges shall be ANSI/AWWA compliant and shall be capable of working pressure as per NFPA and shall be provided with Control Valves with female outlet, pillar hydrant shall be red in color (Class-C as per NFPA-291 having a rated capacity of less than 500 gpm (1900 L/min) and shall be installed with galvanized flange on reinforced concrete pedestal of adequate size complete in all respects as per drawings, specifications and as approved by the Consultant. Note. All related civil works shall be done by the firefighting Contractor for the proper installation of Pillar Hydrant.</p>				
6.1	<b>Two Way Wet Type Pillar Fire Hydrants</b>	Nos.	26		
7	<p>Supply, Installation, testing and commissioning of <b>Hydrant Cabinet (Fire Hoses, Nozzles and Cabinet)</b> all these items shall be from same manufacturer, there shall be two fire hoses in hydrant cabinet, each fire hose shall be of 2-1/2" x 100 feet capable to operate at system maximum pressure, shall be rubber lined woven jacket hose and shall be provided with aluminum coupling connections at both ends, and 2 x hose nozzles shall be made of copper alloy according to BS 1982 with 12-19 mm outlet diameter and 2-1/2" male couple, both shall be placed in a cabinet. the cabinet shall be made of minimum 1.2 mm thick mild steel and shall be polyester powder coated in red color and shall be mounted on stand or as per site conditions all inclusive, pin lug spanner wrench, 2 x 2.5" rubber gasket and all other accessories are included, complete in all respects as per specifications, drawings.</p>				
7.1	<b>Hydrant Cabinet (Fire Hoses, Nozzles and Cabinet)</b>	Nos.	26		
8	<p>Supply, Installation, Testing and Commissioning of <b>Alarm Check Valve Assembly</b> in compliance with NFPA and size as per discharge header of fire pump set of selected manufacturer recommendation, The assembly shall include UL Listed wet alarm check valve (flanged end connections) suitable for vertical installation and rated for the system working pressure, complete with factory fabricated trim set for constant/variable pressure service including all necessary piping, fittings, drains, test connections, and supervisory provisions. The assembly shall be provided with water motor alarm (hydraulic gong) complete with piping and accessories, chamber inlet and outlet connections, and all required drain/test arrangements for functional testing of the system in accordance with NFPA requirements. This also includes 2 X pressure gauges one installed upstream and one downstream of the alarm valve along with a main system isolation gate valve (flanged) for maintenance isolation. All internal and external trim piping shall specifications and as approved by the Consultant. Note. All related civil works shall be done by the firefighting Contractor for the proper installation of Pillar Hydrates including check valve internals, alarm line strainers, test and drain valves, pressure switches and all fittings necessary to ensure complete operational functionality, all equipment shall be painted red securely mounted in vertical orientation on a stable support structure complete in all aspects and all accessories.</p>				
<b>Total</b>					-





**NOTES:**

1. FIRE FIGHTING PUMP ROOM SHALL BE IN ACCORDANCE WITH NFPA-20.
2. FIRE FIGHTING PUMP ROOM EQUIPMENT SHALL BE INSTALLED ACCORDING TO APPROVED SUBMITTAL BY THE DESIGN CONSULTANT.
3. GENERATOR EXHAUST PIPE MUST BE DISCHARGED PROPERLY.
4. PUMP ROOM TEMPERATURE SHALL NOT BE LESS THEN 40°F AND NOT GREATER THEN 70°F.  
PUMP ROOM DRAINAGE PIT WILL BE PROVIDED WITH SUBMERSIBLE PUMP (IF REQUIRED).
5. FIRE PUMP ROOM SHALL BE PROTECTED WITH AUTOMATIC FIRE EXTINGUISHER AND PROVIDE ADEQUATE LIGHT IN PUMP ROOM.



S.NO	DESCRIPTION	S.NO	DESCRIPTION
1.	ELECTRIC PUMP SET	7.	BALL VALVE
2.	DIESEL PUMP SET	8.	SUCTION MANFOLD
3.	JOCKEY PUMP SET	9.	DELAYED MANFOLD
4.	GATE VALVE	10.	PRESSURE GAUGE
5.	FLEXIBLE COUPLING	11.	PRESSURE SWITCH
6.	NON RETURN VALVE	12.	BATTERY

**FIRE FIGHTING PUMP SET  
UL LISTED**  
 1 X ELECTRIC MAIN PUMP  
 1 X DIESEL ENGINE  
 1 X JOCKEY PUMP  
 1500 US GPM, 11 BAR

**REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	10/10/2023
2	ISSUED FOR APPROVAL	10/10/2023
3	ISSUED FOR APPROVAL	10/10/2023
4	ISSUED FOR APPROVAL	10/10/2023
5	ISSUED FOR APPROVAL	10/10/2023
6	ISSUED FOR APPROVAL	10/10/2023
7	ISSUED FOR APPROVAL	10/10/2023
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15	ISSUED FOR APPROVAL	10/10/2023
16	ISSUED FOR APPROVAL	10/10/2023
17	ISSUED FOR APPROVAL	10/10/2023
18	ISSUED FOR APPROVAL	10/10/2023
19	ISSUED FOR APPROVAL	10/10/2023
20	ISSUED FOR APPROVAL	10/10/2023

**REVISIONS**

1. ISSUED FOR APPROVAL

2. ISSUED FOR APPROVAL

3. ISSUED FOR APPROVAL

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**REVISIONS**

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVAL	10/10/2023
2	ISSUED FOR APPROVAL	10/10/2023
3	ISSUED FOR APPROVAL	10/10/2023
4	ISSUED FOR APPROVAL	10/10/2023
5	ISSUED FOR APPROVAL	10/10/2023
6	ISSUED FOR APPROVAL	10/10/2023
7	ISSUED FOR APPROVAL	10/10/2023
8	ISSUED FOR APPROVAL	10/10/2023
9	ISSUED FOR APPROVAL	10/10/2023
10	ISSUED FOR APPROVAL	10/10/2023
11	ISSUED FOR APPROVAL	10/10/2023
12	ISSUED FOR APPROVAL	10/10/2023
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**REVISIONS**

1. ISSUED FOR APPROVAL

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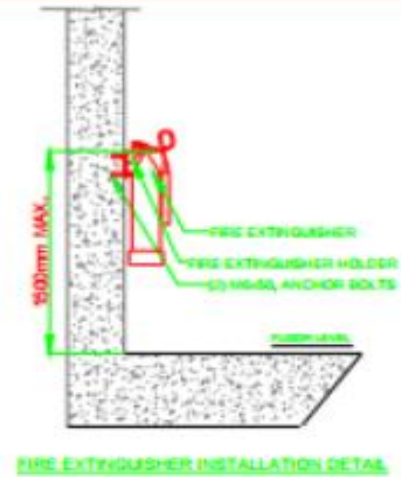
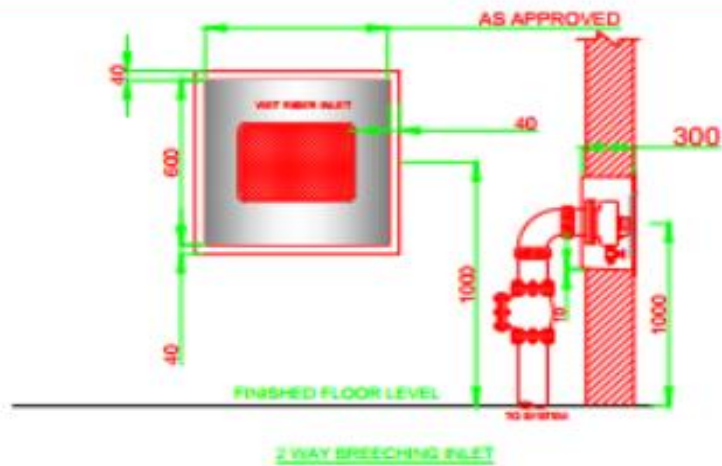
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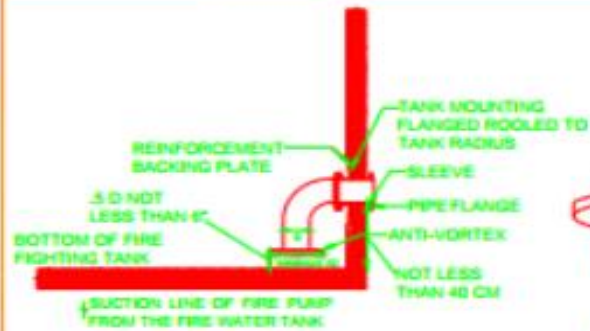
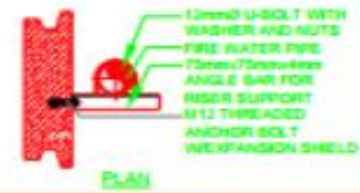
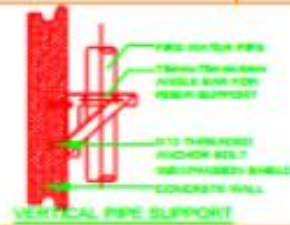
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**REVISIONS**

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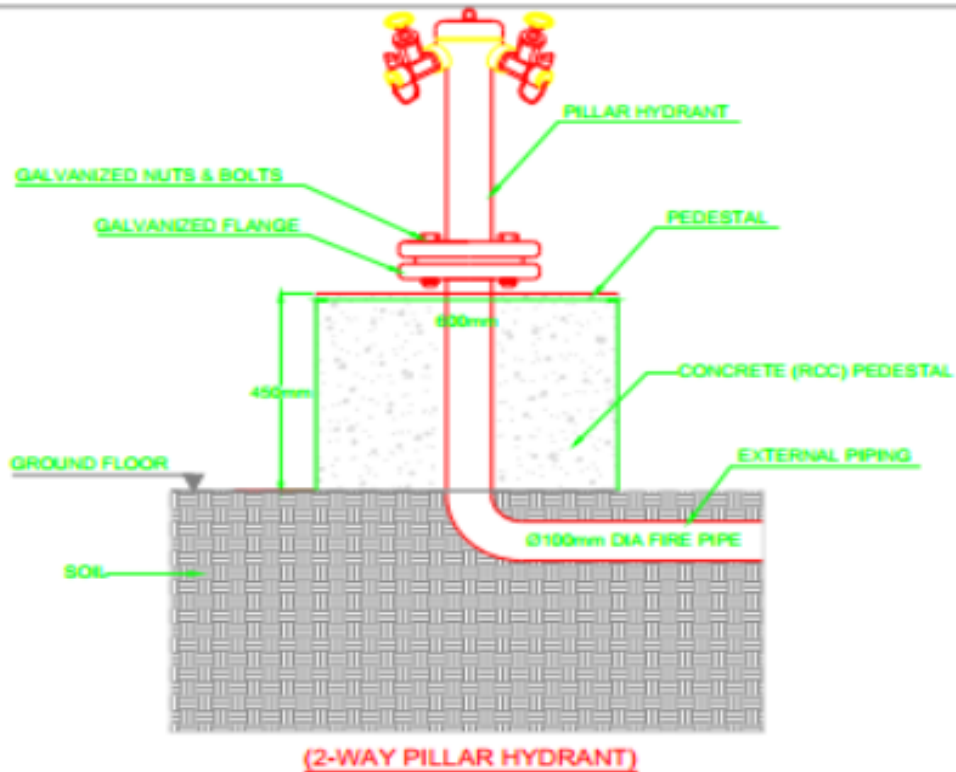
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4	100	100
5	100	100
6	100	100



NO.	REVISION	DATE
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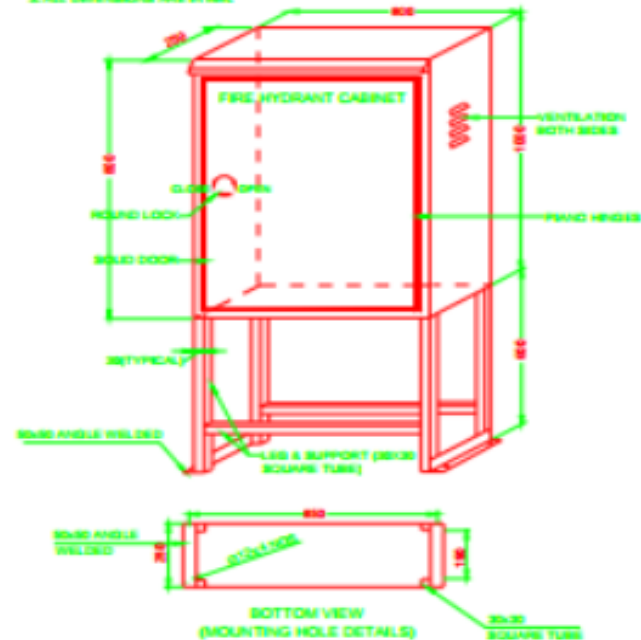
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49	ISSUED FOR TENDER	15/05/2018
50	ISSUED FOR TENDER	15/05/2018



**SPECIFICATIONS**

1. MATERIAL 1.2mm MILD STEEL, RED POWDER COATED
2. DOOR CIRCLE DOOR
3. ALL DIMENSIONS ARE IN MM.



REVISION LOG	
NO.	DESCRIPTION
01	ISSUED FOR APPROVAL
02	REVISIONS MADE AS PER COMMENTS
03	REVISIONS MADE AS PER COMMENTS
04	REVISIONS MADE AS PER COMMENTS
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DATE: \_\_\_\_\_

SCALE: \_\_\_\_\_

PROJECT NO: \_\_\_\_\_

DESIGNER: \_\_\_\_\_

CHECKED: \_\_\_\_\_

APPROVED: \_\_\_\_\_

COMPANY NAME: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

KORAMANGALUR