



Government of Nepal
Ministry of Infrastructure Development
Department of Local Infrastructure Development (DoLID)
Suspension Bridge Division
Shreemahal, Pulchowk, Lalitpur

Invitation for Bids

Date of publication: 2083-06-01

1. The Suspension Bridge Division, Pulchowk, Lalitpur invites Priced Quotations from eligible and qualified Fabricator/Supplier for the Fabrication, Supply and Transportation of Structural Steel Parts for Emergency Maintenance of Trail Bridges affected by Bhotekoshi/Trishuli Flood, as per section 66 of PPA, 2063 and Rule 145 of PPR, 2064.
2. Notice No.: DIS-G-02/083/84

S.N.	Description	Quantity	Place of Delivery	Estimated amount (without VAT)
1	Structural Steel	55841.78 kg	Roadhead, Galchhi, Dhading	1,48,03,425.47
2	Wiremesh Netting	2978.30 m ²		
3	Bolts, Nut and Washers	1310.97 kg		
4	12 SWG GI Binding wire	366.56 kg		
5	Hot Dip Galvanization	55,841.78 kg		
6	Transportation of Fabricated Material	66,370.02 kg		

3. Eligible Bidders may download bid document from the website of Department of Local Infrastructure and Development (DoLID); <https://doli.gov.np> for bid submission purpose.
4. Last Date of Submission of bid: 14:00 hrs on 2083-06-04, irrespective of any public holiday falling on the stipulated date, Opening of the bids: 14:15 hrs on 2083-06-04 at Suspension Bridge Division, Pulchowk, Lalitpur. Submission of bid must be through hardcopy only to Suspension Bridge Division, Pulchowk, Lalitpur.
5. Mandatory Documents: Firm/Company Registration Certificate, VAT/PAN Registration, Tax Clearance Certificate or evidence of submission of tax returns up to FY 2081/82.

Project Chief



Government of Nepal
Ministry of Infrastructure Development
Department of Local Infrastructure Development (DoLID)
Suspension Bridge Division
Shreemahal, Pulchowk, Lalitpur

BIDDING DOCUMENT

for

THE PROCUREMENT OF

***Fabrication, Supply and Transportation of Structural Steel
Parts for Emergency Maintenance of Trail Bridges affected by
Bhotekoshi/Trishuli Flood***

Issued on: 2083/06/01
Invitation for Bids No.: DIS-G-02/083/84
Contract Identification No.: DIS-G-02/083/84



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Government of Nepal
Ministry of Infrastructure Development
Department of Local Infrastructure Development (DoLID)
Suspension Bridge Division
Shreemahal, Pulchowk, Lalitpur

Section I. Invitation for Purchase of Goods

1. The **Suspension Bridge Division** invites Priced Quotations for the **Fabrication, Supply and Transportation of Structural Steel Parts for Emergency Maintenance of Trail Bridges affected by Bhotekoshi/Trishuli Flood** as detailed in attached Specifications and the Schedule of Requirements provided herein.
2. The Price Quotation submitted by the Bidder shall comprise the following:
 - a. Quotation and Price Schedules
 - b. Schedule of Requirements
 - c. Technical Specifications
3. Eligible Bidders may download bid document from the website of Department of Local Infrastructure Development (DoLID); <https://doli.gov.np> for bid submission purpose.
4. Priced Quotations must be submitted to the office of **Suspension Bridge Division, Pulchowk, Lalitpur** on or before 14:00 hrs on **2083-06-04**, **irrespective of any public holiday falling on the stipulated date through hardcopy only**. The bids will be opened at **14:15 hrs** on **2083-06-04** at the office of **Suspension Bridge Division, Pulchowk, Lalitpur**.
5. The Bidder shall indicate on the Price Schedule the unit prices (where applicable) and total price of the goods to be supplied under the contract. All duties, taxes and other levies payable by the Supplier/Bidder under the contract shall be included in the rates, prices and total Bid Price submitted by the Bidder.
6. Submitted Priced Quotations must remain valid for a period of **15 days** after the deadline for submission date.
7. The Bidder shall furnish, as part of its bid, documents establishing the Supplier's/ Bidder's eligibility to bid and qualification to perform the contract if the bid is accepted. Documents to establish such eligibility shall be but not limited to the following:
 - a) Up to date Firm/Company Registration Certificate
 - b) VAT and PAN Registration Certificates
 - c) Tax Clearance Certificate or Submission of Tax Returns up to FY 81/82
8. The goods supplied under this contract shall confirm to the Schedule of Requirements and the standards mentioned in the Technical Specification.
9. The Purchaser reserves the right to accept or reject the quotations without assigning any reason, whatsoever.

Yours sincerely,

Project Chief

Suspension Bridge Division

Pulchowk, Lalitpur

Section II. Conditions of Contract

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|-----------------------------------|-----|--|
| 1. Definitions | 1.1 | In this contract, the following terms shall be interpreted as indicated: <ul style="list-style-type: none"> a. "The Contract" means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form Signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein; b. "The Contract Price" means the price payable to the Supplier under the contract for the full and proper performance of its contractual obligation; c. "The Goods" means Equipment and related Accessories and spare-parts or any other materials which the Supplier is required to supply to the Purchaser under the contract; d. "Services" means services ancillary to the supply of the goods such as transportation and insurance including the installation, commissioning and the operational and maintenance training of the supplied equipment. e. "The Purchaser" means the procuring entity purchasing the goods; f. "The Supplier" means the organization supplying the goods and services under this contract. |
| 2. Technical Specification | 2.1 | The goods supplied under this contract shall confirm to the standards mentioned in the Technical Specification. |
| 3. Patent Right | 3.1 | The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of goods or any part thereof in the Purchaser's country. |
| 4. Inspection and Tests | 4.1 | The Purchaser or its Representative shall have the right to inspect and/or test the goods to confirm their conformity to the Technical Specification and the quality of performance after the supply and delivery of good to the Purchaser's premises. |
| 5. Packing | 5.1 | The Supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transmit to their final destination as indicated in the contract. |
| | 5.2 | The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. |
| | 5.3 | The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided in accordance with international standard and practice. |
| 6. Delivery of Goods | 6.1 | Delivery of the goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in its Schedule of Requirements. |
| 7. Warranty | 7.1 | The Supplier warrants that all the goods supplied under the contract |

	shall fully comply with the specification laid down in the contract.
	7.2 The warranty shall remain valid for one year after the goods have been delivered to the final destination indicated in the contract, and accepted by the Purchaser after installation and commissioning of equipment by the Supplier.
	7.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.
	7.4 Upon receipt of such notice, the Supplier shall, with all reasonable speed, replace the defective goods without cost to the Purchaser. The Supplier will be entitled to remove, at its own risk and cost, the defective goods.
8. Payment	8.1 Payment of the goods supplied shall be made in Nepali Rupees after the delivery of goods to the satisfaction of the Purchaser.
	8.2 Payment shall be made within fifteen (15) days of receipt of the goods and upon submission of claim supported by the acceptance certificate issued by the Purchaser.
9. Prices	9.1 Prices charged by the Supplier for goods delivered under the contract shall not vary from the prices quoted by the Supplier in its price quotation.
10. Insurance	10.1 Not Applicable
11. Governing Language	11.1 The Governing Language shall be: Nepali or English
12. Applicable Law	12.1 The applicable law shall be Laws of Nepal.
13. Notices	13.1 Purchaser's address for notice purposes: Pulchowk, Lalitpur 13.2 Supplier's address for notice purposes:
14. Taxes and Duties	14.1 The Supplier shall be entirely responsible for all taxes, duties, licence fees and other such levies imposed by the GoN.
15. Operation, Maintenance and Spare-parts Manuals	15.1 Not Applicable
16. Conduct of Suppliers	16.1 The Supplier shall be responsible to fulfil his obligations as per the requirement of the Contract Agreement, Bidding documents, GoN's Procurement Act and Regulations. 16.2 The Supplier shall not carry out or cause to carryout the following acts with an intention to influence the implementation of the procurement process or the procurement agreement: a. give or propose improper inducement directly or indirectly, b. distortion or misrepresentation of facts c. engaging or being involved in corrupt or fraudulent practice d. interference in participation of other prospective bidders. e. coercion or threatening directly or indirectly to impair or harm, any party or the property of the party involved in the

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- procurement proceedings,
- f. collusive practice among bidders before or after submission of bids for distribution of works among bidders or fixing artificial/uncompetitive bid price with an intention to deprive the Purchaser the benefit of open competitive bid price.
 - g. contacting the Purchaser with an intention to influence the Purchaser with regards to the bid or interference of any kind in examination and evaluation of the bids during the period after opening of bids up to the notification of award of contract
- 17. Blacklisting Supplier**
- 17.1 The GoN, Public Procurement and Monitoring Office (PPMO) may blacklist a Supplier for his conduct up to three years on the following grounds and seriousness of the act committed by the supplier:
- a. if it is proved that the supplier committed acts pursuant to the Sub - clause 16.2,
 - b. if it is proved later that the supplier had committed substantial defect in implementation of the contract or had not substantially fulfilled his obligations under the contract or the completed work is not of the specified quality as per the contract,
 - c. if convicted by a court of law in a criminal offence which disqualifies the supplier from participating in the contract.
- 17.2 A Supplier declared blacklisted and ineligible by the GON shall be ineligible to bid for a contract during the period of time determined by PPMO.
- 18. Dispute Resolution**
- 18.1 Any dispute arising out of the Contract, which cannot be amicably settled between the parties, shall be referred to adjudication.

Section III. Schedule of Requirements

The delivery schedule expressed as days stipulates hereafter a delivery date which is the date of delivery to the final destination where the Goods is required to be delivered.

S.N.	Description	Quantity	Place of Delivery	Delivery schedule days from the date of agreement	Remarks
1	Structural Steel	55841.78 kg	Roadhead, Galchhi, Dhading	30% of Total Steel Parts to be delivered within 5 days; next 30% of Total Steel Parts to be delivered within 10 days and remaining 40% of Total Steel Parts to be delivered within 15 days.	Bridge to be Maintained: 1. Dhawadighat Trail Bridge 2. Badare Trail Bridge 3. Shitalbazar Trail Bridge 4. Chiraudi Trail Bridge 5. Kolputar Kallerighat Trail Bridge 6. Foshretar Trail Bridge 7. Jiling Thulo Khola Trail Bridge
2	Wiremesh Netting	2978.30 m ²			
3	Bolts, Nut and Washers	1310.97 kg			
4	12 SWG GI Binding wire	366.56 kg			
5	Hot Dip Galvanization	55,841.78 kg			
6	Transportation of Fabricated Material	66,370.02 kg			

Note: The above quantity is based on preliminary inspection of flood affected bridges so the actual quantity on site may vary during maintenance works.



**300
Steel
Part
s**

DRA WIN GS No.		Unit	Structural Steel	Nuts, Bolts & washers Washers	Galvanizing	Transport weight
	Name					
			(kg)	(kg)	(kg)	(kg)
5D	Walkway					
	Dhawadighat 4MC HC-32Ø	129	2607.09	56.76	2607.09	2734.80
	Badare 6 MC HC-32Ø	20	417.8	10.4	417.8	420.60
	Shitalbazaar 6 MC HC-32Ø	77	1608.53	40.04	1608.53	1619.31
	Shitalbazaar 6 MC HC-32Ø suspender	51	484.194	23.664	484.194	517.96
	Chiraudi 4MC HC-26Ø	78	1569.36	34.32	1569.36	1646.58
	Chiraudi 4MC HC-26Ø suspender	45	427.23	20.88	427.23	457.02
	Kolputar Kallerighat 8 MC HC-26Ø	144	3016.8	239.04	3016.8	3332.16
	Foshretar 6 MC- 40Ø, HC 36Ø	230	4818.5	119.6	4818.5	4836.90
	Jiling Thulo Khola 6 MC- 40Ø HC-36Ø	141	2953.95	73.32	2953.95	2965.23
	Jiling Thulo Khola 6 MC- 40Ø HC-36Ø Suspender	45	427.23	20.88	427.23	457.02
6	Steel Walkway Deck Standard					
	Dhawadighat	129	5802.29	104.49	5802.29	6132.14
	Badare	20	899.58	16.20	899.58	950.72
	Shitalbazaar	77	3463.38	62.37	3463.38	3660.27
	Chiraudi	86	3868.19	69.66	3868.19	4088.10
	Kolputar Kallerighat	101	4542.88	81.81	4542.88	4801.14
	Foshretar	230	10345.17	186.30	10345.17	10933.28
	Jiling Thulo Khola	168	7556.47	136.08	7556.47	7986.05
6	Steel Walkway Deck Special	18	984.042	14.58	984.042	1037.43
	Hand rail cable saddle (26mm)	2	49	1	49	50
Total			55841.78	1310.97	55841.78	58626.44

Section IV. Technical Specifications

A STEEL WORK

Bid and actual fabrication of the bridge parts shall be based on the "Terms of Steel works" given below in addition to relevant ISI Codes. In case of discrepancies between the two, the "Terms of Steelworks" shall prevail.

Safety and health provisions shall be made according to IS: 818-1968, and shall entirely be the Contractor/ Fabricator's responsibility.

The following "Terms of steel works" has to be strictly followed while performing the steel parts fabrication work.

a) Straightening

All materials shall be straight and if necessary, before being worked shall be straightened and/or flattened by pressure, unless required to be of curvilinear form and shall be free from twists.

b) Cutting

Cutting may be affected by shearing, cropping or sawing. Gas cutting by mechanically controlled torch is permitted for mild steel only. Gas cutting of high tensile steel is also permitted provided special care is taken to leave sufficient metal to be removed by machining so that all metal that has been hardened by flame is removed. No loads shall be transmitted into metal (except welded joints) through a gas cut surface.

c) Holing and Punching

Holes for bolts or pins shall be drilled (not to be formed by gas cutting). Punching may be permitted for materials with thickness < 14mm, provided the holes are punched 3 mm less in diameter than the required size and reamed after punching to the full diameter. When holes are drilled or punched in one operation through two or more separable parts, these parts shall be separated after drilling or punching and the burrs removed. To obtain uniformity the use of templates and jigs is mandatory for holing.

d) Assembly

The component parts shall be assembled in such a manner that they are neither twisted nor otherwise damaged and shall be so prepared that the specified cambers, if any, are provided.

e) Bolting

Where necessary washers shall be tapered or otherwise suitably shaped to give the heads of nuts and bolts a satisfactory bearing. The threaded portion of each

bolt shall project through the nut at least two threads. In all cases where the full bearing areas of the bolt is to be developed, the bolt shall be provided with a washer of sufficient thickness under the nut to avoid any threaded portion of the bolt being within the thickness of the parts bolted together. Threading of rods and holes shall be done by machines.

f) Welding

Welding shall be in accordance with any of the following standards as appropriate, and shall be conducted by appropriately qualified welders:

IS: 816-1989: Code of practice for use of metal arc welding for general construction in mild steel.

IS: 823-1964: Code of practice for use of welding in bridges and structures

IS: 1024-197: subject to dynamic loading.

If there are any new editions of Indian Standard those should be used as references. The use of templates and jigs is mandatory for welding of assembly. Following special requirement in conjunction with galvanization has to be made. Sections should have corners cropped to allow free flow of zinc during galvanization.

Avoid narrow gaps between plates. Overlapping surfaces and back to back angles and channels should be avoided. Where small areas are unavoidable edges should be sealed by a continuous pore free weld to prevent penetration of pickle acids.

g) LSTB (SBD) Standard Designs

The LSTB Standard Design and Drawings are integral parts of these technical specifications. Details for the steel works can be found in the set of Standard Steel Drawings, which will be made available to the Contractor after the contract is signed / awarded.

h) Quality Requirements, Quality Control and Quality Assurance (Guarantee)

The quality control of the raw materials acquired, fabrication process, and that of readymade product is the responsibility of the prime contractor/fabricator, who should guarantee that all raw materials are of standard quality according to Indian Standards Institution and to the specifications given in the "Terms of Steel works" and fabrication of the bridge parts are correct according to LSTB Design and Drawings. The cost for all damages due to use of low quality materials has to be borne by the contractor/fabricator. At the time of delivery, the parts and materials shall have to be free from any defects in material or workmanship in all respects.

If any mistakes in the LSTB (SBD) Designs and Drawings are found by the workshop, The Employer's Technical Section has to be informed immediately in

writing. The changes in steel profile have to be done only with written permission from the Employer in case of proven non-availability of certain profiles in the market.

The cost of other materials thus proposed and used will be fixed according to their respective weight and the lower among the bid price and official cost of the Employer.

i) Inspection, Tests and Final Check

The Contractor/Fabricator shall coordinate to provide access and other facilities for the inspection and, if required, tests of the works at any/or all stages during fabrication of the steel parts. Unless otherwise agreed this inspection should be carried out at the place of fabrication. The inspection shall be facilitated by a properly accredited person (quality control manager) available at the fabricator's floor during all working hours together with a complete set of drawings and any further instructions which may have been issued.

Following steel parts (if applicable) have to be in assembled form during such inspection: The parts shall be assembled after completion of the galvanization, on a flat, level and hard top place. Once dismantled, any damage to the galvanization of the steel parts has to be rectified before delivery.

- All anchorage parts
- Walkway deck with minimum of four cross-beams in assemblage
- Both towers, complete
- Windguy stay strut
- Complete truss
- Clamps and turnbuckles

Such inspection shall be made prior to delivery and shall be conducted so as not to interfere unnecessarily with the operation of other work. Such inspections are supplementary and intended to clear the delivery only, and shall not be considered as a final acceptance.

The final check of all steel parts will be conducted along with the final check of the bridge and the discrepancies found during such final check have to be rectified by the Contractor/Fabricator at its own cost. On a default situation, such works shall be conducted by the Employer and the cost incurred for such works shall be made a liability in the Contractor/Fabricator's account (either from its retention money or from other payments and/or their property according to the prevailing rules and regulations).

All gauges and templates, measuring instruments etc. necessary to satisfy the inspector shall be supplied by the manufacturer. The inspector may at his discretion check the test results obtained at the manufacturers works by independent tests and should the material so tested be found to be unsatisfactory, the costs of such tests shall be borne by the manufacturer, and, if satisfactory, the costs shall be borne by the Employer. In any case the quality assurance of Principal Manufacturer has to be made available by the Contractor/Fabricator, whenever required by the Employer.

j) Storing, handling and protection of steel parts (specially Threads)

All structural and reinforcement steel shall be stored and handled without subjecting them to excessive stresses and damage. The threaded parts including anchorage rods, clamps, suspenders etc. have to be protected with grease and jute immediately after completion.

k) Labeling, Packing and delivery

Each member (or set of members) has to be labeled clearly indicating both the drawing number and the part number corresponding to the steel-part list and the drawing number provided by the Employer, but only after galvanization.

Straight bars and plates shall be bundled. All bolts, nuts, washers and other small and loose parts shall be packed in cases or strong bags and labeled in order to prevent damage or distortion during transportation. The costs of packing and labeling shall be included in the bids. The Wire mesh netting has to be delivered in bundles. Each transport unit shall not exceed 45 kg in weight. For each delivery the workshop has to prepare a detailed list of the bridge parts to be delivered, containing the drawing numbers, part numbers, description of parts, quantities and weights.

B Supply and Fabrication of Steel Parts

B1 Structural Steel

Structural steel supplied by the workshop shall comply with the requirements of IS: 226-1975, specification for Structural Steel (Standard Quality). The dimensions for hot rolled materials are specified in IS: 800-1984 & 808-1989 (General construction in steel). Steel grade shall be standard quality FE 410, and should have following properties (if applicable):

Yield stress ≥ 250 N/mm²

Tensile strength ≥ 410 N/mm²

Elongation $\geq 23\%$

Permissible tolerance of physical dimension = $\pm 0.25\%$

All structural steel sections to be used in fabrication shall be tested in presence of SBD officials and certificates of the same shall be submitted with assurance documents.

The requirement of test for structural steel shall be as follows (if applicable) :

S.N.	Description	No of samples to be tested
1	MS Flat	3 Samples of each sections used in fabrication
2	MS Angle	
3	MS Rod	
4	MS Plate	
5	MS Channel	

B2 Reinforcement Steel

Reinforcement steel supplied by the workshop shall be ribbed torsteel with high yield strength deformed bar of grade FE 500 confirming to IS: 1786-1985. All reinforcement shall be clean and free from loose mill-scales, dust, loose rust and coats of paint, oil or other coatings which may destroy or reduce bond. All reinforcement steel shall be cold bent. Points for anchor rods shall be formed by grinding. Joining of reinforcement steel bars by welding is prohibited.

B3 Supply of Thimbles

Thimbles supplied by the workshop shall conform to the standard specifications of Thimbles (IS: 2315-1978). The workshop is responsible that all thimbles can be fitted to the provided pins, steel parts etc. Thimbles should be hot dip galvanized with minimum zinc coat of 40µm.

C Miscellaneous Supply

C1 Wire mesh Netting for LSTB Bridge

The wire used for fabrication of wire mesh netting shall be of 10 SWG (3.15 mm), conforming to IS: 280-1978, heavy coat galvanized according to IS: 4826-1979 (hot dip galvanized, minimum zinc coating of 270 gm/m² and should pass uniformity of zinc coat and adherence test). In addition, G.I. wire should have tensile strength of 380-500N/mm². The meshes shall be of chain link type, mesh size 60 x 60 mm. The width shall be 1.30 m for suspended bridge and 1.2 m for suspension bridge.

C2 Bolts, Nuts & Washers

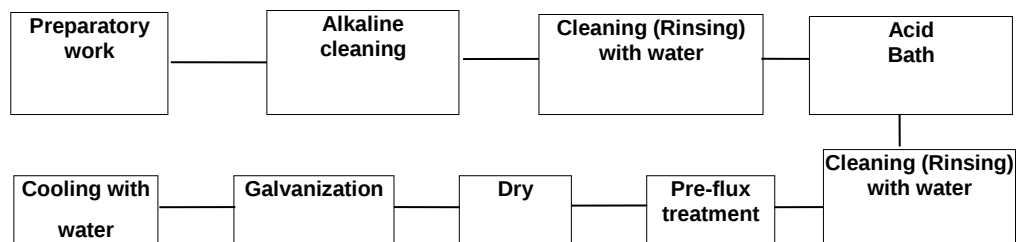
Bolts, nuts, & washers shall confirm the standard specification of bolts, screws, nuts & washers (IS: 1363-1984 for hexagon head bolts) / (IS: 1367-1979/1980 conditions for threaded fasteners) / (IS: 6610-1972 for heavy washers) / (IS: 5369-1975 for plane & lock washers) / (IS: 5372-1975 for taper washers). Bolts, nuts & washers shall be hot dip galvanized unless otherwise stated.

D Hot Dip Galvanization of Steel Parts

Galvanizing of steel parts shall be executed in accordance with IS: 2629-1966 (Recommended Practice for Hot-Dip Galvanizing of Iron & Steel) and IS 4759-1984 (specification for hot-dip zinc coating on structural steel).

Galvanization Process

Galvanizing should follow the process as below :



Preparatory work

All welding slag should be removed from the steel parts to be galvanized.
Acid traps should be avoided.

Alkaline cleaning

Rust, oil and other contaminants should be removed from the steel by preliminary treatment with Alkaline cleaning in Sodium Hydroxide Solution of 10 ~ 15%

Concentration

The concentration of the solution should be monitored at regular intervals and adjusted accordingly to have good cleaning effect.

Rinsing

After Alkaline cleaning, steel should be flushed with running water.

Acid Bath

The preliminary treated steel is then cleaned by Acid Bath in Hydrochloric Acid Solution of 50% concentration.

During the operation, close control of acid content in the solution is necessary. It is done by testing for acid (PH value = 1 to 3, measured by PH meter) and iron contents at regular intervals. The strength of the solution should be maintained by periodic addition of fresh concentrated acid. If the iron content in the solution is more than 100g/liter (density measured by hydrometer, maximum permissible value = 1.2), it should be changed by the new fresh solution.

Rinsing

After Acid Bath steel should be flushed with running water.

Pre-flux treatment

Acid bathed steel is dipped in a solution of Zinc Ammonium Chloride ($\text{ZnCl}_2 \cdot 3\text{NH}_4\text{Cl}$) of 20 ~ 40% concentration. This solution is prepared by mixing 45% of Zinc Chloride (ZnCl_2) + 55% of Ammonium Chloride (NH_4Cl).

The concentration of solution should be controlled at regular intervals. For this specific gravity of the solution is maintained (Hydrometer reading in range of 1.1 to 1.15) by adding required quantities of pre-flux chemicals in proportions.

Dry

After pre-flux treatment, steel is dried for galvanization.

Galvanization

The treated steel is dipped into the molted Zinc (zinc bath). Temperature of the molted Zinc should be maintained within the range of 4500 C to 4700 C. Appropriate dipping time also should be maintained.

Cooling

After the hot dip, steel is cooled with water.

Quality Checking of Galvanization

Galvanizing Process

- Check the galvanizing plant and its set up to be ensured that all the galvanizing process is available and maintained.

Quality of Zinc

- This can be checked by chemical testing of raw zinc used for the galvanization. Zinc content should not be less than 98.5%.

Quality of galvanization

- By visual check the following:
 - Galvanized steel should be free from rust and black spots, acid traps, welding slags.
 - Galvanized coating should be free from ash, pimple and bulky deposition.

- - Galvanized coating should be continuous, smooth and evenly distributed as far as possible.
- Zinc coat should be adherent. This can be checked by hammering or scratching.
- No zinc paint or aluminum paint is applied to hide rust spots. This is very unhealthy practice, which frequently applied by the galvanizers.
- Zinc thickness can be measured by Deltascop (electromagnetic instrument for measuring coating thickness over ferrous material). In our case zinc coat should not be less than 80 μm in any steel parts.
- Treatment of Threads: Extra zinc on threads should be removed with a rotating wire brush immediately after galvanizing or with gas blow and cleaning with rotating brush if galvanization is already hardened. Re-threading of the galvanized parts is not permitted.

E TRANSPORTATION

- It is wholly the responsibility of the Contractor to control transportation activities and quality/quantity of any materials procured or received from the Employer's stores, loading and off-loading of the same, and the delivery at designated site.

E1 Materials and Equipment

- Steel parts should be transported with due attention so as not to incur any damage to them either due to exposure to excessive moisture or mishandling. The Contractor shall entirely be responsible for the quality and quantity of materials received at the point of origin and their delivery at site in the same quantity and quality. No reasons whatsoever will be accepted for materials not reaching to site in proper condition and in required quantity. Loss during transportation, if any is entirely on the Contractor's account.
- Other materials and equipment shall be transported properly so as to minimize the loss or damage during transportation. Work being delayed because of equipment being damaged during transportation is Contractor's concern which has to be considered during bidding and shall not be considered a reason for time extension.

F. SUPERVISION:

Supervision includes the supervision of fabrication of steel parts and transportation by competent personnel. The entire supervision is the Contractor's responsibility.

The Contractor shall appoint suitably qualified and experienced in the field technician as site staff (min. level overseer) for the purpose of daily supervision of works in each concerned phase.

The site supervisor has to devote full time on the site for the entire project period whereas an engineer of the Contractor has to visit the site for key supervision from time to time and according to the necessity.

Site supervisor/ engineer has to skill fully perform quality control, test of material, monitor the execution of works as per drawing/ specifications/ schedule, and report the progress in due time to the Employer.

The Contractor shall assist any authorized inspector from the Employer who is inspecting the site. All necessary information and documents must be provided on request and full cooperation on all matters should be given promptly.



Section V. Sample Forms

1. Price Quotation and Price Schedules

Date:

To: *Suspension Bridge Division, Pulchowk, Lalitpur*

Gentlemen and/or Ladies:

Having examined the Direct Purchase (DP) documents, we the undersigned, offer to execute *Fabrication, Supply and Transportation of Structural Steel Parts for Emergency Maintenance of Trail Bridges affected by Bhotekoshi/Trishuli Flood* in conformity with the said DP documents for the sum of **[total amount in words and figures]** or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Price Quotation.

We undertake, if our Price Quotation is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

We agree to abide by this price Quotation for a Period of **15** days from the last date fixed for submission of the Price Quotation..

Until a formal Contract is prepared and executed, this Price Quotation, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Price Quotation you may receive.

Dated this _____ day of _____ 20_____.

[signature]

[in the capacity of]

Duly authorized to sign Price Quotation for and on behalf of _____



2. Price Schedule

Name of Supplier _____

1	2	3	4	5	6	7
Item	Description	Unit	Quantity	Unit price (Site Delivery)	Total price per item (cols. 4 x 5)	Remarks
1	Supply of materials, fabrication of various items of structural steel parts, all complete as per design, drawings and specifications and as directed by engineer	kg	55841.78			
2	Supplying of Wiremesh Netting as per design, drawings and specifications all complete and as directed by engineer	m ²	2978.30			
3	Supplying of Bolts, Nuts and Washers as per design and specification	kg	1310.97			
4	Supplying of 12 SWG GI Binding wire as per design and specification	kg	366.56			
5	Hot Dip Galvanization of structural steel parts as per design, drawings and specifications and as directed by engineer (payment will be made after transportation of fabricated material to Roadhead, Galchhi, Dhading)	kg	55,841.78			
6	Transportation of fabricated steel parts to Roadhead, Galchhi, Dhading all complete as per design, drawings and specifications and as directed by engineer	kg	66,370.02			
Total Amount						
Add 13% Value Added Tax						
Total Including VAT						

Total Price (in words)

Signature of Bidder _____

Note: In case of discrepancy between unit price and total, the unit price shall prevail



3. Form of Agreement

THIS AGREEMENT made on the ____ day of _____ 20____ between ***Suspension Bridge Division, Pulchowk, Lalitpur*** (hereinafter called “the Purchaser”) of the one part and ***[name of Supplier]*** of ***[city and country of Supplier]*** (hereinafter called “the Supplier”) of the other part:

WHEREAS the Purchaser invited Priced Quotation for certain goods and ancillary services, viz., ***Fabrication, Supply and Transportation of Structural Steel Parts for Emergency Maintenance of Trail Bridges affected by Bhotekoshi/Trishuli Flood*** and has accepted a Price Quotation by the Supplier for the supply of those goods and services in the sum of ***[contract price in words and figures]*** (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - a. Price Quotation Form and the Price Schedule submitted by the Supplier;
 - b. The Schedule of Requirements;
 - c. The Technical Specifications;
 - d. The Conditions of Contract; and
 - e. The Purchaser’s Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

On behalf of the Purchaser

Name:

Designation:

Sign:

Seal:

On behalf of the Supplier

Name:

Designation:

Sign:

Seal: