



# **CHITTARANJAN PARK KALI MANDIR SOCIETY**

Chittaranjan Park,  
NewDelhi-110019

## **TENDER SPECIFICATION**

**FOR**  
**REPAIR, STRENGTHENING & WATER PROOFING**  
**OF**  
**MAIN KALI MANDIR DOMES, ROOF, PARAPET**  
**WALLS & FACADE**

**Tender Number: .....**

<b>Prepared by:</b> KMSCPC	<b>Date:</b> 25-11-24	<b>Rev. no.</b> Rev.-00
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Central Purchase Committee (CPC) invites for Bids from reputed & experienced vendors for the repair, strengthening & waterproofing of main Kali Mandir RCC dome at two levels along with the flat roof portion (Including parapets and facades).

### **A. Brief note about the work:**

Chittaranjan Park Kali Mandir Society (KMS) invites tender from the experienced contractors for the repair, strengthening and waterproofing works of main Kali Mandir Temple dome & roof slab, parapets, facades as per the details, terms & conditions mentioned in this specification.

The structure is approximately 40 years old and no such major repair work was required till date. The structure is RCC framed beam, column and curved slab structure at dome level and conventional suspender slab structure at lower levels.

To understand the present structural health of main Mandir dome and adjacent RCC roof portion, the present Managing Committee (MC) had conducted some NDT through expert agency and based on the NDT report, it is decided that required repair & strengthening works are to be carried out as per the guideline prescribed by the Special Expert Group (SEG), formed by the MC.

The SEG, after detailed deliberations, decided to include the followings in the scope of expert contractors for execution under their supervision. Bids are invited from the reputed contractors for successful completion of the repair, strengthening and water proofing work.

### **B. Scope of Work:**

**Basic scope of works is as follows:**

1. Water proofing works at the external surfaces of the domes and its surrounding area
2. Repairing at the inner surface of the dome using chemicals as and where required
3. Repairing of corroded reinforcements
4. Repair and water proofing work at flat roof surface
5. Repair and reconstruction of parapet walls and facade
6. Strengthening the existing concrete

### **C. Methodology:**

#### **1) Strengthening and repair of dome inner concrete surface-**

- i. Dismantling and removing the surface of loose concrete with honey combs till the reinforcing bars are exposed. Contractor has to identify the area on dome and give a brief of the identified area as at both the levels of Kali Mandir dome to be for execution.
- ii. Clean the entire exposed surface with wire brush.

- iii. Providing and applying rust removing agent Dr Fixit Rust Remover - Pidilite make or Reebaklens FOSROC make, over the entire exposed reinforcements and cleaning it with wire brushes.
- iv. Providing and applying a layer of anticorrosive agent NITICOATAP35FOSROC make or Sika Rust Top over the dismantled and exposed surfaces of reinforcements and concrete.
- v. Providing and applying a coat of Epoxy Bonding Agent MC-Solid-1200 [M C-BAUCHEMIE] make or Dr Fixit EPX Bonding Agent or CHRYSO POLYFLEXEP a over the prepared patch of exposed concrete.
- vi. Providing and repairing of the exposed surface by applying ready to use High strength Polymer Repair Mortar Dr Fixit Polymer Mortar HB Pidilite make or NAFUFILL KM250 IN , MC- BAUCHEMIE make over the applied bonding layers.

**2) Strengthening and repair of Dome & the vertical walls be low domes [AtExternalSurface]:**

1. Dismantling and removing the loose patches of concrete wherever required.
2. Providing and repairing the loose patches with Polymer Repair Mortar wherever required.
3. Providing and repairing the cracks by developing and filling the same with Polymer Repair Mortar or Crack Filling Materials.
4. Providing and applying a layer of self penetrating acrylic based Primer PRIME SEAL Pedilite make over the entire surface of the dome.
5. Providing and applying three layers of highly elastomeric UV stable acrylic based water proofing chemical CAMPOLINE – SOPREMA make of Dr. Fixit RAINCOAT-CLASSIC sandwiched with a layer of fiber mesh between the second and the third layers of elastomeric layer over the applied priming layer.
6. All materials are to be applied as per the specification and instructions given in material manufacturer's hand book and as instructed by the engineer-in-charge.

**3) Strengthening and repair of flat roof portion around the dome (at lower level) Flat Roof Surfaces-**

1. Dismantling and removing the total loose concrete and existing roof treatment and disposing off the debris.
2. Cleaning the entire exposed surface.

3. Providing and applying rust removing agent and cleaning the reinforcements of rusts with wire brushes and water wherever applicable.
4. Providing a layer of anticorrosive agent over the entire exposed steel and concrete.
5. Providing and repairing the existing cracks (if any) by developing and filling with Polymer Repair Mortar.
6. Providing and laying a bonding layer of Dr Fixit Super Latex or Pidilite over the distressed areas of concrete surface.
7. Providing and laying a layer of 1:2:4 (1 cement: 2 coarse Sand: 4 aggregates) mixed with integral water proofing compound to the required thickness over the exposed surface of horizontal layer.
8. Providing and applying a layer of Self Penetrating acrylic based Primer "PRIMESEAL" over the entire surface of concrete.
9. Providing and laying 03 layers of highly elastomeric UV stable acrylic based water proofing chemical sandwiched with a layer of Fiber Mesh between the second and third layers of elastomeric waterproofing layers.

#### **4) Parapet walls Top and internal vertical surfaces at flat roof portion**

1. Dismantling and removal of concrete cover from the top cracked surface of the parapet wall and facade.
2. Dismantling and removing the entire inner surface of existing plaster from the surface of the parapet wall and facade.
3. Provide and apply rust removing agents along the peripheral lengths of the parapet wall and facade.
4. Providing and applying a layer of anticorrosive agent over the dismantled and exposed surface of concrete & reinforcements.
5. Providing and laying 1:2:4 concrete mixed with SBRL atex-500 grams per bag of cement over the top of parapet walls.
6. Providing 1:4, 1 Cement: 4 Coarse Sand mixed with 500 grams of SBR Latex per bag of cement over the entire surface of vertical walls.
7. Provide a proper Camphor – Gola along the length of joints between the vertical walls and horizontal surfaces.
8. Providing and applying a layer of self penetrating acrylic based Primer "Prime Seal" over the entire surfaces of vertical walls and horizontal surfaces of parapet walls.

9. Providing and applying three layers of highly elastomeric UV stable acrylic based water proofing chemical over the top and vertical surfaces of the parapet walls.

**5) Parapet walls external vertical surfaces at flat roof portion**

1. All the above strengthening and treatment methodology mentioned under pointno.4,are to be followed wherever applicable with prior approval of SEG or the engineer-in-charge.

**D. Contractor's additional responsibility:**

- a) Awarded agency (Contractor) should maintain the sanctity and calmness of the Mandir.
- b) Contractor must follow all the safety and security norms on their own and KMS committee will not be responsible for any issue related to safety & security.
- c) All materials should be as per the specification, furnished in this tender document, and approved by SEG.
- d) Scaffolding and other required equipments for external surface repairing are to be arranged by the contractor.
- e) Contractor should have insurance of all the engaged employees.
- f) KMS will provide electrical connection at main Mandir roof level.
- g) All expenses for transportation, food, medical for his employees to be borne by the contractor. Mandir shall provide a designated place for temporary camp during the execution. Contractor has to build the temporary structure and dismantled after the completion of the work.
- h) Contractor is liable to compensate KMS for any damages whatsoever may be.
- i) Non-veg food is strictly not allowed inside the Mandir complex.

**E. Instruction to the bidder:**

- a) One vendor can submit only one tender. Multiple bids are liable to cancel the vendors bid.
- b) Contractor to calculate the exact area dome, flat-roof, vertical walls and the parapet walls for bidding purpose. They will be allowed to visit for estimation purpose. As the contract shall be on lump sum basis, no additional payment shall be made.
- c) Costing to be submitted as per the scope of work, methodology & BOM attached herein.
- d) An earnest money of Rs. 1,00,000/- (Rs. One Lac Only) to be deposited in the form of a crossed account payee cheque in favour of "Chittaranjan Park Kali Mandir Society". This shall be returned after the successful completion of the work.
- e) Vendor must visit the KMS complex before submission of the bid and understand the complete requirement in bid clarification meeting. No further claim shall be entertained once the contract is awarded.

- f) The bid should contain separate columns for pricing without taxes and with taxes.
- g) In case of any additional charges, not covered in the above scope, the bidder should mention the details and corresponding charges separately in their bid.
- h) Work during the night for external surface of the dome is not permitted.

**F. KMS Shall provide the followings:**

- a) Provide free construction and potable water and electricity to the workers.
- b) Scaffolding for access to the internal surface of the domes (Lower & higher level dome).
- c) Locked storage for equipments and material storage.
- d) Vendor has to arrange his own accommodation.

**G. Bidder's Eligibility Criteria:**

- a) Must have experience of carrying out one similar jobs with contract value Rs. 10,00,000/- (Rs. Ten Lakhs).
- b) Have adequate skilled staff to complete the job. Contractor has to furnish details of manpower (Manager, skilled and unskilled manpower, labours etc.).
- c) Quality of the job not to be compromised. Vendor should inform the execution plan in detail to the SEG and get approval, prior to commencing the work.
- d) Contractor should enclose his permanent Office address, contact numbers of the responsible persons/managers, attested photocopy of Trade License, PAN card and GSTIN certificate.

**H. Payment Terms:**

1. 40% of the contract amount shall be paid in favour of the successful bidder within one week after mobilization and supply of all materials.
2. 20% of the contract amount shall be released after successful completion of the work at **Internal** surface of the dome at two levels.
3. 15% of the contract amount shall be released after successful completion of the work at external surface of the domes.
4. 20 % of the contract amount shall be released after successful completion of the work at flat, roof, slab and parapet walls.

5. 5 % of the contract amount shall be released after 12 months from the date of completion.

**I. Warranty Period:**

Warranty period shall be 10 years from the date of work completion.

**J. Completion period:**

60 days from the date of work order.

**K. Supervision:**

The successful bidder should depute qualified and experience supervisor for the entire period of the execution work. The supervisor must be well-versed with the technology and shall coordinate with the SEG time to time and brief the progress of the work on weekly basis and follow the instructions from SEG.

## Part-II

### TECHNICAL SPECIFICATIONS/SCHEDULE OF ITEMS

**For repair, strengthening and providing total water proofing of the RCC dome, its surrounding horizontal and vertical areas including the parapet walls of the RCC dome.**

Sr. No.	Description of items	Unit	Qty.	Rate In Rs	Amount In Rs
<b>1</b>	<b>DOME(from inside)</b> Treatment includes the following item;				
<b>A</b>	<b>STRENGTHENING AND REPAIR OF CONCRETE SURFACE</b>				
<b>1</b>	Dismantling and removing the loose concrete till the reinforcing bars are exposed. Properly Cleaning the entire exposed surface with wire brush.	Sft			
<b>2</b>	Providing and applying rust removing agent <b>Dr Fixit Rust Remover-Pidilite or REEBAKLENS Of FOSROCK</b> over the exposed steel and clean it With wire brush etc.to remove the rust.	Ls			
<b>3</b>	Providing and applying a layer of anti-corrosive agent <b>NITICOAT AP 35 FOSROC</b> make or <b>Sika RustTop</b> over the dismantled and exposed Surfaces of reinforcements and concrete.	Ls			
<b>4</b>	Providing and applying a coat of epoxy bonding agent <b>MC- Solid -1200[ M C- BAUCHEMIE]</b> Make or <b>Dr Fixit EPX Bonding Agent</b> or <b>CHRYSO POLYFL EXEP a(CRYSO/MC BAUCHEMIE)</b> over exposed concrete area, care Should be taken that the epoxy bonding agent is Not set.	Ls			
<b>5</b>	Providing and repairing the same patch with ready to use high strength mortar <b>Dr Fixit Polymer HB Pidilite</b> make or <b>NAFUFILLKM 250IN,MC-BAUCHEMIE</b> over the applied Bonding agent layer.	Sft			
<b>B</b>	<b>DOME(from outside)</b> Treatment includes the following items.				
<b>1</b>	Dismantling and Removing loose patches of concrete wherever required by means of wire brush, cleaning the same and disposing the	Sft			



	debris.			
2	Providing and repairing the cracks by developing and filling the same with polymer repair mortar.	Ls		
3	Providing and repairing the exposed surface by applying a layer of 1:3 Cement: Coarse Sand Mortar mixed with 2Kgs of <b>SBR Super Latex Pidilite</b> make per 50kgs bag of cement or <b>NITOBONDFOSROC</b> make over the exposed And dismantled surfaces of concrete	Ls		
4	Providing and laying a layer self-penetrating acrylic base primer " <b>Prime Seal</b> " over the entire Prepared surface of dome.	Sft		
5	Providing and applying three layers of highly elastomeric UV stable acrylic base water proofing chemical " <b>CAMPOLINE /Equivalent</b> " Sandwiched with a layer of fibre mesh between The second and the third layers of elastomeric Layer over the applied priming layer mixed with Required of approved make.	Sft		
<b>C</b>	<b>ROOFAREA( Flat roof portion)</b> Treatment includes the following items.			
	<b>Horizontal surfaces</b>			
1	Dismantling and removing the total loose concrete and existing roof treatment and Disposing off the debris and cleaning the entire Exposed surface.	Sft		
2	Providing and applying rust removing agent <b>Dr Fixit Rust Remover -Pidilite</b> make or <b>Reebaklens Of FOSROC</b> make over the exposed steel and Clean it with wire brush etc. to remove the rust.	Ls		
3	Providing and applying a layer of anti-corrosive agent <b>NITICOATAP35FOSROC</b> make or <b>Sika Rust Top</b> over the dismantled and exposed Surfaces of reinforcements and concrete.	Ls		
4	Providing and repairing the cracks by developing and filling the same with polymer repair mortar.	Ls		
5	Providing and laying bonding layer of <b>DrFixit Super Latex of Pidilite</b> make or equivalent over The entire area of concrete surface.	Sft		
6	Providing and laying a layer of 1:2:4 (1 cement: 2coarseSand:4aggregatesmixedwithintegral	Sft		

	water proofing compound " <b>Dr.FixitLw+</b> "to the required thickness over the exposed surface of the flat roof.			
7	Providing and laying a layer self-penetrating acrylic base primer " <b>Prime Seal</b> " over the entire prepared surface.	Sft		
8	Providing and applying three layers of highly elastomeric UV stable acrylic base waterproofing chemical " <b>CAMPOLINE/Equivalent</b> " sandwiched with a layer of fibre mesh between the second and the third layers of elastomeric layer over the applied priming layer.	Sft		
<b>D</b>	<b>Parapet walls Top and vertical surfaces</b>	Sft		
1	Dismantling and removing the entire distressed concrete & mortar from the top & internal surfaces of the parapet walls.	Ls		
2	Dismantling and removing the distressed concrete & mortar from the external surfaces of the parapet walls, wherever required.	Ls		
3	Providing and applying a layer of antirust agent over the exposed steel to remove the rust.			
4	Providing and applying a layer of anti-corrosive agent <b>NITICOAT AP35 FOSROC</b> make or <b>Sika Rust Top</b> over the dismantled and exposed surfaces of reinforcements and concrete.	Ls		
5	Providing and repairing the cracks by developing and filling the same with polymer repair mortar.	Sft		
6	Providing and laying a bonding layer of <b>Dr Fixit Super Latex of Pidilite</b> make over the entire top & internal vertical surface.	Sft		
7	Providing and laying a layer of 1:2:4 (1 cement: 2 coarse Sand: 4 aggregates mixed with <b>Dr Fixit Super Latex of Pidilite</b> 500 ml per bag of cement to the required thickness over the horizontal area of wall top.	Sft		
8	Providing and applying a layer of 1:3 Cement: Coarse Sand mortar mixed with 500ml <b>SBR Super Latex Pidilite</b> make per 50 kgs bag of cement or <b>NITOBOND, FOSROC</b> make, over the top & vertical surfaces (Internal & external, as required) of parapet walls.	Sft		
9	Providing and laying a layer self-penetrating acrylic base primer " <b>Prime Seal</b> " over the entire prepared surfaces of parapet walls (top & internal	Sft		

10	verticalside). Providing and applying three layers of highly elastomeric UV stable acrylic base waterproofing chemical <b>“CAMPOLINE/Equivalent”</b> sandwiched with a layer of fibre mesh between the second and the third layers of elastomeric layer over the applied priming layer of top, internal& external surfaces of parapet walls mixed with required of approved make at top& internal surfaces of parapet walls.	Sft			
<b>TOTAL</b>					

**List of Approved Chemicals:**

1. Rust Remover-PIDILITE/FOSROC
2. SBRL atex-PIDILITE/FOSROC
3. Epoxy Bonding Agent-PIDILITE/MC-BAUCHEMIE
4. High Strength Repair Mortar-PIDILITE/MC-BAUCHEMIE
5. Primer Seal-PIDILITE
6. Elastomeric UV Stable Acrylic Water Proofing Chemical-PIDILITE/SOPREMA

