

Notice Inviting Sealed Tenders for Structural Safety Audit

Sealed rate quotation are invited from the MCD approved and Licensed Structural Engineers for conducting the Structural Audit of the Building of Motilal Nehru College, situated at Benito Juarez Marg, New Delhi-110021 with conditional retrofitting consultancy. The assignment covers approximately 64,000 sq ft and shall proceed in two phases. Interested Structural Engineers are requested to submit their quotes along with their profile on their Company Letter head to the Principal, Motilal Nehru College on or before 23th September 2026.

Itemized schedule of services and quantities

Quote a separate rate and amount for every numbered item. Each drawing set covers all scheduled floors of its block. Test quantities are totals across the four blocks. Allocate test locations by block, floor and member; retain common identifiers across drawings, results and calculations. Avoid duplicating charges between preparation, analysis and final report compilation.

PHASE-1 INVESTIGATION AND STRUCTURAL AUDIT REPORT

S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
A DATA COLLECTION AND RECORD DRAWINGS					
1	Data collection and document review. Compile construction history, sanction/completion records, structural systems, occupancy, alterations, repairs and previous assessments. Review available architectural, structural and services drawings; record gaps and the basis of the investigation.	1	LS		
2	As-built drawings. Measure and prepare floor-wise dimensioned plans showing existing geometry, member sizes, stairs and openings. Distinguish measured information from record-derived or inaccessible details. Deliver one coordinated drawing set per block.	4	Blocks		



S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
3	Space utility plans. Map current room/space use, laboratories, library/storage, circulation and relevant equipment or concentrated loads to support occupancy and loading assessment. Deliver floor-wise existing-use plans for each block.	4	Blocks		
4	Structural framing plans. Prepare floor-wise grid and member identification plans showing columns, beams, slabs, load-bearing walls, spans and measured sections. Coordinate with as-built drawings and reinforcement survey findings; record unavailable concealed information.	4	Blocks		

B VISUAL INSPECTION AND DISTRESS LOCATION DRAWINGS

5	Academic Block visual inspection: basement, ground and first floors. Examine structural members and distress over the stated built-up area, including basement water ingress and substructure effects. Record observations and photographs.	30,000	Sq ft		
6	Laboratory Block visual inspection: ground, first and second floors. Examine structural members and distress over the stated built-up area, including chemical deterioration associated with laboratory use. Record observations and photographs.	14,300	Sq ft		
7	Library Block visual inspection: ground and first floors, including mezzanine. Examine structural members and distress over the stated built-up area; record observations and photographs.	13,100	Sq ft		
8	Administrative Block visual inspection: ground and first floors. Examine structural members and distress over the stated built-up area; record observations and photographs.	6,600	Sq ft		

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S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
9	Distress location drawings. Plot inspection observations on the framing/as-built plans using member IDs and photographic references. Identify crack widths/patterns, spalling, honeycombing, corrosion, seepage, dampness, deflection and settlement with severity ratings. Cover columns, beams, slabs, walls, stairs, parapets, tanks and cantilevers.	4	Blocks		

C TESTING AND TEST LOCATION DRAWINGS

10	Rebound hammer testing (RH). Assess representative concrete surface hardness and correlated strength under IS 13311 Part 2. Record location-wise readings and interpretation. One quantity unit denotes a test location, not an individual hammer impact.	160	Nos		
11	Ultrasonic pulse velocity testing (UPV). Assess concrete homogeneity, internal cracking and voids under IS 13311 Part 1; record location-wise readings and interpretation.	90	Nos		
12	Cover-meter / rebar-locator survey (RBR). Establish reinforcement layout and clear cover in representative members; record assessed bar sizes and verification limitations for analytical sections.	70	Nos		
13	Carbonation-depth testing (CARB). Use phenolphthalein to measure carbonation depth and assess loss of alkalinity relative to reinforcement cover; record location-wise findings.	52	Nos		
14	Half-cell potential survey (HCP). Assess probability of active reinforcement corrosion in selected distressed members; record locations, readings and interpretation.	30	Nos		

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S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
15	Concrete cores. Extract, identify and test concrete cores for compressive strength; provide results and correlation with non-destructive findings. Restoration of extraction locations is by the College.	26	Nos		
16	Brick compressive strength testing (BRK). Test representative brick specimens; identify source locations and report strength results for masonry assessment.	18	Bricks		
17	Dye penetrant testing (DPT). Examine selected accessible metallic surfaces for surface-breaking discontinuities; report locations, observed indications and interpretation.	10	Nos		
18	Ultrasonic thickness gauge testing (UTG). Measure thickness at selected metallic member locations; report readings and section loss where identifiable.	10	Nos		
19	Chloride content testing, where warranted by the condition assessment. Quote unit rate; report sample identification, source location and result.	Actual*			
20	Sulphate content testing, where warranted by the condition assessment. Quote unit rate; report sample identification, source location and result.	Actual*			
21	Test location drawings. Separately plot completed NDT, core, brick and other test/sample positions on floor-wise plans, linked to test IDs, member IDs, photographs and result sheets. Provide the block-wise test register and completed quantity reconciliation.	4	Blocks		

D STRUCTURAL ANALYSIS AND CALCULATION RECORDS

22	Design basis and analytical modelling. Establish gravity/seismic parameters, occupancy loads and material properties from the investigation. Build one three-dimensional model per block using verified geometry, sections and reinforcement; state assumptions, supports and modelling limitations.	4	models		
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S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
23	Structural analysis. Analyse gravity and seismic actions under IS 875, IS 1893 (Part 1) and IS 15988. Determine member forces, displacements, storey drift and irregularities, including soft storey, torsion, mass/stiffness irregularity and short-column effects.	4	Blocks		
24	Existing-member design adequacy checks. Assess member and system capacity under IS 456 and the seismic evaluation basis. Determine demand-capacity ratios, deficient members and governing failure mechanisms. This item covers existing-structure assessment; detailed remedial design is in Phase 2.	4	Blocks		
25	Calculation sheets. Prepare indexed engineering sheets showing adopted properties, loads, combinations, section capacities, demand-capacity checks and governing results, traceable to member IDs and drawings. This item covers preparation of the calculation record.	4	Blocks		
26	Software-extracted report. Deliver organised analysis outputs with software/version, model inputs, load cases/combinations, reactions, member forces, displacements, drift and relevant design checks. Index governing outputs to the assessment; remove irrelevant duplicate printouts.	4	Blocks		
27	Manual verification calculations. Independently check governing loads, member forces and section capacities for representative critical/deficient members. Show assumptions, formulae, numerical workings and comparisons with software outputs; explain discrepancies.	4	Blocks		

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S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
E RESULT COMPARISON AND REPORT CONCLUSIONS					
28	Result comparison and reconciliation. Compare test-derived properties with adopted model inputs and resulting capacity assessments; correlate NDT and core results. Reconcile visual distress, analytical predictions and manual/software differences. Explain discrepancies, adopted values and their effect on conclusions.	4	Blocks		
29	Conclusions and illustrated intervention schedule. State block-wise structural/seismic findings. Identify required repairs and retrofitting on keyed drawings/sketches, linked to deficient members and distress IDs. Prioritise immediate, short-term and long-term actions with time frames; identify blocks requiring no strengthening.	4	Blocks		
30	Preliminary repair and retrofitting methodology. Describe the recommended intervention approach, indicative sequence and block-wise phasing, considering structural effectiveness, disruption and cost. This report-stage method statement is developed into execution details only under authorised Phase 2 work.	4	Blocks		
31	Final Structural Audit Report compilation. Consolidate Items 1 to 30 into building-data, drawing, condition-survey, testing, analysis, comparison, conclusions and methodology chapters/annexures. Include all calculation sheets, relevant software outputs, manual checks, test records and location plans. Submit under the Structural Engineer's seal/signature: 3 bound hard copies plus soft copy.	1	LS		
32	Covering intimation. Provide a signed letter summarising findings, recommendations and intervention time frames for the College to forward to the concerned authority.	1	Letter		

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S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
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Phase 1 subtotal excluding provisional Items 19 and 20

PHASE 2 CONDITIONAL REMEDIAL DESIGN AND CERTIFICATION

Items 33 to 39 are optional. Quote for four blocks; payment covers only affected blocks and authorised services delivered. No fee applies to blocks cleared by the audit.

33	Detailed repair and retrofitting design. Select and calculate the required RC/steel jacketing, FRP, shear walls/bracing, infill strengthening or other selected repair scheme under IS 15988, IS 13935 and IS 456. Deliver design calculations for the authorised block.	4	Blocks		
34	Good-for-construction remedial drawings. Prepare member-wise repair/strengthening details, dimensions, reinforcement, connections and relevant material requirements, coordinated with existing framing plans.	4	Blocks		
35	Detailed execution methodology. Prepare scheme-specific surface preparation, repair/strengthening sequence, application/installation steps and inspection requirements, coordinated with the approved remedial design.	4	Blocks		
36	Specifications and bill of quantities. Prepare technical specifications and measured repair/retrofitting quantities suitable for inviting execution tenders; link entries to drawings and methodology.	4	Blocks		
37	Execution phasing plan. Develop the block-wise work sequence and interfaces with occupied areas to minimise interruption to academic activity. Deliver Items 33 to 37 as 2 hard-copy sets plus soft copy.	4	Blocks		

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S. No.	Description of service and deliverable	Quantity	Unit	Rate (INR)	Amount (INR)
38	Periodic inspection and inspection reports. Inspect authorised strengthening works at intervals appropriate to the work; review contractor materials, method statements and workmanship against the approved design. Issue a report for each visit. Quote the complete inspection service per affected block.	4	Blocks		
39	Completion and stability certification. On satisfactory completion, issue signed structural completion/stability certification for the authorised block, confirming execution in accordance with approved design and prevailing NBC/IS Codes.	4	Blocks		
Phase 2 subtotal for four blocks					
Total professional fees excluding provisional Items 19 and 20					
GST (state rate: _____%)					
Grand total excluding provisional Items 19 and 20					

LS = lump sum; *Items 19 and 20 are provisional: enter unit rates and mark amounts "provisional". Their quantities are not specified; payment is based on authorised actual samples. These amounts are excluded from the tender total and added, with applicable GST, only when undertaken.

SCOPE AND COMMERCIAL CONDITIONS

Particular	Requirement
Measurement	Visual inspection covers approximately 64,000 sq ft. Jointly verify areas at mobilisation; reconcile Items 5 to 8 at quoted rates where overall area variation exceeds $\pm 5\%$. Other items retain their stated quantity basis.
Programme	Engagement letter within 3 working days of Work Order. Indicative programme: Phase 1 report within eight weeks. Phase 2 design by within one month, subject to authorization and uninterrupted access. Inspection follows the strengthening contractor's programme.

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Particular	Requirement
College inputs	Provide available records, coordinating representative, access permissions, power, water, safe access equipment and two helpers. Arrange opening of finishes and restoration of test/sample locations.

Submit the signed itemized schedule in a sealed envelope marked "Structural Safety Audit Tender - Motilal Nehru College", addressed to the Principal, Motilal Nehru College, by 23.09.2026.

THE PREVIOUS NOTICE DATED 05.08.2026 HAS BEEN TREATED AS CANCELLED. THE FIRMS APPLIED IN RESPONSE TO THE ABOVE REFERRED NOTICE MAY APPLY FRESH AGAIN.

Kapoor Sharma
15/9/2026
PRINCIPAL
Motilal Nehru College
University
of Delhi
N. Delhi-110021

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