
संरचनाओं के भूकम्परोधी डिजाइन के मानदंड

भाग 1 सामान्य प्रावधान और भवन
(छठा पुनरीक्षण)

Criteria for Earthquake Resistant Design of Structures

Part 1 General Provisions and Buildings
(*Sixth Revision*)

ICS 91.120.25

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

मानक भवन, 9 बहादुरशाह ज़ादर मार्ग, नई दिल्ली-110002
BUREAU OF INDIAN STANDARDS, 9 BAHADUR SHAH ZADAR MARG, NEW DELHI-110002



INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
SPONSORED RESEARCH & INDUSTRIAL CONSULTANCY OFFICE

Tel: 01832-285818, 01322-285564

Email: consultancy@iitr.ac.in, arrs@iitr.ac.in

STANDARD TERMS AND CONDITIONS OF CONTRACT FOR CONSULTANCY PROJECTS

Title of the Consultancy Job/Project:

Proj - checking of structural design of the proposed building of Pelonora Realty at Kanpur.

Name & Address of the Client:

Pelonora Realty LLP, Tilak Nagar, Kanpur.

Name and Department/Centre of the Principal Investigator (PI):

Bhupinder Singh, Civil Engineering

The Institute through the Principal Investigator (PI/Co-Principal Investigator/Co-PI) will plan the Project in consultation with the Client. These terms and conditions govern projects for the development of products, processes, field studies, model studies, calculations, economic and technical, consulting and other forms of project of specific interest to the client. The conditions are binding unless otherwise agreed upon in a separate signed document.

- 1. DECLARATION:** All work undertaken by the Principal Investigator (PI/Co-Principal Investigator/Co-PI) at IIT Roorkee as part of the project will be in good faith and based on material and other relevant information given by the client regarding the work. The Client will provide the details of projects already executed/ongoing by different PIs of IIT Roorkee and will give an undertaking that the project under consideration has not been executed by any other PI of any other department in IIT Roorkee.
- 2. RESPONSIBILITY / LIABILITY:** The Institute through PI/Co-PI undertakes to carry out the project as conscientiously as conditions allow, but accepts no responsibility whatsoever, should the work not lead to expected results. IIT Roorkee shall not be held liable for any loss, damage, delay or failure of performance, resulting directly or indirectly from any cause, which is beyond its reasonable control (Force Majeure). The liability of IIT Roorkee shall be limited to the funds received for the project.
- 3. DISCRETION:** The Institute through PI/Co-PI undertakes to handle with discretion reports, results, the identity of the client and all material specifically treated/needed confidential when the client places at the disposal of the PI/Co-PI in connection with the project at IIT Roorkee, subject to ~~its~~ to information rules/regulations.
- 4. SUB-CONTRACTING:** The Institute reserves the right to allow any work in connection with the project, expenditure or otherwise, to be carried out by a third party or for Institute norms and procedures, provided this does not result in the danger, or information of a confidential nature coming into the hands of unauthorized persons.
- 5. RESULT OF THE PROJECT:** The result of all work done at the Institute by the PI/Co-PI in connection with the project, incorporated in written reports shall remain the property of the Client. Results arrived at with little or no involvement on the part of the client are available free of charge for the Client's own use. However, the PI/Co-PI Institute reserves the right to use such results in connection with activities outside the scope of the project. If the Client consists of several individuals, all questions of Client rights between the Clients must be settled between such individuals, and are of no concern to the PI/Co-PI Institute. Unless otherwise agreed, all reports are to be sent to the Client. The PI/Co-PI Institute has the right to retain a

6. **INTEL. ACTUAL PROPERTY RIGHTS:** All rights pertaining to any intellectual property generated during the due course of the project, will be the joint property of IT Roorkee and the Client. Terms and conditions regarding transferring/assigning/selling these rights to the Client shall be governed by a separate written agreement if required.

7. **PUBLISHING THE RESULTS/OUTPUT/COME OF THE CONSULTANCY:** The results/output of the consultancy shall not be exploited by the Client organization for its business interests by using IT Roorkee's technology through press advertisement/publicity material or in any other manner. Manuscripts of academic papers, brochures, advertisements or other forms of published material which refer to or quote the proprietary results of the project shall be vetted by both parties before publication.

8. **COMMUNICATION OF RESULTS TO A THIRD PARTY:** The ITCo-PI may not, without the written agreement of the Client, communicate the results of the project to a third party. The Client shall arrange the necessary written agreement of all parties on the Client's side who may have publication rights with respect to the project.

9. **PROJECTS FOR OTHER CLIENTS:** The Institute may undertake other projects to the same field provided in the field of its knowledge and belief there exists no danger of information of a confidential nature coming into hands of a third party.

10. **APPARATUS:** Instruments and/or equipment obtained in connection with the project and assigned to the client remain the property of IT Roorkee, unless otherwise is specifically agreed to by the Institute.

11. **TERMINATION OF THE PROJECT:** The Client has a right to terminate the project at any time, but shall be liable for all reasonable expenses incurred in connection with the project already in progress according to the agreed work programme. The decision of IT Roorkee shall be final for all reasonable expenses incurred. The Institute does not also have the right to terminate the project at any time, except where otherwise agreed upon. The Client in this case will not be liable for any expenses incurred after the termination.

12. **PAYMENT:** The payment of consultancy charges to IT Roorkee shall be made in advance and in full before the start of the project, through the bank transfer. The charges will be as per the applicable tax as prescribed by the Government of India/State Government/any other statutory body, from time to time.

13. **DISPUTES:** In the event of any dispute between the parties hereto, such dispute or difference shall be resolved amicably by mutual consultation. If such resolution is not possible, then the unresolved dispute or difference shall be referred to a sole arbitrator to be nominated by the Director of the Institute for a Reasonable Award. The seat of arbitration shall be within the campus of IT Roorkee and the language of arbitration shall be English. The Award of the arbitrator shall be binding on the parties to the dispute.

14. **DISCLAIMER:** The report on the consultancy project is the technical opinion of the ITCo-PI based on his/her expertise in the particular area of research and in no way reflects the views of IT Roorkee. IT Roorkee is not responsible for the accuracy or completeness of the report and the sole of the Institute is limited to providing administrative support in the project.

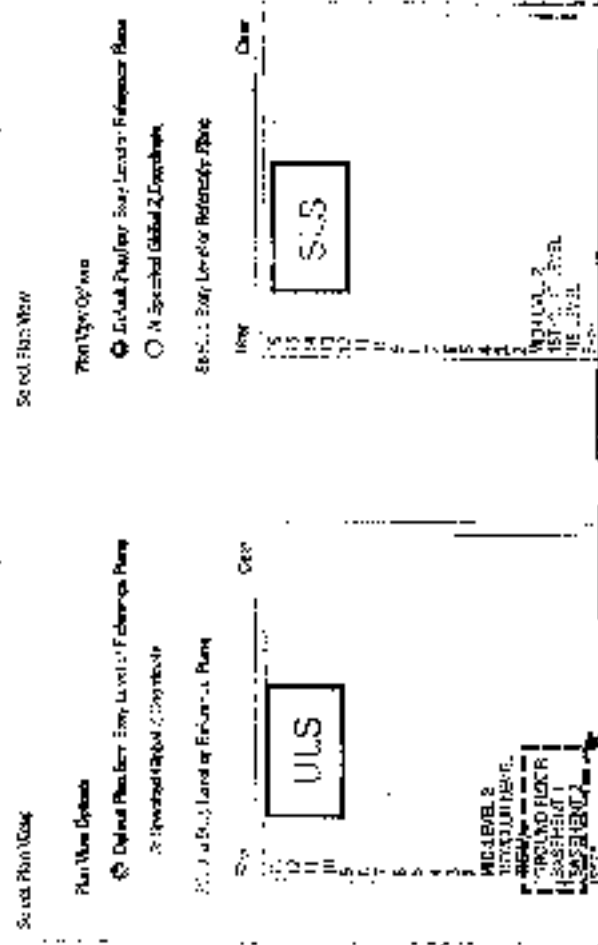
15. **GOODS AND SERVICES TAX:** As Per GST Act 2017, the Goods and Services Tax will be levied on total consultancy charges and this amount is to be borne by the Client. (The applicable GST is @ 18% w.e.f. 01-07-2017).

Date: July 17, 2024
Place: Roorkee

Name & Signature of Principal Investigator
(with office seal)

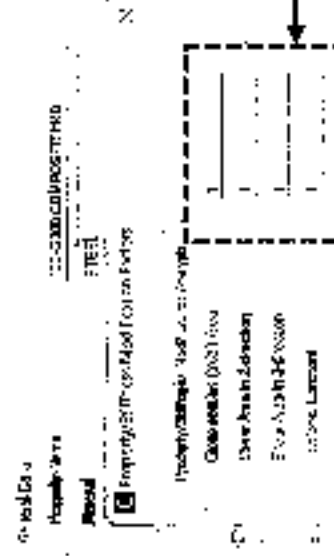
Alexander Agawal
Name & Signature of Client
(with office seal)

Please check and confirm that the maximum slenderness ratio of the building is in compliance with the requirements of table-2 of the IS 16700:2023. If this compliance is not satisfied then the building shall be classified as a Code-exceeding building and an external review committee consisting of experts will need to be constituted for granting final approval to the structural analysis and design of the building.



Why are these levels not included in the SLS model?

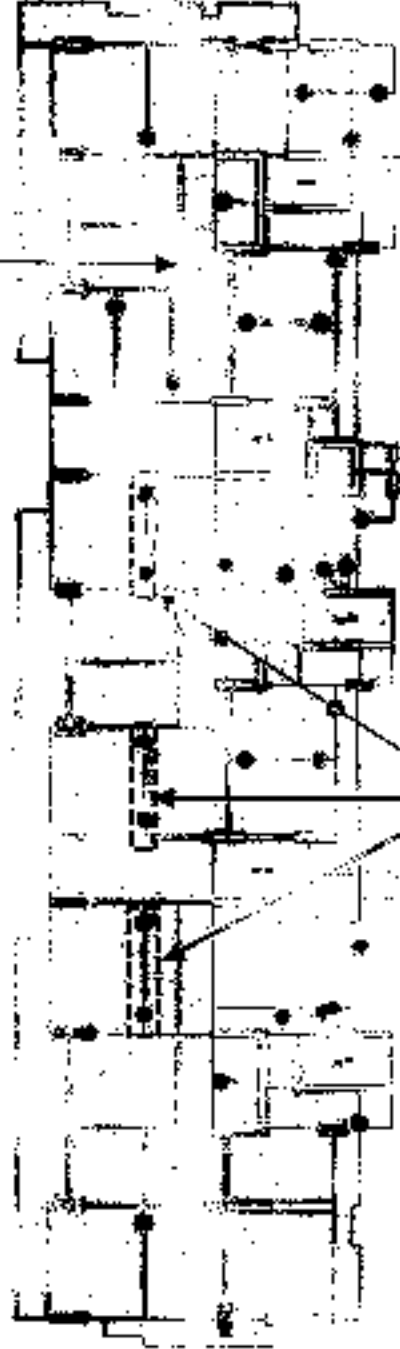
For the same building, why is there a difference in the overall building heights in the ULS (164.65 m) and the SLS (163.65 m) model? It may be noted that if the building height > 150 m then site-specific wind tunnel testing of the building will have to be carried out as per Clause 6.2.1 of the IS 16700:2023. The final wind loads for which the building has to be analysed shall be decided as per Clause 6.2.2 of the above Code.



Why are composite columns proposed to be used in the building? Why not regular RC / steel columns? The column connection design will become critical in composite columns. Why have no

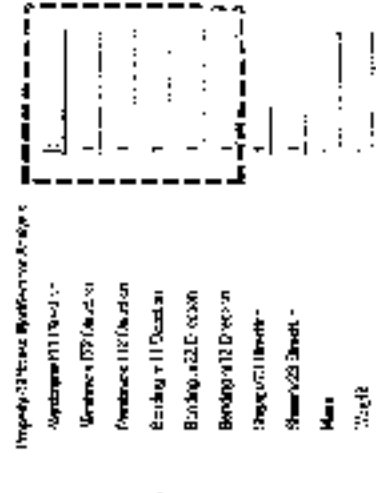
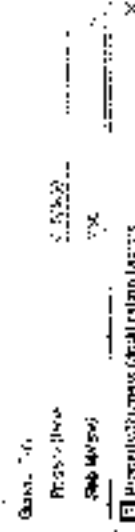
[illegible][illegible]

Detailing shall be consistent. Why end moments have not been released in the secondary beam for example? Please check all secondary beams to the framing system and adopt consistent end moment releases.

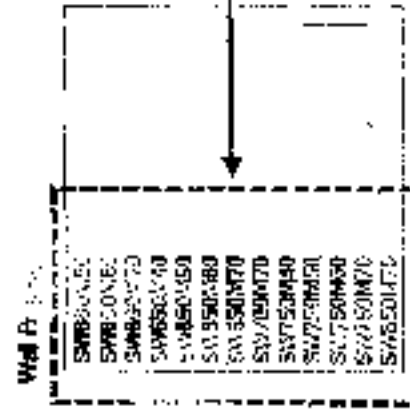




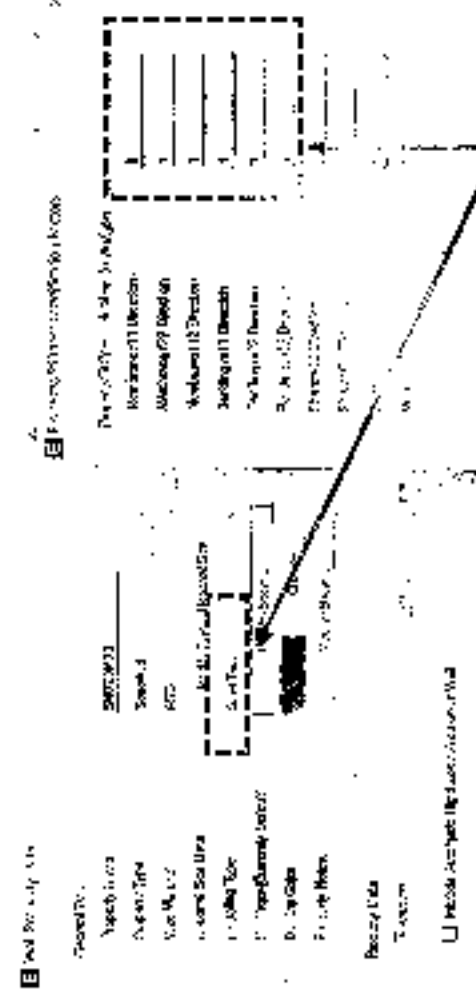
supporting shear walls will induce weak bending in the shear walls. To take care of these moments, the stiffness parameters M11, M22 and M12 in all such shear walls shall each be taken equal to 0.25.



Why has a mixture of RCC and composite columns been used in the building? Since some RCC columns are already been used it is strongly recommended that all composite columns should be replaced with RCC columns / shear walls. Moreover, why have no stiffness modifiers been assigned to this RCC column? Please check all RCC columns for this issue and revise where ever required.



Where are shear walls with thickness > 500 mm provided in the building? Please note that any vertical element of the framing system (column / shear wall) having a plan aspect ratio < 4 shall be classified as a column and designed and detailed accordingly.



A typical shear wall will resist lateral loads primarily through in-plane membrane action. Keeping this in mind, take $f_{11} = f_{12} = f_{22} = 0.9$ and $m_{11} = m_{12} = 0.1$. This shall be done for all RC shear walls in the framing system. In case any shear wall is resisting significant out-of-plane bending, then for all such walls take $m_{11} = m_{22} = m_{12} = 0.25$.

On what basis has the soil type been taken as "Type I"? What is the weighted and corrected 'N' value up to a depth of 3 m below

Patient Category	Diabetes (%)	Hypertension (%)	Both Diabetes and Hypertension (%)
All Patients	10	10	10
Patients with Diabetes	10	10	10
Patients with Hypertension	10	10	10

11. Which of the following is a function of the endoplasmic reticulum?

- Protein synthesis
- Lipid synthesis
- Detoxification
- Storage of calcium ions

Figure 1 illustrates the experimental setup. A subject is seated at a table, looking at a video screen. A video camera is positioned above the screen. A light source is positioned to the left of the screen. A subject is seated at a table, looking at a video screen. A video camera is positioned above the screen. A light source is positioned to the left of the screen. A subject is seated at a table, looking at a video screen. A video camera is positioned above the screen. A light source is positioned to the left of the screen.

max=0.1488560E+01, 2.17E+1 %

Environ Biol Fish (2015) 98:1039–1057

1

Run	Direction	Run Time	Run Rate	Run Distance	Run Speed	Run Time
1	0	0.00	0.00	0.00	0.00	0.00
2	0	0.00	0.00	0.00	0.00	0.00
3	0	0.00	0.00	0.00	0.00	0.00
4	0	0.00	0.00	0.00	0.00	0.00
5	0	0.00	0.00	0.00	0.00	0.00
6	0	0.00	0.00	0.00	0.00	0.00
7	0	0.00	0.00	0.00	0.00	0.00
8	0	0.00	0.00	0.00	0.00	0.00
9	0	0.00	0.00	0.00	0.00	0.00
10	0	0.00	0.00	0.00	0.00	0.00
11	0	0.00	0.00	0.00	0.00	0.00
12	0	0.00	0.00	0.00	0.00	0.00
13	0	0.00	0.00	0.00	0.00	0.00
14	0	0.00	0.00	0.00	0.00	0.00
15	0	0.00	0.00	0.00	0.00	0.00
16	0	0.00	0.00	0.00	0.00	0.00
17	0	0.00	0.00	0.00	0.00	0.00
18	0	0.00	0.00	0.00	0.00	0.00
19	0	0.00	0.00	0.00	0.00	0.00
20	0	0.00	0.00	0.00	0.00	0.00
21	0	0.00	0.00	0.00	0.00	0.00
22	0	0.00	0.00	0.00	0.00	0.00
23	0	0.00	0.00	0.00	0.00	0.00
24	0	0.00	0.00	0.00	0.00	0.00
25	0	0.00	0.00	0.00	0.00	0.00
26	0	0.00	0.00	0.00	0.00	0.00
27	0	0.00	0.00	0.00	0.00	0.00
28	0	0.00	0.00	0.00	0.00	0.00
29	0	0.00	0.00	0.00	0.00	0.00
30	0	0.00	0.00	0.00	0.00	0.00
31	0	0.00	0.00	0.00	0.00	0.00
32	0	0.00	0.00	0.00	0.00	0.00
33	0	0.00	0.00	0.00	0.00	0.00
34	0	0.00	0.00	0.00	0.00	0.00
35	0	0.00	0.00	0.00	0.00	0.00
36	0	0.00	0.00	0.00	0.00	0.00
37	0	0.00	0.00	0.00	0.00	0.00
38	0	0.00	0.00	0.00	0.00	0.00
39	0	0.00	0.00	0.00	0.00	0.00
40	0	0.00	0.00	0.00	0.00	0.00
41	0	0.00	0.00	0.00	0.00	0.00
42	0	0.00	0.00	0.00	0.00	0.00
43	0	0.00	0.00	0.00	0.00	0.00
44	0	0.00	0.00	0.00	0.00	0.00
45	0	0.00	0.00	0.00	0.00	0.00
46	0	0.00	0.00	0.00	0.00	0.00
47	0	0.00	0.00	0.00	0.00	0.00
48	0	0.00	0.00	0.00	0.00	0.00
49	0	0.00	0.00	0.00	0.00	0.00
50	0	0.00	0.00	0.00	0.00	0.00
51	0	0.00	0.00	0.00	0.00	0.00
52	0	0.00	0.00	0.00	0.00	0.00
53	0	0.00	0.00	0.00	0.00	0.00
54	0	0.00	0.00	0.00	0.00	0.00
55	0	0.00	0.00	0.00	0.00	0.00
56	0	0.00	0.00	0.00	0.00	0.00

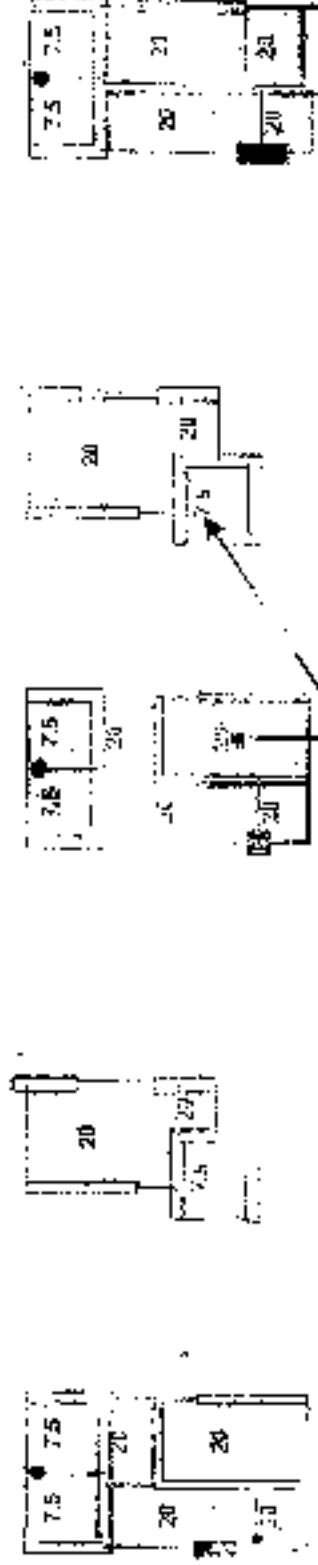
time-dependent properties of interest are creep and shrinkage behaviour of concrete.

COMB1 1.2DL+1.5EQ+0.3EQU
COMB2 1.2DL+1.5EQ+0.3EQU
COMB3 1.2DL+1.5EQ+0.3EQU
COMB4 1.2DL+1.5EQ+0.3EQU
COMB5 1.2DL+1.5EQ+0.3EQU
COMB6 1.2DL+1.5EQ+0.3EQU
COMB7 1.2DL+1.5EQ+0.3EQU
COMB8 1.2DL+1.5EQ+0.3EQU
COMB9 1.2DL+1.5EQ+0.3EQU
COMB10 1.2DL+1.5EQ+0.3EQU
COMB11 1.2DL+1.5EQ+0.3EQU
COMB12 1.2DL+1.5EQ+0.3EQU
COMB13 1.2DL+1.5EQ+0.3EQU
COMB14 1.2DL+1.5EQ+0.3EQU
COMB15 1.2DL+1.5EQ+0.3EQU

These load combinations are COMPLETELY UNACCEPTABLE. Why are ULS load combinations included in the SLS model? Please add ALI code recommended SLS load combinations.

Please share supporting calculations for the assumed wall loads. How has the temperature rise and temperature fall to be used in the thermal analysis of the slab been calculated?

Why have many slab panels been split into multiple segments. For example, this panel has been split into 3 segments. Why? Please check all other similar cases also.



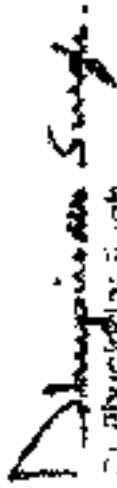
What is the source of these heavy live loads acting at this elevation? Weight of all full terrace supported water tank shall be taken as a non-reducible SIDL.

Framing plan at Z=146.15 m

The structural engineer is requested to submit a point-by-point response to each of the above observations together with a copy of the revised ETABS model of the building for a fresh review.

Also to be submitted is a point-by-point compliance of the building with each of the requirements of the Tables-5 IS 16700: 2023.

Review of sub-structure design shall be taken up only after all issues related to modelling and analysis of the super-structure have been satisfactorily resolved.


Dr. Rajinder Singh

Professor
Department of Civil Engineering
Bhilai Institute of Technology
Raipur - 492 015, India

July 23, 2024.

To
HOD.
Department of Civil Engg,
HBTU Kanpur
Nawabganj Kanpur (UP)

Sub: Vetting of Design Drgs of D wall

Respected Sir/ Madam Ji,

We the PALOMA REALTY LLP is constructing a high rise 34 Storey multi storied residential tower at 7/98-99 Tilak Nagar Kanpur, with 3 basements of each height 4.7 meter (floor to floor). In Basement we are constructing the diaphragm wall of 600mm /800 mm thick, the Design and drg for this diaphragm wall has been done from Gecon International Pvt.Ltd. Mumbai.

We want the vetting of these designs and drg from your institute, for which kindly share your techno commercial terms and conditions, and what data you require from our side.

Thanking You



Gopal verma


G. M. (Project)

B.Tech. (Civil engg)

HBTI Kanpur

Registration Certificate

Registration Number :05AAL10033R1Z5

1.	Legal Name	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE		
2.	Trade Name, if any	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE		
3.	Constitution of Business	Local Authority		
4.	Address of Principal Place of Business	SRIC, 0, MAIN BUILDING, IIT ROORKEE, IIT ROORKEE, Haridwar, Uttarakhand, 247667		
5.	Date of Liability	01/07/2017		
6.	Date of Validity	From	01/07/2017	To
7.	Type of Registration	Regular		
8.	Particulars of Approving Authority			
Signature				
Name				
Designation				
Jurisdictional Office				
9.	Date of issue of Certificate	13/11/2020		
Note: The registration certificate is required to be prominently displayed at all places of Business/Office(s) in the State.				

Details of Additional Place of Business(s)


GSTIN	05AAL10033R1Z5
Legal Name	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
Trade Name, if any	INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Total Number of Additional Places of Business(s) in the State 0

Legal Name INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Trade Name, if any INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Details of CEO or Equivalent

	Name	JITENDRA DIMRI
	Designation/Status	ASSITANT REGISTRAR
	Resident of State	Uttarakhand

Chhappander Singh, Ph.D.,
Professor

CFD/R&S/Consl./2024

Sh. Gopal Verma

G.M. (Projects)

Paloma Realty, Tilak Nagar, Kanpur

Ref: Your email of April 11, 2024

Sub: Proof-checking of structural design of the proposed building of Paloma Realty in Kanpur

Sr.

Zone-III is hereby given for proof-checking of structural design of the above-mentioned building(s) subjected to the following terms and conditions:

1. One copy each of site geo-technical investigation report, Design Basis Report (D.B.R.), layout drawings, analysis and design calculations and complete Good-For-Construction (G.F.C.) drawings of the proposed building(s) shall be submitted for review. The D.B.R. should clearly explain the strategy adopted for modeling, preliminary sizing and the assignment of loads and their combination in the analysis and design of the proposed building(s). Any special circumstances bearing a bearing on the building design shall also be mentioned. If any software has been used for the analysis and design then the computer input file of the software shall also be submitted for review.

2. The total fee inclusive of 18% G.S.T. for the I.I.T. Roorkee services shall be Rs. 12,39,000/-. If agreeable, then the quoted fee is payable in full in advance by way of a crossed DD drawn in favour of I.I.T. Roorkee and payable at Roorkee. The DD may be mailed to the undersigned for further processing. The fee payment may also be made online at the following details under intimation to the undersigned: Name of Bank: Punjab National Bank; Branch Address: I.I.T. Campus, Roorkee; Account Name: Industrial Consultancy - PNB; Account No.: 4044000100031597; Branch Code: 4044; IFS Code: PUNB0404400; MICR Code: 247924103. Please quote your G.S.T. and T.A.N. number while remitting the consultancy fee to I.I.T. Roorkee under intimation to the undersigned.

3. A nominal time of 5 to 6 weeks shall be required for the completion of the proof-checking exercise and submission of I.I.T. Roorkee observations. This time shall be reckoned from the date of receipt of all the information mentioned above and the fee in full.

4. Proof-checking of structural design shall be carried out as per I.I.T. Roorkee consultancy rules given on the Institute web site number 192.168.122.241. Please note that only typical G.F.C. drawings of the different structural elements of the proposed building shall be reviewed through modelling, analysis and design shall be comprehensively reviewed. It is recommended that building analysis, modelling and design should be carried out on ETABS and SAFE 2015.

Should you have any clarifications to seek then please feel free to get in touch with me.

Thanking you,

Yours sincerely

Phone No. : 01332-285885(O)
Fax No. : 01332-277777
E-mail : bhupinder@gmail.com

April 12, 2024

09/06/2024

DEPARTMENT OF CIVIL ENGINEERING
फंडाई - 247 667, उत्तराखण्ड, भारत
ROORKEE-247 667, UTTARAKHAND, INDIA
Fax/फैक्स : 01332-273566, 273360
Toll/हॉटली : 01332 283318, 283240
"आइड-मे लवयू" @iluvu.in

Invoice number: CDBSCONSL159524

June 03, 2024

M/S Paloma Realty LLP

(Taxp. Nagar

Kanpur

U.P.

GST No.: 09AAZFP3746P170

Proforma Invoice

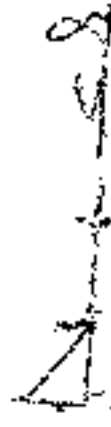
S.No.	Item	Amount
1.	Consultancy fee for proof-checking of structural design of the proposed building of Paloma Realty in Kanpur	Rs. 8,40,000
2.	Add G.S.T. at 18%	Rs. 1,51,200
	Net amount payable	Rs. 9,91,200/-
	Rupees Nine lacs ninety-one thousand and two hundred only	

(T. Roorkie P.A.N. number: AAAL10033R

I.T. Recd. No G.S.T. number: 05AAAL10033R178

I.T. Roorkie Services Account Code: 998393

Full payment is to be made in advance.


(Gaurinder Singh)

Dr. Bhimdev Singh



INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
SPONSORED RESEARCH & INDUSTRIAL CONSULTANCY OFFICE
Roorkee-247671, 285818, 01332-285561

E-mail: consultancy@iitr.ac.in, iitr@iitr.ac.in

STANDARD TERMS AND CONDITIONS OF CONTRACT FOR CONSULTANCY PROJECTS

Title of the Consultancy Job/Project:

Prof. checking of structural design of the proposed building of Paloma Realty at Roorkee.

Name & Address of the Client:

Mr. Gopal Verma, G.D. (Projects), Paloma Realty, Td. Nagar, Roorkee.

Name and Department/Centre of the Principal Investigator (PI):

Professor Suresh Chandra Singh, Civil Eng. Dept.,

The Institute through the Principal Investigator (PI)/Co-Principal Investigator (Co-PI) will plan the Project in consultation with the Client. These terms and conditions shall apply for the development of products, processes, field studies, and calculations, economic and technical consulting and other forms of project of specific interest to the client. The conditions are binding unless otherwise agreed upon in a separate signed document.

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- 3. DISCRETION:** The Institute through PI/Co-PI undertakes to handle with discretion reports, results, the identity of individuals, and all material specifically treated/marked confidential which the client places at the disposal of the PI/Co-PI in connection with the project at IIT Roorkee, subject to Rights to Information rules/regulations.
- 4. SUB-CONTRACTING:** The Institute reserves the right to allow any work in connection with the project to be carried out by a third party as per Institute norms and procedures, provided this does not result in the leakage of information of a confidential nature coming into the hands of unauthorized persons.
- 5. RESERVE OF THE PROJECT:** The result of all work done as the Institute by the PI/Co-PI in connection with the project, incorporated in written reports shall remain the property of the Client. Results arrived at with funds of the investment on the part of the client are available free of charge for the Client's own use. However, the PI/Co-PI Institute reserves the right to use such results in connection with activities outside the scope of the project. If the Client consents of several individuals, all questions of Client, rights between the Institute must be settled between such individuals, and are of no concern to the PI/Co-PI Institute. Unless otherwise agreed, all reports are to be sent to the Client. The PI/Co-PI Institute has the right to retain a copy.

6. **INTELLECTUAL PROPERTY RIGHTS:** All rights pertaining to any intellectual property generated/created/invented in the due course of the project, shall be the joint property of IIT Roorkee and the Client. Terms and Conditions regarding transferring/assigning/selling these rights in the Client shall be governed by a separate written agreement if required.
7. **PUBLISHING THE RESULTS/OUTCOME OF THE CONSULTANCY:** The results/outcome of the consultancy shall not be exploited by the Client organization for its business interests by using IIT Roorkee's name/logo through press advertisement/publicity material or in any other manner. Manuscripts of academic papers, brochures, advertisement or other form of published material which refer to or quote the proper or results of the project shall be vetted by both parties before publication.
8. **COMMUNICATION OF RESULTS:** **THIRD PARTY:** The PUCoM may not, without the written agreement of the Client, communicate the results of the project to a third party. The Client shall arrange the necessary written agreement of all parties on the Client's side who may have publication rights with respect to the project.
9. **PROJECTS FOR OTHER CLIENTS:** The Institute may undertake other projects in the same field provided - to the best of its knowledge and belief - there exists no danger of infringement of a confidential nature coming in to hands of a third party.
10. **APPARATUS:** Instruments and/or equipment obtained in connection with the project and charged to the Client remain the property of IIT Roorkee, unless otherwise it is specifically agreed to by the Institute.
11. **TERMINATION OF THE PROJECT:** The Client has a right to terminate the project at any time, but shall be liable for all reasonable expenses incurred in connection with halting work already in progress according to the agreed work programme. The decision of IIT Roorkee shall be final as far as responsibility of expenses is concerned. The Institute has also the right to terminate the project at any time except where otherwise agreed upon. The Client in this case will not be liable for any expenses incurred after the termination.
12. **PAYMENT:** The payment of consultancy charges to IIT Roorkee are to be made in advance and in full before the start of the project, through the bank transfer. The charges will also include any applicable tax as prescribed by the Government of India/State Government(s)/any other statutory body, from time to time.
13. **DISPUTES:** In the event of any dispute or difference between the parties hereto, such dispute or differences shall be resolved amicably by mutual consultation. If such resolution is not possible, then the unresolved dispute or difference shall be referred to a sole arbitrator to be nominated by the Director of the Institute for a reasoned Award. The seat of Arbitration shall be within the campus of IIT Roorkee and the language of Arbitration shall be English. The Award of the arbitrator shall be binding on the parties to the dispute.
14. **DISCLAIMER:** The report on the consultancy project is the technical opinion of the PUCoM based on his/her expertise in the particular area of research, and in no way reflects the view(s) of IIT Roorkee. IIT Roorkee is not responsible for the accuracy or completeness of the report and the sole of the Institute is limited to providing administrative support to the project.
15. **GOODS AND SERVICES TAX:** As Per GST Act 2017, the Goods and Services Tax will be levied on total consultancy charges and this amount is to be borne by the Client. (The applicable GST is @ 18% w.e.f. 01.07.2017).

Signature

Date: June 29, 2022 Name & Signature of Principal Investigator

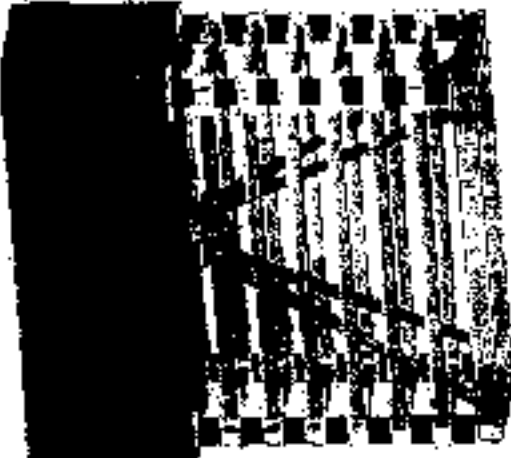
Name: Korolke

(with office seal)

Dr. Shubinder Singh
Professor

Name & Signature of Client

(with office seal)

M/s PALOMA REALTY LLP, 7/59 TILAK NAGAR, KANPUR		Enquiry No.: CH-DE24038 Enquiry Date: 15.05.2024 Verifying Executive Name: Ujjwal Gupta Email: ujjwal@ceconline.com Mob: 9760197825						
S.No.	HSN Code	Item Description	Buyer Item Code	UOM	Quantity	Rate/Unit	Disc	Amount
1		 Tuned Mass damper (2nos of approx. total 275 ton capacity		Nos	2	5,09,60,000.00		5,09,02,000.00
PROJECT: - TMD- Design, Engineering, Manufacturing, Installation at Paloma Realty residential building, Kanpur								
Total Qty.					1	Total		5,09,02,000
Taxable Amount								5,09,00,000
Total IGST Amount @18%								91,62,000.00
Total Amount								6,00,62,000.00
Terms & Conditions								
1.) PAYMENT: 30% advance with PO, 35% after technical clearance, balance 35% before dispatch of material.								
2.) DELIVERY: - Is manufacturer's factory - commercial clearance. Freight extra as app. cable for plant at job quality clear Delhi Meerut expressway.								
3.) CHA. IS THE Vendor's responsibility as per HR 1517								
4.) Validity: Our offer is valid for 15 days from the date of this offer and further extension of validity is subject to our price confirmation.								
5.) Packing charges 1% extra								
Prepared By: SAURABH VERMA							For CECO HINDIA PRIVATE LIMITED	
AUTHORISED SIGNATORY								

Subject:
To:
Cc:
Date:
By:

PALOMA REALTY <palomarealty@gmail.com>
To:
Cc:
Subject:
Date:
By:

25 Apr 2024, 10:07
The Rate of Voting was over. finalized @ Rs 110 per sq ft.
Now You are requested to kindly Share Us for Techno- Commercial Terms and Conditions for Further Process. Agreement of work as
recurred from our S.c. (i.e. from Our Structural Consultant).

Thanks and Regards
Gopal Verma

Labels

Subject:
To:
Cc:
Date:
By:

bhupinder singh <oshtecr@gmail.com>
To:
Cc:
Subject:
Date:
By:

25 Apr 2024, 10:07

Please share with me the following information:

1. GST number of the party that will pay the bill (taxpayer fee in advance to I.T. Roorkee. This is required for generating the pro will be sent to you for payment).
2. The structural designer shall share with me the following documents:

$$1140 \times 6,00,000 \times 1.18 = 991,200$$

Contract
- 1111 -

10000000
P11
- 1111 -

5 April 2024 at 13:40

PALOMA REALTY <palomarealtyllp@gmail.com>

To: bsiitr@gmail.com

Cc: Kushagra Jain <jainkushagra33@gmail.com>, abhishek.rmpd@hotmail.com

Dear Sir,

This is with Reference to vetting of Structural Drgs,

As we M/s PALOMA REALTY LLP is going to construct a High-Rise tower of 34 Storey with 3 Basement in Tilak Nagar Kanpur. Our Structural Consultant is M/s NNC design International, we want the Vetting of all structural d'gs from IIT Roorkee, So You are hereby requested to Kindly share the list of documents which you require, and what will be your charges.

Sir Kindly share all the details, So That action may start.

Thanks, and regards

GOPAL VERMA

G.M. (Project)

bhupinder singh <bsiitr@gmail.com>

To: PALOMA REALTY <palomarealtyllp@gmail.com>

Cc: Kushagra Jain <jainkushagra33@gmail.com>, abhishek.rmpd@hotmail.com

5 April 2024 at 17:02

Dear Sh. Gopalji

Please send me the complete floor area of the proposed building following which I shall submit my detailed techno-commercial offer for proof-checking

Regards

Bhupinder Singh

[Quoted text hidden]

Bhupinder Singh, Ph.D.

Professor

Department of Civil Engineering

Indian Institute of Technology Roorkee

Roorkee 247 667, India.

Tel: + 91 1332 285885 (Office)

+ 91 1332 285886 (Home)

Cell: +91 8475031000

FAX: +91 1332 285885

Alternate e-mail: bhuoffice@iitr.ernet.in

PALOMA REALTY <palomarealtyllp@gmail.com>

To: bhupinder singh <bsiitr@gmail.com>

Cc: Kushagra Jain <jainkushagra33@gmail.com>, abhishek.rmpd@hotmail.com

11 April 2024 at 17:58

Dear Sir,

Reference Your trailing mail

PI find the attached details of Floor wise area , It is around 6.0 Lacs Sft. Pl. Share your techno Commercial Offer.

Regards

Bhupinder Singh

[Quoted text hidden]

 ITR Offer.pdf

705K

PALOMA REALTY <palomarealtyllp@gmail.com>

To: bhupinder singh <bsiitr@gmail.com>

Cc: Kushagra Jain <jainkushagra33@gmail.com>, abhishek.mpd@hotmail.com

18 April 2024 at 11:04

Respected sir,

Thanks for your early response. We want to request you to kindly consider the quote amount to 7.5 lakhs +18% GST

It would be highly appreciated if you consider the same.

thanks & regards

Gopal Verma

[Quoted text hidden]

bhupinder singh <bsiitr@gmail.com>

To: PALOMA REALTY <palomarealtyllp@gmail.com>

Cc: Kushagra Jain <jainkushagra33@gmail.com>, abhishek.mpd@hotmail.com

18 April 2024 at 12:07

Dear Sir,

In my offer letter dated April 12, 2024, I had calculated the proof-checking fee at the rate of Rs. 1.75 per square feet. This is the normal fee that we charge for peer review of any tall building.

Since, you have made a request in the trailing mail for reconsideration of this fee, the best I can do is to reduce the charges from Rs. 1.75 per square feet to Rs. 1.50 per square feet. This is the least amount that I.I.T. Roorkee should charge in order to do justice to the efforts involved in the proof-checking exercise.

Hence, the revised I.I.T. Roorkee fee inclusive of GST = $6,00,000 \times 1.50 \times 1.18$ = Rs. 10,62,000. ✓

I am afraid that no further reduction of the fee will be possible because otherwise I will get into trouble with the Institute authorities.

Regards

Bhupinder Singh

① what all work they are going to do

[Quoted text hidden]

ॐ ॐ ॐ - 247 667, उत्तराखण्ड, भारत
ROORKEE-247 667, UTTARAKHAND, INDIA
Fax/फैक्स : 01332-275568, 273560
Tele/टेली : 01332-284319, 285219
E-mail/ई-मेल : info@cedr.co.in
CED/RS/Consult/2024


To whomsoever it may concern

This is to certify that the structural design and drawings of the proposed development named as Paloma The Grandeur, of M/S Paloma Realty LLP, 7/98-99, Tilak Nagar, Opposite Emerald Garden, Gate No. 1, Kanpur 208002, have been checked with respect to requirements of the Indian Standards, IS 456:2000, IS 1893 (Part 1):2016, IS 13920:2016, IS 16700:2023 and SP:34 and where ever required, revisions to the structural analysis, design and drawings have been recommended to the structural designer of the building, M/S N.N.C. Design International, G-70, 2nd Floor, Jaswant Plaza, Near Kalindi Kunj, Main Sarita Vihar Road, Okhla, New Delhi 110025. The structural designer has confirmed compliance with the required revisions and provisions of the aforesaid codes following which the structural design and drawings stand approved.

This certificate is based on review of the submitted structural modeling, analysis and design of the structure under reference and it does not absolve the structural design engineer of his responsibility regarding correctness, adequacy, accuracy and safety of the design and drawings of the structure and nor does it relieve him from any of his contractual obligations.

The scope of this certificate is limited only to the structural design of the above-mentioned building and I.I.T. Roorkee assumes no responsibility for compliance with local, state or national building bye-laws or with any other legal requirements or of safety aspects during construction or of overall quality of construction of the said building.

Any deviation from the approved layout, design and intended occupancy of the proposed building invalidates this certificate.


(Bhupinder Singh) Sept. 23, 2024.

Labels

02/05/24

02/05/2024

02/05/2024

02/05/2024

In my offer letter dated April 12, 2024, I had calculated the proof-checking fee at the rate of Rs. 1.75 per square feet. This is the correct charge for peer review of any full building.

Since, you have made a request in the trailing mail for reconsideration of this fee, the best I can do is to reduce the charges from Rs. 1.75 per square feet to Rs. 1.50 per square feet. This is the least amount that I.T.I., Roorkee should charge in order to do justice to the effort of proof-checking experts.

Hence, the revised I.T.I. Roorkee fee inclusive of GST is $6,00,000 \times 1.50 \times 1.18 = \text{Rs. } 10,82,000$.

I am afraid that no further reduction of the fee will be possible because otherwise I will get into trouble with the Institute authorities.

Regards

Bhupinder Singh

Thank you for your offer.

I accept the proposal.

Accepted.

Bhupinder Singh, Ph.D.

Professor

Phone: 2-2858855(O)

Phone: 2-275885

Email: bhuipf@itr.ac.in

CLF/BS/Consl/2024

Sh. Gopal Verma

G.M. (Projects)

Paloma Realty, Tilak Nagar, Kanpur

April 12, 2024

Ref: Your email of April 11, 2024

Sub: Proof-checking of structural design of the proposed building of Paloma Realty in Kanpur.

Sir,

Consent is hereby given for proof-checking of structural design of the above-mentioned building(s) subjected to the following terms and conditions:

1. One copy each of site geo-technical investigation report, Design Basis Report (D.B.R.), layout-drawings, analysis and design calculations and complete Good-For-Construction (G.F.C.) drawings of the proposed building(s) shall be submitted for review. The D.B.R. should clearly explain the strategy adopted for modelling, preliminary sizing and the assignment of loads and their combination in the analysis and design of the proposed building(s). Any special circumstances having a bearing on the building design shall also be mentioned. If any software has been used for the analysis and design then the complete input file of the software shall also be submitted for review.

2. The total fee inclusive of 18% G.S.T. for the I.I.T. Roorkee services shall be Rs. 12,39,000/-. If agreeable, then the quoted fee is payable in full in advance by way of a crossed DD drawn in favour of I.I.T. Roorkee and payable at Roorkee. The DD may be mailed to the undersigned for further processing. The fee payment may also be made online at the following details under intimation to the undersigned: Name of Bank: Punjab National Bank; Branch: Address: I.I.T. Campus, Roorkee; Account Name: Industrial Consultancy - PUNB; Account No.: 404400H00031597; Branch Code: 4044; IFS Code: PUNB0404400; MICR Code: 247024103. Please quote your G.S.T. and T.A.N. number while remitting the consultancy fee to I.I.T. Roorkee under intimation to the undersigned.

3. A nominal time of 5 to 6 weeks shall be required for the completion of the proof-checking exercise and submission of I.I.T. Roorkee observations. This time shall be reckoned from the date of receipt of all the information mentioned above and the fee in full.

Proof-checking of structural design shall be carried out as per I.I.T. Roorkee consultancy fees given on the institute website number 192.168.122.241. Please note that only typical G.F.C. drawings of the different structural elements of the proposed building shall be reviewed though modelling, analysis and design shall be comprehensively reviewed. It is recommended that building analysis, modelling and design should be carried out on ETABS and SAFE 2016.

Should you have any clarifications to seek, then please feel free to get in touch with me

Thanking you,

Yours sincerely

2. **Confidentiality:** Due care will be taken by IIT Bombay to maintain confidentiality and discretion regarding confidential information received from the client, including but not limited to results, reports and identity of the client.
3. **Reports:** Any test or other consultancy report given by IIT Bombay will be based on work performed according to available standards and / or open domain literature. In any event, this report may not be construed as a legal document, certificate or endorsement and may not be used for marketing of the products or processes, without prior consent from IIT Bombay. The institute reserves the right to retain one copy of the report and use the results of the project for its internal teaching and research purposes.
4. **Work performance:** Every effort will be made to complete the specified work according to the planned time schedule. However, IIT Bombay will not be held responsible for delays caused beyond its reasonable control.
5. **Conflict of interest:** IIT Bombay may take up work for other clients also in the same area, provided, to the best of the institute's knowledge, there is no conflict of interest in undertaking such projects.
6. **Payment:** The payment of consultation charges to IIT Bombay are to be made in advance and in full before the start of the project, through electronic transfer as per the bank details given in the annexure. The charges will also include any applicable tax as prescribed by the government of India from time to time.
7. **Termination:** The project work may be terminated by either party by giving the other party a notice period of 30 days. However, both parties will meet any residual obligations in connection with the project.
8. **Liability:** IIT Bombay shall not be held liable for any loss, damage, delay or failure of performance, resulting directly or indirectly from -- (i) the project work undertaken hereunder or the results thereof; or (ii) any cause, which is beyond its reasonable control (force majeure). Provided, however that liability of IIT Bombay (if any) under all circumstances (if affixed by any law or proceeding), shall be limited to the funds received for the project.
9. **Intellectual property rights:** All rights pertaining to any intellectual property generated / created / invented in the due course of the project, will be the joint property of IIT Bombay and the client. Terms and conditions regarding transferring / assigning / selling these rights to the client shall be governed by a separate written and agreed to document if required.
10. **Resolution of disputes:** any disputes arising out of the project shall be amicably settled by both the organizations. Any unsettled disputes may be subject to resolution as per the Indian arbitration and conciliation act 1996.
11. **Disclaimer:** The report on the consultancy project is the technical opinion of the individual faculty member, based on his/her expertise in the particular area of research and not the views of IIT Bombay. The contents of this report are purely technical/scientific and non-legal in nature and based on the information/facts disclosed by the client. The client shall be solely responsible for any intended use/utilisation of this report. All warranties or representations of any kind, pertaining to the report or its contents are hereby expressly

Shree

Sr

Sr

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14/05/20

14/05/20

14/05/20

14/05/20

14/05/20

Structural Eng PALOMA KAMPUR

The IITB consultation charges for the above will be Rs. 15,000 plus 18 percent GST (i.e., a total of Rs. 17,700.00/-), payable in advance by RTGS or Demand Draft in favour of the Registrar, IIT Bombay.

The duration of the project shall be taken as 25 days. This project will be taken up under the standard terms and conditions of the IITB as attached.

I hope the above will suit your requirements, and please inform me so that I can proceed with obtaining the necessary approval from the IITB for taking up this job.

Please send me the letter of request on your company or organisation letterhead, along with the billing address, GSTIN, and PAN for making the Performance Invoice.

A disclaimer, as mentioned in the enclosed standard T&C, will appear in the project-closing report(s) to be submitted by me in this project.

Please feel free to contact me if any clarification is required.

Spoke

ent

to

Mega

Labels

to

Hi

ME

Mega

Thank you

Warm regards,

Rasht Bindal

KLA Const. Technologies Pvt. Ltd. || 2, Ground Floor, Shambhu Dayal Bagh, Main Kalkaji Road|| New Delhi-110020
M: 999-000-8055 || T/F: 011-26911114/15/16/17 || Visit us at www.klaworld.com

Thanks for your information.

Thank you for your response.

Thanks for your feedback.

Reply

Reply to all

Forward



Dear Sir,

Thank you for sharing the module with us for your upcoming project.

We have done a preliminary check of the same and due to constraint of the building geometry, our seismic forces are using FRICTION SEISMIC BRAKES or DAMPERS will not be optimal economically.

Hence we look forward to your future projects where we could get an option to provide solution to building using our and performance improvement using KLA – QuakeTek's Friction Seismic Brakes.

Thank you

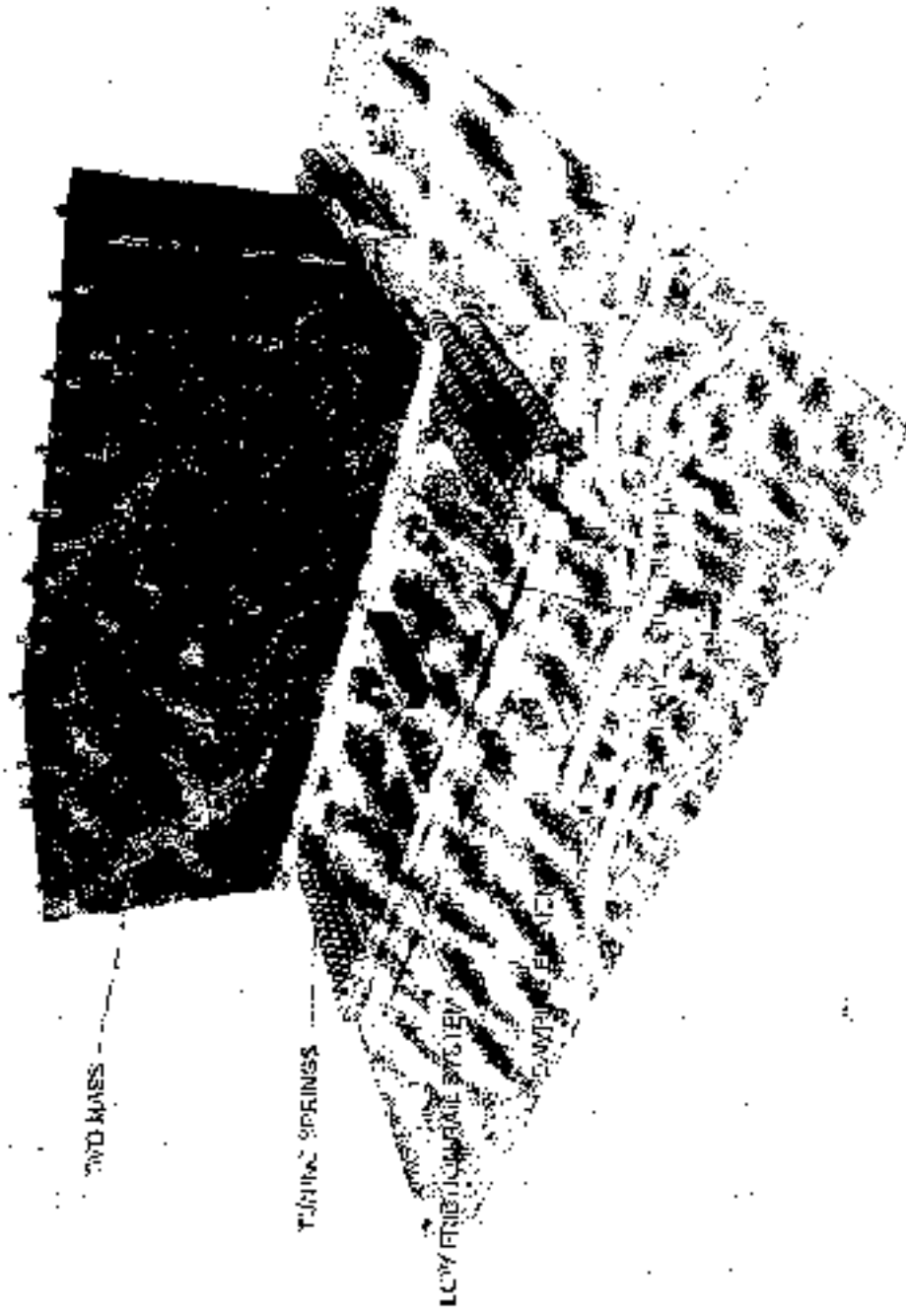
Warm regards,

Rashi Bindal

KLA Const. Technologies Pvt. Ltd. || 2, Ground Floor, Shambhu Dayal Bagh, Main Kalkaji Road || New Delhi-110020
M: 998-000-8855 || T/F: 011-2681114/15/16/17 || Visit us at www.klaworld.com

Tuned Mass Damper

Total 1 no. of Tuned Mass Dampers of approx. 180-200 Tons Mass is recommended.



Rail Type TMD -- key components

Price

5,50,00,000/-
(INR Five Crore Fifty Lakhs Only)

Terms and Conditions

- Taxes – GST (18%) and other applicable taxes shall be extra as applicable.
- Payment – 100% along with PO.
- Freight – Freight charges from GERB works, Bangalore shall be at actual. Price above is ex-works Bangalore.
- Road worthy packaging shall be at 3%.
- Lead time is 8-10 months.
- This price is based on the current steel price, any variation shall impact the final price.

We assure you our best attention and services.

Yours sincerely,

Pratik Bagaria
Projects and Sales
GERB Vibration Control Systems Pvt. Ltd.