



ALUVISION
FACADE SOLUTIONS PVT. LTD

WHEN FACADE , THINK AFS

DESIGN



ENGINEERING



CONSULTING

WHO ARE WE

AFS is an independent design firm of designers, engineers, consultants, and technical experts, offering a wide range of professional services including design, engineering & consulting in the specialist field of facade engineering, external building envelopes, Architectural engineering. AFS has a team of individuals with international projects experience.

Together we help our clients solve their most complex challenges by providing simple and effective optimal solutions as we strive to build their vision.

Our clients are Developers, Architects, main contractors, curtain wall fabricators, facade contractors etc. We deliver our designs, drawings and calculations, in electronic format, to all regions of the world.

ALU VISION

OUR SERVICES

FACADE CONSULTING

FACADE ENGINEERING

BMU CONSULTING

PEER REVIEW

PMC

BIM

ALU VISION

FACADE CONSULTING

AFS is an independent design firm of designers, engineers, consultants, and technical experts, offering a wide range of professional services, including design, engineering & consulting in the specialist field of facade engineering, external building envelopes, Architectural engineering. AFS has a team of individuals with international projects experience.

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Concept Design

At this stage, AFS will assist the architect and all stakeholder in establishing the performance criteria of the facade. This will include evaluation of different design options and facade types, our assessment at an early stage could avoid the surprises in the later stage of design such as unworkable designs and cost-prohibitive. Our facade experts input, these issues are addressed before the design development stage.

Outputs

- Review of architectural drawings focusing on the feasibility and constructibility of the facade.
- Review of wind tunnel test report or wind load analysis as per local wind codes
- Review of facade design options
- Proposed facade types and different options available
- Proposed material options
- Concept design and provide different options for facade types.

Tender Documents

AFS will prepare a set of tender documents of a facade to be used for building envelope and contact documents. This set of the document will include facade system details of each wall types, technical specifications PMU and VMU scope. AFS will submit tender documents covering the facade scope and performance.

Output

- Facade system design details set
- Facade technical specification
- Performance and Visual mockup scope
- Tender documents set

Design Development

At this stage AFS will develop facade design details incorporating all design aspects, this includes local code requirements, design basis report (DBR), structural integrity, thermal analysis, air and water infiltration specification, smoke and fire stop, integration of building maintenance restraint, and combination of facade lighting.

Output

- Facade type marks up elevation, glass type markup elevations.
- Facade design details with all details and focusing and resolving all critical interfaces along with typical design details and required 3D views.
- Design Basis Report

FACADE CONSULTING

Vendor Technical Evaluation

AFS will assist the owner and contracting team in selecting the capable and appropriate facade contractor for the project. AFS will provide technical assessment during the technical review meetings with bidders and review the technical documents submitted by bidders in relation with contract documents and materials and tender document compliances, AFS will interview bidders to verify their understanding of the project.

Output

- Instruction to bidders
- Responses to bidders queries for better understanding
- List Technical queries
- Technical evaluation report

PMU & VMU

Post-award of the facade work AFS will provide a review of Mock-up shop drawings and will observe the mockup and check compliance with structural as well as approved drawings sets, dimension verifications and documents the result.

Output

- Review of mockup shop drawings
- Review of visual mockup and submission of observation report
- Witnessing performance mockup test and presentation of observation report

Drawings & Structural Calculation Review

AFS will provide review and documentation of system drawings, shop drawings and structural calculations as per the local code requirements and in compliance with project documents and specification.

Output

- Review of shop drawings and structural calculations submittals
- Review of material samples and product data sheet submittals

QA/QC Inspections

AFS will conduct inspection at all stages of facade construction. AFS will photograph the process from fabrication, assembly, storage, installation and field testing. AFS will provide a report with observations and recommendations.

- Factory inspection report
- Site inspection report
- Filed test observation report

ENGINEERING SERVICES

All of the engineering services that are likely to be needed by a facade contractor, beginning with the structural design of a new system, and including preparation of routine reports to demonstrate compliance with all International design code like **BS, EN, ASNZ, ADM, IS** etc., can be provided by AFS

- ▶ Bespoke Design
- ▶ Concept drawings
- ▶ Shop drawings
- ▶ PMU/VMU drawings
- ▶ Structural Calculations
- ▶ Production drawings
- ▶ Material Take Off
- ▶ As built drawings

10+ COUNTRIES WE WORK



Thermal Modelling Services

AFS offers thermal modelling and analysis services to building facade system manufacturers and subcontractors during system design development and technical submission phases. We also offer these services to Architects and Construction Managers to establish design parameters during project documentation phases, for LEED® certification purposes or to diagnose condensation/frost formation after facade system installation. In addition to providing essential thermal services using Therm and Window, AFS can provide more advanced analyses using the ANSYS family of software packages.

BESPOKE SYSTEM DESIGN

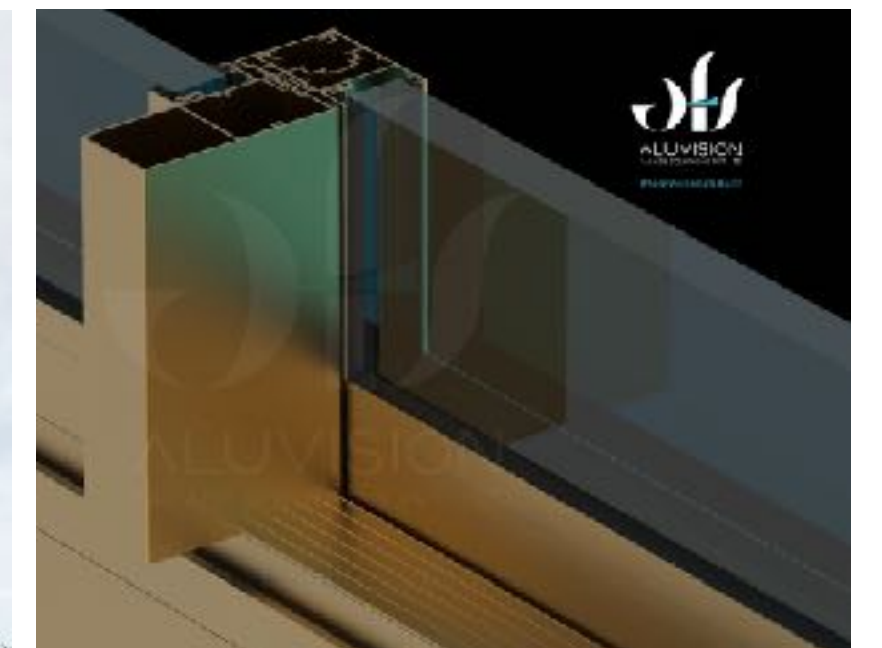
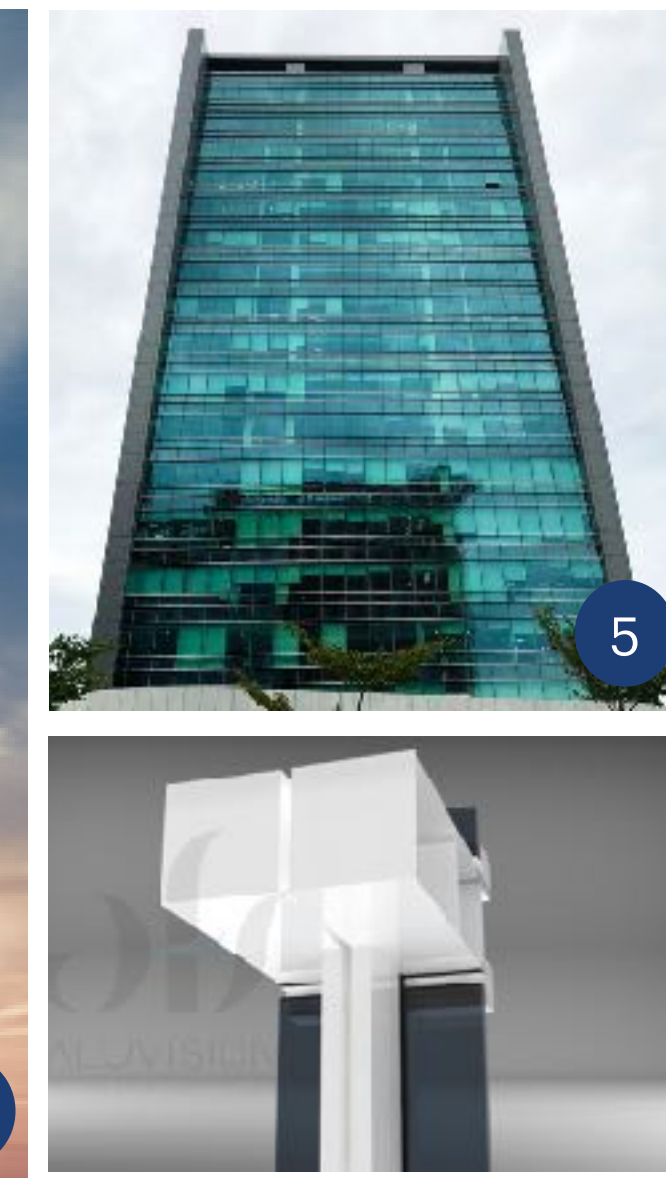
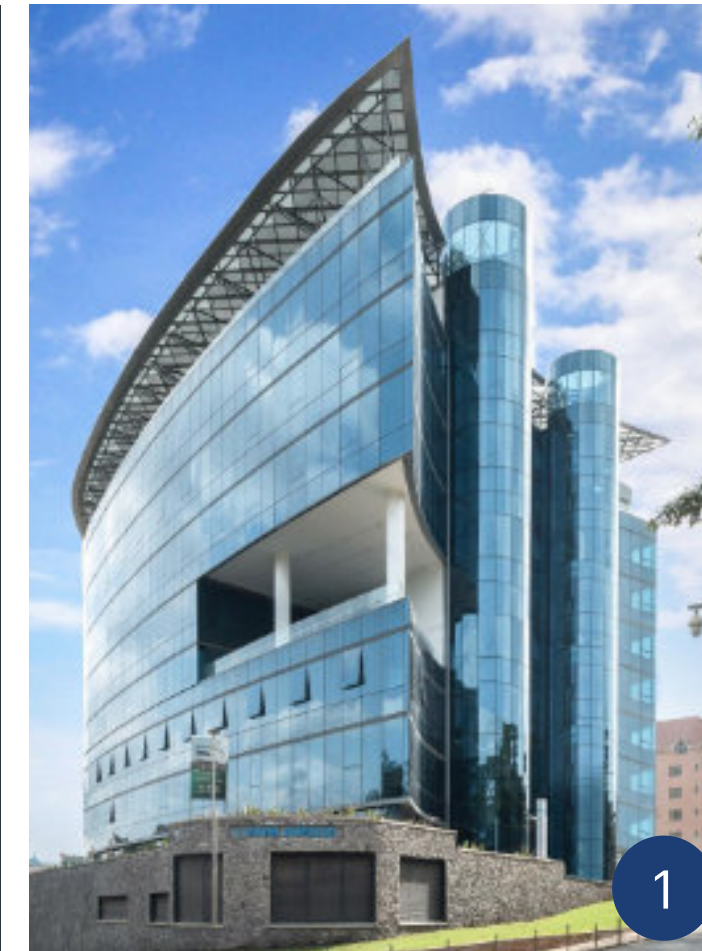
AFS develops innovative curtain wall systems, each of which is tailored to meet combining aesthetic, performance and economic considerations into best solutions to our client's needs for a building.

AFS develop a suite of Bespoke designed aluminium extrusions specifically for the project. This is the sort of design work in which AFS specializes. AFS develops the functional concept for a new curtain wall system, and then refines the shapes of the new aluminium extrusions and brackets, do structural calculations to minimize metal weight. We provide die drawings for each of the new framing extrusions and gaskets, and we specify production parameters such as the dimensional tolerance limits. We take the responsibility of PMU test performance.

Few remarkable bespoke system solutions provided by AFS Queen's tower 270 m tall high rise tower in Mumbai - AFS has provided bespoke system solutions with the most optimised solution in terms of aluminium consumption, structural performance and most important the air and water performance, sliding window system tested in the laboratory for 300Pa air, 720Pa water pressure and 4.5 Kpa structural load performance.

Unitized curtain wall system design solutions for many high-rise towers ranging from 80meter to 220meter tall, which are successfully tested for different performance requirements at an accredited testing laboratory.

Our designed system has been used on many projects which are totalling 4.5 million sqft and providing high-performance protection to many commercial and residential inhabitants.



1. I & M Bank - Nairobi
2. Nexworld - Mumbai
3. ITC Campas - Kolkatta
4. World One -
Queens Tower - Mumbai
5. Meenakshi Towers - Hyderabad

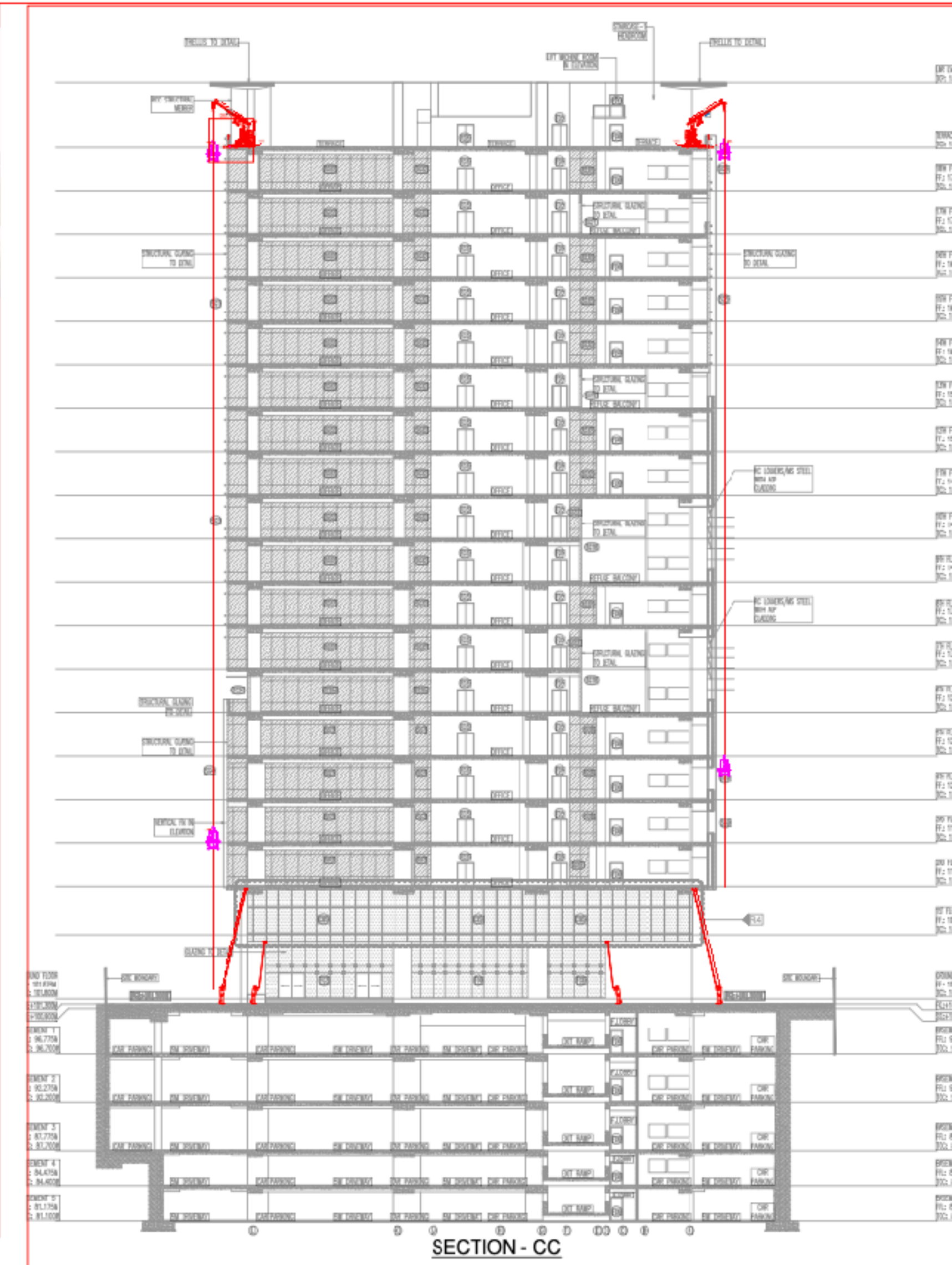
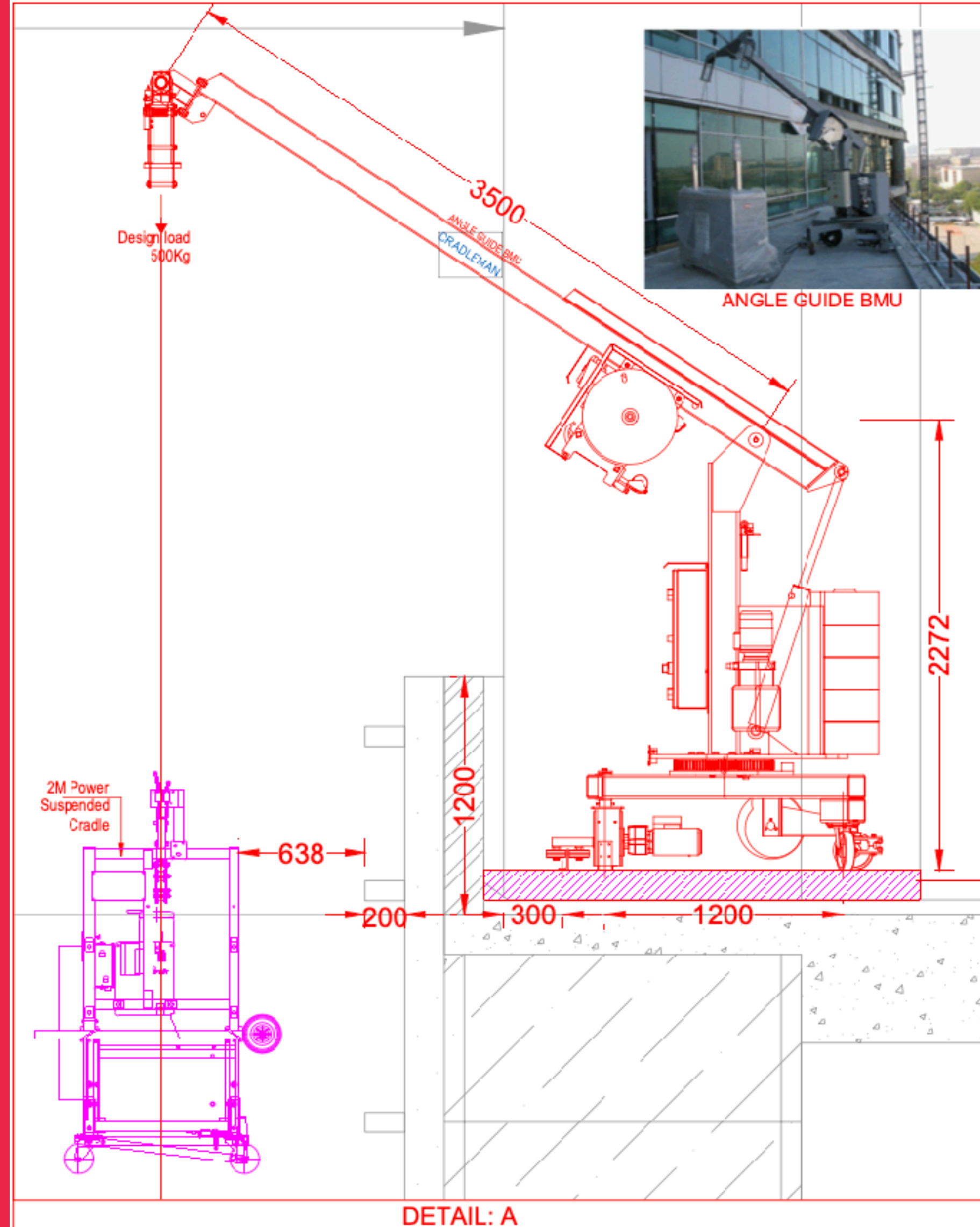
BMU CONSULTING

All building owners and architects want their projects to look stunning always, and we can achieve this by periodic cleaning of the building facade.

Our facade access solutions go beyond routine cleaning to encompass the long term strategy for facade maintenance and replacement of facade elements.

We assist clients and architects in the integration of building maintenance units for exterior and interior building maintenance.

- BMU system selection
- BMU structural analysis
- Reaction study for design on RCC structure
- Facade Restrain pin location and designs
- Cleaning cycle calculations



PEER REVIEW SERVICES

Architectural Documents

- Review and comment on the Architect's details of the exterior facade which include air, water and thermal properties, particularly at the critical interface and feasibility of the building envelope systems.
- Evaluate material selections and finishes, sealant detailing, and code considerations such as smoke/fire control, vertical separations at building envelope elements.
- Write or review technical specifications to establish appropriate performance criteria which account for building enclosure system tolerances, Advise on maintenance issues associated with the exterior wall, and incorporate building maintenance unit.

Shop Drawings and submittals

- Technical review and comments on contractor submittals to establish compliance with the design intent and project requirement.
- Review system provisions for internal drainage of water infiltration, thermal movement, building deflections, construction tolerances, sealing methods and product sue, fire resistance, and other performance requirements.
- Review and comment on structural calculations submitted by subcontractor to support their design submittals.
- Review and comments on anchor design considerations and actual site conditions.
- Review and comment on contractor's job specific quality control checklist for shop assemblies and field installation



ALLVISION FACADE SOLUTIONS PVT. LTD
One Hyd @ Hyderabad
08th January 2020

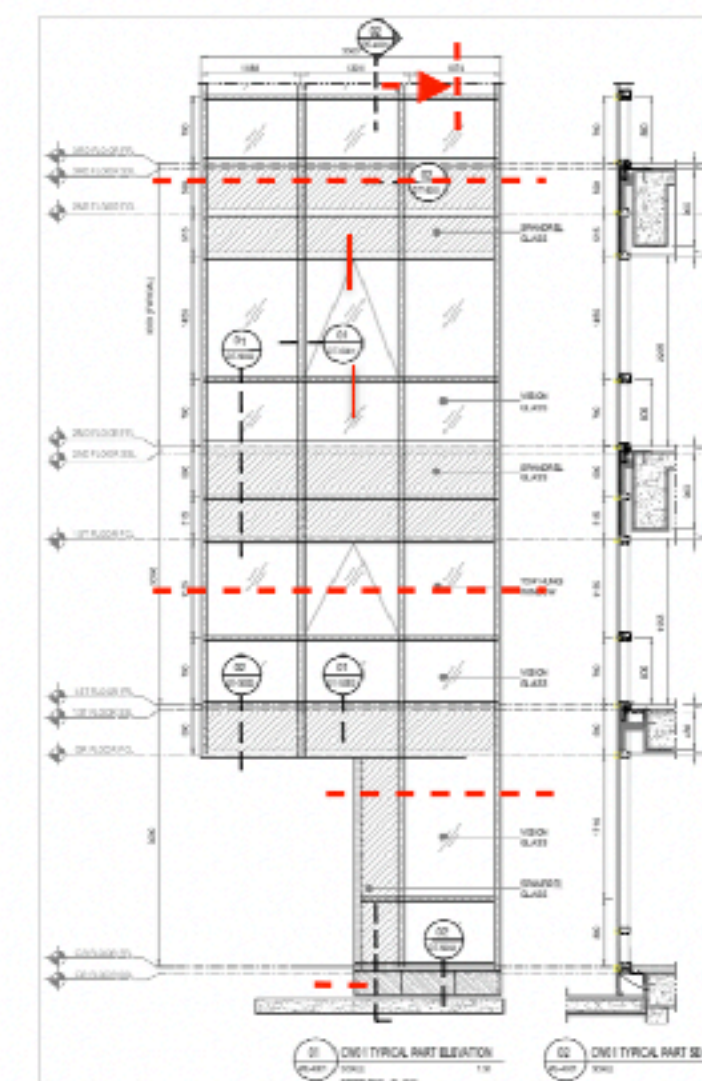
PEER REVIEW REPORT

CW01

Unlized system with only horizontal capping

Partial Elevation Dwg. No. - F- OHP - PE - 4001 reference drawings EL1003, there is no drawing name EL 1003 its EL4003.

Elevation shows vertical and horizontal capping, whereas detail in plan doesn't show capping.



OBSERVATIONS

- Plan is missing in drawings as marked on elevation plans are required to be included.
- Interface detail with stone cladding is missing.
- 01/DT5001 - Operable window details are missing in drawing.
- Operable window top and bottom details are missing in PE marking.
- 01/5003 & 02/5003 tag marking on PE and details are not matching need to interchange the detail no from 1-2 & 2-1.
- @ ground floor left side plan detail is missing details.
- If we refer detail no 1/5002 Horizontal sections are having capping, whereas detail no1/5003 & 2/5003 doesn't show any horizontal caps and 01/5011 shows capping of 150 & 50mm

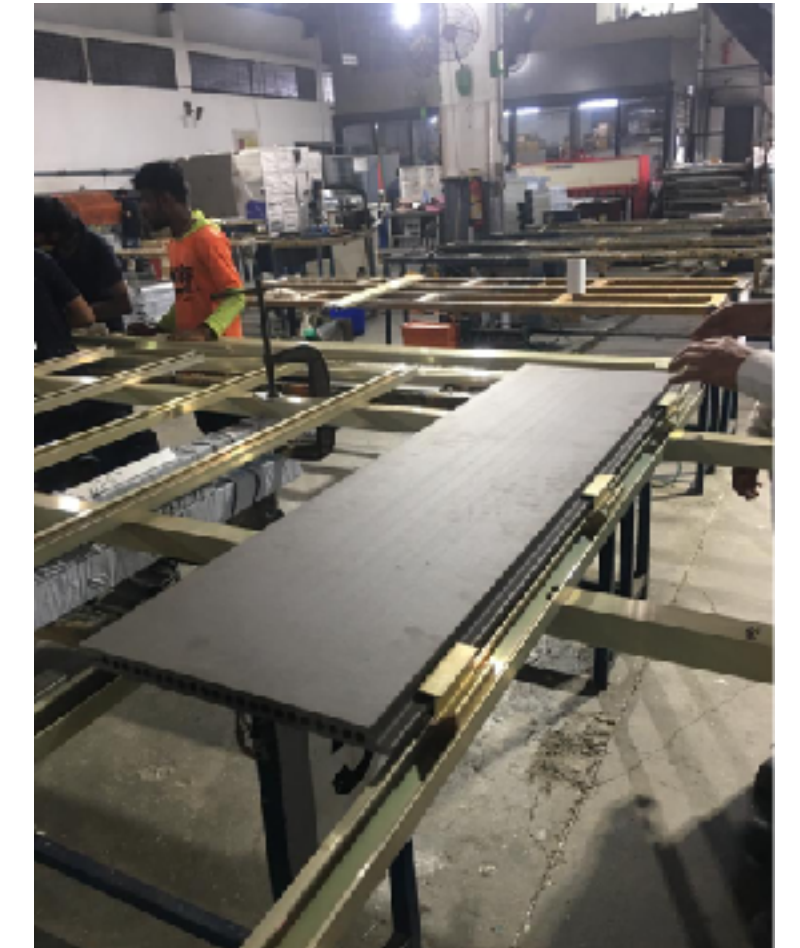
PMC & QA/QC SERVICES

PMC & QA/QC

A successful building envelope that performs and looks stunning is a fundamental requirement of all stakeholders. Precise implementation, stringent quality standards & procedure during the whole process from design, engineering, procurement, production and installation is the key to a successful project. Project completion on time with excellent quality make a win-win situation for all stakeholder of the project.

We offer QA/QC and PMC services to ensure our client gets the most appropriate materials and excellent quality in a stipulated timeline. We always strive for exceptional quality and timely delivery of the project.

ALUVISION PROJECT CONSULTING & SERVICES		RAJAPUSHPA		Rajapushpa Paradigm Project Nanakramguda, Hyderabad Minutes of RJP Weekly Site Project Review Meeting with ALUFIT No.03					
8.00 Design/ Method statement/Proposals/Material submissions:									
8.01	ALUFIT to provide remaining shop drawing submission dates.	ALUFIT							
8.02	ALUFIT to submit all termination drawing along with shop drawing.	ALUFIT	FYI						
9.00 Logistic setup									
9.01	ALUFIT to ensure materials stacking at site and work place, storage area should be free of damages.	ALUFIT	FYI						
9.02	ALUFIT to remove panels from north elevation ground floor. AFS and client will provide the location to shift the materials.	ALUFIT	18.01.21						
10.00 UCW Progress status									
10.01	UCW. Stick Curtain Wall & Strip Glazing Panels Works.			ALUFIT					
All UCW panels* installation to be completed by on or before 30 th Jun 21.									
Total UCW Panel : 3631 No's Installed Quantity: 233 No's Balance Quantity: 3398 Nos.									
F-01 UNITIZED PANELS (CONTINUOUS)									
Level	East	West	North	South	North-East (Curve Area)	North-West (Curve Area)	Total	Received	Installed
Gnd				3			3		
1st				3			3		
2nd	100	33	26	36			195	192	140
3rd	100	33	26	36			195	192	63
4th	100	33	26	36			195	186	30
5th	100	33	26	36			195		
6th	12						12		
7th	88	30	23	41	8		190	92	
8th	88	30	23	41	8		190		
9th	88		23	29	8		148		
10th	88	30	23	41	8		190		
11th	88	30	27	41	8		194		
12th	88	30	27	41	8		194		
13th	88		23	29	8		148		
14th	88	59	31	41	8	8	235		
15th	88	59	31	41	8	8	235		
16th	88	59	31	41	8	8	235		
17th	88	29	31	29	8	8	193		
18th	88	59	31	41	8	8	235		
Terrace	60	29	31		8	8	136		
Total	1528	576	459	606	104	48	3321		233



" Do it right the first time"

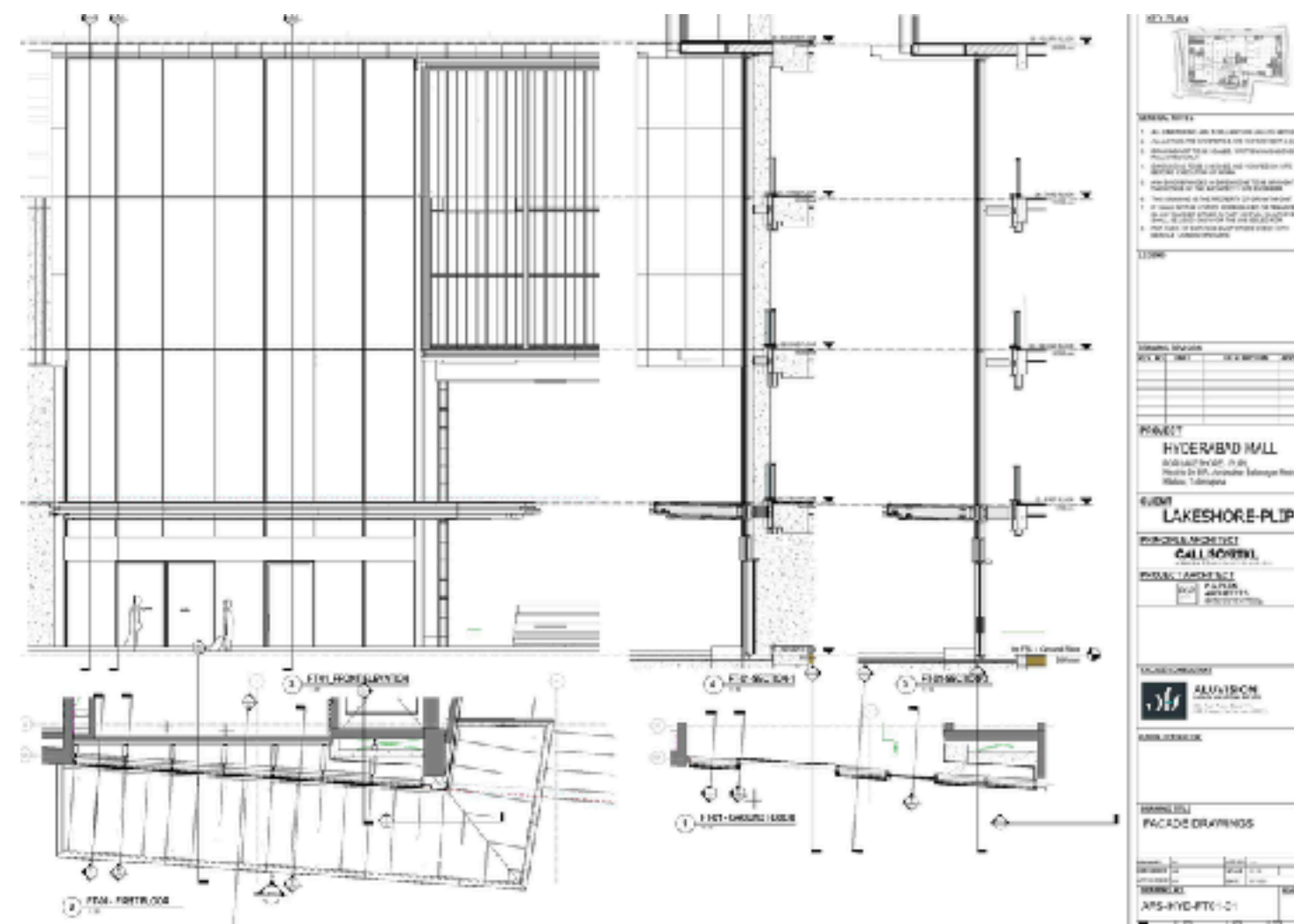
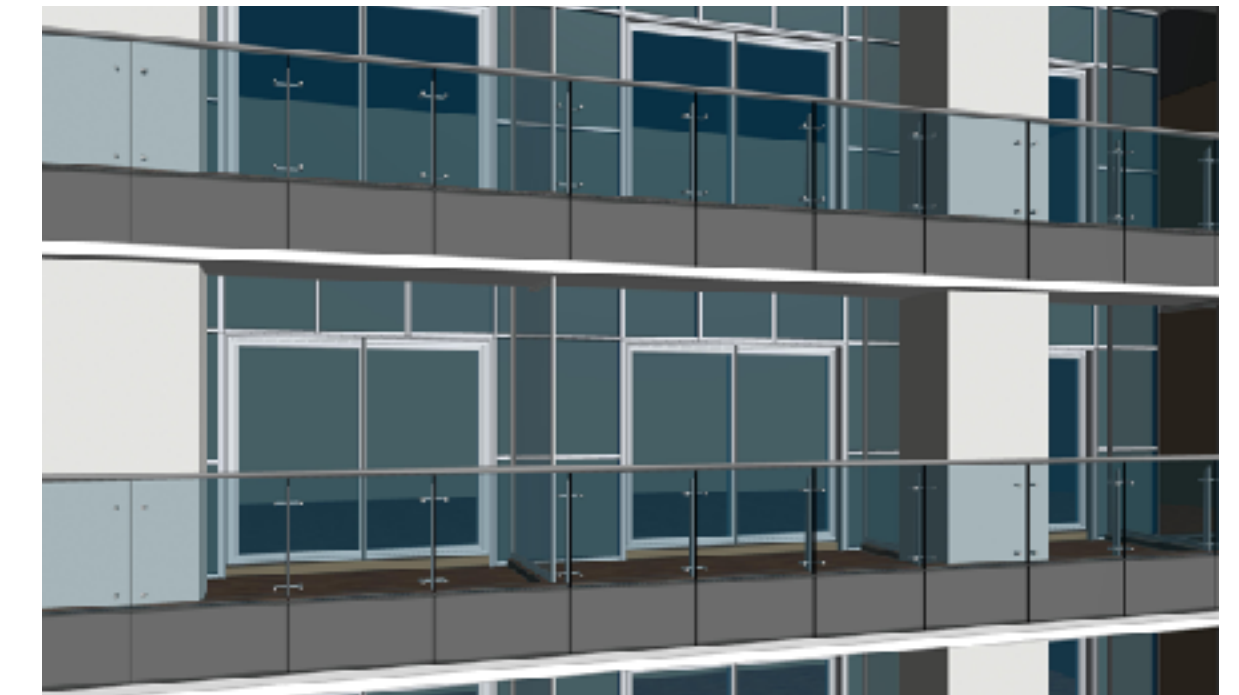
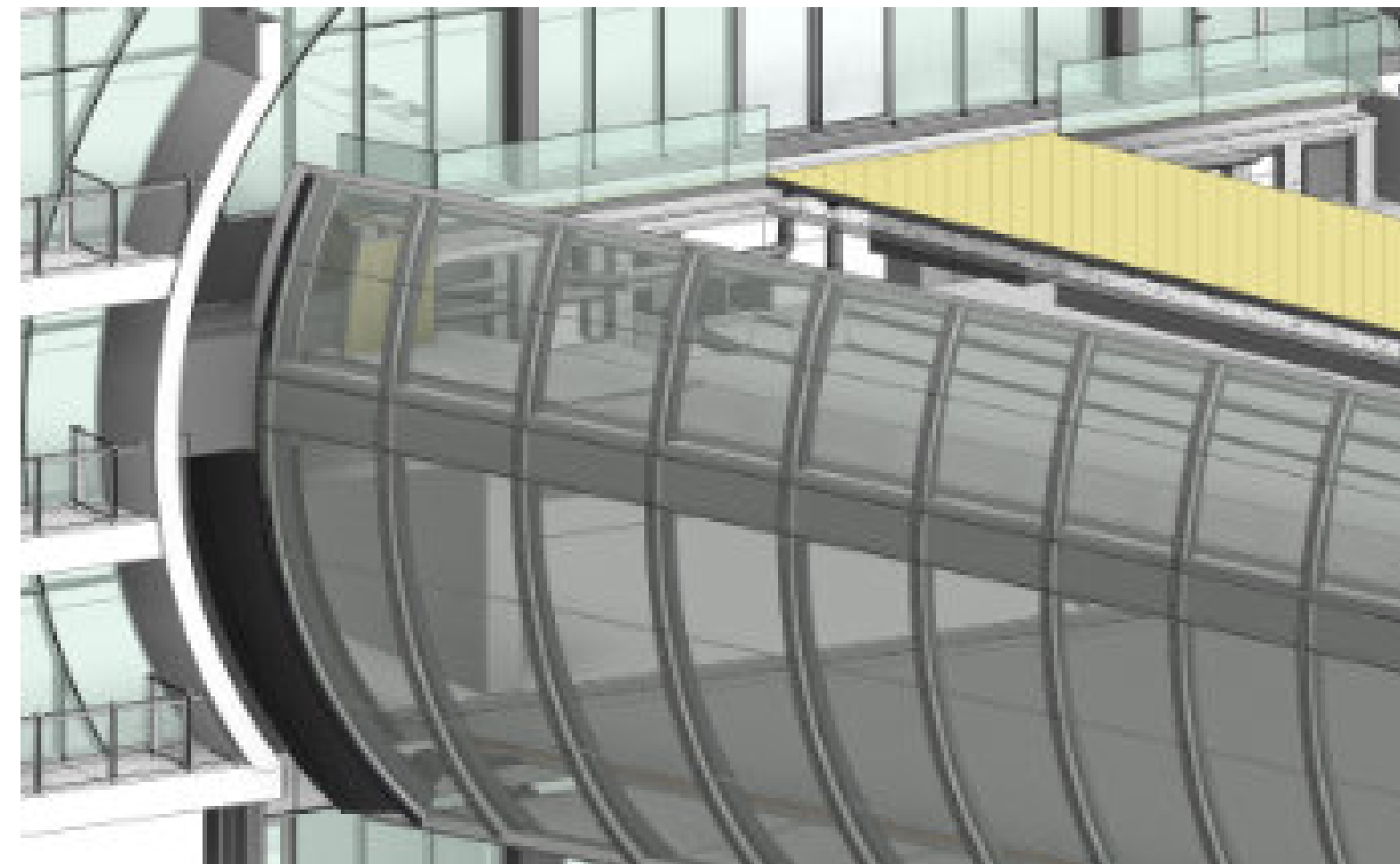
BUILDING INFORMATION MODELLING (BIM)

We trust change is the only permanent thing in the world and as per current international trend, we are on the forefront by adopting BIM for all our projects, 3D design platform on our mainstream of works. We are having hands-on experience on the BIM platform for Facade designing and engineering of external building envelopes on Revit which gives more clarity to all stakeholders understand clashes between facade elements and surrounding construction, and overall coordination between the structure and other trades at an early stage of a project and to totally mitigate the issues and make amendments accordingly.

At AFS we adopt a 3D design platform that helps us to provide fully integrated sustainable design aspects right from concept to implementation. We do not just rely on traditional facade engineering, but we invest heavily in new technology and getting the best of the result for whatever we do.

AFS utilizes the following software for 3D services

- AutoCAD 3D
- Revit Architectural
- Revit Structure
- Solid works



WORLDWIDE SERVICE



CANADA

KENYA

UNITED KINGDOM

QATAR

UAE

INDIA

SRI LANKA

SINGAPORE

HONG KONG

PHILIPPINES

10+
countries

ALUVISION



PROJECTS

75+

**ENGINEERING
PROJECTS**

30+

**FACADE
PROFESSIONAL**

55+

**CONSULTING
PROJECTS**

14+

Million square feet

**WORK
DELIVERS**

ALUVISION

WE HAVE EXPERIENCE OF

**IT
PARKS**

HOTEL

**DATA
CENTER**

**INSTITUTIONAL
BUILDING**

**COMMERCIAL
BUILDINGS**

**RESIDENTIAL
BUILDINGS**

**SPORTS
COMPLEX**

HOSPITALS

MALLS

**HIGH
RISE
TOWERS**

**MIXED
USED
PROJECTS**

**MONUMENT
BUILDINGS**



KEY PLAN

ECO PARK - HYDERABAD

**Broadway Malyan & R. Chakrapani & Sons
Meenakshi Group**

ALU VISION



SCB MEDICAL COLLEGE AND HOSPITAL - Cuttack

**AECOM
L & T CONSTRUCTION**

A L U V I S I O N

182 METERS TALL

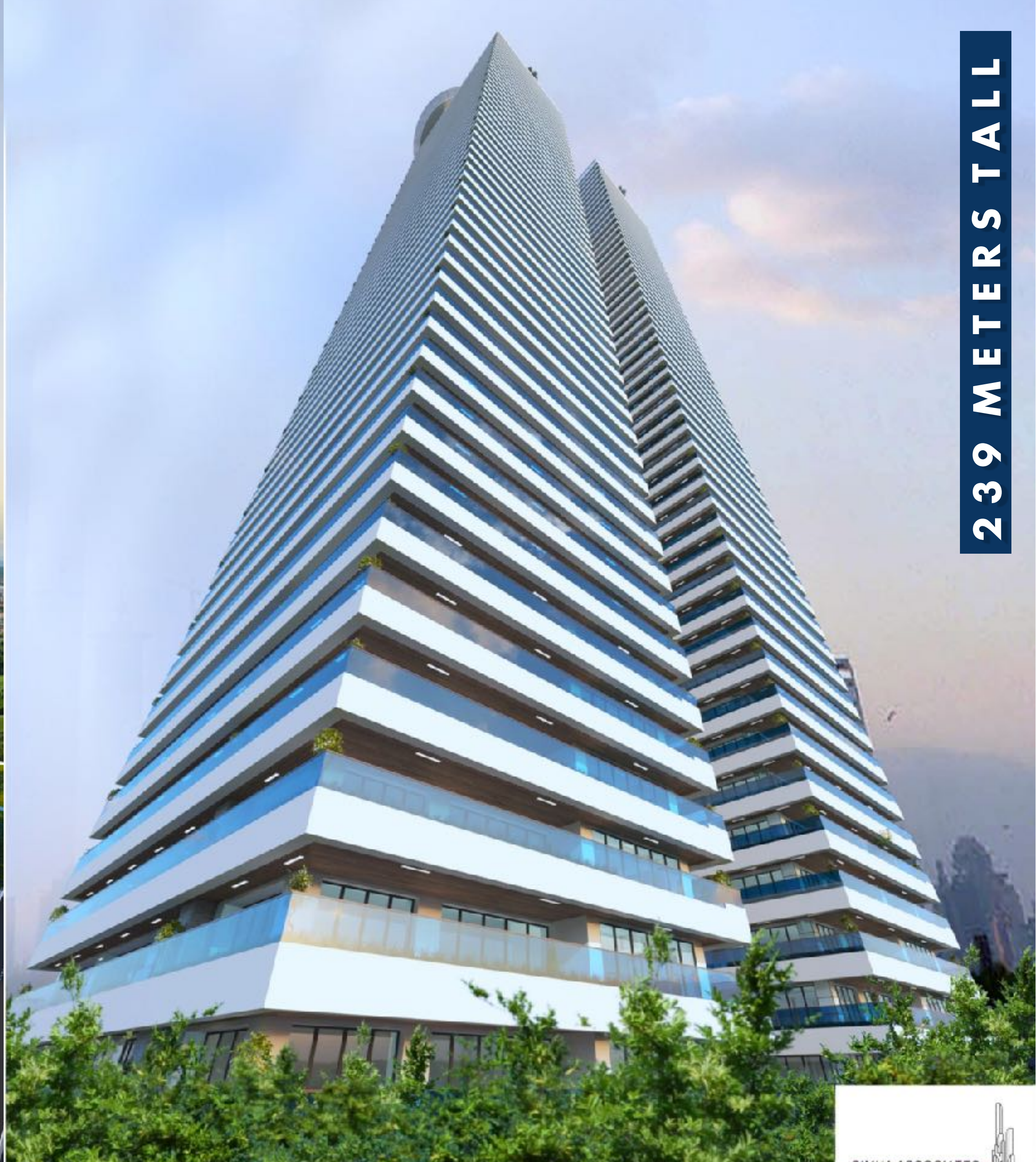


PHOENIX P 25 - TRITON- Hyderabad

Simha Associate

ALU VISION

239 METERS TALL



PHOENIX - 55 STORIED TOWER

Simha Associate



POULOMI @ 8- Hyderabad

R. Chakrapani & Sons

Poulomi Estates Pvt. Ltd.



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KRIT - BUILDING NO 1 - Hyderabad

RSP Design
K Raheja Corp



AIRLINE - Mumbai

ALUVISION

Rourkela To Have India's Biggest Hockey Stadium



ROURKELA HOCKEY STADIUM - Odisha

MY CITY LINKS

Collage Design Architect

Odisha Industrial Infrastructure Development Corporation IDCO

ALU VISION



AQUATICS SPORTS COMPLEX - Bhuvneshwar

Collage Design Architect

ALU VISION

ACTUAL PHOTO



MEENAKSHI M BLOCK - Hyderabad

**R. Chakrapani & Sons
Meenakshi Group**

ALU VISION



LSR TUDORE- Hyderabad

**R. Chakrapani & Sons
LSR Tudor**



ALU VISION

MONTE ROSA - Pune

**Abhikalpan Architect & Planners
B. K. Infra Pvt. Ltd.**



VANTAGE TOWER - Pune

**V A Kulkarni Architect
Bramha Corp**



BOULEVARD - Pune

**Abhikalpan Architect & Planners
Bramha Corp**

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NYATI EMPRESS - Pune

**Ethique Architect & Associate
Nyati Group**

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SNBP INTERNATIONAL SCHOOL

Abhikalpan Architect & Planners

ALU VISION



46 DOWNTOWN - Pune

Abhikalpan Architect & Planners
Orbisoul Properties



THIEA - Pune

**Abhikalpan Archiecte
Siddhashila Group**

ALUVISION

FACADE CONSULTING & PMC SERVICES



RAJAPUSHPA PARADIGM - Hyderabad

R. Chakrapani & Sons

Rajapushpa Properties Pvt. Ltd.

ALUVISION



DSR TECH PARK - Hyderabad

R. Chakrapani & Sons
DSR SR Infratech Pvt. Ltd.



THE WORLD - EXPERIENCE CENTRE

Genesis Architect & Planners
DSR SR Infratech Pvt. Ltd.

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FACADE CONSULTING & PMC SERVICES



BSSR- Hyderabad

R. Chakrapani & Sons
BSSR

ALU VISION



ELEGANCE 2 - Hyderabad

**R. Chakrapani & Sons
BSSR**

ALUVISION



BSR TECH PARK Block 1 - Hyderabad

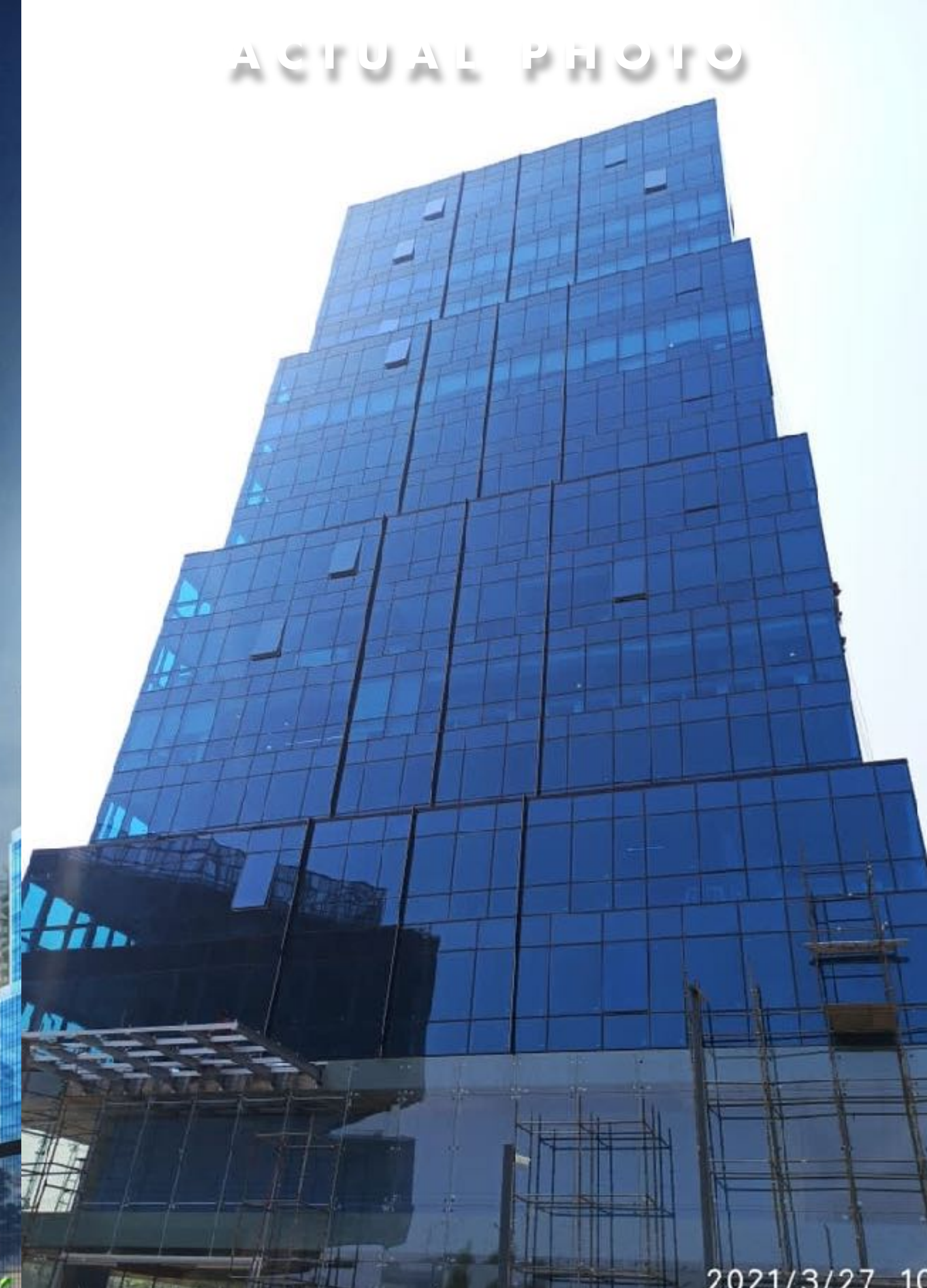


BSR TECH PARK Block 2 - Hyderabad

ALU VISION

**R. Chakrapani & Sons
Vamsiram Developers**

ACTUAL PHOTO



2021/3/27 10

DALLAS CENTRE - Hyderabad

**Genesis Architect & Planners
Western Construction**



ALU VISION

**Genesis Architect & Planners
Intercontinental Infra Structure**



RAJAPUSHPA PROVIENCIA - Hyderabad

**Genesis Architect and Planners
Rajapushpa Properties Pvt. Ltd.**

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APARNA ONE - Hyderabad

**Genesis Architect & Planners
Aparna Constructions Pvt. Ltd.**

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ACTUAL PHOTO

GOLF EDGE

**RSP Design
Phoenix Group**



NEXWORLD - Mumbai

Marathon Realty Pvt. Ltd.



VRAJ TIARA- Mumbai

**Vraj Reality
Achitye Architect**

ALU VISION



THE KOPA MALL - Pune

**CRTKL - PG Patki Architect
Lake Shore Management Pvt. Ltd.**

ALU VISION



Y JUNCTION MALL- Hyderabad

CRTKL - PG Patki Architect
Lake Shore Management Pvt. Ltd.

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GATEWAY MALL- Ahmedabad

**CRTKL - PG Patki Architect
Lake Shore Management Pvt. Ltd.**

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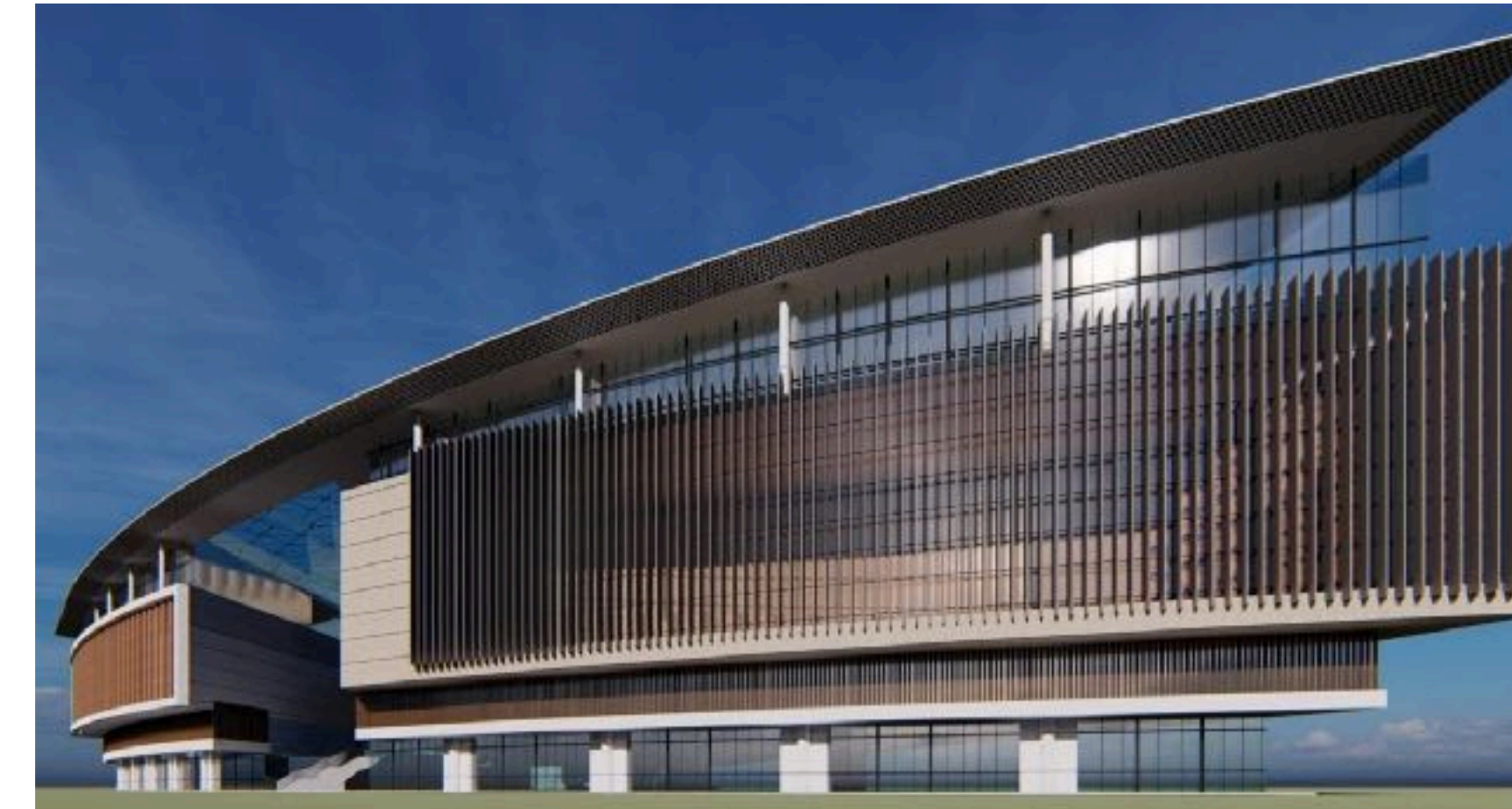
NATIONAL CANCER INSTITUTE - Nagpur

Hiten Sethi Architect
National Cancer Institute

ALU VISION

ACADEMIC BUILDINGS

ICONIC BUILDING (CLASSROOM CLUSTER) & DEPARTMENT BUILDINGS



JSS ACADEMY OF HIGHER EDUCATION & RESEARCH - MYSORE

Hiten Sethi Architect

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PANVEL MUNICIPAL CORPORATION - Navi Mumbai

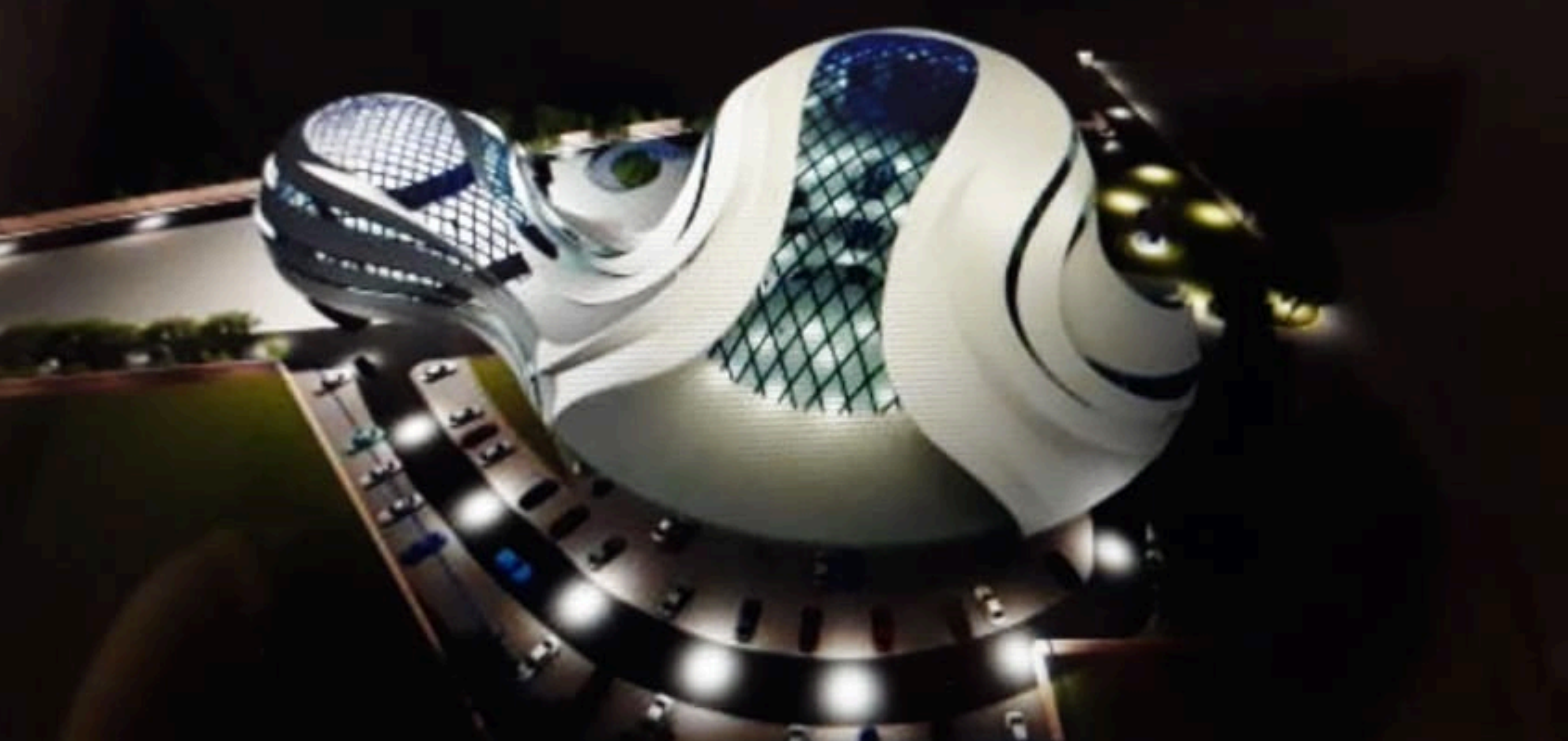
PMC
Hiten Sethi Architect Pvt. Ltd.

ALU VISION



AMBEDKAR MEMORIAL - Mumbai

SPCL
Collage Design Pvr. Ltd.



SCIENCE TECHNOLOGY PARK- Navi Mumbai

NMMC

Hiten Sethi Architect Pvt. Ltd.

A L U V I S I O N



COLT DATA CENTER - Navi Mumbai

**Hiten Sethi Architect
STERLING & WILSON**

ALU VISION



MALKAJGIRI COMMERCIAL - Hyderabad

**Genesis Architect & Planners
Jain Constructions Pvt. Ltd.**

ALU VISION

PEER REVIEW



ONE HYD PARK - Hyderabad

**Ingenium Architect
C S & K S Developers**



HERITAGE FOODS - Hyderabad

N Cube Interiors

ALUVISION



TAJ GVK - Mumbai

ALUVISION



NARNE HOTEL - Coorg - Karnataka

ALUVISION



PETRONET - Delhi

D K ASSOCIATES
B. L. Kashyap

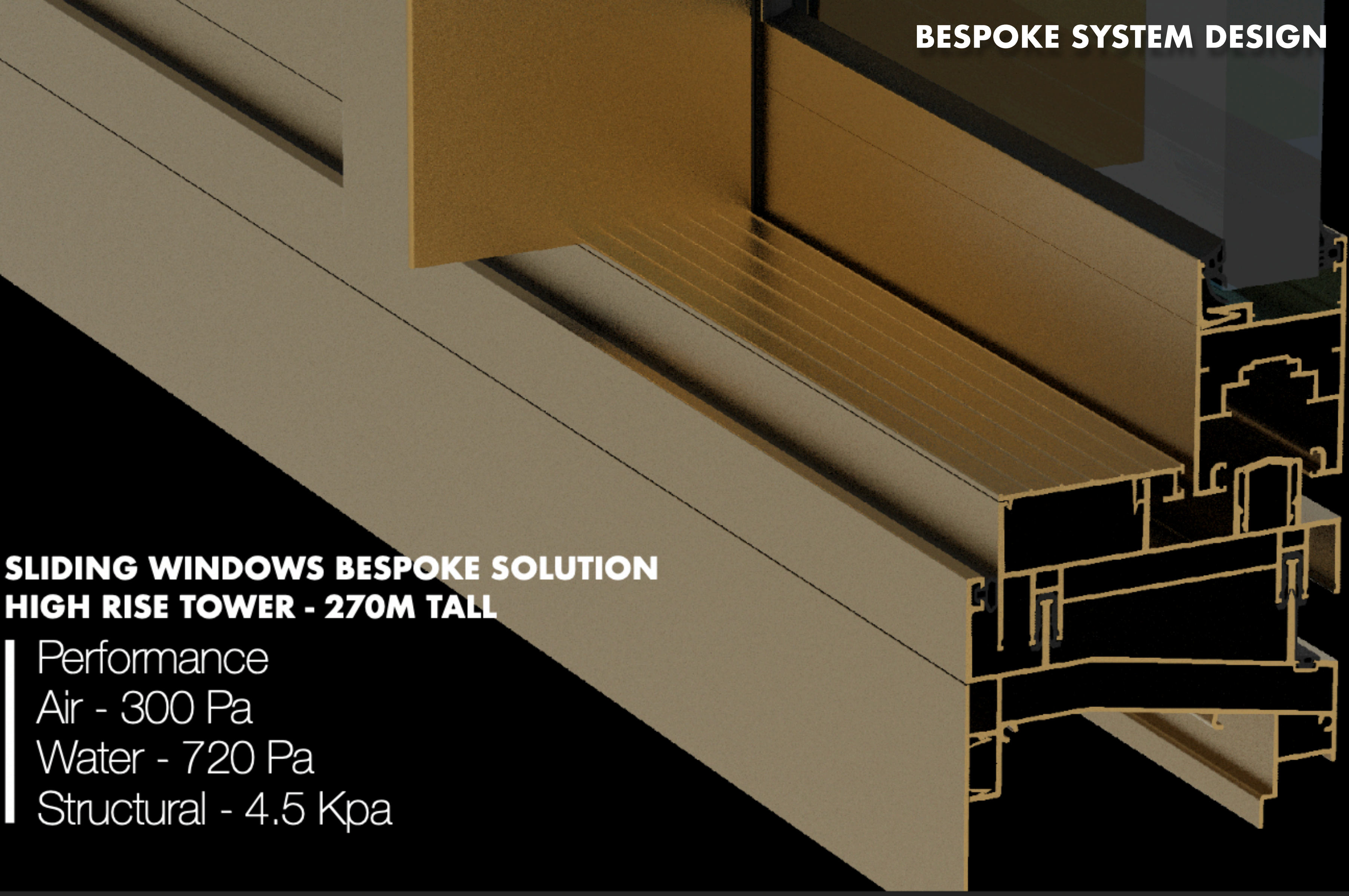
ALU VISION

270 METERS TALL



**SLIDING WINDOWS BESPOKE SOLUTION
HIGH RISE TOWER - 270M TALL**

- Performance
- Air - 300 Pa
- Water - 720 Pa
- Structural - 4.5 Kpa



QUEENS TOWER - Mumbai



TREON - Mumbai

Ajmera Group
Architect Hafeez Contractor



TIME SQUARE - Mumbai

Ajmera Group
Architect Hafeez Contractor

ALUVISION

3000+

Unique Panels



AL HEKMA TOWER - Dubai



GLORY TOWER - Singapore



ZEBIAN ALUMINIUM & GLAZING INDUSTRY LLP

ALUVISION

RSP ARCHITECTS PLANNERS & ENGINEERS PTE LTD

YKK AP

300+
Unique Glasses



TEL US GARDEN - Canada

ECHO GLASS

ALUVISION



Concept design

AFS Solution

264

Only

42

Glass Sizes

Glass Sizes

ITC COLOMBO ONE - Sri Lanka

LnT Construction Ltd.
ARCHITECT : GENSLAR

ALUVISION

ACTUAL PHOTO



PEARL DIVING POOL - Dubai

ZEBIAN ALUMINIUM & GLAZING INDUSTRY LLP

ARCHITECT : PASCALL + WATSON

ALUVISION



280 METERS TALL

FORTE D1 D2 - Dubai



ACTUAL PHOTO

BOULEVARD HEIGHT - Dubai

ZEBIAN ALUMINIUM & GLAZING INDUSTRY LLP

ALUVISION

ZEBIAN ALUMINIUM & GLASS INDUSTRIES LLP



PALAZO TOWERS - Nairobi

I & M BANK - Nairobi

ALBATRA GLASS & ALUMINIUM LLC

ALU VISION

ALBATRA GLASS & ALUMINIUM LLC



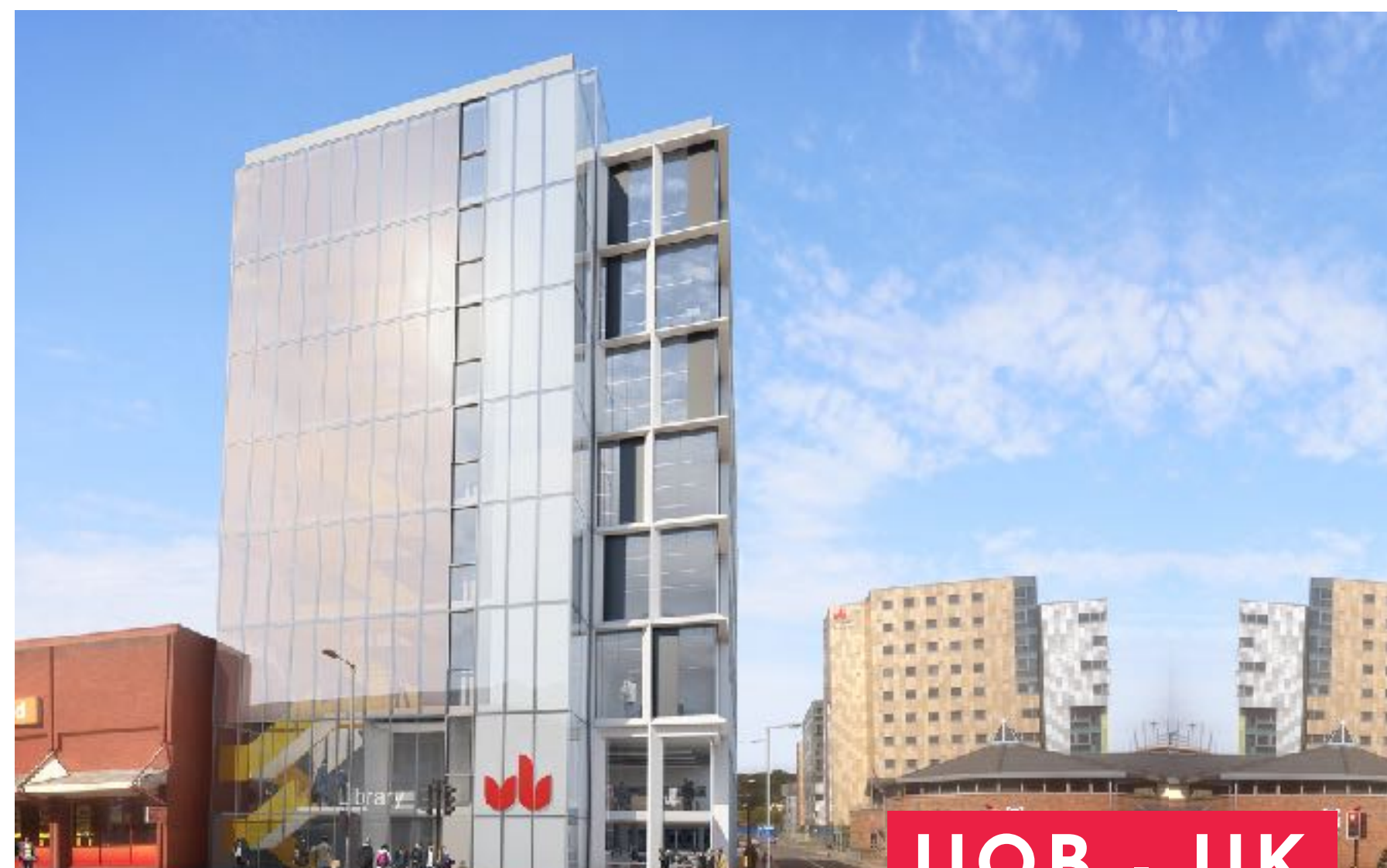
INNOVATION HUB - Dubai



ASPIRE - Qatar



LILLE SQUARE - UK



UOB - UK

BESPOKE SYSTEM DESIGN



QUEENS TOWER - Mumbai

280 METERS TALL

ALUVISION

WE ARE ASSOCIATED WITH



ALUVISION



Branch Office - Charbhja apartment,
Bolinj Aagashi Rd, Opp. Disha hotel ,
Virar West - 401303

www: aluvisionfs.com
E: info@aluvisionfs.com
M: +91 9769 52 4512

Corporate office - Pujit Plaza, Office
#204/207 Plot # 67, Sector 11, CBD
Belapur, Navi Mumbai - 400614



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