



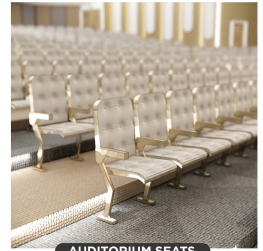
AUDITORIUM STAGE VIEW



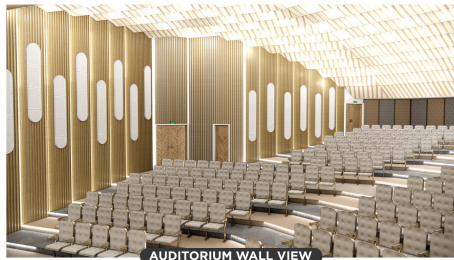
CEILING VIEW



AUDITORIUM STAGE



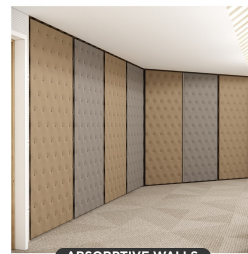
AUDITORIUM SEATS



AUDITORIUM WALL VIEW



AUDITORIUM SEATS VIEW



ABSORPTIVE WALLS



DIFFUSIVE WALLS

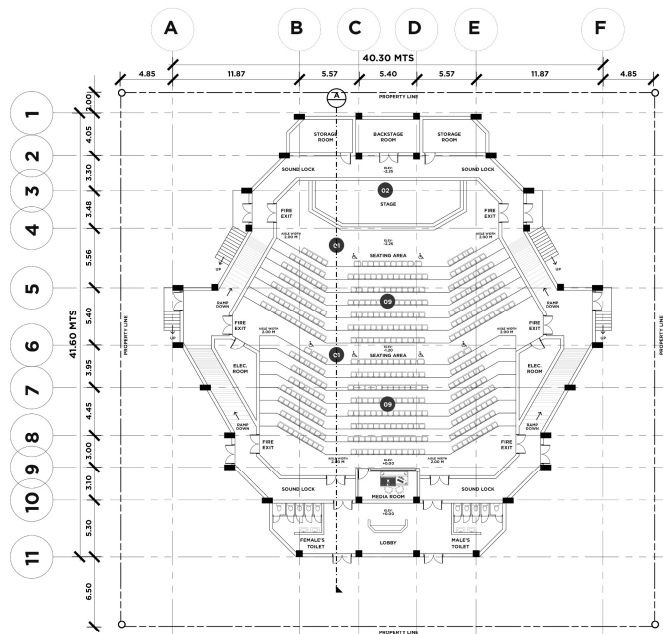


REFLECTIVE WALLS



MEDIA ROOM

INTERIOR PERSPECTIVE
SCALE: AS SHOWN

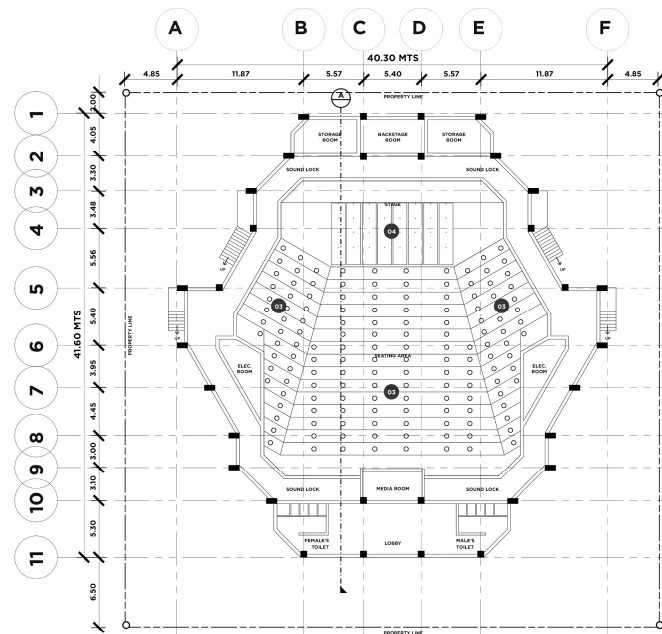


GROUND FLOOR PLAN
SCALE: 1:250 MTS



MATERIAL LEGEND

- 01 Floor: Carpet on Concrete
- 02 Stage Deck: Wood on Joists
- 03 Audience Ceiling: Fastened Acoustical Boards
- 04 Stage Ceiling: Suspended Acoustical Boards
- 05 Stage Walls: Concrete
- 06 Side Walls: Wood Slats
- 07 Side Walls: Perforated Panels with Acoustical Blankets
- 08 Rear Walls: Acoustical Blankets with Fabric Covering 4"
- 09 Seating: Upholstered Chairs

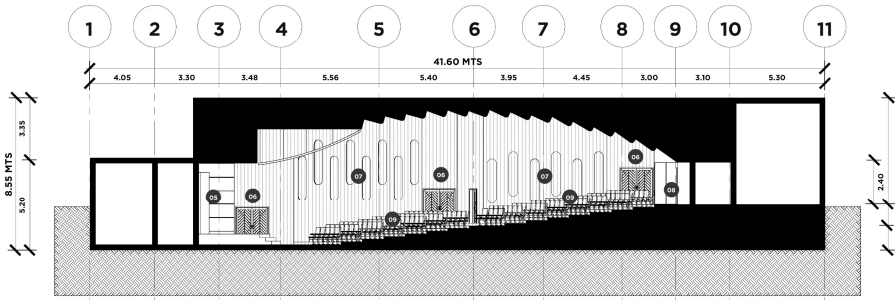


REFLECTED CEILING PLAN
SCALE: 1:250 MTS



MATERIAL LEGEND

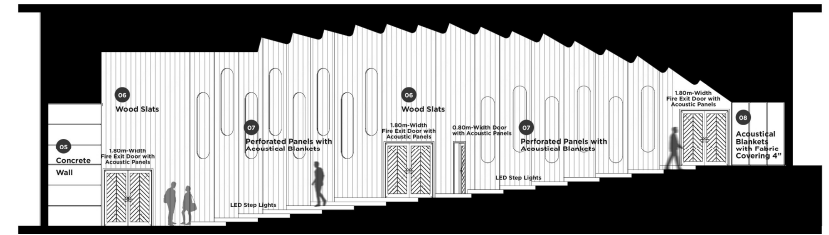
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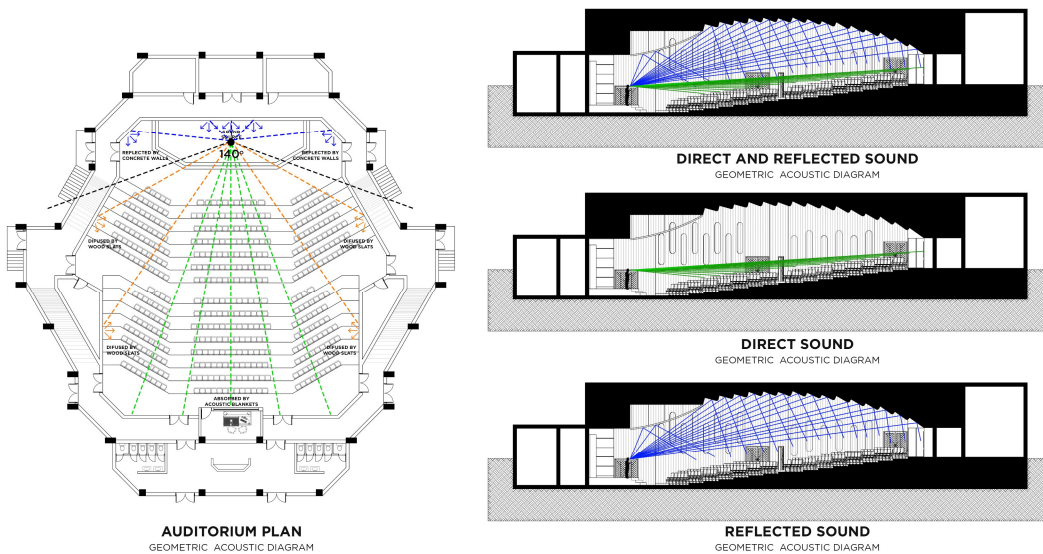
LONGITUDINAL SECTION PLAN
SCALE: 1:150 MTS



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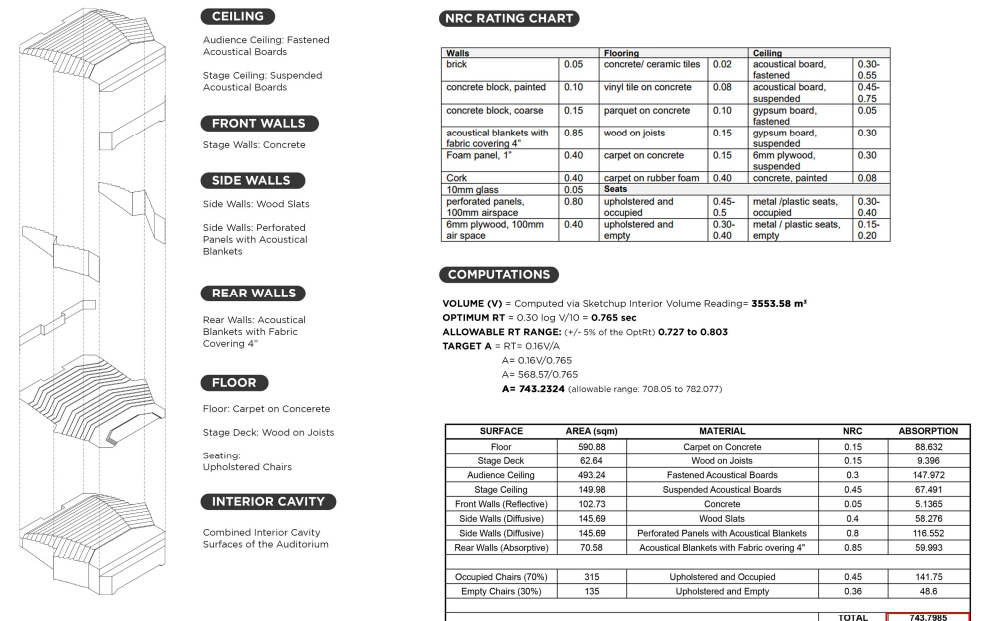
BAY SECTION PLAN
SCALE: 1:100 MTS



SOUND LEGEND

- DIRECT SOUND
- REFLECTED SOUND
- DIFFUSED SOUND

GEOMETRIC ACOUSTIC DIAGRAMS
SCALE: AS SHOWN



NRC RATING CHART

Walls	0.05	Flooring	0.02	Ceiling	0.30
brick	0.05	concrete/ ceramic tiles	0.02	acoustical board, fastened	0.55
concrete block, painted	0.10	vinyl tile on concrete	0.08	acoustical board, suspended	0.75
concrete block, coarse	0.15	parquet on concrete	0.10	gypsum board, fastened	0.05
acoustical blankets with fabric covering 4"	0.85	wood on joists	0.15	gypsum board, suspended	0.30
Foam panel, 1"	0.40	carpet on concrete	0.15	6mm plywood, suspended	0.30
Cork	0.40	carpet on rubber foam	0.40	concrete, painted	0.08
10mm glass	0.05	Seats			
perforated panels, 100mm airspace	0.80	upholstered and occupied	0.45-0.5	metal /plastic seats, occupied	0.30-0.40
6mm plywood, 100mm air space	0.40	upholstered and empty	0.30-0.40	metal / plastic seats, empty	0.15-0.20

COMPUTATIONS

VOLUME (V) = Computed via Sketchup Interior Volume Reading = **3553.58 m³**
 OPTIMUM RT = $0.30 \log V/10 = 0.765 \text{ sec}$
 ALLOWABLE RT RANGE: (+/- 5% of the OptRT) **0.727 to 0.803**
 TARGET A = $RT = 0.16V/A$
 $A = 0.16V/0.765$
 $A = 568.57/0.765$
A = 743.2324 (allowable range: 708.05 to 782.077)

SURFACE	AREA (sqm)	MATERIAL	NRC	ABSORPTION
Floor	590.88	Carpet on Concrete	0.15	88.632
Stage Deck	82.84	Wood on Joists	0.15	9.396
Audience Ceiling	493.24	Fastened Acoustical Boards	0.3	147.972
Stage Ceiling	149.98	Suspended Acoustical Boards	0.45	67.491
Front Walls (Reflective)	102.73	Concrete	0.05	5.1365
Side Walls (Diffusive)	145.69	Wood Slats	0.4	58.276
Side Walls (Absorptive)	145.69	Perforated Panels with Acoustical Blankets	0.8	116.552
Rear Walls (Absorptive)	70.58	Acoustical Blankets with Fabric covering 4"	0.85	59.993
Occupied Chairs (70%)	315	Upholstered and Occupied	0.45	141.75
Empty Chairs (30%)	135	Upholstered and Empty	0.36	48.6
TOTAL				743.7895

The room has achieved the Optimum RT, as the computed RT is within the allowable +/- 5% of the OptRT
 $RT = 0.16V/A = 0.16 (3553.58) / 743.7895 = 0.764417782 \text{ sec} = 0.764 \text{ sec}$