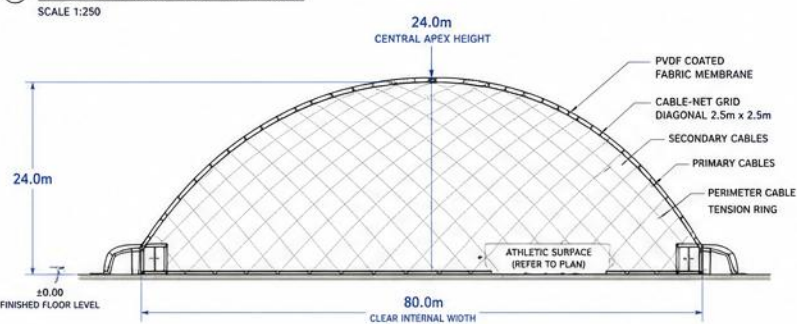


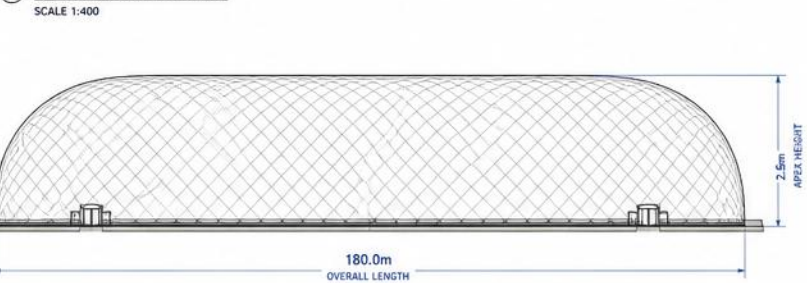
SPANBEST | HEAVY INDUSTRY FABRICATION HALL

RECTANGULAR PLAN · CONTINUOUS BARREL-VAULT · EXTERNAL CABLE NET

1 CROSS-SECTION (FRONT ELEVATION)



2 LONGITUDINAL ELEVATION

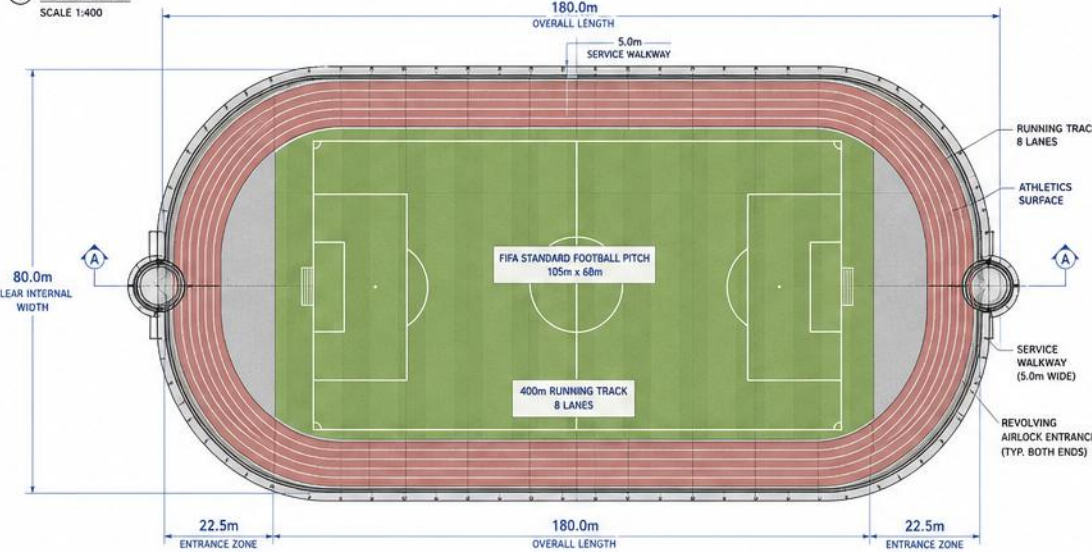


5 CABLE-NET GRID DETAIL

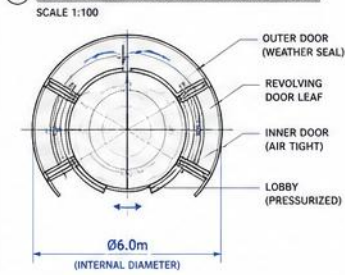


CABLE-NET SPECIFICATIONS	
GRID TYPE:	DIAGONAL (DIAMOND) PATTERN
GRID SPACING:	2.5m x 2.5m
PRIMARY CABLES:	Ø16mm GALVANIZED STEEL WIRE ROPE
SECONDARY CABLES:	Ø12mm GALVANIZED STEEL WIRE ROPE
TENSIONING:	PERIMETER TENSION RING WITH TURNBUCKLES
CORROSION PROTECTION:	HOT-DIP GALVANIZED

3 FLOOR PLAN

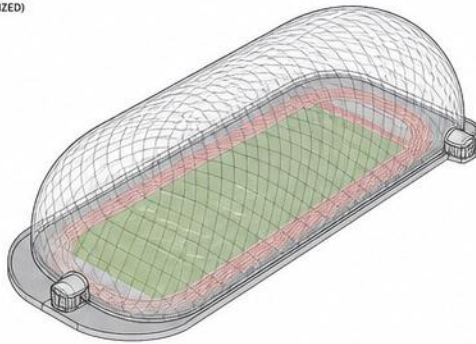
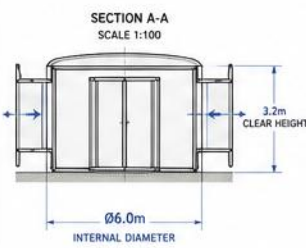


4 REVOLVING AIRLOCK ENTRANCE DETAIL



6 3D AXONOMETRIC VIEW

SCALE N.T.S.



DESIGN PARAMETERS

STRUCTURE TYPE:	AIR-SUPPORTED PNEUMATIC DOME
PLAN DIMENSIONS:	80.0m (W) x 180.0m (L)
APEX HEIGHT:	24.0m
BUILDING AREA:	14,400 m ²
VOLUME (EST.):	~192,000 m ³
DESIGN PRESSURE:	+/- 600 Pa
WIND SPEED (BASIC):	40.0 m/s (144 km/h)
SNOW LOAD:	0.75 kN/m ²
SEISMIC ZONE:	NOT APPLICABLE (AIR SUPPORTED STRUCTURE)
OCCUPANCY:	SPORTS & ATHLETIC USE
DESIGN LIFE:	20+ YEARS

STRUCTURAL SYSTEM

- PVDF COATED FABRIC MEMBRANE
- DIAGONAL CABLE-NET (2.5m x 2.5m)
- PERIMETER TENSION RING SYSTEM
- INTERNAL PRESSURIZATION
- CABLES: GALVANIZED STEEL
- ANCHORAGE: CONCRETE FOUNDATION RING

AIR SYSTEM

- AIR SUPPLY UNITS: 4 (N+1 STANDBY)
- AIR PRESSURE: 550 - 650 Pa
- AIR CHANGE RATE: 1.0 - 1.5 ACH
- FILTRATION: G4 PRE-FILTER
- HEATING (OPTIONAL): HOT AIR RECIRCULATION UNITS
- CONTROL SYSTEM: AUTOMATIC PRESSURE & TEMPERATURE CONTROL

NOTES

- ALL DIMENSIONS ARE IN METERS.
- DO NOT SCALE FROM DRAWINGS.
- ALL STRUCTURAL CABLES SHALL BE TENSIONED AS PER MANUFACTURER'S RECOMMENDATIONS.
- MEMBRANE FABRIC: PVDF COATED POLYESTER, 100% OPAQUE.
- FOUNDATION AND ANCHORAGE DESIGN BY OTHERS.

80m x 180m PNEUMATIC AIR DOME SPORTS & ATHLETIC COMPLEX

PROJECT NO.:	AD-80180	DRAWING NO.:	AD-80180-A1	REV.:	A
DATE:	MAY 2025	SCALE:	AS SHOWN		
DRAWN BY:	ENG. CAD	CHECKED BY:	STRUCT. ENG.	SHEET:	
SHEET SIZE:	A1 (841 x 594)				1 OF 1

CRANE / EQUIPMENT / LIFT PATH: TBD

CONCEPT SELECTION DRAWING ONLY. FINAL SPAN, LENGTH, HEIGHT, DOORS, LOADS, FOUNDATIONS AND PRESSURE SYSTEM REQUIRE PROJECT-SPECIFIC ENGINEERING.