

FOLDED PLATE GEOMETRY

CONCEPT SHEET - BUS SHELTER

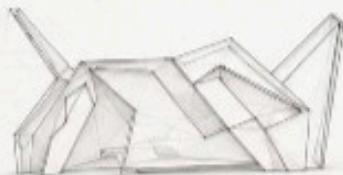
DESIGN CONCEPT



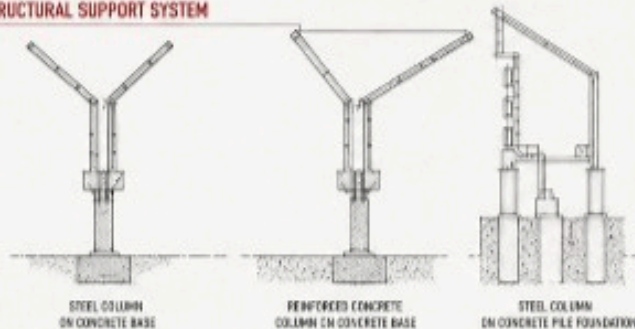
THE DESIGN IS DERIVED FROM ORIGAMI ART, INSPIRED BY THE ANCIENT JAPANESE TECHNIQUE THAT FOLDS FLAT MATERIAL INTO DYNAMIC FORMS. FOLDED PLATE GEOMETRY DEFINES STRUCTURE AND A STRIKING ARCHITECTURAL IDENTITY.

STRUCTURAL IDEA

THE SHELTER IS A SELF-SUPPORTING SYSTEM WHERE THE FOLDED PLATES EFFICIENTLY DISTRIBUTE LOADS TO THE GROUND. THIS SYSTEM USES STEEL OR REINFORCED CONCRETE AS PRIMARY MATERIAL TO ENSURE LONG TERM DURABILITY, SAFETY AND OPTIMIZED PERFORMANCE.



STRUCTURAL SUPPORT SYSTEM



STEEL COLUMN ON CONCRETE BASE

REINFORCED CONCRETE COLUMN ON CONCRETE BASE

STEEL COLUMN ON CONCRETE PILE FOUNDATION

SOLAR ROOF SYSTEM



- INTEGRAL SOLAR PANELS CAN CATCH MORE SUNLIGHT, EVEN IN THE MORNING AND LATE AFTERNOON.
- THESE PANELS PRODUCE RENEWABLE POWER THAT CAN BE USED FOR LIGHTING, FAN AND DIGITAL DISPLAYS AT THE SHELTER.
- SUSTAINABLE, COST-EFFECTIVE, EFFECTIVE.
- REDUCES OPERATION COSTS AND SUPPORTS GREENER, SMARTER INFRASTRUCTURE.

LAYERED GREEN ROOF

THE LAYERED GREEN ROOF IMPROVES THERMAL COMFORT, ABSORBS RAINWATER, REDUCES HEAT GAIN, AND SUPPORTS BIODIVERSITY. IT ALSO ENHANCES URBAN DESIGN AND CREATES A MORE INVITING STREET ENVIRONMENT.



- PLANTS / VEGETATION
- GROWING MEDIUM
- FILTER FABRIC
- DRAINAGE LAYER
- ROOT BARRIER
- WATERPROOF MEMBRANE
- INSULATION LAYER
- STRUCTURAL SLAB

FOLDED PLATE FORM



THE FORM REFLECTS PERFORMANCE-ORIENTED DESIGN BY INTEGRATING STRUCTURE, FUNCTION AND A BOLD FACE TO CREATE A SHELTER THAT IS FUTURISTIC YET GROUNDED IN PRACTICAL SOLUTIONS.

FUNCTIONAL ELEVATION



- DIGITAL DISPLAY
- SEATING BENCH
- INFORMATION PANEL
- LOCKER / STORAGE
- VENTILATED SCREEN



INSPIRED BY ORIGAMI
Folding transforms flat surfaces into dynamic, functional architecture.



SUSTAINABLE DESIGN
Solar roof and green roof reduce energy use and improve the microclimate.



STRUCTURAL EFFICIENCY
Folded plates distribute loads efficiently for strength and stability.



USER COMFORT
Shaded, ventilated and green spaces create a pleasant waiting experience.

PROJECT : BUS SHELTER CONCEPT
DESIGN APPROACH : FOLDED PLATE GEOMETRY
DATE : MAY 2024
SCALE : NTS





ELEVATION BB



SECTION AA'



SECTION AA



FLOOR PLAN SCALE 1:100



ELEVATION BB'



SITE PLAN SCALE 1:100



VIEW I



VIEW II



VIEW III