

14th Street Bridge Tenders' House.

Arts Proposal

Washington, D.C.

Artist: Mikiyoung Kim

Art Concept

The Tenders' house will act as a fluid light beacon welcoming vehicular, train travelers and commuters to the Nation's capitol. Inspired by the shimmering Potomac river that runs around the Tenders' House and the fast paced movement of train and cars, the arts piece transforms the internal space of the house into an optical instrument that uses acrylic and light to create a series of kaleidoscope views of subtly shifting light and color. The six windows of the second floor become portals for these individual kaleidoscopes. The different lengths of these optical illusions are organized around viewing patterns from the various modes of transportation and the east/west sun axis. These concentric luminous frames reflect into the center of the internal space with natural sunlight and back out again with fiber optic light, creating an illusion of greater perspectival depth within the Tenders' House

Project Description

Embedded in the frames of these six windows, a series of reflective and dichroic acrylic and light kaleidoscopes offer abstract images of floating reflected surfaces of color and light. The six inserted optical instruments consist of multiple frames of dichroic and reflective acrylic layers that create the illusion of deep perspective views into the building, expanding the view through each of windows. The translucent kaleidoscopes intersect with each other with a central translucent acrylic source of light that rotates around the center like a beacon with an ever-shifting range of colors when it illuminates the dichroic surfaces. This internal light source moves in a clockwise direction at the core creating a shimmering light effect during the day and night. Kaleidoscopes on the southern side (train viewing side) are recessed deeper to offer visual light play during the day.

The contrast of the luminous sculptural intervention with the solidity of the stone tenders' house surrounding it, combined with the fluidity of the light, evokes the flowing water that runs below and the constant movement of cars and trains. When sunlight illuminates that kaleidoscope cones during the day a different range of colors emerge. At night the central core of light becomes like a lighthouse beacon. The piece transforms through the day, offering viewers in the train, boats, and vehicles transforming views when entering the city in the morning and leaving it at night.

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Materials

¾" thick Clear Acrylic Panels
¾" thick Dichroic Acrylic Panels
¾" thick clear acrylic window panels. Shatterproof and anti aging.
Aluminum frame and clips
2 x 4 wood structure
(1) central steel beam and platform for light source
(1) 400 watt Metal Halide Fixture
(1) aluminum rotating core with motor
(3) Fiber Optic Illuminator Boxes
(18) ½" diameter fiber optic cables
Particle board structure

The kaleidoscopes are made up of panels of clear and reflective acrylic material. The dichroic and reflective acrylic panels are clipped and bolted to the masonry window sill of the Tenders' House. Acrylic is a durable, shatterproof, heat resistant, fire retardant material that resists fading from direct sunlight. A central metal halide fixture and three fiber optic illuminator boxes will be installed with multiple fiber optic cables lighting the source of the kaleidoscopes. Internal steel beams and platform structures will be built to secure the kaleidoscopes to the second floor and create a rotating table for the lights.

Safety and Maintenance

The central 400 watt metal halide fixture and the Fiber optic illuminator boxes will require bulb changes every 1 to 2 years. Cleaning of the Acrylic surface facing the exterior at the window can be done with a non abrasive cloth and standard window cleaner. Clear Fishing Line may be placed across the openings to keep birds from inhabiting these internal spaces and clear glare free acrylic panels can be clipped to the front of each kaleidoscope to protect this internal space for further protection.