Project #: 12

Restoration

Digital Media Arts Center (DMAC) at Chapman University - *Orange*

Overview Summary of the Project

The $11.2M Digital Media Arts Center at Chapman University (DMAC), a registered historic place, has been restored and designed to be an ideation lab or creative collaboration studio for faculty and students to exchange ideas and further their craft.

150 Word Narrative

DMAC was developed for Chapman University's Film School and was restored and designed to provide an ideation lab or creative collaboration studio for faculty and students to exchange ideas and further their craft. This historically listed building has been outfitted with 2-D animation classrooms, Green screen studios, an art classroom, faculty offices, and a screening room.

The 11,236 SF layout takes advantage of the historic shell by utilizing the glass and steel frame windows and skylights that bathe the interior space in light. Organized as an interconnected series of collaboration spaces, the design trades hallways and corridors for a more academic approach to circulation providing places for exchange and serendipity. Built in niche benches, an oversized communal table and individual student lockers all aim to keep students engaged before and after classes. The trellis and canopy are integrated into the existing historic architecture and extend the interiors out.

1. Dates of original construction and alteration; period of significance. (25 Words)

The extant building dates from 1922. The wire manufacturing industry on the site was active from 1902 to 1982.

2. Why the project is noteworthy? What is the Architectural/ Historical/Cultural Significance of the Project? (250 Words)

Located in a historic district of industrial character, DMAC was formerly the California Wire & Cable Company building. The property is listed on the National Register of Historic Places, the California Register of Historical Resources, and the locally designated Old Towne historic district. DMAC is an excellent demonstration of how to restore, adapt and save a building that originally housed one of the first industries in the City of Orange for a new use in an academic setting.

Replacement would have been an easier option, but Chapman University and the City of Orange share the same historic preservation and adaptive re-use goals, and fast-tracked the restoration of what was a derelict building. Part of Chapman's strategic goals over the past 20 years has been to expand educational offering and facilities. The larger story is important: Chapman, together with the City of Orange Old Town Preservation Association, continues a policy of rehabilitating the City's founding industrial buildings instead of demolishing swaths of a historic district. This admirable institutional and municipal goal deserves recognition as an example for others.

3. Described the condition immediately prior to the work of the project? Where, When and How did the project start? (150 Words)

The condition of the building was extremely poor. The existing roofing membranes were failing. The unreinforced masonry walls did not meet current seismic safety standards. Original red brick walls had been painted at the exterior. A high parapet at the corner built for signage had been

previously demolished. Many original steel casement windows on the south elevation had been replaced by concrete masonry infills. A vernacular industrial building that had expressive materials and patterns appeared to be nothing more that a beige box with little to no character.

The project began as a discussion between the City of Orange and the University about their joint goals and commitment to restoring "Old Towne." The architect, whom had worked with the university before, was brought in to realize this mission.

4. What were the significant Features/Structures involved in the project? (100 Words)

The university had several requirements for the new facility. They wanted to create a home away from home, a heart and soul for the film school, and an off campus 'center' that would be open 24/7. The space had to be visually unique, yet connected to the main campus aesthetically. Food service was key, as well as an outdoor gathering space with generous interior collaboration spaces all geared to create a between class and after hour creative laboratory. The building was designed with over 38% of the building area dedicated to collaboration/ circulation space, creating a highly interactive and social atmosphere.

The architect created common spaces, which support the 'unplanned, accidental meeting' that has become the trigger of innovation; they fit classrooms with vastly different functionalities into a harmonious arrangement, and they integrated a highly complex "under the hood" technical infrastructure in a way that actually added to the aesthetic warmth of the environment.

5. How were the Secretary of the Interior's Standards or other governing standards applied to this project? (100 Words)

The project meets the Secretary of the Interior's Stan dards for Rehabilitation, and was reviewed by the City of Orange under entitlements as having no significant negative impact on a listed historic resource. This is not an original use, but an adaptive reuse that makes possible the continued economic use of the building. Essentially an open warehouse structure as-found, the walls and roof were retained and restored, and extant openings were maintained, closed window openings were re-opened, historic metal sash was retained, and new compatible metal sash was added. Exterior paint was removed to uncover original red brick finishes; lime mortar was used to repoint masonry joints. Missing features were reconstructed based on archival documentation (newspaper rendering and archival photography). The exterior trellis added on the north face is designed in a simple style for compatibility with the straightforward industrial character of the building and can be removed with no impact to the historic structure. The interior partitions are non-structural, set into a large space. The open character and asymmetrical approach to the interior improvements retains the visual character of a large open building space.

6. Explain the contextual importance to the surrounding environment. (150 Words)

Chapman University's campus is principally located in a national, state, and local historic district. It is the largest residential historic district in the State of California. The university is a leader in local historic preservation and it is reflected throughout the

campus, which contains a number of significant structures built a century ago. DMAC is the latest example of its strong commitment to preservation. This historic adaptive reuse of the original 1922 California Wire & Cable Company building integrates perfe ctly into the university's mission both as a leading cultural institution and an important component of the City of Orange's heritage.. The first electrical wiring factory west of the Mississippi River was in this facility, and in the post-war period this became one of the largest wire factories in the western United States. The facility embodies important industrial history for the City of Orange and California.

7. Explain any technology or practices of the project which promote environmental design, material and energy conservation. (150 Words)

Many of the conservation items have been discussed in the "Challenges Encountered" section of this submission. The three major conservation points are the painstaking restoration of the historic brick walls; the replacing of the 1920s gla zing to a more highly efficient glazing without losing aesthetic cohesion; and maintaining all the natural light that is captured through the historic roof diaphragm and original skylights and light monitors.

The building was approved under the 2010 CALGREEN code. Achievements include the reuse of the existing structure, enhanced exterior envelope by the replacement of the original glazing and 12" shotcrete added to all the brick facades, the use of natural light, daylight harvesting, to minimize energy consumption, the use of recycled materials in the building finishes and complete on-site stormwater retention.

8. Is the site eligible for the National or California Registers, or local landmark, historic district or inventory? (25 words)

Listed as a contributor to a distr ict that is listed on the National Register of Historic Places, the California Register of Historical Resources, and the City of Orange Old Towne Historic District.

9. If the project is a Cultural Resource Report/Study, how is report being use within community? (150 Words)

Listed as a contributor to a district that is listed on the National Register of Historic Places, the California Regis ter of Historical Resources, and the City of Orange Old Towne Historic District.

10. Any other information the Applicant would like the Jury to receive? (Optional)

Many layers of paint were removed from the historic brick walls, missing and damaged bricks were replaced with matching salvaged brick, and all walls were repointed with cement and lime mortar formulated for lower compressive strength and tooled to simulate the original profiles. This work was a part of required seismic retrofitting, which also included addition of shotcrete at interior surfaces.. Careful color matching to patch and repair the new masonry was key to restoring the visual character, including reconstructing a stepped up parapet at the street corner to mark the original entrance and provide a surface for replicating original signage seen in archival photographs.

Concrete masonry infill was cut out of original on the south wall. New steel casement glazing was custom fabricated to closely match the frame and muntin profiles of the extant original windows while accommodating insulated glass units that provide improved energy conservation.

Maintaining the existing roof diaphragm, skylights and light monitors was an important early design decision. The existing lightweight roof diaphragm was strengthened to support the new HVAC equipment while addressing the acoustical issues and keeping

historic visual
character.