

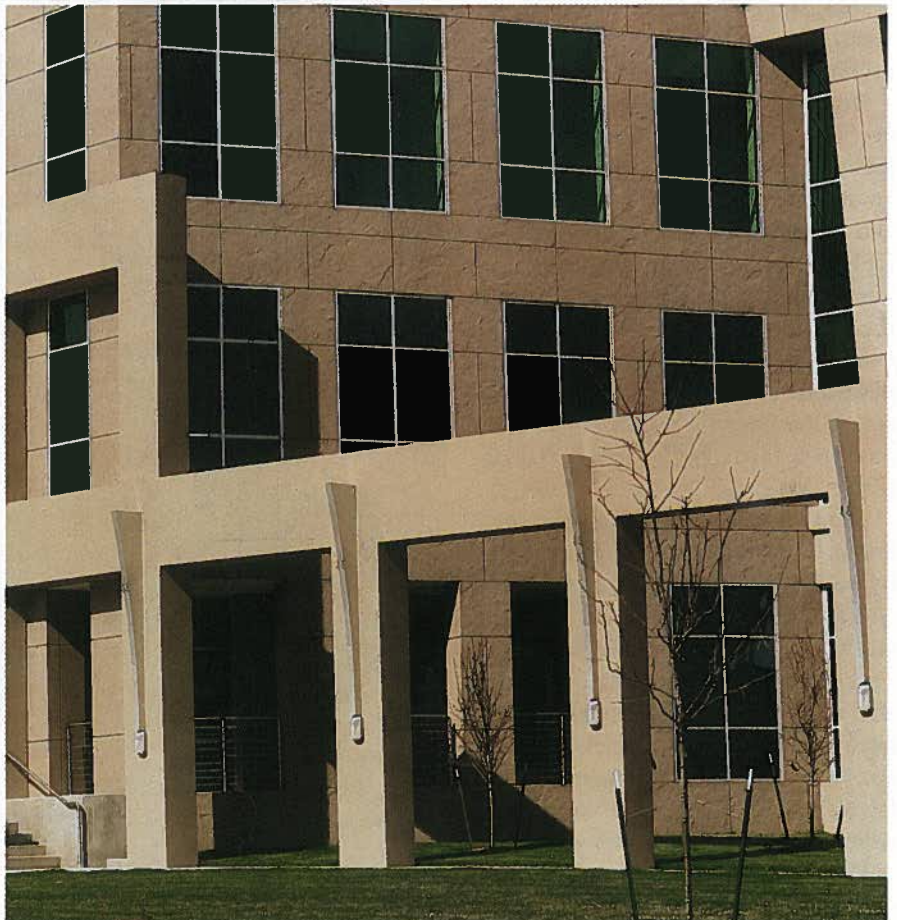
Clearfield City Municipal and Justice Center

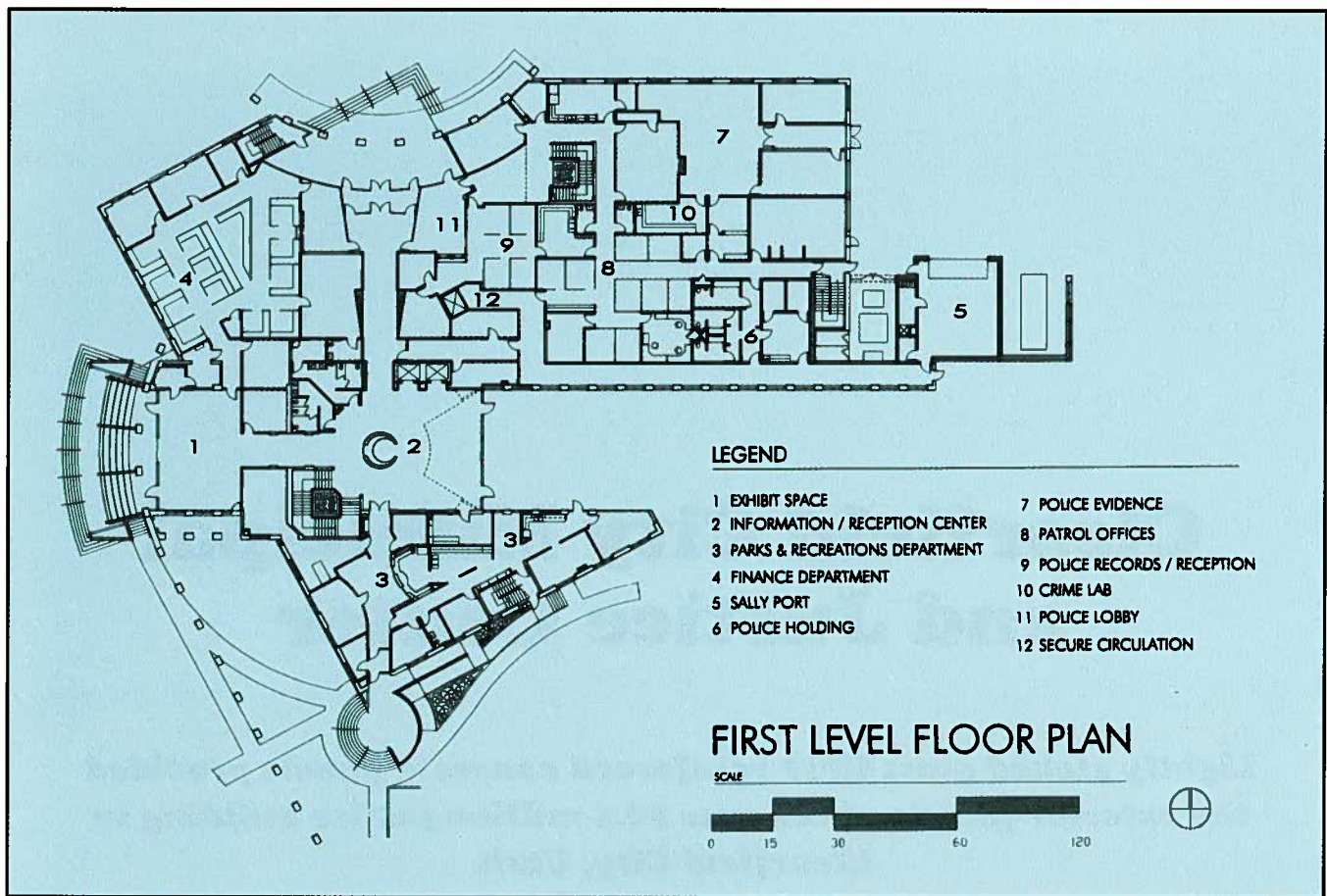
Lightly etched glass fiber reinforced concrete panels provided the exterior façade of the new \$9.5 million justice building in Clearfield City, Utah.

In the last 20 years, the downtown area of Clearfield City, Utah [located about 40 miles (65 km) north of Salt Lake City] had steadily become depressed with a declining economy and rising crime rate. To remedy the situation, the city fathers decided that a bold statement needed to be made to the citizenry of Clearfield. This statement came in the form of a new municipal/justice facility that would reflect the permanence of government as well as set the tone for an entire revitalization of the aging downtown area.

In cooperation with Clearfield City, James R. Child Associates, the Architect, designed a multifaceted three-story building (see floor plan) comprising an area of 69,800 sq ft (6490 m²). The structure has a box tube steel frame.

In planning the facility, one major challenge was the design of the building façade. After much consideration, the architect decided that glass fiber reinforced concrete (GFRC) panels would be used to clad the exterior of the building. GFRC gives the facility a





secure, stone-like appearance and yet a citizen-friendly look that fulfilled the original intent of the planning team.

Other major advantages of GFRC are that the material is lightweight (about one-third the weight of precast concrete panels), that it is economical, and that it is long-lasting. The fact that GFRC is light enabled the structural loads imposed on the upper floors of the building to be reduced significantly as compared to other cladding materials. This was an important consideration because Clearfield is situated in a fairly high seismic region (Zone 3).

The GFRC panels offer a panel system in which the texture and color can be varied. The material has the look and feel of natural stone but with the addition of lightly etched surfaces. This compliment draws the eye to the sharp line separations between simulated stone and etched panels. The result is a balanced appearance with the heavy natural stone relief below the delicately etched panels above.

The sweeping extensions of the panels are light enough and sufficiently





rigid to be attached to the steel frame and still achieve the long and fluid overhangs. The rough oversize "stone" patterns at the base of the building attach the structure to the ground. In turn, the sweeping wall forms extend outward suggesting the outreach to the community.

Sweeping arch columns, featuring 3 ft (0.91 m) returns, adorn the second-story windows. One-piece corners have a spiral arch edge, the result of two radiused surfaces coming together.

Lastly, exquisitely designed parapets feature deep box returns to window glass which then slope upwards to a prominent eyebrow and finally top out with a recessed vertical parapet. The GFRC panels were supported on the deep box tube steel frame.

The building was clad with 374 GFRC panels comprising a surface area of 36,000 sq ft (3350 m²). The large sweeping panels are 30 ft (9.14 m) tall and sweep out 3 ft 6 in. (1.07 m).

The GFRC panels were manufactured by Eagle Precast at their plant in Salt Lake City. The panels were shipped to the project site by truck

trailer. The precaster was responsible for both the transportation and erection of the panels.

The building was completed towards the end of 1999 and the facility was officially opened to the public on December 15, 1999. The total cost of the project was \$9.5 million.

During the past year, the facility has

been operating with total satisfaction. Indeed, the owner, design-construction team and citizens of Clearfield are pleased with the new facility and the building's architecture. It is hoped that in the years to come the Municipal & Justice Center will have provided a spark in revitalizing the city of Clearfield.



CREDITS

Owner:

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Architect:

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Engineer:

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Contractor:

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