Architectural Treatment of Concrete Wall Surfaces Discloses a New Art

Remarkable Effects Secured in Texture of Material Variety of Materials Are Used for Form Surfaces

By Don L. Holmes

Greater possibilities for the architectural treatment of concrete are shown in the construction of the Southland Masonic Temple recently completed on the grounds of the Hollywood Cemetery Association. By painstaking experimentation and excellent craftsmanship, coupled with a sound knowledge of concrete, the architects and contractor have originated a treatment unique though entirely practicable which points to a wider field in designing for concrete.

The building upon which this treatment was used comprises the first unit of a development which ultimately will extend along Santa Monica Blvd. from Van Ness Ave. to Gower St. and provide a formal entrance for the cemetery. The architecture is Italian Renaissance, but the walls are unmistakably concrete and stand upon the merit of concrete and its treatment for their beauty. The completed building is approximately one-third of the entire project; it is an L-shaped structure requiring ground space of 100 feet square. The formal courtyard with its gateway on Santa Monica Blvd. serves the Masonic Temple which occupies the second floor. The balance of the street frontage is taken up by the building and is divided for shops.

In planning the construction with concrete several sample panels were built to show the effect that could be achieved with form liners of various materials and of varying thicknesses. The regular wall forms consisted of 6-in. timber, surfaced one side and two edges, braced by 2 by 4 inch studding spaced 16 inches. The random ashlar effect was created by a pattern detailed on the inside of the outer form. The blocks of this pattern were then covered with the lining materials which included Presdwood, rubber matting, Rubberoid roofing, Sisalkraft, Matta-Horn, studio board of Celotex and Insulite. For blocks that bounded at angles and window reveals the lining material was mitered and continued around. Some of the liners were scored with a chisel or rabbit plane to give a different surface texture. The liners varied in thickness from a scant one-eighth to a full quarter, and this variation produced uneven blocks on the surface to permit a play of shadows and greatly increase the beauty of the wall.

Joints between the blocks were formed with 3/4 by 3/4 inch beveled pine strips. A good portion of the ornament was cast in waste molds which were made right on the job, due to the fact that they were required to bond within a fraction of an inch.

All surfaces except those that might be affected by alcohol were shellaced and then the whole form oiled with usual form oil. Ties were spaced approximately 27 by 22 inches apart and were all located through the joints between blocks. Although few spreaders were required, it was the practice to use a 2 by 3 inch block against the form liner to distribute pressure and eliminate any possibility of a scar when the spreader was removed.

No difficulty was encountered in placing concrete with an absolutely smooth and uniform surface finish. Concrete was placed in story heights with two pours required for each story. In other words, the walls were divided by vertical joints at two points.

Concrete was proportioned 1-2%-30, with coarse aggregate ranging to 3/4 inch in size. An addition was made of one-half sack of white portland cement per cubic yard of concrete to give color value and Suconem was used as an admixture to facilitate placing. Concrete placing was carried around the one-half section of the story in lifts about 27 inches deep and with each subsequent lift concrete was puddled throughout the depth of the lift and into the lift below. Care was required, of course, to leave the lining materials and joint strips undisturbed.

The surface texture and random ashlar effect are unlike stone and only resemble it because stone has been used to create a similar effect. The walls of this building are frankly concrete, but have a warmth and variation of tone not achieved before.

Morgan, Walls & Clements of Los Angeles were the architects; Chester M. Williams of Los Angeles, general contractor.