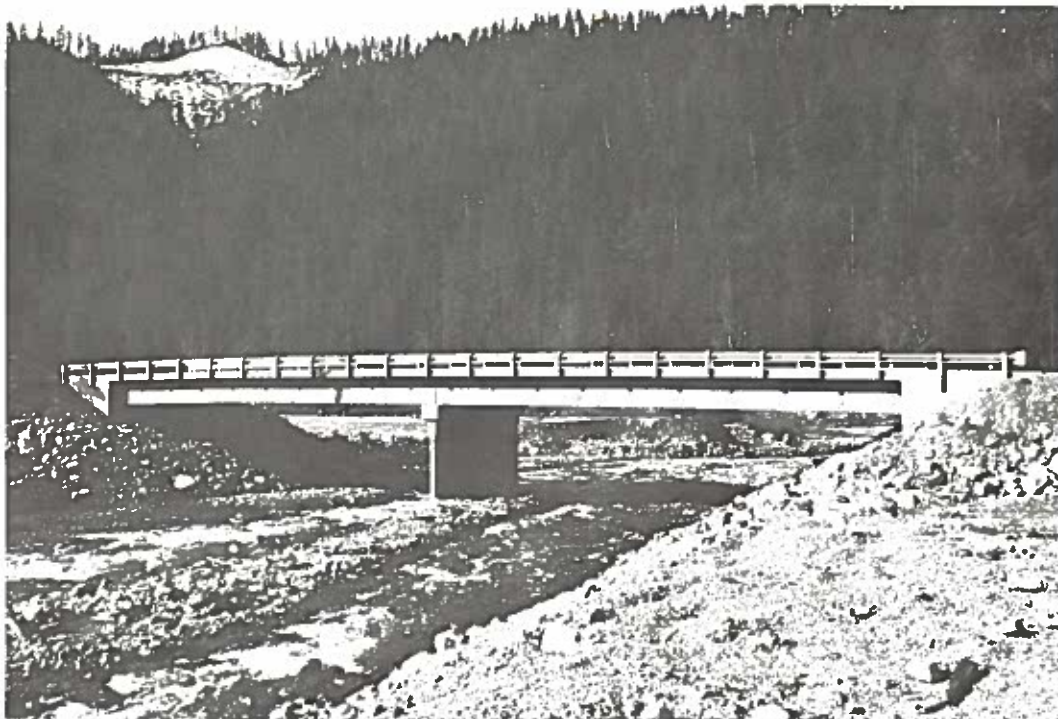


# BRIDGES & HIGHWAYS



**CLAIR A. HILL & ASSOCIATES**  
CONSULTING ENGINEERS  
1626 COURT STREET REDDING, CALIFORNIA

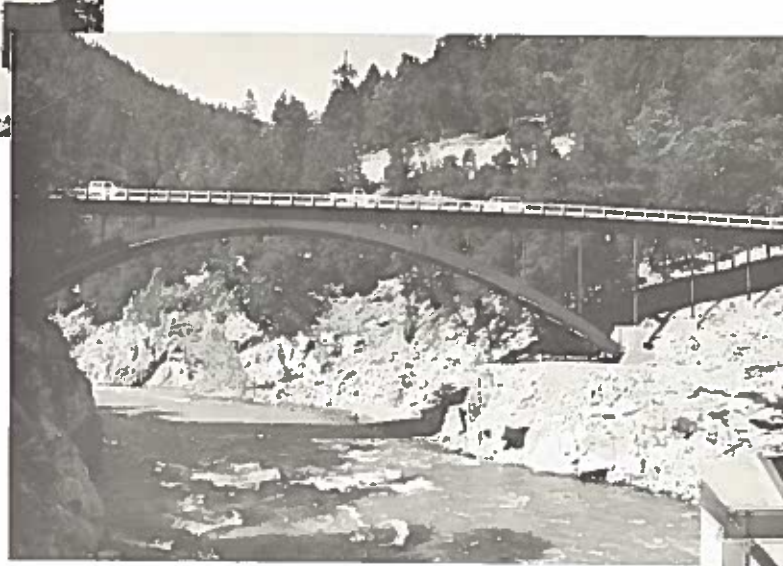
This brochure on Bridges and Highways highlights *access to our natural resources*. We have selected from our 30 years of design experience on hundreds of miles of access roads and many bridges a few typical illustrations. These represent a variety of design concepts – making most efficient use of materials and design in harmony with the physical setting.

The services we provide include all phases of planning and engineering required by bridge and highway work. We are staffed and equipped for subsurface exploration, aggregate location, route mapping (aerial and ground), surveys, design, materials testing, and construction inspection. The complete engineering package, or any part thereof, is available to our clients on any job, large or small.

Additional information on the enclosed structures, similar structures in other areas, or general experience and qualifications of our firm is available on request.

**Cover:** East Fork Indian Creek Bridge, Siskiyou County, California – a two-span, 120-foot, reinforced concrete, T-beam bridge, founded on piles and spread footings.

**Opposite page:** Salmon River Bridge at Wooley Creek – a 310-foot bridge employing two hinged, welded steel, arch ribs. Note the use of closed box sections and structural rectangular tubing for exposed members.

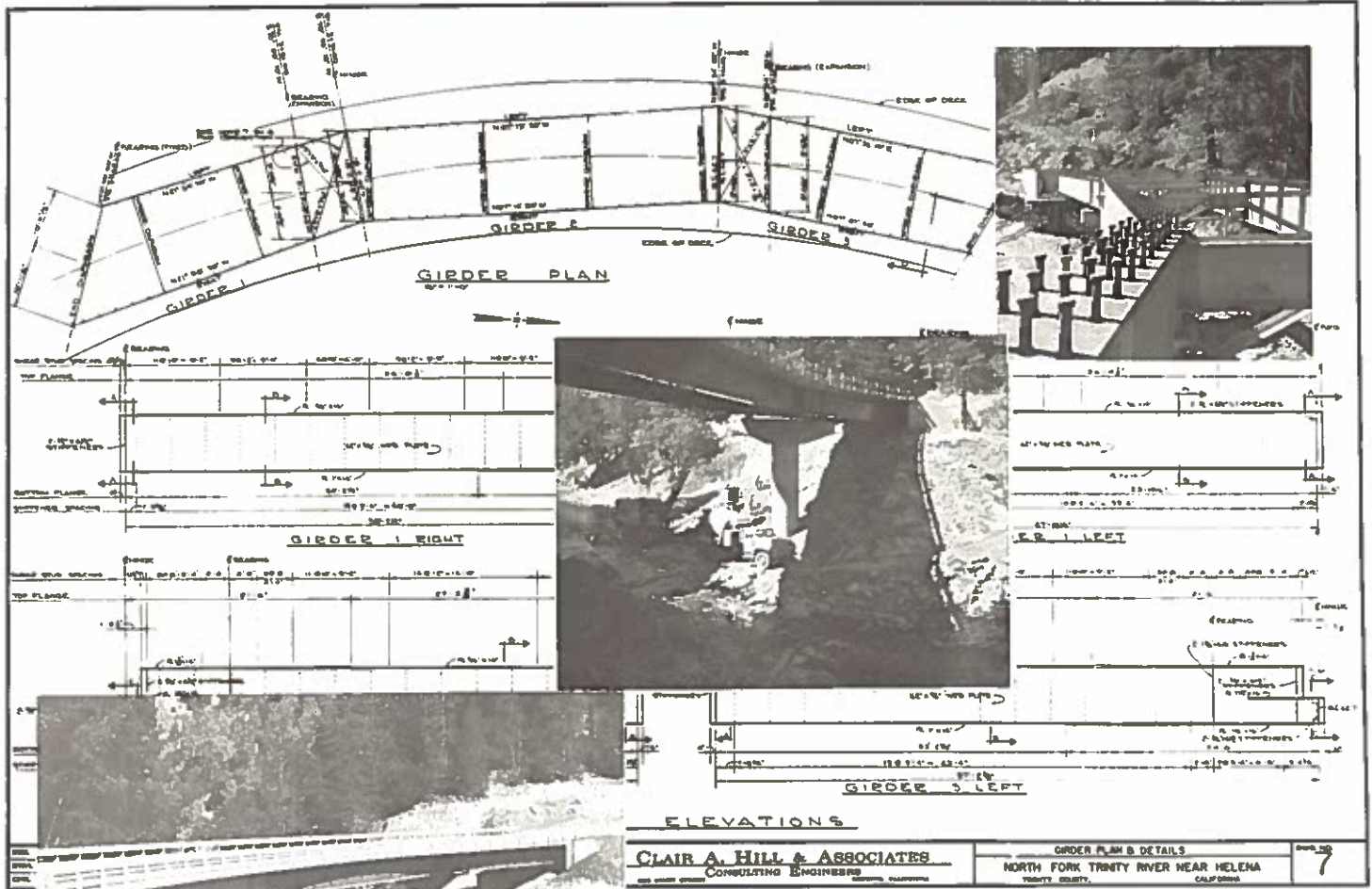


Bridge across Salmon River at Wooley Creek  
U. S. Forest Service  
Klamath National Forest

A guide for our designers . . .

*There is only one structure for each location. Aesthetics and economics are not incompatible. Beauty lies not in expensive frills, but in simplicity, composition, and grace of line – let the bridge become a part of the setting.*

Clair A. Hill



North Fork Trinity River Bridge  
Trinity County  
California

... a sequence of pictures showing the birth, growth, and completion of a 180-foot steel and concrete bridge. Here, the designer has chosen straight girders in contrast to deck curvature. The finished structure provides an interesting blending of shadows and planes.

The great flood of 1964 washed out the previous bridge. A temporary crossing is just visible in the second photo from the bottom.







**Scott River Bridge  
Siskiyou County,  
California**



*At left:* The camera looks at the Scott River Bridge along one of the 140-foot horizontally curved end girders. These somewhat unusual girders fit the structure to the site, and make possible the desired highway design speed on the bridge. Vehicles traveling the 400-foot structure are 80 feet above the spread footing foundations of the two stream piers. Steel H piles support one of the two abutments, the other is founded on rock.



**Tarantula Gulch Road  
U. S. Forest Service  
Shasta-Trinity National Forest**

*Above:* A picturesque highway through public lands to provide recreational access to McCloud Reservoir.

*Below and left:* 13 miles of new highway and structures for the Corps of Engineers to provide access in Tehama County to and around Black Butte Reservoir.



**Black Butte Road  
Tehama County  
California**



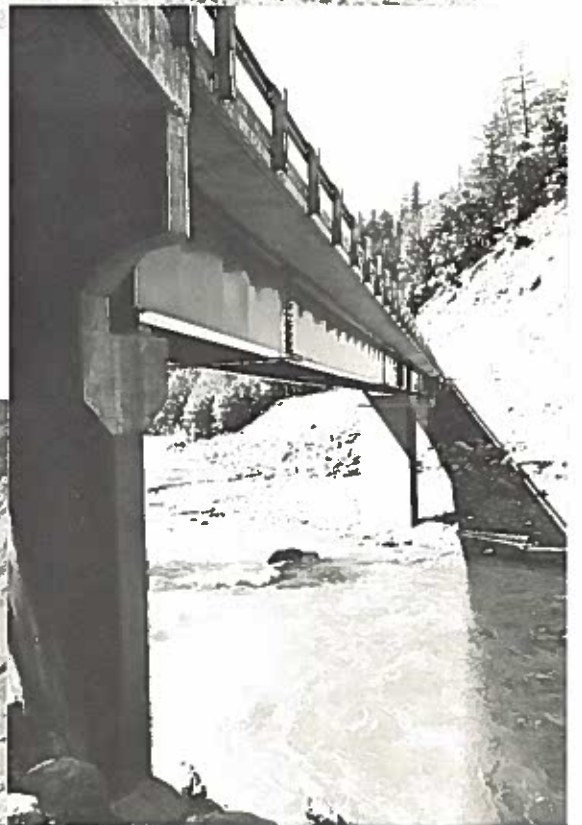


**Elk Creek Bridge  
Siskiyou County  
California**



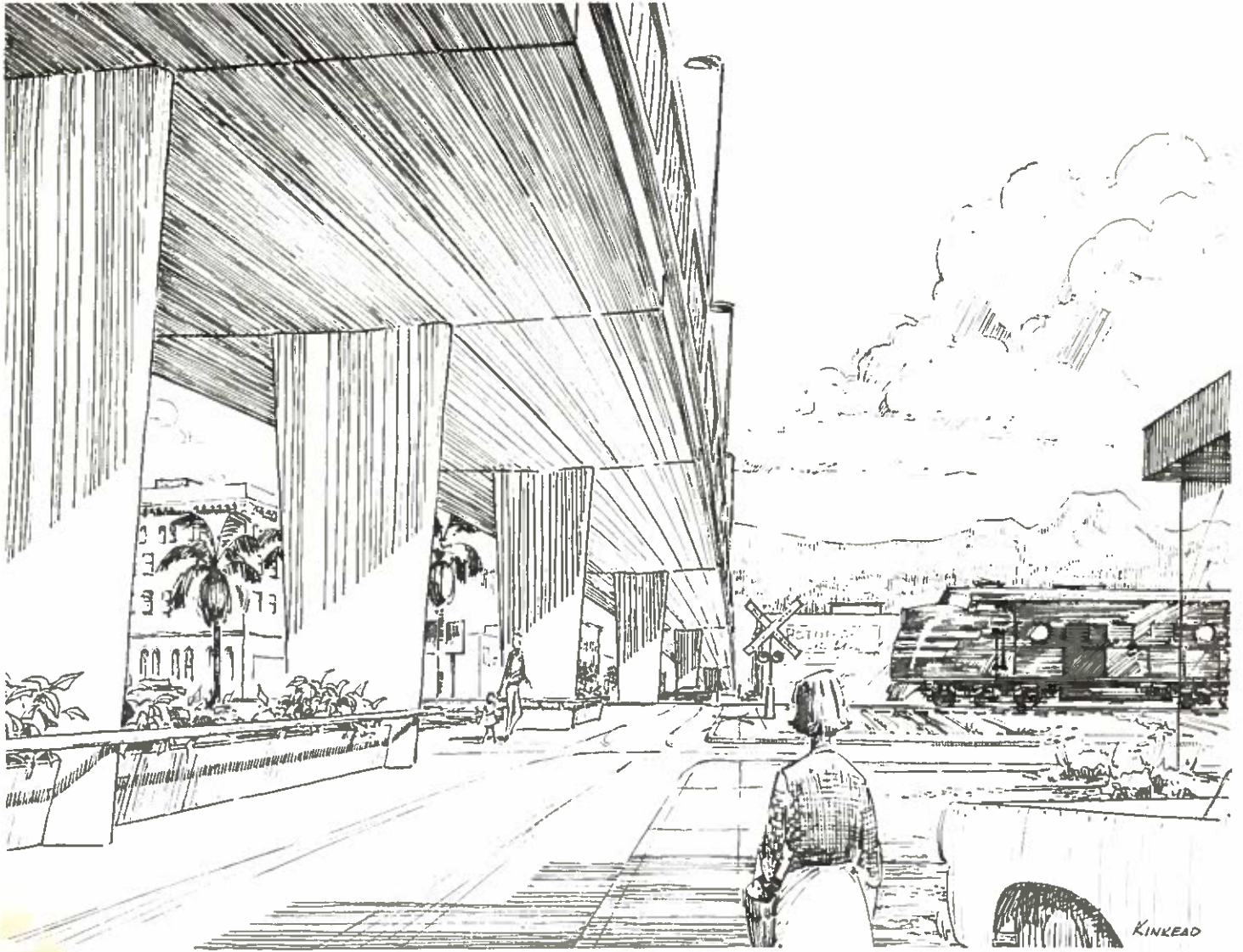
*Above:* A two-span, 140-foot, reinforced concrete, T-beam bridge.

*Below and right:* A 270-foot bridge using structural steel composite main spans with reinforced concrete approaches.



**New River Bridge  
U. S. Forest Service  
Shasta-Trinity  
National Forest**





*Proposed Placer Street Overcrossing – Redding, California*

**VERSATILITY** – a change in pace from rural to urban is reflected in the above structure. But the same aesthetics and efficient combination of materials and design create a smooth flow of traffic in an urban environment, without “walling in” the community. Far too often, the functional aspects of such structures have been the only objective in design. Our firm is dedicated to the concept of planning for the total environment – reflecting the openness that westerners prize so highly, yet fulfilling local transportation needs of today’s urbanization.