

10. NAME(S) OF STRUCTURE

State Bridge Number 300

11. PHOTOS (W/ FILM ROLL & FRAME NO.) AND SKETCH MAP OF LOCATION

37B:22-26



37B:23

Mack, Warren W. "A History of Motor Highways in Delaware", in Reed, Henry Clay, Delaware: A History of the First State, vol.2, pp.535-550 (NY: Lewis Historical Publishing Co., 1947).

Delaware State Program. Delaware State Highways; The Story of Roads in Delaware.... [Newark, Delaware: Press of Kells, 1919].

Federal Writers' Project. Delaware: A Guide to the First State. (New York: Viking Press, 1938).

Delaware State Archives. New Castle County Levy Court Records. Specifications, Proposals, Contract and Bond files.

Delaware State Archives. New Castle County Road Commissioners Records, 1750-1940.

Delaware DOT records: Photo Archives; contract files.

Plans on file at Delaware DOT: Contract #CN 43

13. INVENTORIED BY:

AFFILIATION

DATE

P.A.C. Spero & Company with Kidde Consultants for Delaware DOT

April-November 1988

HABS/HAER INVENTORY

See "HABS/HAER Inventory Guidelines" before filling out this card.

1. NAME(S) OF STRUCTURE

State Bridge Number 300

2. LOCATION

Porter Station Road over Red Lion Creek
Porter, New Castle, Delaware

3. DATE(S) OF CONSTRUCTION

1934

4. USE (ORIGINAL/CURRENT)

Vehicular

5. RATING

CF

6. CONDITION

Good

State Highway Bridge 300 is a 10'-10" concrete rigid frame bridge with concrete abutments and U-shaped concrete wing walls. It carries two lanes of traffic on a deck 24'-0" wide. A corbeled band defines the top of the fascia and wing walls. The fascia is shaped as a segmental arch. The concrete parapet consists of two large end blocks, each 10'-0" long. The wall between the end blocks is lower and is comprised of concrete posts as an oversized balustrade and beveled rail.

Delaware Department of Transportation records state that Bridge 300 was built in 1934 under contract CN 43, as part of a project to improve 1.37 miles of road between Red Lion and Porter. Original drawings dated September 1934 document the configuration and construction details of this structure, with particular attention to the scheme for placement of steel reinforcing bars within the concrete, and the provision of a sleeve in each abutment to accommodate future utilities. The bridge was designed for H-20 loading. The construction contract was awarded on November 2, 1934 to the Olivere Paving and Construction Company of Wilmington; Julian T. Jones is listed as subcontractor. The reinforcing steel was supplied by the Kalman Steel Corporation of Bethlehem, Pennsylvania. The concrete frame bridge replaced a wooden beam bridge with masonry abutments.

State Bridge Number 300 is an example of a concrete frame bridge, like the commonly built concrete slab and girder bridges, of standardized design and simply embellished. These common types were constructed during the early growth period and the period of rapid expansion of the state road network. The need to rapidly expand the transportation network resulted in standardized, "cookbook" designs. Most of the concrete bridges surveyed in Delaware, like the steel girder bridges, represent an economical and expedient engineering solution that proved functional across the nation over an extensive period of time. Typically they are not distinguished technologically or aesthetically; while exceptions exist, their embellishment is generally limited to standardized, simple incised geometric designs breaking up the visual mass of the solid concrete parapet. This treatment is handled in a formulaic manner, and is so common as to be "generic". The ubiquitousness of these concrete types, and their non-innovative technological and aesthetic character, prompted engineering historian Carl Condit to observe that the "number ...is so great and the design and appearance so nearly uniform that it is difficult to select examples that are more noteworthy than others". The rigid frame type was not adopted by the State Highway Department engineers until 1931, with the design of Bridge 488N, also included in this survey. Bridge 300 appears to be in good structural condition, is unaltered, and is considered a good representative example of this type.