

The
New Jersey Historic Bridge Database

**Based on survey data and recommendations prepared by
A.G. Lichtenstein & Associates, Inc.**

For

**The New Jersey Department of Transportation
Bureau of Environmental Services**

And

**The Federal Highway Administration
New Jersey Division**

With

**Modifications based on Consultation between
The New Jersey Department of Environmental Protection
Historic Preservation Office,
The New Jersey Department of Transportation, and Others**

**Survey - September, 1994
Database Modifications 2001**

Introduction

The 1987 Surface Transportation and Uniform Relocation Assistance Act mandated that each state conduct a survey of all bridges on and off the system to determine their historicity. In response, NJDOT hired A. G. Lichtenstein & Associates, Inc. to conduct the necessary survey and make recommendations about the eligibility of each bridge for listing in the National Register of Historic Places. For the purposes of the survey, NJDOT's definition of a bridge as a structure 20 feet or greater in length was adopted and an end date of construction of 1946 was chosen.

The development of historic contexts for evaluating the bridges; collection of survey data; analysis; and the formulation of recommendations about eligibility were completed during 1991-1994. Consultation with the SHPO on elements of the survey was initiated as early as the fall of 1992, and after review by NJDOT Bureau of Environmental Services and FHWA NJ Division Office staff, sections of the survey report and data forms were transmitted to the SHPO for review and comment. By its conclusion, the survey included data forms on 2,065 structures.

The Historic Preservation Office provided comments on the entire survey by letter of June 30, 1995. These comments addressed approximately 600 structures and were silent on 1465. During the fall of 1995 staff from Lichtenstein, NJDOT and the SHPO worked to resolve issues associated with the survey. At the conclusion of that effort agreement had been reached [but not formalized] on approximately 2,000 of the bridges. Over the past few years, NJDOT has renewed its efforts to bring the survey to conclusion by resolving outstanding issues on individual bridges. This effort, required to bring closure to the survey and as an initial step in developing an analysis of whether individual bridges could be preserved and a plan for doing so when possible, was completed in March of 2001. Since then, information has been added to the data base about alterations to the bridges [demolitions, rehabilitations, significant alterations, etc.], status of projects involving bridges listed in the survey when available [project planning has been initiated, memorandum of agreement has been executed, etc.], and additional Section 106 consultation references as available to the database team. Not all of this information will appear on the forms which can be viewed in the Adobe Acrobat format. Information pertinent to project status becomes dated immediately and is included as a comment field only in the database, which forms the basis for the forms. Descriptive text and other information [including an introduction, description of methodology, narratives on the development of transportation networks and the evolution of bridge building technology in NJ County summaries, bibliography, etc.] from the original survey report are also available in the Adobe Acrobat format.

The information included in this database is only useful if it is maintained. Please provide information about any corrections or additions needed to NJDOT's Bureau of Environmental Services Historic Bridge Database Team as soon as you are aware of them. Changes will be incorporated periodically.

Figure 1.

**NEW JERSEY DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENTAL SERVICES
NEW JERSEY HISTORIC BRIDGE DATA**

STRUCTURE # NAME & FEATURE INTERSECTED	CO	OWNER FACILITY	MILEPOINT
TOWNSHIP TYPE # SPANS	LENGTH	DESIGN WIDTH	MATERIAL
CONSTRUCTION DT DESIGNER/PATENT	ALTERATION DT	SOURCE BUILDER	
SETTING / CONTEXT			
1995 SURVEY RECOMMENDATION CONSULT STATUS CONSULT DOCUMENTS SUMMARY			
INFOR MATION			

PHOTO:

REVISED BY (DATE):

QUAD:

A. G. Lichtenstein & Associates, Inc. performed initial survey.
NJDOT updated data 03-01-2001.

Correction Updates Etc should be sent to
Correspondence.Unit@DOT.State.NJ.US

Data Form Design

The data form displayed in the NJHBD [Figure 1] has been modified slightly from those included in the 1995 survey for the purpose of clarity and including additional information. For example, the survey was comprised of an initial survey form and, for those structures, which were recommended as being eligible, a second Along form[®] which provided additional descriptive information. These two forms have been combined into a single data form. The fields on the NJHBD form are described as follows:

Structure

Each bridge under state jurisdiction has been assigned a unique 7-digit number. The first two digits are a county code, and the five-digit suffix is a sequential route code for state bridges and often a variation of the old county numbering system for county-owned spans. All NJDOT records relevant to a particular bridge are filed by this unique number. A search on the structure number will let you know immediately if the bridge was included in the survey.

County

The county in which the bridge is located, or, in the instance of a joint-county span, the county, which assumes responsibility for the structure.

Owner

Governmental entity, agency, or corporation that owns the bridge. APrivate[®] refers to a private owner or bridge commission. ARailroad[®] is a generic entry indicating that a railroad company owns it, but not necessarily which one. ANJDOT[®] refers to state-owned bridges.

Milepoint

State highways are measured west to east, or south to north from the 1) State line, or 2) origin of the route. Milepoints (referred to mileposts on railroads) are measured to the nearest hundredth of a mile.

Name & Feature Intersected

Name(s) of feature(s) carried and crossed

Facility

Name(s) of feature(s) the bridge carries. Local nomenclature is included in parenthesis.

Township

Local civil division where the bridge is located.

Type

A standardized entry based on a list of all bridge types found in the state [Figure 2].

Design

A standardized entry based on a list of bridge type designs found in the state [Figure 2]. Design assists with better identifying bridges with similar physical characteristics, such as the various trusses or concrete reinforcing systems.

Material

A standardized entry based on a list of the material of the primary members [Figure 2]. Spans are typed by primary material. When it is not known for certain if a span is steel or cast or wrought iron, AMetal[®] is used.

Spans

Total number of spans.

Length

The backwall to backwall overall length of the bridge.

Width

The fascia-to-fascia width of the bridge

Construction Date

Date of erection. Circa dates are entered with Aca.@ after the year.

Alteration Date

Date(s) of significant alteration(s) that affect the appearance of span. Demolition dates are also included. Circa dates are entered with Aca.@ after the year.

Source

Source upon which the date(s) of construction/alterations(s) is/are based. In some instances Asource@ also refers to the source of historical data. ASTYLE@ is the convention used when the date is based on the physical evidence of the structure itself. ANJDOT@ refers to the date provided in the NJDOT structure database. That date was used when it was confirmed by physical evidence and research.

Designer/Patent

Identifies who designed the bridge or who patented the design or construction details. ANJ STATE HWY DEPT BRIDGE DIV@ is the convention used to identify bridges designed by the state highway department bridge engineers. AUNKNOWN@ was entered when research failed to identify the designer/patent. If no designer/patent was researched, then the category was left blank.

Builder

Identifies the person or company that actually built the span. When no research was conducted to identify the builder, the category was left blank. If research was conducted and no builder was identified then AUNKNOWN@ was entered.

Setting/Context

Surroundings and historic contexts are an important part of the National Register evaluation process. Frequently a bridge is found eligible because it is located in an identified potential, eligible, or listed historic district. For example, it might contribute to an historic context defined on the basis of industrial development or community planning. It could also be an area that once had historic significance but has been so altered that the significance has been lost. The bridge might be newer than its historic setting and therefore not contribute to it unless it is individually eligible. Individually eligible bridges also contribute to an historic district even if it does not relate to the significance of the district. Or, the span could be isolated in a setting surrounded by woods or fields. This category was defined to explain and assess the environment of the span as a means of better supporting the National Register recommendation. Because of space limitations, sometimes historical data, especially information about the road itself, was included in this category.

1995 Survey Recommendation

Provides the recommendation of the 1995 Historic Bridge Survey compiled by A.G. Lichtenstein & Associates, Inc. of whether the structure appears to meet the criteria for inclusion in the National Register of Historic Places. It is a studied and carefully considered opinion based on all of the information gathered statewide during the field work, research, and internal review phases of the survey. It reflects the perspective of historians and engineers. The process for reaching this recommendation is described in detail in the survey report and should be consulted by the reader. The recommendations of the survey do not necessarily correlate with the comments of the SHPO on the survey. Both are included in the database for the information of the users.

Consult Status

Describes the results of the most recent consultation with the SHPO in the context of the historic bridge database. Consultation comments made in the context of project specific discussions since the time of the survey have been included as available to the database team. The information included in this category is comprised of 1) the opinion offered by the NJ Historic Preservation Office on the survey results and/or any previous opinions offered by the Office on the individual eligibility of the structure to be listed in the National Register [findings include

ANot Individually Listed®, ANot Individually Eligible®, and ANot Individually Eligible®]; 2) the identity of any bridges and districts which are potentially eligible, eligible, or listed in the National Register at the location of the structure, with the date listed properties were actually listed in the Register [For example, AListed. South Randolphville Road Bridge. 09/17/1999"]; 3) and an indication of whether the bridge is non-contributing, may contribute, contributes to the identified historic district, or has not been rated [For example, APotential Union County Park System Multiple Property nomination, May contribute®]. Since an analysis of the potential for each bridge to be within an historic district and evaluations of contributing/non-contributing status were not elements of the 1995 survey this information is not considered to be comprehensive and is included only when available to the database team. The term APotentially eligible® in this context indicates there is recognition on the part of the HPO and the NJDOT that the area has either some historic significance or architectural character, which must be evaluated, to determine if an historic district indeed exists at that location. AAgreed historic district® indicates that there is agreement by the two agencies that an historic district exists at that location, however full definition of the significance of the district and delineation of its boundaries has not been initiated. Use of past tense, as in ABridge was individually eligible®, indicates that the structure has been demolished or sufficiently altered such that it is no longer individually eligible for listing in the National Register. Properties listed only in the New Jersey Register of Historic Places and not in the National Register are also identified in this section.

Consult Documents

Enumerates the basis for the findings listed in AConsult Status® and may include, SHPO letters [survey comments and project specific consultation status], SHPO opinions, and formal Determinations Eligibility from the Keeper of the National Register.

Summary

A narrative that briefly describes the bridge and significant alterations, and justifies and explains the National Register recommendation.

Information

Includes an expanded physical description, statement of historical and technological significance, boundary description, and a selected bibliography. This information is provided only for those bridges which 1) appeared to be eligible either individually or as a contributing resource in a potential historic district [if that district was identified at the time of the survey], 2) were of questionable eligibility which needed additional research to resolve, or 3) are in a listed National Register Historic District and were evaluated as being contributing resources [at the time of the survey]. This information does not appear for those bridges whose eligibility had previously been evaluated [National Park Service/Keeper of the National Register or SHPO has previously rendered a finding; bridges listed in the National Register individually or as contributing resources within districts; multiple property resources; or bridges recommended as being non-contributing to listed National Register Historic Districts].

Photo

Identifies the roll and negative number of images of this bridge. The date in parenthesis is the month and year the bridge was field inspected and photographed. Photographic images and negatives are retained by NJDOT-s Bureau of Environmental Services. At least two black and white photographs were taken of each bridge showing an elevation and through view. In rare instances field conditions precluded obtaining an elevation view.

Revised By (Date)

Records when the structure was re-evaluated or the survey form was revised after the database was finalized.

Quad

Identified the USGS 7.5 minute quadrangle map on which the bridge is located. Dates of the maps vary. A copy of the section of the quad map with the bridge marked on it is also on file with NJDOT-s Bureau of Environmental Services.

Copies of the original survey forms as submitted in final copy are on file with NJDOT-s Bureau of Environmental Services.

Figure 2.

BRIDGE TYPES

DECK TRUSS
PONY TRUSS
THRU TRUSS
CANTILEVER TRUSS
DECK GIRDER
THRU GIRDER
LATTICE GIRDER
MULTI GIRDER
ARCH
STEEL ARCH
3 HINGE ARCH
TIED ARCH
DECK ARCH
BRICK ARCH
OPEN SPANDREL ARCH
OPEN SPANDREL RIBBED
ARCH
STONE ARCH
T BEAM
SINGLE LEAF BASCULE
DOUBLE LEAF BASCULE
ROLLING LIFT
VERTICAL LIFT
SWING SPAN
CABLE LIFT BASCULE
BOX BEAM
RIGID FRAME
BAILEY
SLAB
SUSPENSION
STRINGER
TUNNEL
OTHER

BRIDGE DESIGN

PRATT HALF HIP
PRATT
WARREN
K
HOWE
LENTICULAR
CAMELBACK
PARKER
BALTIMORE
HYBRID
DOUBLE INTERSECTION
TRIPLE INTERSECTION
SCHERZER
STRAUSS OVERHEAD
STRAUSS UNDERNEATH
HEEL TRUNNION
ELLIPTICAL
PARABOLIC
BARREL
ARCH
RIM BEARING
CENTER BEARING
ENCASED
PARTIALLY ENCASED
LAMINATED
TRUNNION
JACK ARCH (BRICK)
JACK ARCH (CONCRETE)
TUNNEL
CONTINUOUS
OPEN WEB

MATERIAL

STONE
BRICK
WOOD
CONCRETE
STEEL
WROUGHT IRON
METAL
REINFORCED CONCRETE