United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property
   historic name Doniphan County Waddell
   other names/site number Doniphan County Waddell

2. Location
   street & number 1.7 miles northeast of Doniphan on F.A.S. 28
   city, town Doniphan
   state Kansas code KS county Doniphan code 43
   not for publication
   vicinity
   zip code none

3. Classification
   Ownership of Property
   private
   public-local [x]
   public-State
   public-Federal
   Category of Property
   building(s)
   district
   site
   structure [x]
   object
   Number of Resources within Property
   Contributing buildings
   Noncontributing sites
   1 structures
   1 objects
   Total
   Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification
   As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this
   Nomination [x] request for determination of eligibility meets the documentation standards for registering properties in the
   National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.
   In my opinion, the property [x] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.
   Signature of certifying official
   [Signature]
   State or Federal agency and bureau
   [Agency Name]
   Date 24 Nov 1989

   In my opinion, the property [ ] meets [ ] does not meet the National Register criteria. [ ] See continuation sheet.
   Signature of commenting or other official
   [Signature]
   State or Federal agency and bureau
   [Agency Name]
   Date

5. National Park Service Certification
   I, hereby certify that this property is:
   [ ] entered in the National Register.
   [ ] See continuation sheet.
   [ ] determined eligible for the National Register. [ ] See continuation sheet.
   [ ] determined not eligible for the National Register.
   [ ] removed from the National Register.
   [ ] other, (explain:)
   [ ] See continuation sheet.

   Signature of the Keeper [ ] Date of Action [ ]
### 6. Function or Use

<table>
<thead>
<tr>
<th>Historic Functions (enter categories from instructions)</th>
<th>Current Functions (enter categories from instructions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation: Road Related (Vehicular): Bridge</td>
<td>Transportation: Road Related (Vehicular): Bridge</td>
</tr>
</tbody>
</table>

### 7. Description

<table>
<thead>
<tr>
<th>Architectural Classification (enter categories from instructions)</th>
<th>Materials (enter categories from instructions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other: Waddell &quot;A&quot; Truss</td>
<td>foundation</td>
</tr>
<tr>
<td></td>
<td>walls</td>
</tr>
<tr>
<td></td>
<td>roof</td>
</tr>
<tr>
<td></td>
<td>other Metal: Wrought Iron or Steel</td>
</tr>
</tbody>
</table>

Describe present and historic physical appearance.

The Doniphan County Waddell "A" truss, erected in ca. 1900, is a riveted pony truss. The single span is 36 feet long and 20 feet wide. The deck rises 14 feet above the stream bed.

The members of a truss bridge are designated either as chord members or web members. Chord members are those mainly defining the outlines of the structure and they are termed lower or upper chord members depending on whether they are found at the bottom or the top of the structure. Members between the chords are web members. They are called posts or ties if they sustain compression or tension respectively.

In the King Post truss, the end posts and top chord merge to form two sides, and the lower chord completes the triangle. The end post and top chord sides are in compression while the lower chord side is in tension. If diagonals and secondary verticals are added to the king post, it becomes a Waddell "A" truss. The secondary verticals are placed in tension and the diagonals act in compression. The Doniphan county bridge is fabricated out of channel stock. Connections are facilitated by the use of metal plates at connection points. All connections are riveted. The top chords, king post, diagonals and secondary verticals are made up of these channel beams. The bottom chord is single. One floor beam is attached to the king post and the sway brace. This in turn supports an I beam running the length of the panel. The wood decking is laid diagonally on top of these I beams. Few alterations have taken place and the bridge retains a high degree of its structural integrity.
The King Post is one of the oldest truss designs, serving well in many medieval buildings. As is evident they served as well as bridges into the 20th century. Its simplicity also establishes its limit. As the length increases so must the height, at the same ratio. It is therefore only practical in short spans. This was compensated somewhat by the development of a Waddell "A" Truss in the late 19th and early 20th century. The length of a Waddell could reach up to 75 feet.

No actual construction history of the Doniphan County Waddell "A" Truss has presently been located. Such structures were generally quite inexpensive and received little public notice. It was selected to be nominated because it is the only remaining example of the design in Kansas and it retains an outstanding degree of its integrity.
9. Major Bibliographical References


10. Geographical Data

- Acreage of property: less than one acre

- UTM References
  
<table>
<thead>
<tr>
<th>Zone</th>
<th>Easting</th>
<th>Northing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.5</td>
<td>321740</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- B Zone: ____________________
- Easting: ____________________
- Northing: ____________________

- D Zone: ____________________
- Easting: ____________________
- Northing: ____________________

- See continuation sheet

Verbal Boundary Description

The nominated property is located on the NW 1/4, SW 1/4, NE 1/4, SW 1/4, section 3, township 5 south, range 21 east, on a tract measuring 36' x 20' whose northeast corner is represented by the northeast corner of the bridge. Beginning at the northeast corner the boundary proceeds 26' southwest, 20' northwest, 36' northeast and 16' southeast to the point of beginning.

- See continuation sheet

Boundary Justification

The boundary includes only that area that is historically associated with the nominated property.

- See continuation sheet

11. Form Prepared By

- Name/title: Larry Joehlms
- Organization: Kansas State Historical Society
- Street & number: 120 W. 10th
- City or town: Topeka
- Date: September 20, 1989
- Telephone: (913) 296-3251
- State: KS
- Zip code: 66612