

1. Historic and Cultural Value

Court record from 1897

And now Sept 16, 1897
After fully considering
the facts, we, the Grand
Jury, at Sept Term
of the Quarter Sessions,
hereby recommend the
construction of a bridge
across the Yellow Birch Creek
at what is known
as Bishop's Ford, as more
fully set forth in the
within Report of viewers

J. W. Kenyon
Foreman

No. 1777

In re - Bridge at Bishop's Ford.

Report of Bridge Viewers.

Filed April 20 - , 1897.
Road No 5. P 250

And now, May 11 , 1897,
confirmed nisi.

By the Court
E. W. Bishop
P. J.

And now Sept. 14 1897 this
report is confirmed absolutely.

By the Court
E. W. Bishop
P. J.

The Clerk is directed to lay
this Report, immediately after
the term, before the County Com-
missioners, to be examined by
them; who shall report at next
Term such objections, if any,
they have to the same.

BY THE COURT.

247d atty-

1. Historic and Cultural Value

WIBW period catalog

Wrought Iron Bridge Co., Canton, O.



301 FOOT SPAN, 18 FOOT ROADWAY, AT AURORA, IND.

THE construction of durable Iron Highway Bridges instead of perishable wooden structures—securing, as it does, an ornamental and permanent improvement to the public highways, and avoiding their frequent obstruction for the repair or rebuilding of wooden bridges failing from decay, storm or fire—has become an imperative *public need*, wherever trial has been made of properly designed and constructed work.

The only objections to the adoption of Iron Bridges have arisen from the construction by unscrupulous and inexperienced bridge builders of *light and inferior work, badly designed and poorly built* of inferior material, and there is

no case of failure of Iron Bridges which cannot be clearly shown to have resulted from some of these causes. Iron of proper quality, and rightly used, *has never yet failed* to meet all the requirements of a first-class bridge material, but it must be properly used to give good results; and it is on the ground of their extensive experience in its practical use, and their facilities for ascertaining its quality and manufacturing it into the strongest designs for work, that this Company desire to call the careful attention of the public to its record and facilities.

Experience.—During the past 18 years this firm have erected nearly 4,300 spans, varying in length from 29 to 300

2

WROUGHT IRON BRIDGE COMPANY, CANTON, OHIO.

feet, and in width from 6 to 120 feet, aggregating over 50 miles in length, and having an aggregate floor surface of about 94 acres. This work has been erected in 20 different States, Canada and Mexico, and includes nearly all forms of Truss, Arch, Swing and Plate Bridges and Iron Piers, as will be seen from the list of work given on the following pages, giving us the benefit of the most extensive practical experience in Highway Bridge work of any firm in the country.

Quality of Material.—We were the first Highway Bridge firm to put in testing machinery for ascertaining the actual strength of iron used in construction, and are the *only firm in this special business* practically applying tests to material received and work built at their shops. All iron is specially manufactured for us under the most rigid specifications as to strength and quality, and *every car-load is carefully tested* immediately upon receipt from the rolling mills, and if found unsatisfactory is returned to them. We offer every facility for testing the iron, and finished iron work, at our shops before shipment, to parties purchasing our bridges; and give their engineers personal supervision of the manufacture, when desired, as was done in the construction of the 6-171 foot spans for Sterling, Ill., and 301 foot span at Aurora, Ind.

Facilities.—The works are the largest in extent, and are provided with the most complete machinery of any Highway Bridge Works in the country, as we shall be pleased to prove to anyone who will inspect them, so that our facilities

for accurate and reliable work are unrivaled. We have recently added to our outfit the latest improved forms of pneumatic riveting machinery, and have also increased our facilities for steam forging.

Erection.—We have had less accidents in the erection of our work, during the past 18 years, than any other firm doing a large amount of work, having had but four accidents in the erection of nearly 4,000 spans during that time. Our foremen are trained by long experience to meet any emergency that can arise in erection, and parties purchasing bridges of us can depend on having no failures in the completion of work when wanted.

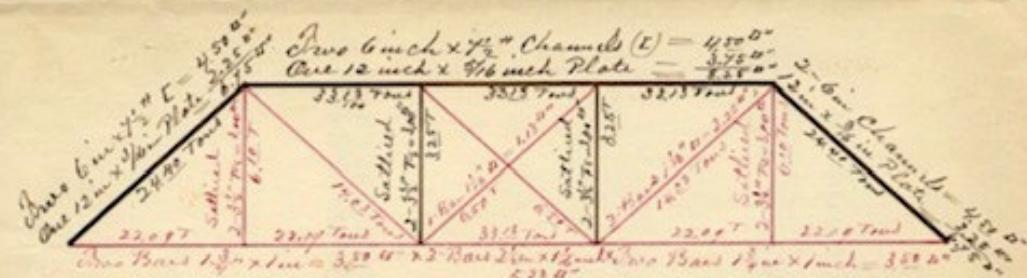
Rapid Construction.—Our extensive facilities for construction enable us to complete work in much shorter time than other Iron Highway Bridge firms. We have turned out a complete 60 foot Truss span from the iron as it came from the mills in 7 hours, and have completed 100 to 140 foot spans at points from 100 to 300 miles distant from our works in 8 to 15 days. We received the first iron for the 301 foot span built by us at Aurora, Ind., which weighed more than 180 tons, on Oct. 10th, 1878, and had all the iron work ready for shipment Oct. 31st, 1878. The first iron for the 8-155 foot spans built by us at Northampton, Mass., was received at our works Aug. 18th, 1877; we raised the first span Sept. 25th, and had the bridge ready for travel Oct. 29th, 1877; and the 300 foot bridge, 38 foot wide, built at New Philadelphia, O., was completed for travel in 40 days from the receipt of the contract.

1. Historic and Cultural Value

Period design specs

Presented by
Wrought Iron Bridge Co., Canton, Ohio.

Clear Span, 62 feet extreme length. One Span 59 feet in the clear. 5 panels 7 feet in depth.
Clear roadway, 13 feet in the clear. Rail, Footway, 5 feet in the clear.
Assumed length of Span on pin centers 61 feet.



Dead Weight 500 pounds per linear foot. Live Load 1500 pounds per linear foot.

Stains per square inch.
 Compression. (Upper Chords and End Posts, 5 net tons.) By Gordon's formula.
 Intermediate Posts, 4 net tons.
 Lower Chord and Main Diagonals, 6 1/2 net tons.
 Tension. (Counters and Suspenders, 6 1/2 net tons.)

Floor Beams, 1 by 12 inch web. Flanges united to web by 1/2 inch rivets. 12 inches pitch.
 Upper Flange, 1 1/2 inch angle bars @ 1/2 pounds

Lower Flange, 1 1/2 inch angle bars @ 1/2 pounds
 Floor Beams. Solid rolled 12 inch 42" prof I Beam.

Bracing. Lateral, bottom 7/8 inch O in 7/4 inch round iron; two between adjacent floor beams.

The form and number of chords and diagonals may also be varied without reducing total panel section, and the form of compression members may also be varied without reducing total value of cross section, as determined by formulas specified.

Lateral. Bottom proportioned for 300 lbs. per linear foot, strains per inch being 1500 lbs.

For Upper Chord and end Post, sizes of rivets used to be as follows: in channels under 7 in., 1-2 in.; 7 to 12 in., 5-8 in.; 12 in., 3-4 in., spaced apart 3 in. for a distance from each panel point equal to width of plate, 6 in. for remaining distance, and lower flanges to be united by 4 1/2 inch cross bars with two rivets at each end.

Tension Members when without adjustment, to be eyebars having die-formed or turned eyeheads; when with adjustment to have turned eyes and sleeve nuts, or screw ends with nuts, or both. Section at end of thread equal to body of bar. Section across eyes 1 1/2 to 1 3/4 times section of bar.

Tens to be proportioned for a maximum bending strain on extreme fiber of 20000 lbs. per inch.

Tens and Rivets proportioned for a maximum shear of 7000 lbs. per inch and bearing of 15000 lbs. per inch, the diameter being one dimension.

Fences. Bridge to have 7 ft fences. Top rail to be 1 foot, lower rail 6 inches above footpath floor. Top rail to be 1 1/2" Lattice bars.

Painting. All inner surfaces of iron work to have one coat of Iron Club Paint, mixed with pure boiled linseed oil, before riveting parts together, all exposed surfaces of iron work to have one coat of said paint at shop, a second coat of same after erection of bridge. In case weather will not permit painting bridge and last coat at time of completion, it is not to prevent acceptance of the work, but a sufficient amount of contract price, may be retained to guarantee said painting as soon as weather will permit.

Roadway Joints to be 3 clear 5 in. open joints lumber, 8 lines in each roadway.

Roadway floor to be 1 inch plank, 6 to 12 inches wide, nail spiced to joints

Guard Rail to be 4 by 6 inch

Hub Blocks to be steel long 3 1/2 feet high. 4 tons on each truck.

Footway Joints to be lumber, 8 lines in each footway.

1. Historic and Cultural Value

December 7, 1898 Sentinel

*d5-1wd

INSPECTED A BRIDGE AND ATE DINNER.

York And Cumberland County Commissioners at Bishop's Fording

The new iron bridge at Bishop's fording, built jointly by York and Cumberland counties at a cost of nearly \$5000.00 was inspected yesterday by Commissioners Atticks, McDonald and Straley, of York county and Commissioners Harman, Smith and Sheaffer of Cumberland. The builders, Messrs. Love, Drury and Whitmer, of York and the viewers, Messrs. Orris and Comstock, of Mechanicsburg and Long, of New Cumberland, were also present.

After the gentlemen had performed their duty they partook of a grand dinner set before them by the Bishop brothers, which all speak of as being a most excellent feast. The new bridge is 133 feet long, with a 16 foot roadway.

NEWVILLE.

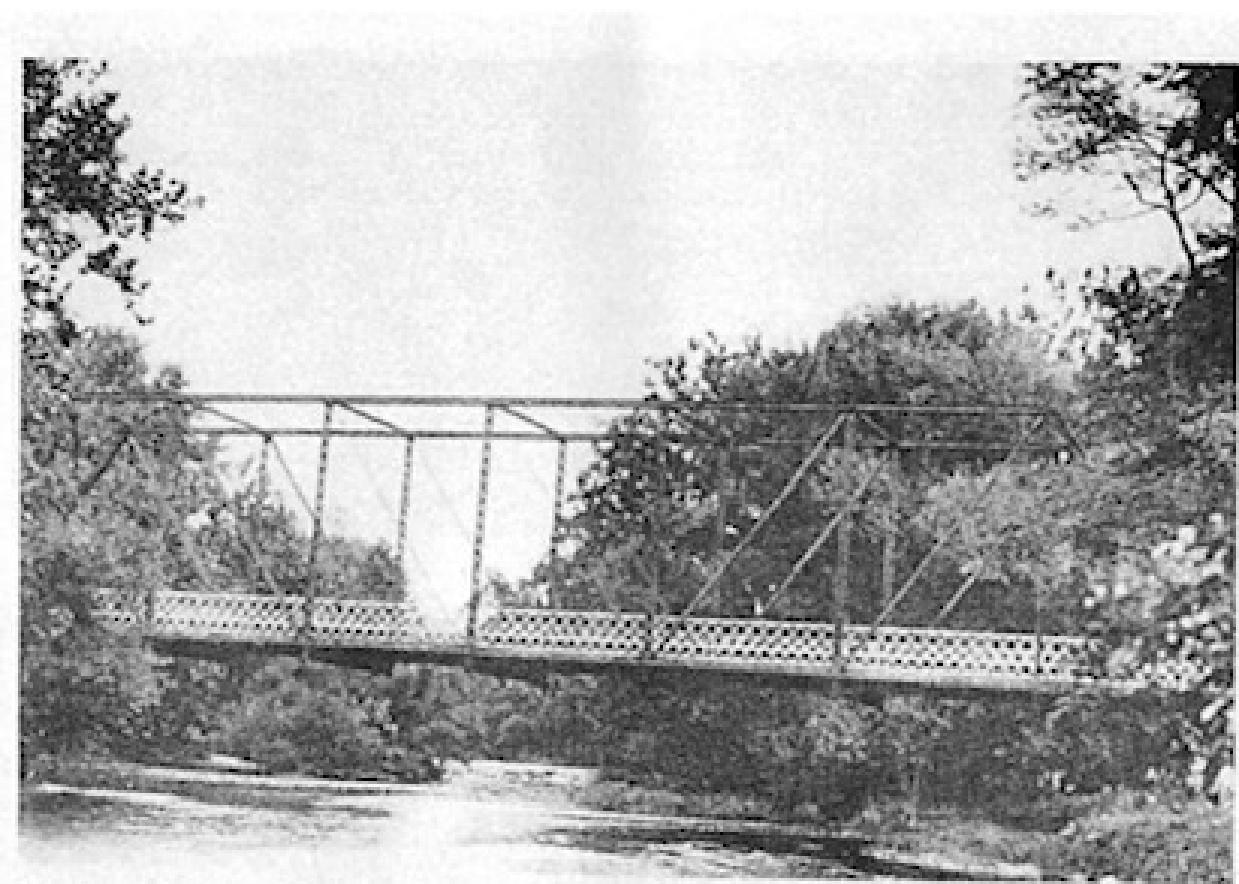
1. Historic and Cultural Value

1920's photos



Bishops Bridge

—CCHS, Donated by County Commissioners, 1933



Bishops Bridge

—CCHS, York County Archives, 1926

1. Historic and Cultural Value

Gannett Fleming Preservation Assessment

Preservation Assessment

For Bishop Road over Yellow Breeches Creek

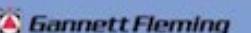
BMS # 21 7104 0612 3809

Cumberland County

PennDOT Engineering District 8-0



Final Report
June 2017

Prepared by  Gannett Fleming
and TranSystems 

for the
Pennsylvania Department of Transportation
Environmental Policy and Development Section



1. Historic and Cultural Value

UAT Comprehensive Plan

UPPER ALLEN TOWNSHIP

CUMBERLAND COUNTY, PENNSYLVANIA

**COMPREHENSIVE
PLAN**



DECEMBER 2013

1. Historic and Cultural Value

UAT Comprehensive Plan Comp. plan page 3-4

Trout Run Historic District consists of properties located on both sides of West Lisburn Road west of the intersection with Stumpstown Road and the surrounding Trout Run and the springs at the source thereof. The district features five dwellings and a corn crib-wagon shed off Stumpstown Road, which were built between ca 1773-75 and ca 1821-22.

Bishop Bridge, located on Bishop Road, was built ca. 1900 and is on the National Register of Historic Places.

Union Hotel, located in Shepherdstown at the corner of South York Street and Old Gettysburg Road, was built in 1860 and is on the National Register of Historic Places.

SURFACE WATER

Surface waters include streams and ponds, which may provide aquatic habitat, carry or hold runoff from storms, and provide recreation or scenic opportunities. These features are often highly valued for their aesthetic qualities.

Generally, streams in the Township drain toward the south and east into the Yellow Breeches Creek (Figure 3-2); the Yellow Breeches forms the southern border of the Township. Trout Creek starts in Monroe Township and drains the southwest corner of the Township, passing through Trout Run Preserve, several subdivisions, and Grantham Park. It also serves as the primary water source for Grantham Pond. Eight other small, unnamed tributaries also drain the southern portion of the Township into the Yellow Breeches. Spring Run, with headwaters just south of the Township Municipal Building and in Spring Run Acres Park, drains the central part of the Township to the east through Lower Allen Township; its headwaters flow under Route 15 and past or through several subdivisions. Cedar Run Watershed drains most of the northern part of the Township in an easterly direction through Lower Allen Township as well; within the Township, the creek flows through a couple of subdivisions and Upper Allen Business Park. In 2010, a county-wide Pennsylvania Act 167 Stormwater Management Plan was enacted.

FLOODPLAINS

For regulatory purposes, the National Flood Insurance Program defines floodplains by the 100-year or base year flood event, which has a one percent chance of being equaled or exceeded in a given year. A floodplain is divided into the floodway and the flood fringe. The floodway is the stream or river channel and adjacent land area that carry the base flood without cumulatively increasing the base flood elevation more than one foot. The flood fringe is the portion of the 100-year floodplain outside the floodway.

Floodplains serve the purpose of holding and carrying excess water runoff from heavy precipitation. Floodplains provide natural areas for the infiltration of rainfall and wildlife habitat. They can also afford scenic and recreational opportunities. Floodplains are generally flat or gently sloped, low-lying areas adjoining a watercourse, which make these areas not only attractive, but also serious hazards for development. Preserving floodplain areas from development is crucial in minimizing potential damages to property and risk of injury due to flooding.



2. Policy Framework

Historic Truss Bridge Management Plan

Historic Truss Bridge Management Plan

Part 1: Management Summary

An important part of the Commonwealth of Pennsylvania's heritage was our leading role in the story of the Industrial Revolution. The modern processes of iron and steel production and fabrication were in part born in the great foundries and works at Pittsburgh, Bethlehem, and other parts of the state. A durable legacy of that heritage of iron and steel, one that every Pennsylvanian is familiar with, is our population of metal truss bridges. These spans of wrought iron and steel date to the late 19th through the mid-20th centuries and have connected Pennsylvania communities to each other and to the larger transportation network for more than a century. Pennsylvania has, by many accounts, the earliest, most diverse, and most significant population of metal truss bridges in the United States. Generations of Pennsylvanians have heard their tires sing on the metal decks, seen a river or railroad pass below, fished over the railings, or watched the sun descend behind an old truss. Some of these bridges are iconic parts of Pennsylvania's historic communities and are fondly recalled symbols of many of our hometowns and communities.

These bridges are also components of the state's modern transportation network. For many of them, that has proved to be their undoing. Most were never designed with an anticipation of the volume and size of modern traffic, nor were they designed to last as long as some of them have. Decades of limited maintenance funding have also taken their toll, and many bridges show the signs of their age, and are succumbing to the wear and tear. They also don't conform to modern standards of safety; all of them have fracture-critical members. The result has been an accelerating rate of loss through replacement. Since 2001, and as of April 2018, 44% -141 out of 321 metal truss bridges that were listed in or were determined to be eligible for listing in the National Register of Historic Places (NR) prior to 2016 - have been replaced.

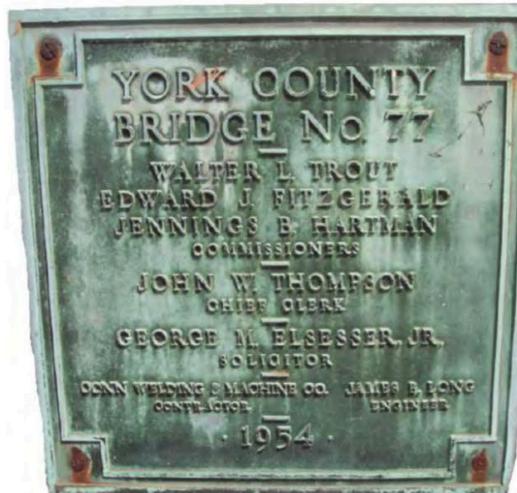
The heritage value of these bridges presents a set of both challenges and opportunities to the Pennsylvania Department of Transportation (PennDOT). As the agency responsible for Pennsylvania's transportation network, PennDOT is required by federal and state law and regulation to both maintain a safe and efficient modern transportation network, and to do what it can to preserve and extend the useful life of our legacy of historic truss bridges. These requirements drove the development of this plan.

The goal of this plan is to take sensible measures to extend the useful life of historic truss bridges: to "manage assets" through routine maintenance and repair. We seek to maximize the chances that historic bridges that can be rehabilitated to meet the transportation need are preserved and remain in transportation use. In addition, in cases where important bridges cannot be rehabilitated to meet a transportation need, but can be moved, we seek to encourage their adaptive reuse at another location for alternative uses such as pedestrian or bike traffic. As a planning tool, we propose to evaluate these historic metal truss bridges, on an individual bridge basis, prior to their being programmed on the State Transportation Improvement Program (STIP) to assess their potential for successful rehabilitation and establish a level of priority based upon a thoughtful understanding of the significance of the bridge. Finally, we seek to treat historic metal truss bridges as a population and strategically plan for their collective futures, rather than address their potential for rehabilitation without reference to the entire population, one at a time, during preliminary engineering. This plan has been developed in

2. Policy Framework

2019 York County Bridge Plan

2019 York County Bridge Plan



Created by:



For the
York County
Commissioners

2. Policy Framework

Sheepford lifting photo TASA



3. Connectivity, Public Access

*Property Mapper view with
Simpson Park highlight*

gis.ccpa.net

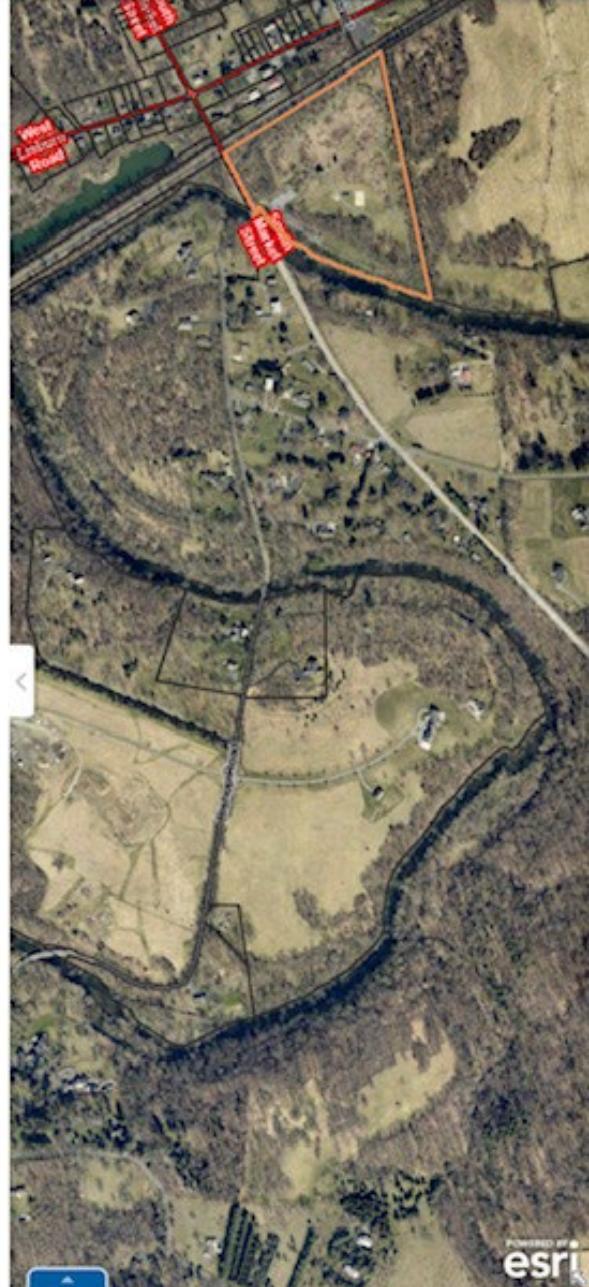
Property Mapper

(1 of 1) [Clear](#)

[Zoom to](#) [...](#)

Property Address: 2701 S MARKET STREET,
UPPER ALLEN TOWNSHIP

Parcel ID	42-30-2114-074EX
Owner	UPPER ALLEN TOWNSHIP,
Care Of	
Property Address	2701 S MARKET STREET
Property Address 2	
Property Type	CX
Land Use Code	600
Subdivision	SIMPSON PARK
Land Description	LOT 1 & 2 PB 84 PG 42
Deed Book and Page	00249-00696
Deed Acres	19.63
Square Footage	0.00
Taxable Status	EXEMPT
Clean and Green	No
Land Value \$	490,800.00
Building Value \$	15,800.00
Total Value \$	506,600.00
Sale Price \$	1.00
Sale Date	11/7/2001
Year Built	1776
Municipality	UPPER ALLEN TOWNSHIP
Height in Stories	
Dwelling Type	
Finished Basement	
Basement Garage	
Full Bathrooms	
Half Bathrooms	
Total Rooms	
Bedrooms	
Primary Exterior	
Air Conditioning	
Basement Percentage	



esri

3. Connectivity, Public Access

Grantham Woods newspaper article 10-19-1990

Judge upholds zoning change for Grantham Woods project

By Matt Miller
and Laird Leask
Patriot-News

CARLISLE — The Upper Allen Twp. Zoning Hearing Board acted correctly in approving a special exception for the proposed Grantham Woods retirement village, a Cumberland County judge has ruled.

Judge Kevin A. Hess, in his second decision on the Grantham Woods case, found that four neighbors of the proposed complex and other opponents did not provide sufficient grounds for blocking the project.

The opponents, residents of the area of Bishop Road near the Yellow Breeches Creek, say the zoning board should not have allowed a special exception because it is inconsistent with the township's comprehensive land-development plan.

Grantham Woods Inc./Messiah College plans to develop a 54-acre tract of land between the college and Bishop Road. Plans

call for the 487,000-square-foot complex to house 307 apartments and 100 personal-care beds.

Opponents say the complex would disturb the scenic area, cause traffic problems, destroy agricultural land and decrease land values.

G. Thomas Miller, an attorney for the opponents, yesterday called Hess' new ruling "more bad news." Miller said he could not comment further on the opinion until he reviews it with his clients.

Hess had to rule on the case twice because in his first ruling, issued in 1987, he sent the matter back to the zoning panel with orders to consider whether the Grantham Woods plan would conflict with the township's comprehensive plan.

The board did that evaluation and upheld its approval of the special exception in November of 1989.

The village's main opponents — Audrie G. Stewart, John H. Rhodes, Josephine H. Roberts and

Harriet H. King — then took the matter back to court, with support from Monaghan Twp. and five other of the complex's prospective neighbors.

In his latest ruling, Hess noted that the Upper Allen zoning ordinance permits retirement villages as special exceptions in agricultural districts. Grantham Woods is proposed for such a district.

However, the judge observed in his latest ruling that the township's comprehensive plan "apparently conflicts" with the Grantham Woods project, because the plan calls for the area between Messiah College and the Yellow Breeches Creek to be reserved for agricultural and "rural residential" uses.

The zoning board had the authority to apply the requirements of the zoning ordinance in the Grantham Woods case, in effect, overruling the comprehensive-plan recommendation, Hess determined.

"A comprehensive plan does not actually regulate land use,



Judge Kevin A. Hess
Allows retirement village

but it recommends desirable approaches to land utilization, not all of which become legally enforceable in a zoning ordinance," he noted. "Simply stated, a comprehensive plan is abstract and recommendatory, while a zoning ordinance is specific and regulatory."

The court record is "devoid" of any studies supporting claims of potential harm, he found.

3. Connectivity, Public Access

Emergency access road



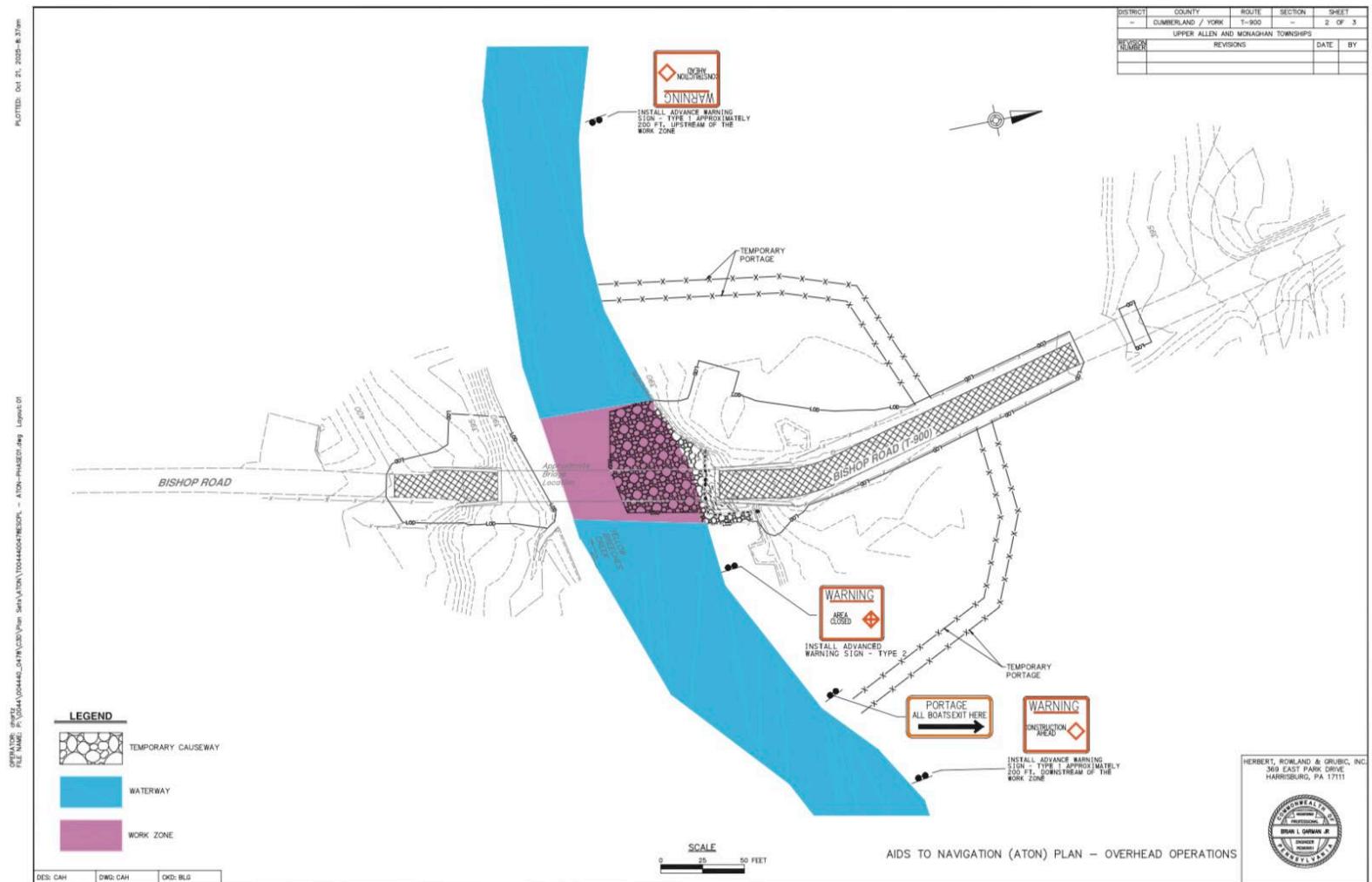
3. Connectivity, Public Access

Bridge approach – Upper Allen side



3. Connectivity, Public Access

ATON plan drawing from County bid documents



4. Scope of Work

Lancaster Historic Society
- gin pole



4. Scope of Work

*Hull Drive Bridge near Dillsburg
(rehabilitated 2019)*



4. Scope of Work

No crane method used by WIBW



4. Scope of Work

PennDOT McCormick Taylor review

pennsylvania DEPARTMENT OF TRANSPORTATION		PRESEVATION/REHAB PLANS REVIEW REVIEW COMMENTS		McCORMICK TAYLOR				
Project: Bishop Bridge Preservation/Rehab Project								
Subject: Preservation / Rehab Plan Designer: Wrought Iron Bridge Works Date Received: April 19th 2025 Review Date: June 6th 2025 Reviewer(s): Derek Mitch, PennDOT District Bridge Engineer; Brandon Newpher, McCormick Taylor Status: Accepted As Noted, Provide Resubmission for Approval								
Comment No. Code: D=District Office, MT=McCormick Taylor								
Comment Number	Submission Document	Page or Sheet No.	Reviewer's Comment / Question					
			Designer's Response					
MT-1	G	N/A	To receive final Structural Adequacy approval prior to construction, provide a Plan Set signed and sealed by a Professional Engineer registered in Pennsylvania, at a minimum include: General Plan, Elevation, and Typical Section of the proposed construction. Identification of all Load Carrying members to be reused, and all to be repaired/replaced. Detail plan sheets showing limits and types of repairs to be completed to all load carrying members. Stringer and Deck Plan & Details. Details of guiderail system & attachment details. Identification of all Fracture Critical members to be repaired or replaced as well as notes requiring steel passing Zone 2 Charpy V-Notch Test. No Response Required					
MT-2	G	N/A	To receive final Structural Adequacy approval prior to construction, provide a Calculation package signed and sealed by a Professional Engineer registered in Pennsylvania, at a minimum include: Load Rating for the structure (PennDOT's BAR7 Recommended), load rating to address deck, stringers, floorbeams, floorbeam hangers, and truss members. Design of repairs to all members that are not to be replaced in-kind with higher strength materials. Guiderail design and connection design. No Response Required					
MT-3	G	N/A	To receive final Structural Adequacy approval prior to construction, provide proof of Pennsylvania Department of Environmental Protection (PA DEP) Permit. No Response Required					
MT-4	N	1	Under 2. Abutments, line a. once hidden issues are identified provided updated details for plan correction/adjustments to PennDOT for review, discussion, and approval prior to making repairs. Consider removing pointing and concrete prior to investigating for hidden issues to avoid need for multiple submissions to PennDOT regarding adjustments to abutment repairs. No Response Required					
MT-5	N	1	Under 3. Component evaluation and restoration + Vehicular improvements, a. Analysis: i. Provide estimation of observable deterioration, necessary repairs/replacements, and resulting Load Rating to receive Structural Adequacy approval. This load rating and repair details to be updated based on final documented deterioration once disassembly is complete. No Response Required					
BishopRoadBridge_Rehab_Review_Comments_2025-6-6.xlsx								
Page 1 of 2								

4. Scope of Work

Wilson Bridge before and after



5. Cost

*May 2, 2025 WIBW proposal
@ \$1,050,000*

Wrought Iron Bridge Works

67 deLeon Circle
Franklin Park, NJ 08823
Tel. 609.636.3822
Fax. 877.882.9749

May 2nd, 2025

Mr. Scott Frasier & Mr. Tim Wendling
Township Management
Upper Allen Township
100 Gettysburg Pike
Mechanicsburg, PA, 17055-5698

SUBJECT: Preservation / Restoration of Bishop Road Bridge

Dear Mr. Frasier & Mr. Wendling,

This is a basic project outline as presented to PennDOT with associated cost of the plan, although the final review from PennDOT is not yet complete, there is sufficient information to provide numbers for a restoration for vehicular use of Bishop Bridge of 12 tons (or greater 15 – 20 tons possible) load rating. The numbers use the same assumptions as previously proposed.

Also included is the supplementary material supplied to PennDOT: K&B Engineering's credentials; a general approach methodology for Pratt truss restoration prepared by Daniel Kurdziel (a licensed PA PE); a project plan of a bridge of similar vintage and size using similar methodology followed by pre, during, and post restoration photos, as well as recent images showing no metal deterioration/issues after almost 20 years of vehicular use; Our successfully executed project plan for superstructure removal via falsework of Red Mill Bridge in Cambria County, PA – a similar approach is intended for Bishop Bridge; and a recent paper on hot riveting.
Project outline:

1. Disassembly \$400,000:
 - a. Sign agreement Transfer ownership of bridge superstructure and (preferably) abutments but not easement to WIBW.
 - b. Check DEP(and other) permits, modify/file as necessary. Including stream recreational use plan.
 - c. Assemble falsework and jacks. Note: the falsework will rest on the stream bottom on padded plates with a load distribution of below 25psi
 - d. Disassemble bridge. Catalog/match-mark all components.
 - e. A barrier will be installed at each abutment after disassembly.
2. Abutments \$50,000:
 - a. Assess for hidden issues. Correct/adjust plan as necessary. Gather samples of original mortar beds.
 - b. Remove concrete and any incorrect pointing.
 - c. Refill mortar beds and repoint with correct material which matches original as closely as possible.
 - d. Re-seeding (bank stabilization) will then be applied using region appropriate native riparian wildflower mix prepared by Earnst Seed.
3. Component evaluation and restoration + Vehicular improvements \$350,000 upon approval of restored components
 - a. Analysis:
 - i. Once disassembled, document each component for deterioration.
 - ii. Extract 1 – 3 coupons from original elements to determine material composition and strength - to avoid AASHTO and the Manual for Bridge Evaluation default strength assignments (for correct, higher load ratings) and confirm correct welding techniques to address localized deterioration.
 - b. Restore each component to original specification, replacing portions of elements with exact replication (utilizing materials specified by K&B Engineering).

5. Cost

May 2, 2025 WIBW proposal page 2

- i. Rivets to be used per original spec. (note, replacement elements to be riveted will be preassembled with bolts to the correct torque. Correct application of the rivets will be verified by checking the torque of the adjacent bolt subsequent the rivet installation. If the bolt's torque is reduced, correct rivet installation is confirmed).
- ii. Welding and grinding of weld will be done to K&B Engineering spec with photo-documentation of each (in-person inspections are welcomed).
- iii. Any tension members that have deteriorated below K&B Engineering's load requirements shall be replaced.
- iv. Deck and stringers are relatively new but will be refurbished or replaced as necessary.
- v. Bearings will be upgraded according to K&B Engineering specification.
- vi. A truss protection guardrail will be created to K&B Engineering's specification. This will be attached to the deck/stringer assembly, these will consist of structural steel square tube laterals and will exceed the protection provided by Armco barriers. The original railing will be restored and applied to the truss protection system as a fascia.

4. Erection \$250,000. Upon submission of load rating documents:
 - a. The falsework, jacks, stringers and deck will be reinstalled followed by erection of the truss (as done originally in 1898).
5. Misc.
 - a. A CarboLine three part paint system that exceeds PennDOT spec (will not fade like standard DOT bridge spec). A two tone paint scheme is recommended (no extra cost if done while disassembled – traditionally, this consists of tension members and railing being one color and compression members being another. The paint will be applied at our restoration facility (likely by S.L. Fequay & Company, an industrial coatings specialist). With touch-up applied post erection. A fourth part, a specialized CarboLine penetrating sealer/coating will be applied post erection to areas which require metal to metal fitment (no-pre-paint), which will minimize corrosion and 'bleeding' (rust stain streaks on the paint).

ADDENDA

- A. Kurdziel Barker Engineering – CVs and Relevant Project Profiles.....PDF PG 3
- B. How to Design and Repair a Pratt Truss – Daniel KurdzielPDF PG 11
(note, this is a general document and does not contemplate a full disassembly restoration)
- C. Plans for Wilson Bridge restoration – Jim Barker.....PDF PG 13
(a similar bridge to Bishop Bridge restored in situ in 2007 and open to vehicular traffic since, with a 14 Ton load rating).
- D. The disassembly plan for Red Mill Road Bridge for Cambria Co., PA – Aaron Craig.....PDF PG 34
(similar truss disassembly methodology as will be implemented on Bishop Bridge)
- E. Recent academic paper on hot riveting – William Vermes.....PDF PG 59

6. Funding Sources

UAT Budget Summary - 2025

Net Position (2025)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
General	4,368,844.77	4,112,677.37	4,010,397.56	4,021,209.81	3,912,406.74	3,726,077.10	3,549,279.89	3,373,744.54	3,206,346.96	4,054,945.56	3,824,921.54	3,399,295.90
Street Lights	41,117.51	38,415.36	35,816.80	41,198.74	63,894.15	64,178.91	54,867.2	48,177.26	51,114.96	54,867.13	49,865.51	45,521.4
Hydrant	154,513.95	143,106.72	144,510.03	151,641.13	206,195.97	218,380.56	207,356.3	176,717.56	181,108.56	167,465.94	155,701.88	135,518.27
Watermeter Operating	403,982.99	373,876.37	352,988.24	567,986.17	538,723.99	521,873.09	605,266.1	673,543.47	249,352.4	246,349.99	219,429.84	215,299.27
Watermeter Reserve	285,618.15	240,459.66	250,810.64	237,248.84	265,120.65	263,150.68	177,964.87	146,989.8	13,134.74	762,348.56	285,201.81	215,299.27
Water Operating	2,668,320.91	2,349,842.03	1,784,148.89	2,734,241.98	2,805,408.34	2,381,623.01	3,347,871.41	3,266,407.47	3,843,406.29	3,387,045.21	2,987,091.97	2,414,596.89
Water Reserve	478,512.87	476,977.63	460,647.67	1,446,123.18	1,541,679.38	1,518,899.49	1,546,641.03	1,517,843.23	1,513,823.85	1,972,647.01	1,549,029.47	1,428,017.2
Capital Reserve	5,768,673.87	5,659,257.62	5,513,329.8	5,236,723.58	5,037,132.49	4,107,475.83	4,666,723.62	4,822,441.22	4,582,566.46	7,824,588.42	6,568,178.99	6,211,722.54
Permanent Improvement	734,581.29	671,466.24	621,695.71	987,771.94	1,741,452.21	1,926,815.81	1,863,201.92	1,874,979.77	1,829,890.53	1,743,871.84	1,458,795.07	1,076,777.86
Fire Operating	395,056.83	379,815.89	326,583.91	460,174.8	363,860.34	3,041,945.76	1,029,182.84	1,003,913.49	1,056,894.17	530,326.81	469,269.52	416,562.96
Fire Reserve	1,479,025.41	1,477,119.45	1,479,445.32	1,481,649.91	1,484,617.59	1,486,274.51	1,483,609.79	1,490,548.54	1,493,067.7	1,999,066.27	1,999,773.17	2,002,454.94
Liquid Fuels/Highway Aid	51,017.25	465,819.49	1,027,941.82	1,126,718.41	1,129,267.82	1,130,454.3	1,112,215.13	1,130,321.56	1,105,861.64	895,845.01	545,826.79	545,826.79
Facility Improvement	628,399.21	240,158.72	281,611.29	189,091.11	189,188.24	205,408.93	202,718.59	186,268.9	145,778.82	140,087.28	160,235.54	
Park Improvement	335,398.41	89,322.23	137,596.11	219,328.83	433,428.71	490,848.94	490,424.81	479,465.14	474,349.34	241,821.14	179,264.83	130,589.08
Park & Rec Development	301,967.43	301,212.81	301,760.9	301,966.36	271,187.42	276,144.3	276,144.43	276,772.61	272,897.49	264,501.41	260,066.73	260,066.73
Park Maintenance	699,619.21	487,897.82	649,513.49	649,484.47	646,252.81	646,095.09	584,750.23	562,542.72	562,819.8	791,554.64	767,310.36	760,874.13
	18,354,990.81	18,368,345.1	18,405,745.84	28,727,744.44	24,254,981.94	24,146,719.82	24,316,941.54	24,491,064.7	24,642,254.72	24,711,447.14	21,779,858.26	18,416,882.54

7. Current Status

8. Comparable Projects

Trout Run project



8. Comparable Projects

*Park Asset cost summary
for Friendship, Grantham,
Generations and Winding
Hills North & South*

**Upper Allen Township
Park Asset Costs
December 31, 2025**

Friendship	\$ 1,900,632
Generations	2,589,338
Grantham	1,056,502
Winding Hills N&S	5,584,925
Total	\$11,131,397