THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

PROJECT KEYSTONE

FINAL
STONE ARCH BRIDGE MANAGEMENT PLAN

IN ASSOCIATION WITH

THE FEDERAL HIGHWAY ADMINISTRATION

THE UNITED STATES ARMY CORPS OF ENGINEERS

AND

THE PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION

PREPARED BY

SKELLY AND LOY, INC.
ENGINEERS-CONSULTANTS

APRIL 2008

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Stone arch bridges have an important symbolic and historical connection to Pennsylvania. The *keystone* of the arch became the colonial symbol for Pennsylvania, which was thought to serve as the anchor between the northern and southern colonies, establishing the Commonwealth's identity as the "Keystone State." It is fitting, therefore, that Pennsylvania retains the largest population of stone arch bridges in North America.

Project Keystone was designed to address both a significant problem in transportation planning and to take advantage of an important opportunity for historic preservation. The large population of stone arch bridges in the Greater Philadelphia Region represents a complex challenge to effective and safe transportation planning and implementation. Most are narrow or single-lane structures, with poor visibility for approaching traffic. The Greater Philadelphia Region -- the City of Philadelphia plus the counties of Bucks, Chester, Delaware, and Montgomery -- is the Commonwealth's most populous region, with increasingly expansive and intensive land use and high-density traffic. The volume of traffic, population, nature of regional land use, and narrow width and visibility limitations of stone arch bridges can result in exceptionally difficult safety and mobility problems. Stone arch bridges, while remarkably durable, can be very expensive to maintain and repair. Because there are so many stone arch bridges and older bridges in general, available maintenance and repair funds are currently spread very thin in the Greater Philadelphia Region.

Project Keystone developed a Management Plan and Maintenance Manual for the 124 stone arch bridges 20 feet in length and longer[1] in the Greater Philadelphia Region, which is also the Pennsylvania Department of Transportation's (PennDOT's) Engineering District 6-0. *Project Keystone* has four components:

1) Developing criteria for prioritizing the stone arch bridges in the Greater Philadelphia Region according to their suitability for preservation;

2) Producing a Maintenance Manual outlining procedures for maintaining, repairing, rehabilitating, and restoring stone arch bridges;

[1] The Federal-Aid Highway Act of 1968 mandated that each state institute a bridge inspection program for bridges 20 feet and longer within the Federal-Aid Highway System. The Surface Transportation Act of 1978 extended the bridge inspection program to all bridges 20 feet and greater. The original 1968 legislation was prompted by the collapse of the Silver Bridge connecting Point Pleasant, West Virginia, and Gallipolis, Ohio, across the Ohio River in 1967. The Management Plan focuses on bridges subject to bridge inspection and management.

3) Designing a system for monitoring and updating the bridge recommendations; and

4) Executing a Programmatic Agreement (PA) in which PennDOT agrees to implement preservation goals and allow for an expedited Section 106 process for PennDOT-owned bridges.[2]

The goal of *Project Keystone* is to produce sound management recommendations for all 124 bridges. The preservation recommendations made in this plan will be integrated into the development of PennDOT's Transportation Improvement Program (TIP)[3] and maintenance planning and procedures.

Stone arch bridges constitute an undeniably significant part of the historic fabric of southeastern Pennsylvania, a legacy that is well worth preserving. Not infrequently, the bridges are located within historic landscapes and communities, and they are often central links in the transportation and settlement history of their particular locales. Some are regionally or nationally significant based on their associations with important trends in design and engineering or with important people and events. Repair of stone arch bridges is also often a good investment. Repair costs can be significant, especially for lengthy bridges, but nearly all the money goes into the repair work; relatively little funding is needed for decision-making or planning. If a mechanism and funds can be found to identify and provide for the preservation and care of those bridges best suited for continued use, these graceful structures can be guaranteed a future as distinguished and remarkable as their past. The challenges and significance of the region's stone arch bridges lie at the heart of *Project Keystone*.

[2] Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford a federal agency, the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by ACHP. More information can be found at the website http://www.achp.gov/usersguide.html.

[3] The Transportation Improvement Program (TIP) consists of road and bridge improvement projects programmed over a four year period. The TIP coincides with the first four years of the Commonwealth's Twelve Year Transportation Program (TYP). The TIP is updated every two years.

2.0 HISTORIC CONTEXT

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The western tradition of stone arch bridge construction began with the Romans, who are credited with inventing the technology, including the keystone. In the Roman design, the arch consists of a semicircle of stones anchored at the top by a keystone that wedges the opposing sides of the arch together. The ring of stones on the face of the structure is known as the "arch ring." The arch supports fill, which is held in place by spandrel walls. The arch and fill support the road. As weight is added to the structure, i.e., the structure is "loaded" through "live" (traffic) and "dead" loads (the supporting elements of the bridge), the arch actually becomes stronger (Figure 1).

Over time, stone arch bridge technology evolved in Western Europe to include a number of different styles and shapes, utilizing a variety of stone materials, and with varying degrees of workmanship, quality, and skill. In addition to the semicircular-shaped arch, stone arch bridges were constructed in elliptical and segmental shapes. They were generally laid in one of three masonry finishes: rubble masonry (consisting of rough stones in a variety of shapes used as they came from the quarry), squared masonry (consisting of stones which were squared and finished roughly), and ashlar masonry (consisting of precisely squared and finely dressed stone). Bridges could be constructed in a random pattern or in semi-coursed or coursed patterns whereby the stones are laid end to end in rows.

The technology arrived in what is now Pennsylvania in the seventeenth century with the European colonists. While the earliest bridges in the colony were made of timber, stone arch bridges became very popular when what is now southeastern Pennsylvania was settled. Early land clearing made the large timbers necessary for bridge construction scarce, while stone remained plentiful. At the same time, the colony was demonstrating its longevity and growing wealth by building with durable stone instead of short-lived wood. Indeed, the earliest example of a stone arch bridge in the western hemisphere, built in 1697, still carries Frankford Avenue traffic over Pennypack Creek in Philadelphia.

The Frankford Avenue Bridge was part of King's Road, the earliest inter-city commerce route in North America. The road went from Philadelphia to Wilmington and eventually north to New York. Eighteenth and nineteenth century stone arch bridges were frequently associated with the construction of publicly chartered, but privately financed, turnpikes and toll roads that linked country to city and city to city in southeastern Pennsylvania.

The earliest stone arch bridges were often crude structures constructed by local masons without the benefit of careful engineering calculations or the expense and precision of ashlar

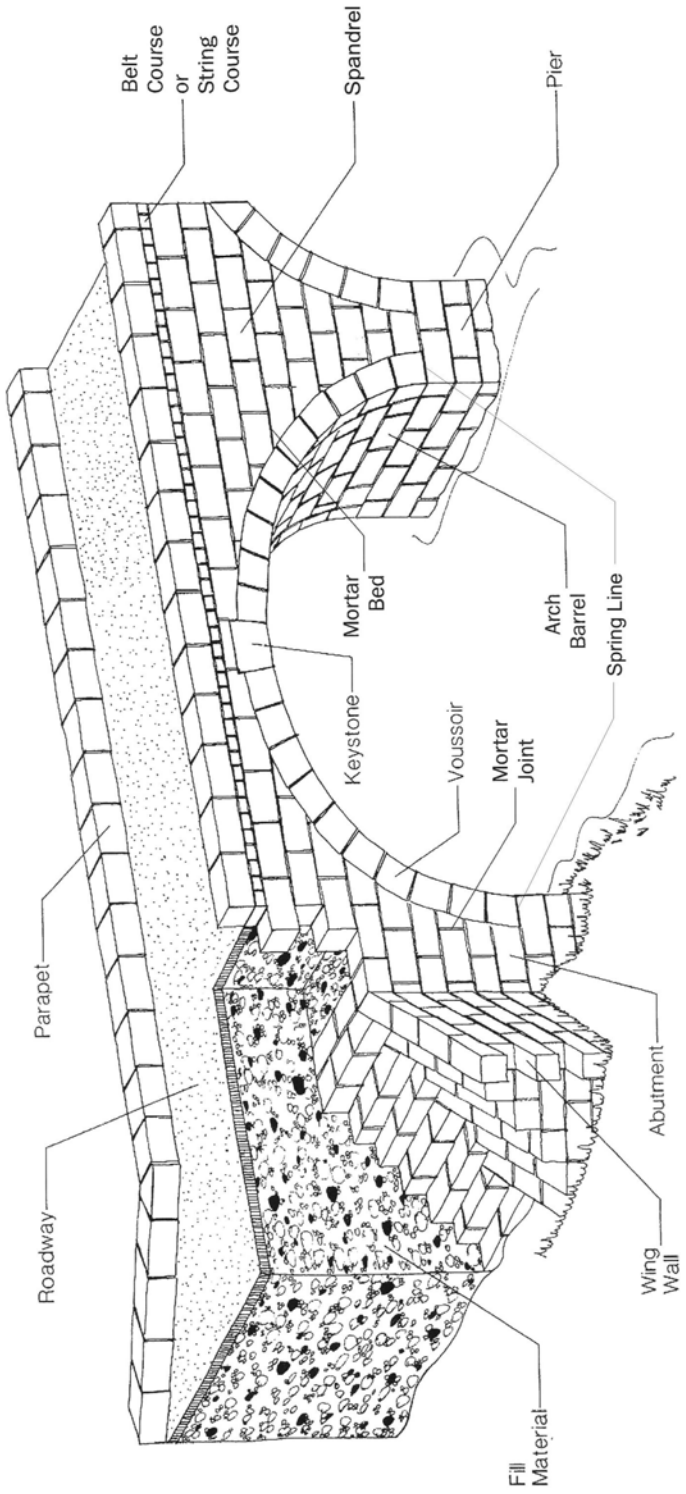
Belt Course or String Course
Spandrel
Pier
Mortar Bed
Arch Barrel
Spring Line
Keystone
Voussoir
Mortar Joint
Parapet
Roadway
Abutment
Wing Wall
Fill Material
Typical Stone Arch Bridge
Source: Commonwealth of Pennsylvania 1986

Figure 1.

stone. Still, evidence of skillful craftsmanship can be seen in such treatments as the utilization of differing stone on the arch ring to distinguish it from the parapet and the spandrel wall, coursed spandrel walls, and shaped arch rings.

Following the Civil War, standardized nomenclature and design specifications were widely published in the United States. A number of stone arch bridges from this period, particularly railroad bridges where strength and durability were paramount, became more refined in appearance with careful design and precise engineering. The majority of stone arch bridges were built between the Civil War and the turn of the twentieth century; these were still constructed by local craftsmen, who lacked the funds available to the railroads to acquire the precisely cut and finely dressed quarry stone. Their longevity is evidence of their design and craftsmanship. In Pennsylvania, construction of new stone arch bridges persisted into the early twentieth century, particularly in Chester County under the auspices of county engineer Nathan R. Rambo. Rambo's masons had considerable skill in executing simple, graceful designs throughout the county.

Although a great many of the older bridges were replaced as the turnpike and toll roads became part of an expanding system of government-controlled highway networks, the surviving stone arch bridges in the Greater Philadelphia area form a functioning and significant link to Pennsylvania and America's transportation history. Today, southeastern Pennsylvania's stone arch bridges remain enormously popular with the public. Their ties to the region's history and people, and their aesthetic appeal, have given them an enthusiastic public following that must be considered in the course of transportation planning.

Although stone arch bridges are famously durable, they require regular maintenance, occasional repair, and sometimes reconstruction or even replacement. Stone and other materials used in these bridges are subject to deterioration caused by mechanical means (frost, freeze-thaw cycles, wind, fire, pressure, friction, and impacts), chemical means (atmospheric acids), and organic means (vegetation and mineral decomposition). Flood damage and scouring, water penetration, damage from vehicles, and safety and mobility issues are all detrimental to the integrity and continued use of a stone arch bridge.

To date, PennDOT has responded with regular bridge inspections, monitoring, and planning, followed by scheduled maintenance, necessary repairs, and more substantial undertakings on a bridge-by-bridge basis. *Project Keystone* represents PennDOT's first effort to deal comprehensively with the unique challenges and opportunities presented by stone arch bridges. Our hope is that *Project Keystone* will ensure that those stone arch bridges best suited

for preservation remain a popular and important historic attraction for visitors and citizens of Pennsylvania, and part of a safe and efficient transportation network, for many years to come.

3.0 METHODOLOGY

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In order to assess the optimal course of action for the 124 stone arch bridges subject to this plan, each bridge's circumstances were assessed. The existing condition of the bridge, its place within the transportation network, its place within the watershed, its anticipated costs, its future surroundings, its value as a cultural icon, and the public's interest were all considered. As indicated previously, most of this information was drawn from existing sources; some had to be gathered, including the public input. This information was compiled and a decision matrix was developed.

3.1 The Stone Arch Bridge Matrix and Ranking

A wide range of factors affects a bridge's longevity. A bridge's condition, the traffic it carries, what it crosses, its size, its past maintenance, the land use around the bridge, its importance to the local, regional, and national community, and the value the public places upon it all contribute to the length of time that the bridge will exist.

A bridge's potential longevity will affect its potential for preservation. In densely populated southeastern Pennsylvania, state, county, and local municipalities are responsible for the maintenance of more than 3,000 bridges. As a result, funds are limited for large-scale projects and programs, including bridge maintenance, preservation, or replacement. So assessing a bridge's potential longevity will permit planners to assign preservation dollars to bridges that will most likely benefit from them.

For better or worse, the stone arch bridges of District 6-0 are inextricably linked. Most were built in the period 1790-1920 when the infrastructure of southeastern Pennsylvania was continuously expanding. Today, they remain visible reminders of the technology of the period, when local stone provided the most cost-effective means to span a waterway. Herein, the bridges are compared to assess their potential longevity.

To achieve a comparative means of assessment, this project has developed a matrix of pertinent factors to address the preservation potential of the 124 stone arch highway bridges studied in this plan.

The matrix is comprised of seven primary factors, termed codes:

1) Condition;
2) Transportation;
3) Waterway Adequacy;

4) Rehabilitation or Replacement Costs;
5) Anticipated Development Pressure;
6) Historical, Recreational, and Cultural Values; and
7) Public Sentiment.

The Condition, Transportation, and Waterway Adequacy codes are drawn from the Bridge Management System (BMS) maintained by PennDOT.[4] All bridges in the Commonwealth, including county and locally owned ones, are inspected at least every two years. The results of these inspections are entered into PennDOT's BMS.

3.1.1 Condition Code

The Condition Code contains:

1) Structural Condition Appraisal; and
2) Scour Critical Bridge Indicator[5].

These two appraisals were added together to form the Condition Code. Each of these ratings or appraisals is numbered on an ascending scale, where zero is the worst and nine is the best. Under these two appraisals, the higher the condition code, the better the condition of the bridge. Structural Condition Appraisal covers the superstructure, the part above the spring line. The Scour Critical Bridge Indicator covers the substructure or foundation, the part below the spring line.

Within the condition code, the superstructure condition is assessed by a visual inspection. The bridge inspector looks for loose or missing stones, cracks, and bulges or deformation in the arch barrel and spandrel walls. When stone arch bridges fail, it is most often at the spandrel walls. The arch barrels were generally over-built and can handle modern traffic, even though modern vehicles move at higher speeds and weigh more than their nineteenth-century counterparts. However, this heavier traffic presses

[4] The bridge management system (BMS) is the result of federal legislation, the Federal-Aid Highway Act of 1968, which mandated that each state institute a bridge inspection program for bridges 20 feet and over within the Federal-Aid Highway System. The Surface Transportation Act of 1978 extended the bridge inspection program to all bridges 20 feet and over. Federal regulations in 23 CFR 500.107 specify the bridge management system. The original 1968 legislation was prompted by the collapse of the Silver Bridge connecting Point Pleasant, West Virginia, and Gallipolis, Ohio, across the Ohio River in 1967.

[5] A bridge is appraised not only on the physical condition of the superstructure and substructure, but also on its load carrying capacity. A well maintained bridge can still be appraised at a low level because the original design loads or rating were less than today's standards.

down upon the fill beneath the roadway, eventually pushing out the spandrel walls. Research has shown that, to prevent spandrel wall failure, the spandrel walls would have to be three times the thickness of the arch barrel. Rarely, if ever, are the spandrel walls that massive. As a result, most stone arch bridges are at risk for spandrel wall failure.

The substructure portion of the condition code is also assessed by visual inspection, as described above. However, the visual inspection is supplemented with probes beneath the water line (in some cases, divers are used) to look for scour holes in the streambed, that is, places where the foundations have been undermined. The Scour Critical Bridge Indicator measures vulnerability to scour. A "scour critical" bridge is one with abutment or pier foundations that rate as unstable due to either observed scour or scour potential based on scour evaluation calculations. Stone arch bridges, like all bridges, are built directly on bedrock wherever possible. However, excavation to bedrock sometimes did not occur. Instead, the contractors excavated a pit well beneath the water line, then put heavy planks or large rocks in the bottom of the pit. The footers of the abutments (and piers for multi-span bridges) were then laid directly on the planks or rocks in order to evenly distribute the load from the masonry foundation units. This method of construction, called footers or spread footers, was a standard approach in the eighteenth, nineteenth, and early twentieth centuries and was approved by local, county, and Commonwealth authorities.

Bridges not built on bedrock are susceptible to undermining. If water carries away sand and sediment around the abutment or pier, exposing its lower portions beneath the water line, that is scour. If scour continues, the footer stones and plank could be undermined, causing a failure of the abutment or pier as the stones are washed out and the ones above then fall out. (The planks rarely rot and are generally found intact, if the bridge is rebuilt or removed.)

Early in the twentieth century, with the general use of concrete, pilings began to be used. The pilings were steel or wood shafts that were driven into the stream bed until they hit rock (*until refusal* is how the process is termed). The concrete abutment or pier is then poured on the ends of the pilings. The combination of the pilings resting on bedrock and the monolithic quality of concrete made a more secure foundation, which was less susceptible to damage from scour.

Some stone arch bridges have a spread footer, and scour can be a serious problem. Occasionally, contractors will try to alleviate a potential scour problem by

pouring a concrete curtain wall around the base of the abutment or pier. However, the addition of the collar often restricts the waterway opening. Restricting the waterway increases the speed of the water, exacerbating scour. So scour remains a primary concern for the longevity of stone arch bridges.

3.1.2 Transportation Code

The Transportation Code contains:

1) Bridge Operation Status;
2) Functional Classification;
3) Average Daily Traffic;
4) Average Daily Truck Traffic;
5) Deck Geometry Appraisal; and
6) Approach Roadway Alignment Appraisal.

The first four of these components were converted to a numeric code; the last two were already a numeric code. The six were then added together to form the Transportation Code. For example, Bridge Operation Status consists of three letters, A for Open, P for Posted, and C for Closed. In the numeric code, A = 5, P = 3, and C = 1. Using this approach, the transportation code retained the same ascending order, where the lower number is worse than the higher number.[6]

The Functional Classification consisted of descriptions of the role of the highway on which the bridge was located (for example, Principal Arterial or Minor Collector). The lower the classification, the more likely that the bridge would survive. Bridges on high-traffic facilities would be more likely to face development pressure, as well as require higher maintenance costs. Although Functional Classification does not always equal traffic or development, it provides a general measure. The Functional Classifications were sorted as follows.

9 (Local Rural) and 19 (Local Urban) = 5
8 (Minor Collector Rural) = 4
7 (Major Collector Rural) and 17 (Collector Urban) = 3
6 (Minor Arterial Rural) and 16 (Minor Arterial Urban) = 2
1 (Principal Arterial – Interstate Rural) and 2 (Principal Arterial – Other Rural) = 1

[6] A five-to-one scale was used to be roughly equivalent to PennDOT's nine-to-zero scale.

11 (Principal Arterial – Interstate Urban), 12 and 14 (Principal Arterial – Other Urban) = 1

Average Daily Traffic (ADT) was likewise converted to a single-digit numeric. Zero (0) to 100 vehicles per day (VPD) = 5; 101 to 500 VPD = 4; 501 to 1,000 VPD = 3; 1,001 to 10,000 VPD = 2; and 10,001 and over VPD = 1. Average Daily Truck Traffic (ADTT) was similarly converted, with 0 to 100 trucks per day (TPD) = 5; 101 to 300 TPD = 4; 301 to 600 TPD = 3; 601 to 900 TPD = 2; and 901 and over TPD = 1.

Deck Geometry Appraisal was used in its 0-to-9 existing format. It is a measure of the adequacy of the bridge's deck to carry the traffic. Deck Geometry Appraisal is comprised of roadway width (or number of lanes) and ADT.

Approach Roadway Alignment Appraisal was also used in its 3-to-8 existing format. The rating assesses how the alignment of the roadway approaches to the bridge relate to the general highway alignment for the section of the highway the bridge is on. Greatly simplified, the rating is based on a combination of sight distance (the distance at which a person can see another vehicle approaching) and the need for a vehicle to reduce speed as the structure is approached.

Much of the transportation code comes directly or indirectly from traffic volumes. The Functional Classification often is closely related to traffic volumes. ADT and ADTT are both direct measures of traffic volumes, and Deck Geometry Appraisal uses ADT as one of its measures. Only Approach Roadway Alignment Appraisal and Bridge Operation Status did not directly use traffic volumes. As a result, traffic volumes figure largely in the transportation code. However, this large traffic component is appropriate as the more traffic a bridge carries, the more wear and tear the bridge will receive from its traffic.

3.1.3 Waterway Adequacy Code

The Waterway Adequacy Code consists of:

1) Waterway Adequacy Appraisal.

The Waterway Adequacy Appraisal contains a 0 to 9 rating of the frequency with which water floods the bridges. If floods routinely cover the bridge, it would have a lower rating, depending on the frequency. If floods rarely cover the bridge, it would have a

higher rating. If a bridge is frequently covered by water, it requires more extensive maintenance and could become structurally unsound. If the bridge were to be closed because of frequent flooding, its Waterway Adequacy Code would be zero.

Waterway Adequacy has its own code because, in stone arch bridges, if the waterway is not adequate, it is a difficult problem to fix. A stone arch bridge's primary structural component, the arch barrel, also defines the waterway opening. Many of the bridges in the five-county PennDOT District 6-0 were built when the area was primarily forests and fields. Now large portions of the District consist of roofs and parking lots. Water runoff from big storms now goes more quickly into streams, so a bridge that may have been adequate when it was built may no longer be adequate for the amount of water passing under it, particularly in storms. Raising the bridge or enlarging its openings is not feasible for a masonry arch bridge. As a result, waterway adequacy is an important issue in the assessment of a bridge's longevity.

3.1.4 Cost of Rehabilitation or Replacement Code

The Cost of Rehabilitation or Replacement Code consists of a formula designed to *roughly* estimate the cost of rehabilitation or replacement of the bridge. Herein, rehabilitation means returning the bridge to its historic (original) fabric and form, which may involve completely rebuilding the bridge in some cases. This code provides an estimate to add potential cost to the ranking of a bridge. For example, a bridge that would be expensive to rehabilitate, or that required replacement, might be less likely to be preserved than a cheaper one.

The code's basis is a Historic Integrity Rating determined by using the National Register of Historic Place's (National Register's) concept of historic integrity.[7] The bridges were rated as if the study team were conducting eligibility studies for the National Register's Criterion C (architectural significance). Integrity was evaluated based on the amount of original material missing from a bridge. The concept of "parts missing" included whether a bridge had received a repair not in keeping with its historic character, such as covering all or part of it with a cementitious material. A bridge with all

[7] The National Register of Historic Places is the nation's official list of cultural resources worthy of preservation. Authorized under the NHPA, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archaeological resources. Historic integrity refers to the ability of a property to convey historic significance. For more information, see the website http://www.cr.nps.gov/nr/about.htm.

of its historic parts became a 5. A bridge missing one part, or having one part with poor integrity, became a 4. A bridge missing two parts, or having two parts with poor integrity, became a 3. Similarly, a bridge missing three parts, or having poor integrity of three parts, became a 2. Finally, a bridge missing four or more parts, or having four or more parts with poor integrity, became a 1.

The major parts of a stone arch bridge, including the arch barrel, spandrel walls, parapets, abutments, piers, and wing walls, were the primary ones considered. However, details, such as coping, pointing, and weep holes were also considered. This category, while similar to the Condition Code, is aimed toward the feasibility of rehabilitation for historic preservation, including returning the form and fabric as close to the original form and fabric as possible, and not simply toward making a bridge functional. For example, a bridge with a concrete or steel parapet might be considered to be in good condition and functional, but it would have poor integrity. The replacement parapet would be considered the missing part.

To develop the code, the inverse of the Historic Integrity Rating was multiplied by the log (base 10) of the square footage (length times width).

Where IR = Integrity Rating, L = length in feet, and W = width:

$$\text{Cost} = 6\text{-IR} \times \log(10) \times (L \times W)$$

For example, while a longer bridge would cost more, a 200-foot long bridge probably would not cost 10 times a 20-foot bridge, if both were of good historic integrity. Therefore, the log of the length diminishes the effect of length and width, while permitting them to be a component of the cost. This formula was developed for this project and was checked statistically for internal consistency.

Dollar estimates for rehabilitation were obtained by multiplying by a fixed cost, $120,000. The dollar estimates include only construction costs. Other project costs, including Preliminary and Final Design and Right-of-Way acquisition, were not included, as they vary from situation to situation. If a replacement bridge were warranted, the fixed cost of $150,000 would be applied to cover the costs of additional excavation for new abutments and piers. The dollar estimates were calculated based on actual repair/rehabilitation costs for stone arch bridges in the Philadelphia area. The dollar estimates included a context-sensitive design if replacement was warranted (for a discussion on context-sensitive replacement designs, see Section 5.4.4.

3.1.5 Anticipated Development Pressure Code

The Anticipated Development Pressure Code consists of planned *growth areas* provided by the Delaware Valley Regional Planning Commission (DVRPC) and by the individual counties. The DVRPC's growth areas were determined largely on regional land use, often with the individual counties' input. The county growth areas were more specific, including greenways, natural areas, and parks. The county growth areas also included open space and properties where easements had been procured against further subdivision. As a result, the Anticipated Development Code contained both a regional and local component.

If a bridge were located in a planned growth area, it received a 1. If it were outside a growth area, it received a 5. If it were on the boundary of a growth area, it received a 3. The concept was that a bridge within a growth area would face greater development pressure than a bridge outside a growth area. The DVRPC and counties' growth codes are added together to make the Development Pressure Code.

Development Pressure Code = DVRPC's Growth Areas Code + Counties' Growth Areas Code

Anticipated Development Pressure was used as a measure of future traffic. If a bridge were in an area of rapid development, it may become inadequate to handle future traffic. Although future development may not always follow present growth plans, the use of the DVRPC and counties' growth areas provides a reasonable measure of future traffic.

3.1.6 Recreational, Historical, and Cultural Values Code

The Recreational, Historical, and Cultural Values Code contains:

1) National Register Listing or Eligibility;
2) Parks, Natural Areas, and Greenways; and
3) Integrity Rating.

These components of the Recreational, Historical, and Cultural Values Code were also converted to the same type of numeric code as the Transportation Code. If a bridge were listed in the National Register or considered to be eligible for listing in the National Register, it received a 5. A bridge also received a 5 if it contributed to an

eligible or listed historic district. If it were not listed or not considered to be eligible for listing, it received a 1.

Historic districts and potential historic districts were identified using a variety of methods. All stone arch bridges subject to this Management Plan were field viewed in 2002, in order to identify potential historic districts. Seventeen were deemed to have historic district potential. The Cultural Resources Geographic Information Systems (CRGIS) database maintained by the Pennsylvania Historical and Museum Commission (PHMC) was checked to determine if any of the 17 had previously been assessed for the National Register. They were also compared to the historic district information and recommendations contained in the Comprehensive Survey of Pennsylvania Historic Highway Bridges conducted between 1996 and 1999. Additionally, the Architectural Historian in PennDOT District 6-0 was consulted to see if she knew if any of the areas had ever been evaluated for historic district potential. Finally, cultural resource personnel from PennDOT and the PHMC conducted independent field views of the areas surrounding certain bridges.

Bridges located in or near Parks, Natural Areas, and Greenways might have a greater chance of being preserved, similar to bridges with a local road Functional Classification. A scenic waterway was also rated as if it were a park, natural area, or greenway. As a result, a bridge in a park, natural area, or greenway received a score of 5; a bridge that was near or adjacent to a park, greenway, or natural area received a 3; and a bridge not in a park, natural area, or greenway received a 1. The parks, natural areas, or greenways used were designated as such by a governing body.

3.1.7 Public Input Code

The Public Input Code weighted the amount of public comments a bridge received at public meetings, consulting party meetings, and through correspondence and telephone calls. Public input was recorded on an ascending numeric code. A bridge received a 1 if it was not mentioned or was mentioned negatively. A bridge received a 2 if it was mentioned from 1 to 5 times. If a bridge was mentioned 5 to 20 times, it received a 3. If it was mentioned more than 20 times, or if an organization mentioned the bridge, it received a 4. And, if a bridge was the object of specific petitions or statutes, if an arm of an elected body (for example, a Planning Commission) stated

that it desired a bridge's preservation, or if an organization included the protection of a bridge as one of its stated goals, the bridge received a 5.

The public involvement process is detailed in Section 4.0.

3.2 Standardizing the Codes

The seven codes assigned to each bridge were standardized for cross-comparison purposes. The values obtained by adding the different codes for a bridge consisted of very different numbers. For example, the Condition Code has two components, while the Transportation Code has six. To compare these two numbers as equals required for them to be standardized. The standardization consisted of subtracting the mean of the total code type for all bridges from the value for the particular bridge, then dividing it by the standard deviation of the total code type (for an explanation of the statistics, including definitions of the terms used, see Appendix A). This type of standardization is similar to that used to calculate percentiles used in standardized test scores in schools.

$$\text{STANDARDIZED CODE} \equiv \left(\frac{\text{INDIVIDUAL BRIDGE STANDARDIZED CODE} - \text{MEAN OF A PARTICULAR CODE}}{\text{STANDARD DEVIATION OF A PARTICULAR CODE}} \right)$$

The standardization produces a number that is near zero (roughly from -5 to +5) for each code type, making the codes all directly comparable. Although some codes have large numbers and others small, standardization reduces all of them to similar-sized numbers. Thus, they can be directly compared without any one code having a larger effect than another.

The standardized codes were then added to 5 to obtain the code score for each of the stone arch highway bridges that are 20 feet or more long in District 6-0. The standardized codes were then multiplied by 10 to achieve a 0 to 100 scale, similar to percents. Theoretically, the bridge scores would range from 0 to 100; however, the bridges' scores generally cluster in the middle range from 30 to 70. Then the code scores were added together. This last addition results in the total code score for each bridge.

Adding five to the codes and multiplying them by 10 created numbers that resembled percents. When the raw standardized numbers were viewed by people unfamiliar with statistics, the negative numbers (about half of the scores are negative) were seen as a judgmental, rather than a statistical, score. That is, a score with a negative number was seen as a detrimental feature rather than a component of the bridge's score. Adding five and multiplying by 10 is a

common way of providing a score that is more easily recognized by people unfamiliar with statistics; as noted previously, standardized test scores use a similar method.

Please note that the bridge numbering system runs from 1 through 134. However, as of September 2007, there are actually 124 stone arch highway bridges 20 feet or longer in District 6-0. When the project began, and the bridges were numbered, 134 stone arch bridges existed in District 6-0. Nine have since been replaced and one bridge was found to be duplicated in PennDOT's BMS system and was initially counted twice.

4.0 PUBLIC INVOLVEMENT

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4.1 Introduction

The goal of *Project Keystone's* public involvement process was to promote an understanding of the Stone Arch Bridge Management Plan as it applied to the subject bridges in PennDOT District 6-0 and to seek public input on the various factors contained within the plan. Public involvement activities served in part to help educate the participants about the structural and engineering components of stone arch bridges and the constraints associated with bridge repair, rehabilitation, and preservation. The activities also educated PennDOT on the importance that the population of southeastern Pennsylvania places on its stone arch bridges. The bridges are valued for their history, aesthetics, and, in many cases, their service as "traffic calming" devices. The meetings and comments resulting from the meetings brought PennDOT and the stakeholders of the Greater Philadelphia area together. PennDOT's goal was to help the public adopt a "big picture" approach to managing the District's population of stone arch bridges as a whole. The public continues to rally around their favorite bridges, but as the public involvement process proceeded, those who participated in meetings or served as stakeholders and consulting parties became more appreciative of the technical and financial issues involved in developing a workable management plan that would preserve a portion of the bridges into the future. PennDOT learned that many bridges inspired deep feelings with the local public and factored that into its preservation recommendations.

The meetings made all participants appreciate the complexity involved in ranking the bridges based on their long-term preservation potential. Comments from participants repeatedly included the question, "why can't a stone arch bridge just be widened or repaired instead of removed and replaced?" The public meetings provided a forum to explain why widening and repairing were often difficult, if not impossible, tasks based on the bridge structure and the need to conform to American Association of State Highway and Transportation Officials (AASHTO) standards on safety and roadway approach.

4.2 Initial Public Involvement Methodology

The first phase of public involvement for *Project Keystone* extended from November 2002 through November 2003. It included meetings and the collection of public comments. The purpose of the initial phase was to raise public awareness about the stone arch bridges and to

inform the public about the development of the Management Plan. This phase included a series of meetings with stakeholders, consulting parties, the public, townships and municipalities, and organizations interested in stone arch bridge preservation. Questionnaires were made available to the public, and a website was designed to provide bridge data and pictures and to serve as a point of contact for comments and questions relating to the project.

The mailing list for *Project Keystone* contained more than 550 names and addresses of organizations and individuals who requested notification about opportunities for future public involvement. The initial stakeholder meetings held in 2002 were sparsely attended. The public informational meetings held in 2003 attracted increasingly greater numbers of participants as interest in the Management Plan and publicity grew. Although public participation was somewhat limited in number, those people who participated in meetings or who requested information were passionate in their concerns.

A total of 305 participants attended the various informational meetings for *Project Keystone*. A total of 131 questionnaires were received, along with 16 petitions, 92 letters, 101 emails, 18 telephone calls, and two township resolutions. Questionnaire results revealed that 87 percent of the respondents lived within one mile of a stone arch bridge; 62 percent drove across a stone arch bridge daily and 28 percent weekly; 50 percent believed that the bridge matrix and ranking system would help to preserve their favorite bridge; and 37 percent stated they would be disappointed with the plan if their favorite bridge was demolished.

Comments submitted by the public emphasize two major viewpoints:

1) Most of those surveyed preferred almost any action other than demolishing a stone arch bridge. The responding public valued the bridges primarily for their historical significance and aesthetic appearance. Seeing the bridges as virtually irreplaceable, the public preferred that should an unsafe bridge need to be closed to vehicular traffic, it should be left in place for community and pedestrian uses, if possible. If an unsafe bridge must be replaced, the public was somewhat willing to accept removal if the bridge could be replaced with a similar-looking structure.

2) The public viewed the proposed Bridge Management Plan and its interaction with PennDOT as a positive and unique event. The public was cautiously optimistic that their efforts and opinions would lead to meaningful outcomes for the stone arch bridges in their communities.

Overall, the initial public involvement activities increased the public's understanding of the stone arch bridge Management Plan. Although sentiment for individual bridges remained

strong, there was a gradual appreciation of the difficult task of ranking the bridges in order to develop a fair method for determining preservation status. Local municipalities also realized the importance of their larger role in maintaining community bridges. Ongoing coordination with the public and opportunities for continued involvement can do much to continue to educate the public and strengthen acceptance of this Management Plan.

Throughout the five counties in District 6-0, the public values the area's stone arch bridges in general, and has especially strong feelings for bridges in their specific neighborhoods. Overwhelmingly, they viewed the bridges as representing significant craftsmanship from a bygone era that impart a unique quality to their modern-day community. The public preferred to preserve as many of these bridges as possible, and they were pleased that PennDOT was interested in their viewpoints about the bridges.

The following sections summarize the initial public involvement activities.

4.2.1 Stakeholder Meetings

Five meetings were held in 2002, one in each county of PennDOT District 6-0.

County	Date	Attendance
Bucks	November 6, 2002	6
Chester	November 13, 2002	6
Delaware	November 20, 2002	7
Montgomery	November 19, 2002	10
Philadelphia	November 12, 2002	4
Total Attendance		**33**

Although more than 400 letters of invitation to the meetings were mailed out to municipal officials, historic preservation organizations, and various community groups, attendance was sparse. The presentation and informal discussion format was well received by the meeting attendants and continued throughout this phase of public involvement. These initial meetings led to word-of-mouth information exchange about the project. Numerous articles appeared in local newspapers, which also helped to spur increased interest in the bridges and the Management Plan.

4.2.2 Consulting Party Meeting

A Consulting Party meeting was held on April 28, 2003. Invitations were sent to 26 Consulting Parties; 13 people attended.

Consulting Parties are defined in the National Historic Preservation Act of 1966, as amended, as those individuals and organizations having a demonstrated interest in the historic resources that may be affected by a federally funded, licensed, or permitted project. The demonstrated interest may be legal, economic, or concern over historic properties. Consulting Parties provide input on the project in question within a specified time frame. They also can be signatories on a Memorandum of Agreement for a project.

The concerns expressed at the Consulting Parties meeting mirrored those offered at the stakeholder meetings and public meetings. Initially, most Consulting Parties were concerned about a particular bridge. Continued involvement with the project has led to a greater appreciation of the difficulty of preserving all stone arch bridges and the future value the plan will have in helping to manage and preserve bridges within the five-county Greater Philadelphia region.

4.2.3 Public Information Meetings

Five public information meetings were held in 2003, with one meeting in each county.

County	Date	Attendance
Bucks	May 19, 2003	32
Chester	May 28, 2003	22
Delaware	May 29, 2003	15
Montgomery	June 2, 2003	23
Philadelphia	June 4, 2003	24
Total Attendance		**116**

The public information meetings had larger audiences than the initial stakeholder meetings due to the increased interest engendered in the project through discussions and news articles.

4.2.4 Agency, Township, and Organizations Meetings

A number of agencies, townships, and organizations requested meetings to discuss *Project Keystone* and the process being developed to preserve some of District 6-0's stone arch bridges.

Organization	Date of Meeting
Solebury Township	December 17, 2002
Friends of Poquessing Watershed	March 13, 2003
DVRPC	May 12, 2003
DVRPC, Regional Transportation Committee	July 8, 2003
Philadelphia City Officials	July 21, 2003
Marlborough Township	August 12, 2003
Montgomery County Officials	August 13, 2003
Central Bucks Bike Club	September 8, 2003
Historical Society of Trappe, Perkiomen	November 11, 2003

Total Attendance 143

The organizations that sought presentations on *Project* Keystone were among the most interested in the Management Plan process, the most ardent in finding ways to save more bridges, and the most innovative in exploring funding options for municipal owners. Many had attended the public meetings and were intent on carrying their involvement forward. At all of the meetings, participants requested information on Enhancement Program monies for the bridges (i.e., how to apply, names of PennDOT personnel to contact, specifics of the application process, etc.). A sign-up sheet was provided at all public meetings to request advance notification of the funding cycle. PennDOT has continuously provided all information requested by the various public participants.

4.2.5 Questionnaires, Petitions, Letters, and Emails Received

An initial questionnaire was distributed to participants at the Stakeholder Meetings held in 2002; a copy of the first questionnaire also appeared on the project website. Seventy initial questionnaires were returned. Following the stakeholder meetings, the questionnaire was revised slightly in an attempt to elicit more specific comments and feedback. The revised questionnaire was distributed at the public

meetings, and it also replaced the initial version on the project website. A total of 61 revised questionnaires was returned. A summary of the questionnaire and responses are provided in succeeding sections.

County	Number of Questionnaires
Bucks	64
Chester	15
Delaware	5
Montgomery	29
Philadelphia	18
Total Questionnaires Returned	**131**

In addition to the questionnaires, 229 petitions, letters, and emails were received.

Petitions, Letters, and Emails

Letters	92
Emails	101
Petitions	16
Telephone calls	18
Resolutions	2
Total	**229**

Petitions, letters, and emails were received primarily during the solicitation of the Public Input code for each bridge. The general public rallied their neighbors to vote for their community bridges to raise their ranking in the bridge matrix. Some community organizations volunteered to help maintain the bridges in an effort to preserve them. Most of the individual county planning organizations responded with discussions about their lists of bridges targeted for preservation.

4.2.6 Responses to Questions on Both the Initial and Revised Questionnaires

Note: Not all respondents answered every question on the questionnaires.

County where you reside?

Bucks	64
Chester	15
Delaware	5

Montgomery	29
Philadelphia	18
	131

Are there any stone arch bridges within 1 mile of your home?

Yes	114
No	15
Not sure	1

If you use a stone arch bridge on your travel route, how often do you drive across the bridge?

Daily	81
Weekly	37
Monthly	6

4.2.7 Bridge Factors: Initial Questionnaire

The initial questionnaire asked the participants to rate the level of importance of five bridge factors using a ranking system of Low, Moderate, or High. The results show that most of the respondents rated every factor as highly important.

Please indicate your rating of the level of importance of the following factors for stone arch bridges in your community.

BRIDGE FACTORS	LEVEL OF IMPORTANCE		
	LOW	MODERATE	HIGH
Provides primary passageway over water	9 [12%]	18 [25%]	41 [59%]
Aesthetically pleasing	1 [1%]	7 [10%]	61 [87%]
Historically significant	0 [0%]	7 [10%]	60 [86%]
Produces a slowing effect on traffic	14 [20%]	15 [21%]	38 [54%]
Provides the shortest route	14 [20%]	15 [21%]	37 [52%]

4.2.8 Bridge Factors: Revised Questionnaire

In an attempt to elicit more discriminating responses, the questionnaire was revised for the public meetings and was also placed on the project website. In the

revised questionnaire, the respondents were asked to rate the same bridge factors as above, but on a different scale than was initially used.

Comparison of the results showed that the respondents still placed the most importance on the aesthetics of the bridge and a bridge's status as listed in or eligible for listing in the National Register. Primary passageway and shortest route still ranked as relatively unimportant. Interestingly, the traffic-slowing effect produced by a bridge was shown to be of lower importance than originally portrayed.

Please rank the following factors in terms of their importance to you, using the numbers 1 to 5. Number 1 signifies the lowest importance and number 5 signifies the highest importance. Each factor can receive only one of the five numbers; a number can be used only once.

BRIDGE FACTORS	LEVEL OF IMPORTANCE				
	1	2	3	4	5
Provides primary passageway over water	13 [22%]	7 [12%]	8 [13%]	5 [08%]	8 [13%]
Aesthetically pleasing	4 [07%]	8 [12%]	8 [13%]	8 [13%]	19 [32%]
Historically significant	3 [03%]	4 [07%]	1 [02%]	7 [12%]	23 [38%]
Produces a slowing effect on traffic	6 [10%]	12 [20%]	10 [15%]	10 [17%]	3 [05%]
Provides the shortest route	9 [15%]	6 [10%]	10 [17%]	6 [10%]	11 [17%]

4.2.9 Bridge Options: Initial Questionnaire

If a stone arch bridge could no longer handle the volume or weight of modern-day traffic and would need to be closed or replaced, what action would you prefer?

BRIDGE OPTIONS	RESPONSES
Demolish the bridge and replace it with a concrete or truss bridge	1 [01%]
Close the bridge to vehicular traffic and maintain it for pedestrian use	32 [46%]
Dismantle the bridge and re-use the stones elsewhere; construct a new concrete or truss bridge	3 [04%]
Other	23 [33%]

4.2.10 Bridge Options: Revised Questionnaire

If a stone arch bridge could no longer handle the volume or weight of modern-day traffic and would need to be closed or replaced, what action would you prefer?

BRIDGE OPTIONS	RESPONSES
Demolish the bridge and replace it with a modern bridge structure (lowest cost option)	0 [0%]
Close the bridge to vehicular traffic and maintain it for pedestrian use (address any remaining transportation needs in other ways)	28 [47%]
Dismantle the stones and give the stones to the community for its choice of re-use, then replace the bridge with a modern structure	2 [03%]
Dismantle the bridge and give the stones to the community for its choice of re-use, then replace the bridge with a modern structure that has the appearance of a historic bridge (i.e., stone facade)	14 [23%]
Other	13 [22%]

4.2.11 Other Suggestions from Initial and Revised Questionnaires

OTHER SUGGESTIONS	NUMBER OF RESPONDENTS
Rebuild the bridge using the original stones.	11
Raise weight restrictions and eliminate big trucks.	7
Restore bridge and restrict weight.	7
Allow only local residents to use the bridge.	3
Make new roads and bridges for all the additional traffic and leave old bridges on old roads for scenic routes and historic purposes.	3
Too valuable historically to demolish. I would rather be inconvenienced in daily travel than lose the bridge.	2
There is no excuse for not repairing a stone arch bridge. PennDOT should be held responsible for any demolition by neglect and made to repair.	1
Record bridge according to HAER standards, re-use stones for new bridge, and build new bridge using context-sensitive design.	1
Re-route the road over a new parallel truss bridge if the stone arch one is not amenable to repair (while maintaining its original character).	1
PennDOT's "stone facade" replacements look cheap and tacky. You can't replace a cultural treasure on the cheap.	1
Maintain the present bridge even if it is necessary to ask nearby residents to help with funding.	1
Maintenance.	1
None of the above. These bridges have carried traffic over 200-300 years.	1

OTHER SUGGESTIONS	NUMBER OF RESPONDENTS
Why are we so willing to destroy historical works for 2 "I" beams and a slab of asphalt?	1
It is important to guard our history and its ambience. Slow the traffic down or send it elsewhere.	1
Donate bridge to Montgomery County and let Franconia Historical Society help with and coordinate restoration. Build new bridge upstream. Old bridge could be used as pedestrian bridge.	1
Replace the bridge with one having historic appearance but also make it no wider than current structure. Also maintain crest on bridge deck. Essentially, replace what is there today, but with any needed safety (structural safety) improvements.	1
Rebuild the bridge as close as possible to the original.	1
If there are billions of money for reconstruction of Iraq then there should be a lousy million for our stone bridges.	1

4.2.12 Bridge Matrix and Methodology

In regards to the bridge matrix presented here, please indicate your rating of the level of importance for each criterion.

BRIDGE MATRIX AND METHODOLOGY	LEVEL OF IMPORTANCE		
	LOW	MODERATE	HIGH
Condition	3 [4%]	23 [33%]	30 [43%]
Amount of Traffic	15 [21%]	22 [31%]	21 [30%]
Waterway Adequacy	4 [5%]	21 [30%]	29 [41%]
Development Pressure	25 [36%]	17 [24%]	12 [17%]
Historical Significance	1 [1%]	7 [10%]	49 [70%]
Rehabilitation Cost	18 [26%]	29 [41%]	8 [10%]
Public Sentiment	1 [1%]	11 [16%]	45 [64%]

4.2.13 Written Comments

- Safety is a key issue – but as a preservation planner I weigh significance of the bridge higher than most other aspects. The rehabilitation cost is very essential. I would prefer to spend more to rehab rather than save $ tearing bridges down and replacing them with modern.

- Development pressure is nothing more than induced sprawl. It is up to the individual to locate himself conveniently to his regular destinations, not for the community to be laid waste for his convenience.

- A bridge that contributes to a Historic District should be rated the same as a bridge individually listed or eligible (it should be a 5). Removing and replacing a contributing bridge will greatly reduce the integrity of a district.

- In general, the formula places too much emphasis on condition, cost and convenience (function class, ADT, development pressure), and fails to address safety (# of accidents in vicinity of bridge), which is a legitimate reason to remove or bypass a stone arch bridge.

- These structures are really irreplaceable. A little old-fashioned maintenance could prevent a great loss and save a lot of money.

- It is crucial to preserve our stone arch bridges.

- In regard to waterway adequacy – if the debris was removed from the waterway under the bridge, it would really help the flow of water.

- Very few inhabitants have any sentimental feelings since most are immigrants/non-natives and are, therefore, inclined toward solutions of least cost/disruption/inconvenience. The aesthetic value can't be rationalized economically/practically.

- The stone arch bridges should be kept at all costs!

4.3 Second Round of Public Involvement

4.3.1 Public Comments

Following the revision of the preliminary draft Management Plan and a review of the bridge rankings by the Bridge Review Committee (see Section 5.3.1), PennDOT initiated a second round of public input. The Revised Draft Management Plan was posted on the *Project Keystone* website in January 2007 and postcards were mailed to the project stakeholders inviting comments on the plan. In response, comments were received *via* letter, email, and telephone call. They came from local governments, historical societies, preservation organizations, and individuals. The comments are summarized below:

- The majority of the comments concerned individual bridges and their rankings. The commentators in all cases wished to voice their support for the preservation of particular bridges. In some cases, the additional comments

raised the Public Input code of a bridge, causing the bridge to rise in the rankings. For example, residents near the Bridge No. 1 in Hilltown Township, Bucks County, organized a letter writing campaign for the bridge that jumped the bridge ranking from 63 to 40.

- A number of commentators raised the issue of whether the Management Plan would have a detrimental affect on the area's stone arch bridge. Specifically, the commentators expressed concern that PennDOT bridges Not Recommended for Long-Term Preservation and locally-owned bridges not called Strong Candidates for Preservation would not receive proper maintenance and repairs.

- The third subset of comments involved requests for the draft Maintenance Manual. These requests came from both inside and outside the Commonwealth, indicating a desire to properly maintain and repair stone arch bridges.

4.3.2 Consulting Parties Meeting

A meeting was held with the Consulting Parties on June 13, 2007. The Consulting Parties list had grown to 44 individuals and organizations, and all were invited to the meeting; 12 attended. They provided the following comments and concerns:

- The Consulting Parties stressed that the Section 106 process needed to continue for bridges Not Recommended for Long-Term Preservation and slated for replacement. They stressed that a stipulation stating this was needed in the PA.

- The Consulting Parties felt that bridges slated to be replaced should first be documented through such measures as photographs and historical research, or the placement of historic plans and drawings in the Pennsylvania State Archives. The documentation should note conditions, including changes to the bridges that may have become part of the fabric. They also suggested salvaging and possibly re-using such materials as bridge plaques or stones.

- It was noted that Bridges 32, 37, and 43 are on the Brandywine Scenic Byway, a state designated scenic byway in Pennsylvania, and that their cultural values codes needed to be adjusted to account for the designation. The changes were made to the matrix.

- The Consulting Parties asked whether management plans could be developed for other bridge types in PennDOT District 6-0, such as trusses or brick arches. In response, PennDOT stated that a statewide management plan ranking truss bridges with factors similar to those developed for *Project Keystone* will be developed.

- Many of the Consulting Parties felt that the Management Plan put too much emphasis on the statement that no program was in place or being contemplated to

remove stone arch bridges not recommended for long-term preservation. They stressed that the Management Plan needed a stronger statement that PennDOT is committed to saving stone arch bridges in the Greater Philadelphia area. Such a statement would assist the Consulting Parties and others in the local communities when lobbying local legislators for funding dedicated to the care and maintenance of stone arch bridges.

- The Consulting Parties also felt that the Pennsylvania House and Senate Transportation committees should receive a presentation on the Management Plan, and that the consulting parties should be informed when this will occur, so they can assist in lobbying on behalf of the plan.

- It was stressed that in order to preserve stone arch bridges, it is important for PennDOT and local communities to work directly with developers, both to limit the amount of sprawl created and thus try to reduce the amount of traffic carried by a bridge, and also to help developers understand that the stone bridges are viewed as valued community assets that can enhance the setting of a new development. Developers should also be made aware that many residents view narrow stone bridges as traffic calming devices that should be saved rather than replaced.

4.4 Third Round of Public Involvement

Based on the comments received in the second round of public involvement, the Management Plan was again revised and the Draft Final Management Plan, dated October 2007, was produced. The plan was posted on the *Project Keystone* website to afford the public another opportunity for review and comment.

In this third round of public involvement, all the comments received concerned a single bridge, Bucks County Bridge No. 4, the S.R. 1002 (Sugan Road) Bridge over Cuttalossa Creek in Solebury Township. The bridge was ranked in the lowest third of all stone arch bridges in PennDOT District 6-0 and was not recommended for long-term preservation. Residents and organizations, including the Solebury Township Historical Society, organized a campaign to have the recommendation reconsidered. They also pointed out that one piece of information about the bridge was in error. The bridge form and the matrix of stone arch bridges stated that the bridge was not individually eligible for listing in the National Register and was not a contributing element to a historic district eligible for National Register listing. The latter is incorrect. The bridge is a contributing element to the Cuttalossa Valley Historic District, which was determined eligible for listing in the National Register in 2002. The information has been changed in this, the final version of the report. As a result, the bridge jumped from a ranking of 88 to 70. The Bridge Review Committee did not feel, however, that this correction warranted changing the preservation recommendation.

5.0 MANAGEMENT PLAN

5.0 MANAGEMENT PLAN

5.1 Introduction

PennDOT is committed to preserving stone arch bridges in District 6-0. PennDOT recognizes that the bridges have functioned as designed, in many cases for more than 100 years, and that the bridges are cultural icons greatly valued in southeastern Pennsylvania.

Engineering and safety considerations, however, will require that some stone arch bridges must be replaced. Available maintenance and repair funds for stone arch bridges and the thousands of other structures in PennDOT District 6-0 are currently spread very thin. Consequently, decisions must be made as to which stone arch bridges are the best candidates for preservation. The goals of *Project Keystone*, as explained in Section 1.0, are to develop criteria for prioritizing stone arch bridges according to their suitability for preservation, produce a Maintenance Manual for the bridges, design a system for monitoring and updating this Management Plan, and execute a PA in which PennDOT agrees to implement preservation goals for the bridges and an expedited Section 106 consultation process.

5.2 Ranking the Bridges

As a first step in prioritizing stone arch bridges according to their suitability for preservation, the methodology outlined in Section 3.0 was applied to the 124 stone arch bridges subject to this plan to produce a ranking of the structures. The rankings and information used to arrive at those rankings are set out in Tables 1 and 2. Table 1 shows the bridges in rank order, ranging from 1 to 124. They include all stone arch bridges 20 ft long or longer in the Greater Philadelphia area. High-ranked bridges generally scored high or very high in all or most of the seven categories on which the bridges were evaluated. Low-ranked bridges, by contrast, generally scored low or very low in most codes. Table 2 contains the same bridge information, but lists the bridges by county. Additional information in the tables includes the location of the bridge, the year it was built, the bridge's length and width, and the owner. All of this information has been taken from PennDOT's BMS. The succeeding columns show the codes used to rank the bridges. Next, a column denotes whether a bridge is currently listed in the TIP. The succeeding column, headed NR, notes whether a bridge is listed or eligible for listing in the National Register. If the bridge contributes to a historic district, the National Register box is also marked.

TABLE 1.
STONE ARCH BRIDGE MANAGEMENT PLAN RECOMMENDATIONS BY BRIDGE RANK

Rank	Br No.	Cty	BMS No.	YR Blt	Location	Length	Width	Owner	Cond	Trans	Water	Cost	Dev	Val	Pub	Rating	TIP	NR	Recommendation	Comments
1	131	Phil	67-7301-0150-0703	1896	**FAIRMOUNT PARK**. FORBIDDEN DRIVE / WISSAHICKON CREEK	126	41	PHIL/FP	66	73	59	65	58	67	42	430		Yes	Strong Candidate for long-term preservation	Highest ranked bridge in the population
2	28	Bucks	09-7009-0449-0001	1900	**NOCKAMIXON.** QUARRY ROAD / RAPP CREEK	53	18	CTY	66	68	53	67	58	67	42	421		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated very high in four categories
3	95	Mont	46-7046-0060-0098	1905	**FRANCONIA**. KELLER CREAMERY ROAD / INDIAN CREEK	76	22	CTY	63	59	53	66	58	62	54	415		Yes	Strong Candidate for long-term preservation	One of the high ranked bridges in the population; rated high or very high in all categories
4	107	Mont	46-7046-0700-0151	1841	**UPPER SALFORD**. BERGEY ROAD / EAST BRANCH PERKIOMEN CREEK	134	25	CTY	52	61	53	66	58	62	54	406		Yes	Strong Candidate for long-term preservation	Very highly ranked bridge; rated high or very high in four categories
5	49	Ches	15-7015-0377-0143	1888	**WEST NANTMEAL**. WYEBROOK ROAD / EAST BR. BRANDYWINE CREEK	63	23	CTY	55	59	59	55	58	63	54	403		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in all categories
6	90	Mont	46-4019-0010-1963	1937	**HORSHAM.** PHEASANT ROAD / MINE RUN	23	25	PDOT	63	66	46	61	58	54	54	402			Recommended for long-term preservation	One of the highest ranked bridges in the population; in excellent condition; handles traffic well
7	48	Ches	15-7015-0010-0325	1908	**NEWLIN**. COUNTY PARK ROAD / WEST BR. BRANDYWINE CREEK	144	20	CTY	55	59	53	57	58	65	54	401		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in six categories
8	124	Phil	67-3005-0150-0212	1896	**FAIRMOUNT PARK**. BELMONT AVENUE / PARKSIDE AVENUE	34	106	PDOT	74	45	59	53	58	63	42	393		Yes	Recommended for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in four categories
9	32	Ches	15-0052-0140-0741	1912	**BIRMINGHAM.** LENAPE ROAD / BRANDYWINE CREEK FLOODPLAIN	308	22	PDOT	48	45	59	60	58	66	54	390		Yes	Recommended for long-term preservation	Ranked in the upper third of the population, enjoys much public support
10	122	Mont	46-7413-1580-0003	1878	**NORRISTOWN.** MARKLEY & ELM STREETS / STONEY CREEK	69	123	TWP	55	43	59	55	58	59	60	389		Yes	Strong Candidate for long-term preservation	Very highly ranked bridge; rated high or very high in six categories
11	101	Mont	46-7046-0270-0090	1915	**LOWER FREDERICK**. SIMMONS ROAD / SCIOTO CREEK	34	24	CTY	55	56	46	67	58	46	60	388			Strong Candidate for long-term preservation	High ranked bridge; high transportation code; little development pressure
12	113	Mont	46-7046-0900-0073	`873	**UPPER GWYNEDD**. SWEDESFORD ROAD / WISSAHICKON CREEK	44	24	CTY	63	56	33	59	58	59	60	388			Strong Candidate for long-term preservation	High ranked bridge; rated high or very high in six categories
13	110	Mont	46-7046-0820-0142	1792	**LOWER PROVIDENCE**. GERMANTOWN PIKE / SKIPPACK CREEK	202	29	CTY	52	40	46	65	58	67	60	388		Yes	Strong Candidate for long-term preservation	Ranked high in the upper third of the population; rated high or very high in four categories
14	105	Mont	46-7046-0540-0084	1919	**MARLBOROUGH.** PRICE ROAD / UNAMI CREEK	67	19	CTY	44	73	40	59	58	54	60	388			Moderate Candidate for long-term preservation	Low condition code and waterway adequacy code; extensive public support
15	50	Ches	15-7015-0407-0246	1913	**WARWICK**. VALLEY WAY / SOUTH BR. FRENCH CREEK	31	21	CTY	59	66	53	53	58	57	42	388		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in four categories
16	20	Bucks	09-7009-0010-0222	1804	**NOCKAMIXON.** OLD EASTON ROAD/ NOCKAMIXON. AHLERS	45	27	CTY	52	59	53	59	58	65	42	388		Yes	Strong Candidate for long-term preservation	Ranks high in the upper third of population; rehabilitated in 2002; very high values code
17	77	Mont	46-1023-0050-0606	1910	**MARLBOROUGH**. SWAMP CREEK ROAD / UNAMI CREEK	98	22	PDOT	44	59	53	58	58	54	60	386		Yes	Recommended for long-term preservation	High ranked bridge; some rehabilitation work has been done on it; the township has passed a resolution in favor of its preservation
18	7	Bucks	09-1004-0110-0454	1884	**SOLEBURY.** FLEECYDALE / PAUNNACUSSING CREEK	69	21	PDOT	44	52	53	59	58	59	60	385		Yes	Recommended for long-term preservation	The bridge has been reconstructed
19	31	Bucks	09-7935-6416-0900	1930	**PLUMSTEAD.** R. STOVER PARK ENTRANCE / MILL RACE TRIBUTARY	59	22	DCNR	81	68	53	36	58	46	42	384			Strong Candidate for long-term preservation	Very high condition and transportation codes; gateway to a state park
20	106	Mont	46-7046-0660-0214	1911	**SKIPPACK.** GARGES ROAD / EAST BRANCH PERKIOMEN CREEK	115	22	CTY	44	56	53	66	58	46	60	383			Strong Candidate for long-term preservation	High ranked bridge; strong transportation, rehabilitation, and public input codes; repairs slated for 2007
21	78	Mont	46-1030-0020-0181	1892	**MARLBOROUGH**. SWAMP CREEK RD / UNAMI CREEK	100	22	PDOT	48	52	53	50	58	62	60	383		Yes	Recommended for long-term preservation	Ranked in upper third of population; carries traffic well; problems to be addressed
22	46	Ches	15-4015-0020-3422	1916	**CALN.** EDGE MILL ROAD / BEAVER CREEK	74	25	PDOT	44	45	53	66	58	62	54	382		Yes	Recommended for long-term preservation	High ranked bridge; high values code and public support
23	26	Bucks	09-7009-0433-0234	1875	**WEST ROCKHILL**. CLYMER AVE / MILL CREEK	189	23	CTY	55	57	40	57	58	54	60	381		Yes	Moderate Candidate for long-term preservation	Ranked in the upper third of the population; highly ranked in six categories, but low waterway adequacy
24	127	Phil	67-7301-0040-0120	1801	**WEST OF RAMONA ST.** FISHER'S LANE / TACONY CREEK	54	28	PHIL	52	66	46	51	48	57	60	380		Yes	Strong Candidate for long-term preservation	Very high transportation code; carries very little traffic
25	55	Ches	15-7239-0150-0001	1915	**UWCHLAN**. DOWLIN FORGE ROAD / SHAMONA CREEK	44	22	TWP	48	57	53	56	58	47	60	379			Strong Candidate for long-term preservation	Ranked in the upper third of the population; rated high in three categories, including transportation code
26	9	Bucks	09-2052-0012-0000	1796	**NEWTOWN.** CENTER STREET / NEWTOWN CREEK	34	30	PDOT	52	47	53	52	58	57	60	379		Yes	Recommended for long-term preservation	Ranked in the upper third, the bridge is one of the oldest in the population; there is strong public support for preservation
27	97	Mont	46-7046-0160-0243	1912	**WEST POTTSGROVE**. OLD READING PIKE / YERGERS CREEK	34	32	CTY	55	59	59	52	58	40	54	377			Strong Candidate for long-term preservation	Good condition; strong transportation code; built in an area of low development
28	100	Mont	46-7046-0250-0108	1909	**UPPER FREDERICK**. FAUST ROAD / SCIOTO CREEK	40	25	CTY	66	61	40	52	58	40	60	377			Moderate Candidate for long-term preservation	Ranked in upper third of the population; rated very high or high in three categories; concern over waterway adequacy
29	128	Phil	67-7301-0070-0742	1832	**FAIRMOUNT PARK**. VALLEY GREEN ROAD / WISSAHICKON CREEK	67	27	PHIL/FP	40	61	53	58	58	65	42	377		Yes	Strong Candidate for long-term preservation	High ranked bridge; rated high or very high in four categories
30	11	Bucks	09-7204-0010-0348	1905	**BUCKINGHAM.** FOREST GROVE ROAD / MILL CREEK	130	22	TWP	52	45	53	66	58	62	41	376		Yes	Recommended for long-term preservation	Ranked in the upper third; recently rebuilt
31	5	Bucks	09-1003-0140-0084	1854	**SOLEBURY.** AQUETONG RD/PAUNNACUSSING CREEK	45	21	PDOT	55	47	53	52	58	57	54	376		Yes	Recommended for long-term preservation	High ranked bridge; high condition code; repointed in 2005
32	54	Ches	15-7015-0551-0207	1804	**EAST COVENTRY**. SCHUYLKILL ROAD / PIGEON CREEK	53	23	CTY	44	59	53	51	58	57	54	376		Yes	Strong Candidate for long-term preservation	Ranked in the upper third of the population; the oldest bridge in Chester County
33	45	Ches	15-4003-0010-0198	1918	**VALLEY**. WAGONTOWN ROAD / WEST BR. BRANDYWINE CREEK	178	36	PDOT	40	54	59	56	58	54	54	375		Yes	Recommended for long-term preservation	Ranked in the upper third of the population; has historical integrity
34	52	Ches	15-7015-0438-0249	1914	**POCOPSON**. DENTON HOLLOW ROAD / POCOPSON CREEK	31	22	CTY	59	54	53	60	48	59	42	375		Yes	Strong Candidate for long-term preservation	Ranked in the upper third of the population; rated high or very high in three categories
35	123	Phil	67-0013-0260-2319	1697	**HOLMESBURG.** FRANKFORD AVENUE (US 13) / PENNYPACK CREEK	73	50	PDOT	48	38	59	57	48	65	60	375		Yes	Recommended for long-term preservation	Ranked in the upper third of the population; rated high in four categories
36	92	Mont	46-4031-0090-0279	1798	**LOWER PROVIDENCE**. RIDGE PIKE / PERKIOMEN CREEK	453	39	PDOT	52	28	59	64	48	62	60	373		Yes	Recommended for long-term preservation	Excellent example of late 18th century construction; an icon of the town; intersections need to be improved
37	111	Mont	46-7046-0830-0252	1914	**UPPER PROVIDENCE**. MINGO ROAD / MINGO RUN CREEK	75	22	CTY	66	54	53	58	28	59	54	372		Yes	Strong Candidate for long-term preservation	Ranked in upper third of the population; very high condition code
38	114	Mont	46-7046-1050-0043	1887	**ABINGTON.** WASHINGTON LANE / FROG HOLLOW CREEK	28	38	CTY	44	64	59	52	58	40	54	371			Strong Candidate for long-term preservation	Ranked in upper third of population; rated high or very high in four categories, including waterway adequacy
39	43	Ches	15-3062-0140-0245	1826	**MORTONVILLE.** STRASBURG ROAD / WEST BR. BRANDYWINE CREEK	196	20	PDOT	44	35	53	61	58	66	54	371	Yes	Yes	Recommended for long-term preservation	Previously programmed in the TIP for rehabilitation; the deck will be cantilevered
40	104	Mont	46-7046-0510-0295	1913	**SALFORD.** DIETZ MILL ROAD / RIDGE VALLEY CREEK	36	21	CTY	44	59	53	53	58	40	60	367			Strong Candidate for long-term preservation	Ranked in upper third of the population; high transportation code
41	1	Bucks	09-0113-0120-3181	1902	**HILLTOWN.** SOUDERTON PIKE / MORRIS RUN	50	24	PDOT	59	45	53	52	58	40	60	367	Yes		Not Recommended for long-term preservation	On the TIP to be replaced; the bridge carries heavy truck traffic; frequently damaged by accidents; has little historical integrity due to alterations

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Bucks = Bucks County; Ches = Chester County; Dela = Delaware County;
Mont = Montgomery County; Phil = Philadelphia County

Dev – Anticipated Development Code
Length – Length, measured by the total waterway opening
Location – Municipality, road, and stream crossed
NR – Whether or not the bridge is listed or eligible for listing in the National Register of Historic Places (NRHP) or contributes to a NRHP-listed or -eligible historic district
Owner – Owner as listed in the BMS, outside to outside
Pub – Public Input Code
Rank – Bridge ranking (lowest number is a better ranking)

Rating – Combined rating (the seven codes added together)
TIP – whether or not the bridge is listed on the Transportation Improvement Program (TIP)
Trans – Transportation Code
Val – Historical, Recreational, and Cultural Values Code
Water – Waterway Adequacy Code
Width - Width

Rank	Br No.	Cty	BMS No.	YR Blt	Location	Length	Width	Owner	Cond	Trans	Water	Cost	Dev	Val	Pub	Rating	TIP	NR	Recommendation	Comments
42	93	Mont	46-4031-0300-0146	1850	**LOWER POTTSGROVE**. RIDGE PIKE / SANATOGA CREEK	50	39	PDOT	52	45	59	50	48	51	60	365	Yes		Recommended for the Reserve Pool	Recently completed work has stabilized the bridge; on the TIP to be rehabilitated or replaced; on Limerick Power Plant evacuation route
43	17	Bucks	09-4027-0120-0833	1908	**WEST ROCKHILL**. ALLENTOWN ROAD / RIDGE VALLEY CREEK	37	19	PDOT	40	43	53	53	58	57	60	364			Recommended for long-term preservation	Ranks just outside of the upper third; PennDOT has committed to the preservation of the bridge
44	38	Ches	15-0926-0440-0400	1911	**THORNBURY.** STREET ROAD / CHESTER CREEK	38	26	PDOT	48	45	40	56	58	63	54	364		Yes	Recommended for the Reserve Pool	Carries a relatively high amount of traffic; beginning to develop problems with its condition
45	99	Mont	46-7046-0170-0219	1907	**TOWAMENCIN**. TRUMBAUER ROAD / TOWAMENCIN CREEK	70	20	CTY	55	52	53	51	58	40	54	363			Moderate Candidate for long-term preservation	Not functioning as a true stone arch; metal plates take the thrust
46	119	Mont	46-7413-0420-0001	1854	**NORRISTOWN.** MAIN STREET / STONY CREEK	40	83	TWP	59	43	53	48	48	51	60	362		Yes	Moderate Candidate for long-term preservation	High condition and values codes; contributes to a historic district; low transportation code
47	61	Del	23-1034-0060-3474	1905	**RADNOR.** GOSHEN RPAD / DARBY CREEK	84	29	PDOT	44	45	59	58	58	54	42	360		Yes	Recommended for long-term preservation	To be repaired and repointed
48	70	Mont	46-0152-0230-2106	1838	**MONTGOMERY.** LIMEKILN PIKE/ LITTLE NESHAMINY CREEK	42	28	PDOT	40	28	53	59	58	59	60	357	Yes	Yes	Not Recommended for long-term preservation	The intersections at each end of the bridge are poor; the bridge carries a higher than average amount of trucks; there is a history of the bridge being damaged due to accidents; on the TIP to be replaced
49	19	Bucks	09-4101-0100-0378	1777	**SPRINGFIELD.** OLD BETHLEHEM PK/COOKS CRK-PLEASANT VALLEY	54	26	PDOT	33	35	53	59	58	59	60	357	Yes	Yes	Recommended for long-term preservation	On the TIP to be rehabilitated; under contract
50	74	Mont	46-1004-0090-1445	1874	**HATFIELD**. ORVILLA ROAD / WEST NESHAMINY CREEK	46	24	PDOT	48	45	53	59	28	64	60	357		Yes	Recommended for the Reserve Pool	In an area of high development and problems with its condition, but the county and township support its preservation.
51	22	Bucks	09-7009-0030-0286	1845	**BENSALEM.** RED LION ROAD / POQUESSING CREEK	58	26	CTY	33	63	40	59	48	54	60	357	Yes		Moderate Candidate for long-term preservation	Locally significant bridge; previously programmed on the TIP for rehabilitation
52	25	Bucks	09-7009-0375-0305	1873	**SOLEBURY.** ATKINSON ROAD / PIDCOCK CREEK	49	21	CTY	37	59	40	52	58	51	60	357	Yes	Yes	Strong Candidate for long-term preservation	Recently rehabilitated
53	27	Bucks	09-7009-0434-0002	1902	**NOCKAMIXON.** BEAVER RUN ROAD / RAPP CREEK	80	30	CTY	48	66	53	49	58	40	42	356			Moderate Candidate for long-term preservation	Ranked in the top half of the population; low traffic volume; not much development pressure anticipated
54	112	Mont	46-7046-0880-0101	1915	**LOWER FREDERICK**.OLD GRAVEL PIKE/SWAMP CREEK	97	24	CTY	26	49	53	66	38	62	60	354		Yes	Moderate Candidate for long-term preservation	Low condition code; carries traffic well; has high values and public input codes
55	18	Bucks	09-4075-0080-2205	1854	**SPRINGFIELD.** STONY GARDEN ROAD/HAYCOCK CREEK	36	21	PDOT	52	52	53	46	58	38	54	353			Not Recommended for long-term preservation	In poor condition; it has been altered; it is not eligible for NRHP listing; not in a park or in a greenway
56	85	Mont	46-3006-0030-1319	1911	**EAST NORRITON**. WHITEHALL ROAD / STONEY CREEK	38	35	PDOT	44	47	40	59	48	54	60	352			Recommended for the Reserve Pool	The Montgomery County Planning Commission has asked that the bridge be preserved as an entrance to Norristown Farm Park, but there are structural difficulties.
57	84	Mont	46-3003-0040-0246	1914	**WHITEMARSH.** STENTON AVENUE / WISSAHICKON CREEK	112	25	PDOT	44	45	33	57	58	54	60	351			Not Recommended for long-term preservation	Poor condition; very low waterway adequacy; occasionally floods; impact damage
58	116	Mont	46-7046-1080-0118	1907	**HORSHAM.** KEITH VALLEY ROAD / PARK CREEK (GRAEME STATE PARK)	78	28	CTY	44	59	40	41	58	49	60	351			Moderate Candidate for long-term preservation	Adjacent to Graeme Park Historic Site and municipal park land; Montgomery County has asked for its preservation
59	24	Bucks	09-7009-0329-0090	1805	**BENSALEM.** OLD LINCOLN HWY/ POQUESSING BRIDGE CLOSED	46	25	CTY/PHIL	37	63	59	37	48	46	60	350			Moderate Candidate for long-term preservation	Closed to traffic; could serve as a pedestrian entrance to the state park
60	39	Ches	15-1012-0030-0000	1917	**TREDYFFRIN.** GULPH ROAD / TROUT CREEK	32	24	PDOT	48	45	40	67	48	67	35	350	Yes	Yes	Not Recommended for long-term preservation	On the TIP list to be replaced due to an inadequate waterway opening and frequent flooding
61	117	Mont	46-7219-0210-0005	1880	**UPPER HANOVER**. TAGART ROAD / MACOBY CREEK	20	35	TWP	59	81	53	46	38	38	35	350			Not a Strong Candidate for long-term preservation	Loss of historical integrity; potential inability to handle future traffic
62	96	Mont	46-7046-0150-0224	1908	**TOWAMENCIN.** RITTENHOUSE ROAD / SKIPPACK CREEK	104	19	CTY	44	57	33	58	48	49	60	349			Not a Strong Candidate for long-term preservation	Ranked in lower half of the population; scour problems; inadequate waterway opening
63	132	Phil	67-7301-0190-0030	1853	**BENSALEM.** CENTURY LANE / POQUESSING CREEK	42	23	PHIL/BKS	48	59	40	45	48	49	60	349			Moderate Candidate for long-term preservation	City of Philadelphia is committed to its preservation
64	91	Mont	46-4023-0032-0476	1854	**UPPER FREDERICK**. FAGLEYSVILLE ROAD/ WEST SWAMP CREEK	60	23	PDOT	74	56	33	44	38	49	54	348		Yes	Recommended for long-term preservation	PennDOT recently rehabilitated the bridge; the waterway opening remains inadequate
65	125	Phil	67-3009-0100-0120	1888	**GUSTINE PARK**. RIDGE AVENUE / WISSAHICKON CREEK	119	65	PDOT	52	40	40	46	48	62	60	348		Yes	Recommended for long-term preservation	The city of Philadelphia would like the bridge to be preserved; it is located adjacent to Fairmount Park; listed in the NRHP
66	21	Bucks	09-7009-0020-0223	1826	**NOCKAMIXON.** OLD EASTON ROAD/ NOCKAMIXON. AHLERS	40	23	CTY	40	57	33	45	58	59	54	346		Yes	Not a Strong Candidate for long-term preservation	Ranks in the lowest third of the population; inadequate waterway
67	53	Ches	15-7015-0540-0241	1912	**TREDYFFRIN**. MILL ROAD / LITTLE VALLEY CREEK	30	22	CTY	59	42	46	54	48	62	35	346		Yes	Not a Strong Candidate for long-term preservation	Ranked in the lower half of the population; has difficulty handling current traffic; in moderate development area
68	129	Phil	67-7301-0110-0168	1907	**PHILADELPHIA**. KREWSTOWN ROAD / PENNYPACK CREEK	91	35	PHIL	55	31	53	48	48	51	60	346	Yes		Moderate Candidate for long-term preservation	The City of Philadelphia is considering building a parallel bridge to handle traffic
69	68	Mont	46-0113-0020-0789	1883	**UPPER PROVIDENCE**. BLACK ROCK ROAD / SCHUYLKILL RIVER	20	21	PDOT	55	45	40	42	58	46	60	346			Not Recommended for long-term preservation	High traffic volume and narrow width; inadequate waterway causes flooding
70	4	Bucks	09-1002-0110-0000	1886	**SOLEBURY.** SUGAN RD / CUTTALOSSA CREEK	23	23	PDOT	33	43	53	41	58	58	60	346		Yes	Not Recommended for long-term preservation	Poor condition; cannot adequately handle current traffic
71	51	Ches	15-7015-0430-0286	1919	**CALN**. LLOYD AVENUE / BEAVER CREEK	105	18	CTY	63	47	53	50	38	40	54	345			Moderate Candidate for long-term preservation	Ranked in the middle third of the population; narrow bridge in an area of rapid development; some loss of historical integrity
72	37	Ches	15-0162-0170-0194	1807	**COPES BRIDGE**. STRASBURG R0AD / EAST BR. BRANDYWINE CREEK	152	26	PDOT	40	35	53	39	58	59	60	344	Yes	Yes	Recommended for long-term preservation	Previously programmed for rehabilitation in the TIP; scheduled to be let in 2008
73	80	Mont	46-2001-0020-0000	1841	**WHITEMARSH**. MORRIS ROAD / WISSAHICKON CREEK	107	25	PDOT	67	40	33	57	28	59	60	344		Yes	Recommended for the Reserve Pool	Waterway adequacy is poor; the bridge is in an area with high future development potential; the bridge is in good condition; there is strong public support for retaining it
74	10	Bucks	09-2060-0010-0253	1942	**MORRISVILLE.** BRIDGE STREET / DELAWARE RIVER	26	52	PDOT	63	61	59	36	48	35	42	344			Not Recommended for long-term preservation	Associated with the Pennsylvania Canal, but it is not over a watered portion of the canal and it has been altered, including having its spans filled in
75	15	Bucks	09-4021-0050-0000	1902	**HILLTOWN.** BLUE SCHOOL ROAD / MORRIS RUN	53	21	PDOT	44	54	53	44	58	49	42	344		Yes	Not Recommended for long-term preservation	In very poor condition; located in an area of high potential future development
76	88	Mont	46-4010-0020-2068	1830	**SKIPPACK.** COLLEGEVILLE ROAD / SKIPPACK CREEK	24	20	PDOT	67	56	46	55	38	40	42	344			Not Recommended for long-term preservation	In an area with high development, so it may not be able to handle future traffic; waterway marginally adequate
77	41	Ches	15-3035-0010-1152	1912	**AVONDALE.** THIRD STREET / WHITE CLAY CREEK	40	22	PDOT	63	49	53	56	28	53	42	344		Yes	Recommended for the Reserve Pool	In an area with a high potential for future development; fairly narrow; the community has a strong sense of its history
78	134	Phil	67-1002-0050-0595	1901	**WEST TRAIN STATION**. ADAMS AVE / TACONY CREEK	71	24	PDOT	55	35	53	43	48	49	60	343	Yes	Yes	Not Recommended for long-term preservation	Previously placed on the TIP due to deficiencies in its condition and design
79	12	Bucks	09-4003-0080-1643	1872	**HILLTOWN.** DUBLIN ROAD / MORRIS RUN	44	21	PDOT	52	50	46	53	58	40	42	341			Not Recommended for long-term preservation	The bridge has lost historical integrity due to inappropriate repairs; the waterway opening is inadequate; the bridge is in an area of high potential future development
80	34	Ches	15-0082-0432-1857	1914	**COATESVILLE.** US 30B / W. BRANCH BRANDYWINE CREEK	114	65	PDOT	48	45	40	51	58	63	35	340			Not Recommended for long-term preservation	Fairly low ranked bridge; on the Lincoln Highway, but not one recommended for preservation by the Lincoln Highway Association
81	6	Bucks	09-1003-0200-0697	1885	**PLUMSTEAD.** CARVERS-WISMER RD / GADDES RUN	43	20	PDOT	44	52	53	45	58	43	42	337			Recommended for long-term preservation	The low ranking does not reflect rehabilitation work recently undertaken, including rebuilding a spandrel wall and wing wall, and repointing the structure

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82	115	Mont	46-7046-1060-0119	1911	**HORSHAM.** DAVIS GROVE ROAD / PARK CREEK	35	24	CTY	40	45	40	46	58	48	60	337			Not a Strong Candidate for long-term preservation	Low ranked bridge; rated low or very low in condition, waterway adequacy, and values
83	13	Bucks	09-4009-0026-0000	1875	**DOYLESTOWN.** OLD DUBLIN PIKE / PINE RUN	81	24	PDOT	44	49	53	50	58	40	42	336			Not Recommended for long-term preservation	Low ranked bridge
84	35	Ches	15-0082-0552-2189	1910	**WEST BRANDYWINE**. MANOR ROAD (SR 82) / INDIAN RUN	42	23	PDOT	48	45	33	52	58	46	54	336			Not Recommended for long-term preservation	Very low waterway adequacy code; transportation code borders on low due to high traffic volume and narrow width
85	98	Mont	46-7046-0170-0126	1858	**LIMERICK**. FRUITVILLE ROAD / HARTENSTINE CREEK	28	23	CTY	48	59	46	47	38	38	60	336			Not a Strong Candidate for long-term preservation	Ranked just above the lowest third of the population; scour; marginally adequate waterway
86	30	Bucks	09-7207-0437-0001	1901	**EAST ROCKHILL**. ROCKHILL ROAD / THREE MILE RUN	49	21	TWP	44	62	53	45	58	38	35	334			Not a Strong Candidate for long-term preservation	Deteriorated sidewalls and arches; ranked in the upper half of all bridges
87	73	Mont	46-1003-0010-0558	1850	**HATFIELD**. BROAD STREET / NESHAMINY CREEK	49	53	PDOT	52	47	40	32	58	51	54	334		Yes	Not Recommended for long-term preservation	Loss of historical integrity due to widening with concrete and the replacement of the parapets
88	44	Ches	15-3083-0014-0000	1916	**WEST SADSBURY**. SWAN ROAD / OFFICERS RUN	60	22	PDOT	48	47	53	59	48	43	35	333			Recommended for the Reserve Pool	The low ranking does not reflect work previously undertaken to repair the bridge
89	126	Phil	67-4007-0100-0136	1885	**CHESTNUT HILL**. GERMANTOWN AVENUE / CRESHEIM CREEK	25	60	COMB	37	42	33	51	48	62	60	333	Yes	Yes	Recommended for long-term preservation	Previously programmed for rehabilitation in the TIP; in preliminary design
90	47	Ches	15-4029-0020-0294	1914	**WEST NANTMEAL**. CREEK ROAD / PERKINS CREEK	22	25	PDOT	48	45	53	61	48	43	35	333			Not Recommended for long-term preservation	Ranked in the lowest third of the population; narrow bridge carrying high traffic volumes
91	133	Phil	67-7301-0290-0011	1870	**SOUTH PHILADELPHIA** SOUTH STREET / GARAGES	75	56	PHIL	70	26	59	39	48	54	35	331		Yes	Not a Strong Candidate for long-term preservation	In the lowest third of bridges in the study.
92	42	Ches	15-3049-0060-1791	1915	**NEWLIN.** BRANDYWINE CREEK ROAD / BUCK RUN - DOE RUN	68	21	PDOT	48	45	53	43	58	43	41	332			Not Recommended for long-term preservation	Poor historical integrity; one span previously washed out and has been replaced with a steel beam bridge
93	75	Mont	46-1019-0030-3556	1869	**LOWER FREDERICK**. SPRING MOUNT ROAD / PERKIOMEN CREEK	202	20	PDOT	40	40	59	48	38	46	60	331	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
94	71	Mont	46-0320-0040-0852	1789	**UPPER MERION**. TRINITY / GULPH MILLS CREEK	22	34	PDOT	37	42	33	53	48	57	60	330		Yes	Not Recommended for long-term preservation	Low ranked bridge
95	62	Del	23-1046-0040-0126	1810	**NEWTOWN.** ST DAVIDS ROAD / DARBY CREEK	26	28	PDOT	48	43	53	39	58	51	35	327	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
96	67	Mont	46-0029-0230-3497	1928	**SCHWENKSVILLE**. MAIN STREET / MINE RUN	26	50	PDOT	63	40	40	36	48	40	60	327			Not Recommended for long-term preservation	Low ranked bridge
97	94	Mont	46-4031-0310-3638	1910	**LOWER POTTSGROVE**. RIDGE PIKE / SPROGLES RUN	60	46	PDOT	48	47	59	40	28	43	60	325			Not Recommended for long-term preservation	Low ranked bridge
98	83	Mont	46-2064-0010-0840	1841	**CHELTENHAM.** LIMEKILN PIKE / ROCK CREEK. *ARCH FILLED IN*	22	27	PDOT	59	57	59	40	38	35	35	323	Yes		Not Recommended for long-term preservation	Low ranked bridge; poor historical integrity; on the TIP for replacement
99	130	Phil	67-7301-0120-0340	1820	**FAIRMOUNT PARK**. BELLS MILL ROAD / WISSAHICKON CREEK	67	27	PHIL	44	24	33	42	58	59	60	320		Yes	Not a Strong Candidate for long-term preservation	Low ranked bridge
100	8	Bucks	09-2035-0010-0000	1840	**BENSALEM.** RICHLEAU / POQUESSING	47	20	DCNR	51	47	40	38	38	46	60	320			Not Recommended for long-term preservation	Low ranked bridge
101	81	Mont	46-2009-0080-0708	1828	**BRYN ATHYN**. BYBERRY ROAD / SOUTHAMPTON CREEK	31	25	PDOT	48	45	33	53	48	51	42	320	Yes	Yes	Recommended for long-term preservation	Previously programmed on the TIP for rehabilitation
102	65	Del	23-7023-0440-0143	1943	**GLENOLDEN**. GLENOLDEN AVE / MUCKINIPATTUS CREEK	20	46	CTY	59	47	46	45	48	38	35	318			Not a Strong Candidate for long-term preservation	Ranked in the lowest third of the population; scour and flooding problems
103	103	Mont	46-7046-0475-0229	1906	**UPPER HANOVER**. 11TH STREET / MACOBY CREEK	44	22	CTY	33	52	40	52	38	40	60	315			Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in three categories, including condition and waterway adequacy
104	120	Mont	46-7413-0450-0008	1910	**NORRISTOWN.** MARSHALL STREET / SAW MILL RUN	24	51	TWP	48	52	53	44	38	38	42	315			Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in four categories
105	29	Bucks	09-7204-0386-0003	1900	**BUCKINGHAM.** HOLICONG ROAD / PIDCOCK CREEK	23	22	TWP	33	61	33	48	58	38	42	313			Not a Strong Candidate for long-term preservation	Low ranked bridge; rated very low in condition, waterway adequacy, and values
106	64	Del	23-3007-0130-0000	1898	**CONCORD**. CONCORD ROAD / CHESTER CREEK	30	30	PDOT	48	45	53	60	28	43	35	312	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
107	59	Del	23-0013-0180-0000	1926	**RIDLEY.** CHESTER PIKE / STONEY BROOK CREEK	20	64	PDOT	55	45	59	32	48	34	35	308			Not Recommended for long-term preservation	Low ranked bridge
108	56	Del	23-0003-0240-2055	1900	**UPPER DARBY**. WEST CHESTER PIKE / COBBS CREEK/SEPTA	56	75	COMB	48	45	59	25	38	50	42	307		Yes	Not Recommended for long-term preservation	Low ranked bridge
109	121	Mont	46-7413-0480-0009	1900	**NORRISTOWN.** ARCH STREET / SAW MILL RUN	24	51	TWP	33	49	46	44	38	54	42	306		Yes	Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in four categories
110	14	Bucks	09-4017-0060-3825	1906	**HILLTOWN.** CALLOWHILL ROAD / PLEASANT SPRING CRK	47	21	PDOT	48	50	46	45	38	38	42	306			Not Recommended for long-term preservation	Low ranked bridge
111	82	Mont	46-2054-0030-1374	1899	**CHELTENHAM.** GREENWOOD AVENUE / TACONY CREEK	36	79	PDOT	48	66	40	32	38	46	35	305			Not Recommended for long-term preservation	Low ranked bridge
112	118	Mont	46-7413-0410-0010	1855	**NORRISTOWN.** OAK STREET / SAW MILL ROAD	20	51	TWP	33	54	53	45	38	38	42	303			Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in four categories, including condition
113	16	Bucks	09-4023-0030-0000	1854	**BEDMINSTER.** DEEP RUN ROAD / DEEP RUN	136	22	PDOT	44	45	46	31	58	35	42	301	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
114	76	Mont	46-1021-0020-0000	1858	**FRANCONIA**. CAMP ROAD / EAST BR. PERKIOMEN CREEK	146	25	PDOT	33	38	40	30	58	40	60	299	Yes		Not Recommended for long-term preservation	Low ranked bridge
115	63	Del	23-2016-0170-0000	1919	**CLIFTON HEIGHTS**. BALTIMORE PIKE / DARBY CREEK	72	50	PDOT	63	45	40	31	48	35	35	297			Not Recommended for long-term preservation	Low ranked bridge
116	58	Del	23-0013-0160-0879	1926	**RIDLEY PARK**. CHESTER PIKE / LITTLE CRUM CREEK	17	62	PDOT	59	45	40	31	48	33	35	291			Not Recommended for long-term preservation	Low ranked bridge
117	60	Del	23-0013-0200-2035	1925	**GLENOLDEN.** CHESTER PIKE / MUCKINIPATTUS CREEK	28	68	PDOT	63	45	40	27	48	33	35	291			Not Recommended for long-term preservation	Low ranked bridge
118	66	Mont	46-0023-0270-1682	1912	**WEST CONSHOHOCKEN**. CONSHOHOCKEN STATE RD / GULF CREEK	20	36	PDOT	67	50	26	39	38	35	35	290			Not Recommended for long-term preservation	Low ranked bridge
119	108	Mont	46-7046-0740-0185	1887	**EAST NORRITON**. GERMANTOWN PIKE / FIVE MILE RUN CREEK	25	38	CTY	55	42	40	38	38	35	42	289			Not a Strong Candidate for long-term preservation	Very low ranked bridge; low or very low in five categories
120	79	Mont	46-1033-0030-1115	1895	**UPPER HANOVER**. KUTZTOWN ROAD / MOLASSES CREEK	21	19	PDOT	48	45	33	42	38	35	35	276			Not Recommended for long-term preservation	One of the lowest ranked bridges in the population
121	2	Bucks	09-0152-0180-1725	1890	**HILLTOWN/ PERKASIE**. WALNUT ST/PLEASANT SPRINGS CRK	54	20	PDOT	33	47	40	45	38	38	35	276	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
122	69	Mont	46-0152-0080-0722	1810	**UPPER DUBLIN**. LIMEKILN PIKE / SANDY RUN	22	30	PDOT	48	40	40	47	28	38	35	276			Not Recommended for long-term preservation	Low ranked bridge
123	102	Mont	46-7046-0290-0172	1844	**NEW HANOVER**. SWAMP PIKE / MINISTER CREEK	48	36	CTY	44	45	40	43	18	38	35	263			Not a Strong Candidate for long-term preservation	One of the lowest ranked bridges; rated low or very low in five categories, including condition and waterway adequacy
124	57	Del	23-0013-0150-0000	1926	**EDDYSTONE**. CHESTER PIKE / CRUM CREEK	50	72	PDOT	48	45	40	26	28	34	35	256			Not Recommended for long-term preservation	Low ranked bridge

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Cond – Condition Code
Cost – Rehabilitation or Replacement Cost Code
Cty – County in which the bridge is located (if two counties, the first one alphabetically)
Bucks = Bucks County; Ches = Chester County; Dela = Delaware County;
Mont = Montgomery County; Phil = Philadelphia County

Dev – Anticipated Development Code
Length – Length, measured by the total waterway opening
Location – Municipality, road, and stream crossed
NR – Whether or not the bridge is listed or eligible for listing in the National Register of Historic Places (NRHP) or contributes to a NRHP-listed or -eligible historic district
Owner – Owner as listed in the BMS, outside to outside
Pub – Public Input Code
Rank – Bridge ranking (lowest number is a better ranking)

Rating – Combined rating (the seven codes added together)
TIP – whether or not the bridge is listed on the Transportation Improvement Program (TIP)
Trans – Transportation Code
Val – Historical, Recreational, and Cultural Values Code
Water – Waterway Adequacy Code
Width - Width

TABLE 2.
STONE ARCH BRIDGE MANAGEMENT PLAN RECOMMENDATIONS BY BRIDGE NUMBER

Br No.	Rank	CTY	BMS No.	YR Blt	Location	Length	Width	Owner	Cond	Trans	Water	Cost	Dev	Val	Pub	Rating	TIP	NR	Recommendation	Comments
1	41	Bucks	09-0113-0120-3181	1902	**HILLTOWN**. SOUDERTON PIKE / MORRIS RUN	50	24.3	PDOT	59	45	53	52	58	40	60	367	Yes		Not Recommended for long-term preservation	On the TIP to be replaced; the bridge carries heavy truck traffic; frequently damaged by accidents; has little historical integrity due to alterations
2	121	Bucks	09-0152-0180-1725	1880	**HILLTOWN/ PERKASIE**. WALNUT ST / PLEASANT SPRINGS CREEK	54	19.7	PDOT	33	47	40	45	38	38	35	276	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
4	70	Bucks	09-1002-0110-0000	1886	**SOLEBURY.** SUGAN RD / CUTTALOSSA CREEK	23	23.2	PDOT	33	43	53	41	58	58	60	346		Yes	Not Recommended for long-term preservation	Poor condition; cannot adequately handle current traffic
5	31	Bucks	09-1003-0140-0084	1854	**SOLEBURY.** AQUETONG RD/PAUNNACUSSING CREEK	45	20.9	PDOT	55	47	53	52	58	57	54	376		Yes	Recommended for long-term preservation	High ranked bridge; high condition code; repointed in 2005
6	81	Bucks	09-1003-0200-0697	1885	**PLUMSTEAD.** CARVERS-WISMER RD / GADDES RUN	43	19.9	PDOT	44	52	53	45	58	43	42	337			Recommended for long-term preservation	The low ranking does not reflect rehabilitation work recently undertaken, including rebuilding a spandrel wall and wing wall, and repointing the structure
7	18	Bucks	09-1004-0110-0454	1884	**SOLEBURY.** FLEECYDALE / PAUNNACUSSING CREEK	69	21.4	PDOT	44	52	53	59	58	59	60	385	Yes	Yes	Recommended for long-term preservation	The bridge has been reconstructed
8	100	Bucks	09-2035-0010-0000	1840	**BENSALEM.** RICHLEAU / POQUESSING CREEK *BRIDGE CLOSED*	47	20	PDOT	52	47	40	38	38	46	60	321			Not Recommended for long-term preservation	Low ranked bridge
9	26	Bucks	09-2052-0012-0000	1796	**NEWTOWN.** CENTER STREET / NEWTOWN CREEK	34	29.9	PDOT	52	47	53	52	58	57	60	379		Yes	Recommended for long-term preservation	Ranked in the upper third, the bridge is one of the oldest in the population; there is strong public support for preservation
10	74	Bucks	09-2060-0010-0253	1830	**MORRISVILLE.** BRIDGE STREET / BRIDGE DELAWARE RIVER	26	52	PDOT	63	61	59	36	48	35	42	344			Not Recommended for long-term preservation	Associated with the Pennsylvania Canal, but it is not over a watered portion of the canal and it has been altered, including having its spans filled in
11	30	Bucks	09-2097-0010-0348	1905	**BUCKINGHAM.** FOREST GROVE ROAD / MILL CREEK	130	21.6	PDOT	51	45	53	66	58	62	41	376		Yes	Recommended for long-term preservation	Ranked in the upper third; recently rebuilt
12	79	Bucks	09-4003-0080-1643	1872	**HILLTOWN.** DUBLIN ROAD / MORRIS RUN	44	20.8	PDOT	52	50	46	53	58	40	42	341			Not Recommended for long-term preservation	The bridge has lost historical integrity due to inappropriate repairs; the waterway opening is inadequate; the bridge is in an area of high potential future development
13	83	Bucks	09-4009-0026-0000	1875	**DOYLESTOWN.** OLD DUBLIN PIKE / PINE RUN	81	24.2	PDOT	44	50	53	50	58	40	42	336			Not Recommended for long-term preservation	Low ranked bridge
14	110	Bucks	09-4017-0060-3825	1881	**HILLTOWN.** CALLOWHILL ROAD / PLEASANT SPRING CREEK	47	21	PDOT	48	50	46	45	38	38	42	306			Not Recommended for long-term preservation	Low ranked bridge
15	75	Bucks	09-4021-0050-0000	1870	**HILLTOWN.** BLUE SCHOOL ROAD / MORRIS RUN	53	21.4	PDOT	44	54	53	44	58	49	42	344		Yes	Not Recommended for long-term preservation	In very poor condition; located in an area of high potential future development
16	113	Bucks	09-4023-0030-0000	1854	**BEDMINSTER.** DEEP RUN ROAD / DEEP RUN	136	22	PDOT	44	45	46	31	58	35	42	301	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
17	43	Bucks	09-4027-0120-0833	1875	**WEST ROCKHILL.** ALLENTOWN ROAD / RIDGE VALLEY CREEK	37	19.4	PDOT	40	43	53	53	58	57	60	364			Recommended for long-term preservation	Ranks just outside of the upper third; PennDOT has committed to the preservation of the bridge
18	55	Bucks	09-4075-0080-2205	1854	**SPRINGFIELD.** STONY GARDEN ROAD / HAYCOCK CREEK	36	20.5	PDOT	52	52	53	46	58	38	54	352			Not Recommended for long-term preservation	In poor condition; it has been altered; it is not eligible for NRHP listing; not in a park or in a greenway
19	49	Bucks	09-4101-0100-0378	1777	**SPRINGFIELD.** OLD BETHLEHEM PK / COOKS CRK-PLEASANT VALLEY	54	25.7	PDOT	33	35	53	59	58	59	60	357	Yes	Yes	Recommended for long-term preservation	On the TIP to be rehabilitated; under contract
20	16	Bucks	09-7009-0010-0222	1804	**NOCKAMIXON.** OLD EASTON ROAD/ NOCKAMIXON. AHLERS	45	26.5	CO	52	59	53	59	58	65	42	388		Yes	Strong Candidate for long-term preservation	Ranks high in the upper third of population; rehabilitated in 2002; very high values code
21	66	Bucks	09-7009-0020-0223	1826	**NOCKAMIXON.** OLD EASTON ROAD/ NOCKAMIXON. AHLERS	40	22.6	CO	40	57	33	45	58	59	54	346		Yes	Not a Strong Candidate for long-term preservation	Ranks in the lowest third of the population; inadequate waterway
22	51	Bucks	09-7009-0030-0286	1843	**BENSALEM.** RED LION ROAD / POQUESSING CREEK	58	25.8	CO	33	63	40	59	48	54	60	357	Yes		Moderate Candidate for long-term preservation	Locally significant bridge; previously programmed on the TIP for rehabilitation
24	59	Bucks	09-7009-0329-0090	1805	**BENSALEM.** OLD LINCOLN HWY/ POQUESSING CRK *BRIDGE CLOSED*	46	25	CO/PHI	37	63	59	37	48	46	60	350			Moderate Candidate for long-term preservation	Closed to traffic; could serve as a pedestrian entrance to the state park
25	52	Bucks	09-7009-0375-0305	1873	**SOLEBURY.** ATKINSON ROAD / PIDCOCK CREEK	49	20.7	CO	37	59	40	52	58	51	60	357	Yes	Yes	Strong Candidate for long-term preservation	Recently rehabilitated
26	23	Bucks	09-7009-0433-0234	1875	**WEST ROCKHILL**. CLYMER AVENUE / MILL CREEK	189	23	CO	55	57	40	57	58	54	60	379		Yes	Moderate Candidate for long-term preservation	Ranked in the upper third of the population; highly ranked in six categories, but low waterway adequacy
27	53	Bucks	09-7009-0434-0002	1902	**NOCKAMIXON.** BEAVER RUN ROAD / RAPP CREEK	80	29.9	CO	48	66	53	49	58	40	42	356			Moderate Candidate for long-term preservation	Ranked in the top half of the population; low traffic volume; not much development pressure anticipated
28	2	Bucks	09-7009-0449-0001	1900	**NOCKAMIXON.** QUARRY ROAD / RAPP CREEK	53	18	CO	66	68	53	67	58	67	42	421		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated very high in four categories
29	105	Bucks	09-7204-0386-0003	1890	**BUCKINGHAM.** HOLICONG ROAD / PIDCOCK CREEK	23	21.5	TWP	33	61	33	48	58	38	42	313			Not a Strong Candidate for long-term preservation	Low ranked bridge; rated very low in condition, waterway adequacy, and values
30	86	Bucks	09-7207-0437-0001	1901	**EAST ROCKHILL.** ROCKHILL ROAD / THREE MILE RUN	49	21.3	TWP	44	62	53	45	58	38	35	334			Not a Strong Candidate for long-term preservation	Deteriorated sidewalls and arches; ranked in the upper half of all bridges
31	19	Bucks	09-7935-6416-0900	1900	**PLUMSTEAD.** R. STOVER PARK ENTRANCE / MILLRACE TRIBUTARY	59	22	DCNR	81	68	53	36	58	46	42	384			Strong Candidate for long-term preservation	Very high condition and transportation codes; gateway to a state park
32	9	Ches	15-0052-0140-0741	1912	**BIRMINGHAM.** LENAPE ROAD / BRANDYWINE CREEK FLOODPLAIN	308	22	PDOT	48	45	59	60	58	66	54	390		Yes	Recommended for long-term preservation	Ranked in the upper third of the population, enjoys much public support
34	80	Ches	15-0082-0432-1857	1914	**COATESVILLE.** US 30B / W. BRANCH BRANDYWINE CREEK	114	65	PDOT	48	45	40	51	58	63	35	340			Not Recommended for long-term preservation	Fairly low ranked bridge; on the Lincoln Highway, but not one recommended for preservation by the Lincoln Highway Association
35	84	Ches	15-0082-0552-2189	1910	**WEST BRANDYWINE.** MANOR ROAD (SR 82) / INDIAN RUN	42	23	PDOT	48	45	33	52	58	46	54	336			Not Recommended for long-term preservation	Very low waterway adequacy code; transportation code borders on low due to high traffic volume and narrow width
37	72	Ches	15-0162-0170-0194	1807	**COPES BRIDGE.** STRASBURG ROAD / EAST BR. BRANDYWINE CREEK	152	25.6	PDOT	40	35	53	39	58	59	60	344	Yes	Yes	Recommended for long-term preservation	Previously programmed for rehabilitation in the TIP; scheduled to be let in 2008
38	44	Ches	15-0926-0440-0400	1911	**THORNBURY.** STREET ROAD / CHESTER CREEK	38	25.6	PDOT	48	45	40	56	58	63	54	364		Yes	Recommended for the Reserve Pool	Carries a relatively high amount of traffic; beginning to develop problems with its condition
39	60	Ches	15-1012-0030-0000	1917	**TREDYFFRIN.** GULPH ROAD / TROUT CREEK	32	24.3	PDOT	48	45	40	67	48	67	35	350	Yes	Yes	Not Recommended for long-term preservation	On the TIP list to be replaced due to an inadequate waterway opening and frequent flooding
41	77	Ches	15-3035-0010-1152	1912	**AVONDALE.** THIRD STREET / WHITE CLAY CREEK	40	22.2	PDOT	63	49	53	56	28	53	42	344		Yes	Recommended for the Reserve Pool	In an area with a high potential for future development; fairly narrow; the community has a strong sense of its history
42	92	Ches	15-3049-0060-1791	1915	**NEWLIN.** BRANDYWINE CREEK ROAD / BUCK RUN - DOE RUN	68	21.1	PDOT	48	45	53	43	58	43	41	331			Not Recommended for long-term preservation	Poor historical integrity; one span previously washed out and has been replaced with a steel beam bridge
43	39	Ches	15-3062-0140-0245	1826	**MORTONVILLE.** STRASBURG ROAD / WEST BR. BRANDYWINE CREEK	196	20	PDOT	44	35	53	61	58	66	54	371	Yes	Yes	Recommended for long-term preservation	Previously programmed in the TIP for rehabilitation; in preliminary design; the deck will be cantilevered
44	88	Ches	15-3083-0014-0000	1916	**WEST SADSBURY.** SWAN ROAD / OFFICERS RUN	60	22	PDOT	48	47	53	59	48	43	35	333			Recommended for the Reserve Pool	The low ranking does not reflect work previously undertaken to repair the bridge
45	33	Ches	15-4003-0010-0198	1918	**VALLEY.** WAGONTOWN ROAD / WEST BRANCH BRANDYWINE CREEK	178	36	PDOT	40	54	59	56	58	54	54	375		Yes	Recommended for long-term preservation	Ranked in the upper third of the population; has historical integrity

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Width - Width

Br No.	Rank	CTY	BMS No.	YR Blt	Location	Length	Width	Owner	Cond	Trans	Water	Cost	Dev	Val	Pub	Rating	TIP	NR	Recommendation	Comments
46	22	Ches	15-4015-0020-3422	1916	**CALN.** EDGE MILL ROAD / BEAVER CREEK	74	25	PDOT	44	45	53	66	58	62	54	382		Yes	Recommended for long-term preservation	High ranked bridge; high values code and public support
47	90	Ches	15-4029-0020-0294	1914	**WEST NANTMEAL.** CREEK ROAD / PERKINS CREEK	22	24.5	PDOT	48	45	53	61	48	43	35	333			Not Recommended for long-term preservation	Ranked in the lowest third of the population; narrow bridge carrying high traffic volumes
48	7	Ches	15-7015-0010-0325	1908	**NEWLIN.** COUNTY PARK ROAD / WEST BR. BRANDYWINE CREEK	144	19.7	CO	55	59	53	57	58	65	54	401		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in six categories
49	5	Ches	15-7015-0377-0143	1888	**WEST NANTMEAL.** WYEBROOK ROAD / E. BR. BRANDYWINE CREEK	63	22.5	CO	55	59	59	55	58	63	54	403		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in all categories
50	15	Ches	15-7015-0407-0246	1913	**WARWICK.** VALLEY WAY / SOUTH BRANCH FRENCH CREEK	31	21.2	CO	59	66	53	53	58	57	42	388		Yes	Strong Candidate for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in four categories
51	71	Ches	15-7015-0430-0286	1919	**CALN.** LLOYD AVENUE / BEAVER CREEK	105	18	CO	63	47	53	50	38	40	54	345			Moderate Candidate for long-term preservation	Ranked in the middle third of the population; narrow bridge in an area of rapid development; some loss of historical integrity
52	34	Ches	15-7015-0438-0249	1914	**POCOPSON.** DENTON HOLLOW ROAD / POCOPSON CREEK	31	21.9	CO	59	54	53	60	48	59	42	375		Yes	Strong Candidate for long-term preservation	Ranked in the upper third of the population; rated high or very high in three categories
53	67	Ches	15-7015-0540-0241	1912	**TREDYFFRIN.** MILL ROAD / LITTLE VALLEY CREEK	30	21.5	CO	59	42	46	54	48	62	35	346		Yes	Not a Strong Candidate for long-term preservation	Ranked in the lower half of the population; has difficulty handling current traffic; in moderate development area
54	32	Ches	15-7015-0551-0207	1804	**EAST COVENTRY.** SCHUYLKILL ROAD / PIGEON CREEK	53	23.2	CO	44	59	53	51	58	57	54	376		Yes	Strong Candidate for long-term preservation	Ranked in the upper third of the population; the oldest bridge in Chester County
55	25	Ches	15-7239-0150-0001	1915	**UWCHLAN.** DOWLIN FORGE ROAD / SHAMONA CREEK	44	21.6	TWP	48	57	53	56	58	47	60	379			Strong Candidate for long-term preservation	Ranked in the upper third of the population; rated high in three categories, including transportation code
56	108	Dela	23-0003-0240-2055	1850	**UPPER DARBY.** WEST CHESTER PIKE / COBBS CREEK/SEPTA	56	74.9	COMB	48	45	59	25	38	50	42	307		Yes	Not Recommended for long-term preservation	Low ranked bridge
57	124	Dela	23-0013-0150-0000	1825	**EDDYSTONE.** CHESTER PIKE / CRUM CREEK	50	72.3	PDOT	48	45	40	26	28	34	35	256			Not Recommended for long-term preservation	Low ranked bridge
58	116	Dela	23-0013-0160-0879	1825	**RIDLEY PARK.** CHESTER PIKE / LITTLE CRUM CREEK	17	61.5	PDOT	59	45	40	31	48	33	35	291			Not Recommended for long-term preservation	Low ranked bridge
59	107	Dela	23-0013-0180-0000	1825	**RIDLEY.** CHESTER PIKE / STONEY BROOK CREEK	20	63.5	PDOT	55	45	59	32	48	34	35	308			Not Recommended for long-term preservation	Low ranked bridge
60	117	Dela	23-0013-0200-2035	1825	**GLENOLDEN.** CHESTER PIKE / MUCKINIPATTUS CREEK	28	67.5	PDOT	63	45	40	27	48	33	35	291			Not Recommended for long-term preservation	Low ranked bridge
61	47	Dela	23-1034-0060-3474	1905	**RADNOR.** GOSHEN ROAD / DARBY CREEK	84	28.8	PDOT	44	45	59	58	58	54	42	360		Yes	Recommended for long-term preservation	To be repaired and repointed
62	95	Dela	23-1046-0040-0126	1810	**NEWTOWN.** ST DAVIDS ROAD / DARBY CREEK	26	28	PDOT	48	43	53	39	58	51	35	327	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
63	115	Dela	23-2016-0170-0000	1815	**CLIFTON HEIGHTS.** BALTIMORE PIKE / DARBY CREEK	72	49.5	PDOT	63	45	40	31	48	35	35	297			Not Recommended for long-term preservation	Low ranked bridge
64	106	Dela	23-3007-0130-0000	1898	**CONCORD.** CONCORD ROAD / CHESTER CREEK	30	30	PDOT	48	45	53	60	28	43	35	312	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
65	102	Dela	23-7023-0440-0143	1943	**GLENOLDEN.** GLENOLDEN AVENUE / MUCKINIPATTUS CREEK	20	45.7	CO	59	47	46	45	48	38	35	318			Not a Strong Candidate for long-term preservation	Ranked in the lowest third of the population; scour and flooding problems
66	118	Mont	46-0023-0270-1682	1912	**W. CONSHOHOCKEN.** CONSHOHOCKEN STATE ROAD / GULF CREEK	20	35.5	PDOT	67	50	26	39	38	35	35	290			Not Recommended for long-term preservation	Low ranked bridge
67	96	Mont	46-0029-0230-3497	1880	**SCHWENKSVILLE.** MAIN STREET / MINE RUN	26	50	PDOT	63	40	40	36	48	40	60	327			Not Recommended for long-term preservation	Low ranked bridge
68	69	Mont	46-0113-0020-0789	1883	**UPPER PROVIDENCE.** BLACK ROCK ROAD / SCHUYLKILL RIVER	20	21	PDOT	55	45	40	42	58	46	60	346			Not Recommended for long-term preservation	High traffic volume and narrow width; inadequate waterway causes flooding
69	122	Mont	46-0152-0080-0722	1810	**UPPER DUBLIN.** LIMEKILN PIKE / SANDY RUN	22	30.1	PDOT	48	40	40	47	28	38	35	276			Not Recommended for long-term preservation	Low ranked bridge
70	48	Mont	46-0152-0230-2106	1838	**MONTGOMERY.** LIMEKILN PIKE / LITTLE NESHAMINY CREEK	42	28	PDOT	40	28	53	59	58	59	60	357	Yes	Yes	Not Recommended for long-term preservation	The intersections at each end of the bridge are poor; the bridge carries a higher than average amount of trucks; there is a history of the bridge being damaged due to accidents; on the TIP to be replaced
71	94	Mont	46-0320-0040-0852	1789	**UPPER MERION.** TRINITY LANE / GULPH MILLS CREEK	22	34	PDOT	37	42	33	53	48	57	60	330		Yes	Not Recommended for long-term preservation	Low ranked bridge
73	87	Mont	46-1003-0010-0558	1850	**HATFIELD.** BROAD STREET / NESHAMINY CREEK	49	53	PDOT	52	47	40	32	58	51	54	334		Yes	Not Recommended for long-term preservation	Loss of historical integrity due to widening with concrete and the replacement of the parapets
74	50	Mont	46-1004-0090-1445	1874	**HATFIELD.** ORVILLA ROAD / W. NESHAMINY CREEK	46	23.5	PDOT	48	45	53	59	28	64	60	357		Yes	Recommended for the Reserve Pool	In an area of high development and problems with its condition, but the county and township support its preservation
75	93	Mont	46-1019-0030-3556	1869	**LOWER FREDERICK.** SPRING MOUNT ROAD / PERKIOMEN CREEK	202	20	PDOT	40	40	59	48	38	46	60	331	Yes		Not Recommended for long-term preservation	Low ranked bridge; previously programmed on the TIP for replacement
76	114	Mont	46-1021-0020-0000	1858	**FRANCONIA.** CAMP ROAD / EAST BRANCH PERKIOMEN CREEK	146	24.9	PDOT	33	38	40	30	58	40	60	299	Yes		Not Recommended for long-term preservation	Low ranked bridge
77	17	Mont	46-1023-0050-0606	1910	**MARLBOROUGH.** SWAMP CREEK ROAD / UNAMI CREEK	98	22	PDOT	44	59	53	58	58	54	60	386		Yes	Recommended for long-term preservation	High ranked bridge; some rehabilitation work has been done on it; the township has passed a resolution in favor of its preservation
78	21	Mont	46-1030-0020-0181	1892	**MARLBOROUGH.** SWAMP CREEK ROAD / UNAMI CREEK	100	21.5	PDOT	48	52	53	50	58	62	60	383		Yes	Recommended for long-term preservation	Ranked in upper third of population; carries traffic well; problems to be addressed
79	120	Mont	46-1033-0030-1115	1895	**UPPER HANOVER.** KUTZTOWN ROAD / MOLASSES CREEK	21	18.6	PDOT	48	45	33	42	38	35	35	276			Not Recommended for long-term preservation	One of the lowest ranked bridges in the population
80	73	Mont	46-2001-0020-0000	1841	**WHITEMARSH.** MORRIS ROAD / WISSAHICKON CREEK	107	25	PDOT	67	40	33	58	28	57	60	344		Yes	Recommended for the Reserve Pool	Waterway adequacy is poor; the bridge is in an area with high future development potential; the bridge is in good condition; there is strong public support for retaining it
81	101	Mont	46-2009-0080-0708	1828	**BRYN ATHYN.** BYBERRY ROAD / SOUTHAMPTON CREEK	31	25	PDOT	48	45	33	53	48	51	42	320	Yes	Yes	Recommended for long-term preservation	Previously programmed on the TIP for rehabilitation
82	111	Mont	46-2054-0030-1374	1899	**CHELTENHAM.** GREENWOOD AVENUE / TACONY CREEK	36	78.6	PDOT	48	66	40	32	38	46	35	305			Not Recommended for long-term preservation	Low ranked bridge
83	98	Mont	46-2064-0010-0840	1841	**CHELTENHAM.** LIMEKILN PIKE / ROCK CREEK *ARCH FILLED IN*	22	27	PDOT	59	57	59	40	38	35	35	323	Yes		Not Recommended for long-term preservation	Low ranked bridge; poor historical integrity; on the TIP for replacement
84	57	Mont	46-3003-0040-0246	1911	**WHITEMARSH.** STENTON AVENUE / WISSAHICKON CREEK	112	25.3	PDOT	44	45	33	57	58	54	60	351			Not Recommended for long-term preservation	Poor condition; very low waterway adequacy; occasionally floods; impact damage
85	56	Mont	46-3006-0030-1319	1911	**EAST NORRITON.** WHITEHALL ROAD / STONEY CREEK	38	35	PDOT	44	47	40	59	48	54	60	352			Not Recommended for long-term preservation	Low ranked bridge
88	76	Mont	46-4010-0020-2068	1830	**SKIPPACK.** COLLEGEVILLE ROAD / SKIPPACK CREEK	24	20	PDOT	67	56	46	55	38	40	42	344			Recommended for the Reserve Pool	The Montgomery County Planning Commission has asked that the bridge be preserved as an entrance to Norristown Farm Park, but there are structural deficiencies
90	6	Mont	46-4019-0010-1963	1937	**HORSHAM.** PHEASANT ROAD / MINE RUN	23	25	PDOT	63	66	46	61	58	54	54	402			Recommended for long-term preservation	One of the highest ranked bridges in the population; in excellent condition; handles traffic well
91	64	Mont	46-4023-0032-0476	1854	**UPPER FREDERICK.** FAGLEYSVILLE ROAD/ WEST SWAMP CREEK	60	22.5	PDOT	74	56	33	44	38	49	54	348		Yes	Recommended for long-term preservation	PennDOT recently rehabilitated the bridge; the waterway opening remains inadequate

BMS No. – Bridge Management System number
Br No. – Project Keystone bridge number (in BMS order)
Cond – Condition Code
Cost – Rehabilitation or Replacement Cost Code
Cty – County in which the bridge is located (if two counties, the first one alphabetically)
Bucks = Bucks County; Ches = Chester County; Dela = Delaware County;
Mont = Montgomery County; Phil = Philadelphia County

Dev – Anticipated Development Code
Length – Length, measured by the total waterway opening
Location – Municipality, road, and stream crossed
NR – Whether or not the bridge is listed or eligible for listing in the National Register of Historic Places (NRHP) or contributes to a NRHP-listed or -eligible historic district
Owner – Owner as listed in the BMS, outside to outside
Pub – Public Input Code

Rating – Combined rating (the seven codes added together)
TIP – whether or not the bridge is listed on the Transportation Improvement Program (TIP)
Trans – Transportation Code
Val – Historical, Recreational, and Cultural Values Code
Water – Waterway Adequacy Code
Width - Width

Br No.	Rank	CTY	BMS No.	YR Blt	Location	Length	Width	Owner	Cond	Trans	Water	Cost	Dev	Val	Pub	Rating	TIP	NR	Recommendation	Comments
92	36	Mont	46-4031-0090-0279	1798	**LOWER PROVIDENCE.** RIDGE PIKE / PERKIOMEN CREEK	453	39	PDOT	52	28	59	64	48	62	60	373		Yes	Recommended for long-term preservation	Excellent example of late 18th century construction; an icon of the town; intersections need to be improved
93	42	Mont	46-4031-0300-0146	1850	**LOWER POTTSGROVE.** RIDGE PIKE / SANATOGA CREEK	50	39	PDOT	52	45	59	50	48	51	60	365	Yes		Recommended for the Reserve Pool	Recently completed work has stabilized the bridge; on the TIP to be rehabilitated or replaced; on Limerick Power Plant evacuation route
94	97	Mont	46-4031-0310-3638	1895	**LOWER POTTSGROVE.** RIDGE PIKE / SPROGLES RUN	60	46	PDOT	48	47	59	40	28	43	60	325			Not Recommended for long-term preservation	Low ranked bridge
95	3	Mont	46-7046-0060-0098	1905	**FRANCONIA.** KELLER CREAMERY ROAD / INDIAN CREEK	76	22	CO	63	59	53	66	58	62	54	415		Yes	Strong Candidate for long-term preservation	One of the high ranked bridges in the population; rated high or very high in all categories
96	62	Mont	46-7046-0150-0224	1909	**TOWAMENCIN.** RITTENHOUSE ROAD / SKIPPACK CREEK	104	19	CO	44	57	33	58	48	49	60	349			Not a Strong Candidate for long-term preservation	Ranked in lower half of the population; scour problems; inadequate waterway opening
97	27	Mont	46-7046-0160-0243	1912	**WEST POTTSGROVE**. OLD READING PIKE / YERGERS CREEK	34	31.5	CO	55	59	59	52	58	40	54	377			Strong Candidate for long-term preservation	Good condition; strong transportation code; built in an area of low development
98	85	Mont	46-7046-0170-0126	1858	**LIMERICK**. FRUITVILLE ROAD / HARTENSTINE CREEK	28	23	CO	48	59	46	47	38	38	60	336			Not a Strong Candidate for long-term preservation	Ranked in lowest third of the population; scour; marginally adequate waterway
99	45	Mont	46-7046-0170-0219	1907	**TOWAMENCIN.** TRUMBAUER ROAD / TOWAMENCIN CREEK	70	20.3	CO	55	52	53	51	58	40	54	363			Moderate Candidate for long-term preservation	Not functioning as a true stone arch; metal plates take the thrust
100	28	Mont	46-7046-0250-0108	1909	**UPPER FREDERICK.** FAUST ROAD / SCIOTO CREEK	40	25	CO	66	61	40	52	58	40	60	377			Moderate Candidate for long-term preservation	Ranked in upper third of the population; rated very high or high in three categories; concern over waterway adequacy
101	11	Mont	46-7046-0270-0090	1915	**LOWER FREDERICK.** SIMMONS ROAD / SCIOTO CREEK	34	23.8	CO	55	56	46	67	58	46	60	388			Strong Candidate for long-term preservation	High ranked bridge; high transportation code; little development pressure
102	123	Mont	46-7046-0290-0172	1792	**NEW HANOVER.** SWAMP PIKE / MINISTER CREEK	48	35.5	CO	44	45	40	43	18	38	35	263			Not a Strong Candidate for long-term preservation	One of the lowest ranked bridges; rated low or very low in five categories, including condition and waterway adequacy
103	103	Mont	46-7046-0475-0229	1906	**UPPER HANOVER.** 11TH ST / MACOBY CREEK	44	22	CO	33	52	40	52	38	40	60	315			Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in three categories, including condition and waterway adequacy
104	40	Mont	46-7046-0510-0295	1913	**SALFORD.** DIETZ MILL ROAD / RIDGE VALLEY CREEK	36	21.3	CO	44	59	53	53	58	40	60	367			Strong Candidate for long-term preservation	Ranked in upper third of the population; high transportation code
105	14	Mont	46-7046-0540-0084	1919	**MARLBOROUGH.** PRICE ROAD / UNAMI CREEK	67	19.2	CO	44	73	40	59	58	54	60	388			Moderate Candidate for long-term preservation	Low condition code and waterway adequacy code; extensive public support
106	20	Mont	46-7046-0660-0214	1911	**SKIPPACK.** GARGES ROAD / EAST BRANCH PERKIOMEN CREEK	115	22	CO	44	56	53	66	58	46	60	383			Strong Candidate for long-term preservation	High ranked bridge; strong transportation, rehabilitation, and public input codes; repairs slated for 2007
107	4	Mont	46-7046-0700-0151	1841	**UPPER SALFORD.** BERGEY ROAD / E. BRANCH PERKIOMEN CREEK	134	25	CO	52	61	53	66	58	62	54	406		Yes	Strong Candidate for long-term preservation	Very highly ranked bridge; rated high or very high in four categories
108	119	Mont	46-7046-0740-0185	1887	**EAST NORRITON.** GERMANTOWN PIKE / FIVE MILE RUN CREEK	25	38	CO	55	42	40	38	38	35	42	289			Not a Strong Candidate for long-term preservation	Very low ranked bridge; low or very low in five categories
110	13	Mont	46-7046-0820-0142	1792	**LOWER PROVIDENCE.** GERMANTOWN PIKE / SKIPPACK CREEK	202	29.3	CO	52	40	46	65	58	67	60	388		Yes	Strong Candidate for long-term preservation	Ranked high in the upper third of the population; rated high or very high in four categories
111	37	Mont	46-7046-0830-0252	1914	**UPPER PROVIDENCE.** MINGO ROAD / MINGO RUN CREEK	75	21.5	CO	66	54	53	58	28	59	54	372		Yes	Strong Candidate for long-term preservation	Ranked in upper third of the population; very high condition code
112	54	Mont	46-7046-0880-0101	1915	**LOWER FREDERICK.** OLD GRAVEL PIKE/SWAMP CREEK	97	24	CO	26	49	53	66	38	62	60	354		Yes	Moderate Candidate for long-term preservation	Low condition code; carries traffic well; has high values and public input codes
113	12	Mont	46-7046-0900-0073	1873	**UPPER GWYNEDD.** SWEDESFORD ROAD / WISSAHICKON CREEK	44	24.3	CO	63	56	33	59	58	59	60	388			Strong Candidate for long-term preservation	High ranked bridge; rated high or very high in six categories
114	38	Mont	46-7046-1050-0043	1887	**ABINGTON.** WASHINGTON LANE / FROG HOLLOW CREEK	28	38.4	CO	44	64	59	52	58	40	54	371			Strong Candidate for long-term preservation	Ranked in upper third of population; rated high or very high in four categories, including waterway adequacy
115	82	Mont	46-7046-1060-0119	1911	**HORSHAM.** DAVIS GROVE ROAD / PARK CREEK	35	24	CO	40	45	40	46	58	48	60	337			Not a Strong Candidate for long-term preservation	Low ranked bridge; rated low or very low in condition, waterway adequacy, and values
116	58	Mont	46-7046-1080-0118	1907	**HORSHAM.** KEITH VALLEY ROAD / PARK CRK (GRAEME STATE PARK)	78	28	CO	44	59	40	41	58	49	60	351			Moderate Candidate for long-term preservation	Adjacent to Graeme Park Historic Site and municipal park land; Montgomery County has asked for its preservation
117	61	Mont	46-7219-0210-0005	1880	**UPPER HANOVER.** TAGART ROAD / MACOBY CREEK	20	34.7	TWP	59	81	53	46	38	38	35	350			Not a Strong Candidate for long-term preservation	Loss of historical integrity; potential inability to handle future traffic
118	112	Mont	46-7413-0410-0010	1855	**NORRISTOWN.** OAK STREET / SAW MILL ROAD	20	50.7	TWP	33	54	53	45	38	38	42	303			Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in four categories, including condition
119	46	Mont	46-7413-0420-0001	1854	**NORRISTOWN.** MAIN STREET / STONY CREEK	40	82.7	TWP	59	43	53	48	48	51	60	362		Yes	Moderate Candidate for long-term preservation	High condition and values codes; contributes to a historic district; low transportation code
120	104	Mont	46-7413-0450-0008	1910	**NORRISTOWN.** MARSHALL STREET / SAW MILL RUN	24	50.5	TWP	48	52	53	44	38	38	42	315			Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in four categories
121	109	Mont	46-7413-0480-0009	1900	**NORRISTOWN.** ARCH STREET / SAW MILL RUN	24	51	TWP	33	49	46	44	38	54	42	306		Yes	Not a Strong Candidate for long-term preservation	Very low ranked bridge; rated low or very low in four categories
122	10	Mont	46-7413-1580-0003	1878	**NORRISTOWN.** MARKLEY & ELM STREETS / STONEY CREEK	69	122.5	TWP	55	43	59	55	58	59	60	389		Yes	Strong Candidate for long-term preservation	Very highly ranked bridge; rated high or very high in six categories
123	35	Phil	67-0013-0260-2319	1697	**HOLMESBURG.** FRANKFORD AVENUE (US 13)/ PENNYPACK CREEK	73	50	PDOT	48	38	59	57	48	65	60	373		Yes	Recommended for long-term preservation	Ranked in the upper third of the population; rated high in four categories
124	8	Phil	67-3005-0150-0212	1896	**FAIRMOUNT PARK.** BELMONT AVENUE / PARKSIDE AVENUE	34	106.1	PDOT	74	45	59	53	58	63	42	393		Yes	Recommended for long-term preservation	One of the highest ranked bridges in the population; rated high or very high in four categories
125	65	Phil	67-3009-0100-0120	1888	**GUSTINE PARK.** RIDGE AVENUE / WISSAHICKON CREEK	119	64.8	PDOT	52	40	40	46	48	62	60	348		Yes	Recommended for long-term preservation	The city of Philadelphia would like the bridge to be preserved; it is located adjacent to Fairmount Park; listed in the NRHP
126	89	Phil	67-4007-0100-0136	1885	**CHESTNUT HILL.** GERMANTOWN AVENUE / CRESHEIM CREEK	25	60	COMB	37	42	33	51	48	62	60	333	Yes	Yes	Recommended for long-term preservation	Previously programmed for rehabilitation in the TIP; in preliminary design
127	24	Phil	67-7301-0040-0120	1796	**W OF RAMONA ST.** FISHER'S LANE / TACONY CREEK	54	27.7	PHI/ST	52	66	46	51	48	57	60	379		Yes	Strong Candidate for long-term preservation	Very high transportation code; carries very little traffic
128	29	Phil	67-7301-0070-0742	1832	**FAIRMOUNT PARK.** VALLEY GREEN ROAD / WISSAHICKON CREEK	67	27	PHI/FP	40	61	53	58	58	65	42	377		Yes	Strong Candidate for long-term preservation	High ranked bridge; rated high or very high in four categories
129	68	Phil	67-7301-0110-0168	Unk.	**PHILADELPHIA.** KREWSTOWN ROAD / PENNYPACK CREEK	91	35	PHI/ST	55	31	53	48	48	51	60	346	Yes		Moderate Candidate for long-term preservation	The City of Philadelphia is considering building a parallel bridge to handle traffic
130	99	Phil	67-7301-0120-0340	1820	**FAIRMOUNT PARK.** BELLS MILL ROAD / WISSAHICKON CREEK	67	27.3	PHI/ST	44	24	33	42	58	59	60	320		Yes	Not a Strong Candidate for long-term preservation	Low ranked bridge
131	1	Phil	67-7301-0150-0703	1896	**FAIRMOUNT PARK.** FORBIDDEN DRIVE / WISSAHICKON CREEK	126	41	PHI/FP	66	73	59	65	58	67	42	430		Yes	Strong Candidate for long-term preservation	Highest ranked bridge in the population
132	63	Phil	67-7301-0190-0030	1853	**BENSALEM.** CENTURY LANE / POQUESSING CREEK	42	22.6	PHI/BKS	48	59	40	45	48	49	60	348			Moderate Candidate for long-term preservation	City of Philadelphia is committed to its preservation
133	91	Phil	67-7301-0290-0011	1870	**SOUTH PHILADELPHIA.** SOUTH STREET / GARAGES	75	56	PHI	70	26	59	39	48	54	35	331		Yes	Not a Strong Candidate for long-term preservation	In the lowest third of bridges in the study
134	78	Phil	67-1002-0050-0595	1901	**NEWTOWN ROAD.** ADAMS AVENUE / TACONY CREEK	71	24	PDOT	55	35	53	43	48	49	60	343	Yes	Yes	Not Recommended for long-term preservation	Previously placed on the TIP due to deficiencies in its condition and design

BMS No. – Bridge Management System number
Br No. – Project Keystone bridge number (in BMS order)
Cond – Condition Code
Cost – Rehabilitation or Replacement Cost Code
Cty – County in which the bridge is located (if two counties, the first one alphabetically)
Bucks = Bucks County; Ches = Chester County; Dela = Delaware County;
Mont = Montgomery County; Phil = Philadelphia County

Dev – Anticipated Development Code
Length – Length, measured by the total waterway opening
Location – Municipality, road, and stream crossed
NR – Whether or not the bridge is listed or eligible for listing in the National Register of Historic Places (NRHP) or contributes to a NRHP-listed or -eligible historic district
Owner – Owner as listed in the BMS, outside to outside
Pub – Public Input Code

Rating – Combined rating (the seven codes added together)
TIP – whether or not the bridge is listed on the Transportation Improvement Program (TIP)
Trans – Transportation Code
Val – Historical, Recreational, and Cultural Values Code
Water – Waterway Adequacy Code
Width - Width

5.3 Preservation Recommendations

The final two columns in Tables 1 and 2 show the Preservation recommendation for each bridge, followed by a comment field explaining the rationale for the recommendation. Appendixes B through F provide summary information on each bridge, as well as an analysis of its preservation potential, based on the factors in the matrix. The bridge forms in the appendixes are organized by county, and are presented in the same order as in Table 2. Please note that if a bridge spans a county line, it is listed in the first county alphabetically. For example, bridges that span Poquessing Creek, which forms part of the border between Bucks and Philadelphia counties, are generally listed as being in Bucks County, even though the City of Philadelphia may be responsible for their maintenance.

5.3.1 PennDOT-Owned Bridges

For PennDOT-owned stone arch bridges, the decision to recommend or not recommend a bridge for long-term preservation was developed by a Bridge Review Committee. The committee was convened to review the rankings and discuss whether a particular bridge was or was not a candidate for long-term preservation. The Bridge Review Committee was composed of representatives from PennDOT District 6-0, PennDOT Central Office, and a representative from the Federal Highway Administration (FHWA). The members of the Bridge Review Committee are provided in Appendix G.

The Bridge Review Committee developed three categories of recommendations for PennDOT-owned bridges:

- Recommended for long-term preservation;
- Recommended for the Reserve Pool;
- Not Recommended for long-term preservation.

Recommending a bridge for long-term preservation means that the Bridge Review Committee felt that PennDOT should make a commitment to preserve the bridge as part of the area's vehicular transportation infrastructure into the future, maintaining it according to guidelines developed for stone arch bridges (see Section 5.4.1), and, when needed, providing funding for its repair and rehabilitation rather than its replacement. Long-term preservation is defined as committing to the bridge for a period of 25 to 30

years. Depending on factors such as the materials used to construct the bridge, the care and maintenance it previously received, and present and future structural and traffic conditions, recommending a bridge for long-term preservation could mean that a bridge will have a lifespan that extends beyond 25 to 30 additional years.

In general, higher ranked PennDOT-owned bridges were recommended for long-term preservation. In all but one case, PennDOT bridges ranked in the upper third of all stone arch bridges (n=42) were recommended for long-term preservation, a total of 14. The one bridge that is not, Bridge No. 1 over Morris Run in Hilltown Township, Bucks County, jumped 23 places from its previous ranking of 63 due to a strong input of public support following the posting of the draft Management Plan in December 2006. The bridge, however, had previously been placed on the TIP for replacement. Nine other PennDOT-owned bridges were also recommended for preservation, either because they were ranked in the upper half of all stone arch bridges or because a commitment had been made previously to preserve those bridges.

The Bridge Review Committee also recommended that seven bridges be placed in a Reserve Pool. Bridges in the Reserve Pool are structures that will be maintained as recommended in the Maintenance Manual, but repair and rehabilitation rather than replacement are not guaranteed. Should a bridge on the Recommended for long-term preservation list be lost, however, a bridge in the Reserve Pool will move into the Recommended for long-term preservation category.

PennDOT-owned stone arch bridges Not Recommended for long-term preservation are structures that the Bridge Review Committee did not feel warranted the same level of long-term commitment. These bridges were, generally, the lower ranked stone arch bridges. Many were rated low or very low in a number of criteria. These bridges will receive maintenance when manpower and funding is available, but they will not be preserved as part of the area's vehicular transportation infrastructure if engineering or structural conditions or traffic considerations warranted their replacement. It must be stressed, however, that there is no program in place or being contemplated to remove these bridges, unless they were previously placed on the TIP for replacement.

5.3.2 Bridges Owned by Counties, Local Municipalities, and Other State Agencies

The ranking of the 124 stone arch bridges included structures owned by counties, local municipalities, and state agencies other than PennDOT. The Bridge Review

Committee reviewed the rankings and made advisory preservation recommendations on those bridges. The committee did not feel that PennDOT should impose its view as to which bridges a local government or state agency should commit to preserve. It was felt that the local owner would have the most in-depth knowledge of all factors and considerations surrounding a particular bridge and its preservation potential, and could make the most informed decision. Nevertheless, the committee believed that using the seven factors to evaluate all 124 stone arch bridges 20 feet long or greater would place the local bridges in a larger, region-wide context, and would assist local bridge owners in making decisions about which structures are the best candidates for historic preservation. For these reasons, Tables 1 and 2 include advisory recommendations to local bridge owners on which bridges are strong candidates for preservation, which are moderate candidates for preservation, and which are not strong candidates for preservation. The recommendations are made part of this plan and are forwarded to PennDOT's local partners and the citizens of the counties for their review, comment, and consideration.

As with PennDOT-owned stone arch bridges, those higher ranked non-PennDOT-owned bridges are generally the strongest candidates for preservation and those in the lowest third are the weakest. Twenty-four locally owned stone arch bridges are called Strong Candidates for long-term preservation. All are in the upper third of the rankings. Additionally, 13 locally owned bridges are called Moderate Candidates for long-term preservation, an advisory recommendation akin to the Reserve Pool recommendation for PennDOT-owned bridges.

5.3.3 Summary of Bridges Recommended or Strong Candidates for Long-Term Preservation

PennDOT is committed to preserving stone arch bridges in southeastern Pennsylvania. Based on the bridge rankings, the Bridge Review Committee recommended more than half the bridges, 67 out of 124, as candidates for long-term preservation. The numbers break down as follows:

Among PennDOT-owned bridges, 23 are recommended for long-term preservation. The number represents approximately 34 percent of the 68 PennDOT-owned stone arch bridges under study in this plan. The bridges are located in all five counties of PennDOT District 6-0: seven are in Bucks County, five are in Chester

County, one is in Delaware County, another six are in Montgomery County, and four are in Philadelphia.

In addition to the PennDOT-owned bridges recommended for long-term preservation, another seven are recommended for the reserve pool, three in Chester County and four in Montgomery County. Thus, a total of 30 PennDOT-owned bridges are recommended as candidates for long-term preservation, or 44 percent of all PennDOT-owned stone arch bridges in the Greater Philadelphia area.

Among bridges owned by counties, municipalities, and other state agencies, 24 are described as Strong Candidates for long-term preservation. This represents approximately 43 percent of the 56 bridges in this study not owned by PennDOT. Four of those are found in Bucks County, six are in Chester County, Montgomery County adds 11, and Philadelphia brings three more. Another 13 are called Moderate Candidates for long-term preservation: four in Bucks County, one in Chester County, six in Montgomery County, and two in Philadelphia. This means that 37 of 56 locally owned bridges, or 66 percent, are Strong or Moderate Candidates for long-term preservation.

The 67 stone arch bridges recommended as viable candidates for long-term preservation represent 54 percent of all stone arch bridges 20 ft long or longer in the Greater Philadelphia area. The numbers by county are summarized in Table 3, below.

TABLE 3.
STONE ARCH BRIDGES:
CANDIDATES FOR LONG-TERM PRESERVATION BY COUNTY

County	Total Number of Bridges Recommended or Strong Candidates	Total Number of Bridges Reserve Pool or Moderate Candidates	Total Bridges Recommended for Preservation	Percentage of Total Stone Arch Bridges in the County
Bucks	11	4	15	52% (15 of 29)
Chester	11	4	15	71% (15 of 21)
Delaware	1	0	1	10% (1 of 10)
Montgomery	17	10	27	52% (27 of 52)
Philadelphia	7	2	9	75% (9 of 12)
Totals	**47**	**20**	**67**	**54% (67 of 124)**

PennDOT-owned bridges recommended for long-term preservation and non-PennDOT-owned bridges recommended as strong candidates for preservation contain a cross-section of the stone arch highway bridge population of the five counties of PennDOT District 6-0. They range in length from 23 ft to 453 ft. They were built between 1697 and 1937, and 32 are listed or eligible for listing in the National Register or contribute to a National Register historic district.

In comparison with the total population of stone arch bridges studied under this plan, the bridges Recommended or Strong Candidates for long-term preservation are longer. The average length of all 124 stone arch bridges is 65 ft, while those considered to be the best candidates for long-term preservation average nearly 90 ft. This 25-foot difference between the two averages undoubtedly results from the presence of two very long bridges, the Lenape Road Bridge in Birmingham Township, Chester County, and the Collegeville Bridge over Perkiomen Creek (the second-longest stone arch highway bridge in North America) listed within the bridges recommended for preservation.

A comparison of the average age shows that they are similar. The bridges with the greatest potential for long-term preservation are slightly younger, which may reflect later-built bridges in better condition.

As noted above, 32 bridges are listed or eligible for listing in the National Register or contribute to a historic district. In the entire group of 124 bridges, 55 are listed, eligible, or contributing, so more than half (58%) of the National Register-listed or -eligible bridges are represented.

5.3.4 Programmatic Agreement for PennDOT-owned Bridges

PennDOT is developing a PA with the PHMC, the FHWA, and the United States Army Corp of Engineers (USACOE) for bridges subject to this Management Plan. Preservation Pennsylvania, a statewide preservation advocacy organization, will be invited to be a concurring party to the PA. The PA maintains the public consultation process required under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as codified in 36 CFR 800, while streamlining the agency review and mitigation processes.

Under the terms of the PA, PennDOT may demolish or rehabilitate a stone arch bridge Not Recommended for Long-Term Preservation or for the Reserve Pool without further consultation with the PHMC. PennDOT will still be required to determine whether

the bridge is located in a historic district or if any other properties eligible for the National Register are to be potentially affected by the removal or rehabilitation project. PennDOT will also be required to seek out and work with the public on the design of any replacement structures. For bridges in historic districts, parks, natural areas, and greenways, PennDOT will continue its policy of developing a context-sensitive design for the replacement structure (see Section 5.4.4).

A number of bridges Not Recommended for Long-Term Preservation are listed or eligible for listing in the National Register. The PA will include measures that will both mitigate the potential future loss of these bridges and publicize the Greater Philadelphia area's impressive collection of stone arch bridges. One measure could be for PennDOT to create a poster on the bridges. PennDOT would print a specified number of these posters for distribution in the area. It would also provide Preservation Pennsylvania with the means to reprint the posters should it so desire. A second mitigation measure could be for PennDOT to develop and hold an annual hands-on stone arch bridge maintenance course for PennDOT, county, and municipal bridge forces, as well as other interested parties. Additional mitigation measures could also be developed.

For PennDOT-owned bridges Recommended for Long-Term Preservation, under the terms of the PA, PennDOT agrees to preserve those bridges for a minimum of 25 years. Bridges can be removed from the Long-Term Preservation list only in the event of extraordinary circumstances, including:

- A total or partial collapse of a bridge due to vehicle impact, flood, or other natural disaster;
- A major change in the use of a bridge, such as the construction of an unanticipated development in the vicinity of the bridge;
- A re-evaluation of the Management Plan recommendation by the Stone Arch Bridge Task Force (see Section 5.6.1).

If a bridge Recommended for Long-Term Preservation is removed from the list, a bridge from the Reserve Pool will be added to the list.

The PA also requires that when a bridge on the Long-Term Preservation list is to be replaced, PennDOT will follow the consultation/public involvement process as defined in 36 CFR 800. PennDOT will meet with the PHMC and the public to address the type of replacement bridge that should be constructed.

The development of this Management Plan and the PA will result in time and cost savings by streamlining the environmental review process and reducing the amount of

effort that will be needed on Section 106 investigations. Further time and cost savings will be realized by reducing or eliminating the need to undertake mitigation/minimization measures on individual bridges. Currently, the removal (and in some cases, the repair) of a bridge is considered to be an adverse effect under Section 106 of the NHPA. To mitigate or minimize the harm of the adverse effect, steps are undertaken, such as photographing and researching the history of the bridge before it is removed, designing an interpretive wayside exhibit to discuss the old bridge and the replacement structure, or developing a website on the bridge or bridges. These steps will no longer be required.

County or municipal owners of stone arch bridges will not be signatories to the PA, and unless they otherwise agree, they will continue to follow the procedures of 36 CFR 800. However, PennDOT will make the recommendations of the Management Plan available to local owners and to the DVRPC and will encourage them to adopt the preservation recommendations. Further, PennDOT will also encourage local owners to regularly maintain bridges recommended as Strong and Moderate candidates for rehabilitation in accordance with the Maintenance Manual developed for this project (see Section 5.4.1).

5.4 Other Components of the Management Plan

5.4.1 Stone Arch Bridge Maintenance Manual

As part of *Project Keystone*, a separate *Stone Arch Bridge Maintenance Manual* has been developed. The manual provides guidance to state and local bridge forces on maintaining, repairing, rehabilitating, and restoring stone arch bridges. The manual uses the *Secretary of Interior's Standards for Rehabilitation* (National Park Service 2002) as its organizing framework. Its purpose is to ensure that the character-defining features of stone arch bridges are not damaged or destroyed in the course of working on the bridges. Although developed for Project Keystone, the Manual will be used for PennDOT-owned stone arch bridges throughout the Commonwealth.

Among its provisions, the manual recommends that PennDOT and other owners of stone arch bridges develop a program of routine maintenance as the most cost-effective way to preserve stone arch bridges. The recommended maintenance procedures include:

- Clearing vegetation from the bridge surfaces;
- Improving drainage and reducing water infiltration; and
- Removing debris from substructure elements and arch openings.

At the present time, PennDOT does not have a maintenance team dedicated to stone arch bridge maintenance, either on its staff or as contractors, although bridges are maintained under existing maintenance contracts. In order to ensure that routine maintenance is undertaken on all stone arch bridges, the District could take one of the following steps:

- Establish a maintenance crew dedicated to performing, on a District-wide basis, the routine maintenance measures spelled out in the Maintenance Manual; or
- Contract all routine maintenance measures for stone arch bridges to a qualified contractor.

5.4.2 Stone Arch Bridge Maintenance Course

Knowledge of stone and stone masonry construction is essential for properly maintaining, repairing, rehabilitating, and restoring stone arch bridges. However, because the use of stone as a structural building material has largely been eclipsed in this country by other materials, one problem confronting some bridge maintenance and repair forces is finding people with knowledge and expertise in stone construction.

To ensure that bridge maintenance and repair forces operate at the highest level of efficiency, PennDOT will explore dedicating specific funding to developing and teaching a training course on stone arch bridge maintenance and repair. The course should be taught by a person or persons with knowledge of both stone construction and bridge mechanics. To guarantee the widest dissemination of knowledge, the course or the course material should be made available to counties and municipalities that own and maintain stone arch bridges.

5.4.3 Other Measures to Assist in Preserving Stone Arch Bridges

Stone arch bridges, including some of those recommended for long-term preservation, present difficult engineering and safety challenges, such as narrow bridge

widths, which restrict the flow of traffic and can lead to impact damage to parapets and wing walls; excessive traffic volumes; and substandard approach roads or alignment geometry. In addition to committing to maintain and repair bridges, other steps may be necessary to increase safety and improve traffic operational quality, which can help prolong the life of stone arch bridges. Some potential steps include:

- Improving signing at the approaches to stone arch bridges, particularly for structures with substandard widths;
- Improving the horizontal and vertical alignment of the approaches to limit impact damage and to improve operational safety by improving the sight distance;
- Exploring the possibility of building a parallel bridge to carry some of the traffic load of a posted bridge or a bridge at risk;
- Bypassing a stone arch bridge that can no longer adequately handle its traffic, but leaving it in place, with ownership of the structure turned over to a county, municipality, or nonprofit organization interested in its preservation; and
- Working with the DVRPC and local governments to limit development in the vicinity of a stone arch bridge through land-use restrictions.

5.4.4 Context-Sensitive Solutions

PennDOT is committed to preserving stone arch bridges in the Greater Philadelphia area. Stone arch bridges constitute a significant part of the historic fabric of southeastern Pennsylvania, and many are beloved cultural icons among the local population. However, because of traffic and safety issues, it is not possible to preserve all stone arch bridges in PennDOT District 6-0. In cases where a bridge cannot be preserved, PennDOT and local bridge owners will investigate replacing a bridge in a context-sensitive manner. A context-sensitive solution emphasizes the broad nature of solutions to transportation needs by focusing on enhancing the quality of life across the Commonwealth for transportation users, communities, and the surrounding environment. Context-sensitive solutions represent a proactive approach to transportation planning, design, and implementation that looks at the broad context streets and roads play in enhancing communities and natural environments, be they urban, suburban or rural, scenic, or historic. The intent is to address safety and mobility and community impacts, while preserving scenic, aesthetic, historic, environmentally sensitive areas, and

community-valued resources. Context-sensitive solutions embrace these principal characteristics:

- A collaborative project development process using a multi-disciplinary approach;
- Early and continuous engagement of stakeholders;
- Flexibility in design, where sound engineering judgment uses an interdisciplinary framework to preserve community characteristics;
- Minimal impacts on the community and surrounding environment; and
- Design decisions that achieve safety through reducing risks.

In terms of replacing a stone arch bridge, a context-sensitive solution will involve engaging local stakeholders in the project design and bridge replacement process. In order to minimally impact the community and surrounding environment, design solutions could include:

- Designing a concrete arched bridge or a bridge with arched haunches as a replacement structure;
- Scoring exterior concrete and/or parapets of a replacement structure to resemble stone work; and/or
- Designing bridges to minimally acceptable widths based upon safety and community considerations.

Context-sensitive solutions are particularly valuable for stone arch bridge replacements in historic districts, where the bridge is a contributing element to that historic district.

5.5 Funding Stone Arch Bridge Preservation

As previously mentioned, PennDOT is committed to preserving stone arch bridges in the Greater Philadelphia area, and no program is in place or being contemplated to remove stone arch bridges not recommended for long-term preservation. It also must be stressed that, at this time, no specific funding has been identified for maintaining and repairing/rehabilitating stone arch bridges. Currently, all funding for stone arch bridges comes out of regular PennDOT

programs, and competes with the money need to maintain and repair all bridges in PennDOT District 6-0. Similarly, it must be emphasized that, although PennDOT is committed to preserving stone arch bridges in the Greater Philadelphia area, and this Management Plan recommends certain PennDOT-owned and locally owned bridges as potential candidates for long-term preservation, no decision has yet been reached as to how many bridges might receive funding or repair consideration.

In the course of developing this plan, a variety of measures were discussed as potential sources for funding stone arch bridge preservation, maintenance, and repair/rehabilitation. These included the following, either individually or in combination:

- Create a line item in the TIP dedicated to stone arch bridges;
- Create a line item in the Secretary of Transportation's Discretionary Fund for stone arch bridges;
- Re-allocate funding in existing repointing and maintenance contracts;
- Re-allocate funding currently expended on mitigation measures, such as recordations, creation of interpretive plaques, website development, etc.;
- Pursue funding through the FHWA as a provision of the PA; these could include:
    - Using Surface Transportation Funds; and/or
    - Requesting funding under the Highway Bridge Program, Section 114 of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act – A Legacy for Users (SAFETEA-LU) to establish a Systematic Preventive Maintenance program.

All these options remain in consideration.

5.6 Implementing the Management Plan

By developing and adopting *Project Keystone*, PennDOT is committed to ensuring that some of the stone arch bridges studied in this plan are preserved. To ensure that the provisions of the Management Plan and Maintenance Manual are carried out, it is recommended that someone in the District 6-0 Office and at PennDOT's Central Office be assigned to champion implementation of the Management Plan. A primary function of this person is to see that the provisions of the Management Plan and Maintenance Manual are implemented; a second function is to assist local bridge owners in identifying stone arch bridges for long-term preservation and assist in securing funding to ensure that the identified bridges receive the

maintenance and repair that they require. This liaison could help local bridge owners understand how the bridges function and what types of repairs are and are not feasible and effective. These types of discussions will help explain why some local bridges cannot be saved and may have to be removed. Also, several townships requested information on how to transfer bridge ownership from PennDOT to a municipality. A liaison could provide this information and coordinate the process.

5.6.1 Establishing a Stone Arch Bridge Task Force

A Stone Arch Bridge Task Force will be established, and will include representatives from PennDOT District 6-0, PennDOT Central Office, the FHWA, the PHMC, and Preservation Pennsylvania, who will represent the interests of the area's residents. The Task Force's main function will be to meet every two years to review the preservation recommendations to ensure that they are still valid. The meeting will be held to coincide with the updating of the TIP. If necessary, prior to the meeting, updated BMS information will be inputted into the stone arch bridge matrix and the stone arch bridges in PennDOT Engineering District 6-0 will be re-ranked based on the new information. The Stone Arch Bridge Task Force will provide their updated recommendations to the regional planning entity, the DVRPC, for their consideration when developing the TIP. The updated recommendations will also be posted to the *Project Keystone* website (http://www.pastonearch.org/), which can also be accessed through the PennDOT Cultural Resources Publications website at http://www.dot.state.pa.us/Internet/Bureaus/pdCulturalResources.nsf/publications?OpenForm. The updated recommendations would be circulated as a letter of agreement to the FHWA and the PHMC and incorporated into the PA.

5.6.2 New Guidelines for the Visual Inspection of Stone Arch Bridges

In order to guarantee that the information in the stone arch bridge matrix is as accurate as possible, another portion of the *Project Keystone* project involves developing new guidelines for the visual inspection of stone arch bridge superstructures. The improvements involve developing tables of condition codes for use by bridge inspectors and the creation of additional tables for estimating inventory and operating load ratings using engineering judgment. While it affects only some of the factors used

in ranking the bridges, these new guidelines will provide uniformity and direction for bridge inspectors throughout Pennsylvania and will increase the accuracy and consistency of stone arch bridge inspections.

6.0 REFERENCES CITED

6.0 REFERENCES CITED

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1986 *Historic Highway Bridges in Pennsylvania.* The Pennsylvania Historical and Museum Commission and the Pennsylvania Department of Transportation, Harrisburg.

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APPENDIXES

APPENDIX A -
STATISTICS USED WITH EXAMPLE

APPENDIX A
STATISTICS USED WITH EXAMPLE

The statistics used are all replicable on a hand calculator, and easy to follow. Following is a brief discussion of the statistics that were used to calculate the matrix.

MEAN OR AVERAGE

The mean is a measure of central tendency. The mean is obtained by adding a *population* or group of like numbers then dividing by the number of items in the population. For example, the condition code is a population or a group of like numbers.

In a hypothetical population, the following string of numbers, termed values, exists:

5
9
4
7
7
6
3
9
8
5

The sum of these values is 63. There are 10 of them, so the average is 63 / 10, which equals 6.3. Thus, the mean of this population is 6.3.

STANDARD DEVIATION

The standard deviation is a measure of range, or variation within the population. The standard deviation is obtained by subtracting the mean of a population from each individual value then squaring it. These new values are summed and then divided by the number of items in the population. Then, the square root of this last value is calculated. Generally, any population or group of like values can be described by the mean and standard deviation.

For the above population, the standard deviation is calculated as such:

5 – 6.3= -1.3
9 – 6.3= 2.7
4 – 6.3= -2.3

7 – 6.3= 0.7
7 – 6.3= 0.7
6 – 6.3= -0.3
3 – 6.3= -3.3
9 – 6.3= 2.7
8 – 6.3= 1.7
5 – 6.3= -1.3

Each of these values is then squared (multiplied by itself):

-1.3 x -1.3 = 1.69
2.7 x 2.7 = 7.29
-2.3 x -2.3 = 5.29
0.7 x 0.7 = 0.49
0.7 x 0.7 = 0.49
-0.3 x -0.3 = 0.09
-3.3 x -3.3 = 10.89
2.7 x 2.7 = 7.29
1.7 x 1.7 = 2.89
-1.3 x -1.3 = 1.69

The sum of these values is 38.1. This number (38.1) is divided by 10, equaling 3.81. The square root of 3.81 is 1.95. Thus, the standard deviation, or averaged spread from the mean, is 1.95. The range of the deviation, or spread, is –3.3 to 2.7. Thus, the standard deviation is an averaged description of the spread from the mean.

STANDARDIZATION

Standardization, or standardized variable transformation, is a method used to directly compare disparate quantities. When the values within different populations vary in size or type, standardization can largely eliminate differences. Eliminating differences makes all variables directly comparable so that all quantities have the same weight.

Standardization uses the same measures to describe a population of values, specifically the mean and standard deviation. In a simple standardization, the mean is subtracted from the specific value, then divided by the standard deviation.

In the terms used above, standardization takes the actual range of the specific value and divides it by the averaged range. Thus, a high value will be a positive number and a low value will be a negative number. If the mean of standardized values were to be calculated, it would be near zero. However, standardized value will continue to mirror the value from which it was calculated.

Continuing the example from above (the mean was subtracted from the values to calculate the standard deviation – see the first operation under *Standard Deviation*):

-1.3 / 1.95 = -0.67
2.7 / 1.95 = 1.38
-2.3 / 1.95 = -1.18
0.7 / 1.95 = 0.36
0.7 / 1.95 = 0.36
-0.3 / 1.95 = -0.15
-3.3 / 1.95 = -1.69
2.7 / 1.95 = 1.38
1.7 / 1.95 = 0.87
-1.3 / 1.95 = -0.67

Comparing the original values with the standardized ones:

Original Value	**Standardized Value**
5	-0.67
9	1.38
4	-1.18
7	0.36
7	0.36
6	-0.15
3	-1.69
9	1.38
8	0.87
5	-0.67

Note that the original values above the mean (6.3) are positive while those below the mean are negative. Thus, the standardized values mirror the original values, both in magnitude and range. Most populations of values can be standardized.

A comparison with a different population of values illustrates the importance of standardization. Here is a second hypothetical population, different from the first:

171
105
136
193
144
111
168
155
129
166

To get the mean, all the values are added together:

171+105+136+193+144+111+168+155+129+166 = 1,478

Divided by the number of values:

1,478 / 10 = 147.8, which is the mean.

Now, the standard deviation is calculated. First, the mean is subtracted from each value:

171-147.8= 23.2
105-147.8= -42.8
136-147.8= -11.8
193-147.8= 45.2
144-147.8= -3.8
111-147.8= -36.8
168-147.8= 20.2
155-147.8= 7.2
129-147.8= -18.8
166-147.8= 18.2

Each of these values is then squared (multiplied by itself):

23.2 x 23.2 = 538.24
-42.8 x -42.8 = 1,831.84
-11.8 x -11.8 = 139.24
45.2 x 45.2 = 2,043.04
-3.8 x -3.8 = 14.44
-36.8 x -36.8 = 1,354.24
20.2 x 20.2 = 408.04
7.2 x 7.2 = 51.84
-18.8 x -18.8 = 353.44
18.2 x 18.2 = 331.24

Then the new values are summed:

538.24+1,831.84+139.24+2,043.04+14.44+1,354.24+408.04+51.84+353.44+331.24
=7,065.60

This last value is divided by the number of values:

7,065.60 / 10 = 706.56

To get the standard deviation, the square root is taken of the last value:

706.56 = 26.58.

So, with the mean and standard deviation, the original second hypothetical values can be standardized. To standardize, the mean is subtracted from the original value, as was done to calculate the standard deviation:

171-147.8= 23.2
105-147.8= -42.8
136-147.8= -11.8
193-147.8= 45.2
144-147.8= -3.8
111-147.8= -36.8
168-147.8= 20.2
155-147.8= 7.2
129-147.8= -18.8
166-147.8= 18.2

Then the new values are divided by the standard deviation:

23.2 / 26.58 = 0.87
-42.8 / 26.58 = -1.61
-11.8 / 26.58 = -0.44
45.2 / 26.58 = 1.70
-3.8 / 26.58 = -0.14
-36.8 / 26.58 = -1.38
20.2 / 26.58 = 0.76
7.2 / 26.58 = 0.27
-18.8 / 26.58 = -0.71
18.2 / 26.58 = 0.68

Now to compare the original values with the standardized values:

Original Value	Standardized Value
171	0.87
105	-1.61
136	-0.44
193	1.70
144	-0.14
111	-1.38
168	0.76
155	0.27
129	-0.71
166	0.68

Note that, like the first hypothetical population, the values that are above the mean (147.8) are positive and those below it are negative. Now, compare the two hypothetical populations:

First Population		Second Population	
Original Value	Standardized Value	Original Value	Standardized Value
5	-0.29	171	0.87
9	1.64	105	-1.61
4	-0.77	136	-0.44
7	0.68	193	1.70
7	0.68	144	-0.14
6	0.19	111	-1.38
3	-1.26	168	0.76
9	1.64	155	0.27
8	1.16	129	-0.71
5	-0.29	166	0.68

The standardized values from both populations are very similar and can be directly compared even though the original values were quite different. The variation within the populations has been preserved even though both have been reduced to much smaller numbers.

The value of standardization is that it transforms each population of values to a similar value. Thus, each population can be directly compared.

EXAMPLE

In this example, a hypothetical bridge is carried through the codes. Actual data on the condition of a bridge cannot be released to the public, a result of concern for public

thoroughfares following the terrorist attacks of September 11, 2001. So, to illustrate how the codes are applied, a fictional bridge, Fifth Avenue bridge, is used.

1. Condition Code

The Fifth Avenue bridge's Condition Code is made up of two Bridge Management System (BMS) entries: Structural Condition Appraisal (E24) and Scour Critical (E29A). Structural Condition Appraisal is a measure of the physical condition of the superstructure and its load carrying capacity. It is rated on a 0-to-9 scale, with 9 being the highest. The Fifth Avenue bridge received a Structural Condition Appraisal of 6, meaning *Satisfactory Condition – Structural Elements show some minor deterioration*.

Scour Critical is an appraisal of a bridge's vulnerability to scour, or erosion of the foundations of the abutments or piers. Scour Critical is a measure of the stability of the bridge's substructure, the portion below the water line. The Fifth Avenue bridge received a 3, also on a 0-to-9 scale, with 9 being the highest. A 3 means *Bridge is scour critical; the bridge site has been analyzed for scour and stability and calculations show the bridge to be at risk due to potential scour. The threat may be either from undermining or instability*.

These two BMS entries are added together to form the raw Condition Code: 6 + 3 = 9. To standardize this value, the mean of all Condition Codes, 8.54, is subtracted from the raw Code: 9 – 8.54 = 0.46. This value, 0.46, is then divided by the standard deviation of all Condition Codes, 2.38. So, 0.46 / 2.38 = 0.19. Then 0.19 is added to 5 to get 5.19, then multiplied by 10 and rounded to get 52. Thus, 52 is the standardized Condition Code that would appear on the matrix.

2. Transportation Code

The Fifth Avenue bridge's Transportation Code is made of six BMS entries. The first is Bridge Operation Status, BMS entry D13. Bridge Operation Status consists of several codes; the basic three are A – *Open, no restrictions;* P – *Posted for load;* and C – *Bridge closed to all traffic.* The BMS letters were converted to a numeric scale with A = 5, P = 3, and C = 1. The Fifth Avenue bridge received a P, thus a 3, as it was posted for a 10-ton load limit.

The second component of the Transportation Code is Functional Classification, BMS entry B18. Functional Classification is a designation of the use of a highway within the regional transportation system. The Fifth Avenue bridge's Functional Classification is 14, *Other Principal*

Arterial, *Urban*. The Functional Classification designations run from Principal Arterial – Interstate through Collector to Local. Because the Fifth Avenue bridge's designation is 14, it is converted to a 1-to-5 numeric scale, and receives a 1.

The third component of the Transportation Code is Average Daily Traffic (ADT), BMS entry B27. The Fifth Avenue bridge's ADT is 22,500. This value is derived from either state route calculations (Fifth Avenue is hypothetically a state route) or from actual counts or estimates. Because the bridge's ADT is over 10,001 vehicles per day, it receives a 1.

The fourth component of the Transportation Code is Average Daily Truck Traffic (ADTT), BMS entry B29. The Fifth Avenue bridge's ADTT is 660. The number of trucks in proportion to automobiles is low because the bridge is posted. For a bridge not posted, ADTT generally runs about 6 percent of total vehicular traffic and would be closer to 1,350. However, because of the posting, heavier trucks do not use the bridge. The ADTT is 670, and the bridge receives a 2 because it falls between 601 and 900.

The fifth component of the Transportation Code is Deck Geometry Appraisal, BMS entry E25. Deck Geometry Appraisal is a function of ADT and roadway width or number of lanes and roadway width. The Fifth Avenue bridge received a 4 out of a scale that runs from 0 to 9.

The sixth component of the Transportation Code is Approach Roadway Alignment Appraisal, BMS entry E28. This appraisal rates the function or safety of the approaches. The Fifth Avenue bridge received a 7, *Slight limited sight distance, with no speed reduction*. This appraisal runs from 3 to 8.

To obtain the Transportation Code, these six components are added, equaling 18 out of a possible 38. To standardize, the mean of all Transportation Codes is subtracted: 18 – 23.52 = -5.52. This value is then divided by the standard deviation of all Transportation Codes, 4.32: -5.52 / 4.32 = -1.28. Then –1.28 is added to 5 to get 3.72, which is then multiplied by 10 and rounded to get 37. This value, 37, is what would appear on the matrix.

3. Waterway Adequacy Code

The Waterway Adequacy Code consists of one component, the Waterway Adequacy Appraisal, BMS entry E27. This appraisal is a measure of the frequency that floodwaters flow over the deck of the bridge, rendering it impassible for traffic, called *overtopping*. The Fifth Avenue bridge received an 8, *Bridge deck above roadway approaches; slight chance of overtopping roadway approaches*. *Slight* is defined as once every 11 to 100 years. The scale

runs from 0 to 9. If a bridge is not over a waterway, it receives an *N*, which in the matrix is counted as a 9 (remote chance of overtopping).

To standardize this value, 8 is subtracted from the mean of all Waterway Adequacy Codes, 7.11: 8 – 7.11 = 0.89. This value, 0.89, is then divided by the standard deviation of all Waterway Adequacy Codes, 1.36: 0.89 / 1.36 = 0.65. Then 0.65 is added to 5 to get 5.65 then multiplied by 10 and rounded to get 57. The number that would appear on the matrix is 57.

The difference in magnitude between the Transportation Code and the Waterway Adequacy Code illustrate why standardization is necessary. The Transportation Code has a possible 38, while the Waterway Adequacy Code has a possible 9. The Fifth Avenue bridge has a poor Transportation Code value, 18, but a good Waterway Adequacy Code value, 8. The Transportation Code value is still more than double the Waterway Adequacy Code value. If the values were simply added, the Transportation Code would have a greater effect on the total value than the Waterway Adequacy Code. By standardizing, these two codes have the same effect on the total value.

4. Cost to Rehabilitate or Replace Code

The Cost to Rehabilitate or Replace Code is a function of the integrity rating, length, and width. This code was organized around the questions *How many parts must be replaced?* and *How big is the bridge?* For this code, the reverse of the integrity was used. If a bridge had only one part missing, as does the Fifth Avenue bridge, its integrity rating would be a 4. However, for a factor in the cost code, the higher number should be the higher cost, and that would mean more parts missing. So the integrity code is subtracted from six to reverse it (if it were subtracted from five, there would be zeros).

Rehabilitation Cost = (6-IR)*(LOG(Length* Width))

For the Fifth Avenue bridge, 6 – 4 = 2. The bridge's length is 70 feet and its width is 42 feet. So 70 x 42 = 2,940. The log (base 10) of the bridge's square footage, 2,940 square feet, is 3.47. This value is then multiplied by 2, the reverse of the integrity rating: 2 x 3.47 = 6.94.

To standardize, the rehabilitation cost needs to be reversed. A high cost would be a prohibitive factor and a lower cost is more desirable. So, the cost is subtracted from 20, reversing the order (the highest number turned out to be just over 19, so subtracting from 20 will provide an accurate reverse, again without zeros). Thus 20 – 6.94 = 13.06. A lesser cost will

now be a higher number. Then the reversed cost is subtracted from the mean of all reversed rehabilitation costs: 13.06 – 9.64 = 3.42. This value is then divided by the standard deviation of all reversed rehabilitation costs, 4.56. Thus 3.42 / 4.56 = 0.75. Then 0.75 is added to 5 to get 5.75 then multiplied by 10 and rounded to get 58. This is the number that would appear on the matrix.

5. Anticipated Development Code

The Anticipated Development Code consists of planned Growth Areas provided by the Delaware Valley Regional Planning Commission (DVRPC). County growth areas were also used. If a bridge was located in a planned Growth Area, it received a 1. If it was outside a Growth Area, it received a 5. If it was on the boundary of a Growth Area, it received a 3. The concept was that a bridge within a Growth Area would face greater development pressure than a bridge outside a Growth Area. The DVRPC and County Growth Area codes were added together.

The hypothetical Fifth Avenue bridge lies outside both DVRPC and County Growth Areas, so it received a 5 + 5 = 10. The mean of all Growth Area raw codes is 9.08, so 10 – 9.08 = 0.92. The standard deviation of all Growth Area raw codes is 2.49: 0.92 / 2.49 = 0.37. Then 0.37 is added to 5 for 5.37 then multiplied by 10 and rounded to get 54. The value on the matrix would be 54.

6. Historical, Recreational, and Cultural Values Code

The Historical, Recreational, and Cultural Values Code consists of three components: 1) National Register of Historic Places (NRHP) listing, eligibility, or contributing to a NRHP-listed or -eligible historic district; 2) parks, natural areas, or greenways; and 3) integrity rating. If a bridge was listed in the NRHP or considered to be eligible for listing in the NRHP, it received a 5. If it was not listed or considered to be not eligible for listing, it received a 1. If the bridge was part of a NRHP-listed or -eligible historic district, it received a 5 if it contributed to the district or a 1 if it did not. Then the value, whether a 1 or a 5, was doubled. This doubling makes the NRHP category half of the Historical, Recreational, and Cultural Values Code. The eligibility of all bridges or historic districts was determined in consultation with the Pennsylvania Historical and Museum Commission (PHMC).

For parks, natural areas, and greenways, the system was similar. Although a park, a natural area, or a greenway is not necessarily historically significant, a bridge in a park, natural area, or greenway might have a greater chance of being preserved, similar to bridges on local roads in the Functional Classification. So, a bridge in a park, a natural area, or a greenway became a 5. A bridge near or adjacent to a park, natural area, or greenway, became a 3. And a bridge not in a park, natural area, or greenway received a 1. A bridge within a scenic waterway was also treated in the same way.

The integrity rating consists of a parts-missing category determined by using the NRHP's concept of historic integrity. The bridges were rated as if the study team were conducting eligibility studies for the NRHP's Criterion C only (architectural significance). A bridge with all of its parts became a 5. A bridge missing one part, or having one part with poor integrity, became a 4. A bridge missing two parts, or having two parts with poor integrity, became a 3. Similarly, a bridge missing three parts, or having poor integrity of three parts, became a 2. Finally, a bridge missing four or more parts, or having four or more parts with poor integrity, became a 1.

The hypothetical Fifth Avenue bridge is listed in the NRHP. Thus, it receives a 5 for the NRHP category. It lies within a hypothetical park, so it receives a 5 for the parks, natural areas, and greenways category. And it has most of its parts (missing a hypothetical parapet), so it receives a 4 in the integrity rating.

These three values add up to 19: 5 + 5 (to double the NRHP category) + 5 + 4 = 19. The mean of all raw Historical, Recreational, and Cultural Values Codes is 10.40 and the standard deviation is 5.62. So, the standardized value of the Historical, Recreational, and Cultural Values Code for the Fifth Avenue Bridge is 1.53: 19 – 10.40 = 8.6 and 8.6 / 5.62 = 1.53. Then 1.53 is added to 5 to get 6.53 and multiplied by 10 and rounded to get 65. The value in the matrix would be 65.

7. Public Input Code

For the Public Input Code, the hypothetical Fifth Avenue bridge is part of a park, which has a strong organization promoting it. Thus, it receives a 5.

The mean for Public Input is 2.75 and the standard deviation is 1.84. So, to standardize, 5 – 2.75 = 2.25. Then 2.25 / 1.84 = 1.22. The value 1.22 is added to 5 to get 6.22 then multiplied by 10 and rounded to get 62. This is the number that would appear on the matrix.

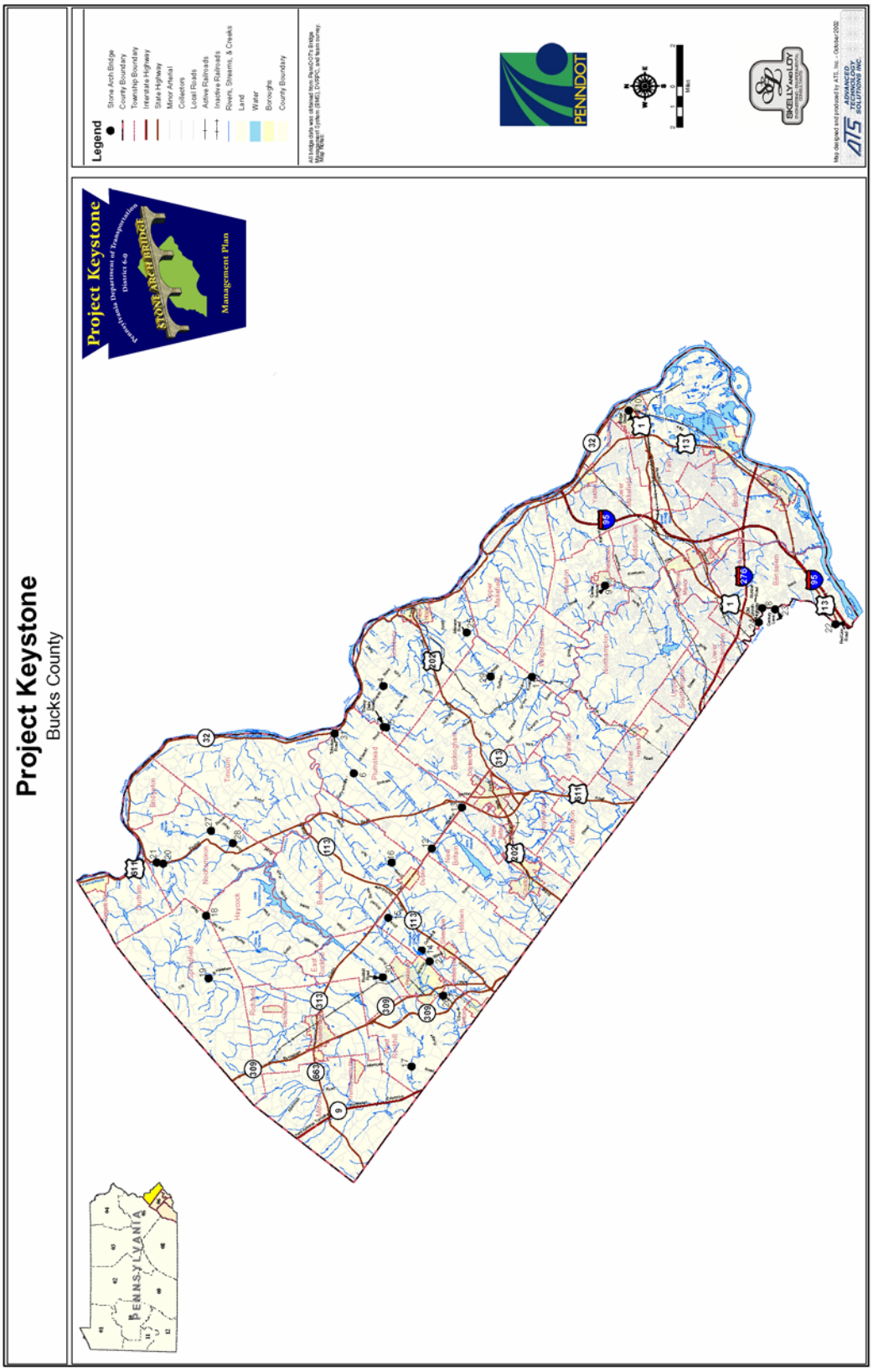
Because the public is still commenting, the mean and standard deviation of the Public Input Code are subject to change.

8. Total for the Example

To obtain the final code, the codes are summed: 52 + 37 + 57 + 58 + 54 + 65 + 62 = 385. Thus, 385 would be the bridge's total score. This bridge received a high rating, as it would have been in the top 20 of stone arch bridges, 20 ft and over, in District 6-0.

APPENDIX B -
BUCKS COUNTY BRIDGE INVENTORY

APPENDIX B
BUCKS COUNTY BRIDGE INVENTORY



BRIDGE NO. 1

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09011301203181 **DIST:** 6 **UTM:** 18/479766/4469011
OLD BMS # : **CTY:** BUCKS **OWNER:** PennDOT

MUNICIPALITY : HILLTOWN **LOCATION :** BLOOMING GLEN 15E13
FACILITY CARRIED : SR 113 (SOUDERTON PIKE)
NAME/FEATURE INTERSECTED : SR 113 (SOUDERTON PIKE) OVER MORRIS RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 50 (15.2 m) **WIDTH :** 24.3 (7.4 m)
YR BUILT : 1902 **ALTERATION :** 1982 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hilltown, Souderton Pike Bridge is owned by PennDOT and is ranked 41st.

Condition Code = 59 - high
Transportation Code = 45 – moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 40 – low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation, despite a good deal of public interest. The bridge is on the Transportation Improvement Program (TIP) to be replaced due to its narrow width and heavy traffic. The bridge has been damaged due to vehicular accidents, and alterations to the spandrels and arch barrels compromise historic integrity. Returning the bridge to its historic appearance would be moderately expensive. The waterway is moderately adequate. The bridge is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district; following a field view, the Pennsylvania Historical and Museum Commission concluded that it is located too great a distance away to be considered part of the Blooming Glen Historic District. It is also not part of a park or natural area, although it lies within the Route 113 Heritage Corridor, which is considered a greenway.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 2

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09015201801725 **DIST:** 6 **UTM:** 18/476083/4467542
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : HILLTOWN **LOCATION :** .400'S PERKASIE BO 20J03
FACILITY CARRIED : WALNUT STREET
NAME/FEATURE INTERSECTED : WALNUT STREET OVER BRANCH PLEASANT SPRING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 54 (16.5 m) **WIDTH :** 19.7 (6.0 m)
YR BUILT : 1890 CA **ALTERATION :** 1946/1995 **SOURCE :** STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hilltown/Perkasie Road Bridge is owned by PennDOT and is ranked 121st.

Condition Code = 33 – very low
Transportation Code = 47 – moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 45 – moderate
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 35 – very low

This bridge is a poor candidate for long-term preservation. It ranks in the bottom third of all stone arch bridges under study in this plan, and it scores very low in four bridge factors: condition; anticipated development code; recreational, historical, and cultural code; and public input. Its waterway adequacy code is low. An inadequate waterway is very difficult to fix on a stone arch bridge, as the basic structure of the bridge, the arch barrel, also defines the waterway opening. The bridge is in an area of development and would likely be inadequate to handle future traffic due to its narrow width. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and is not part of a park, natural area, or greenway. The bridge has received little public support (one letter). Additionally, the bridge is on the Transportation Improvement Program (TIP) and is scheduled to be replaced.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 4

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09100201100000 **DIST:** 6 **UTM:** 18/497878/4470464
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : SOLEBURY **LOCATION :** SOLEBURY TOWNSHIP 18G11
FACILITY CARRIED : SR 1002 (SUGAN ROAD)
NAME/FEATURE INTERSECTED : SR 1002 (SUGAN ROAD) OVER CUTTALOSSA CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 23 (7.0 m) **WIDTH :** 23.2 (7.1 m)
YR BUILT : 1886 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing – Cuttalossa Valley HD

The Sugan Road Bridge is owned by PennDOT and is ranked 70th.

Condition Code = 33 - very low
Transportation Code = 43 - low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 41 - low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 58 - high
Public Input Code = 60 – very high

The condition of this bridge makes it a poor candidate for preservation. It ranks fairly low among the truss bridges in the study. Poor alignment with the creek has created a severe scour problem. The bridge's foundation is a "spread" type, meaning it stands on sand and gravel rather than bedrock, making remedial repairs unlikely to solve long-term scour problems. The bridge is located in an area of low development potential, so future traffic is not expected to increase significantly; however, the bridge does not adequately handle its present traffic. Its recreational, historical, or cultural value is high. It is not individually listed or eligible for listing in the National Register of Historic Places. It does, however, contribute to the Cuttalossa Valley Historic District. Public support runs very high (six questionnaires, four letters, 20 emails, one petition, and one meeting at which this bridge was a focus); if it needs to be replaced, a context-sensitive replacement should be investigated.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO: 5

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09100301400084 **DIST:** 6 **UTM:** 18/494624/4470466
OLD BMS # :09100301400081 **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : SOLEBURY **LOCATION :** CARVERSVILLE 18A11
FACILITY CARRIED : CARVERSVILLE-WISMER ROAD (AQUETONG ROAD)
NAME/FEATURE INTERSECTED : CARVERSVILLE-WISMER RD OVER PAUNNACUSSING CK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 45 (13.7 m) **WIDTH :** 20.9 (6.4 m)
YR BUILT : 1854 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Carversville HD. 1978.

The Solebury, Aquetong Road Bridge is owned by PennDOT and is ranked 31st.

Condition Code = 55 – high
Transportation Code = 47 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 52 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 54 – moderate

This bridge is a candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. This bridge is in excellent condition, having been repointed in 2005. It handles its traffic reasonably well, but the transportation code is moderate because of a combination of high traffic volumes and a narrow roadway. However, the bridge lies in an area of low development potential, so future traffic growth is not likely to become a problem. Its waterway is adequate. The projected cost to rehabilitate the bridge is moderate, meaning that it will cost somewhat more to rehabilitate than similar bridges. The bridge has a high recreational, historical, and cultural values code. It is individually eligible for listing in the National Register of Historic Places, contributes to the Carversville Historic District, and is near a park. Public input was high (24 questionnaires, three letters, four emails, and one meeting at which this bridge was a focus).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 6

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09100302000697 **DIST:** 6 **UTM:** 18/491090/4473059
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : PLUMSTEAD **LOCATION :** SOUTH OF WISMER 17E07
FACILITY CARRIED : CARVERSVILLE-WISMER ROAD
NAME/FEATURE INTERSECTED : CARVERSVILLE-WISMER ROAD OVER GADDES RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 43 (13.1 m) **WIDTH :** 19.9 (6.1 m)
YR BUILT : 1885 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Plumstead, Carversvlle-Wismer Road Bridge is owned by PennDOT and is ranked 81st.

Condition Code = 44 - low
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 43 - low
Public Input Code = 42 - low

Despite its relative low ranking among the stone arch bridges under study in this plan, the Carversville-Wismer Road Bridge is recommended for long-term preservation. Its low condition code does not reflect rehabilitation work undertaken by PennDOT in 2005, which included rebuilding a spandrel wall and wing wall, and repointing the structure. The bridge handles its traffic well, and its waterway is adequate. Importantly, the bridge is in an area of low development potential, meaning it is expected to handle its traffic into the future. The cost to rehabilitate it is ranked as moderate, but this, too, does not reflect the work performed on the bridge. Its recreational, historical, and cultural values code is low. The bridge is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and is not part of a park, natural area, or greenway. The bridge received moderate support (four questionnaires and one letter).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 7

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09100401100454 **DIST:** 6 **UTM:** 18/494624/4470466
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : SOLEBURY **LOCATION :** CARVERSVILLE 18A11
FACILITY CARRIED : FLEECY DALE ROAD
NAME/FEATURE INTERSECTED : FLEECY DALE ROAD OVER PAUNNACUSSING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 69 (21.0 m) **WIDTH :** 21.4 (6.5 m)
YR BUILT : 1884 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Carversville HD. 1978

The Fleecy Dale Road Bridge is owned by PennDOT and is ranked 18th.

Condition Code = 44 - low
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 –high
Public Input Code = 60 – very high

PennDOT has demonstrated a commitment to the Fleecy Dale Road Bridge, which it recently finished reconstructing. The reconstruction will raise the bridge's condition code from its low ranking of 44. The bridge is important to the local community; 26 questionnaires, three letters, and five emails were received in favor of keeping the bridge. There was also one meeting focusing on the bridge. The bridge is a contributing resource to the Carversville Historic District and part of a greenway. There is a low potential of development in the area, allowing the bridge to be able to carry its traffic for some time into the future. The bridge ranks in the upper third of all stone arch bridges in the Greater Philadelphia area.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 8

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09203500100000 **DIST:** 6 **UTM:** 18/503124/4440496
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : BENSALEM **LOCATION :** PHILADELPHIA CITY LIMITS 41F08
FACILITY CARRIED : RICHLIEU ROAD
NAME/FEATURE INTERSECTED : RICHLIEU ROAD OVER POQUESSING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 47 (14.3 m) **WIDTH :** 20 (6.1 m)
YR BUILT : 1840 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Bensalem, Richlieu Road Bridge is owned by PennDOT and is ranked 100th.

Condition Code = 52 - moderate
Transportation Code = 47 – moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 38 - very low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 60 – very high

One of four Poquessing Creek stone arch bridges, the Richlieu Road Bridge is not recommended for long-term preservation. The bridge ranks in the lowest third of all stone arch bridges under study in this plan. Although there has been some public support for this bridge (two questionnaires, two letters, one email, and one meeting at which this bridge was a focus), it has problems that make it a poor candidate for use as part of the area's vehicular system. It has been closed to traffic since 1978; little, if any maintenance has been performed since that date. Despite a long period of neglect, this bridge is still in moderate condition. Of concern are scour problems and the inadequacy of the waterway. For stone arch bridges, an inadequate waterway is very difficult to fix, as the basic structure of the bridge, the arch barrel, also defines the waterway opening. The bridge is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district, although it is located in the Poquessing Creek Greenway. It lies in an area largely built-out, and one side is near Benjamin Rush State Park. The development code is low, so the bridge could potentially serve as a park gateway, if the state park is willing to assume responsibility for its upkeep.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 9

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09205200120000 **DIST:** 6 **UTM:** 18/505388/4452891
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : NEWTOWN **LOCATION :** NEWTOWN BORO. 36J01
FACILITY CARRIED : CENTER STREET
NAME/FEATURE INTERSECTED : CENTER STREET OVER NEWTOWN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 34 (10.4 m) **WIDTH :** 29.9 (9.1 m)
YR BUILT : 1796 **ALTERATION :** 1875 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Newtown HD.

The Newtown, Center Street Bridge is owned by PennDOT and is ranked 26th.

Condition Code = 52 - moderate
Transportation Code = 47 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 52 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 60 – very high

This bridge is a good candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan, it is one of the oldest bridges in the survey, and there is strong public support for retaining it. The public is enthusiastic about the bridge as a town gateway (one questionnaire, two letters, and one meeting at which this bridge was a focus). The bridge is individually eligible and part of the National Register of Historic Places-listed Newtown Historic District. Consequently, it has a high recreational, historical, and cultural values code.

This bridge's condition code is moderate, a result of some evidence of minor scour along with debris accumulation. Part of it has been pointed with Portland cement, which is not a recommended treatment and which could cause rapid deterioration of the stone. A primary thoroughfare between Newtown Borough and Newtown Township, the bridge's transportation code is moderate, a result of high traffic volumes. Its waterway is adequate, so repairs to the scour will last, and debris removal will facilitate flow. Its cost to rehabilitate code is moderate, meaning that rehabilitation, when needed, would be moderately expensive. The bridge will likely not experience sharp increases in traffic in the future, because the area is largely built out.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 10

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09206000100253 **DIST:** 6 **UTM:** 18/519432/4450510
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : MORRISVILLE **LOCATION:** MORRISVILLE BORO. 39D04
FACILITY CARRIED : BRIDGE STREET
NAME/FEATURE INTERSECTED : BRIDGE STREET OVER BRANCH DELAWARE RIVER
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 26 (7.9 m) **WIDTH :** 52 (15.8 m)
YR BUILT : 1830 CA **ALTERATION :** 1942 **SOURCE :** STYLE/INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Morrisville, Bridge Street Bridge is owned by PennDOT and is ranked 74th.

Condition Code = 63 – very high
Transportation Code = 61 - very high
Waterway Adequacy Code = 59 - high
Cost to Rehabilitate or Replace Code = 36 - very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 35- very low
Public Input Code = 42 - low

The Bridge Street Bridge in Morrisville is not recommended for long-term preservation. The bridge was originally over the Delaware Division of the Pennsylvania Canal, but both the canal and the bridge spans have been filled in. The bridge's historic character is unknown, as it is completely under fill. Consequently, rehabilitating it to its historic appearance would be expensive. It has not been listed or determined eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. There was little public support shown for the bridge (one letter). The bridge lies in an area of residential and moderate commercial development, making its development code moderate; its traffic can be expected to increase somewhat.

Recommendation: Not recommended for long-term preservation.

No photograph available.

BRIDGE NO. 11

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09209700100348 **DIST:** 6 **UTM:** 18/498158/4458809
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : BUCKINGHAM **LOCATION :** WYCOMBE VILLAGE 30G04
FACILITY CARRIED : FOREST GROVE ROAD
NAME/FEATURE INTERSECTED : FOREST GROVE ROAD OVER MILL CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 6 **LENGTH :** 130 (39.6 m) **WIDTH :** 21.6 (6.6 m)
YR BUILT : 1905 **ALTERATION :** **SOURCE :** PLANS
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Buckingham, Forest Grove Road Bridge is owned by PennDOT and is ranked 30th.

Condition Code = 51 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 41 - low

This bridge is a good candidate for long-term preservation. It ranks within the top third of all stone arch bridges under study in this plan. PennDOT has demonstrated a commitment to the bridge, having recently rebuilt it. The reconstruction raised the condition and transportation codes from very poor to moderate. Anticipated future rehabilitation and repair costs are low, also a result of the reconstruction. The bridge has a high recreational, historical, and cultural values code. It is listed in the National Register of Historic Places and is adjacent to a park. The public input code is low, but the bridge was already in the process of being rehabilitated when public comments were being solicited. Previously, the public was vociferous in its insistence that the bridge be rehabilitated rather than replaced (one letter and one meeting at which this bridge was a focus).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 12

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09400300801643 **DIST:** 6 **UTM:** 18/480894/4467343
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : HILLTOWN **LOCATION :** 1 MI. S.W. DUBLIN BOR 21J03
FACILITY CARRIED : DUBLIN ROAD
NAME/FEATURE INTERSECTED : DUBLIN ROAD OVER MORRIS RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 44 (13.4 m) **WIDTH :** 20.8 (6.3 m)
YR BUILT : 1872 **ALTERATION :** 1950 CA **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hilltown, Dublin Road Bridge is owned by PennDOT and is ranked 79th.

Condition Code = 52 - moderate
Transportation Code = 50 -moderate
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 42 - low

This bridge is not recommended for long-term preservation. It ranks near the lowest third of all stone arch bridges under study in this plan. Now covered with gunite, the bridge has lost historical integrity. The waterway opening is inadequate, and the bridge is in an area of high potential future development. The bridge is narrow, meaning its transportation code could easily slip from moderate to low if traffic increases as anticipated. The bridge also suffers from scour, it is in need of repointing, and some of the coping is in danger of dislodging. It is not significant locally for recreational, historical, or cultural reasons. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and there was little public support evidenced for this bridge (one letter).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 13

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09400900260000 **DIST:** 6 **UTM:** 18/487540/4464184
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : DOYLESTOWN **LOCATION :** NORTH DOYLESTOWN 22J08
FACILITY CARRIED : OLD DUBLIN PIKE
NAME/FEATURE INTERSECTED : OLD DUBLIN PIKE OVER PINE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 81 (24.7 m) **WIDTH :** 24.2 (7.4 m)
YR BUILT : 1875 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : B. JOHNSON
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Doylestown, Old Dublin Pike Bridge is owned by PennDOT and is ranked 83rd.

Condition Code = 44 - low
Transportation Code = 50 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 50 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 42 - low

The bridge is not recommended for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. Its condition code is low and it has had repairs made to it in the past that are no longer recommended, including the use of Portland cement as repointing material at several spots and gunite applied to its arch barrel and lower pier. These actions are hastening the deterioration of this bridge. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district. The bridge has received little public comment (one questionnaire and one letter). Its transportation code is moderate, as this bridge carries a fairly high volume of traffic and the roadway is narrow. Its waterway is adequate. The bridge would be moderately expensive to rehabilitate because much of the historic fabric has been altered or covered. It lies in an area of low growth potential, so future traffic would not be expected to increase substantially.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 14

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09401700603825 **DIST:** 6 **UTM:** 18/477075/4468094
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : HILLTOWN **LOCATION :** AT BEDMINSTER RD. 21A02
FACILITY CARRIED : CALLOWHILL ROAD
NAME/FEATURE INTERSECTED : CALLOWHILL ROAD OVER BR PLEASANT SPRING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 47 (14.3 m) **WIDTH :** 21 (6.4 m)
YR BUILT : 1881 **ALTERATION :** 1906/1950 CA **SOURCE :** PLAQUE
DESIGNER/BUILDER : A. A. LEWIS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hilltown, Callowhill Road Bridge is owned by PennDOT and is ranked 110th.

Condition Code = 48 - moderate
Transportation Code = 50 - moderate
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 42 - low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. The bridge has undergone numerous repairs, including a number that are no longer recommended in the Maintenance Manual that accompanies this plan, such as the use of gunite and inappropriate repointing. The condition, transportation, waterway adequacy, and rehabilitation cost codes are all moderate, with the waterway and repair cost codes bordering on low. The bridge is occasionally flooded. The bridge lies in an area of development, with future traffic expected to increase, which could push the transportation code to low. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district. The bridge has received little public comment (one letter).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 15

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09402100500000 **DIST:** 6 **UTM:** 18/479629/4470676
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : HILLTOWN **LOCATION :** .3 MI. WEST TR-313 15E11
FACILITY CARRIED : BLUE SCHOOL ROAD
NAME/FEATURE INTERSECTED : BLUE SCHOOL ROAD OVER MORRIS RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 53 (16.2 m) **WIDTH :** 21.4 (6.5 m)
YR BUILT : 1870 CA **ALTERATION :** 1902 **SOURCE :** STYLE/PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hilltown, Blue School Road Bridge is owned by PennDOT and is ranked 75th.

Condition Code = 44 – low
Transportation Code = 54 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 44 – low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 42 - low

Several features contribute to this bridge falling outside the “Preserve” category. The bridge is in very poor condition, a marked decline from its previous inspection. The gunite (now known to be an inappropriate repair for stone arch bridges) is scaling, and stones beneath the gunite are loose and deteriorating. A portion of the parapet has been damaged. The bridge would be relatively expensive to rehabilitate, largely because of the gunite and concrete skirts on its piers. The transportation and waterway adequacy codes are each moderate. Traffic is expected to increase somewhat, and could strain the bridge and its condition further. The bridge is eligible for listing in the National Register of Historic Places, but is not part of a park or greenway. The bridge has received little public support (one letter).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 16

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09402300300000 **DIST:** 6 **UTM:** 18/484014/4470296
OLD BMS # :09402300202740 **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : BEDMINSTER **LOCATION :** DUBLIN; BEDMINSTER 16C11
FACILITY CARRIED : DEEP RUN ROAD
NAME/FEATURE INTERSECTED : DEEP RUN ROAD OVER DEEP RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 4 **LENGTH :** 136 (41.5 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1854 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Bedminster, Deep Run Road Bridge is owned by PennDOT and is ranked 113th.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 31 - very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 35 – very low
Public Input Code = 42 - low

This bridge is not recommended for long-term preservation. The bridge ranks in the lowest third of all stone bridges under study in this plan, and it is on the Transportation Improvement Program (TIP) to be replaced. Three codes rank as very low and one as low: condition; rehabilitation/repair cost; recreational, historical, and cultural values; and public input. The main reason for the very poor condition code is an obviously failing spandrel wall on the bridge's downstream side, where concrete portions backed by gabions have been placed in an effort to stabilize it. The transportation and waterway adequacy codes are moderate bordering on poor. The bridge lies in an area of moderate development, where traffic will undoubtedly increase somewhat. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district, in a park, or in a greenway. The bridge has received little public comment (one letter).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 17

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09402701200833 **DIST:** 6 **UTM:** 18/467882/4469237
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : WEST ROCKHILL **LOCATION :** S. TRUMBAUERSVILLE 13E13
FACILITY CARRIED : ALLENTOWN ROAD
NAME/FEATURE INTERSECTED : ALLENTOWN ROAD OVER RIDGE VALLEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 37 (11.3 m) **WIDTH :** 19.4 (5.9 m)
YR BUILT : 1875 CA **ALTERATION :** 1908, 1977 **SOURCE :** STYLE/INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing

The West Rockhill, Allentown Road Bridge is owned by PennDOT and is ranked 43rd.

Condition Code = 40 - low
Transportation Code = 43 - low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 60 – very high

The bridge is recommended for long-term preservation. It ranks just outside of the upper one-third of all stone arch bridges under study in this plan. PennDOT has already committed to the preservation of the bridge. It has an adequate waterway, and its historic appearance is largely intact, although gunite has been added to the spandrel walls around the arches and on the arch barrels. Consequently, the cost of rehabilitating its historic fabric and form is moderate. However, the bridge's condition code is low. Cracks and loose stones exist at several spots on this bridge. The bridge also has a low transportation code, primarily due to its narrow, 17 ft, roadway. The bridge, however, is in an area of low development, and future traffic increases should be minimal. The bridge is locally significant, contributing to a local historic district and is built in a greenway. The bridge has also received extensive public support, including a resolution of support by the West Rockhill Township government.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 18

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09407500802205 **DIST:** 6 **UTM:** 18/479386/4485107
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : SPRINGFIELD **LOCATION :** N. NOCKAMIXON PARK 03F13
FACILITY CARRIED : STONEY GARDEN ROAD
NAME/FEATURE INTERSECTED : STONEY GARDEN ROAD OVER HAYCOCK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 36 (10.9 m) **WIDTH :** 20.5 (6.3 m)
YR BUILT : 1854 **ALTERATION :** 1950 CA **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Springfield, Stoney Garden Road Bridge is owned by PennDOT and is ranked 55th.

Condition Code = 52 - moderate
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 46 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 54 – moderate

This bridge is not recommended for long-term preservation. Although its condition code is moderate, the bridge has a number of condition problems. Cracks, loose stones, and bulging spandrel walls are evident along two-thirds of the bridge. The remainder has been incorrectly pointed with Portland cement, which will accelerate deterioration. As a result of its deteriorating condition, the bridge's cost to rehabilitate is moderately expensive. The bridge also has a narrow width and poor approach alignment. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not located in a greenway; consequently, it has a very low recreational, historical, and cultural values code. The bridge's waterway is adequate, and it is set in a rural area with low development potential; traffic on the bridge is not expected to increase substantially. However, its transportation code is already moderate. Public comment has been received about this bridge (one letter, six emails, six telephone calls, and one petition), but the bridge's condition, narrow width, and poor alignment make it a difficult candidate for long-term preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 19

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09410101000378 **DIST:** 6 **UTM:** 18/475292/4485119
OLD BMS # : **CTY:** BUCKS **OWNER:** PENNDOT
MUNICIPALITY : SPRINGFIELD **LOCATION :** PLEASANT VALLEY 02H13
FACILITY CARRIED : OLD BETHLEHEM PIKE
NAME/FEATURE INTERSECTED : OLD BETHLEHEM PIKE OVER COOKS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 54 (16.5 m) **WIDTH :** 25.7 (7.8 m)
YR BUILT : 1777 **ALTERATION :** 1902 **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Pleasant Valley HD.

The Springfield, Old Bethlehem Pike Bridge is owned by PennDOT and is ranked 49th.

Condition Code = 33 – very low
Transportation Code = 35 – very low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation. It is ranked in the upper third of all bridges surveyed and it is on PennDOT's Transportation Improvement Program (TIP) to be rehabilitated, which should improve the very low condition code. The bridge lies within an area of moderate development; as a result, future traffic will increase somewhat. The bridge is individually eligible for listing in the National Register of Historic Places and contributes to the Pleasant Valley Historic District. Strong public support exists for this bridge (one questionnaire, one letter, three emails, and two petitions).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 20

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700900100222 **DIST:** 6 **UTM:** 18/484335/4488425
OLD BMS # : **CTY:** BUCKS **OWNER:** C BUCKS COUNTY
MUNICIPALITY : NOCKAMIXON **LOCATION :** AHLER'S BRIDGE 04D08
FACILITY CARRIED : OLD EASTON ROAD
NAME/FEATURE INTERSECTED : OLD EASTON ROAD OVER NOCKAMIXON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 45 (13.7 m) **WIDTH :** 26.5 (8.1 m)
YR BUILT : 1804 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Nockamixon, Old Easton Road Bridge is owned by Bucks County and is ranked 16th.

Condition Code = 52 – moderate
Transportation Code = 59 - high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 65 – very high
Public Input Code = 42 – low

This bridge is a strong candidate for long-term preservation. It ranks high in the upper third of all stone arch bridges under study in this plan. It was extensively rehabilitated in 2002, with the arch barrel and spandrels repointed and concrete curtain walls added to the substructure. The repairs raised the bridge's condition code from very low to moderate. Its transportation code is high, despite its narrow width. Traffic volume is low, and the bridge is located in an area of low development potential; it should carry its traffic well for some time. The bridge's waterway is adequate. Its cost to rehabilitate is relatively inexpensive, because the bridge is largely intact and was recently rehabilitated. The bridge is individually eligible for inclusion in the National Register of Historic Places, lies in a greenway, and is locally and regionally significant. The bridge has minor public support (one questionnaire and one letter).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 21

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700900200223 **DIST:** 6 **UTM:** 18/484335/4488795
OLD BMS # : **CTY:** BUCKS **OWNER:** C BUCKS COUNTY
MUNICIPALITY : NOCKAMIXON **LOCATION :** AHLER'S BRIDGE 04D07
FACILITY CARRIED : OLD EASTON ROAD
NAME/FEATURE INTERSECTED : OLD EASTON ROAD OVER NOCKAMIXON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 40 (12.2 m) **WIDTH :** 22.6 (6.9 m)
YR BUILT : 1826 **ALTERATION :** UNKNOWN **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Nockamixon, Old Easton Road Bridge is owned by Bucks County and is ranked 66th.

Condition Code = 40 - low
Transportation Code = 57 - high
Waterway Adequacy Code = 33 – very low
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 - high
Public Input Code = 54 - moderate

This bridge is not a strong candidate for long-term preservation. It ranks in the lower half of all stone arch bridges under study in this plan. The bridge has a high transportation code, largely as a result of low amounts of traffic. Located in a rural area, it is in an area of low development potential, where future traffic is not expected to increase substantially. The bridge is individually eligible for inclusion in the National Register of Historic Places and is part of a greenway. Support has been limited to one questionnaire and two letters, including a letter of support from the Gallows Run Watershed Association. However, its primary problem is a lack of an adequate waterway opening; the bridge frequently becomes a dam in rainstorms. For stone arch bridges, an inadequate waterway is very difficult to fix, as the basic structure of the bridge, the arch barrel, also defines the waterway opening. The bridge also has a low condition code, a result of cracks and bows in its spandrel walls, plus minor scour. It was posted for a weight limit of five tons on January 30, 1963. Because of its myriad problems, this bridge's cost to rehabilitate is relatively expensive.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 22

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700900300286 **DIST:** 6 **UTM:** 18/501563/4434761
OLD BMS # : **CTY:** BUCKS **OWNER:** C BUCKS COUNTY
MUNICIPALITY : BENSALEM **LOCATION :** 30' NW INTER. RT 13 45C05
FACILITY CARRIED : RED LION ROAD
NAME/FEATURE INTERSECTED : RED LION ROAD OVER POQUESSING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 58 (17.7 m) **WIDTH :** 25.8 (7.9 m)
YR BUILT : 1845 **ALTERATION :** UNKNOWN **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Bensalem, Red Lion Road Bridge is owned by Bucks County and is ranked 51st.

Condition Code = 33 – very low
Transportation Code = 63 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 60 – very high

One of four Poquessing Creek stone arch bridges, this bridge's codes suggest that it is a moderate candidate for long-term preservation. It was previously listed in the Transportation Improvement Program (TIP) for rehabilitation. This bridge has a very low condition code, a result of cracks and loose stones. The bridge was posted for a five-ton weight limit on June 1, 1950. The bridge's waterway adequacy code is also low, bordering on very low, a problem that is difficult to fix for stone arch bridges. Because the primary structural element of the bridge, the arch barrel, also defines the waterway opening, an inadequate waterway is difficult to fix without rebuilding the bridge. Because of the structural problems, the bridge would be expensive to repair, although it has historical integrity. The bridge's high transportation code is a result of low rates of traffic and adequate approach geometry. In an area of moderate development, the bridge will likely carry its traffic adequately in the future. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is part of the Poquessing Creek greenway. It has strong public support (eight questionnaires, two letters, one email, and one meeting at which this bridge was the focus), and it is located in a greenway.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 24

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700903290090 **DIST:** 6 **UTM:** 18/501988/4440866
OLD BMS # : **CTY:** BUCKS **OWNER:** C BUCKS & PHILA CO.
MUNICIPALITY : BENSALEM **LOCATION :** PHILADELPHIA - BUCKS CO LINE
FACILITY CARRIED : OLD LINCOLN HIGHWAY
NAME/FEATURE INTERSECTED : OLD LINCOLN HIGHWAY OVER POQUESSING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 46 (14.0 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1805 **ALTERATION :** 1917 **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Bensalem, Old Lincoln Highway Bridge is owned by Philadelphia and Bucks County and is ranked 59th.

Condition Code = 37 – very low
Transportation Code = 63 - very high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 37 – very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation. It is part of the Poquessing Creek greenway, is at an entrance to Benjamin Rush State Park, and is a component of the old Lincoln Highway, although the 1805 bridge predates the designation of that highway. It is not listed or eligible for listing in the National Register of Historic Places, either individually or as part of a historic district, but the bridge has received extensive public support, including four questionnaires, 11 letters and emails (including letters from members of the Lincoln Highway Association and the Friends of the Poquessing Creek Watershed), and one meeting at which this bridge was the focus. Its waterway is adequate, as the bridge is rarely topped in floods. However, the superstructure and substructure have deteriorated over the past several years, and there are major scour problems with the bridge. It is currently closed to traffic. The cost to rehabilitate the bridge, as a consequence, is very high. Because it is closed to traffic, it has a deceptively high transportation code.

The bridge could remain closed to traffic and could serve as a hiking/biking entrance to the park, if the park or a private group were willing to take over ownership and maintenance of the bridge.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 25

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700903750305 **DIST:** 6 **UTM:** 18/501840/4463804
OLD BMS # : **CTY:** BUCKS **OWNER:** BUCKS COUNTY
MUNICIPALITY : SOLEBURY **LOCATION :** SOLEBURY TOWNSHIP 25D09
FACILITY CARRIED : ATKINSON ROAD
NAME/FEATURE INTERSECTED : ATKINSON ROAD OVER PIDCOCK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 49 (14.9 m) **WIDTH :** 20.7 (6.3 m)
YR BUILT : 1873 **ALTERATION :** 1976 **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY: Eligible. 4/17/00
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Solebury, Atkinson Road Bridge is owned by Bucks County and is ranked 52nd.

Condition Code = 37 – very low
Transportation Code = 59 - high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 52 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 60 – very high

The bridge is a strong candidate for long-term preservation. Recently completed rehabilitation work corrected condition problems that previously plagued this bridge. The bridge's transportation code is high, a result of low rates of traffic and good sight distance at its approaches. It is in an area of low anticipated development, so the bridge should be able to handle its traffic for some time to come. The bridge is individually eligible for listing in the National Register of Historic Places, and it enjoys extensive public support (19 questionnaires, two letters, two emails, and one meeting at which this bridge was the focus). The bridge has good integrity, meaning it would not be difficult or expensive to return the bridge to its historic appearance.

Recommendation: A strong candidate for long-term bridge preservation.

BRIDGE NO. 26

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN
ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700904330234 **DIST:** 6 **UTM:** 18/473390/4466626
OLD BMS # : **CTY:** BUCKS **OWNER:** C BUCKS COUNTY
MUNICIPALITY : WEST ROCKHILL **LOCATION :** WEST ROCKHILL TWP. 20D04
FACILITY CARRIED : CLYMER AVENUE
NAME/FEATURE INTERSECTED : CLYMER AVENUE OVER MILL CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 189 (57.6 m) **WIDTH :** 23 (7.0 m)
YR BUILT : 1875 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : J. SWOPE & J. PRESTON, CONTRACTOR
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Rockhill, Clymer Avenue Bridge is owned by Bucks County, ranked 23rd.

Condition Code = 55 - high
Transportation Code = 57 - high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation. It is ranked in the top third of all stone arch bridges under study in this plan, and it rates high or very high in six of seven categories. The bridge's condition code is high, as is its transportation code; the latter reflects good sight-distance at its approaches and low volumes of traffic. The bridge is intact and has historic integrity, meaning that it would be relatively inexpensive to rehabilitate its historic form and fabric. The bridge's recreational, historical, and cultural values code is also high, a result of being individually eligible for listing in the National Register of Historic Places. This bridge has public support (two letters and one resolution by West Rockhill Township in favor of its preservation). Of concern, however, is the bridge's inadequate waterway. Because a stone arch bridge's basic structure, the arch barrel, is also the waterway opening, an inadequate waterway cannot readily be fixed without substantial rebuilding of the bridge. Although the inadequate waterway has not resulted in problems to this point, it could jeopardize the bridge's long-term viability.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 27

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700904340002 **DIST:** 6 **UTM:** 18/486868/4484350
OLD BMS # : **CTY:** BUCKS **OWNER:** BUCKS COUNTY
MUNICIPALITY : NOCKAMIXON **LOCATION :** NOCKAMIXON TWP. 10H01
FACILITY CARRIED : BEAVER RUN ROAD
NAME/FEATURE INTERSECTED : BEAVER RUN ROAD OVER RAPP CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 80 (24.4 m) **WIDTH :** 29.9 (9.1 m)
YR BUILT : 1902 **ALTERATION :** 1963 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Nockamixon, Beaver Run Road Bridge is owned by Bucks County and is ranked 53rd.

Condition Code = 48 - moderate
Transportation Code = 66 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 49 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 42 - low

This bridge is a moderate candidate for long-term preservation. It ranks near the middle of all bridges under study in this plan. It has a high transportation code, a result of low volume of traffic and good sight-distance at the approaches. It lies in an area of low potential for development, so it should be able to carry future traffic. The bridge has a moderate condition code, a function of some cracks, loose stones, and minor scour. The bridge's waterway is adequate. The bridge retains some historical integrity, meaning that the cost to rehabilitate its historic form and fabric is also moderate. It is not eligible for listing in the National Register of Historic Places individually or as part of a historic district; it is not in a park, natural area, or greenway; and it has received little public support (one letter).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 28

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09700904490001 **DIST:** 6 **UTM:** 18/485876/4482502
OLD BMS # : **CTY:** BUCKS **OWNER:** BUCKS COUNTY
MUNICIPALITY : NOCKAMIXON **LOCATION :** NOCKAMIXON TWP. 10F04
FACILITY CARRIED : QUARRY ROAD
NAME/FEATURE INTERSECTED : QUARRY ROAD(T449) OVER RAPP CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 53 (16.2 m) **WIDTH :** 18 (5.5 m)
YR BUILT : 1900 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Nockamixon, Quarry Road Bridge is owned by Bucks County and is ranked 2nd.

Condition Code = 66 – very high
Transportation Code = 68 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 67 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 67 – very high
Public Input Code = 42 - low

This bridge is an excellent candidate for long-term preservation. It is one of the highest ranking stone arch bridges in District 6-0. It scores very high in four categories. The bridge's condition is excellent; it needs no specific action. Its transportation code is also very high, a function of low volume of traffic and good sight distance at its approaches. Located in an area of low development potential, the bridge should be able to carry future traffic. The bridge has historic integrity, meaning it would be relatively inexpensive to rehabilitate its historic form and fabric. Its waterway is adequate. The bridge is eligible for listing in the National Register of Historic Places and is within a greenway, resulting in a very high values code. However, only one letter of support was received for this bridge.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 29

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09720403860003 **DIST:** 6 **UTM:** 18/500141/4461399
OLD BMS # : **CTY:** BUCKS **OWNER:** BUCKINGHAM TWP
MUNICIPALITY : BUCKINGHAM **LOCATION :** .1 MI. NW OF 375 24G12
FACILITY CARRIED : HOLICONG ROAD (TR 386)
NAME/FEATURE INTERSECTED : HOLICONG ROAD (TR 386) OVER TRIBUTARY PIDCOCK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 23 (7.0 m) **WIDTH :** 21.5 (6.6 m)
YR BUILT : 1900 **ALTERATION :** **SOURCE :** STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Buckingham, Holicong Road Bridge is owned by Buckingham Township and is ranked 105th.

Condition Code = 33 – very low
Transportation Code = 61 – very high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 48 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 42 - low

This bridge is not a strong candidate for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. Positively, the bridge has a very high transportation code, a result of a low volume of traffic and good sight distance at its approaches. The bridge is set in an area of low development potential; future traffic should not increase appreciably. The bridge has received public support, including a meeting with township supervisors to discuss this and two other bridges. However, the condition code, waterway adequacy, and values codes are all rated as very low. The most significant problem is the inadequate waterway, which causes frequent flooding. For stone arch bridges, a waterway that is too small is a difficult problem to fix. The arch barrel is the bridge's primary structural element. Altering the size of the arch barrel requires the bridge to be rebuilt. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and is not part of a park, natural area, or greenway, so it has a very low values code. Restoring the bridge's historic form and fabric would be moderately expensive; gunite has been applied to the bridge, a repair that is no longer recommended for stone arch bridges.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 30

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09720704370001 **DIST:** 6 **UTM:** 18/475236/4468285
OLD BMS # : **CTY:** BUCKS **OWNER:** EAST ROCKHILL
MUNICIPALITY : EAST ROCKHILL **LOCATION :** NORTH PERKASIE 14G10
FACILITY CARRIED : ROCKHILL ROAD
NAME/FEATURE INTERSECTED : ROCKHILL ROAD OVER THREE MILE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 49 (14.9 m) **WIDTH :** 21.3 (6.5 m)
YR BUILT : 1901 **ALTERATION :** 1972 **SOURCE :** PLAQUE
DESIGNER/BUILDER : A. A. LEWIS, CONTRACTOR
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The East Rockhill, Rockhill Road Bridge is owned by East Rockhill Township and is ranked 86th.

Condition Code = 44 - low
Transportation Code = 62 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 35 - very low

This bridge is not a strong candidate for long-term preservation. The bridge ranks low or very low in three categories: condition code, values, and public input. The low condition code is due to deterioration in the sidewalls and arches, very serious problems in stone arch bridges. Because of its poor condition, it would be relatively expensive to rehabilitate. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has not received public support. Positively, the waterway is adequate and the transportation code is very high, a result of low traffic volumes and good sight distance at the approaches. Built in an area of low potential for development, it should carry its traffic in the future. These positives, however, cannot compensate for the poor structural condition.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 31

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 09793564160900 **DIST:** 6 **UTM:** 18/493637/4474721

OLD BMS # : **CTY:** BUCKS **OWNER:** DCNR PARKS 6416

MUNICIPALITY : PLUMSTEAD **LOCATION :** RALPH STOVER SP

FACILITY CARRIED : PARK ENTRANCE ROAD

NAME/FEATURE INTERSECTED : PARK ENTRANCE ROAD OVER MILL RACE TRIBUTARY

TYPE : CLOSED SPANDREL ARCH **DESIGN :**

MATERIAL : STONE

#SPANS : 1 **LENGTH :** 59 (17.9 m) **WIDTH :** 22 (6.7 m)

YR BUILT : 1930 CA **ALTERATION :** 1960 CA **SOURCE :** STYLE

DESIGNER/BUILDER :

CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible

CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Plumstead, Ralph Stover Park Entrance Road Bridge is owned by PA Dept of Conservation and Natural Resources and is ranked 19th.

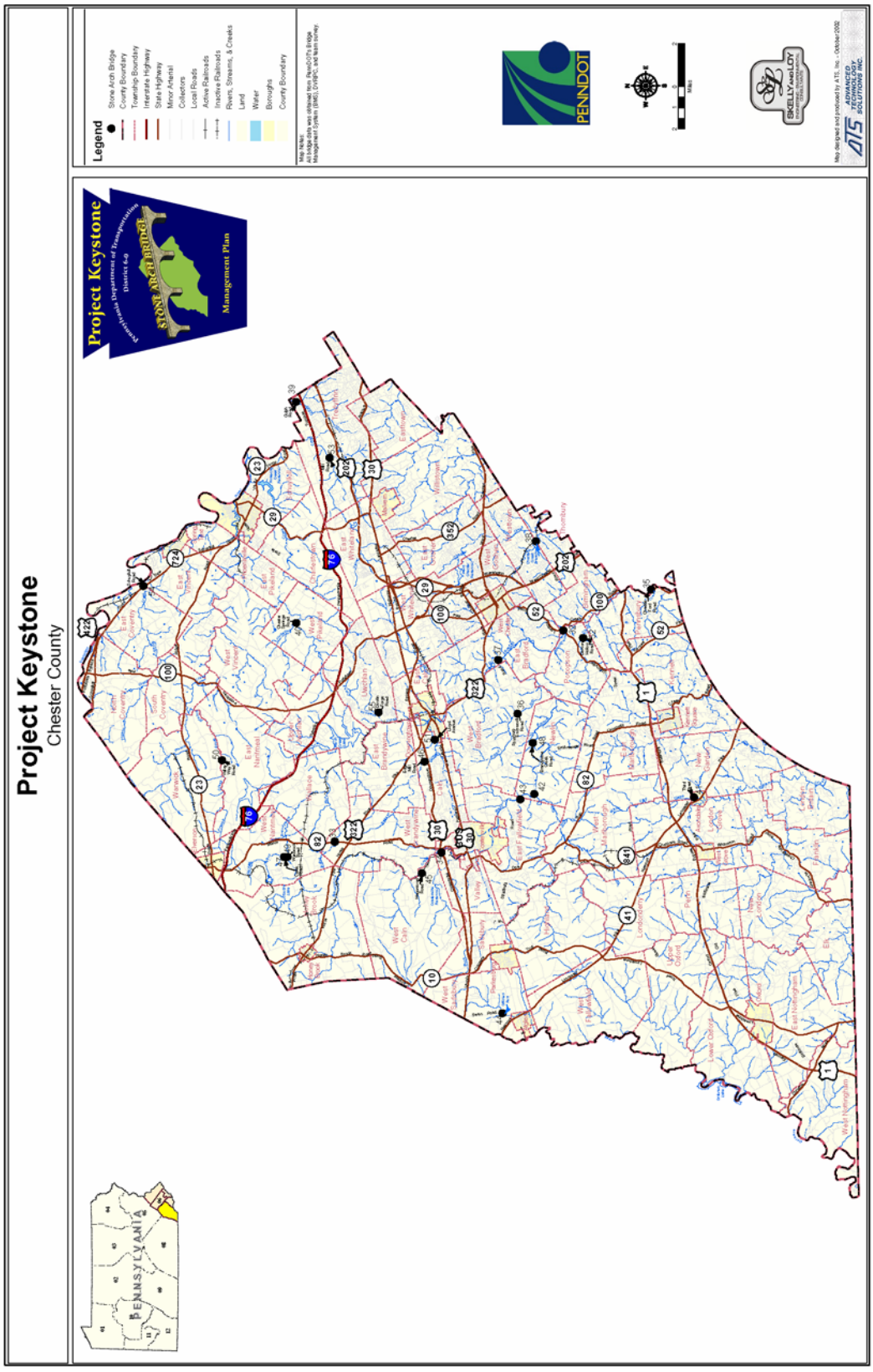
Condition Code = 81 – very high
Transportation Code = 68 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 36 - very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 42 - low

This bridge is a strong candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. Its condition and transportation codes are very high, the former due to rehabilitation work, the latter due to a function of low volumes of traffic and good sight distance at its approaches. Its waterway is adequate. In an area protected from development, the bridge should carry future traffic well. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is in Ralph Stover State Park where it acts as a gateway. The bridge has minor public support (one questionnaire and one email).

Recommendation: A strong candidate for long-term preservation.

APPENDIX C -
CHESTER COUNTY BRIDGE INVENTORY

APPENDIX C
CHESTER COUNTY BRIDGE INVENTORY



BRIDGE NO. 32

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15005201400741 **DIST:** 6 **UTM:** 18/446156/4418488
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : BIRMINGHAM **LOCATION :** 1 MILE FROM SR 282 IN LENAPE
FACILITY CARRIED : SR 52 (LENAPE ROAD/UNIONVILLE ROAD)
NAME/FEATURE INTERSECTED : SR 52 OVER BRANDYWINE CREEK FLOOD PLAIN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 7 **LENGTH :** 308 (93.9 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1912 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER : NATHAN R. RAMBO, ENG.
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Birmingham, Lenape Road Bridge is owned by PennDOT and is ranked 9th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 60 - very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 66 – very high
Public Input Code = 54 – moderate

This bridge is recommended for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. Most of the bridge is intact, meaning that the cost to rehabilitate the structure is potentially low. The bridge also lies in an area of low development potential, so it should continue to handle its traffic in the future. It has a high values code, as the bridge is listed in the National Register of Historic Places, stands in a park, is part of a greenway, and is on the Brandywine Scenic Byway, a state designated byway. The bridge has received public support (one questionnaire, one letter, and one meeting at which this bridge was the focus).

The bridge has a moderate condition code, a result of some loose stones, which could be fixed following the procedures of the *Maintenance Manual*. It has a moderate transportation code; the bridge is relatively narrow and has an intersection at one end, giving it a poor sight distance on its approach. It also carries a relatively high traffic volume on a narrow deck width. Its waterway is adequate, a result of it crossing only the floodplain (a more recent steel stringer bridge crosses Brandywine Creek).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 34

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15008204321857 **DIST:** 6 **UTM:** 18/429558/4426023
OLD BMS # :008202800182 **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : COATESVILLE **LOCATION :** IN COATESVILLE
FACILITY CARRIED : US 30B/SR 82 (LINCOLN HIGHWAY)
NAME/FEATURE INTERSECTED : US 30B/SR 82 OVER WEST BRANCH BRANDYWINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 114 (34.7 m) **WIDTH :** 65 (19.8 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** PLANS
DESIGNER/BUILDER : NATHAN R. RAMBO, COUNTY ENG/DUNLEAVY BROS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Contributing. Coatesville HD

The Coatesville, Lincoln Highway Bridge is owned by PennDOT and is ranked 80th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 51 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 63 – very high
Public Input Code = 35 – very low

This bridge is not recommended for long-term preservation. The bridge is ranked fairly low among the stone arch bridges under study in this plan. This bridge's condition code is moderate, a result of some scour at the substructure. Its waterway is inadequate, causing some flooding and resulting in the scour problem. The cost to rehabilitate is moderately expensive and would not fix the inadequate waterway, because that is a function of the size of the arch barrel, the main structural component of the bridge. Its transportation code is moderate, bordering on low, a function of a very high traffic volume. The bridge stands in Coatesville where additional development is unlikely to occur, resulting in a high development code. The bridge contributes to the Coatesville Historic District, carries the Lincoln Highway for which it was built, and is part of a greenway; it is locally and nationally significant. However, the bridge has not received any public comment, and the Lincoln Highway Association has not recommended the bridge for preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 35

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15008205522189 **DIST:** 6 **UTM:** 18/430504/4436004
OLD BMS # :008201502375 **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : WEST BRANDYWINE **LOCATION :** NORTH OF COATESVILLE
FACILITY CARRIED : SR 82 (MANOR ROAD)
NAME/FEATURE INTERSECTED : SR 82 OVER INDIAN RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 42 (12.8 m) **WIDTH :** 23 (7.0 m)
YR BUILT : 1910 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, ENG./GEORGE STIME
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Brandywine, U.S. 30B/Indian Run Bridge is owned by PennDOT and is ranked 84th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 – very low
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 54 – moderate

This bridge is not recommended for long-term preservation. It ranks just outside of the lowest third of all stone arch bridges under study in this plan, and the bridge has a very low waterway adequacy code. Waterway adequacy is a function of the size of the arch barrel, the main structural element of the bridge. Enlarging the waterway opening generally would require the construction of a new bridge. The condition code is moderate, a result of missing stones and some scour. Its transportation code is also moderate, bordering on low, a function of high traffic volumes and narrow width. The bridge is located in an area of low development potential, and should be able to carry its traffic into the future. The cost to rehabilitate the bridge is moderate, a function of missing stones. It is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district. This bridge has public support (one letter, six telephone calls, and one meeting at which this bridge was the focus). However, the inadequate waterway makes it difficult to recommend the bridge for long-term preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 37

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15016201700194 **DIST:** 6 **UTM:** 18/444053/4423128
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : EAST BRADFORD **LOCATION :** COPES BRIDGE AT COPESVILLE
FACILITY CARRIED : SR 162 (STRASBURG ROAD)
NAME/FEATURE INTERSECTED : SR 162 OVER EAST BRANCH BRANDYWINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 152 (46.3 m) **WIDTH :** 25.6 (7.8 m)
YR BUILT : 1807 **ALTERATION :** 1996 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY: Listed. 3/7/85
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Contributing. Taylor-Cope HD. 7/16/87.

Copes Bridge, the Strasburg Road Bridge is owned by PennDOT and is ranked 72nd.

Condition Code = 40 - low
Transportation Code = 35 - very low
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 39 – very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

Although the bridge ranks in the lower half of all stone arch bridges under study in this plan, it is recommended for long-term preservation. PennDOT is committed to the preservation of the bridge. It was previously placed on PennDOT's Transportation Improvement Program (TIP) to be rehabilitated, and the contract is scheduled to be let in 2008. The rehabilitation will correct the bridge's relatively poor condition and inadequate traffic code and possibly add some strengthening measures. The bridge lies in an area of low additional development potential; therefore, substantial traffic increases are not anticipated. The bridge has high recreational, historical, and cultural values and public input codes. It is listed in the National Register of Historic Places, contributes to the Taylor-Cope Historic District, is part of a projected greenway, and is on the Brandywine Scenic Byway, a state designated scenic byway. The bridge has also received extensive public support during the development of this plan and as part of the Section 106 process during preliminary design, when several public meetings were held specifically to discuss the bridge.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 38

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15092604400400 **DIST:** 6 **UTM:** 18/452861/4420108
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : THORNBURY **LOCATION :** NEAR WESTBOURNE ROAD
FACILITY CARRIED : SR 926 (STREET ROAD)
NAME/FEATURE INTERSECTED : SR 926 OVER CHESTER CREEK BRANCH
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 38 (11.6 m) **WIDTH :** 25.6 (7.8 m)
YR BUILT : 1911 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/P. J. MCCORMICK
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Thornbury, Street Road Bridge is owned by PennDOT and is ranked 44th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 56 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 63 – very high
Public Input Code = 54 –moderate

The bridge is not recommended for long-term preservation at this time. Rather, it is recommended that the bridge be placed in the Reserve Pool. The bridge ranks just outside of the top third of all stone arch bridges under study in this plan. However, it carries a relatively high volume of traffic and its condition is beginning to deteriorate due to scour and other problems. Its waterway is also inadequate, resulting in frequent flooding. Waterway adequacy is a difficult problem to fix in a stone arch bridge. Waterway adequacy is a function of the size of the arch barrel, the main structural element of the bridge. Enlarging the waterway opening generally would require the construction of a new bridge. The bridge has historic integrity; retaining its form and fabric would be relatively inexpensive, and the bridge is located in an area of low potential for development. The bridge is listed in the National Register of Historic Places and is part of a projected greenway; it is locally and regionally significant. The bridge has public support (one letter, four emails, and one meeting at which this bridge was a focus).

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 39

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15101200300000 **DIST:** 6 **UTM:** 18/463911/4437807
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : TREDYFFRIN **LOCATION :** EAST VALLEY FORGE PARK
FACILITY CARRIED : GULPH ROAD
NAME/FEATURE INTERSECTED : GULPH ROAD OVER TROUT CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 32 (9.8 m) **WIDTH :** 24.3 (7.4 m)
YR BUILT : 1917 **ALTERATION :** 1995 CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Tredyffrin, Gulph Road Bridge is owned by PennDOT and is ranked 60th.

Condition Code = 48 – moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 67 – very high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 67 – very high
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It has been placed on PennDOT's Transportation Improvement Program (TIP) and is scheduled to be replaced, due to an inadequate waterway, which results in frequent flooding. It is not possible to widen the waterway because it is a function of the width of the arch barrel, the main structural element of the bridge. Enlarging the opening requires the construction of a new bridge. The bridge also has a transportation code bordering on low, the result of moderate traffic volumes and a narrow roadway width. As the bridge is in an area of moderate development, its traffic will increase somewhat, exacerbating the issue. Listed in the National Register of Historic Places and part of a greenway, this bridge is locally and regionally significant. However, it has received no public support, and the waterway inadequacy and flooding necessitates that the bridge be replaced.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 41

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15303500101152 **DIST:** 6 **UTM:** 18/433108/4408786
OLD BMS # :15303500101173 **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : AVONDALE **LOCATION :** AVONDALE
FACILITY CARRIED : THIRD STREET
NAME/FEATURE INTERSECTED : THIRD STREET OVER EAST BRANCH WHITE CLAY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 40 (12.2 m) **WIDTH :** 22.2 (6.8 m)
YR BUILT : 1912 **ALTERATION :** 1986 **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/O'DONNELL & SONS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing

The Avondale, Third Street Bridge is owned by PennDOT and is ranked 77th.

Condition Code = 63 – very high
Transportation Code = 49 - moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 56 - high
Anticipated Development Code = 28 - very low
Recreational, Historical, and Cultural Values Code = 53 - moderate
Public Input Code = 42 - low

The bridge is recommended for the Reserve Pool. The bridge's condition code is very high; no specific action is required. Its waterway is adequate. Because most of the bridge is intact, the bridge would be relatively inexpensive to rehabilitate. The bridge is not individually eligible for listing in the National Register of Historic Places, but it contributes to the Avondale Historic District. The bridge has received some public support (two emails), and the community has a strong sense of its history. However, the bridge carries a moderate amount of traffic and its roadway width is narrow. It lies in an area of rapid development, where it will experience an increase in traffic in the future, perhaps beyond what it can adequately handle. For this reason, it is not recommended for long-term preservation at this time.

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 42

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15304900601791 **DIST:** 6 **UTM:** 18/433783/4420805
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : NEWLIN **LOCATION :** SOUTH OF MORTONVILLE
FACILITY CARRIED : BRANDYWINE CREEK ROAD
NAME/FEATURE INTERSECTED : BRANDYWINE CREEK ROAD OVER BUCK RUN/DOE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 68 (20.7 m) **WIDTH :** 21.1 (6.4 m)
YR BUILT : 1915 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/CORCORAN CONST CO
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Newlin, Brandywine Creek Road Bridge is owned by PennDOT and is ranked 92nd.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 43 - low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 43 - low
Public Input Code = 41 - low

This bridge is not recommended for long-term preservation. The bridge has poor integrity. It actually consists of two portions: a stone arch section and a steel stringer section, which replaced a stone section that washed out. Because of the steel stringer portion, it would be a relatively expensive bridge to rehabilitate back to its historic appearance. Its transportation code is moderate, bordering on low, a result of moderate traffic and a narrow roadway width. It lies in an area of low development potential; it may be able to carry its traffic for some time, but any increase would be detrimental. Its condition code and waterway are merely moderate. The bridge has received some public support (two emails), but it is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a greenway, natural area, or park.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 43

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15306201400245 **DIST:** 6 **UTM:** 18/433365/4421919
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : EAST FALLOWFIELD **LOCATION :** MORTONVILLE
FACILITY CARRIED : STRASBURG ROAD
NAME/FEATURE INTERSECTED : STRASBURG ROAD OVER WEST BRANCH BRANDYWINE CK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 4 **LENGTH :** 196 (59.7 m) **WIDTH :** 20 (6.1 m)
YR BUILT : 1826 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY: Listed. 3/28/78
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Contributing. Mortonville potential HD.

The Mortonville, Strasburg Road Bridge is owned by PennDOT and is ranked 39th.

Condition Code = 44 – low
Transportation Code = 35 – very low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 61 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 66 – very high
Public Input Code = 54 – moderate

The Mortonville Bridge is recommended for long-term preservation. It is ranked in the upper third of all bridges studied in this plan, and PennDOT is committed to maintaining this bridge. It is programmed on PennDOT's Transportation Improvement Program (TIP) for rehabilitation, which will correct its low condition and transportation codes. The bridge will feature a cantilevered deck, which will increase its current narrow deck width. The bridge is set in an area of low potential for additional development, where it should not experience a great increase in future traffic. Structurally, the bridge is largely intact and in good condition; rehabilitation costs are anticipated to be relatively inexpensive. The bridge has a very high cultural values code. It is listed in the National Register of Historic Places, contributes to a potential historic district, is part of a planned greenway, and is on the state designated Brandywine Scenic Byway. The bridge has received a great deal of public support, both during the development of this plan and as part of the Section 106 process, including several public meetings specifically held to discuss the bridge.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 44

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15308300140000 **DIST:** 6 **UTM:** 18/417294/4423741
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : WEST SADSBURY **LOCATION :** NORTH OF ATGLEN
FACILITY CARRIED : SR 3083 (SWAN ROAD)
NAME/FEATURE INTERSECTED : SR 3083 OVER OFFICERS RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 60 (18.3 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1916 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENGINEER/DUNLEAVY BROS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Sadsbury, Swan Road Bridge is owned by PennDOT and is ranked 88th.

Condition Code = 48 – moderate
Transportation Code = 47 - moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 43 - low
Public Input Code = 35 - very low

This bridge is recommended for the Reserve Pool. The low ranking does not reflect the rehabilitation work that was previously undertaken on the bridge. The condition and transportation codes are both moderate, although the bridge has good sight distance at the approaches and relatively low traffic. It lies in an area of moderate development. Future traffic should increase somewhat, but not beyond what the bridge can handle. Its waterway is adequate. Because the bridge is largely intact, its cost to rehabilitate would be relatively inexpensive. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has received no public support.

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 45

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15400300100198 **DIST:** 6 **UTM:** 18/428713/4426956
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : VALLEY **LOCATION :** ROCK RUN
FACILITY CARRIED : WAGONTOWN ROAD
NAME/FEATURE INTERSECTED : WAGONTOWN ROAD OVER WEST BRANCH BRANDYWINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 4 **LENGTH :** 178 (54.3 m) **WIDTH :** 36 10.9 m)
YR BUILT : 1918 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/CORCORAN CONST CO
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Valley, Wagontown Road Bridge is owned by PennDOT and is ranked 33rd.

Condition Code = 40 - low
Transportation Code = 54 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 56 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 54 – moderate

This bridge is a strong candidate for long-term preservation. It ranks in the top third of stone arch bridges under study in this plan. Historic elements are largely intact, making it relatively inexpensive to rehabilitate. Its waterway adequacy borders on very high. Built in an area of low development potential and possessing a relatively wide deck, the bridge should be able to handle its traffic for some time. The bridge is listed in the National Register of Historic Places, and has a high values code; it is locally and regionally significant. This bridge has received public support (one letter, two emails, two telephone calls, and one meeting at which this bridge was a focus). However, the bridge also has some problems that need to be monitored. Its condition code is very low due to extensive scour. In addition, the footings of at least two piers are exposed, making additional scour possible. The bridge's sight distances at the approaches are also subpar. However, these problems can be corrected using the procedures of the Maintenance Manual developed for this project.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 46

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15401500203422 **DIST:** 6 **UTM:** 18/436558/4429106
OLD BMS # : **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : CALN **LOCATION :** EAST OF INT W/ SR 340
FACILITY CARRIED : EDGE MILL ROAD
NAME/FEATURE INTERSECTED : EDGE MILL ROAD OVER BEAVER CREEK BRANCH
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 74 (22.6 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1916 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/DUNLEAVY BROS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Caln, Edge Mill Road Bridge is owned by PennDOT and is ranked 22nd.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 54 – moderate

This bridge is recommended for long-term preservation. It ranks in the top third of all stone arch bridges under study in this plan. The bridge's character-defining historical features are largely intact, making its cost to rehabilitate relatively inexpensive. It lies in an area of low development potential, which will allow the bridge to carry its traffic into the future. It should be noted, however, that its transportation code is moderate, a function of the bridge's narrow roadway width and a center hump that restricts sight distance. The bridge has a high values code; it is listed in the National Register of Historic Places and it is part of a greenway. The bridge has received much public support (one letter, two telephone calls, and one meeting at which this bridge was a focus). Its waterway is adequate. However, the bridge's condition code is low due to exposed footers, which may result in scour. The bridge superstructure also has some cracks and loose stones. These conditions should be corrected using the procedures of the Maintenance Manual developed for this project.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 47

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15402900200294 **DIST:** 6 **UTM:** 18/429545/4439898
OLD BMS # :15402900200805 **CTY:** CHESTER **OWNER:** PENNDOT
MUNICIPALITY : WEST NANTMEAL **LOCATION :** .5 MILE S OF WYEBROOK
FACILITY CARRIED : SR 4029 (CREEK ROAD)
NAME/FEATURE INTERSECTED : SR 4029 OVER PERKINS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 24.5 (7.5 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Nantmeal, Creek Road Bridge is owned by PennDOT and is ranked 90th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 61 – very high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 43 – low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. Its condition code is moderate, a result of some scour and some cracks. Its transportation code is moderate, bordering on low, a result of high traffic volumes and a relatively narrow roadway width. The bridge stands in an area of moderate potential for development, and may have difficulty handling even a minor increase in traffic; this will exacerbate its already inadequate transportation code. Its waterway is adequate. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not in a park, natural area, or greenway, resulting in a very low values code. The public input code is also very low; the bridge has not received any public support.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 48

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701500100325 **DIST:** 6 **UTM:** 18/437487/4420959
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : NEWLIN **LOCATION :** NEWLIN TOWNSHIP
FACILITY CARRIED : COUNTY PARK ROAD
NAME/FEATURE INTERSECTED : COUNTY PARK ROAD OVER WEST BRANCH BRANDYWINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 4 **LENGTH :** 144 (43.9 m) **WIDTH :** 19.7 (6.0 m)
YR BUILT : 1908 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/CORCORAN CONST CO
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Newlin, County Park Road bridge is owned by Chester County and is ranked 7th.

Condition Code = 55 - high
Transportation Code = 59 – high
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 65 – very high
Public Input Code = 54 – moderate

This bridge is an excellent candidate for long-term preservation. It is among the highest ranking of all stone arch bridges under study in this plan. It is rated as high or very high in five of seven categories. This bridge has a high condition code and needs no specific action. Its transportation code is also high, a result of relatively low volumes of traffic and very good sight distance approaching the bridge. Set in an area of low development potential, the bridge will likely be able to carry its traffic for some time to come, despite its narrow width. Its waterway is adequate. The bridge has historic integrity, making the cost to rehabilitate relatively inexpensive. The bridge has been determined individually eligible for listing in the National Register of Historic Places, is in a park, and is locally and regionally significant, resulting in a high values code. The bridge has public support (one letter, four emails, and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 49

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701503770143 **DIST:** 6 **UTM:** 18/429540/4439343
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : WEST NANTMEAL **LOCATION :** WEST OF SR 82
FACILITY CARRIED : WYEBROOK ROAD
NAME/FEATURE INTERSECTED : WYEBROOK ROAD OVER EAST BRANCH BRANDYWINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 63 (19.2 m) **WIDTH :** 22.5 (6.8 m)
YR BUILT : 1888 **ALTERATION :** 1995 **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The West Nantmeal, Wyebrook Road Bridge is owned by Chester County and is ranked 5th.

Condition Code = 55 - high
Transportation Code = 59 - high
Waterway Adequacy Code = 59 - high
Cost to Rehabilitate or Replace Code = 55 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 63 – very high
Public Input Code = 54 – moderate

This bridge is a strong candidate for long-term preservation. The bridge is one of the highest ranking of all stone arch bridges under study in this plan. It is rated as high or very high in all but one category. Its condition is excellent. Its transportation code is very high, a result of low traffic volume and good sight distance at the approaches. It stands in an area of low development potential, and should be able to carry its traffic well for some time. Its waterway adequacy is rated as high. The cost to rehabilitate is relatively low, as the bridge is largely intact. The bridge is individually eligible for listing in the National Register of Historic Places and stands in a park; it is locally and regionally important. The bridge has public support (one letter, three telephone calls, and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 50

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701504070246 **DIST:** 6 **UTM:** 18/437109/4444086
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : WARWICK **LOCATION :** EAST NANTMEAL TWP LINE
FACILITY CARRIED : VALLEY WAY
NAME/FEATURE INTERSECTED : VALLEY WAY OVER SOUTH BRANCH FRENCH CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 31 (9.4 m) **WIDTH :** 21.2 (6.5 m)
YR BUILT : 1913 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/P. J. MCCORMICK & SON
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Contributing. Warwick Furnace-Farm

The Warwick, Valley Way Bridge is owned by Chester County and is ranked 15th.

Condition Code = 59 – high
Transportation Code = 66 – very high
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 42 - low

This bridge is an excellent candidate for long-term preservation. It is highly ranked among all stone arch bridges under study in this plan. The bridge is rated high or very high in four of seven categories. This bridge has a high condition code and does not require any specific action. Its transportation code is also very high, a result of low traffic volumes and good sight distances at the approaches. It stands in an area of low development potential, and should be able to carry its traffic for some time into the future. Its waterway is adequate. The cost to rehabilitate is low because the bridge's historic fabric is largely intact. The bridge contributes to a National Register of Historic Places historic district (Warwick Furnace-Farm, listed in 1976) and is locally and regionally important. The bridge, however, has received limited public support (one letter).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 51

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701504300286 **DIST:** 6 **UTM:** 18/437830/4428171
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : WEST CALN **LOCATION :** CALN TOWNSHIP
FACILITY CARRIED : LLYOD AVENUE
NAME/FEATURE INTERSECTED : LLOYD AVENUE OVER BEAVER CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 105 (32.0 m) **WIDTH :** 18 (5.5 m)
YR BUILT : 1919 **ALTERATION :** 1981 **SOURCE :** INSP FILE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/F. J. MCCORMICK & SON
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Caln, Lloyd Avenue Bridge is owned by Chester County and is ranked 71st.

Condition Code = 63 – very high
Transportation Code = 47 - moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 50 – moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 - moderate

This bridge is a moderate candidate for long-term preservation, but it has some factors that will need to be addressed. It lies within an area of rapid development. As a result, it may not be able to carry future traffic efficiently, especially since the bridge has a roadway width of less than 18 ft. However, this bridge has a very high condition code and needs no specific action at this time. Its transportation code is high, a result of relatively low traffic and good sight distance at the approaches. Its waterway is adequate, a result of an additional channel that has been cut at one end of the bridge (although spanned by a concrete slab). Its cost to rehabilitate is moderate, meaning that it would be moderately expensive to rehabilitate its historic form and fabric, particularly because of the concrete slab span. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. Public support has been moderate.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 52

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701504380249 **DIST:** 6 **UTM:** 18/445431/4416643
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : POCOPSON **LOCATION :** .4 MILE N OF SR 926
FACILITY CARRIED : DENTON HOLLOW ROAD
NAME/FEATURE INTERSECTED : DENTON HOLLOW ROAD OVER POCOPSON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 31 (9.4 m) **WIDTH :** 21.9 (6.7 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** COUNTY INSP FILE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/GEORGE DOLE
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Pocopson, Denton Hollow Road Bridge is owned by Chester County and is ranked 34th.

Condition Code = 59 – high
Transportation Code = 54 – moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 60 – very high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 42 – low

This bridge is a candidate for long-term preservation. It is ranked within the highest third of all stone arch bridges under study in this plan. It ranks high or very high in three categories. It has a high condition code and needs to have no specific action. It has historic integrity, a result of the bridge's historic fabric being largely intact; therefore, it would be relatively inexpensive to rehabilitate. The bridge contributes to a potential local historic district and is part of a greenway, resulting in a very high values code, although It has received little public support (one questionnaire). The transportation code ranks just below high, a result of low traffic volumes and reasonable sight distance at its approaches. The current low traffic volume should offset a moderate development code; however, the development will likely result in a modest increase in traffic in the future. The bridge's waterway is adequate.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 53

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701505400241 **DIST:** 6 **UTM:** 18/431207/4435258
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : TREDYFFRIN **LOCATION :** TREDYFFRIN TWP. 24A04
FACILITY CARRIED : MILL ROAD
NAME/FEATURE INTERSECTED : MILL ROAD OVER VALLEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 30 (9.1 m) **WIDTH :** 21.5 (6.6 m)
YR BUILT : 1912 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/P. J. MCCORMICK & SONS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Tredyffrin, Mill Road Bridge is owned by Chester County and is ranked 67th.

Condition Code = 59 – high
Transportation Code = 42 - low
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 54 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 35 - very low

The bridge is not a strong candidate for long-term preservation. It ranks in the lower half of all stone arch bridges under study in this plan. The bridge is individually eligible for listing in the National Register of Historic Places and is part of a greenway. The condition code is high. However, the bridge has not received public support. The waterway is only marginally adequate. Waterway adequacy is a function of the size of the arch barrel, which is also the main structural element. Widening the barrel requires the bridge to be rebuilt. The bridge's transportation code is low; it is not able to adequately handle its current traffic volume, the bridge is located on a curve, and it has poor sight distances. Moreover, it is located in an area of moderate development, where future traffic can be expected to increase somewhat, exacerbating the traffic problem. The cost to rehabilitate the bridge is moderate, making it moderately expensive to rehabilitate its historic form and fabric.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 54

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15701505510207 **DIST:** 6 **UTM:** 18/451054/4448978
OLD BMS # : **CTY:** CHESTER **OWNER:** CHESTER COUNTY
MUNICIPALITY : EAST COVENTRY **LOCATION :** AT PARKER FORD
FACILITY CARRIED : SCHUYLKILL ROAD
NAME/FEATURE INTERSECTED : SCHUYLKILL ROAD OVER PIGEON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 53 (16.2 m) **WIDTH :** 23.22 (7.1 m)
YR BUILT : 1804 **ALTERATION :** **SOURCE :** COUNTY BRIDGE BOOK
DESIGNER/BUILDER : JAMES BROOKE
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The East Coventry, Schuylkill Road Bridge is owned by Chester County and is ranked 32nd.

Condition Code = 44 - low
Transportation Code = 59 –high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 51 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 54 - moderate

The oldest of Chester County's bridges, this bridge is a strong candidate for long-term preservation. Although its condition code is low, its transportation code is high, a result of low traffic volumes and good sight distance at the approaches. Located in an area of low development potential, the bridge can be expected to carry its traffic for some time in the future. The bridge's waterway is adequate. Its cost to rehabilitate code is moderate; although the bridge's historic fabric is intact, it has been improperly repointed with Portland cement. The bridge is individually eligible for listing in the National Register of Historic Places and is part of a greenway; it is locally and regionally significant. The bridge has public support (one letter, one email, one telephone call, and one meeting at which this bridge was a focus). Overall, the bridge ranks in the upper third of the stone arch bridge population under study in this plan.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 55

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 15723901500001 **DIST:** 6 **UTM:** 18/443704/4433675
OLD BMS # : **CTY:** CHESTER **OWNER:** UWCHLAN TOWNSHIP
MUNICIPALITY : UWCHLAN **LOCATION :** NEAR DOWLIN, EAST OF SR 282
FACILITY CARRIED : DOWLIN FORGE ROAD
NAME/FEATURE INTERSECTED : DOWLIN FORGE ROAD OVER SHAMONA CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 44 (13.4 m) **WIDTH :** 21.6 (6.6 m)
YR BUILT : 1915 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : NATHAN R. RAMBO, CO ENG/CORCORAN CONST CO
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Uwchlan, Dowlin Forge Road is owned by Uwchlan Township and is ranked 25th.

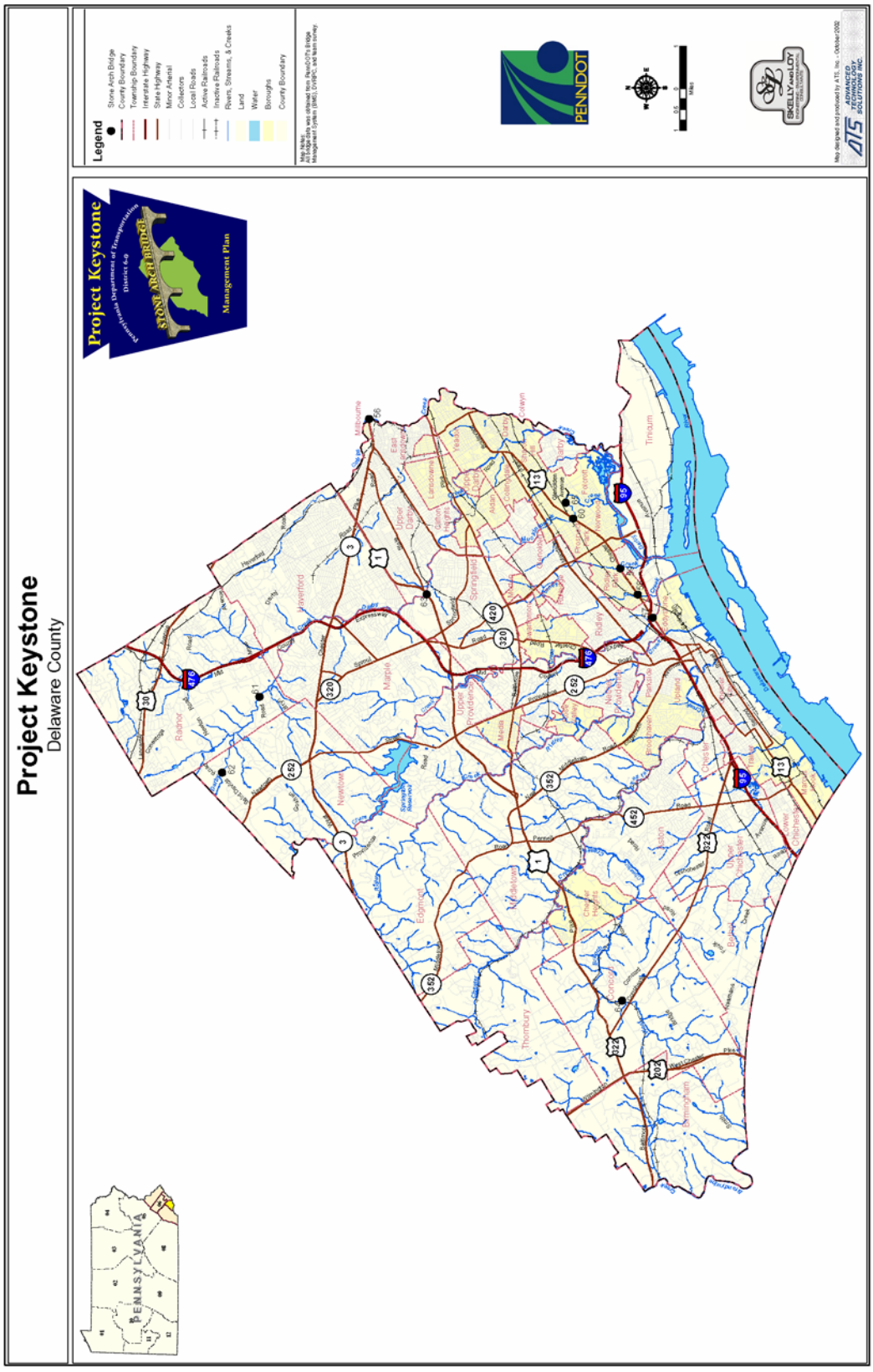
Condition Code = 48 - moderate
Transportation Code = 57 - high
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 56 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 47 - moderate
Public Input Code = 60 –very high

This bridge is a good candidate for long-term preservation. It ranks in the highest third of all stone bridges under study in this plan. It has a moderate condition code, a result of concern about cracks and loose stones. No scour was noted during the last inspection. It has a high transportation code, a result of low traffic volumes and good sight distance at its approaches. The bridge stands in an area of low development potential, where it can be expected to carry its traffic for some time into the future. Its waterway is adequate. The cost to rehabilitate this bridge would be relatively inexpensive, as its historic fabric is largely intact. Although not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, the bridge is part of a greenway and is locally significant. The bridge has public support (three letters and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

APPENDIX D -
DELAWARE COUNTY BRIDGE INVENTORY

APPENDIX D
DELAWARE COUNTY BRIDGE INVENTORY



BRIDGE NO. 56

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23000302402055 **DIST:** 6 **UTM:** 18/478790/4423507
OLD BMS # : 23000302402236 **CTY:** DELAWARE **OWNER:** COMBINATION

MUNICIPALITY : UPPER DARBY **LOCATION :** DELAWARE/PHILADELPHIA LINE
FACILITY CARRIED : SR 3 (WEST CHESTER PIKE/MARKET STREET)
NAME/FEATURE INTERSECTED : SR 3 OVER COBBS CREEK/SEPTA
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 56 (17.1 m) **WIDTH :** 74.9 (22.8 m)
YR BUILT : 1900 **ALTERATION :** 1907 **SOURCE :** TURNPIKE HISTORY
DESIGNER/BUILDER : PHILADELPHIA & W. CHESTER TURNPIKE CO
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Darby, West Chester Pike Bridge is owned by a combination of different entities and is ranked 108th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 25 - very low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 50 - moderate
Public Input Code = 42 – low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of the stone arch bridge population under study in this plan. It has a moderate condition code, a result of extensive scour and loose stones. Its transportation code borders on low, a result of high traffic volumes. The bridge stands in an area of high development potential, and its already high traffic volumes will increase. The bridge would be relatively expensive to rehabilitate to its historic appearance, a result of several alterations (it has been widened at least twice). Its waterway is adequate. The bridge is individually eligible for listing in the National Register of Historic Places and it is near a greenway; its values code is moderate. The bridge has received limited public support (two questionnaires).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 57

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23001301500000 **DIST:** 6 **UTM:** 18/470955/4422053
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : EDDYSTONE **LOCATION :** . EDDYSTONE-RIDLEY LINE
FACILITY CARRIED : US 13 (CHESTER PIKE)
NAME/FEATURE INTERSECTED : US 13 OVER CRUM CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 50 (15.2 m) **WIDTH :** 72.3 (22.0 m)
YR BUILT : 1825CA **ALTERATION :** 1915CA,1926 **SOURCE :** STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Eddystone, Chester Pike Bridge is owned by PennDOT and is ranked 124th.

Condition Code = 48 – moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 26 - very low
Anticipated Development Code = 28 - very low
Recreational, Historical, and Cultural Values Code = 34 - very low
Public Input Code = 35 – very low

This bridge is not recommended for long-term preservation. It is among the lowest ranked of all the stone arch bridges under study in this plan. The bridge lacks historic integrity. It has been encased in concrete and has a steel beam added to one side. Because of its many alterations, the cost to rehabilitate the bridge to its historic fabric and form is high. Its waterway is inadequate, leading to occasional flooding. Waterway adequacy is virtually impossible to correct; it is a function of the size of the arch barrel, the bridge's main structural element, which cannot be widened. The bridge's transportation code is moderate, a result of high traffic volumes. Its setting is in a largely urban area, with traffic likely to increase in the future; therefore, its development code is very low. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has received no public comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 58

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23001301600879 **DIST:** 6 **UTM:** 18/471635/4413356
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : RIDLEY PARK **LOCATION :** WEST RIDLEY PARK
FACILITY CARRIED : US 13 (CHESTER PIKE)
NAME/FEATURE INTERSECTED : US 13 OVER LITTLE CRUM CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 17 (5.2 m) **WIDTH :** 61.5 (18.7 m)
YR BUILT : 1825CA **ALTERATION :** 1926 **SOURCE :** STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Ridley Park, Chester Pike Bridge is owned by PennDOT and is ranked 116th.

Condition Code = 59 –high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 31 - very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 33 - very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. It has been widened on both sides with concrete, and stone is visible only in the center of the arch barrel; it has the appearance of a concrete arch bridge. Because of its alterations, the bridge would be expensive to rehabilitate to its historic fabric and form. Its waterway is inadequate, leading to occasional flooding. Waterway adequacy is virtually impossible to correct; it is a function of the size of the arch barrel, the bridge's main structural element, which cannot be widened. Its transportation code borders on low, a result of high traffic volumes. Located in an area of moderate development potential, its traffic would be expected to increase in the future, exacerbating an already low transportation code. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway; its values code is very low. The bridge received no public comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO: 59

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23001301800000 **DIST:** 6 **UTM:** 18/472778/4414092
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : RIDLEY **LOCATION :** 0.7 MILE S OF SR 420
FACILITY CARRIED : US 13 (CHESTER PIKE)
NAME/FEATURE INTERSECTED : US 13 OVER STONEY BROOK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 63.5 (19.4 m)
YR BUILT : 1825CA **ALTERATION :** 1915CA, 1926 **SOURCE :** STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Ridley, Chester Pike Bridge is owned by PennDOT and is ranked 107th.

Condition Code = 55 - high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 32 - very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 34 - very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. It has been encased with concrete, and stone is visible only in the center of the arch barrel; it appears to be a concrete arch bridge. Because of its alterations, it would be expensive to rehabilitate the bridge to its historic fabric and form. The bridge's transportation code borders on low, a result of high traffic volumes. Located in an area of moderate development potential, its traffic would be expected to increase in the future. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway; its values code is very low. The bridge received no public comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 60

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23001302002035 **DIST:** 6 **UTM:** 18/474779/4415750
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : GLENOLDEN **LOCATION :** 1 MI NORTH OF PA 420
FACILITY CARRIED : US 13 (CHESTER PIKE)
NAME/FEATURE INTERSECTED : US 13 OVER MUCKINIPATTUS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 28 (8.5 m) **WIDTH :** 67.5 (20.6 m)
YR BUILT : 1825CA **ALTERATION :** 1925 **SOURCE :** STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Glenolden, Chester Pike Bridge is owned by PennDOT and is ranked 117th.

Condition Code = 63 – very high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 27 - very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 33 – very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. It has been encased with concrete, and stone is visible only in the center of the arch barrel; it appears to be a concrete arch bridge. Because of its alterations, it would be expensive to rehabilitate the bridge to its historic fabric and form. The bridge's transportation code borders on low, a result of high traffic volumes. Located in an area of moderate development potential, its traffic would be expected to increase in the future. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. Its values code is very low. The bridge received no public comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 61

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23103400603474 **DIST:** 6 **UTM:** 18/468275/4427983
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : RADNOR **LOCATION :** SW RADNOR TOWNSHIP
FACILITY CARRIED : GOSHEN ROAD
NAME/FEATURE INTERSECTED : GOSHEN ROAD OVER DARBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 84 (25.6 m) **WIDTH :** 28.8 (8.8 m)
YR BUILT : 1905 **ALTERATION :** 1990CA **SOURCE :** PLAQUE
DESIGNER/BUILDER : THEOPHILUS P. CHANDLER/J. A. MORRIS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

The Radnor, Goshen Road Bridge is owned by PennDOT and is ranked 47th.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 –high
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - high
Public Input Code = 42 - very low

This bridge is recommended for long-term preservation. PennDOT has agreed to make a short-term commitment to the bridge. In 2007, the arch barrels will be repaired, and the abutments, piers, and all wing walls will be repointed. This should improve the bridge's low condition code. Its transportation code is moderate, bordering on low, a result of high volumes of traffic. However, the bridge stands in an area of low development potential, and it is relatively wide for a stone arch bridge; therefore, it should be able to carry its traffic for some time. Waterway adequacy is high. The bridge has integrity, making it relatively inexpensive to rehabilitate its historic fabric and form. The bridge is listed in the National Register of Historic Place, but it is not within or near a greenway, natural area, or park. The bridge has received some public comment (two emails).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 62

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23104600400126 **DIST:** 6 **UTM:** 18/466152/4430582
OLD BMS # : 23104600400102 **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : NEWTOWN **LOCATION :** 1 MILE WEST OF NEWTOWN ROAD
FACILITY CARRIED : ST. DAVIDS ROAD (BROOKE ROAD)
NAME/FEATURE INTERSECTED : ST. DAVIDS ROAD OVER DARBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 26 (7.9 m) **WIDTH :** 28 (8.5 m)
YR BUILT : 1810 **ALTERATION :** 1960CA **SOURCE :** PLAQUE
DESIGNER/BUILDER : THOMAS WELCH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Newtown, St. David's Road Bridge is owned by PennDOT and is ranked 95th.

Condition Code = 48 - moderate
Transportation Code = 43 - low
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 39 - very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 35 – very low

This bridge is not recommended for long-term preservation. Although the bridge contributes to a local historic district, it is ranked in the lowest third of all stone arch bridges under study in this plan, and it was previously placed on the Transportation Improvement Program (TIP) to be replaced. High traffic volumes and poor sight distances at the approaches result in a low transportation code. The bridge would be relatively expensive to rehabilitate to its historic fabric and form, as portions of the bridge have been encased in concrete and concrete has also been added to the buttresses. The waterway is adequate, but the bridge has experienced scour problems, resulting in a moderate condition code. The bridge stands in an area with low potential for development; its traffic is not expected to increase substantially in the future. However, the bridge has received no public comment, and it is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 63

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23201601700000 **DIST:** 6 **UTM:** 18/475790/4420001
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : CLIFTON HEIGHTS **LOCATION :** LANSDOWNE LINE
FACILITY CARRIED : BALTIMORE PIKE (OLD US 1)
NAME/FEATURE INTERSECTED : BALTIMORE PIKE OVER DARBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 72 (21.9 m) **WIDTH :** 49.5 (15.1 m)
YR BUILT : 1815CA **ALTERATION :** 1919 **SOURCE :** TURNPIKE HISTORY
DESIGNER/BUILDER : ALBERT DAMON/WILLIAM G. JUST (1919)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Clifton Heights, Baltimore Pike Bridge is owned by PennDOT and is ranked 115th.

Condition Code = 63 – very high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 31 - very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 35 - very low
Public Input Code = 35 – very low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all of the stone arch bridges under study in this plan. The bridge has been extensively modified, including widening with concrete and the placement of concrete parapets. Consequently, it would be relatively expensive to rehabilitate the bridge to its historic fabric and form. Its inadequate waterway openings result in local flooding on a frequent basis, which is a problem for nearby residents. Waterway inadequacy is difficult to fix on a stone arch bridge; it is a function of the size of the arch barrel, the major structural element of the bridge. Widening the opening would require the bridge to be rebuilt. It has a transportation code bordering on low, a result of high traffic volumes and some sight-distance deficiencies. Traffic could increase in the future, exacerbating the already low transportation code. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge received little public comment; in fact, this bridge is the only bridge to be identified in a negative manner by a local resident, relating to the frequent flooding caused by the inadequate waterway. The person asked that it be replaced immediately to alleviate the frequent flooding problems (one questionnaire).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 64

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23300701300000 **DIST:** 6 **UTM:** 18/456104/4414354
OLD BMS # : **CTY:** DELAWARE **OWNER:** PENNDOT
MUNICIPALITY : CONCORD **LOCATION :** 0.7 MILE SOUTH OF CONCORDVILLE
FACILITY CARRIED : CONCORD ROAD
NAME/FEATURE INTERSECTED : CONCORD ROAD OVER CHESTER CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 30 (9.1 m) **WIDTH :** 30 (9.1 m)
YR BUILT : 1898 **ALTERATION :** 1990 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Concord, Concord Road Bridge is owned by PennDOT and is ranked 106th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 – moderate
Cost to Rehabilitate or Replace Code = 60 – very high
Anticipated Development Code = 28 - very low
Recreational, Historical, and Cultural Values Code = 43 - low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan, and it was previously programmed in the Transportation Improvement Program (TIP) to be replaced. The bridge has a moderate condition code resulting from moderate to severe scour problems. Its transportation code borders on low, a result of high traffic volumes. The bridge stands in an area of active development, where its traffic would be expected to increase in the future; this would exacerbate the already low transportation code. Its waterway is moderately adequate; local flooding is an occasional problem. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has received no public comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 65

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 23702304400143 **DIST:** 6 **UTM:** 18/475349/4415933
OLD BMS # : **CTY:** DELAWARE **OWNER:** DELAWARE COUNTY
MUNICIPALITY : GLENOLDEN **LOCATION :** 0.25 MILE SE OF US 13
FACILITY CARRIED : GLENOLDEN AVENUE
NAME/FEATURE INTERSECTED : GLENOLDEN AVENUE OVER MUCKINIPATTIS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 45.7 (13.9 m)
YR BUILT : 1943 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : H. C. THRONE, CO ENG/WALTER H. HIBBARD
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Glenolden, Glenolden Avenue Bridge is owned by Delaware County and is ranked 102nd.

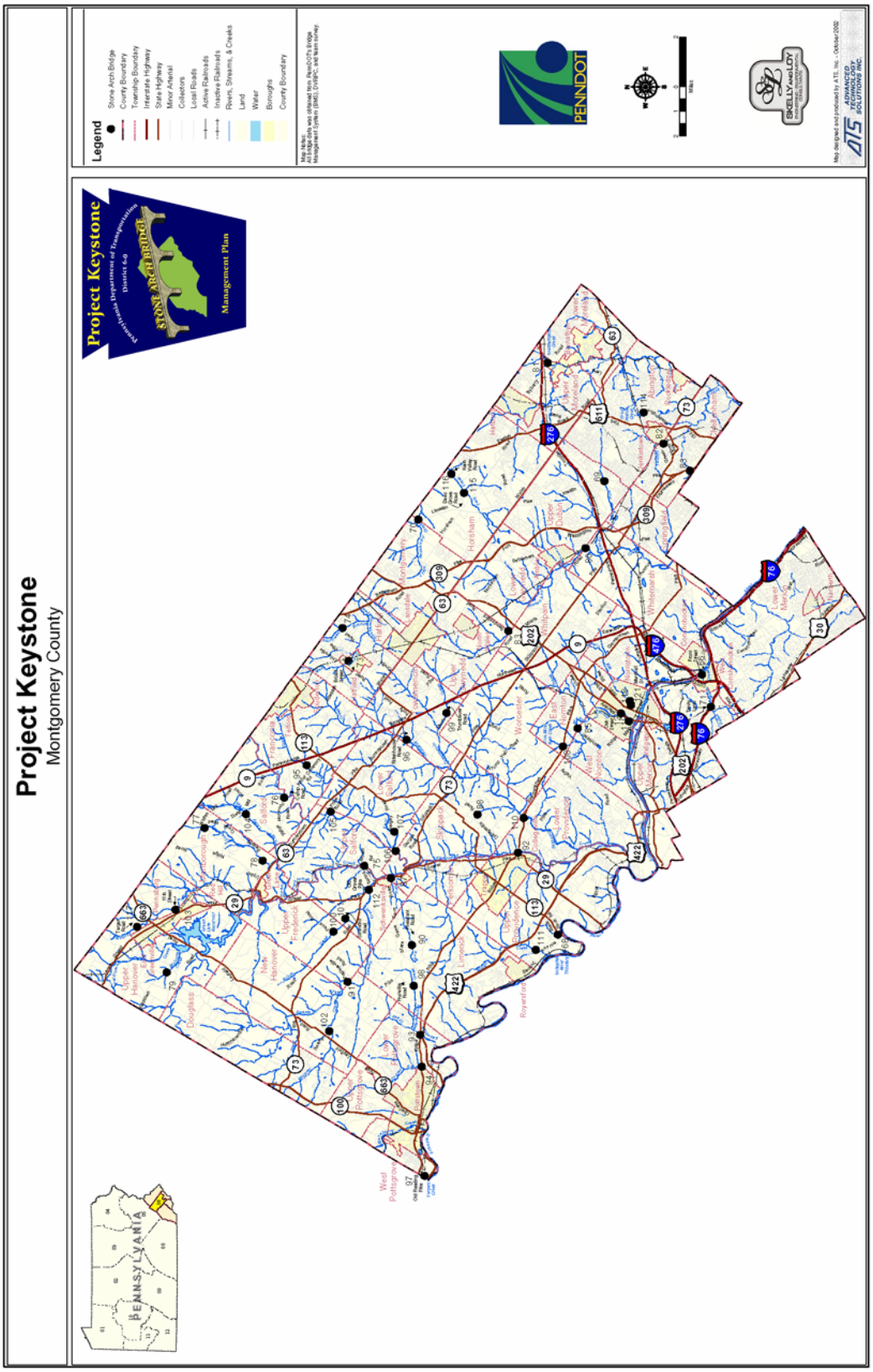
Condition Code = 59 - high
Transportation Code = 47 - moderate
Waterway Adequacy Code = 46 – moderate
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 35 – very low

This bridge is the youngest stone arch bridge under study in this plan (1943). However, it is not a strong candidate for long-term preservation, as it ranks in the lowest third of all the stone arch bridges under study in this plan. The bridge has scour problems, the waterway is marginally adequate, and some flooding does occasionally occur. The transportation code is moderate, a result of relatively high traffic volumes. These volumes are expected to increase, as the bridge is located in an area of moderate development. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a greenway, natural area, or park. The bridge has received no public comment. The cost to rehabilitate this bridge is relatively expensive. The only positive is the bridge's condition, which is rated as good.

Recommendation: Not a strong candidate for long-term preservation.

APPENDIX E -
MONTGOMERY COUNTY BRIDGE INVENTORY

APPENDIX E
MONTGOMERY COUNTY BRIDGE INVENTORY



BRIDGE NO. 66

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46002302701682 **DIST:** 6 **UTM:** 18/470469/4443328
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : WEST CONSHOHOCKEN **LOCATION :** 0.4 MILE WEST FAYETTE ST 35D03
FACILITY CARRIED : SR 23 (CONSHOHOCKEN STATE ROAD), BRIDGE # 81
NAME/FEATURE INTERSECTED : SR 23 (CONSHOHOCKEN STATE ROAD) OVER GULF CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 35.5 (10.8 m)
YR BUILT : 1912 **ALTERATION :** 1928, 1990ca **SOURCE :** PLAQUES/STYLE
DESIGNER/BUILDER : MONTGOMERY COUNTY(1912), WARREN F. CRESSMAN (1928)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Conshohocken, Conshohocken State Road Bridge is owned by PennDOT and is ranked 118th.

Condition Code = 67 – very high
Transportation Code = 50 - moderate
Waterway Adequacy Code = 26 - very low
Cost to Rehabilitate or Replace Code = 39 – very low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 - very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked of all stone arch bridges under study in this plan. The bridge has low waterway adequacy, there is evidence of scour, and its cost to rehabilitate is high, as the only stone components that remain are the arch barrel and upstream side spandrel wall. The most serious problem is the low waterway adequacy, which is a function of the arch barrel opening. The arch barrel is also the primary structural component of a stone arch bridge. Enlarging the waterway opening would involve rebuilding the bridge. The inadequate waterway opening also exacerbates scour by increasing the speed of the water passing through it. The bridge is in an area of development and would likely be inadequate to handle future traffic. A low values code indicates a lack of recreational, historical, or cultural significance; the bridge is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district. No public input was received for this bridge.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 67

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46002902303497 **DIST:** 6 **UTM:** 18/461024/4456505
OLD BMS # : 46002902303461 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : SCHWENKSVILLE **LOCATION :** SCHWENKSVILLE 14B08
FACILITY CARRIED : SR 29 (MAIN STREET)
NAME/FEATURE INTERSECTED : SR 29 (MAIN STREET) OVER MINE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 26 (7.9 m) **WIDTH :** 50 (15.2 m)
YR BUILT : 1880CA **ALTERATION :** 1910CA, 1928 **SOURCE :** PLAQUE (1928)
DESIGNER/BUILDER : WARREN F. CRESSMAN / JOHN F. KEELOR (1928)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Within the Schwenksville Historic District, but not a contributing element to it

The Schwenksville, Main Street Bridge is owned by PennDOT and is ranked 96th.

Condition Code = 63 – very high
Transportation Code = 40 - low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 36 – very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. It scores low or very low in four categories -- transportation, waterway adequacy, cost, and values -- and moderate in two others -- development and public input. The bridge does not handle current traffic well, and since it is located in an area of development, it will likely be inadequate for anticipated traffic increases. The bridge has a low waterway adequacy, a difficult problem to repair for stone arch bridges; as a function of the arch barrel size, correcting the problem requires the entire bridge to be rebuilt. Widening with concrete on both sides and a recently installed metal lining compromise historic integrity and make it difficult to identify the bridge as stone. In addition, the bridge is not listed in or eligible for listing in the National Register of Historic Places. It does not contribute to the potential Schwenksville Historic District, as its age falls outside the historic district's period of significance. Public input has been moderate for the bridge, which is located adjacent to a park (one questionnaire and one petition).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 68

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46011300200789 **DIST:** 6 **UTM:** 18/457708/4446533
OLD BMS # : 46011300200000 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER PROVIDENCE **LOCATION :** NEAR MONT. CO. GERIATRIC CENTER
FACILITY CARRIED : SR 113 (BLACK ROCK ROAD)
NAME/FEATURE INTERSECTED : SR 113 (BLACK ROCK ROAD) OVER TRIBUTARY OF SCHUYLKILL RIVER
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 21 (6.4 m)
YR BUILT : 1883 **ALTERATION :** 1993 **SOURCE :** PLAQUE
DESIGNER/BUILDER : WILLIAM TODD, CONTRACTOR (1883)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Providence, Black Rock Road Bridge is owned by PennDOT and is ranked 69th.

Condition Code = 55 - high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 42 – low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It ranks in the lower half of all stone arch bridges under study in this plan. The bridge's transportation code borders on low, a function of the structure's high volume of traffic and narrow width, which is a safety issue. The waterway adequacy is poor, resulting in occasional flooding. An inadequate waterway opening is a function of the size of the arch barrel, which is also the bridge's main structural element. Correcting the problem to enlarge the opening involves rebuilding the bridge. It also results in a high cost for rehabilitation. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. It is located between county owned park land through which the Schuylkill River Trail will pass. It has public support, including a letter in favor of its preservation from the Montgomery County Planning Commission and one meeting at which this bridge was a focus; therefore, a context-sensitive replacement could be investigated, if the bridge were to be replaced.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 69

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46015200800722 **DIST:** 6 **UTM:** 18/485799/4441619
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER DUBLIN **LOCATION :** AT LULU COUNTRY CLUB
FACILITY CARRIED : SR 152 (LIMEKLIN PIKE)
NAME/FEATURE INTERSECTED : SR 152 (LIMEKILN PIKE) OVER SANDY RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 30.1 (9.2 m)
YR BUILT : 1810 **ALTERATION :** 1996 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Dublin, Limekiln Road Bridge is owned by PennDOT and is ranked 122nd.

Condition Code = 48 – moderate
Transportation Code = 40 - low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 47 - moderate
Anticipated Development Code = 28 - very low
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is among the lowest ranked of the stone arch bridges under study in this plan. It scored low or very low in five variables: transportation, waterway adequacy, development, values, and public input. Advanced scour was identified during the latest inspection. High traffic volumes occur on this bridge, which has a relatively narrow width. Additional growth is anticipated in the area and would result in a decreasing ability to support traffic flow. The waterway is inadequate and causes occasional flooding; the advanced scour is likely a result of the inadequate waterway. An inadequate waterway is a function of the size of the arch barrel, which is also the bridge's main structural element. Repairing the problem to enlarge the opening requires the reconstruction of the bridge. Returning the bridge to its historic appearance would be relatively expensive, as some of its historic fabric and form is missing. The recreational, historical, and cultural values and public input codes are very low, indicating a lack of significance for the bridge. Although an old example (1810), it was determined not eligible for listing in the National Register of Historic Places individually because of the alterations, including the replacement of parts of the parapets with concrete and a steel guide rail. It also does not contribute to a historic district. The bridge received no public support.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 70

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46015202302106 **DIST:** 6 **UTM:** 18/483695/4453832
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : MONTGOMERY **LOCATION :** MONTGOMERY TOWNSHIP LINE
FACILITY CARRIED : SR 152 (LIMEKLIN PIKE)
NAME/FEATURE INTERSECTED : SR 152 (LIMEKILN PIKE) OVER LITTLE NESHAMINY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 42 (12.8 m) **WIDTH :** 28 (8.5 m)
YR BUILT : 1838 **ALTERATION :** 1969 **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Montgomery, Lower State/Limekiln Pike Bridge is owned by PennDOT and is ranked 48th.

Condition Code = 40 - low
Transportation Code = 28 - very low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 – high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 - high
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. Its ranking does not indicate the depth of structural and safety issues associated with the bridge. The bridge is on PennDOT's Transportation Improvement Program (TIP) and is scheduled to be replaced. The condition is poor, bordering on very poor. The transportation code is also very low. The bridge is narrow and has a restricted weight limit; it also carries a high volume of traffic. Traffic increases are anticipated due to anticipated development. It suffers from scour problems, and the parapets have been repeatedly struck and rebuilt. The waterway is adequate. The relatively strong ranking the bridge received is primarily a function of its high public input and values codes. There has been extreme public support of this National Register of Historic Places-listed bridge, which has good historic integrity and is located in a greenway. The County Planning Commission states that a planned trail will pass over it. It has been the subject of one questionnaire, two letters (one from the Planning Commission), one email, and one meeting at which this bridge was a focus. A context-sensitive design should be explored for its replacement.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 71

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46032000400852 **DIST:** 6 **UTM:** 18/470863/4435187
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER MERION **LOCATION :** GULPH MILLS 34K04
FACILITY CARRIED : TRINITY LANE
NAME/FEATURE INTERSECTED : TRINITY LANE OVER GULPH MILLS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 34 (10.4 m)
YR BUILT : 1789 **ALTERATION :** 1884, 20TH C., 1980 **SOURCE :** PLAQUES
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Merion, Trinity Lane Bridge is owned by PennDOT and is ranked 94th.

Condition Code = 37 – very low
Transportation Code = 42 - low
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan. It ranks low or very low in three categories: condition, transportation, and waterway adequacy. The bridge suffers from advanced scour. It has a narrow width for the volume of traffic it carries. It is also located in an area with some anticipated growth, which would increase the traffic and exacerbate the existing problem. Its waterway is inadequate and causes occasional, serious flooding. For a stone arch bridge, the inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening, which would result in its removal from the National Register of Historic Places (NRHP). This NRHP-listed bridge is situated near a greenway, resulting in a high values code. The bridge also has public support (one questionnaire, one email, a letter from the County Planning Commission, and one meeting at which this bridge was a focus). Because the bridge is located in a greenway and a potential historic district, a context-sensitive solution should be explored if it is ever replaced.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 73

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46100300100558 **DIST:** 6 **UTM:** 18/474496/4458667
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : HATFIELD **LOCATION :** HATFIELD 16G04
FACILITY CARRIED : BROAD STREET
NAME/FEATURE INTERSECTED : BROAD STREET OVER BRANCH NESHAMINY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 49 (14.9 m) **WIDTH :** 53 (16.2 m)
YR BUILT : 1850 **ALTERATION :** 1990 CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hatfield, Broad Street Bridge is owned by PennDOT and is ranked 87th.

Condition Code = 52 - moderate
Transportation Code = 47 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 32 – very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 51 – moderate
Public Input Code = 54 – moderate

This bridge is not recommended for long-term preservation. The chief structural problem is an inadequate waterway, which causes occasional flooding. For a stone arch bridge, the inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening, which would result in its removal from the National Register of Historic Places (NRHP); it is currently listed. The bridge also has lost historic integrity. Its parapets have been removed and replaced with metal railings, and the spandrels have been capped with concrete. The arch ring has been thickly coated with gunite. Returning the bridge to its historic appearance would be expensive. The bridge has a moderate condition code, a result of minor scour. It is just sufficient to carry its current traffic volume; because little growth is anticipated in the area, it will likely be sufficient for some time. Although there has been public support for this bridge (one letter, two emails, and one meeting at which this bridge was a focus), the structural and traffic issues are too great to recommend the bridge for long-term preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 74

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46100400901445 **DIST:** 6 **UTM:** 18/475347/4459034
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : HATFIELD **LOCATION :** HATFIELD TWP. 16K04
FACILITY CARRIED : ORVILLA ROAD
NAME/FEATURE INTERSECTED : ORVILLA ROAD OVER WEST NESHAMINY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 46 (14.0 m) **WIDTH :** 23.5 (7.2 m)
YR BUILT : 1874 **ALTERATION :** 1990CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hatfield, Orvilla Road Bridge is owned by PennDOT and is ranked 50th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 64 - high
Public Input Code = 60 – very high

The bridge is recommended for the Reserve Pool. Its ranking falls just outside of the upper third of all bridges surveyed for this project, and there has been strong public support (one questionnaire, one email, one letter from the County Planning Commission, and one meeting at which this bridge was a focus). It is listed in the National Register of Historic Places and is also located in a park. Historic integrity is strong, meaning the cost to maintain its historic appearance would be relatively low. There are issues that need to be addressed, however. The condition code is moderate, the result of scour, as is the waterway adequacy code; occasionally, there is flooding at the approaches. Of greater concern is the bridge's narrow width and limited sight distances at either end. Because the bridge is located in an area with a high potential for development, traffic pressures on the bridge could exacerbate. Creative solutions may be necessary to deal with the traffic issue.

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 75

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46101900303556 **DIST:** 6 **UTM:** 18/461316/4458168
OLD BMS # : 46101900303482 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : LOWER FREDERICK **LOCATION :** 1 MILE NORTHEAST OF PA 29 14D05
FACILITY CARRIED : SR 1019 (SPRING MOUNT ROAD)
NAME/FEATURE INTERSECTED : SR 1019 (SPRING MOUNT ROAD) OVER PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 6 **LENGTH :** 202 (61.6 m) **WIDTH :** 20 (6.1 m)
YR BUILT : 1869 **ALTERATION :** 1975 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY/EB HOUPT, WC SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Frederick, Spring Mount Road Bridge is owned by PennDOT and is ranked 93rd.

Condition Code = 40 - low
Transportation Code = 40 - low
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 48 - moderate
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It ranks in the lowest third of the stone arch bridges under study in this plan, and it has been placed on the Transportation Improvement Program (TIP) for replacement. This bridge's condition is poor, the result of bulges and cracks in the spandrel walls and extensive scour problems. The bridge is posted due to the structural deficiencies. The bridge's narrow width is not sufficient for the current volume of traffic, and anticipated high development in the area will only result in traffic increases. Historic integrity has been compromised by repairs now considered inappropriate, including using concrete and gunite. Public input indicates some support for the bridge (one questionnaire, one email, and one petition), which is located near a greenway and a park. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. Waterway adequacy is high, but this does not overcome the other structural issues.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 76

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46102100200000 **DIST:** 6 **UTM:** 18/465873/4463141
OLD BMS # : 46102100103169 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : FRANCONIA **LOCATION :** SALFORD & FRANCONIA BORDER 08B10
FACILITY CARRIED : CAMP ROAD
NAME/FEATURE INTERSECTED : CAMP ROAD OVER EAST BRANCH PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 5 **LENGTH :** 146 (44.5 m) **WIDTH :** 24.9 (7.6 m)
YR BUILT : 1858 **ALTERATION :** 1916, 1932, 1985 CA **SOURCE :** INSP FILE
DESIGNER/BUILDER : JAMES WHITE
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Franconia, Camp Road Bridge is owned by PennDOT and is ranked 114th.

Condition Code = 33 - very low
Transportation Code = 38 – very low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 30 – very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It is one of the lowest ranked of the stone arch bridges under study in this plan, and it is on the Transportation Improvement Program (TIP) for replacement. It ranks low or very low in five categories -- condition, transportation, waterway adequacy, rehabilitation cost, and values. Its low condition code results from advanced scour (including missing foundation stones) and cracks and loose stones in the superstructure; the bridge is posted for 13 tons. The bridge's narrow width is not sufficient for current traffic, and the waterway opening is inadequate. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. The cost to rehabilitate the structure's historic fabric and form is high, because the parapets are not original and the spandrel walls and arch barrels have been gunited. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. Although there has been public support for this bridge (two questionnaires, one letter, one telephone call, and two petitions), the structural and traffic issues are too great to recommend the bridge for preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 77

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46102300500606 **DIST:** 6 **UTM:** 18/464058/4468515
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : MARLBOROUGH **LOCATION :** 1MI.S.BUCKS CO LN. 07H01
FACILITY CARRIED : SR 1023 (SWAMP CREEK ROAD)
NAME/FEATURE INTERSECTED : SR 1023 (SWAMP CREEK ROAD) OVER UNAMI CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 98 (29.9 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1910 **ALTERATION :** 1990CA **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, GEORGE F.P. WANGER/J.M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Marlborough, Swamp Creek Road Bridge is owned by PennDOT and is ranked 17th.

Condition Code = 44 - low
Transportation Code = 59 - high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. The bridge scores high in five codes -- transportation, rehabilitation costs, development, cultural values, and public input. PennDOT has already committed to keeping the bridge, undertaking some repair work. Marlborough Township has also passed a petition in favor of retaining the bridge. The bridge handles its present low volume of traffic well, and as the bridge is located in a low development area, future traffic is not expected to increase significantly. The waterway is also adequate. Cracks and loose stones in the superstructure and minor scour in the substructure will need to be addressed in accordance with the Maintenance Manual developed as part of this plan. The bridge is both listed in the National Register of Historic Places and located in a park, resulting in a high values code. Historic integrity is good, meaning rehabilitation costs are potentially low. There is public support for the bridge (two questionnaires and two emails) as well as the township's resolution.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 78

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46103000200181 **DIST:** 6 **UTM:** 18/461775/4464826
OLD BMS # : 46103000101808 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : MARLBOROUGH **LOCATION :** 1 MILE NORTH OF PA 63 07E07
FACILITY CARRIED : SR 1030 (SWAMP CREEK ROAD)
NAME/FEATURE INTERSECTED : SR 1030 (SWAMP CREEK ROAD) OVER UNAMI CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 100 (30.5 m) **WIDTH :** 21.5 (6.6 m)
YR BUILT : 1892 **ALTERATION :** 1928, 1990ca **SOURCE :** PLAQUE
DESIGNER/BUILDER : A. CALHOUN/THOMAS MCADAMS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Marlborough, Swamp Creek Road Bridge is owned by PennDOT and is ranked 21st.

Condition Code = 48 - moderate
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 50 – moderate
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – high

This bridge is recommended for long-term preservation. The bridge ranks in the top third of all stone arch bridges under study in this plan. Structural problems, including cracks and loose stones in the superstructure and advanced scour in the substructure, are to be addressed by PennDOT, which should raise the condition code. The bridge is very narrow, but it handles its low volume of traffic adequately and little additional growth is anticipated in the area. The waterway is adequate. This National Register of Historic Places-listed bridge is located in a greenway, resulting in a very high cultural values code. The bridge has also received public support (two questionnaires, three emails, and one petition). The bridge has historic integrity.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 79

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46103300301115 **DIST:** 6 **UTM:** 18/454734/4471155
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER HANOVER **LOCATION :** 0.75 MILE SOUTH OF MILLER ROAD 02B10
FACILITY CARRIED : SR 1033 (KUTZTOWN ROAD)
NAME/FEATURE INTERSECTED : SR 1033 (KUTZTOWN ROAD) OVER MOLASSES CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 21 (6.4 m) **WIDTH :** 18.6 (5.7 m)
YR BUILT : 1895 **ALTERATION :** 1980CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Hanover, Kutztown Road Bridge is owned by PennDOT and is ranked 120th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 42 - low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 – very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked of the bridges studied under this plan. It scores low or very low in five categories: waterway adequacy, rehabilitation costs, future development, values, and public input. The waterway is inadequate and causes occasional flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. Its low transportation code is the result of a narrow width for the volume of traffic carried. Additional growth is anticipated in the area, which will only increase the traffic. The cost to rehabilitate the bridge to its historic appearance is high, a result of the parapets having been replaced with steel guide rails. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and no public support has been received for the bridge.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46200100200000 **DIST:** 6 **UTM:** 18/481542/4443108
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : WHITEMARSH **LOCATION :** FORT WASHINGTON 30J04
FACILITY CARRIED : SR 2001 (MORRIS ROAD)
NAME/FEATURE INTERSECTED : SR 2001 (MORRIS ROAD) OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 107 (32.6 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1841 **ALTERATION :** 1916 **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Whitemarsh, Morris Road Bridge is owned by PennDOT and is ranked 73rd.

Condition Code = 67 – very high
Transportation Code = 40 - low
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 59 - high
Public Input Code = 60 – very high

The bridge is recommended for the Reserve Pool. There is some evidence of scour, due to an inadequate waterway. Waterway adequacy is a difficult problem to fix in a stone arch bridge. Waterway adequacy is a function of the size of the arch barrel, the main structural element. Widening a bridge would generally require rebuilding it. The bridge also has a narrow width for the volume of traffic it carries currently, and sight distance is limited at one end. There is high potential for growth in the area that will exacerbate the already low transportation code. However, the structure is in excellent condition overall. The bridge is significant to the public as a National Register of Historic Places-listed bridge located near a park. The cost to rehabilitate the bridge is comparatively low, as the bridge retains most of its historic fabric and form. The bridge enjoys public support (one questionnaire, one letter from the County Planning Commission, and one meeting at which this bridge was a focus).

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 81

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46200900800708 **DIST:** 6 **UTM:** 18/493612/4445308
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : BRYN ATHYN **LOCATION :** BRYN ATHYN 25J13
FACILITY CARRIED : SR 2009 (BYBERRY ROAD)
NAME/FEATURE INTERSECTED : SR 2009 (BYBERRY ROAD) OVER SOUTHAMPTON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 31 (9.4 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1828 **ALTERATION :** 1858, 1996CA **SOURCE :** PLAQUES (2)
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

The Bryn Athyn, Byberry Road Bridge is owned by PennDOT and is ranked 101st.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 42 - low

Despite ranking in the lowest third of all bridges surveyed for this project, the bridge is recommended for long-term preservation. It was previously programmed on the Transportation Improvement Plan (TIP) for rehabilitation. The bridge is listed in the National Register of Historic Places and it has historic integrity, meaning that the cost to rehabilitate its historic form and fabric would be relatively low. It also handles its traffic moderately well. However, the rehabilitation will need to address structural issues, including existing scour and an inadequate waterway opening.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 82

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46205400301374 **DIST:** 6 **UTM:** 18/488207/4437730
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : CHELTENHAM **LOCATION :** JENKINTOWN BORDER 31K13
FACILITY CARRIED : SR 2054 (GREENWOOD AVENUE)
NAME/FEATURE INTERSECTED : SR 2054 (GREENWOOD AVENUE) OVER TACONY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 36 (11 m) **WIDTH :** 78.6 (24 m)
YR BUILT : 1899 **ALTERATION :** 1929 **SOURCE :** PLAQUE
DESIGNER/BUILDER : WARREN CRESSMAN (1929)/HERMAN RIEBE (1899)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Cheltenham, Greenwood Avenue Bridge is owned by PennDOT and is ranked 111th.

Condition Code = 48 - moderate
Transportation Code = 66 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 32 – very low
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. It scores low or very low in six categories; only in one category, transportation code, does it score high. The most serious structural problem is the waterway opening, which is not adequate and which occasionally causes flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. The inadequate waterway opening is also the likely cause of the bridge's extensive scour. The bridge handles its traffic very well currently; however, it is located in an area of high development potential, where future traffic is expected to increase significantly. Past repairs now considered inappropriate, including encasing the bridge in concrete so it resembles a concrete arch, compromises historic integrity and makes the cost of rehabilitating the bridge to its historic appearance high. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, although it is part of a greenway. The public input code is also low; the bridge has had only one comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 83

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46206400100840 **DIST:** 6 **UTM:** 18/486357/4436068
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : CHELTENHAM **LOCATION :** 0.1 MILE NORTH OF CHELTENHAM AVE 37G02
FACILITY CARRIED : SR 2064 (LIMEKLIN PIKE) (Bridge 299)
NAME/FEATURE INTERSECTED : SR 2064 (LIMEKILN PIKE) OVER ROCK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 27 (8.2 m)
YR BUILT : 1841 **ALTERATION :** 1925, 1997 **SOURCE :** INSP FILE/PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Cheltenham, Limekiln Pike Bridge is owned by PennDOT and is ranked 98th.

Condition Code = 59 - high
Transportation Code = 57 - high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 40 - low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 – very low
Public Input Code = 35 – very low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all the stone arch bridges under study in this plan, and it has previously been added to the PennDOT's Transportation Improvement Program (TIP) for replacement. Historic integrity is poor; the arches have been filled, and the bridge no longer crosses a waterway. The filled arches mean that the cost to rehabilitate the bridge to its historic appearance and form is high. Although the bridge is in good condition and is carrying its traffic sufficiently, it has a narrow width and is located in an area of high development potential, making future traffic a likely problem. The values code and the public input code are very low, reflecting a lack of National Register of Historic Places eligibility. It is not individually listed or eligible and it does not contribute to a historic district. No public comment has been received about this bridge.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 84

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46300300400246 **DIST:** 6 **UTM:** 18/480395/4438856
OLD BMS # : 46300300400173 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : WHITMARSH **LOCATION :** WEST OF WISSAHICKON CREEK 30G11
FACILITY CARRIED : SR 3003 (STENTON AVENUE)
NAME/FEATURE INTERSECTED : SR 3003 (STENTON AVENUE)OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 112(34.1 m) **WIDTH :** 25.3 (7.7 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Whitemarsh, Stenton Avenue Bridge is owned by PennDOT and is ranked 57th.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 – very low
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - high
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. Although it ranks in the middle third of all stone arch bridges under study in this plan and Montgomery County has expressed a desire for PennDOT to preserve this bridge, there are structural and transportation problems associated with it. The bridge has a low condition code, a very low waterway adequacy code, and a moderate (bordering on low) transportation code. For these reasons, the bridge has been placed on the Transportation Improvement Program (TIP) for replacement. The bridge has scour problems. In addition, the width of this bridge is too narrow for the current volume of traffic, although not much growth is anticipated in the area. It suffers a good deal of impact damage. Its waterway is inadequate and causes occasional flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge generally would have to be rebuilt to enlarge the waterway opening. Public input is high, however, with a good deal of support for the bridge, and it is located adjacent to Fort Washington State Park and will carry a trail in the future. However, the bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 85

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46300600301319 **DIST:** 6 **UTM:** 18/469762/4444071
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : EAST NORRITON **LOCATION :** AT WEST NORRITON BORDER 28H02
FACILITY CARRIED : SR 3006 (WHITEHALL ROAD)
NAME/FEATURE INTERSECTED : SR 3006 (WHITEHALL ROAD) OVER BRANCH STONEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 38 (11.6 m) **WIDTH :** 35 (10.7 m)
YR BUILT : 1911 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : COUNTY ENGINEER/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The East Norriton, Whitehall Road Bridge is owned by PennDOT and is ranked 56th.

Condition Code = 44 - low
Transportation Code = 47 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 60 – very high

This bridge is recommended for the Reserve Pool. The bridge is located next to the county-owned Norriston Farm Park and enhances its visual setting. For this reason, the Montgomery County Planning Commission has asked that it be preserved, if possible. The bridge has also received other public input. There are difficulties with preserving the bridge, however. The bridge is narrow and does not carry its current volume of traffic well. Some growth is anticipated in the area, which could increase the traffic volume, but the Planning Commission does not believe that this would be a problem. This bridge also has a low condition code, as a result of scour problems. Its waterway is inadequate and causes occasional flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 88

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

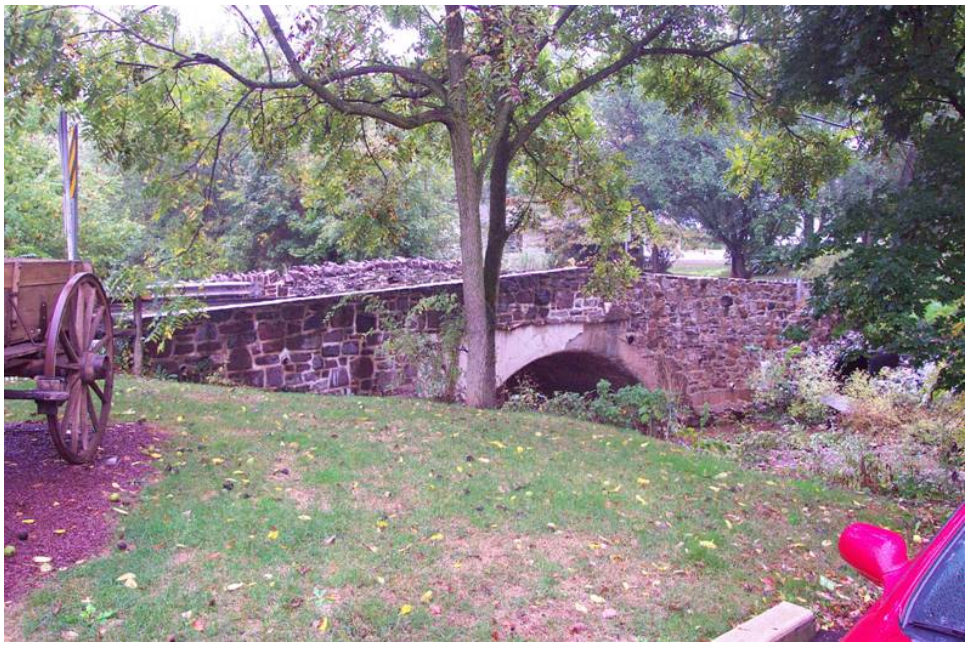
BMS # : 46401000202068 **DIST:** 6 **UTM:** 18/466108/4452411
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : SKIPPACK **LOCATION :** 1 MILE SOUTH OF PA 73 21B02
FACILITY CARRIED : SR 4010 (COLLEGEVILLE ROAD)
NAME/FEATURE INTERSECTED : SR 4010 (COLLEGEVILLE ROAD) OVER BRANCH SKIPPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 24 (7.3 m) **WIDTH :** 20 (6.1 m)
YR BUILT : 1830 **ALTERATION :** 1970 CA; 1989 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Skippack, Collegeville Road Bridge is owned by PennDOT and is ranked 76th.

Condition Code = 67 – very high
Transportation Code = 56 - high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 55 - high
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 42 – low

This bridge is not recommended for long-term preservation. Although it currently carries its traffic adequately, there is high growth potential in the area and the bridge has a narrow width. It would likely be unable to handle future traffic and would become a safety issue. A second problem is the bridge's waterway, which is marginally adequate and causes some flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. In addition, it would be moderately expensive to rehabilitate to its historic appearance due to historically inaccurate past repointing and the use of gunite for repairs to the arch ring and arch barrel. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, resulting in a low values code.

Recommendation: Not recommended for long-term preservation.



BRIDGE NO. 90

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46401900101963 **DIST:** 6 **UTM:** 18/456339/4455236
OLD BMS # : 46401900101992 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : HORSHAM **LOCATION :** LIMERICK 13E10
FACILITY CARRIED : SR 4019 (PHEASANT ROAD)
NAME/FEATURE INTERSECTED : SR 4019 (PHEASANT ROAD) OVER MINE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 23 (7 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1937 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Horsham, Pheasant Road Bridge is owned by PennDOT and is ranked 6th.

Condition Code = 63 – very high
Transportation Code = 66 – very high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 61 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 – moderate
Public Input Code = 54 – moderate

This bridge is an excellent candidate for long-term preservation. It scores high or very high in five of eight variables: condition, transportation, rehabilitation cost, and values. The bridge is in excellent condition, and it is handling its level of traffic very well. The bridge has a relatively narrow width, but it is adequate for the low volume of traffic it currently carries. With a low development potential in the area, little additional traffic is anticipated. While the bridge's waterway is marginally adequate, it has historic integrity, meaning that the cost for rehabilitating its historic fabric and form is relatively low. Public support for the bridge is moderate (one letter and one meeting at which the bridge was a focus). The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is located in a greenway.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 91

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46402300320476 **DIST:** 6 **UTM:** 18/453672/4459507
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : UPPER FREDERICK **LOCATION :** UPPER FREDERICK 13A03
FACILITY CARRIED : SR 4023 (FAGLEYSVILLE ROAD)
NAME/FEATURE INTERSECTED : SR 4023 (FAGLEYSVILLE ROAD) OVER WEST SWAMP CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 60 (18.3 m) **WIDTH :** 22.5 (6.9 m)
YR BUILT : 1854 **ALTERATION :** 1990CA **SOURCE :** INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

The Upper Frederick, Fagleysville Road Bridge is owned by PennDOT and is ranked 64th.

Condition Code = 74 - very high
Transportation Code = 56 - high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 44 - low
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 54 – moderate

The Fagleysville Bridge is recommended for long-term preservation. PennDOT has already demonstrated its commitment to the bridge, completing a major reconstruction of the structure. As a result of the rebuilding, the bridge is in excellent condition, and has a very high condition code. The codes for transportation and historic integrity (rehabilitation costs) are also high. The rebuilding was a result of high community interest and support for the National Register of Historic Places-listed bridge. The bridge, however, still has an inadequate waterway.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 92

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46403100900279 **DIST:** 6 **UTM:** 18/461832/4448176
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : LOWER PROVIDENCE **LOCATION :** COLLEGEVILLE 20E09
FACILITY CARRIED : SR 4031 (RIDGE PIKE)
NAME/FEATURE INTERSECTED : SR 4031 (RIDGE PIKE) OVER PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 6 **LENGTH :** 453 (138.1 m) **WIDTH :** 39 (11.9 m)
YR BUILT : 1798-1799 **ALTERATION :** 1928, 1985 **SOURCE :** PLAQUES (2)
DESIGNER/BUILDER : JOHN LEVIS/GEORGE BOYER (1798); WF CRESSMAN (1928)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Providence, Ridge Pike Bridge is owned by PennDOT and is ranked 36th.

Condition Code = 52 - moderate
Transportation Code = 28 - very low
Waterway Adequacy Code = 59 –high
Cost to Rehabilitate or Replace Code = 64 – very high
Anticipated Development Code = 48 – moderate
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation. The second-longest stone arch highway bridge in North America (the longest is in Connecticut, built in 1910), this bridge was built for a turnpike at the close of the eighteenth century. This bridge remains an excellent example of highway bridge construction in the late eighteenth century. It is also tied to the identity of the community. It is featured on the town of Collegeville's logo.

The bridge scores very high in two categories and high in two others. It is individually listed in the National Register of Historic Places and located in a greenway, resulting in a very high values code. It also has excellent historic integrity, meaning that rehabilitation costs are low. There is extreme public support for the bridge (three questionnaires, one email, one petition, one letter of support from the Township Commissioners, and one meeting at which this bridge was the focus). Structurally, the waterway adequacy is high. Condition is moderate, with evidence of scour. The width of the bridge, however, is narrow for the current volume of traffic, and moderate development is anticipated in the area.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 93

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

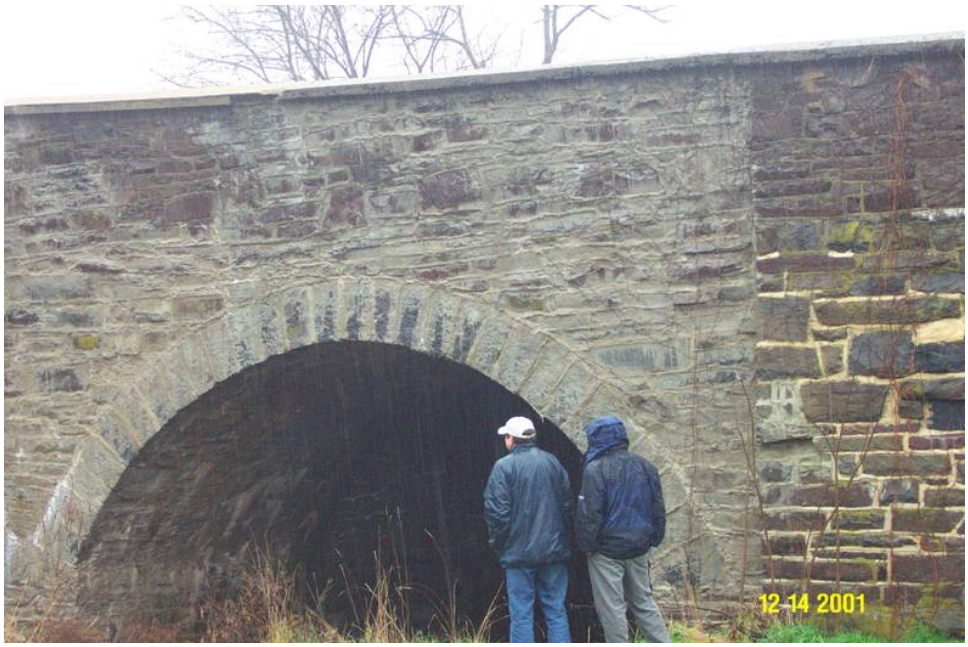
BMS # : 46403103000146 **DIST:** 6 **UTM:** 18/449391/4454909
OLD BMS # : 46403103000160 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : LOWER POTTSGROVE **LOCATION :** SANATOGA 12E11
FACILITY CARRIED : SR 4031 (RIDGE PIKE)
NAME/FEATURE INTERSECTED : SR 4031 (RIDGE PIKE) OVER SANATOGA CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 50 (15.2 m) **WIDTH :** 39 (11.9 m)
YR BUILT : 1850 CA **ALTERATION :** 1914 **SOURCE :** STYLE/PLAQUE
DESIGNER/BUILDER : MONT CO, JAMES CRESSON (1914)/ B A SCHEELER (1914)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Pottsgrove, Ridge Pike Bridge is owned by PennDOT and is ranked 42nd.

Condition Code = 52 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 50 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 60 – very high

Despite ranking in the upper third of all stone arch bridges under study in this plan, the bridge is recommended for the Reserve Pool. Its waterway adequacy is high, and its overall condition is moderate; however, there is some scour present. Stabilization work was recently completed on the bridge. The bridge has historic integrity, and the cost to rehabilitate this bridge back to its historic form and fabric would be moderate. Public support for this bridge, located in a greenway, is high (two questionnaires, three letters, one email, and one telephone call). However, the bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. Its transportation code borders on low, and moderate growth is expected in the area, which may add to the existing traffic. The most important reason this bridge is not recommended for long-term preservation at this time is its location on the evacuation route for the Limerick Power Plant. Its ability to handle traffic adequately is paramount. For this reason, the bridge is on the Transportation Improvement Program (TIP) to either be rehabilitated or replaced.

Recommendation: Recommended for the Reserve Pool.



BRIDGE NO. 94

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46403103103638 **DIST:** 6 **UTM:** 18/448115/4454918
OLD BMS # : 46403103103533 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : LOWER POTTSGROVE **LOCATION :** SANATOGA 12A11
FACILITY CARRIED : SR 4031 (RIDGE PIKE)
NAME/FEATURE INTERSECTED : SR 4031 (RIDGE PIKE) OVER SPROGLES RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 60 (18.3 m) **WIDTH :** 46 (14 m)
YR BUILT : 1895CA **ALTERATION :** 1910 **SOURCE :** STYLE/PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, GEO FP WANGER/BA SHEELER (1910)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Pottsgrove, Ridge Pike Bridge is owned by PennDOT and is ranked 97th.

Condition Code = 48 - moderate
Transportation Code = 47 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 40 - low
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 43 - low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. Although the structure is located near a greenway and has received a high level of public interest (one questionnaire, three letters [including one from the County Planning Commission], three emails, and one meeting at which this bridge was a focus), the bridge ranks in the lowest third of all stone arch bridges under study in this plan. It currently carries its traffic moderately well; however, the bridge is located in a high growth area and the bridge would likely be unable to handle future traffic. While the waterway is adequate, the cost for rehabilitation back to its historic form and fabric is high. Historic integrity is compromised by the replacement of one section of the spandrel wall with gabions. The bridge is not eligible for listing in the National Register of Historic Places, either individually or as part of a historic district, resulting in a low values code.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 95

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704600600098 **DIST:** 6 **UTM:** 18/496587/4430877
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : FRANCONIA **LOCATION :** 0.7 MILE WEST OF PA 113 08E12
FACILITY CARRIED : KELLER CREAMERY ROAD
NAME/FEATURE INTERSECTED : KELLER CREAMERY ROAD OVER INDIAN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 76 (23.2 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1905 **ALTERATION :** 1997 **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Franconia, Keller Creamery Road is owned by Montgomery County and is ranked 3rd.

Condition Code = 63 – very high
Transportation Code = 59 – high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 54 – moderate

This bridge is an excellent candidate for long-term preservation. It is one of the highest ranked stone arch bridges in the population under study for this plan. The bridge rates high or very high in six of seven categories. This bridge is in excellent condition and is handling its current traffic very well. There is little development anticipated in the area, so future traffic will not likely become a problem. Its waterway is adequate and the bridge retains its historic form and fabric, making the cost to rehabilitate low. The bridge is individually eligible for listing in the National Register of Historic Places and is located near a park. Public support for this bridge is very high (one letter and one meeting at which this bridge was a focus).

Recommendation: Strong candidate for long-term preservation.

BRIDGE NO. 96

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601500224 **DIST:** 6 **UTM:** 18/496728/4430137
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : TOWAMENCIN **LOCATION :** AT TWIN LAKES COUNTRY CLUB 15H10
FACILITY CARRIED : RITTENHOUSE ROAD
NAME/FEATURE INTERSECTED : RITTENHOUSE ROAD OVER SKIPPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 104 (31.7 m) **WIDTH :** 19 (5.8 m)
YR BUILT : 1908 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JOHN H. DAGER/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Towamencin, Rittenhouse Road Bridge is owned by Montgomery County and is ranked 62nd.

Condition Code = 44 - low
Transportation Code = 57 - high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 60 – very high

This bridge is a not a good candidate for long-term preservation, despite strong public input, including support from the County Planning Commission. Its condition code is low due to scour at the piers. Its waterway is inadequate, leading to frequent flooding and scour. Waterway adequacy is a function of the size of the arch barrel, which is also the bridge's main structural element. Consequently, fixing the problem is difficult. To enlarge the opening, the bridge must be rebuilt. he transportation code is high, a result of low traffic volumes and good sight distances at the approaches. The bridge lies in an area of moderate development; future traffic will increase somewhat. The bridge's historic form and fabric are intact, making the cost to rehabilitate relatively inexpensive. However, rehabilitation would not address the inadequate waterway. The bridge is near a park, giving it a moderate values code. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 97

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601600243 **DIST:** 6 **UTM:** 18/494169/4430324
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : WEST POTTSGROVE **LOCATION :** NEAR BERKS COUNTY LINE 10J11
FACILITY CARRIED : OLD READING PIKE
NAME/FEATURE INTERSECTED : OLD READING PIKE OVER YERGERS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 34 (10.4 m) **WIDTH :** 31.5 (9.6 m)
YR BUILT : 1912 **ALTERATION :** 1948 **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY/JONATHAN L. HALTEMAN, CONTRACTOR
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Pottsgrove, Old Reading Pike Bridge is owned by Montgomery County and is ranked 27th.

Condition Code = 55 - high
Transportation Code = 59 – high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 – moderate

This bridge is a strong candidate for long-term preservation. It ranks within the top third of all stone arch bridges under study in this plan. The condition code is high. Although the spandrel walls have been reinforced with steel rods and plates, that repair has been in place since the 1940s. Currently needed repair work is limited to repointing. No scour was found during the last inspection. The bridge's transportation code is high, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low development potential; therefore, its future traffic may not increase substantially. Waterway adequacy is high. The cost to rehabilitate is moderate, as some strengthening measures may be required. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has public support (one letter and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 98

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601700126 **DIST:** 6 **UTM:** 18/495449/4430323
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LIMERICK **LOCATION :** NEAR POTTSTOWN AIRPORT 12K10
FACILITY CARRIED : FRUITVILLE ROAD
NAME/FEATURE INTERSECTED : FRUITVILLE ROAD OVER HARTENSTINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 28 (8.5 m) **WIDTH :** 23 (7 m)
YR BUILT : 1858 **ALTERATION :** 1995 **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Limerick, Fruitville Road Bridge is owned by Montgomery County and is ranked 85th.

Condition Code = 48 - moderate
Transportation Code = 59 – high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 47 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 60 – very high

This bridge is not a good candidate for long-term preservation, despite public support (one questionnaire, two letters, including one from the County Planning Commission, and one meeting at which this bridge was a focus). It ranks in the lowest third of all stone arch bridges under study in this plan. Its condition code is moderate because of loose stones and cracks, as well as concern about scour. The bridge is presently posted for an 18-ton load limit. The bridge's transportation code is very high, a result of low traffic volumes and good sight distances at the approaches. However, the bridge stands in an area of continuing development, where its traffic will likely increase substantially in the future, and is a potential problem. The waterway is only marginally adequate; some flooding occurs occasionally. The cost to rehabilitate is moderate; some portions of the parapets are leaning and would need to be rebuilt. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 99

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601700219 **DIST:** 6 **UTM:** 18/497439/4429397
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : TOWAMENCIN **LOCATION :** SOUTH OF KRIEBEL ROAD 22A02
FACILITY CARRIED : TRUMBAUER ROAD
NAME/FEATURE INTERSECTED : TRUMBAUER ROAD OVER TOWAMENCIN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 70 (21.3 m) **WIDTH :** 20.3 (6.2 m)
YR BUILT : 1907 **ALTERATION :** 1990 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Towamencin, Trumbauer Road Bridge is owned by Montgomery County and is ranked 45th.

Condition Code = 55 - high
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 51 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 – moderate

This bridge is a moderate candidate for long-term preservation, despite its ranking in the top third of all stone arch bridges under study in this plan. Its condition code is high, and it needs to have no specific action taken. Its transportation code is moderate, although the roadway is narrow and there is a sight distance problem at one end. However, the bridge stands in an area of low development potential; the bridge should be able to carry its future traffic. Its waterway is adequate. The bridge has public support (one letter and one meeting at which this bridge was a focus). The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a greenway, natural area, or park. The cost to rehabilitate the bridge is moderate, as some alterations have been made. The bridge is not functioning as a true stone arch; a metal liner has been inserted against the arch barrel, taking the thrust off the arch. The liner could cause the stone and mortar to deteriorate.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 100

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704602500108 **DIST:** 6 **UTM:** 18/495733/4430693
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER FREDERICK **LOCATION :** FAUST ROAD TO PA 73 13F02
FACILITY CARRIED : FAUST ROAD
NAME/FEATURE INTERSECTED : FAUST ROAD OVER SCIOTO CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 40 (12.2 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1909 **ALTERATION :** UNKNOWN **SOURCE :** PLAQUE
DESIGNER/BUILDER : JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Frederick, Faust Road Bridge is owned by Montgomery County and is ranked 28th.

Condition Code = 66 – very high
Transportation Code = 61 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation, although some conditions need to be addressed. The bridge ranks in the top third of all stone arch bridges under study in this plan. Its condition code is very high and the bridge requires no specific action. The transportation code is also very high, a result of low traffic volumes and good sight distances at the approaches. Moreover, the bridge stands in an area of low development potential and the bridge's future traffic will not increase appreciably. Of concern, however, is the bridge's inadequate waterway. An inadequate waterway is a function of the size of the arch barrel. Because the arch barrel is the primary structural element of the bridge, an inadequate waterway is difficult to fix for a stone arch bridge. The cost to rehabilitate the bridge's historic form and fabric is moderate, as some portions of the parapets are leaning. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge, however, has extensive public support (one letter, one petition, and one meeting at which this bridge was a focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 101

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704602700090 **DIST:** 6 **UTM:** 18/495733/4430693
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LOWER FREDERICK **LOCATION :** SIMMONS ROAD TO PA 73 13H03
FACILITY CARRIED : SIMMONS ROAD
NAME/FEATURE INTERSECTED : SIMMONS ROAD OVER SCIOTO CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 34 (10.4 m) **WIDTH :** 23.8 (7.3 m)
YR BUILT : 1915 **ALTERATION :** UNKNOWN **SOURCE :** PLAQUE
DESIGNER/BUILDER : JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

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The Lower Frederick, Simmons Road Bridge is owned by Montgomery County and is ranked 11th.

Condition Code = 55 – high
Transportation Code = 56 - high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 67 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 – moderate
Public Input Code = 60 – very high

This bridge is a strong candidate for long-term preservation. The bridge is ranked high in the upper third of all of the stone arch bridges under study for this plan. It is rated high or very high in condition, although there are cracks and loose stones. The bridge is currently closed to traffic, but previous traffic volumes were low and there are good sight distances at the approaches. Most traffic is carried on a parallel road, and the bridge stands in an area of low development potential; it should be able to carry its traffic for some time in the future when it is reopened. The waterway is adequate, although some flooding does occur. The bridge retains its historic form and fabric and would be relatively inexpensive to rehabilitate. It is largely intact. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The public is very enthusiastic in its support of this bridge (one letter, one petition, and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 102

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704602900172 **DIST:** 6 **UTM:** 18/495449/4430693
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : NEW HANOVER **LOCATION :** SWAMP PIKE LR 46035 12E01
FACILITY CARRIED : SWAMP PIKE
NAME/FEATURE INTERSECTED : SWAMP PIKE OVER MINISTER CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 48 (14.6 m) **WIDTH :** 35.5 (10.8 m)
YR BUILT : 1792 **ALTERATION :** 1844,1929,1990 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY, WARREN F. CRESSMAN (1929)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The New Hanover, Swamp Pike Bridge is owned by Montgomery County and is ranked 123rd.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 43 - low
Anticipated Development Code = 18 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 35 – very low

This bridge is a poor candidate for long-term preservation. It is one of the lowest ranked of the stone arch bridges under study in this plan. It ranks low or very low in six of seven categories. Its condition code is low because of loose stones, cracks, and minor scour. The transportation code is moderate, a result of high traffic volumes and poor sight distances at the approaches. However, the bridge stands in an area of rapid development, where its future traffic will likely increase substantially beyond what the bridge can reasonably handle. The waterway is inadequate. An inadequate waterway is a function of the size of the arch barrel. Because the arch barrel is the primary structural element of the bridge, an inadequate waterway is difficult to fix for a stone arch bridge. Enlarging the opening necessitates rebuilding the bridge. The cost to rehabilitate is relatively expensive, as the bridge has been altered with the addition of a concrete slab extension (a trolley bridge had been added at one time – the portions of the abutment and pier that carried it remain). The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has received no public support.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 103

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704604750229 **DIST:** 6 **UTM:** 18/495734/4431802
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER HANOVER **LOCATION :** EAST OF PA 29 02J11
FACILITY CARRIED : 11TH STREET
NAME/FEATURE INTERSECTED : 11TH STREET OVER MACOBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 44 (13.4 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1906 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JOHN H. DAGER/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Hanover, 11th Street Bridge is owned by Montgomery County and is ranked 103rd.

Condition Code = 33 - very low
Transportation Code = 52 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 52 - moderate
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is a poor candidate for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan. It is rated as low or very low in three categories -- condition, waterway adequacy, and anticipated development -- and moderate in three others. Its condition code is very low, as the bridge has loose stones, cracks, and extensive scour. The bridge was posted for 16 tons on October 10, 1990. Its transportation code is moderate, a result of a narrow width and poor sight distances at the approaches. The bridge stands in an area of rapid development, where its traffic would likely increase substantially in the future; this will adversely affect the transportation code. Its waterway is inadequate, which is a difficult condition to remedy on a stone arch bridge. The primary structural component, the arch barrel, also defines the waterway opening; a new bridge would have to be built to make the waterway opening larger. The cost to rehabilitate its historic fabric and appearance is moderate, but such repairs would not address the inadequate waterway. The bridge is not individually listed in or eligible for listing in the National Register of Historic Places, does not contribute to a historic district, and is not part of a greenway, park, or natural area. The only category where the bridge was rated high was public support (three questionnaires, two letters, including one from the County Planning Commission, and one meeting at which this bridge was a focus), but the structural and traffic issues are too great to recommend the bridge for preservation.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 104

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704605100295 **DIST:** 6 **UTM:** 18/497013/4431062
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : SALFORD **LOCATION :** NEAR GREEN LANE ROAD 07K06
FACILITY CARRIED : DIETZ MILL ROAD
NAME/FEATURE INTERSECTED : DIETZ MILL ROAD OVER RIDGE VALLEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 36 (11 m) **WIDTH :** 21.3 (6.5 m)
YR BUILT : 1913 **ALTERATION :** 1985 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JAMES CRESSON/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Salford, Dietz Mill Road Bridge is owned by Montgomery County and is ranked 40th.

Condition Code = 44 - low
Transportation Code = 59 –high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 53 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is a good candidate for long-term preservation despite a low condition code, which results from loose stones, cracks, and some scour. Its transportation code is high, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low development potential, where its future traffic would not be expected to increase substantially. Its waterway is adequate. The cost to rehabilitate is moderate, as some of the coping is cracked or has missing pieces. Portions of the bridge have been pointed with Portland cement, which will lead to the deterioration of the stones. Although not in a park or listed in or eligible for listing in the National Register of Historic Places, either individually or as part of a historic district, the public supports this bridge (one letter and two meetings at which this bridge was a focus). The bridge ranks in the top third of all stone arch bridges under study in this plan.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 105

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704605400084 **DIST:** 6 **UTM:** 18/496445/4431432
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : MARLBOROUGH **LOCATION :** PRICE ROAD 07H03
FACILITY CARRIED : PRICE ROAD (COUNTY BRIDGE 84)
NAME/FEATURE INTERSECTED : PRICE ROAD OVER UNAMI CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 67 (20.4 m) **WIDTH :** 19.2 (5.9 m)
YR BUILT : 1919 **ALTERATION :** 1968 **SOURCE :** PLAQUES
DESIGNER/BUILDER : MONTGOMERY COUNTY/ J.C. RAGUSA, JR. (1968)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Marlborough, Price Road Bridge is owned by Montgomery County and is ranked 14th.

Condition Code = 44 - low
Transportation Code = 73 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 59 – high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 -moderate
Public Input Code = 60 – very high

Although the bridge ranks in the top third of all stone arch bridges under study in this plan, it is a moderate rather than a strong candidate for long-term preservation. It has a low condition code, as a result of loose stones, cracks, and extensive scour. The scour is partially the result of an inadequate waterway. A constricted waterway causes water to pick up speed and sediment as it passes through the opening, creating scour. An inadequate waterway is a difficult problem to fix in stone arch bridges. The arch barrel, which defines the opening, is also the bridge's primary structural element. Enlarging the opening requires the bridge to be rebuilt. The historic fabric and appearance of the bridge is largely intact; its cost to rehabilitate would be relatively inexpensive, but this would not correct the scour or waterway inadequacy. By contrast, the transportation code is very high, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low development potential, where its traffic is not expected to increase substantially. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is adjacent to a park and part of a greenway. The bridge has extensive public support (one questionnaire, one letter, one petition, and two meetings at which this bridge was a focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 106

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704606600214 **DIST:** 6 **UTM:** 18/496444/4430322
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : SKIPPACK **LOCATION :** GARGES ROAD 14E09
FACILITY CARRIED : GARGES ROAD
NAME/FEATURE INTERSECTED : GARGES ROAD OVER EAST BRANCH PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 115 (35.1 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1911 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER : J. H. DAGER/ NELSON-MERYDITH CO, CHAMBERSBURG, PA
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Skippack, Garges Road Bridge is owned by Montgomery County and is ranked 20th.

Condition Code = 44 - low
Transportation Code = 56 - high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 – moderate
Public Input Code = 60 – very high

This bridge is a good candidate for long-term preservation. It ranks in the top third of all stone arch bridges under study in this plan. It has a low condition code, due to loose stones, cracks, and exposed footers, but there is no scour, and the county is scheduled to repair the bridge in 2007. The bridge has a high transportation code, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low potential for development; it should be able to carry its traffic for some time. Importantly, its waterway is adequate. Debris has a tendency to gather at the pier noses after storms, but the county adequately clears the debris. The bridge has historic integrity, meaning that it would be relatively inexpensive to rehabilitate, a result of most of its historic fabric and form remaining intact. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, greenway, or natural area. The bridge has extensive public support (one letter, one petition, and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 107

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704607000151 **DIST:** 6 **UTM:** 18/496444/4430877
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER SALFORD **LOCATION :** BERGEY ROAD 07J13
FACILITY CARRIED : BERGEY ROAD
NAME/FEATURE INTERSECTED : BERGEY ROAD OVER E BRANCH PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 4 **LENGTH :** 134 (40.8 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1841 **ALTERATION :** 1990 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Bergy Bridge HD. 10/10/73

The Upper Salford, Bergy Road Bridge is owned by Montgomery County and is ranked 4th.

Condition Code = 52 - moderate
Transportation Code = 61 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 54 – moderate

This bridge is a good candidate for long-term preservation. It is among the highest ranked structures in the population of stone arch bridges under study in this plan, rated high or very high in four categories and moderate in two others. The transportation code is very high, a result of low traffic volumes and good sight distance. The bridge stands in an area of low development potential, and should be able to carry its traffic for some time. The bridge retains most of its historic appearance and fabric, meaning that it would be relatively inexpensive to rehabilitate. The bridge contributes to the National Register of Historic Places-listed Bergy Bridge Historic District, which is named for the structure. The bridge is also adjacent to a greenway, resulting in a very high values code. There is some public support for the preservation of this bridge (one letter and one meeting at which this bridge was a focus). The waterway is adequate. Its condition code is moderate; however, scour areas exist at the concrete collars, or skirts, around the piers. The collars may have exacerbated the scour problem by further restricting the waterway, increasing the speed and silt capacity of the creek. The issue will need to be addressed, but overall, the bridge's positives greatly outweigh the negatives.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 108

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704607400185 **DIST:** 6 **UTM:** 18/495732/4429213
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : EAST NORRITON **LOCATION :** EAST OF POTSHOP ROAD 28H01
FACILITY CARRIED : GERMANTOWN PIKE
NAME/FEATURE INTERSECTED : GERMANTOWN PIKE OVER FIVE MILE RUN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 25 (7.6 m) **WIDTH :** 38 (11.6 m)
YR BUILT : 1887 **ALTERATION :** 1930CA, 1980 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY/WILLIAM C. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The East Norriton, Germantown Pike Bridge is owned by Montgomery County and is ranked 119th.

Condition Code = 55 - high
Transportation Code = 42 - low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 38 – very low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 - very low
Public Input Code = 42 - low

This bridge is not a good candidate for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan, scoring low or very low in five of seven categories. Its condition code is high, although some scour was reported in the last inspection. The cost to rehabilitate code is very low, making the bridge relatively expensive to rehabilitate. However, its waterway is inadequate. An inadequate waterway is a difficult problem to fix in stone arch bridges. The arch barrel, which defines the opening, is also the bridge's primary structural element. Widening the opening requires the bridge to be rebuilt. The bridge's transportation code is low, a result of very high traffic volumes. The bridge stands in a rapidly developing area; as a result, its future traffic will increase in volume, exacerbating the existing ability to handle its traffic. The bridge is not individually listed in or eligible for listing in the National Register of Historic Places, does not contribute to any historic district, and is not part of a park, natural area, or greenway. This results in a very low values code. The bridge received only minor public support (two questionnaires).

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 110

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704608200142 **DIST:** 6 **UTM:** 18/496301/4429582
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LOWER PROVIDENCE **LOCATION :** US422 NEAR LR46067 20H09
FACILITY CARRIED : GERMANTOWN PIKE
NAME/FEATURE INTERSECTED : GERMANTOWN PIKE OVER SKIPPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 8 **LENGTH :** 202 (61.6 m) **WIDTH :** 29.3 (8.9 m)
YR BUILT : 1792 **ALTERATION :** 1992 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible. 12/02/70
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to Evansburg Historic District

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The Lower Providence, Germantown Pike Bridge is owned by Montgomery County and is ranked 13th.

Condition Code = 52 - moderate
Transportation Code = 40 - low
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 65 – very high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 67 – very high
Public Input Code = 60 – very high

This bridge is an excellent candidate for long-term preservation. It is highly ranked in the upper third of all stone arch bridges under study in this plan, scoring high or very high in four categories. The bridge has historic integrity, making it relatively inexpensive to rehabilitate because the bridge's historic fabric and form are mostly intact. The bridge is both individually eligible for listing in the National Register of Historic Places and a contributing resource to the Evansburg Historic District. It also lies within a park. The bridge enjoys public support (one questionnaire, one letter, and one meeting at which the bridge was a focus). The condition code is moderate; the latest inspection found some scour. In general, however, the waterway is adequate. The transportation code is low, a result of high traffic volumes, as the bridge is a major commuter route. However, the bridge is in an area of low development potential, where its traffic would not likely increase substantially in the future.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 111

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704608300252 **DIST:** 6 **UTM:** 18/495590/4429398
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER PROVIDENCE **LOCATION :** MINGO TO LR46014 19D10
FACILITY CARRIED : MINGO ROAD
NAME/FEATURE INTERSECTED : MINGO ROAD OVER MINGO RUN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 75 (22.9 m) **WIDTH :** 21.5 (6.6 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY CO, JAMES CRESSON/ SAMUEL W GUMBES
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

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The Upper Providence, Mingo Road Bridge is owned by Montgomery County and is ranked 37th.

Condition Code = 66 – very high
Transportation Code = 54 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 54 – moderate

This bridge is a good candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. Its condition code is very high, although some scour is present. The transportation code borders on high, a result of low traffic volumes and good sight distances at the approaches. However, the bridge stands in an area of rapid development, where its future traffic will likely increase, which is a potential problem. The bridge's waterway is adequate. Its historic fabric and form are largely intact, making the bridge relatively inexpensive to rehabilitate. The bridge is also individually eligible for listing in the National Register of Historic Places and is adjacent to a park, making its values code very high. The bridge has received public support (one letter and one meeting at which the bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 112

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704608800101 **DIST:** 6 **UTM:** 18/495875/4430507
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LOWER FREDERICK **LOCATION :** OLD GRAVEL PIKE 14A06
FACILITY CARRIED : OLD GRAVEL PIKE
NAME/FEATURE INTERSECTED : OLD GRAVEL PIKE OVER SWAMP CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 97 (29.6 m) **WIDTH :** 24 (7.3 m)
YR BUILT : 1915 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JAMES CRESSON/ B A SHEELER
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to Zeiglerville Historic District

The Lower Frederick, Old Gravel Pike Bridge is owned by Montgomery County and is ranked 54th.

Condition Code = 26 - very low
Transportation Code = 49 – moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation. Its condition code is very low. Structural problems, including loose stones, cracks, and scour at the piers, need to be addressed. The transportation code is moderate, a result of manageable traffic volumes and good sight distances at the approaches. However, the bridge stands in an area of rapid development, which could substantially increase traffic volumes, although a bypass carries most vehicular traffic on PA 29, a few yards to the east. The bridge's waterway is adequate. The bridge's historic form and fabric is intact, making the bridge relatively inexpensive to rehabilitate. The bridge is individually eligible for listing in the National Register of Historic Places. It is also part of a planned greenway. The bridge enjoys immense public support (five questionnaires, 24 letters, four emails, one petition, and one meeting at which the bridge was a primary focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 113

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704609000073 **DIST:** 6 **UTM:** 18/496728/4429767
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER GWYNEDD **LOCATION :** AT LOWER GWYNEDD LINE 22K08
FACILITY CARRIED : SWEDESFORD ROAD
NAME/FEATURE INTERSECTED : SWEDESFORD ROAD OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 44 (13.4 m) **WIDTH :** 24.3 (7.4 m)
YR BUILT : 1873 **ALTERATION :** 1945-46 **SOURCE :** PLAQUE/CO RECORDS
DESIGNER/BUILDER : MONTGOMERY COUNTY/JOHN COZENS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to the Evans-Mumbower Mill Historic District

The Upper Gwynedd, Swedesford Road Bridge is owned by Montgomery County and is ranked 12th.

Condition Code = 63 - very high
Transportation Code = 56 - high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 59 – high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

This bridge is a candidate for long-term preservation. It is ranked in the top third of all stone arch bridges under study in this plan, and it is rated high or very high in six of seven categories. Its condition code is high, although some scour has been noted during inspections. Its transportation code is also high, a result of very low traffic volumes. The bridge is located in an area of low anticipated development; therefore, future traffic should not improve greatly. The bridge would be relatively inexpensive to rehabilitate, as its historic form and fabric are largely intact. The bridge contributes to the local Evans-Mumbower Mill historic district and is adjacent to a park; its values code is very high. The public has expressed support for this bridge (three questionnaires, one letter, two emails, and one meeting at which the bridge was a focus). Of concern, however, is the waterway opening, which is inadequate. That feature is difficult to fix in a stone arch bridge, as the arch barrel is the major structural component of the bridge, and enlarging the opening would require the bridge to be rebuilt.

Recommendation: A strong candidate for historic preservation.

BRIDGE NO. 114

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704610500043 **DIST:** 6 **UTM:** 18/499004/4428842
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : ABINGTON **LOCATION :** WASHINGTON LANE 32C11
FACILITY CARRIED : WASHINGTON LANE
NAME/FEATURE INTERSECTED : WASHINGTON LANE OVER FROG HOLLOW CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 28 (8.5 m) **WIDTH :** 38.4 (11.7 m)
YR BUILT : 1887 **ALTERATION :** 1888, 1931 **SOURCE :** PLAQUES (3)
DESIGNER/BUILDER : H. O'NEILL (1887)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Abington, Washington Lane Bridge is owned by Montgomery County and is ranked 38th.

Condition Code = 44 - low
Transportation Code = 64 – very high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 – moderate

This bridge is a candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan, ranking high or very high in four categories. Traffic volumes are low and there is good sight distances at the approaches. The bridge is in an area of low potential development, and it should handle its traffic well into the future. Waterway adequacy is rated as high. Its condition code is low; the bridge has some loose stones and cracks, which need to be corrected, but the last inspection found no scour. The cost to rehabilitate is moderate, as some alterations have occurred, including the placing of a pipe through the middle of the arch. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a greenway, park, or natural area. Public support for this bridge runs high (one questionnaire, one letter, and one meeting at which the bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 115

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704610600119 **DIST:** 6 **UTM:** 18/498577/4429767
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : HORSHAM **LOCATION :** EAST OF PROSPECTVILLE 24E04
FACILITY CARRIED : DAVIS GROVE ROAD
NAME/FEATURE INTERSECTED : DAVIS GROVE ROAD OVER PARK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 35 (10.7 m) **WIDTH :** 24 (7.3 m)
YR BUILT : 1911 **ALTERATION :** 1980 CA **SOURCE :** PLAQUE\INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JAMES CRESSON/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Horsham, Davis Grove Road Bridge is owned by Montgomery County and is ranked 82nd.

Condition Code = 40 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 46 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 48 – moderate
Public Input Code = 60 – very high

This bridge is not a good candidate for long-term preservation, despite public support (two letters, including one from the County Planning Commission, one email, and one meeting at which the bridge was a focus). It is ranked in the lowest third of all stone arch bridges under study in this plan, and is rated as low or very low in three categories: condition, waterway adequacy, and values. The low condition code is the result of loose stones, cracks, and extensive scour. The bridge was posted for five tons on May 3, 1995. Its waterway is inadequate, leading to occasional flooding. Because the primary structural component of a stone arch bridge, the arch barrel, also defines the waterway opening, an inadequate waterway is a difficult problem to fix and generally requires the bridge to be rebuilt. The values code is moderate. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is adjacent to a municipal park. Its transportation code is moderate, bordering on low. The bridge handles very low traffic volumes, but it has poor sight distances at its approaches. The bridge stands in an area of low development potential, and should be able to handle its traffic for some time; however, that does not correct the sight distance problems at its approaches. The cost to rehabilitate its historic form and fabric is moderate because portions of the parapets have been removed and replaced with steel pipe railing.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 116

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704610800118 **DIST:** 6 **UTM:** 18/498577/4429767
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : HORSHAM **LOCATION :** GRAEME STATE PARK 24G03
FACILITY CARRIED : KEITH VALLEY ROAD (BRIDGE # 118)
NAME/FEATURE INTERSECTED : KEITH VALLEY ROAD OVER PARK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 78 (23.8 m) **WIDTH :** 28 (8.5 m)
YR BUILT : 1907 **ALTERATION :** 1941 **SOURCE :** PLAQUES
DESIGNER/BUILDER : JH DAGER (1907), WF CRESSMAN (1941)/ JM SMITH (07)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Horsham, Keith Valley Road Bridge is owned by Montgomery County and is ranked 58th.

Condition Code = 44 - low
Transportation Code = 59 - high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 41 – low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation, but it has some structural problems which must be addressed. Positively, the bridge's transportation code is very high. The bridge has very low traffic volumes and good sight distances at its approaches. The bridge stands in an area of low development potential, and it should be able to handle its traffic for some time. The bridge is adjacent to both Graeme Park Historic Site and municipal park land, resulting in a strong values code. Because of its location, the Montgomery County Planning Commission has asked for its preservation. However, the condition code is low, the result of loose and missing stones along its parapets, as well as extensive scour. Its waterway is inadequate, leading to occasional flooding. Because the primary structural component of a stone arch bridge, the arch barrel, also defines the waterway opening, an inadequate waterway is a difficult problem to fix, and generally requires the bridge to be rebuilt. The bridge has historic integrity problems; portions of its parapets are missing. Consequently, it would be relatively expensive to rehabilitate. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: A Moderate Candidate for long-term preservation.

BRIDGE NO. 117

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46721902100005 **DIST:** 6 **UTM:** 18/495734/4432172
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** UPPER HANOVER TWP.
MUNICIPALITY : UPPER HANOVER **LOCATION :** 0.2 MILE EAST OF EGREE 02H07
FACILITY CARRIED : TAGART ROAD
NAME/FEATURE INTERSECTED : TAGART ROAD OVER MACOBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 34.7 (10.6 m)
YR BUILT : 1880CA **ALTERATION :** 1950 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Hanover, Tagart Road Bridge is owned by Upper Hanover Township and is ranked 61st.

Condition Code = 59 – high
Transportation Code = 81 - very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 46 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 35 – very low

This bridge is not a strong candidate for long-term preservation. Its condition code is high, and its transportation code is very high. Its waterway is adequate. But the bridge lacks historic integrity and the cost to rehabilitate its historic form and fabric would be moderately expensive. The bridge has been extended with concrete and its parapets have been replaced with steel guide rails. The bridge no longer looks like a stone arch bridge from the roadway and on the concrete side. The bridge stands in an area of rapid development, where its future traffic may increase substantially. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, greenway, or natural area. The bridge has not received any public comment.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 118

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304100010 **DIST:** 6 **UTM:** 18/471452/4440549
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 1500 FEET SOUTHEAST OF US 202 29A08
FACILITY CARRIED : OAK STREET
NAME/FEATURE INTERSECTED : OAK STREET OVER SAW MILL RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 50.7 (15.5 m)
YR BUILT : 1855CA **ALTERATION :** 1932 **SOURCE :** STYLE/INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Norristown, Oak Street Bridge is owned by Norristown Township and is ranked 112th.

Condition Code = 33 – very low
Transportation Code = 54 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 42 - low

This bridge is not a good candidate for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. Its transportation code is moderate. Although the bridge carries a fairly high volume of traffic, its sight distances at its approaches are very good and the bridge is wide enough for its traffic. Set in an urban area, the bridge's traffic can be expected to increase substantially, but it may be able to handle a substantial increase. Its waterway is adequate. However, the bridge is rated very low in four categories: condition, anticipated development, cultural values, and public input. The low condition code is a result of loose stones, cracks, and some scour. Portions of its parapets have crumbled away and have been replaced with concrete barriers. Consequently, its cost to rehabilitate is moderate, bordering on low, due to the loss of historic fabric. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway; therefore, its values code is very low. The bridge has received little public comment (one telephone call).

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 119

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304200001 **DIST:** 6 **UTM:** 18/470174/4440554
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 350 FEET WEST OF US 202 SOUTH 28J08
FACILITY CARRIED : MAIN STREET
NAME/FEATURE INTERSECTED : MAIN STREET OVER STONY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 40 (12.2 m) **WIDTH :** 82.7 (25.2 m)
YR BUILT : 1854 **ALTERATION :** UNKNOWN **SOURCE :** INSP FILE/STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to W. Norristown HD

The Norristown, Main Street Bridge is owned by Norristown Township and is ranked 46th.

Condition Code = 59 - high
Transportation Code = 43 - low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 48 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation. The bridge's condition code is high, as is its public input code. The bridge was the subject of three questionnaires, four letters, three emails, and one telephone call. Waterway adequacy, cost to rehabilitate, and values codes are all moderate. Some alterations have occurred that compromise historic integrity, including a concrete extension on the upstream side. The bridge contributes to the West Norristown Historic District; even though the bridge lies outside the drawn boundary. It is specifically mentioned in the National Register of Historic Places nomination form as being one of the primary reasons for the development that became West Norristown. Individually, it is not eligible. The bridge is also a gateway for West Norristown. However, of some concern is that the transportation code is low, a result of very high traffic volumes. Set in an urban area, its future traffic is expected to increase somewhat, perhaps beyond what the bridge can manage.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 120

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304500008 **DIST:** 6 **UTM:** 18/471167/4440365
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN
MUNICIPALITY : NORRISTOWN **LOCATION :** 700 FEET SOUTHEAST OF US 202N 29A08
FACILITY CARRIED : MARSHALL STREET
NAME/FEATURE INTERSECTED : MARSHALL STREET OVER SAW MILL RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 24 (7.3 m) **WIDTH :** 50.5 (15.4 m)
YR BUILT : 1910 **ALTERATION :** UNKNOWN **SOURCE :** INSP FILE/STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Norristown, Marshall Street Bridge is owned by Norristown Township and is ranked 104th.

Condition Code = 48 - moderate
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 44 - low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 42 - low

This bridge is not a good candidate for long-term preservation. The bridge ranks in the lowest third of all stone arch bridges under study in this plan. It is rated low or very low in four categories and moderate in three others. The bridge's condition code is moderate because of scour problems. The bridge lacks historic integrity. It has a concrete extension to one side. Rehabilitating its historic fabric and form to its original appearance would be relatively expensive. The bridge has a very low cultural values code. It is not individually listed in or eligible for listing in the National Register of Historic Places, does not contribute to a historic district, and is not in a park, greenway, or natural area. There has been minor public comment (one telephone call). The transportation code is moderate, a result of a wide bridge with good approaches; the original stone bridge has been widened with concrete. Its waterway is adequate.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 121

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304800009 **DIST:** 6 **UTM:** 18/471167/4440365
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 900 FEET SOUTHEAST OF US 202N 29A08
FACILITY CARRIED : ARCH STREET
NAME/FEATURE INTERSECTED : ARCH STREET OVER SAW MILL RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 24 (7.3 m) **WIDTH :** 51 (15.5 m)
YR BUILT : 1900CA **ALTERATION :** **SOURCE :** STYLE/INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Central Norristown HD. 11/23/84

The Norristown, Arch Street Bridge is owned by Norristown Township and is ranked 109th.

Condition Code = 33 – very low
Transportation Code = 49 - moderate
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 44 - low
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 42 – low

This bridge is not a good candidate for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan, despite contributing to the Central Norristown Historic District. It is rated as low or very low in four categories and moderate in two others. The condition code is very low because of extensive scour problems. In addition, one end wall has collapsed and has been replaced with gabions. Consequently, it would be relatively expensive to rehabilitate the bridge's historic fabric and form. The bridge's transportation code is moderate, as it handles a relatively high traffic volume. However, the bridge is located in an urban area of high development potential, and traffic may increase in the future beyond the bridge's ability to handle it. Although the waterway adequacy code is listed as moderate, the bridge occasionally floods, exacerbating the existing scour problem. The bridge has received minor public comment (one telephone call).

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 122

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741315800003 **DIST:** 6 **UTM:** 18/470744/4441107
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 0.6 MILE NORTH OF SCHUYLKILL 28K07
FACILITY CARRIED : MARKLEY & ELM STREETS
NAME/FEATURE INTERSECTED : MARKLEY & ELM STREETS OVER STONEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 69 (21 m) **WIDTH :** 122.5 (37.3 m)
YR BUILT : 1878 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Central Norristown HD. 11/23/84.

The Norristown, Markley and Elm Streets Bridge is owned by Norristown Township and is ranked 10th.

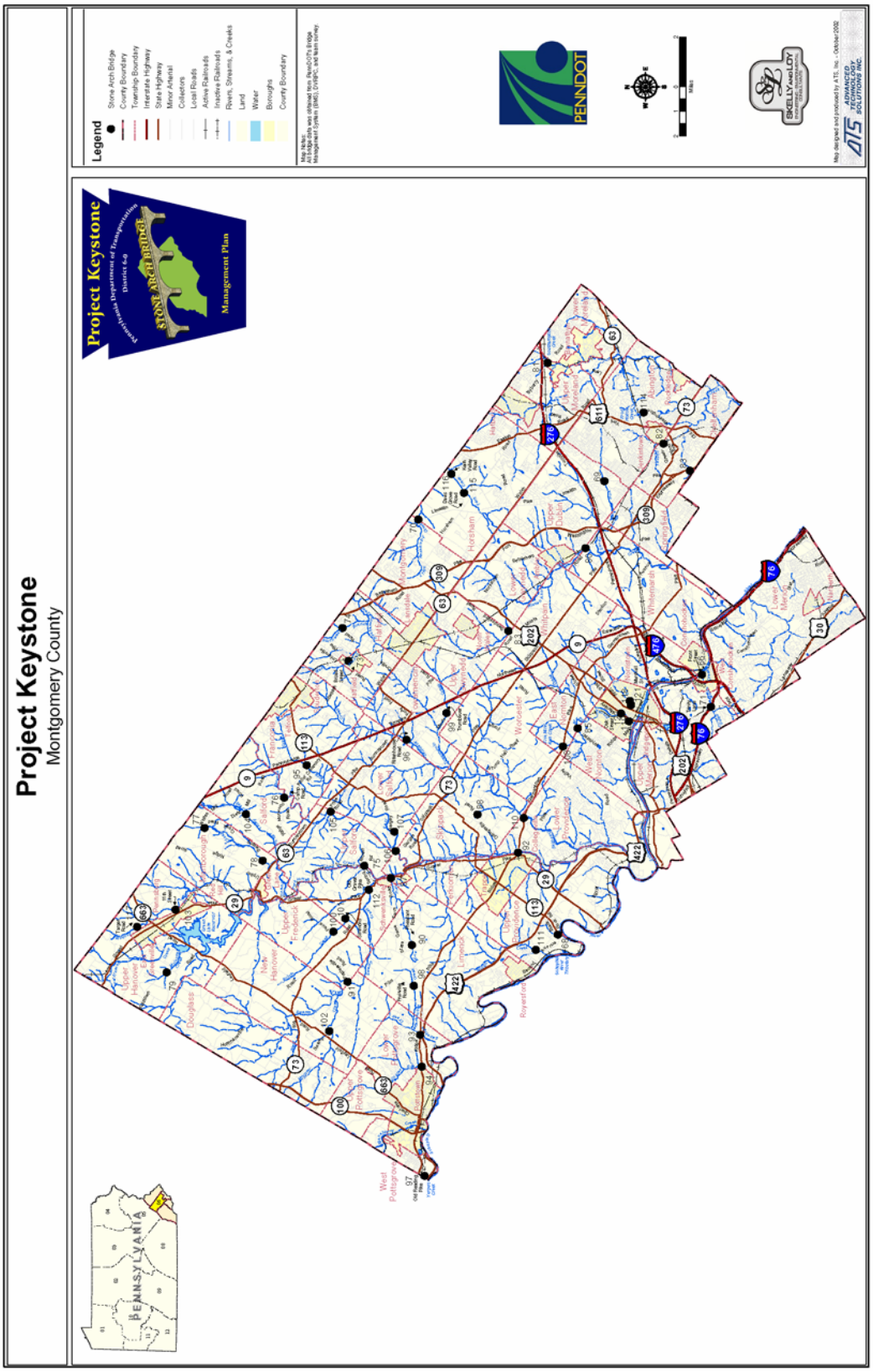
Condition Code = 55 - high
Transportation Code = 43 - low
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 55 – high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

This bridge is an excellent candidate for long-term preservation. The bridge is highly ranked in the top third of all stone arch bridges under study in this plan. It is rated as high or very high in all but one category. A rare example of a two-span stone arch bridge carrying an intersection diagonally across a stream, the Markley and Elm Streets Bridge is in good condition and has a high condition code, although some scour is present. Waterway adequacy is high. Because the bridge retains most of its historic fabric and form, the bridge would be relatively inexpensive to rehabilitate. The transportation code is low, the result of high traffic volumes. However, the bridge is set in an urban area that is largely built out, where future traffic is not expected to increase substantially. The bridge contributes to the Central Norristown Historic District and is part of a proposed greenway, resulting in a high values code. The bridge enjoys public support (one letter, one telephone call, and one meeting at which the bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

APPENDIX E -
MONTGOMERY COUNTY BRIDGE INVENTORY

APPENDIX E
MONTGOMERY COUNTY BRIDGE INVENTORY



BRIDGE NO. 66

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46002302701682 **DIST:** 6 **UTM:** 18/470469/4443328
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : WEST CONSHOHOCKEN **LOCATION :** 0.4 MILE WEST FAYETTE ST 35D03
FACILITY CARRIED : SR 23 (CONSHOHOCKEN STATE ROAD), BRIDGE # 81
NAME/FEATURE INTERSECTED : SR 23 (CONSHOHOCKEN STATE ROAD) OVER GULF CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 35.5 (10.8 m)
YR BUILT : 1912 **ALTERATION :** 1928, 1990ca **SOURCE :** PLAQUES/STYLE
DESIGNER/BUILDER : MONTGOMERY COUNTY(1912), WARREN F. CRESSMAN (1928)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Conshohocken, Conshohocken State Road Bridge is owned by PennDOT and is ranked 118th.

Condition Code = 67 – very high
Transportation Code = 50 - moderate
Waterway Adequacy Code = 26 - very low
Cost to Rehabilitate or Replace Code = 39 – very low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 - very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked of all stone arch bridges under study in this plan. The bridge has low waterway adequacy, there is evidence of scour, and its cost to rehabilitate is high, as the only stone components that remain are the arch barrel and upstream side spandrel wall. The most serious problem is the low waterway adequacy, which is a function of the arch barrel opening. The arch barrel is also the primary structural component of a stone arch bridge. Enlarging the waterway opening would involve rebuilding the bridge. The inadequate waterway opening also exacerbates scour by increasing the speed of the water passing through it. The bridge is in an area of development and would likely be inadequate to handle future traffic. A low values code indicates a lack of recreational, historical, or cultural significance; the bridge is not listed or eligible for listing in the National Register of Historic Places individually or as part of a historic district. No public input was received for this bridge.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 67

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46002902303497 **DIST:** 6 **UTM:** 18/461024/4456505
OLD BMS # : 46002902303461 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : SCHWENKSVILLE **LOCATION :** SCHWENKSVILLE 14B08
FACILITY CARRIED : SR 29 (MAIN STREET)
NAME/FEATURE INTERSECTED : SR 29 (MAIN STREET) OVER MINE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 26 (7.9 m) **WIDTH :** 50 (15.2 m)
YR BUILT : 1880CA **ALTERATION :** 1910CA, 1928 **SOURCE :** PLAQUE (1928)
DESIGNER/BUILDER : WARREN F. CRESSMAN / JOHN F. KEELOR (1928)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Within the Schwenksville Historic District, but not a contributing element to it

The Schwenksville, Main Street Bridge is owned by PennDOT and is ranked 96th.

Condition Code = 63 – very high
Transportation Code = 40 - low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 36 – very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. It scores low or very low in four categories -- transportation, waterway adequacy, cost, and values -- and moderate in two others -- development and public input. The bridge does not handle current traffic well, and since it is located in an area of development, it will likely be inadequate for anticipated traffic increases. The bridge has a low waterway adequacy, a difficult problem to repair for stone arch bridges; as a function of the arch barrel size, correcting the problem requires the entire bridge to be rebuilt. Widening with concrete on both sides and a recently installed metal lining compromise historic integrity and make it difficult to identify the bridge as stone. In addition, the bridge is not listed in or eligible for listing in the National Register of Historic Places. It does not contribute to the potential Schwenksville Historic District, as its age falls outside the historic district's period of significance. Public input has been moderate for the bridge, which is located adjacent to a park (one questionnaire and one petition).

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 68

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46011300200789 **DIST:** 6 **UTM:** 18/457708/4446533
OLD BMS # : 46011300200000 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER PROVIDENCE **LOCATION :** NEAR MONT. CO. GERIATRIC CENTER
FACILITY CARRIED : SR 113 (BLACK ROCK ROAD)
NAME/FEATURE INTERSECTED : SR 113 (BLACK ROCK ROAD) OVER TRIBUTARY OF SCHUYLKILL RIVER
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 21 (6.4 m)
YR BUILT : 1883 **ALTERATION :** 1993 **SOURCE :** PLAQUE
DESIGNER/BUILDER : WILLIAM TODD, CONTRACTOR (1883)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Providence, Black Rock Road Bridge is owned by PennDOT and is ranked 69th.

Condition Code = 55 - high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 42 – low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It ranks in the lower half of all stone arch bridges under study in this plan. The bridge's transportation code borders on low, a function of the structure's high volume of traffic and narrow width, which is a safety issue. The waterway adequacy is poor, resulting in occasional flooding. An inadequate waterway opening is a function of the size of the arch barrel, which is also the bridge's main structural element. Correcting the problem to enlarge the opening involves rebuilding the bridge. It also results in a high cost for rehabilitation. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. It is located between county owned park land through which the Schuylkill River Trail will pass. It has public support, including a letter in favor of its preservation from the Montgomery County Planning Commission and one meeting at which this bridge was a focus; therefore, a context-sensitive replacement could be investigated, if the bridge were to be replaced.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 69

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46015200800722 **DIST:** 6 **UTM:** 18/485799/4441619
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER DUBLIN **LOCATION :** AT LULU COUNTRY CLUB
FACILITY CARRIED : SR 152 (LIMEKLIN PIKE)
NAME/FEATURE INTERSECTED : SR 152 (LIMEKILN PIKE) OVER SANDY RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 30.1 (9.2 m)
YR BUILT : 1810 **ALTERATION :** 1996 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Dublin, Limekiln Road Bridge is owned by PennDOT and is ranked 122nd.

Condition Code = 48 – moderate
Transportation Code = 40 - low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 47 - moderate
Anticipated Development Code = 28 - very low
Recreational, Historical, and Cultural Values Code = 38 - very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is among the lowest ranked of the stone arch bridges under study in this plan. It scored low or very low in five variables: transportation, waterway adequacy, development, values, and public input. Advanced scour was identified during the latest inspection. High traffic volumes occur on this bridge, which has a relatively narrow width. Additional growth is anticipated in the area and would result in a decreasing ability to support traffic flow. The waterway is inadequate and causes occasional flooding; the advanced scour is likely a result of the inadequate waterway. An inadequate waterway is a function of the size of the arch barrel, which is also the bridge's main structural element. Repairing the problem to enlarge the opening requires the reconstruction of the bridge. Returning the bridge to its historic appearance would be relatively expensive, as some of its historic fabric and form is missing. The recreational, historical, and cultural values and public input codes are very low, indicating a lack of significance for the bridge. Although an old example (1810), it was determined not eligible for listing in the National Register of Historic Places individually because of the alterations, including the replacement of parts of the parapets with concrete and a steel guide rail. It also does not contribute to a historic district. The bridge received no public support.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 70

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46015202302106 **DIST:** 6 **UTM:** 18/483695/4453832
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : MONTGOMERY **LOCATION :** MONTGOMERY TOWNSHIP LINE
FACILITY CARRIED : SR 152 (LIMEKLIN PIKE)
NAME/FEATURE INTERSECTED : SR 152 (LIMEKILN PIKE) OVER LITTLE NESHAMINY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 42 (12.8 m) **WIDTH :** 28 (8.5 m)
YR BUILT : 1838 **ALTERATION :** 1969 **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Montgomery, Lower State/Limekiln Pike Bridge is owned by PennDOT and is ranked 48th.

Condition Code = 40 - low
Transportation Code = 28 - very low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 – high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 - high
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. Its ranking does not indicate the depth of structural and safety issues associated with the bridge. The bridge is on PennDOT's Transportation Improvement Program (TIP) and is scheduled to be replaced. The condition is poor, bordering on very poor. The transportation code is also very low. The bridge is narrow and has a restricted weight limit; it also carries a high volume of traffic. Traffic increases are anticipated due to anticipated development. It suffers from scour problems, and the parapets have been repeatedly struck and rebuilt. The waterway is adequate. The relatively strong ranking the bridge received is primarily a function of its high public input and values codes. There has been extreme public support of this National Register of Historic Places-listed bridge, which has good historic integrity and is located in a greenway. The County Planning Commission states that a planned trail will pass over it. It has been the subject of one questionnaire, two letters (one from the Planning Commission), one email, and one meeting at which this bridge was a focus. A context-sensitive design should be explored for its replacement.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 71

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46032000400852 **DIST:** 6 **UTM:** 18/470863/4435187
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER MERION **LOCATION :** GULPH MILLS 34K04
FACILITY CARRIED : TRINITY LANE
NAME/FEATURE INTERSECTED : TRINITY LANE OVER GULPH MILLS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 34 (10.4 m)
YR BUILT : 1789 **ALTERATION :** 1884, 20TH C., 1980 **SOURCE :** PLAQUES
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Merion, Trinity Lane Bridge is owned by PennDOT and is ranked 94th.

Condition Code = 37 – very low
Transportation Code = 42 - low
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan. It ranks low or very low in three categories: condition, transportation, and waterway adequacy. The bridge suffers from advanced scour. It has a narrow width for the volume of traffic it carries. It is also located in an area with some anticipated growth, which would increase the traffic and exacerbate the existing problem. Its waterway is inadequate and causes occasional, serious flooding. For a stone arch bridge, the inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening, which would result in its removal from the National Register of Historic Places (NRHP). This NRHP-listed bridge is situated near a greenway, resulting in a high values code. The bridge also has public support (one questionnaire, one email, a letter from the County Planning Commission, and one meeting at which this bridge was a focus). Because the bridge is located in a greenway and a potential historic district, a context-sensitive solution should be explored if it is ever replaced.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 73

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46100300100558 **DIST:** 6 **UTM:** 18/474496/4458667
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : HATFIELD **LOCATION :** HATFIELD 16G04
FACILITY CARRIED : BROAD STREET
NAME/FEATURE INTERSECTED : BROAD STREET OVER BRANCH NESHAMINY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 49 (14.9 m) **WIDTH :** 53 (16.2 m)
YR BUILT : 1850 **ALTERATION :** 1990 CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hatfield, Broad Street Bridge is owned by PennDOT and is ranked 87th.

Condition Code = 52 - moderate
Transportation Code = 47 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 32 – very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 51 – moderate
Public Input Code = 54 – moderate

This bridge is not recommended for long-term preservation. The chief structural problem is an inadequate waterway, which causes occasional flooding. For a stone arch bridge, the inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening, which would result in its removal from the National Register of Historic Places (NRHP); it is currently listed. The bridge also has lost historic integrity. Its parapets have been removed and replaced with metal railings, and the spandrels have been capped with concrete. The arch ring has been thickly coated with gunite. Returning the bridge to its historic appearance would be expensive. The bridge has a moderate condition code, a result of minor scour. It is just sufficient to carry its current traffic volume; because little growth is anticipated in the area, it will likely be sufficient for some time. Although there has been public support for this bridge (one letter, two emails, and one meeting at which this bridge was a focus), the structural and traffic issues are too great to recommend the bridge for long-term preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 74

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46100400901445 **DIST:** 6 **UTM:** 18/475347/4459034
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : HATFIELD **LOCATION :** HATFIELD TWP. 16K04
FACILITY CARRIED : ORVILLA ROAD
NAME/FEATURE INTERSECTED : ORVILLA ROAD OVER WEST NESHAMINY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 46 (14.0 m) **WIDTH :** 23.5 (7.2 m)
YR BUILT : 1874 **ALTERATION :** 1990CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Hatfield, Orvilla Road Bridge is owned by PennDOT and is ranked 50th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 64 - high
Public Input Code = 60 – very high

The bridge is recommended for the Reserve Pool. Its ranking falls just outside of the upper third of all bridges surveyed for this project, and there has been strong public support (one questionnaire, one email, one letter from the County Planning Commission, and one meeting at which this bridge was a focus). It is listed in the National Register of Historic Places and is also located in a park. Historic integrity is strong, meaning the cost to maintain its historic appearance would be relatively low. There are issues that need to be addressed, however. The condition code is moderate, the result of scour, as is the waterway adequacy code; occasionally, there is flooding at the approaches. Of greater concern is the bridge's narrow width and limited sight distances at either end. Because the bridge is located in an area with a high potential for development, traffic pressures on the bridge could exacerbate. Creative solutions may be necessary to deal with the traffic issue.

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 75

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46101900303556 **DIST:** 6 **UTM:** 18/461316/4458168
OLD BMS # : 46101900303482 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : LOWER FREDERICK **LOCATION :** 1 MILE NORTHEAST OF PA 29 14D05
FACILITY CARRIED : SR 1019 (SPRING MOUNT ROAD)
NAME/FEATURE INTERSECTED : SR 1019 (SPRING MOUNT ROAD) OVER PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 6 **LENGTH :** 202 (61.6 m) **WIDTH :** 20 (6.1 m)
YR BUILT : 1869 **ALTERATION :** 1975 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY/EB HOUPT, WC SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Frederick, Spring Mount Road Bridge is owned by PennDOT and is ranked 93rd.

Condition Code = 40 - low
Transportation Code = 40 - low
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 48 - moderate
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It ranks in the lowest third of the stone arch bridges under study in this plan, and it has been placed on the Transportation Improvement Program (TIP) for replacement. This bridge's condition is poor, the result of bulges and cracks in the spandrel walls and extensive scour problems. The bridge is posted due to the structural deficiencies. The bridge's narrow width is not sufficient for the current volume of traffic, and anticipated high development in the area will only result in traffic increases. Historic integrity has been compromised by repairs now considered inappropriate, including using concrete and gunite. Public input indicates some support for the bridge (one questionnaire, one email, and one petition), which is located near a greenway and a park. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. Waterway adequacy is high, but this does not overcome the other structural issues.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 76

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46102100200000 **DIST:** 6 **UTM:** 18/465873/4463141
OLD BMS # : 46102100103169 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : FRANCONIA **LOCATION :** SALFORD & FRANCONIA BORDER 08B10
FACILITY CARRIED : CAMP ROAD
NAME/FEATURE INTERSECTED : CAMP ROAD OVER EAST BRANCH PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 5 **LENGTH :** 146 (44.5 m) **WIDTH :** 24.9 (7.6 m)
YR BUILT : 1858 **ALTERATION :** 1916, 1932, 1985 CA **SOURCE :** INSP FILE
DESIGNER/BUILDER : JAMES WHITE
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Franconia, Camp Road Bridge is owned by PennDOT and is ranked 114th.

Condition Code = 33 - very low
Transportation Code = 38 – very low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 30 – very low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. It is one of the lowest ranked of the stone arch bridges under study in this plan, and it is on the Transportation Improvement Program (TIP) for replacement. It ranks low or very low in five categories -- condition, transportation, waterway adequacy, rehabilitation cost, and values. Its low condition code results from advanced scour (including missing foundation stones) and cracks and loose stones in the superstructure; the bridge is posted for 13 tons. The bridge's narrow width is not sufficient for current traffic, and the waterway opening is inadequate. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. The cost to rehabilitate the structure's historic fabric and form is high, because the parapets are not original and the spandrel walls and arch barrels have been gunited. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. Although there has been public support for this bridge (two questionnaires, one letter, one telephone call, and two petitions), the structural and traffic issues are too great to recommend the bridge for preservation.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 77

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46102300500606 **DIST:** 6 **UTM:** 18/464058/4468515
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : MARLBOROUGH **LOCATION :** 1MI.S.BUCKS CO LN. 07H01
FACILITY CARRIED : SR 1023 (SWAMP CREEK ROAD)
NAME/FEATURE INTERSECTED : SR 1023 (SWAMP CREEK ROAD) OVER UNAMI CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 98 (29.9 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1910 **ALTERATION :** 1990CA **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, GEORGE F.P. WANGER/J.M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Marlborough, Swamp Creek Road Bridge is owned by PennDOT and is ranked 17th.

Condition Code = 44 - low
Transportation Code = 59 - high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. The bridge scores high in five codes -- transportation, rehabilitation costs, development, cultural values, and public input. PennDOT has already committed to keeping the bridge, undertaking some repair work. Marlborough Township has also passed a petition in favor of retaining the bridge. The bridge handles its present low volume of traffic well, and as the bridge is located in a low development area, future traffic is not expected to increase significantly. The waterway is also adequate. Cracks and loose stones in the superstructure and minor scour in the substructure will need to be addressed in accordance with the Maintenance Manual developed as part of this plan. The bridge is both listed in the National Register of Historic Places and located in a park, resulting in a high values code. Historic integrity is good, meaning rehabilitation costs are potentially low. There is public support for the bridge (two questionnaires and two emails) as well as the township's resolution.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 78

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46103000200181 **DIST:** 6 **UTM:** 18/461775/4464826
OLD BMS # : 46103000101808 **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : MARLBOROUGH **LOCATION :** 1 MILE NORTH OF PA 63 07E07
FACILITY CARRIED : SR 1030 (SWAMP CREEK ROAD)
NAME/FEATURE INTERSECTED : SR 1030 (SWAMP CREEK ROAD) OVER UNAMI CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 100 (30.5 m) **WIDTH :** 21.5 (6.6 m)
YR BUILT : 1892 **ALTERATION :** 1928, 1990ca **SOURCE :** PLAQUE
DESIGNER/BUILDER : A. CALHOUN/THOMAS MCADAMS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Marlborough, Swamp Creek Road Bridge is owned by PennDOT and is ranked 21st.

Condition Code = 48 - moderate
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 50 – moderate
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – high

This bridge is recommended for long-term preservation. The bridge ranks in the top third of all stone arch bridges under study in this plan. Structural problems, including cracks and loose stones in the superstructure and advanced scour in the substructure, are to be addressed by PennDOT, which should raise the condition code. The bridge is very narrow, but it handles its low volume of traffic adequately and little additional growth is anticipated in the area. The waterway is adequate. This National Register of Historic Places-listed bridge is located in a greenway, resulting in a very high cultural values code. The bridge has also received public support (two questionnaires, three emails, and one petition). The bridge has historic integrity.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 79

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46103300301115 **DIST:** 6 **UTM:** 18/454734/4471155
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PennDOT
MUNICIPALITY : UPPER HANOVER **LOCATION :** 0.75 MILE SOUTH OF MILLER ROAD 02B10
FACILITY CARRIED : SR 1033 (KUTZTOWN ROAD)
NAME/FEATURE INTERSECTED : SR 1033 (KUTZTOWN ROAD) OVER MOLASSES CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 21 (6.4 m) **WIDTH :** 18.6 (5.7 m)
YR BUILT : 1895 **ALTERATION :** 1980CA **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Hanover, Kutztown Road Bridge is owned by PennDOT and is ranked 120th.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 42 - low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 – very low
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked of the bridges studied under this plan. It scores low or very low in five categories: waterway adequacy, rehabilitation costs, future development, values, and public input. The waterway is inadequate and causes occasional flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. Its low transportation code is the result of a narrow width for the volume of traffic carried. Additional growth is anticipated in the area, which will only increase the traffic. The cost to rehabilitate the bridge to its historic appearance is high, a result of the parapets having been replaced with steel guide rails. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and no public support has been received for the bridge.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 80

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46200100200000 **DIST:** 6 **UTM:** 18/481542/4443108
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : WHITEMARSH **LOCATION :** FORT WASHINGTON 30J04
FACILITY CARRIED : SR 2001 (MORRIS ROAD)
NAME/FEATURE INTERSECTED : SR 2001 (MORRIS ROAD) OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 107 (32.6 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1841 **ALTERATION :** 1916 **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Whitemarsh, Morris Road Bridge is owned by PennDOT and is ranked 73rd.

Condition Code = 67 – very high
Transportation Code = 40 - low
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 59 - high
Public Input Code = 60 – very high

The bridge is recommended for the Reserve Pool. There is some evidence of scour, due to an inadequate waterway. Waterway adequacy is a difficult problem to fix in a stone arch bridge. Waterway adequacy is a function of the size of the arch barrel, the main structural element. Widening a bridge would generally require rebuilding it. The bridge also has a narrow width for the volume of traffic it carries currently, and sight distance is limited at one end. There is high potential for growth in the area that will exacerbate the already low transportation code. However, the structure is in excellent condition overall. The bridge is significant to the public as a National Register of Historic Places-listed bridge located near a park. The cost to rehabilitate the bridge is comparatively low, as the bridge retains most of its historic fabric and form. The bridge enjoys public support (one questionnaire, one letter from the County Planning Commission, and one meeting at which this bridge was a focus).

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 81

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46200900800708 **DIST:** 6 **UTM:** 18/493612/4445308
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : BRYN ATHYN **LOCATION :** BRYN ATHYN 25J13
FACILITY CARRIED : SR 2009 (BYBERRY ROAD)
NAME/FEATURE INTERSECTED : SR 2009 (BYBERRY ROAD) OVER SOUTHAMPTON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 31 (9.4 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1828 **ALTERATION :** 1858, 1996CA **SOURCE :** PLAQUES (2)
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

The Bryn Athyn, Byberry Road Bridge is owned by PennDOT and is ranked 101st.

Condition Code = 48 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 42 - low

Despite ranking in the lowest third of all bridges surveyed for this project, the bridge is recommended for long-term preservation. It was previously programmed on the Transportation Improvement Plan (TIP) for rehabilitation. The bridge is listed in the National Register of Historic Places and it has historic integrity, meaning that the cost to rehabilitate its historic form and fabric would be relatively low. It also handles its traffic moderately well. However, the rehabilitation will need to address structural issues, including existing scour and an inadequate waterway opening.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 82

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46205400301374 **DIST:** 6 **UTM:** 18/488207/4437730
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : CHELTENHAM **LOCATION :** JENKINTOWN BORDER 31K13
FACILITY CARRIED : SR 2054 (GREENWOOD AVENUE)
NAME/FEATURE INTERSECTED : SR 2054 (GREENWOOD AVENUE) OVER TACONY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 36 (11 m) **WIDTH :** 78.6 (24 m)
YR BUILT : 1899 **ALTERATION :** 1929 **SOURCE :** PLAQUE
DESIGNER/BUILDER : WARREN CRESSMAN (1929)/HERMAN RIEBE (1899)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Cheltenham, Greenwood Avenue Bridge is owned by PennDOT and is ranked 111th.

Condition Code = 48 - moderate
Transportation Code = 66 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 32 – very low
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 46 - moderate
Public Input Code = 35 - very low

This bridge is not recommended for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. It scores low or very low in six categories; only in one category, transportation code, does it score high. The most serious structural problem is the waterway opening, which is not adequate and which occasionally causes flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. The inadequate waterway opening is also the likely cause of the bridge's extensive scour. The bridge handles its traffic very well currently; however, it is located in an area of high development potential, where future traffic is expected to increase significantly. Past repairs now considered inappropriate, including encasing the bridge in concrete so it resembles a concrete arch, compromises historic integrity and makes the cost of rehabilitating the bridge to its historic appearance high. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, although it is part of a greenway. The public input code is also low; the bridge has had only one comment.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 83

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46206400100840 **DIST:** 6 **UTM:** 18/486357/4436068
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : CHELTENHAM **LOCATION :** 0.1 MILE NORTH OF CHELTENHAM AVE 37G02
FACILITY CARRIED : SR 2064 (LIMEKLIN PIKE) (Bridge 299)
NAME/FEATURE INTERSECTED : SR 2064 (LIMEKILN PIKE) OVER ROCK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 22 (6.7 m) **WIDTH :** 27 (8.2 m)
YR BUILT : 1841 **ALTERATION :** 1925, 1997 **SOURCE :** INSP FILE/PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Cheltenham, Limekiln Pike Bridge is owned by PennDOT and is ranked 98th.

Condition Code = 59 - high
Transportation Code = 57 - high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 40 - low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 – very low
Public Input Code = 35 – very low

This bridge is not recommended for long-term preservation. It ranks in the lowest third of all the stone arch bridges under study in this plan, and it has previously been added to the PennDOT's Transportation Improvement Program (TIP) for replacement. Historic integrity is poor; the arches have been filled, and the bridge no longer crosses a waterway. The filled arches mean that the cost to rehabilitate the bridge to its historic appearance and form is high. Although the bridge is in good condition and is carrying its traffic sufficiently, it has a narrow width and is located in an area of high development potential, making future traffic a likely problem. The values code and the public input code are very low, reflecting a lack of National Register of Historic Places eligibility. It is not individually listed or eligible and it does not contribute to a historic district. No public comment has been received about this bridge.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 84

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46300300400246 **DIST:** 6 **UTM:** 18/480395/4438856
OLD BMS # : 46300300400173 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : WHITMARSH **LOCATION :** WEST OF WISSAHICKON CREEK 30G11
FACILITY CARRIED : SR 3003 (STENTON AVENUE)
NAME/FEATURE INTERSECTED : SR 3003 (STENTON AVENUE)OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 112(34.1 m) **WIDTH :** 25.3 (7.7 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Whitemarsh, Stenton Avenue Bridge is owned by PennDOT and is ranked 57th.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 33 – very low
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 - high
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. Although it ranks in the middle third of all stone arch bridges under study in this plan and Montgomery County has expressed a desire for PennDOT to preserve this bridge, there are structural and transportation problems associated with it. The bridge has a low condition code, a very low waterway adequacy code, and a moderate (bordering on low) transportation code. For these reasons, the bridge has been placed on the Transportation Improvement Program (TIP) for replacement. The bridge has scour problems. In addition, the width of this bridge is too narrow for the current volume of traffic, although not much growth is anticipated in the area. It suffers a good deal of impact damage. Its waterway is inadequate and causes occasional flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge generally would have to be rebuilt to enlarge the waterway opening. Public input is high, however, with a good deal of support for the bridge, and it is located adjacent to Fort Washington State Park and will carry a trail in the future. However, the bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 85

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46300600301319 **DIST:** 6 **UTM:** 18/469762/4444071
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : EAST NORRITON **LOCATION :** AT WEST NORRITON BORDER 28H02
FACILITY CARRIED : SR 3006 (WHITEHALL ROAD)
NAME/FEATURE INTERSECTED : SR 3006 (WHITEHALL ROAD) OVER BRANCH STONEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 38 (11.6 m) **WIDTH :** 35 (10.7 m)
YR BUILT : 1911 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : COUNTY ENGINEER/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The East Norriton, Whitehall Road Bridge is owned by PennDOT and is ranked 56th.

Condition Code = 44 - low
Transportation Code = 47 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 59 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 60 – very high

This bridge is recommended for the Reserve Pool. The bridge is located next to the county-owned Norriston Farm Park and enhances its visual setting. For this reason, the Montgomery County Planning Commission has asked that it be preserved, if possible. The bridge has also received other public input. There are difficulties with preserving the bridge, however. The bridge is narrow and does not carry its current volume of traffic well. Some growth is anticipated in the area, which could increase the traffic volume, but the Planning Commission does not believe that this would be a problem. This bridge also has a low condition code, as a result of scour problems. Its waterway is inadequate and causes occasional flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Recommended for the Reserve Pool.

BRIDGE NO. 88

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

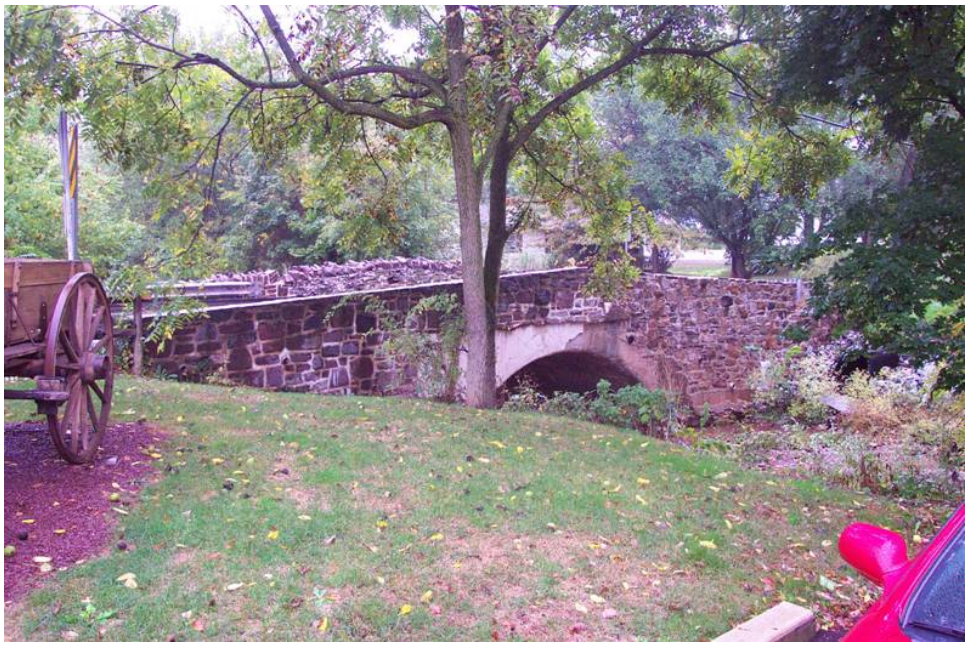
BMS # : 46401000202068 **DIST:** 6 **UTM:** 18/466108/4452411
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : SKIPPACK **LOCATION :** 1 MILE SOUTH OF PA 73 21B02
FACILITY CARRIED : SR 4010 (COLLEGEVILLE ROAD)
NAME/FEATURE INTERSECTED : SR 4010 (COLLEGEVILLE ROAD) OVER BRANCH SKIPPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 24 (7.3 m) **WIDTH :** 20 (6.1 m)
YR BUILT : 1830 **ALTERATION :** 1970 CA; 1989 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Skippack, Collegeville Road Bridge is owned by PennDOT and is ranked 76th.

Condition Code = 67 – very high
Transportation Code = 56 - high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 55 - high
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 42 – low

This bridge is not recommended for long-term preservation. Although it currently carries its traffic adequately, there is high growth potential in the area and the bridge has a narrow width. It would likely be unable to handle future traffic and would become a safety issue. A second problem is the bridge's waterway, which is marginally adequate and causes some flooding. For a stone arch bridge, an inadequate waterway is a difficult problem to fix. The primary structural component, the arch barrel, also defines the waterway opening. The bridge would have to be rebuilt to enlarge the waterway opening. In addition, it would be moderately expensive to rehabilitate to its historic appearance due to historically inaccurate past repointing and the use of gunite for repairs to the arch ring and arch barrel. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, resulting in a low values code.

Recommendation: Not recommended for long-term preservation.



BRIDGE NO. 90

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46401900101963 **DIST:** 6 **UTM:** 18/456339/4455236
OLD BMS # : 46401900101992 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : HORSHAM **LOCATION :** LIMERICK 13E10
FACILITY CARRIED : SR 4019 (PHEASANT ROAD)
NAME/FEATURE INTERSECTED : SR 4019 (PHEASANT ROAD) OVER MINE RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 23 (7 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1937 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Horsham, Pheasant Road Bridge is owned by PennDOT and is ranked 6th.

Condition Code = 63 – very high
Transportation Code = 66 – very high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 61 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 – moderate
Public Input Code = 54 – moderate

This bridge is an excellent candidate for long-term preservation. It scores high or very high in five of eight variables: condition, transportation, rehabilitation cost, and values. The bridge is in excellent condition, and it is handling its level of traffic very well. The bridge has a relatively narrow width, but it is adequate for the low volume of traffic it currently carries. With a low development potential in the area, little additional traffic is anticipated. While the bridge's waterway is marginally adequate, it has historic integrity, meaning that the cost for rehabilitating its historic fabric and form is relatively low. Public support for the bridge is moderate (one letter and one meeting at which the bridge was a focus). The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is located in a greenway.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 91

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46402300320476 **DIST:** 6 **UTM:** 18/453672/4459507
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : UPPER FREDERICK **LOCATION :** UPPER FREDERICK 13A03
FACILITY CARRIED : SR 4023 (FAGLEYSVILLE ROAD)
NAME/FEATURE INTERSECTED : SR 4023 (FAGLEYSVILLE ROAD) OVER WEST SWAMP CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 60 (18.3 m) **WIDTH :** 22.5 (6.9 m)
YR BUILT : 1854 **ALTERATION :** 1990CA **SOURCE :** INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

The Upper Frederick, Fagleysville Road Bridge is owned by PennDOT and is ranked 64th.

Condition Code = 74 - very high
Transportation Code = 56 - high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 44 - low
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 54 – moderate

The Fagleysville Bridge is recommended for long-term preservation. PennDOT has already demonstrated its commitment to the bridge, completing a major reconstruction of the structure. As a result of the rebuilding, the bridge is in excellent condition, and has a very high condition code. The codes for transportation and historic integrity (rehabilitation costs) are also high. The rebuilding was a result of high community interest and support for the National Register of Historic Places-listed bridge. The bridge, however, still has an inadequate waterway.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 92

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46403100900279 **DIST:** 6 **UTM:** 18/461832/4448176
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : LOWER PROVIDENCE **LOCATION :** COLLEGEVILLE 20E09
FACILITY CARRIED : SR 4031 (RIDGE PIKE)
NAME/FEATURE INTERSECTED : SR 4031 (RIDGE PIKE) OVER PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 6 **LENGTH :** 453 (138.1 m) **WIDTH :** 39 (11.9 m)
YR BUILT : 1798-1799 **ALTERATION :** 1928, 1985 **SOURCE :** PLAQUES (2)
DESIGNER/BUILDER : JOHN LEVIS/GEORGE BOYER (1798); WF CRESSMAN (1928)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed. 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Providence, Ridge Pike Bridge is owned by PennDOT and is ranked 36th.

Condition Code = 52 - moderate
Transportation Code = 28 - very low
Waterway Adequacy Code = 59 –high
Cost to Rehabilitate or Replace Code = 64 – very high
Anticipated Development Code = 48 – moderate
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation. The second-longest stone arch highway bridge in North America (the longest is in Connecticut, built in 1910), this bridge was built for a turnpike at the close of the eighteenth century. This bridge remains an excellent example of highway bridge construction in the late eighteenth century. It is also tied to the identity of the community. It is featured on the town of Collegeville's logo.

The bridge scores very high in two categories and high in two others. It is individually listed in the National Register of Historic Places and located in a greenway, resulting in a very high values code. It also has excellent historic integrity, meaning that rehabilitation costs are low. There is extreme public support for the bridge (three questionnaires, one email, one petition, one letter of support from the Township Commissioners, and one meeting at which this bridge was the focus). Structurally, the waterway adequacy is high. Condition is moderate, with evidence of scour. The width of the bridge, however, is narrow for the current volume of traffic, and moderate development is anticipated in the area.

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 93

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

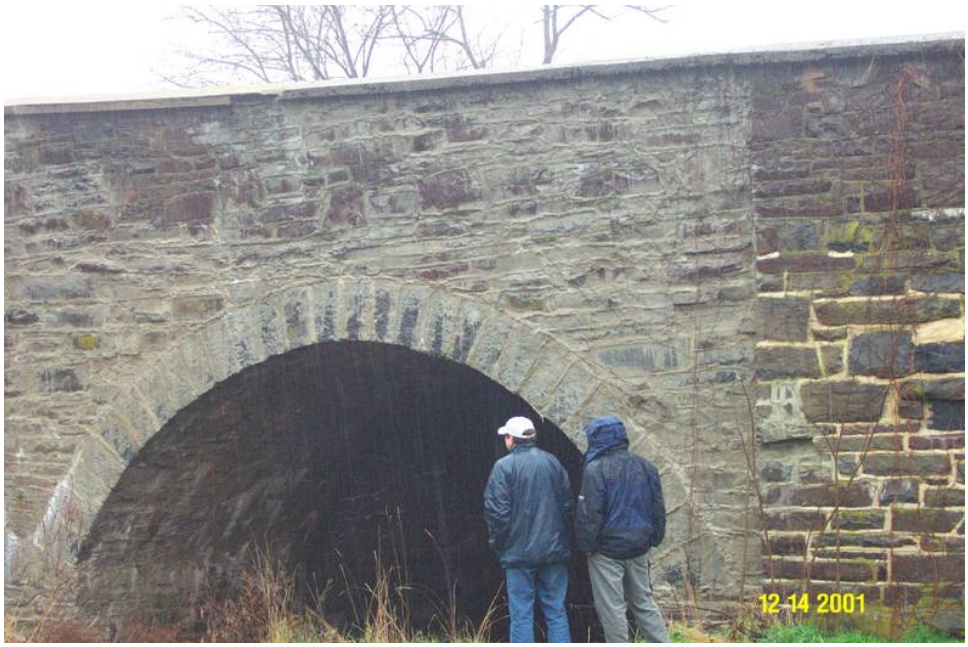
BMS # : 46403103000146 **DIST:** 6 **UTM:** 18/449391/4454909
OLD BMS # : 46403103000160 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : LOWER POTTSGROVE **LOCATION :** SANATOGA 12E11
FACILITY CARRIED : SR 4031 (RIDGE PIKE)
NAME/FEATURE INTERSECTED : SR 4031 (RIDGE PIKE) OVER SANATOGA CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 50 (15.2 m) **WIDTH :** 39 (11.9 m)
YR BUILT : 1850 CA **ALTERATION :** 1914 **SOURCE :** STYLE/PLAQUE
DESIGNER/BUILDER : MONT CO, JAMES CRESSON (1914)/ B A SCHEELER (1914)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Pottsgrove, Ridge Pike Bridge is owned by PennDOT and is ranked 42nd.

Condition Code = 52 - moderate
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 50 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 60 – very high

Despite ranking in the upper third of all stone arch bridges under study in this plan, the bridge is recommended for the Reserve Pool. Its waterway adequacy is high, and its overall condition is moderate; however, there is some scour present. Stabilization work was recently completed on the bridge. The bridge has historic integrity, and the cost to rehabilitate this bridge back to its historic form and fabric would be moderate. Public support for this bridge, located in a greenway, is high (two questionnaires, three letters, one email, and one telephone call). However, the bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. Its transportation code borders on low, and moderate growth is expected in the area, which may add to the existing traffic. The most important reason this bridge is not recommended for long-term preservation at this time is its location on the evacuation route for the Limerick Power Plant. Its ability to handle traffic adequately is paramount. For this reason, the bridge is on the Transportation Improvement Program (TIP) to either be rehabilitated or replaced.

Recommendation: Recommended for the Reserve Pool.



BRIDGE NO. 94

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46403103103638 **DIST:** 6 **UTM:** 18/448115/4454918
OLD BMS # : 46403103103533 **CTY:** MONTGOMERY **OWNER:** PENNDOT
MUNICIPALITY : LOWER POTTSGROVE **LOCATION :** SANATOGA 12A11
FACILITY CARRIED : SR 4031 (RIDGE PIKE)
NAME/FEATURE INTERSECTED : SR 4031 (RIDGE PIKE) OVER SPROGLES RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 60 (18.3 m) **WIDTH :** 46 (14 m)
YR BUILT : 1895CA **ALTERATION :** 1910 **SOURCE :** STYLE/PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, GEO FP WANGER/BA SHEELER (1910)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Lower Pottsgrove, Ridge Pike Bridge is owned by PennDOT and is ranked 97th.

Condition Code = 48 - moderate
Transportation Code = 47 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 40 - low
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 43 - low
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. Although the structure is located near a greenway and has received a high level of public interest (one questionnaire, three letters [including one from the County Planning Commission], three emails, and one meeting at which this bridge was a focus), the bridge ranks in the lowest third of all stone arch bridges under study in this plan. It currently carries its traffic moderately well; however, the bridge is located in a high growth area and the bridge would likely be unable to handle future traffic. While the waterway is adequate, the cost for rehabilitation back to its historic form and fabric is high. Historic integrity is compromised by the replacement of one section of the spandrel wall with gabions. The bridge is not eligible for listing in the National Register of Historic Places, either individually or as part of a historic district, resulting in a low values code.

Recommendation: Not recommended for long-term preservation.

BRIDGE NO. 95

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704600600098 **DIST:** 6 **UTM:** 18/496587/4430877
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : FRANCONIA **LOCATION :** 0.7 MILE WEST OF PA 113 08E12
FACILITY CARRIED : KELLER CREAMERY ROAD
NAME/FEATURE INTERSECTED : KELLER CREAMERY ROAD OVER INDIAN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 76 (23.2 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1905 **ALTERATION :** 1997 **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Franconia, Keller Creamery Road is owned by Montgomery County and is ranked 3rd.

Condition Code = 63 – very high
Transportation Code = 59 – high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 54 – moderate

This bridge is an excellent candidate for long-term preservation. It is one of the highest ranked stone arch bridges in the population under study for this plan. The bridge rates high or very high in six of seven categories. This bridge is in excellent condition and is handling its current traffic very well. There is little development anticipated in the area, so future traffic will not likely become a problem. Its waterway is adequate and the bridge retains its historic form and fabric, making the cost to rehabilitate low. The bridge is individually eligible for listing in the National Register of Historic Places and is located near a park. Public support for this bridge is very high (one letter and one meeting at which this bridge was a focus).

Recommendation: Strong candidate for long-term preservation.

BRIDGE NO. 96

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601500224 **DIST:** 6 **UTM:** 18/496728/4430137
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : TOWAMENCIN **LOCATION :** AT TWIN LAKES COUNTRY CLUB 15H10
FACILITY CARRIED : RITTENHOUSE ROAD
NAME/FEATURE INTERSECTED : RITTENHOUSE ROAD OVER SKIPPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 104 (31.7 m) **WIDTH :** 19 (5.8 m)
YR BUILT : 1908 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JOHN H. DAGER/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Towamencin, Rittenhouse Road Bridge is owned by Montgomery County and is ranked 62nd.

Condition Code = 44 - low
Transportation Code = 57 - high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 60 – very high

This bridge is a not a good candidate for long-term preservation, despite strong public input, including support from the County Planning Commission. Its condition code is low due to scour at the piers. Its waterway is inadequate, leading to frequent flooding and scour. Waterway adequacy is a function of the size of the arch barrel, which is also the bridge's main structural element. Consequently, fixing the problem is difficult. To enlarge the opening, the bridge must be rebuilt. he transportation code is high, a result of low traffic volumes and good sight distances at the approaches. The bridge lies in an area of moderate development; future traffic will increase somewhat. The bridge's historic form and fabric are intact, making the cost to rehabilitate relatively inexpensive. However, rehabilitation would not address the inadequate waterway. The bridge is near a park, giving it a moderate values code. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 97

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601600243 **DIST:** 6 **UTM:** 18/494169/4430324
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : WEST POTTSGROVE **LOCATION :** NEAR BERKS COUNTY LINE 10J11
FACILITY CARRIED : OLD READING PIKE
NAME/FEATURE INTERSECTED : OLD READING PIKE OVER YERGERS CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 34 (10.4 m) **WIDTH :** 31.5 (9.6 m)
YR BUILT : 1912 **ALTERATION :** 1948 **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY/JONATHAN L. HALTEMAN, CONTRACTOR
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Pottsgrove, Old Reading Pike Bridge is owned by Montgomery County and is ranked 27th.

Condition Code = 55 - high
Transportation Code = 59 – high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 – moderate

This bridge is a strong candidate for long-term preservation. It ranks within the top third of all stone arch bridges under study in this plan. The condition code is high. Although the spandrel walls have been reinforced with steel rods and plates, that repair has been in place since the 1940s. Currently needed repair work is limited to repointing. No scour was found during the last inspection. The bridge's transportation code is high, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low development potential; therefore, its future traffic may not increase substantially. Waterway adequacy is high. The cost to rehabilitate is moderate, as some strengthening measures may be required. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has public support (one letter and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 98

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601700126 **DIST:** 6 **UTM:** 18/495449/4430323
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LIMERICK **LOCATION :** NEAR POTTSTOWN AIRPORT 12K10
FACILITY CARRIED : FRUITVILLE ROAD
NAME/FEATURE INTERSECTED : FRUITVILLE ROAD OVER HARTENSTINE CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 28 (8.5 m) **WIDTH :** 23 (7 m)
YR BUILT : 1858 **ALTERATION :** 1995 **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Limerick, Fruitville Road Bridge is owned by Montgomery County and is ranked 85th.

Condition Code = 48 - moderate
Transportation Code = 59 – high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 47 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 60 – very high

This bridge is not a good candidate for long-term preservation, despite public support (one questionnaire, two letters, including one from the County Planning Commission, and one meeting at which this bridge was a focus). It ranks in the lowest third of all stone arch bridges under study in this plan. Its condition code is moderate because of loose stones and cracks, as well as concern about scour. The bridge is presently posted for an 18-ton load limit. The bridge's transportation code is very high, a result of low traffic volumes and good sight distances at the approaches. However, the bridge stands in an area of continuing development, where its traffic will likely increase substantially in the future, and is a potential problem. The waterway is only marginally adequate; some flooding occurs occasionally. The cost to rehabilitate is moderate; some portions of the parapets are leaning and would need to be rebuilt. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 99

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704601700219 **DIST:** 6 **UTM:** 18/497439/4429397
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : TOWAMENCIN **LOCATION :** SOUTH OF KRIEBEL ROAD 22A02
FACILITY CARRIED : TRUMBAUER ROAD
NAME/FEATURE INTERSECTED : TRUMBAUER ROAD OVER TOWAMENCIN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 70 (21.3 m) **WIDTH :** 20.3 (6.2 m)
YR BUILT : 1907 **ALTERATION :** 1990 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Towamencin, Trumbauer Road Bridge is owned by Montgomery County and is ranked 45th.

Condition Code = 55 - high
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 51 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 – moderate

This bridge is a moderate candidate for long-term preservation, despite its ranking in the top third of all stone arch bridges under study in this plan. Its condition code is high, and it needs to have no specific action taken. Its transportation code is moderate, although the roadway is narrow and there is a sight distance problem at one end. However, the bridge stands in an area of low development potential; the bridge should be able to carry its future traffic. Its waterway is adequate. The bridge has public support (one letter and one meeting at which this bridge was a focus). The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a greenway, natural area, or park. The cost to rehabilitate the bridge is moderate, as some alterations have been made. The bridge is not functioning as a true stone arch; a metal liner has been inserted against the arch barrel, taking the thrust off the arch. The liner could cause the stone and mortar to deteriorate.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 100

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704602500108 **DIST:** 6 **UTM:** 18/495733/4430693
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER FREDERICK **LOCATION :** FAUST ROAD TO PA 73 13F02
FACILITY CARRIED : FAUST ROAD
NAME/FEATURE INTERSECTED : FAUST ROAD OVER SCIOTO CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 40 (12.2 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1909 **ALTERATION :** UNKNOWN **SOURCE :** PLAQUE
DESIGNER/BUILDER : JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Frederick, Faust Road Bridge is owned by Montgomery County and is ranked 28th.

Condition Code = 66 – very high
Transportation Code = 61 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation, although some conditions need to be addressed. The bridge ranks in the top third of all stone arch bridges under study in this plan. Its condition code is very high and the bridge requires no specific action. The transportation code is also very high, a result of low traffic volumes and good sight distances at the approaches. Moreover, the bridge stands in an area of low development potential and the bridge's future traffic will not increase appreciably. Of concern, however, is the bridge's inadequate waterway. An inadequate waterway is a function of the size of the arch barrel. Because the arch barrel is the primary structural element of the bridge, an inadequate waterway is difficult to fix for a stone arch bridge. The cost to rehabilitate the bridge's historic form and fabric is moderate, as some portions of the parapets are leaning. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge, however, has extensive public support (one letter, one petition, and one meeting at which this bridge was a focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 101

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704602700090 **DIST:** 6 **UTM:** 18/495733/4430693
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LOWER FREDERICK **LOCATION :** SIMMONS ROAD TO PA 73 13H03
FACILITY CARRIED : SIMMONS ROAD
NAME/FEATURE INTERSECTED : SIMMONS ROAD OVER SCIOTO CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 34 (10.4 m) **WIDTH :** 23.8 (7.3 m)
YR BUILT : 1915 **ALTERATION :** UNKNOWN **SOURCE :** PLAQUE
DESIGNER/BUILDER : JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

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The Lower Frederick, Simmons Road Bridge is owned by Montgomery County and is ranked 11th.

Condition Code = 55 – high
Transportation Code = 56 - high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 67 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 – moderate
Public Input Code = 60 – very high

This bridge is a strong candidate for long-term preservation. The bridge is ranked high in the upper third of all of the stone arch bridges under study for this plan. It is rated high or very high in condition, although there are cracks and loose stones. The bridge is currently closed to traffic, but previous traffic volumes were low and there are good sight distances at the approaches. Most traffic is carried on a parallel road, and the bridge stands in an area of low development potential; it should be able to carry its traffic for some time in the future when it is reopened. The waterway is adequate, although some flooding does occur. The bridge retains its historic form and fabric and would be relatively inexpensive to rehabilitate. It is largely intact. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The public is very enthusiastic in its support of this bridge (one letter, one petition, and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 102

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704602900172 **DIST:** 6 **UTM:** 18/495449/4430693
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : NEW HANOVER **LOCATION :** SWAMP PIKE LR 46035 12E01
FACILITY CARRIED : SWAMP PIKE
NAME/FEATURE INTERSECTED : SWAMP PIKE OVER MINISTER CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 48 (14.6 m) **WIDTH :** 35.5 (10.8 m)
YR BUILT : 1792 **ALTERATION :** 1844,1929,1990 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY, WARREN F. CRESSMAN (1929)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The New Hanover, Swamp Pike Bridge is owned by Montgomery County and is ranked 123rd.

Condition Code = 44 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 43 - low
Anticipated Development Code = 18 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 35 – very low

This bridge is a poor candidate for long-term preservation. It is one of the lowest ranked of the stone arch bridges under study in this plan. It ranks low or very low in six of seven categories. Its condition code is low because of loose stones, cracks, and minor scour. The transportation code is moderate, a result of high traffic volumes and poor sight distances at the approaches. However, the bridge stands in an area of rapid development, where its future traffic will likely increase substantially beyond what the bridge can reasonably handle. The waterway is inadequate. An inadequate waterway is a function of the size of the arch barrel. Because the arch barrel is the primary structural element of the bridge, an inadequate waterway is difficult to fix for a stone arch bridge. Enlarging the opening necessitates rebuilding the bridge. The cost to rehabilitate is relatively expensive, as the bridge has been altered with the addition of a concrete slab extension (a trolley bridge had been added at one time – the portions of the abutment and pier that carried it remain). The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway. The bridge has received no public support.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 103

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704604750229 **DIST:** 6 **UTM:** 18/495734/4431802
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER HANOVER **LOCATION :** EAST OF PA 29 02J11
FACILITY CARRIED : 11TH STREET
NAME/FEATURE INTERSECTED : 11TH STREET OVER MACOBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 44 (13.4 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1906 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JOHN H. DAGER/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Hanover, 11th Street Bridge is owned by Montgomery County and is ranked 103rd.

Condition Code = 33 - very low
Transportation Code = 52 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 52 - moderate
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is a poor candidate for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan. It is rated as low or very low in three categories -- condition, waterway adequacy, and anticipated development -- and moderate in three others. Its condition code is very low, as the bridge has loose stones, cracks, and extensive scour. The bridge was posted for 16 tons on October 10, 1990. Its transportation code is moderate, a result of a narrow width and poor sight distances at the approaches. The bridge stands in an area of rapid development, where its traffic would likely increase substantially in the future; this will adversely affect the transportation code. Its waterway is inadequate, which is a difficult condition to remedy on a stone arch bridge. The primary structural component, the arch barrel, also defines the waterway opening; a new bridge would have to be built to make the waterway opening larger. The cost to rehabilitate its historic fabric and appearance is moderate, but such repairs would not address the inadequate waterway. The bridge is not individually listed in or eligible for listing in the National Register of Historic Places, does not contribute to a historic district, and is not part of a greenway, park, or natural area. The only category where the bridge was rated high was public support (three questionnaires, two letters, including one from the County Planning Commission, and one meeting at which this bridge was a focus), but the structural and traffic issues are too great to recommend the bridge for preservation.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 104

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704605100295 **DIST:** 6 **UTM:** 18/497013/4431062
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : SALFORD **LOCATION :** NEAR GREEN LANE ROAD 07K06
FACILITY CARRIED : DIETZ MILL ROAD
NAME/FEATURE INTERSECTED : DIETZ MILL ROAD OVER RIDGE VALLEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 36 (11 m) **WIDTH :** 21.3 (6.5 m)
YR BUILT : 1913 **ALTERATION :** 1985 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JAMES CRESSON/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Salford, Dietz Mill Road Bridge is owned by Montgomery County and is ranked 40th.

Condition Code = 44 - low
Transportation Code = 59 –high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 53 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 60 – very high

This bridge is a good candidate for long-term preservation despite a low condition code, which results from loose stones, cracks, and some scour. Its transportation code is high, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low development potential, where its future traffic would not be expected to increase substantially. Its waterway is adequate. The cost to rehabilitate is moderate, as some of the coping is cracked or has missing pieces. Portions of the bridge have been pointed with Portland cement, which will lead to the deterioration of the stones. Although not in a park or listed in or eligible for listing in the National Register of Historic Places, either individually or as part of a historic district, the public supports this bridge (one letter and two meetings at which this bridge was a focus). The bridge ranks in the top third of all stone arch bridges under study in this plan.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 105

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704605400084 **DIST:** 6 **UTM:** 18/496445/4431432
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : MARLBOROUGH **LOCATION :** PRICE ROAD 07H03
FACILITY CARRIED : PRICE ROAD (COUNTY BRIDGE 84)
NAME/FEATURE INTERSECTED : PRICE ROAD OVER UNAMI CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 67 (20.4 m) **WIDTH :** 19.2 (5.9 m)
YR BUILT : 1919 **ALTERATION :** 1968 **SOURCE :** PLAQUES
DESIGNER/BUILDER : MONTGOMERY COUNTY/ J.C. RAGUSA, JR. (1968)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Marlborough, Price Road Bridge is owned by Montgomery County and is ranked 14th.

Condition Code = 44 - low
Transportation Code = 73 – very high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 59 – high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 54 -moderate
Public Input Code = 60 – very high

Although the bridge ranks in the top third of all stone arch bridges under study in this plan, it is a moderate rather than a strong candidate for long-term preservation. It has a low condition code, as a result of loose stones, cracks, and extensive scour. The scour is partially the result of an inadequate waterway. A constricted waterway causes water to pick up speed and sediment as it passes through the opening, creating scour. An inadequate waterway is a difficult problem to fix in stone arch bridges. The arch barrel, which defines the opening, is also the bridge's primary structural element. Enlarging the opening requires the bridge to be rebuilt. The historic fabric and appearance of the bridge is largely intact; its cost to rehabilitate would be relatively inexpensive, but this would not correct the scour or waterway inadequacy. By contrast, the transportation code is very high, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low development potential, where its traffic is not expected to increase substantially. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is adjacent to a park and part of a greenway. The bridge has extensive public support (one questionnaire, one letter, one petition, and two meetings at which this bridge was a focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 106

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704606600214 **DIST:** 6 **UTM:** 18/496444/4430322
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : SKIPPACK **LOCATION :** GARGES ROAD 14E09
FACILITY CARRIED : GARGES ROAD
NAME/FEATURE INTERSECTED : GARGES ROAD OVER EAST BRANCH PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 115 (35.1 m) **WIDTH :** 22 (6.7 m)
YR BUILT : 1911 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER : J. H. DAGER/ NELSON-MERYDITH CO, CHAMBERSBURG, PA
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Skippack, Garges Road Bridge is owned by Montgomery County and is ranked 20th.

Condition Code = 44 - low
Transportation Code = 56 - high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 46 – moderate
Public Input Code = 60 – very high

This bridge is a good candidate for long-term preservation. It ranks in the top third of all stone arch bridges under study in this plan. It has a low condition code, due to loose stones, cracks, and exposed footers, but there is no scour, and the county is scheduled to repair the bridge in 2007. The bridge has a high transportation code, a result of low traffic volumes and good sight distances at the approaches. The bridge stands in an area of low potential for development; it should be able to carry its traffic for some time. Importantly, its waterway is adequate. Debris has a tendency to gather at the pier noses after storms, but the county adequately clears the debris. The bridge has historic integrity, meaning that it would be relatively inexpensive to rehabilitate, a result of most of its historic fabric and form remaining intact. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, greenway, or natural area. The bridge has extensive public support (one letter, one petition, and one meeting at which this bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 107

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704607000151 **DIST:** 6 **UTM:** 18/496444/4430877
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER SALFORD **LOCATION :** BERGEY ROAD 07J13
FACILITY CARRIED : BERGEY ROAD
NAME/FEATURE INTERSECTED : BERGEY ROAD OVER E BRANCH PERKIOMEN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 4 **LENGTH :** 134 (40.8 m) **WIDTH :** 25 (7.6 m)
YR BUILT : 1841 **ALTERATION :** 1990 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Bergy Bridge HD. 10/10/73

The Upper Salford, Bergy Road Bridge is owned by Montgomery County and is ranked 4th.

Condition Code = 52 - moderate
Transportation Code = 61 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 54 – moderate

This bridge is a good candidate for long-term preservation. It is among the highest ranked structures in the population of stone arch bridges under study in this plan, rated high or very high in four categories and moderate in two others. The transportation code is very high, a result of low traffic volumes and good sight distance. The bridge stands in an area of low development potential, and should be able to carry its traffic for some time. The bridge retains most of its historic appearance and fabric, meaning that it would be relatively inexpensive to rehabilitate. The bridge contributes to the National Register of Historic Places-listed Bergy Bridge Historic District, which is named for the structure. The bridge is also adjacent to a greenway, resulting in a very high values code. There is some public support for the preservation of this bridge (one letter and one meeting at which this bridge was a focus). The waterway is adequate. Its condition code is moderate; however, scour areas exist at the concrete collars, or skirts, around the piers. The collars may have exacerbated the scour problem by further restricting the waterway, increasing the speed and silt capacity of the creek. The issue will need to be addressed, but overall, the bridge's positives greatly outweigh the negatives.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 108

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704607400185 **DIST:** 6 **UTM:** 18/495732/4429213
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : EAST NORRITON **LOCATION :** EAST OF POTSHOP ROAD 28H01
FACILITY CARRIED : GERMANTOWN PIKE
NAME/FEATURE INTERSECTED : GERMANTOWN PIKE OVER FIVE MILE RUN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 25 (7.6 m) **WIDTH :** 38 (11.6 m)
YR BUILT : 1887 **ALTERATION :** 1930CA, 1980 CA **SOURCE :** PLAQUE/INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY/WILLIAM C. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The East Norriton, Germantown Pike Bridge is owned by Montgomery County and is ranked 119th.

Condition Code = 55 - high
Transportation Code = 42 - low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 38 – very low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 35 - very low
Public Input Code = 42 - low

This bridge is not a good candidate for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan, scoring low or very low in five of seven categories. Its condition code is high, although some scour was reported in the last inspection. The cost to rehabilitate code is very low, making the bridge relatively expensive to rehabilitate. However, its waterway is inadequate. An inadequate waterway is a difficult problem to fix in stone arch bridges. The arch barrel, which defines the opening, is also the bridge's primary structural element. Widening the opening requires the bridge to be rebuilt. The bridge's transportation code is low, a result of very high traffic volumes. The bridge stands in a rapidly developing area; as a result, its future traffic will increase in volume, exacerbating the existing ability to handle its traffic. The bridge is not individually listed in or eligible for listing in the National Register of Historic Places, does not contribute to any historic district, and is not part of a park, natural area, or greenway. This results in a very low values code. The bridge received only minor public support (two questionnaires).

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 110

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704608200142 **DIST:** 6 **UTM:** 18/496301/4429582
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LOWER PROVIDENCE **LOCATION :** US422 NEAR LR46067 20H09
FACILITY CARRIED : GERMANTOWN PIKE
NAME/FEATURE INTERSECTED : GERMANTOWN PIKE OVER SKIPPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 8 **LENGTH :** 202 (61.6 m) **WIDTH :** 29.3 (8.9 m)
YR BUILT : 1792 **ALTERATION :** 1992 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible. 12/02/70
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to Evansburg Historic District

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The Lower Providence, Germantown Pike Bridge is owned by Montgomery County and is ranked 13th.

Condition Code = 52 - moderate
Transportation Code = 40 - low
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 65 – very high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 67 – very high
Public Input Code = 60 – very high

This bridge is an excellent candidate for long-term preservation. It is highly ranked in the upper third of all stone arch bridges under study in this plan, scoring high or very high in four categories. The bridge has historic integrity, making it relatively inexpensive to rehabilitate because the bridge's historic fabric and form are mostly intact. The bridge is both individually eligible for listing in the National Register of Historic Places and a contributing resource to the Evansburg Historic District. It also lies within a park. The bridge enjoys public support (one questionnaire, one letter, and one meeting at which the bridge was a focus). The condition code is moderate; the latest inspection found some scour. In general, however, the waterway is adequate. The transportation code is low, a result of high traffic volumes, as the bridge is a major commuter route. However, the bridge is in an area of low development potential, where its traffic would not likely increase substantially in the future.

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 111

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704608300252 **DIST:** 6 **UTM:** 18/495590/4429398
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER PROVIDENCE **LOCATION :** MINGO TO LR46014 19D10
FACILITY CARRIED : MINGO ROAD
NAME/FEATURE INTERSECTED : MINGO ROAD OVER MINGO RUN CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 75 (22.9 m) **WIDTH :** 21.5 (6.6 m)
YR BUILT : 1914 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY CO, JAMES CRESSON/ SAMUEL W GUMBES
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Not Contributing

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The Upper Providence, Mingo Road Bridge is owned by Montgomery County and is ranked 37th.

Condition Code = 66 – very high
Transportation Code = 54 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 28 – very low
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 54 – moderate

This bridge is a good candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan. Its condition code is very high, although some scour is present. The transportation code borders on high, a result of low traffic volumes and good sight distances at the approaches. However, the bridge stands in an area of rapid development, where its future traffic will likely increase, which is a potential problem. The bridge's waterway is adequate. Its historic fabric and form are largely intact, making the bridge relatively inexpensive to rehabilitate. The bridge is also individually eligible for listing in the National Register of Historic Places and is adjacent to a park, making its values code very high. The bridge has received public support (one letter and one meeting at which the bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 112

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704608800101 **DIST:** 6 **UTM:** 18/495875/4430507
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : LOWER FREDERICK **LOCATION :** OLD GRAVEL PIKE 14A06
FACILITY CARRIED : OLD GRAVEL PIKE
NAME/FEATURE INTERSECTED : OLD GRAVEL PIKE OVER SWAMP CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 97 (29.6 m) **WIDTH :** 24 (7.3 m)
YR BUILT : 1915 **ALTERATION :** **SOURCE :** PLAQUE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JAMES CRESSON/ B A SHEELER
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to Zeiglerville Historic District

The Lower Frederick, Old Gravel Pike Bridge is owned by Montgomery County and is ranked 54th.

Condition Code = 26 - very low
Transportation Code = 49 – moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 66 – very high
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation. Its condition code is very low. Structural problems, including loose stones, cracks, and scour at the piers, need to be addressed. The transportation code is moderate, a result of manageable traffic volumes and good sight distances at the approaches. However, the bridge stands in an area of rapid development, which could substantially increase traffic volumes, although a bypass carries most vehicular traffic on PA 29, a few yards to the east. The bridge's waterway is adequate. The bridge's historic form and fabric is intact, making the bridge relatively inexpensive to rehabilitate. The bridge is individually eligible for listing in the National Register of Historic Places. It is also part of a planned greenway. The bridge enjoys immense public support (five questionnaires, 24 letters, four emails, one petition, and one meeting at which the bridge was a primary focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 113

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704609000073 **DIST:** 6 **UTM:** 18/496728/4429767
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : UPPER GWYNEDD **LOCATION :** AT LOWER GWYNEDD LINE 22K08
FACILITY CARRIED : SWEDESFORD ROAD
NAME/FEATURE INTERSECTED : SWEDESFORD ROAD OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 44 (13.4 m) **WIDTH :** 24.3 (7.4 m)
YR BUILT : 1873 **ALTERATION :** 1945-46 **SOURCE :** PLAQUE/CO RECORDS
DESIGNER/BUILDER : MONTGOMERY COUNTY/JOHN COZENS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to the Evans-Mumbower Mill Historic District

The Upper Gwynedd, Swedesford Road Bridge is owned by Montgomery County and is ranked 12th.

Condition Code = 63 - very high
Transportation Code = 56 - high
Waterway Adequacy Code = 33 - very low
Cost to Rehabilitate or Replace Code = 59 – high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

This bridge is a candidate for long-term preservation. It is ranked in the top third of all stone arch bridges under study in this plan, and it is rated high or very high in six of seven categories. Its condition code is high, although some scour has been noted during inspections. Its transportation code is also high, a result of very low traffic volumes. The bridge is located in an area of low anticipated development; therefore, future traffic should not improve greatly. The bridge would be relatively inexpensive to rehabilitate, as its historic form and fabric are largely intact. The bridge contributes to the local Evans-Mumbower Mill historic district and is adjacent to a park; its values code is very high. The public has expressed support for this bridge (three questionnaires, one letter, two emails, and one meeting at which the bridge was a focus). Of concern, however, is the waterway opening, which is inadequate. That feature is difficult to fix in a stone arch bridge, as the arch barrel is the major structural component of the bridge, and enlarging the opening would require the bridge to be rebuilt.

Recommendation: A strong candidate for historic preservation.

BRIDGE NO. 114

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704610500043 **DIST:** 6 **UTM:** 18/499004/4428842
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : ABINGTON **LOCATION :** WASHINGTON LANE 32C11
FACILITY CARRIED : WASHINGTON LANE
NAME/FEATURE INTERSECTED : WASHINGTON LANE OVER FROG HOLLOW CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 28 (8.5 m) **WIDTH :** 38.4 (11.7 m)
YR BUILT : 1887 **ALTERATION :** 1888, 1931 **SOURCE :** PLAQUES (3)
DESIGNER/BUILDER : H. O'NEILL (1887)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Abington, Washington Lane Bridge is owned by Montgomery County and is ranked 38th.

Condition Code = 44 - low
Transportation Code = 64 – very high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 52 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 40 - low
Public Input Code = 54 – moderate

This bridge is a candidate for long-term preservation. It ranks in the upper third of all stone arch bridges under study in this plan, ranking high or very high in four categories. Traffic volumes are low and there is good sight distances at the approaches. The bridge is in an area of low potential development, and it should handle its traffic well into the future. Waterway adequacy is rated as high. Its condition code is low; the bridge has some loose stones and cracks, which need to be corrected, but the last inspection found no scour. The cost to rehabilitate is moderate, as some alterations have occurred, including the placing of a pipe through the middle of the arch. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a greenway, park, or natural area. Public support for this bridge runs high (one questionnaire, one letter, and one meeting at which the bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 115

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704610600119 **DIST:** 6 **UTM:** 18/498577/4429767
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : HORSHAM **LOCATION :** EAST OF PROSPECTVILLE 24E04
FACILITY CARRIED : DAVIS GROVE ROAD
NAME/FEATURE INTERSECTED : DAVIS GROVE ROAD OVER PARK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 35 (10.7 m) **WIDTH :** 24 (7.3 m)
YR BUILT : 1911 **ALTERATION :** 1980 CA **SOURCE :** PLAQUE\INSP FILE
DESIGNER/BUILDER : MONTGOMERY COUNTY, JAMES CRESSON/ JAMES M. SMITH
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Horsham, Davis Grove Road Bridge is owned by Montgomery County and is ranked 82nd.

Condition Code = 40 - low
Transportation Code = 45 - moderate
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 46 – moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 48 – moderate
Public Input Code = 60 – very high

This bridge is not a good candidate for long-term preservation, despite public support (two letters, including one from the County Planning Commission, one email, and one meeting at which the bridge was a focus). It is ranked in the lowest third of all stone arch bridges under study in this plan, and is rated as low or very low in three categories: condition, waterway adequacy, and values. The low condition code is the result of loose stones, cracks, and extensive scour. The bridge was posted for five tons on May 3, 1995. Its waterway is inadequate, leading to occasional flooding. Because the primary structural component of a stone arch bridge, the arch barrel, also defines the waterway opening, an inadequate waterway is a difficult problem to fix and generally requires the bridge to be rebuilt. The values code is moderate. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is adjacent to a municipal park. Its transportation code is moderate, bordering on low. The bridge handles very low traffic volumes, but it has poor sight distances at its approaches. The bridge stands in an area of low development potential, and should be able to handle its traffic for some time; however, that does not correct the sight distance problems at its approaches. The cost to rehabilitate its historic form and fabric is moderate because portions of the parapets have been removed and replaced with steel pipe railing.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 116

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46704610800118 **DIST:** 6 **UTM:** 18/498577/4429767
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** MONTGOMERY COUNTY
MUNICIPALITY : HORSHAM **LOCATION :** GRAEME STATE PARK 24G03
FACILITY CARRIED : KEITH VALLEY ROAD (BRIDGE # 118)
NAME/FEATURE INTERSECTED : KEITH VALLEY ROAD OVER PARK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 78 (23.8 m) **WIDTH :** 28 (8.5 m)
YR BUILT : 1907 **ALTERATION :** 1941 **SOURCE :** PLAQUES
DESIGNER/BUILDER : JH DAGER (1907), WF CRESSMAN (1941)/ JM SMITH (07)
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Horsham, Keith Valley Road Bridge is owned by Montgomery County and is ranked 58th.

Condition Code = 44 - low
Transportation Code = 59 - high
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 41 – low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation, but it has some structural problems which must be addressed. Positively, the bridge's transportation code is very high. The bridge has very low traffic volumes and good sight distances at its approaches. The bridge stands in an area of low development potential, and it should be able to handle its traffic for some time. The bridge is adjacent to both Graeme Park Historic Site and municipal park land, resulting in a strong values code. Because of its location, the Montgomery County Planning Commission has asked for its preservation. However, the condition code is low, the result of loose and missing stones along its parapets, as well as extensive scour. Its waterway is inadequate, leading to occasional flooding. Because the primary structural component of a stone arch bridge, the arch barrel, also defines the waterway opening, an inadequate waterway is a difficult problem to fix, and generally requires the bridge to be rebuilt. The bridge has historic integrity problems; portions of its parapets are missing. Consequently, it would be relatively expensive to rehabilitate. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district.

Recommendation: A Moderate Candidate for long-term preservation.

BRIDGE NO. 117

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46721902100005 **DIST:** 6 **UTM:** 18/495734/4432172
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** UPPER HANOVER TWP.
MUNICIPALITY : UPPER HANOVER **LOCATION :** 0.2 MILE EAST OF EGREE 02H07
FACILITY CARRIED : TAGART ROAD
NAME/FEATURE INTERSECTED : TAGART ROAD OVER MACOBY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 34.7 (10.6 m)
YR BUILT : 1880CA **ALTERATION :** 1950 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Upper Hanover, Tagart Road Bridge is owned by Upper Hanover Township and is ranked 61st.

Condition Code = 59 – high
Transportation Code = 81 - very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 46 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 35 – very low

This bridge is not a strong candidate for long-term preservation. Its condition code is high, and its transportation code is very high. Its waterway is adequate. But the bridge lacks historic integrity and the cost to rehabilitate its historic form and fabric would be moderately expensive. The bridge has been extended with concrete and its parapets have been replaced with steel guide rails. The bridge no longer looks like a stone arch bridge from the roadway and on the concrete side. The bridge stands in an area of rapid development, where its future traffic may increase substantially. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, greenway, or natural area. The bridge has not received any public comment.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 118

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304100010 **DIST:** 6 **UTM:** 18/471452/4440549
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 1500 FEET SOUTHEAST OF US 202 29A08
FACILITY CARRIED : OAK STREET
NAME/FEATURE INTERSECTED : OAK STREET OVER SAW MILL RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 20 (6.1 m) **WIDTH :** 50.7 (15.5 m)
YR BUILT : 1855CA **ALTERATION :** 1932 **SOURCE :** STYLE/INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Norristown, Oak Street Bridge is owned by Norristown Township and is ranked 112th.

Condition Code = 33 – very low
Transportation Code = 54 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 42 - low

This bridge is not a good candidate for long-term preservation. It is one of the lowest ranked stone arch bridges under study in this plan. Its transportation code is moderate. Although the bridge carries a fairly high volume of traffic, its sight distances at its approaches are very good and the bridge is wide enough for its traffic. Set in an urban area, the bridge's traffic can be expected to increase substantially, but it may be able to handle a substantial increase. Its waterway is adequate. However, the bridge is rated very low in four categories: condition, anticipated development, cultural values, and public input. The low condition code is a result of loose stones, cracks, and some scour. Portions of its parapets have crumbled away and have been replaced with concrete barriers. Consequently, its cost to rehabilitate is moderate, bordering on low, due to the loss of historic fabric. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, and it is not part of a park, natural area, or greenway; therefore, its values code is very low. The bridge has received little public comment (one telephone call).

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 119

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304200001 **DIST:** 6 **UTM:** 18/470174/4440554
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 350 FEET WEST OF US 202 SOUTH 28J08
FACILITY CARRIED : MAIN STREET
NAME/FEATURE INTERSECTED : MAIN STREET OVER STONY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 40 (12.2 m) **WIDTH :** 82.7 (25.2 m)
YR BUILT : 1854 **ALTERATION :** UNKNOWN **SOURCE :** INSP FILE/STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributes to W. Norristown HD

The Norristown, Main Street Bridge is owned by Norristown Township and is ranked 46th.

Condition Code = 59 - high
Transportation Code = 43 - low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 48 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 60 – very high

This bridge is a moderate candidate for long-term preservation. The bridge's condition code is high, as is its public input code. The bridge was the subject of three questionnaires, four letters, three emails, and one telephone call. Waterway adequacy, cost to rehabilitate, and values codes are all moderate. Some alterations have occurred that compromise historic integrity, including a concrete extension on the upstream side. The bridge contributes to the West Norristown Historic District; even though the bridge lies outside the drawn boundary. It is specifically mentioned in the National Register of Historic Places nomination form as being one of the primary reasons for the development that became West Norristown. Individually, it is not eligible. The bridge is also a gateway for West Norristown. However, of some concern is that the transportation code is low, a result of very high traffic volumes. Set in an urban area, its future traffic is expected to increase somewhat, perhaps beyond what the bridge can manage.

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 120

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304500008 **DIST:** 6 **UTM:** 18/471167/4440365
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN
MUNICIPALITY : NORRISTOWN **LOCATION :** 700 FEET SOUTHEAST OF US 202N 29A08
FACILITY CARRIED : MARSHALL STREET
NAME/FEATURE INTERSECTED : MARSHALL STREET OVER SAW MILL RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 24 (7.3 m) **WIDTH :** 50.5 (15.4 m)
YR BUILT : 1910 **ALTERATION :** UNKNOWN **SOURCE :** INSP FILE/STYLE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

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The Norristown, Marshall Street Bridge is owned by Norristown Township and is ranked 104th.

Condition Code = 48 - moderate
Transportation Code = 52 - moderate
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 44 - low
Anticipated Development Code = 38 - very low
Recreational, Historical, and Cultural Values Code = 38 – very low
Public Input Code = 42 - low

This bridge is not a good candidate for long-term preservation. The bridge ranks in the lowest third of all stone arch bridges under study in this plan. It is rated low or very low in four categories and moderate in three others. The bridge's condition code is moderate because of scour problems. The bridge lacks historic integrity. It has a concrete extension to one side. Rehabilitating its historic fabric and form to its original appearance would be relatively expensive. The bridge has a very low cultural values code. It is not individually listed in or eligible for listing in the National Register of Historic Places, does not contribute to a historic district, and is not in a park, greenway, or natural area. There has been minor public comment (one telephone call). The transportation code is moderate, a result of a wide bridge with good approaches; the original stone bridge has been widened with concrete. Its waterway is adequate.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 121

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741304800009 **DIST:** 6 **UTM:** 18/471167/4440365
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 900 FEET SOUTHEAST OF US 202N 29A08
FACILITY CARRIED : ARCH STREET
NAME/FEATURE INTERSECTED : ARCH STREET OVER SAW MILL RUN
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 24 (7.3 m) **WIDTH :** 51 (15.5 m)
YR BUILT : 1900CA **ALTERATION :** **SOURCE :** STYLE/INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Central Norristown HD. 11/23/84

The Norristown, Arch Street Bridge is owned by Norristown Township and is ranked 109th.

Condition Code = 33 – very low
Transportation Code = 49 - moderate
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 44 - low
Anticipated Development Code = 38 – very low
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 42 – low

This bridge is not a good candidate for long-term preservation. It is ranked in the lowest third of all stone arch bridges under study in this plan, despite contributing to the Central Norristown Historic District. It is rated as low or very low in four categories and moderate in two others. The condition code is very low because of extensive scour problems. In addition, one end wall has collapsed and has been replaced with gabions. Consequently, it would be relatively expensive to rehabilitate the bridge's historic fabric and form. The bridge's transportation code is moderate, as it handles a relatively high traffic volume. However, the bridge is located in an urban area of high development potential, and traffic may increase in the future beyond the bridge's ability to handle it. Although the waterway adequacy code is listed as moderate, the bridge occasionally floods, exacerbating the existing scour problem. The bridge has received minor public comment (one telephone call).

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 122

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 46741315800003 **DIST:** 6 **UTM:** 18/470744/4441107
OLD BMS # : **CTY:** MONTGOMERY **OWNER:** NORRISTOWN TWP.
MUNICIPALITY : NORRISTOWN **LOCATION :** 0.6 MILE NORTH OF SCHUYLKILL 28K07
FACILITY CARRIED : MARKLEY & ELM STREETS
NAME/FEATURE INTERSECTED : MARKLEY & ELM STREETS OVER STONEY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 69 (21 m) **WIDTH :** 122.5 (37.3 m)
YR BUILT : 1878 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Central Norristown HD. 11/23/84.

The Norristown, Markley and Elm Streets Bridge is owned by Norristown Township and is ranked 10th.

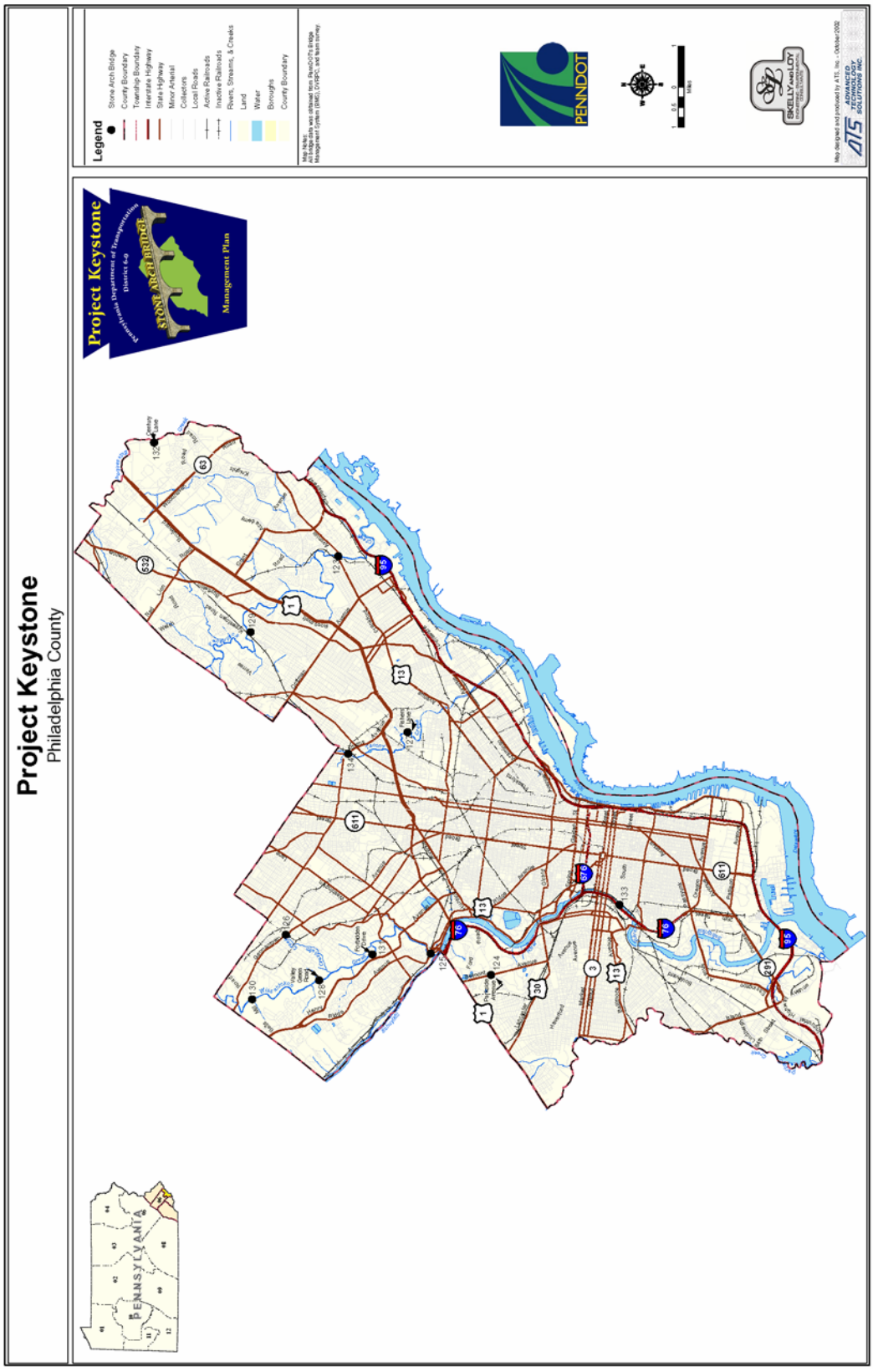
Condition Code = 55 - high
Transportation Code = 43 - low
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 55 – high
Anticipated Development Code = 58 – high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

This bridge is an excellent candidate for long-term preservation. The bridge is highly ranked in the top third of all stone arch bridges under study in this plan. It is rated as high or very high in all but one category. A rare example of a two-span stone arch bridge carrying an intersection diagonally across a stream, the Markley and Elm Streets Bridge is in good condition and has a high condition code, although some scour is present. Waterway adequacy is high. Because the bridge retains most of its historic fabric and form, the bridge would be relatively inexpensive to rehabilitate. The transportation code is low, the result of high traffic volumes. However, the bridge is set in an urban area that is largely built out, where future traffic is not expected to increase substantially. The bridge contributes to the Central Norristown Historic District and is part of a proposed greenway, resulting in a high values code. The bridge enjoys public support (one letter, one telephone call, and one meeting at which the bridge was a focus).

Recommendation: A strong candidate for long-term preservation.

APPENDIX F -
PHILADELPHIA COUNTY/CITY BRIDGE INVENTORY

APPENDIX F
PHILADELPHIA COUNTY BRIDGE INVENTORY



BRIDGE NO. 123

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67001302602319 **DIST:** 6 **UTM:** 18/498293/4432356
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** PENNDOT

MUNICIPALITY : PHILADELPHIA **LOCATION :** HOLMESBURG 19G08
FACILITY CARRIED : US 13 (FRANKFORD AVENUE)
NAME/FEATURE INTERSECTED : US 13 OVER PENNYPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 73 (22.3 m) **WIDTH :** 50 (15.2 m)
YR BUILT : 1697 **ALTERATION :** 1893 **SOURCE :** 1983 SURVEY
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Holmesburg, Frankford Avenue Bridge is owned by PennDOT and is ranked 35th.

Condition Code = 48 - moderate
Transportation Code = 38 – very low
Waterway Adequacy Code = 59 - high
Cost to Rehabilitate or Replace Code = 57 - high
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 65 – very high
Public Input Code = 60 – very high

The oldest continuously used highway bridge in North America, the Frankford Avenue Bridge is an excellent candidate for long-term preservation. Built at the request of William Penn to connect his mansion with the nascent city of Philadelphia, the bridge remains a testament to a well-maintained stone arch bridge. More than three centuries after its construction, it carries an estimated 23,000 vehicles a day in an urban setting. It ranks in the upper third of all stone arch bridges under study in this plan.

Its condition code is moderate, a result of scour at the abutments and piers. This bridge was posted for 20 tons on May 26, 1981. Its transportation code is very low, a result of high traffic volume and poor sight distance at one approach. Its waterway is adequate. However, because the bridge's historic fabric and form are largely intact, the cost to rehabilitate it would be relatively inexpensive. It stands in an urban area, where its traffic may increase in the future, with the potential to exacerbate an already low transportation code. The bridge is individually listed in the National Register of Historic Places and is part of Pennypack Park. The bridge enjoys extensive public support (five questionnaires, one letter, two emails, and one meeting at which the bridge was the primary focus).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 124

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67300501500212 **DIST:** 6 **UTM:** 18/481360/4426830
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** PENNDOT
MUNICIPALITY : PHILADELPHIA **LOCATION :** . FAIRMOUNT PARK 27H05
FACILITY CARRIED : SR 3005 (BELMONT AVENUE)
NAME/FEATURE INTERSECTED : SR 3005 (BELMONT AVENUE) OVER RAMP B PARKSIDE AVE.CITY
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 34 (10.4 m) **WIDTH :** 106.1 (32.3 m)
YR BUILT : 1896 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Fairmont Park, Belmont Avenue Bridge is owned by PennDOT and is ranked 8th.

Condition Code = 74 – very high
Transportation Code = 45 - moderate
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 53 - moderate
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 63 – very high
Public Input Code = 42 - low

This bridge is an excellent candidate for long-term preservation. It is one of the highest ranked of all stone arch bridges under study in this plan. It has a very high condition code, a result of its excellent overall condition and the absence of scour; it carries Belmont Avenue over a road rather than water. Its waterway adequacy is also very high – again, as a result of the bridge crossing a road rather than a waterway; flooding is not an issue. It has a low transportation code, a result of very high traffic volumes, but it stands in Fairmount Park, where development is not likely to occur in its vicinity. As a result, traffic will not likely increase substantially. The bridge is individually listed in the National Register of Historic Places and is located in a park, giving it local significance. The cost to rehabilitate its historic fabric and form is moderate, because a portion of the arch barrel has been gunited. Also, the bridge has received only limited public support (one letter and one email).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 125

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

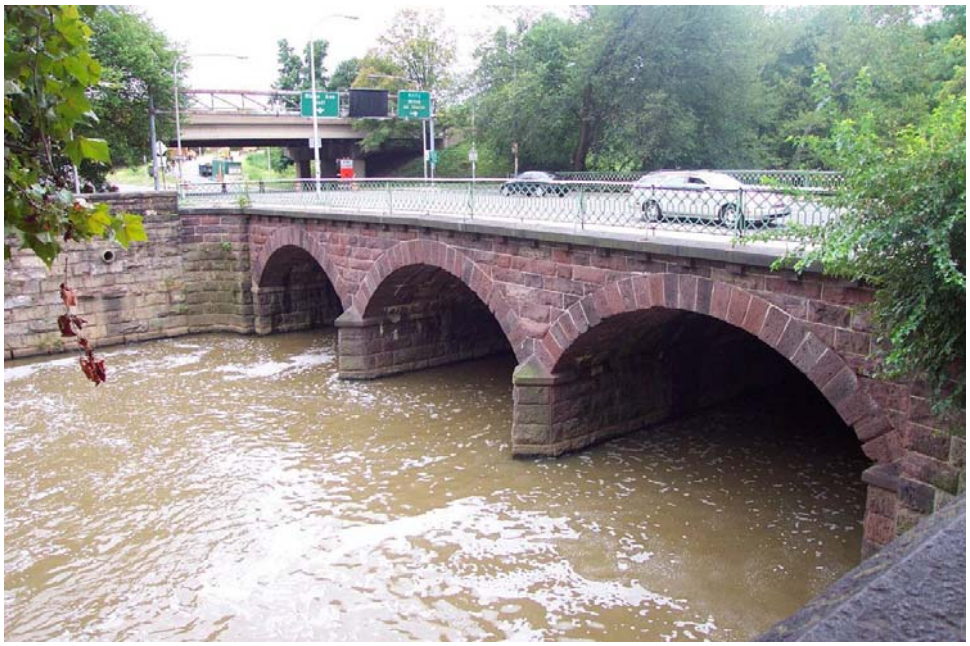
BMS # : 67300901000120 **DIST:** 6 **UTM:** 18/482220/4429232
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** PENNDOT
MUNICIPALITY : PHILADELPHIA **LOCATION :** GUSTINE LAKE INTER 27K01
FACILITY CARRIED : SR 3009 (RIDGE AVENUE)
NAME/FEATURE INTERSECTED : SR 3009 (RIDGE AVENUE) OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 119 (36.3 m) **WIDTH :** 64.8 (19.8 m)
YR BUILT : 1888 **ALTERATION :** 1954 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Gustine Lake, Ridge Avenue Bridge is owned by PennDOT and is ranked 65th.

Condition Code = 52 - moderate
Transportation Code = 40 – low
Waterway Adequacy Code = 40 - low
Cost to Rehabilitate or Replace Code = 46 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation despite the fact that its ranking falls in the lower half of the stone arch bridge population under study in this plan. The city of Philadelphia has requested that PennDOT preserve the bridge because it is located adjacent to Fairmount Park and it is individually listed in the National Register of Historic Places. For these reasons, the bridge receives a very high values code. The bridge's condition is fair, with some advanced scour evident. Its cost to rehabilitate is moderate, as much of the bridge's historic fabric and form are intact; however, the parapets have been replaced with metal railings. The bridge has a very low transportation code, a result of high traffic volumes and poor sight distance; the bridge has an intersection at one end. The bridge stands in an urban area where traffic can be expected to increase somewhat. Its waterway adequacy is poor. Repair work in keeping with the Maintenance Manual developed for this plan will be necessary.

Recommendation: Recommended for long-term preservation.



BRIDGE NO. 126

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67400701000136 **DIST:** 6 **UTM:** 18/483228/4434779
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** COMBINATION
MUNICIPALITY : PHILADELPHIA **LOCATION :** CHESTNUT HILL 17A04
FACILITY CARRIED : SR 4007 (GERMANTOWN AVENUE)
NAME/FEATURE INTERSECTED : SR 4007 (GERMANTOWN AVENUE) OVER CRESHEIM CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 25 (7.6 m) **WIDTH :** 60 (18.3 m)
YR BUILT : 1885 **ALTERATION :** 1903 **SOURCE :** INSP FILE
DESIGNER/BUILDER : CITY OF PHILADELPHIA DEPT PUBLIC WORKS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Fairmount Park HD. 2/7/72

The Chestnut Hill, Germantown Avenue Bridge is owned by two municipalities. The bridge is ranked 89th.

Condition Code = 37 – very low
Transportation Code = 42 - low
Waterway Adequacy Code = 33 – very low
Cost to Rehabilitate or Replace Code = 51 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 62 – very high
Public Input Code = 60 – very high

This bridge is recommended for long-term preservation. Although it ranks in the lowest third of all stone arch bridges under study in this plan, it is programmed on the Transportation Improvement Program (TIP) for rehabilitation. Preliminary design is underway. The new design will need to correct poor conditions (including advanced scour and a weight limit), an inadequate waterway, and the ability to carry large volumes of traffic. Its has historic integrity and the cost to rehabilitate is moderate, as much of the bridge's historic form and fabric remain. The bridge has a very high cultural values code; it contributes to the Fairmount Park Historic District and lies within the park. The bridge has received some public support (two letters and two emails).

Recommendation: Recommended for long-term preservation.

BRIDGE NO. 127

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730100400120 **DIST:** 6 **UTM:** 18/491181/4429772
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** C CITY OF PHILA-ST
MUNICIPALITY : PHILADELPHIA **LOCATION :** WEST OF RAMONA STREET 18E13
FACILITY CARRIED : FISHER'S LANE
NAME/FEATURE INTERSECTED : FISHER'S LANE OVER TACONY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 54 (16.5 m) **WIDTH :** 27.7 (8.4 m)
YR BUILT : 1796 **ALTERATION :** 1801 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Fisher's Lane Bridge West of Ramona Street is owned by Philadelphia and is ranked 24th.

Condition Code = 52 – moderate
Transportation Code = 66 – very high
Waterway Adequacy Code = 46 - moderate
Cost to Rehabilitate or Replace Code = 51 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 57 - high
Public Input Code = 60 – very high

This bridge is a good candidate for long-term preservation. It ranks within the top third of all stone arch bridges under study in this plan. The bridge has a very high transportation code, a result of very low traffic volumes. The road on which the bridge is located essentially serves as the driveway of a driving range; consequently, traffic should not appreciably increase. It has a moderate condition code, a result of moderate scour and some cracks. Its waterway adequacy is moderate. Cost to rehabilitate is also moderate, because most of the bridge's historic fabric and form are intact. Originally constructed in 1796, the bridge is locally and regionally significant, and is individually eligible for listing in the National Register of Historic Places. The bridge has received public support (one letter and one petition).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 128

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730100700742 **DIST:** 6 **UTM:** 18/481377/4433674
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** C PHILA-FP
MUNICIPALITY : PHILADELPHIA **LOCATION :** FAIRMOUNT PARK 16H06
FACILITY CARRIED : VALLEY GREEN ROAD
NAME/FEATURE INTERSECTED : VALLEY GREEN ROAD OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 67 (20.4 m) **WIDTH :** 27 (8.2 m)
YR BUILT : 1832 **ALTERATION :** 1915 **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS: Contributing. Fairmount Park HD

The Fairmont Park, Valley Green Road Bridge is owned by the City of Philadelphia and Fairmont Park and is ranked 29th.

Condition Code = 40 - low
Transportation Code = 61 – very high
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 58 - high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 65 – very high
Public Input Code = 42 – low

This bridge is a strong candidate for long-term preservation. It is ranked in the upper third of all stone arch bridges under study in the plan, and is rated high or very high in transportation, rehabilitation cost, anticipated development, and values. Its transportation code is very high due to low traffic volumes, good sight distances at the approaches, and a relatively wide roadway. The bridge stands in Fairmount Park where its future traffic is not expected to increase substantially. The bridge also contributes to the National Register of Historic Places-listed Fairmount Park Historic District, making it locally and regionally significant. Its waterway is adequate. The bridge retains most of its historic form and fabric, making it relatively inexpensive to rehabilitate. It has received only minor public support (one letter and one email).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 129

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730101100168 **DIST:** 6 **UTM:** 18/495310/4436057
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** CITY OF PHILA-ST
MUNICIPALITY : PHILADELPHIA **LOCATION :** KREWSTOWN ROAD 19B03
FACILITY CARRIED : KREWSTOWN ROAD
NAME/FEATURE INTERSECTED : KREWSTOWN ROAD OVER PENNYPACK CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 91 (27.7 m) **WIDTH :** 35 (10.7 m)
YR BUILT : UNKNOWN **ALTERATION :** 1909,1964 **SOURCE :** PLAQUE
DESIGNER/BUILDER : CITY OF PHILADELPHIA DEPT PUBLIC WORKS
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Philadelphia, Krewstown Road Bridge is owned by the City of Philadelphia and PennDOT and is ranked 68th.

Condition Code = 55 - high
Transportation Code = 31 – very low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 48 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 51 - moderate
Public Input Code = 60 – very high

Constructed in 1801 (the plaque was recently uncovered), the Krewstown Road Bridge is a moderate candidate for long-term preservation. It is on the Transportation Improvement Program (TIP), but currently, the City of Philadelphia is considering leaving the bridge in place and building a new bridge adjacent to it to carry traffic. The bridge is in good condition and requires no specific action, but its transportation code is very low, a result of high traffic volumes and poor sight distance at one approach. Building a parallel bridge will alleviate this issue. Its waterway is adequate. Its cost to rehabilitate the bridge to its historic form and fabric is moderate, a result of the bridge being encased in concrete. The bridge is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district, but it is located in Pennypack Creek Park, giving it local significance. The bridge has received high public support (six questionnaires, one letter, one email, one petition, and one meeting at which this bridge was a primary focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 130

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730101200340 **DIST:** 6 **UTM:** 18/480673/4436265
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** C PHILA.-ST
MUNICIPALITY : PHILADELPHIA **LOCATION :** BELLS MILL ROAD 16G02
FACILITY CARRIED : BELLS MILL ROAD
NAME/FEATURE INTERSECTED : BELLS MILL ROAD OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 67 (20.4 m) **WIDTH :** 27.3 (8.3 m)
YR BUILT : 1820 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Fairmount Park HD

The Fairmount Park, Bells Mill Road Bridge is owned by Philadelphia County and PennDOT and is ranked 99th.

Condition Code = 44 - low
Transportation Code = 24 – very low
Waterway Adequacy Code = 33 – very low
Cost to Rehabilitate or Replace Code = 42 - low
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 59 – high
Public Input Code = 60 – very high

This bridge is not a strong candidate for long-term preservation. It ranks in the lowest third of all stone arch bridges under study in this plan. The bridge lies within Fairmount Park and contributes to the National Register-listed Fairmount Park Historic District. The bridge has received public support (one questionnaire, two letters, and two emails). However, the bridge suffers from moderate to heavy scour. Its transportation code is very low, a result of poor sight distance at one approach. Its waterway is inadequate. Waterway adequacy is difficult to fix in a stone arch bridge, because it is a function of the size of the arch barrel opening. Enlarging the opening would necessitate rebuilding the bridge. Because of the structural problems, it would be fairly expensive to rehabilitate the bridge's historic fabric and form. In addition, rehabilitation would not address the inadequate waterway.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 131

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730101500703 **DIST:** 6 **UTM:** 18/483076/4430710
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** C PHILA-FP
MUNICIPALITY : PHILADELPHIA **LOCATION :** SOUTH OF WALNUT LANE 17A11
FACILITY CARRIED : FORBIDDEN DRIVE (BLUE STONE BRIDGE)
NAME/FEATURE INTERSECTED : FORBIDDEN DRIVE OVER WISSAHICKON CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 1 **LENGTH :** 126 (38.4 m) **WIDTH :** 41 (12.5 m)
YR BUILT : 1896 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Fairmount Park HD

The Fairmount Park, Forbidden Drive Bridge is owned by Philadelphia County and Fairmount Park and is ranked 1st.

Condition Code = 66 – very high
Transportation Code = 73 – very high
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 65 – very high
Anticipated Development Code = 58 - high
Recreational, Historical, and Cultural Values Code = 67 – very high
Public Input Code = 42 - low

This bridge is an excellent candidate for long-term preservation. It ranks very high in four categories and high in the other three. The bridge is in very good condition and does not require specific action. Its transportation code is very high, a result of low traffic volumes and good sight distances at the approaches. Its waterway adequacy is excellent. Because the bridge's historic fabric and form remain intact, the cost to rehabilitate would be relatively inexpensive. The bridge stands in Fairmount Park where future traffic is not likely to increase substantially. The bridge contributes to the Fairmount Park Historic District and lies within the park, giving it a very high values code. Only minor public support has been received for this bridge (one questionnaire, one letter, and one email).

Recommendation: A strong candidate for long-term preservation.

BRIDGE NO. 132

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730101900030 **DIST:** 6 **UTM:** 18/502840/4439386
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** C PHILA.-BUCK
MUNICIPALITY : PHILADELPHIA **LOCATION :** BENSALEM TOWNSHIP 10E10
FACILITY CARRIED : CENTURY LANE
NAME/FEATURE INTERSECTED : CENTURY LANE OVER POQUESSING CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 2 **LENGTH :** 42 (12.8 m) **WIDTH :** 22.6 (6.9 m)
YR BUILT : 1853 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The Bensalem, Century Lane Bridge is owned by Philadelphia and Bucks County and is ranked 63rd.

Condition Code = 48 – moderate
Transportation Code = 59 - high
Waterway Adequacy Code = 40 – low
Cost to Rehabilitate or Replace Code = 45 - moderate
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 49 – moderate
Public Input Code = 60 – very high

One of four Poquessing Creek stone arch bridges, this bridge would appear to be a moderate candidate for long-term preservation; however, the city of Philadelphia has stated its commitment to the preservation of this bridge. This bridge has a moderate condition code, a result of minimal scour and other problems. However, rehabilitation was recently undertaken to strengthen the arch barrel and the bridge's traffic carrying capacity. It has a high transportation code, a result of low rates of traffic and an adequate approach geometry. It has a low waterway adequacy code, because the bridge frequently becomes a dam in high water. Because the primary structural element of the bridge, the arch barrel, also defines the waterway opening, an inadequate waterway is difficult to fix without substantially altering or rebuilding the bridge. The bridge is relatively expensive to rehabilitate to its historic form and fabric. Located in an area of moderate development, the bridge will likely carry its traffic efficiently for some time. It is part of the Poquessing Creek greenway, which connects unimproved portions of Fairmount Park. It is not listed in or eligible for listing in the National Register of Historic Places individually or as part of a historic district. The bridge has received strong public support (three questionnaires, two letters, one email, and one meeting at which the bridge was a focus).

Recommendation: A moderate candidate for long-term preservation.

BRIDGE NO. 133

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67730102900011 **DIST:** 6 **UTM:** 18/456104/4414354
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** CITY OF PHILADELPHIA
MUNICIPALITY : PHILADELPHIA **LOCATION :** EAST SIDE OF SCHUYLKILL RIVER 28C13
FACILITY CARRIED : SOUTH STREET
NAME/FEATURE INTERSECTED : SOUTH STREET OVER ABANDONED DRIVEWAYS
TYPE : CLOSED SPANDREL ARCH **DESIGN :** DECK
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 75 (22.9 m) **WIDTH :** 56 (17.1 m)
YR BUILT : 1870 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Not Eligible
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Contributing. Schuylkill HD

The South Philadelphia, South Street Bridge is owned by Philadelphia County and is ranked 91st.

Condition Code = 70 – very high
Transportation Code = 26 – very low
Waterway Adequacy Code = 59 – high
Cost to Rehabilitate or Replace Code = 39 – very low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 54 - moderate
Public Input Code = 35 – very low

This bridge is not a strong candidate for long-term preservation. It ranks in the lowest third of all the bridges subject to this study, and it has a mixture of high, very high, and very low codes. The condition code is very high; no specific repair action is required. Its waterway adequacy code is also high, because the bridge serves as an approach span to the South Street Bridge and it does not cross over water. Consequently, water flow and flooding are not issues. By contrast, its transportation code is very low, a result of very high traffic volumes. The bridge stands in a largely built-out area, however, so its future traffic is not expected to substantially increase. Public input is also very low. Because the parapets have been replaced and the area under the arches are now used for storage, it would be relatively expensive to rehabilitate the bridge to its historic fabric and form. The bridge contributes to the National Register of Historic Places-listed Schuylkill Historic District; but it is not individually eligible for listing.

Recommendation: Not a strong candidate for long-term preservation.

BRIDGE NO. 134

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN

ENVIRONMENTAL QUALITY ASSURANCE DIVISION

PENNSYLVANIA HISTORIC BRIDGE INVENTORY & EVALUATION

BMS # : 67100200500595 **DIST:** 6 **UTM:** 18/490331/4432177
OLD BMS # : **CTY:** PHILADELPHIA **OWNER:** PENNDOT
MUNICIPALITY : PHILADELPHIA **LOCATION :** At Newtown Road
FACILITY CARRIED : ADAMS AVENUE
NAME/FEATURE INTERSECTED : ADAMS AVENUE OVER TACONY CREEK
TYPE : CLOSED SPANDREL ARCH **DESIGN :**
MATERIAL : STONE
#SPANS : 3 **LENGTH :** 71 (21.6 m) **WIDTH :** 24 (7.3 m)
YR BUILT : 1901 **ALTERATION :** **SOURCE :** INSP FILE
DESIGNER/BUILDER :
CURRENT NATIONAL REGISTER INDIVIDUAL ELIGIBILITY : Listed 6/22/88
CURRENT NATIONAL REGISTER CONTRIBUTING STATUS : Not Contributing

The West Train Station, Adams Avenue Bridge is owned by PennDOT and is ranked 78th.

Condition Code = 55 - high
Transportation Code = 35 – very low
Waterway Adequacy Code = 53 - moderate
Cost to Rehabilitate or Replace Code = 43 - low
Anticipated Development Code = 48 - moderate
Recreational, Historical, and Cultural Values Code = 49 - moderate
Public Input Code = 60 – very high

This bridge is not recommended for long-term preservation. The bridge is ranked near the lowest third of all stone arch bridges under study in this plan, and it is on the Transportation Improvement Program (TIP) to be replaced. The bridge is individually listed in the National Register of Historic Places. The bridge has received strong public support (one letter, one petition, and one meeting at which the bridge was a focus). Although its condition is listed as good, the bridge has significant scour problems. It is also encumbered by a large amount of accumulated debris blocking the waterway opening. Its transportation code is very low, a result of high traffic volumes and a narrow width. Its waterway is adequate, although the accumulated trash would suggest that flooding does occur. The bridge has had some alterations, making it relatively expensive to rehabilitate to its historic fabric and form.

Recommendation: Not recommended for long-term preservation.

APPENDIX G -
BRIDGE REVIEW COMMITTEE MEMBERS

BRIDGE REVIEW COMMITTEE MEMBERS

Brian Hare
Division Chief
Highway Quality Assurance Division
Bureau of Design

Lance Savant
Bridge Management Systems Manager
Bridge Quality Assurance Division
Bureau of Design

Ira Beckerman
Cultural Resources Section Chief
Environmental Quality Assurance Division
Bureau of Design

Kara Russell
Historic Preservation Specialist
Environmental Quality Assurance Division
Bureau of Design

William Williams
Structural Engineer
Structures Team
Federal Highway Administration

Charles Davies
Assistant District Executive – Design (Acting)
PennDOT District 6-0

Randy Wanger
Project Management – Bridges and Betterments
Design Division
PennDOT District 6-0

Wilbur Tritle
Assistant District Executive – Maintenance
PennDOT District 6-0

Bob Keller
Environmental Manager
PennDOT District 6-0

Monica Harrower
Historic Preservation Specialist
Environmental Quality Assurance Division
PennDOT District 6-0

Dominic Lauro
Bridge Maintenance Coordinator
PennDOT District 6-0