



Urban Research & Development Corporation

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May 3, 2023

Conditional Use Review Report - Bethlehem Landfill Company's Proposed Phase V Expansion of the Bethlehem Landfill

URDC was engaged to review the proposed Phase V Expansion of the existing Bethlehem Landfill and conduct an analysis and render an opinion as to whether the proposed project meets the applicable Conditional Use standards of the Lower Saucon Township Zoning Ordinance. URDC prepared this corresponding written report. This work was conducted by URDC Principal Charlie Schmehl, whose credentials are set forth in the curriculum vitae attached as Appendix A of this report. The primary materials that Mr. Schmehl reviewed in conducting this review, forming his opinions, and preparing this report are listed in Appendix B.

The references in this report to “BLC” followed by various numbers are to exhibits submitted on behalf of the Bethlehem Landfill Company in the Conditional Use hearings.

The Existing Bethlehem Landfill

The Bethlehem Landfill Company is seeking conditional use approval for an expansion of an existing municipal waste landfill located at 2335 Applebutter Road in Lower Saucon Township. The landfill has operated at this location for many decades. The landfill has been expanded multiple times (as testified to by Mr. Richard Bodner, P.E. and shown in BLC 19), with approvals from Lower Saucon Township and the Pennsylvania Department of Environmental Protection (“PADEP”).

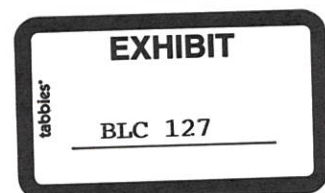
A small expansion to the north of the current active disposal area of the landfill, known as the Northern Realignment, received Special Exception Approval from the Lower Saucon Township Zoning Hearing Board in 2020. On April 17, 2023, the PADEP issued an approval of the Northern Realignment. As part of that approval, PADEP determined that the benefits of that project to the public clearly outweighed the known and potential harms of the project (BLC 39).

The Surrounding Area

As seen on the map entitled “Existing Conditions,” dated April 2023, which is attached as Appendix C of this report, the general vicinity of the proposed expansion includes a number of intensive commercial and industrial uses.¹

The Bethlehem Landfill is to the northeast of the Calpine electric generating plant and the Majestic Bethlehem Commerce Center. The Majestic complex includes eight million square feet of industrial buildings on over 400 acres of land of redeveloped Bethlehem Steel land. Most of the other areas

¹ This map was prepared by Martin and Martin Engineers, with input, review and confirmation by Charlie Schmehl of URDC.



surrounding the Landfill property are rural in nature, and most surrounding areas are wooded. A steep wooded area separates the Landfill from the Steel City neighborhood and a motorcycle club property to the northwest. There are scattered homes and businesses in the areas surrounding the Landfill property, including a vehicle scrapyard to the northeast and an auto repair business to the south. Interstate 78 is 2,000 feet east of the Landfill property, and the I-78/Route 33 interchange is 1.1 miles east of the project area. Two energy pipelines and two above-ground gas storage tanks exist east of the Landfill. A police and firefighter training area is to the northeast of the Landfill. Riverside Drive, a Norfolk-Southern Railroad line and the Lehigh River are to the north of the Landfill property.

The Proposed Phase V Expansion

The proposed Phase V Expansion is on property mainly to the east and northeast of the existing permitted disposal area of the landfill. An elongated area of approximately six acres west of the current landfill is also included as part of the proposed expansion project. All of the land proposed for the Phase V Expansion is zoned Light Industrial (LI), pursuant to amendments to the Lower Saucon Township Zoning Ordinance adopted in December 2022 ("2022 Zoning Amendment"), which added approximately 275.7 acres to the LI District.

The additional disposal area proposed by the Phase V Expansion (as depicted on Sheet 10 of the Conditional Use Plans - BLC 16) is approximately 117.4 acres. This new disposal area is much smaller in acreage than the total land area that was rezoned to LI by the 2022 zoning map change, and the majority of it is to the east and northeast of the existing landfill, further away from Steel City than the current landfill. The elongated area to the west is proposed only to allow for regrading, capping, and closure of the west side of the landfill. Other than that small elongated area, the landfill is not proposing any expansion west of the current permitted landfill as part of this project. In fact, lands to the west of that small elongated area are proposed to be preserved within conservation easements. In addition, 26.7 acres of disposal area is proposed atop existing lined disposal area that was previously permitted.

The approximate 117.4 acre area that is shown on the applicant's Phase V submittal is the maximum footprint for the new disposal area. A smaller disposal area and/or a slightly different configuration may result from engineering adjustments that may result from the PADEP review process and Township land development approval.

As highlighted in Exhibit BLC 75A, the proposed new disposal area is intended to allow the landfill to continue its current business operation, with no change other than the location of the placement of the waste. The landfill is not seeking to increase the amount or type of waste it is permitted to receive each day. The maximum proposed elevation of the landfill is no higher than the elevations that have already been permitted. The designated truck routes into the landfill are not proposed to be changed. There is no proposed change to location of the access drive. The hours and days for waste receipt (7 AM to 4 PM Monday through Saturday) are not proposed to be changed. The types of waste handled by the landfill will stay the same.

The Phase V Expansion will be constructed in phases over its anticipated lifespan of 20 to 30 years, as described by Mr. Joseph McDowell, P.E. in his testimony and conceptually shown on BLC 74. A specific phasing plan for the Phase V Expansion will be prepared and reviewed and approved by PADEP as part of the PADEP permitting process. Disposal cells will be constructed like pieces of a quilt, over time, with trees in those areas removed as each cell is constructed. The typical size of the daily workface for waste will continue to be limited in size to approximately 1/4 acre. This workface will be covered daily,

in compliance with State regulations. As each disposal cell area is filled, intermediate cover and vegetation, and ultimately final cover, capping and vegetation is installed.

As part of the Phase V Expansion, the Bethlehem Landfill Company is proposing to preserve 157 acres via Conservation Easements on property it owns or controls, to the west, north, and east of the existing landfill and/or Phase V Expansion, as depicted on BLC 76, in exchange for the Township's release of restrictive covenants that prohibit landfill activities on certain acreage proposed for the Phase V Expansion, and that preserve trees on eight of those acres.

Analysis

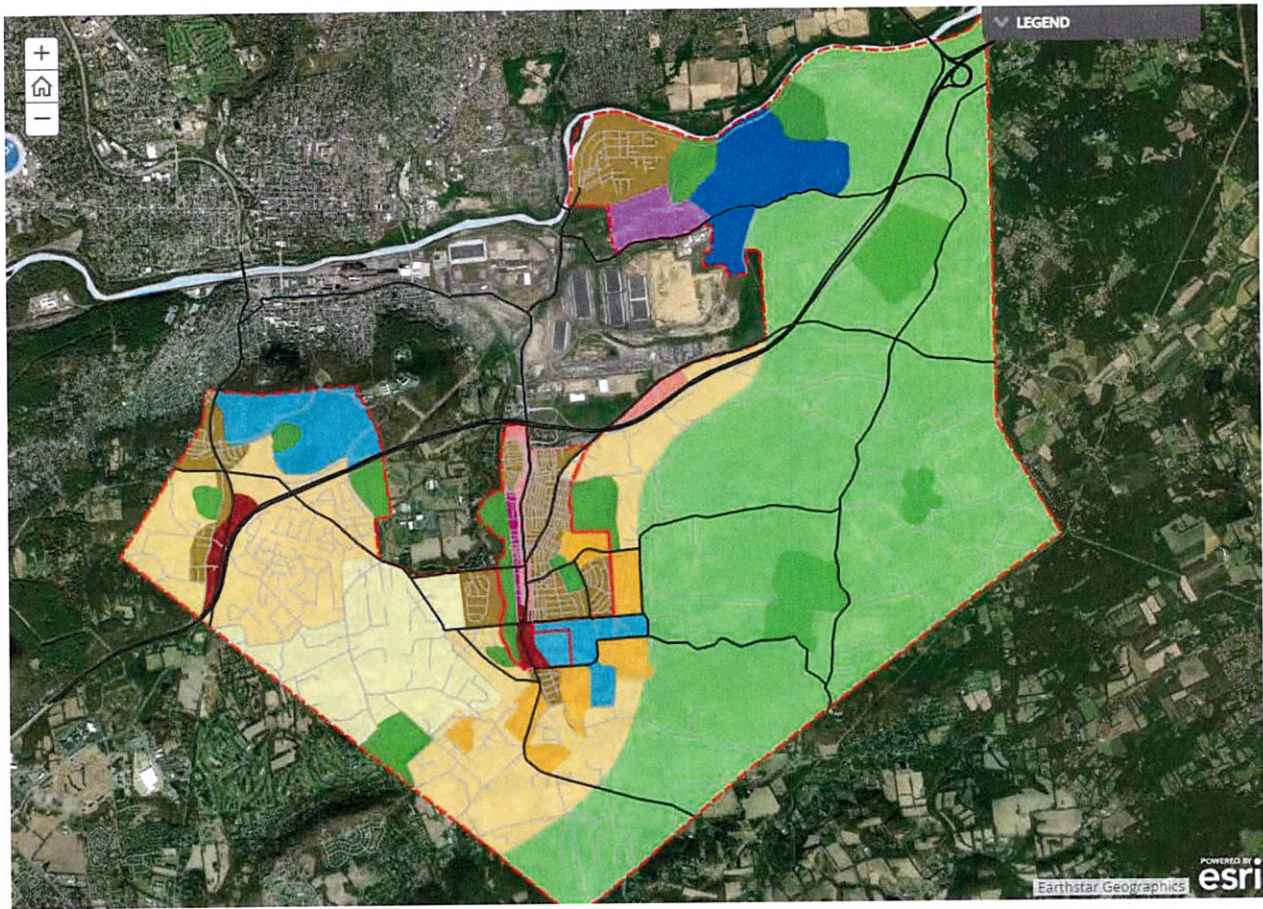
The following sections are mainly organized according to the Conditional Use standards in Section 180-12.1 of the Zoning Ordinance.

Comprehensive Plan and Zoning Ordinance Purposes

Zoning Ordinance Section 180-12.1.C.(1) includes a standard that "the proposed use and location be...[i]n accordance with the Lower Saucon Township Comprehensive Plan and consistent with the spirit, purposes and intent of [the Zoning] Chapter."

Lower Saucon-Hellertown Joint Comprehensive Plan - In 2022, Lower Saucon adopted an updated version of the 2009 Joint Comprehensive Plan entitled "Our Resources, Our Valley, Multi-Municipal Comprehensive Planning in Pennsylvania's Saucon Valley" ("Joint Comprehensive Plan"). The revised Joint Comprehensive Plan did not change any recommendations for the area surrounding the Landfill, compared to the previous version. The Landfill is only mentioned two times in the Joint Comprehensive Plan. This includes: a) as an example of an industrial use on page 1-9, and b) on page 1-8, the Joint Comp Plan notes that: "The primary industrial-oriented activity in the Township is a landfill. Current permitting, which generates a significant portion of the community's non-resident tax income, is approaching expiration; depending upon approval for facility expansion, the Township may have to evaluate alternative sources of income."

The area of the proposed landfill expansion is generally consistent with the Joint Comprehensive Plan because the Future Land Use and Housing Plan Map contained therein (Map 2: Future Land Use and Housing Plan, on page 1-17a of the Joint Comp Plan) designates and recommends the current Landfill and almost all lands proposed for the landfill expansion to the east and northeast as "Industrial" (which is depicted in blue) The area depicted in dark green is in the "Open Space" category of the Plan, which is geared towards natural resource conservation and/or recreation. The area depicted in light green is the Rural Residential category.



Future Land Use and Housing Plan Map, Joint Comprehensive Plan, Adopted 2022

The Industrial category is described on page 1-17c. of the Joint Comprehensive Plan as intended to provide for “generally larger-scale local and/or industrially-oriented industrial, industrial-office and/or service uses.” The proposed landfill expansion falls within this category of recommended uses.

Map 2 depicts land along the Bull Run creek as “Open Space” because it is part of the Bull Run Natural Heritage Area, which was mapped in the Natural Areas Inventory of Lehigh and Northampton Counties. However, the disposal area proposed for the Phase V Expansion is set back significantly from the Bull Run creek. A stream protection easement and riparian corridor buffer totaling 200 feet in width is proposed along the Bull Run creek, as shown on Sheet 10 of the Conditional Use Plans. In addition, many of the areas along the Lehigh River and areas north of the Bull Run creek are also proposed to be preserved by BLC within Conservation Easements, as shown on Sheet 10 of the Conditional Use Plans. Those areas to be preserved by BLC include the preservation of many areas identified as conservation priorities in the Lower Saucon Township Open Space Plan.

Therefore, in recognition of the mapping of the Industrial category and the areas proposed to be preserved in conservation easements, in my professional opinion, the proposed Phase V expansion would be generally consistent with the Joint Comprehensive Plan.

The area of the proposed expansion is within the LI Light Industrial zoning district, where a landfill requires conditional use approval by the Township Council. Under this process, the Township Council has the ability to place reasonable conditions upon an approval. The Zoning Ordinance specifically states

that the purposes of the LI district include, but are not limited to, providing for the Bethlehem Landfill and other lands used for industrial uses in the past (Section 180-78). The conditional use that is proposed is intended to allow the Landfill to continue its current level of operations into future years. Therefore, in my professional opinion, the Phase V expansion is consistent with the spirit, purposes and intent of the Zoning Ordinance.

The LVPC Plan - The conditional use criteria in the Zoning Ordinance do not specifically reference the Lehigh Valley Planning Commission's FutureLV: The Regional Comprehensive Plan, and there is no requirement under State law for an individual development application to be consistent with a County or Bi-County Comprehensive Plan. The LVPC General Land Use Plan on page 53 categorizes the Landfill and many adjacent lands as a "Development" Area. On page 50, a Development Area is described as land that has "most or all of the factors to support growth..." On page 50, a Development Area is recommended as being "appropriate for a variety of uses, including major commercial, residential and industrial development." On page 53, the portion of the land that includes steeply sloped areas northeast of the current landfill is categorized as a "Character Defining" Area. These areas include natural and scenic characteristics and are recommended for "low-intensity, limited scale development." Other adjacent lands to the east of the Landfill are classified as "Exurban" Areas. These areas are intended to mainly remain in rural uses

Landfills are categorized by the LVPC Plan as a "Land Use of Regional Significance," which justifies more extensive reviews by LVPC than for less intensive uses.

At the time the LVPC was provided with the 2022 Zoning Amendment for its review, the locations of the proposed new conservation easements had not been finalized, and therefore that conservation easement mapping was not available to LVPC to consider. The maximum land areas proposed to be used for waste disposal are shown on the attached URDC map entitled "Existing Dwellings and Topography Within Proximity to the Proposed Expansion of the Bethlehem Landfill." That map is dated April 27, 2023, was prepared by URDC, and is attached to this report as Appendix D.

While part of the Phase V expansion is proposed to intrude into a portion of the Character Defining Area, much larger areas of natural features are proposed to be permanently preserved in conservation easements as part of the Phase V expansion. In my professional opinion, the areas proposed for the landfill expansion are generally consistent with the LVPC's Development Area category, so the proposed Phase V expansion is generally consistent with the FutureLV General Land Use Plan.

Best Interests of Township

Zoning Section 180-12.1.C(2) provides that a conditional use is to be found to be in the best interests of the Township, the convenience of the community, the public welfare, and be a substantial improvement to the property in the immediate vicinity.

The Phase V Expansion will allow a long-standing, highly regulated business to continue to operate in the community in an environmentally safe manner, with sophisticated engineering design and robust systems in place to minimize the impacts it has on the surrounding community.

Mr. Richard Bodner, P.E., Joshua Roth, P.E., and Todd Lowrey, P.G., testified at length regarding the environmental protections that are required by PADEP for municipal waste landfills in Pennsylvania. These include protections that are currently in place at the existing landfill, and those protections that will be required as part of the Phase V Expansion. Those measures include a highly engineered liner

system for disposal areas, hydrogeological and geological analyses, a leachate management system, a gas management system, a stormwater management system, a groundwater monitoring system, and a closure and cap system. There are also significant financial assurances that must be posted to ensure environmental compliance during operations and after closure.

Mr. Bodner also testified at length regarding the detailed investigations and extensive PADEP permitting process that is required before a modification would be approved to the solid waste permit to allow an expansion. This PADEP process includes significant opportunities for public participation and comment.

Mr. Bodner provided testimony regarding the Harms-Benefit Analysis that PADEP conducts for an expansion of a municipal waste landfill. That Harms-Benefit Analysis will include consideration of the financial benefits of the project, the local recycling opportunities offered by the Company, and other benefits.

Mr. Joseph McDowell, P.E., described how the PADEP permit will limit the amount of land area that can be opened for active landfill operations at one time, and will require that previously landfilled areas be final capped and re-vegetated in phases.

Mr. Astor Lawson, District Manager of the Landfill, testified at length about the extensive measures that the landfill takes (and will continue to take with the Phase V Expansion) to control and mitigate potential impacts from landfill operations, including traffic, vectors, odors, dust, mud, noise and litter. The Landfill has a 24 hour hotline to receive complaints regarding landfill operations, conducts prompt investigations of all complaints that are received, and reports the results of their investigations to PADEP. It has a PADEP required and approved Action Plan for Radioactivity Monitoring for incoming waste. It has extensive Rules and Regulations in place, set forth in a document that the pamphlet provides to all of its commercial customers. Violations of these rules are regularly enforced by the Landfill, including suspensions of customers who violate the rules.

To control noise, mufflers are required for on-site equipment, a backup motion sensor is used for on-site equipment, an on-site speed limit of 10 miles per hour is established, setbacks and tree buffers are used, and late-night hours of operation are not allowed. To control odor, BLC personnel regularly patrol nearby public roads to identify any errant odors. Should an off-site odor be identified, BLC has mitigation measures ready, including odor neutralizer misters. Portable misters can be moved to the source of the odor. Daily cover placement works to minimize odors. Specific measures are also in place to address any odors from gas extraction wells. There is an active system to monitor and collect gases from landfill operations.

As seen on Sheet 10 of the conditional use plans, substantial areas of land will be permanently preserved by BLC through conservation easements. These easements are proposed to include over 150 acres of new conservation easements that will a buffer near Phase V Expansion areas. These easements will include preserving much of the woodland between the existing Landfill and the Steel City neighborhood, and much of the land along Riverside Drive next to the Lehigh River, and much of the land near the Bull Run creek. In addition, there are setbacks, proposed plantings and buffers around the edges of the proposed Phase V expansion, as shown on Sheet 10.

The proposed expansion is intended to increase the projected life span of the landfill by 20 to 30 years. There is a Host Agreement in place for the existing landfill, as authorized by Pennsylvania Statute (Act 101). This Agreement provides a direct financial benefit to Lower Saucon Township for hosting a solid

waste facility. Absent a negotiated Host Fee, Act 101 provides a statutory host fee of \$1/ton. The Township's 2023 Budget projects receiving \$2.2 million in host fees from the Bethlehem Landfill under the current Host Agreement, which the Budget reports would be 24.9 percent of the total revenues of the Township. If a host fee were to continue at current rates for the Phase V Expansion, and if the lifespan of the Phase V Expansion were 25 years, that host fee could potentially result in \$55 million in additional revenue to the Township. In addition, the Landfill pays substantial real estate taxes to the Township and the Saucon Valley School District, as well as other taxes.

Under State law, townships are strictly limited in the types and maximum amounts of taxes they can levy. The main tax levy that Lower Saucon Township would be allowed to increase if additional revenue would be needed in the future is the annual real estate tax. The revenues from the Landfill are revenues that do not otherwise need to be raised through property tax increases on Township residents and other businesses to pay for local services. Lower Saucon Township's real estate tax rate is lower than almost all other municipalities in Northampton that fund a local police force, while the Township is able to fund a high level of municipal services to its residents.

A landfill is an essential service that needs to be accommodated somewhere in the area. A landfill is a legitimate land use that needs to be allowed under State court decisions to avoid an exclusionary zoning challenge. It is sound planning to extend the lifespan of an existing landfill, as opposed to attempting to establish an entirely new landfill. The Township's only industrially zoned areas are within the Landfill and immediately adjacent areas. In total, the Township's current industrially zoned areas comprise less than five percent of the land area of the Township, and the majority of those industrially zoned areas have been developed.

Therefore, in my professional opinion, because the Phase V Expansion will be an environmentally sound, highly regulated operation with extensive measures to mitigate impacts, combined with financial benefits to residents and businesses of Lower Saucon Township, coupled with conservation easements, the Phase V expansion would be in the best interests of the Township, the convenience of the community, and the public welfare, and will be a substantial improvement to the immediate vicinity.

Suitable for Property and Harmony with Vicinity

Zoning Section 180-12.1.C(3) requires that a conditional use be suitable for the property, and designed, constructed and operated and maintained in harmony with and appropriate in appearance to the existing or intended character of the general vicinity. Zoning Section 180-12.1.D(2) provides that a conditional use is to be found to not adversely affect the character of stable neighborhoods and to protect adjoining residents from objectionable uses.

Zoning Section 180-96 includes Neighborhood Protection standards. Sheet 12 of the Conditional Use plans includes a detailed response to all of these standards, including radioactivity, heat, glare, noise, dust, vibrations, hazardous materials and other matters.

As described in the previous section of this report, PADEP requires extensive analysis of many different matters as part of an application for a Major Permit Modification to expand a municipal waste landfill. The previous section of this report summarizes testimony and exhibits about requirements in place to avoid nuisances and hazards and to mitigate potential impacts. Many of these measures are required by PADEP, and PADEP conducts regular inspections of the Landfill.

A previous section of this report describes “The Surrounding Area” around the Landfill, including the many industrial and commercial uses that exist in the vicinity of the Landfill.

This proposed eastern and northeastern expansion (and a small western expansion) of the landfill onto properties in the LI district is appropriate because the lands in that vicinity involve relatively few nearby homes. URDC prepared an Existing Occupied Dwellings and Topography Map (attached as Appendix D) that shows existing privately occupied homes within a 3,000 feet radius of the proposed expanded disposal area. There also is a large existing conservation easement in effect on privately owned lands east of the proposed expansion, which prevents the construction of new homes. Furthermore, there are likely to be few new homes in the areas adjacent to the proposed expansion because of the steep slopes in the vicinity, the lack of central water and sewage service, and the current zoning regulations that are in place in the vicinity. In most of the surrounding area, Lower Saucon Township has zoning in place that typically require 2 acre minimum lot sizes per home, but after meeting natural feature regulations, the total lot size per home would often be much larger.

To mitigate impacts on residents, the Bethlehem Landfill Company has purchased several homes in the area, including some recent purchases along Riverside Drive.

Homes in the Steel City area will receive more permanent protection because of the proposed conservation easements. As a result of these easements, substantial areas of woods between the existing landfill and homes in Steel City homes will be preserved. The expansion (other than the small elongated area to the west) will be further from Steel City than the existing landfill. The nearest existing homes within Steel City will be over 3,200 feet (3/5ths of a mile) from the proposed disposal area expansion.

According to National Weather Service data that was aggregated and published online by www.weatherspark.com, during 11 months of the year, the wind in the Bethlehem area is most often prevailing from the west. Therefore, the proposed landfill expansion would usually be downwind from Steel City and Skyline Drive residents, based upon the most common wind patterns. Wind direction information is also included on Sheet 12 of the Conditional Use Plans.

The portion of the property owned by the Landfill Company that is northeast of the Bull Run Creek continues to be zoned RA and is not proposed for any landfill operations. An area northeast of the Light Industrial district has been leased to the City of Bethlehem for police and fire training. That area had been previously leased by the City of Bethlehem to the Steel City Gun Club, but the City terminated that lease in 2022.

The proposed Landfill expansion area to the east of the current Landfill is adjacent to two existing tanks (which were used by the former owner of the property) and two major natural gas transmission lines. The natural gas rights-of-ways help to create a logical transition to mostly undeveloped properties to the east, because the rights-of-way are required to be kept open.

Zoning Ordinance Section 180-109.F.3 (recently renumbered) requires construction of an earth berm around the perimeter of the landfill and compliance with buffer and screening provisions in other sections of the Zoning Ordinance. However, Section 180-109.F.[4] enables the Township Council to determine that existing features are an acceptable substitute for these berm, screening and buffer requirements. Within Phase V, installation of the earth berm and new planting would require the removal of substantial areas of existing woodland. Therefore, the applicant is requesting that the Township Council determine that the preservation of existing woodland be approved in lieu of the berming and buffer requirements. Council has made such a determination in every prior expansion of the landfill, where installation of

such berms, screening and buffers would otherwise require the removal of existing trees and vegetation. The proposed landscaping and boundary buffers are shown on sheets 10 and 11 of the Conditional Use Plans.

A viewshed analysis (BLC-101 and 102) and visual simulations (BLC 103 to 105) have been submitted by Saratoga Associates that show existing and future conditions from various lines of sight in the surrounding area. During the life of the Phase V Expansion, only limited areas of the landfill will be open for disposal at one time, and those areas will be covered with soil every night. This phasing of operations will limit visual impact. The replanting of the landfill areas with vegetation after an area is capped (which is required by PADEP as part of the Reclamation Plan) will also limit visual impact, as well as the preservation of trees within the existing and proposed conservation easement areas. Areas that will be regraded next to the disposal area are proposed to be landscaped after regrading is complete.

The viewshed analysis shows geographic areas where there would be expected to be visibility of the proposed expansion. Within a three-mile radius of the proposed expansion, an additional 2.3 percent of the land area would be able to see the Phase V expansion area that will not be able to see the landfill built out as currently permitted. In many cases after capping and reclamation, the net effect would be to see a higher elevation of land covered with grasses.

The photo simulations visualize what the project will look like after development of the Phase V expansion from 18 locations, including Steel City residential areas, the Steel City Park, Miller Heights Elementary School, in the vicinity of the St. Luke's Anderson Campus, the D&L Trail along the Lehigh River, and residential areas. The photo simulations took into account trees on the landfill property that are proposed to be removed. The photos were taken when there were not leaves on the trees, so the actual visibility during warmer months would be less prominent than shown in the simulations. The photo simulations show current conditions, visibility of the landfill as built out under the current permit, and then visibility of the Phase V expansion.

In many cases, the locations where the Phase V expansion would have the most visual impact are one to 1.5 miles away from the Phase V expansion. The distance by itself helps to minimize the impacts, and it is easier to mitigate those long distance views with new tree plantings than if the views were closer to the landfill. In many cases, other topographic features will reduce views of the Phase V expansion, such as along Texas Road. There would be increased visibility of the Phase V expansion from some portions of Redington Road approximately 0.8 miles away, according to the simulations.

One of the most prominent increases in visibility of the Phase V expansion would be from Gilchrist Drive near Harvard Avenue south of Commerce Center Boulevard in South Bethlehem (shown in red on BLC 101 through 103). That area is entirely industrial and is occupied by an existing large tractor-trailer/railroad transfer facility and several million square feet of existing warehouse space.

The proposed conservation easements between the landfill and Steel City will greatly minimize views of the Phase V expansion, because the topography and woodland will remain in place.

As part of past expansion approvals, PADEP set a maximum elevation standard that greatly limited visibility of the disposal areas from the D&L trail, and that type of standard is expected to be continued.

The Redington area has been determined to be a National Register-eligible Historic District (see Determination of Eligibility documents in Appendix E), although it is not listed on the National Register of Historic Places. The area was used for production of steel and iron products and for the testing of

munitions, and included some housing for workers. PADEP will require that the historic resources within a certain distance of the Phase V expansion area be fully considered as part of PADEP approvals, after a review by the Pennsylvania Historical and Museum Commission (PHMC). Only a small percent of the Readington Historic District is located within the project area, which includes one area labeled as “ruins.” According to mapping prepared as part of the National Register nomination, none of the buildings within the historic district are located within the land area that would be disturbed by the landfill operations. All of the existing buildings identified as being “contributing” to the Historic District would be at least 2,000 feet away from the proposed disposal area. A portion of the historic district is proposed to be within a conservation easement that would be established by the Bethlehem Landfill Corporation, including the area near the juncture of the Bull Run creek and the Lehigh River (see map depicting the Conservation Overlay on the Readington Historic District National Register Boundary Map, dated April 14, 2023, prepared by Martin and Martin, in Appendix F). Another portion of the historic district that includes a former quarry is on the north side of the Bull Run creek corridor, which is being leased by the Landfill Company to the City of Bethlehem for emergency personnel training. There is a major intrusion into the historic district area, which is an existing scrapyard on Riverside Drive.

The Natural Areas Inventory for Lehigh and Northampton Counties identifies some areas within portions of the Phase V expansion area where there are believed to be habitats that support rare, threatened or endangered species of plants or animals. The Bull Run Natural Heritage Area (pages 110 to 113) includes the Bull Run creek, areas south of the Lehigh River and adjacent steeply sloped woodlands. The Inventory mapping includes the northeastern portions of the proposed project. Portions of the Bull Run Area will be protected by conservation easements that the Bethlehem Landfill Company proposes to establish along the Lehigh River corridor and along the Bull Run Creek. The land area is reported to include skunk cabbage and an herb named *Ellisia*. There also were past reports of two “species of concern” that were not identified in the report. The land area includes caves and seeps. These matters will all be addressed as part of PADEP’s required reviews and approvals, and mitigation measures may be required by PADEP.

The Natural Areas Inventory also identifies the nearby Steel City Slopes and the Lehigh River Corridor as important natural areas. Much of this land is proposed to be preserved by the Bethlehem Landfill Company within conservation easements. Many areas along the Lehigh River corridor that are identified in the Lower Saucon Township Open Space Plan would also be preserved through the proposed easements.

For the reasons described above, in my professional opinion, the Phase V Expansion is a suitable use for the property, and will be designed, constructed, and operated in harmony with and appropriate in appearance to the existing or intended character of the general vicinity.

Compliance With Other Zoning Provisions

Zoning Ordinance Section 180-12.1.C(4) states that the conditional use plans to need to conform to all requirements of the Zoning Ordinance and other Township ordinances. It is customary for a zoning approval to include a condition requiring compliance with the Subdivision and Land Development Ordinance (SALDO), which will be addressed with a separate Land Development submittal and approval.

The Township Engineers, Hanover Engineering, have provided review letters for the conditional use application, and the applicant’s engineers have responded to the comments. In its second review letter (BLC 68), Hanover Engineering notes that the Bethlehem Landfill Company is seeking Township

Council approval of the proposed use of the natural resource mitigation provisions in the Zoning Ordinance, through preservation of 123.33 acres of natural areas or payment to the Township a fee that the Township can use to preserve natural areas. The details of this compliance will be addressed as part of the Final Land Development Plan approval.

Information on the Conditional Use Plans and testimony have been provided by the BLC to address compliance with various zoning requirements. This includes compliance with the following Zoning Sections:

- 180-109.A through E. addressing buffers, dimensional requirements, and impervious coverage;
- 180-109.F.2(d) through (h) addressing slope, lateral support, drainage, vibration, and reclamation;
- 180-95 addressing environmental protection, including carbonate issues;
- 180-96 addressing Neighborhood Preservation;
- 180-97 addressing landscaping, including on Sheet 10 of the Conditional Use Plans;
- 180-19.B.(17) involves carbonate geology, which will be addressed by a more detailed site-specific carbonate geology study;
- Sheet 12 of the Conditional Use Plans addresses noise, glare, dust and wind direction; and
- A noise study has also been submitted by the applicant, along with information on Sheet 12 of the Plans. Because the hours of the landfill operations are limited by the Host Agreement with the Township, there is almost no late-night noise generated by the Landfill.

A Conditional Use approval addresses approval of a land use under the zoning ordinance. A later step will be an application for Land Development approval from Lower Saucon Township, which will address engineering matters in more detail.

PADEP generally will not consider an application to expand a landfill until after local zoning issues have been resolved. Testimony has been provided about the extensive studies that will be required by PADEP as part of an application to expand the landfill, including hydrogeologic and geologic studies. Operational matters and reclamation plans for a landfill are generally preempted by PADEP regulations. This is because PADEP regulations are comprehensive on certain matters, and PADEP seeks to avoid conflicting State and Municipal regulations.

The landfill disposal areas will be opened in phases, closed and capped in phases, and then re-vegetated in phases under PADEP approved plans.

The Zoning Ordinance regulates the amounts of various natural features that can be disturbed, including woodlands and steep slopes. For the purposes of meeting natural feature requirements, the 2022 Zoning Amendment includes a “Natural Resource Mitigation Alternative” (Section 180-109.G.). This section provides the Township Council with the ability to allow natural areas that are disturbed by an industrial development (such as the landfill expansion) to be offset by permanent preservation of other natural lands in the Township. The 2022 Zoning Amendment also includes a provision that allows for the payment of fees by an applicant in-lieu-of dedicating land for new natural feature preservation. In that case, the Township could use the fees to preserve other important natural areas in the Township to offset the impacts. Hanover Engineering approved the calculation provided by BLC in its Conditional Use application.

This Natural Resource Mitigation process that was enacted in 2022 is similar to many zoning provisions that are commonly espoused by community planners. For example, many ordinances work to cluster

homes on the most suitable portion of the tract, so that the concentrations of natural areas can be permanently preserved.

This Natural Resource Mitigation process is valuable for an industrial use because it is difficult to preserve isolated areas of a natural feature in the middle of an industrial development that needs a contiguous footprint. The Township's natural feature preservation regulations function best with single family detached houses, which can be more easily laid out to avoid natural features. In my professional opinion, the Natural Resource Mitigation alternative involves sound land use planning.

For example, if there is a small isolated area of wetlands in the middle of a major industrial use, it can be impractical and ineffective to work around it. It is more effective to preserve a larger area that has true ecological value and that will be more viable over the long-term.

Sheet 7 of the Conditional Use Plan includes the Natural Feature Calculations for the project. The proposed landfill project does not propose any alteration of, or development within, the 100 year floodplain. There are 2 acres of floodplain along the Bull Run on the property, but that will be preserved within a conservation easement.

The Township is being asked to release certain restrictive covenants that are on portions of the subject land, but those covenants only address landfills, but not other forms of development or site alteration and they do not require the preservation of woodland. The one exception is a 100 feet wide area along the existing landfill that does provide for tree protection. Therefore, those existing restrictions are not truly conservation easements. In return for the release of these covenants, the applicant is proposing to provide extensive areas of conservation easements, which will be much more comprehensive in protecting natural features. For example, there will be extensive permanent preservation of woodland along the south side of Riverside Drive, which will help to protect the Lehigh River corridor. New conservation easements are planned on the wooded portion of the Motorcycle Club property in Steel City, which will provide a permanent buffer for homes in Steel City. A buffer totaling 200 feet in width will be provided along Bull Run Creek. Existing woodlands will be preserved along many borders of the site, as shown on BLC Exhibit 72. These conservation easements and buffers are envisioned to be required as a condition of conditional use approval.

As part of the Natural Resource Mitigation Alternative in the Zoning Ordinance, the Bethlehem Landfill Company must also preserve additional off-site land in the Township or to provide funding to the Township to preserve additional land. This mitigation alternative is based upon the acreage differential noted on Sheet 7 of the Conditional use Plans, which was reviewed by Hanover Engineering.

There is an area of land between the proposed disposal area and the proposed conservation easement along the Lehigh River that is not proposed as disposal area but which needs to be regraded as part of the landfill project. On the Conditional Use plans, that area is proposed to be landscaped after that construction is completed. The landfill is amendable to a covenant that would prohibit waste disposal in this area, and that would require that the area be landscaped after grading operations are completed. That area is depicted on the Existing Dwellings and Topography Map that URDC prepared, which is attached as Appendix D.

In addition, areas north of the Bull Run Creek are not part of the Light Industrial District and are not part of the landfill expansion. Setbacks from certain natural features (including the Bull Run Creek) will need review and approval under PADEP regulations. A 100 feet wide stream protection easement is proposed along the Bull Run Creek, in compliance with Zoning Section 180-95.F. regarding Riparian Buffers.

It should be noted that an expansion of the Landfill will be subject to extensive reviews and regulations by State and Federal agencies, most notably PADEP. PADEP has many pages of regulations that address impacts upon protection of groundwater quality, protection of the quality of creeks and rivers, stormwater management, erosion control, litter, odor, habitats of rare or endangered species of plants or animals, wetlands, crossings of watercourses and many other matters. As a result, many matters will be addressed through other levels of approvals, beyond the conditional use approval.

Zoning Ordinance Section 180-109.F.2(b) addresses fencing and warning signs. The Conditional Use Plans show the locations of the proposed fencing. A litter control fence is shown on sheet 11.

Therefore, based upon the information described above and the information provided in the testimony, exhibits and conditional use plans, in my professional opinion the proposed Phase V expansion would meet the natural feature conservation, neighborhood preservation and nuisance control provisions of the Zoning Ordinance.

Traffic Impacts

Zoning Section 180-12.1.C.(5) requires suitable traffic provisions and safety without causing congestion and hazards. Zoning Section 180-12.1.D(1) requires adequate traffic access without causing hazards. Zoning Section 180-98 addresses traffic impacts.

A Traffic Impact Study (BLC 80) was provided by Pennoni Associates, along with testimony of the Professional Engineer who prepared the Study, Timothy Kramer.

The Bethlehem Landfill Company is committing to not increase the average permitted daily waste volume and maximum daily waste volume into the landfill as a result of the Phase V project. Therefore, the current average level of traffic and traffic impacts that are currently being experienced are expected to continue, but not to change in pattern or to be increased.

The traffic routes to the Landfill will be unchanged with the Phase V project. Most traffic to the Landfill is projected to continue to use the Route 412 interchange of I-78 to Shimersville Road to Applebutter Road. This route avoids the need for trucks to pass through highly residential streets. As testified to by Astor Lawson, this haul route is approved by PADEP. Customers are required to comply with this haul route, and it is enforced by the BLC.

To be conservative, the Traffic Study projected traffic during a day of average volume and also during a day of maximum volume. The volumes vary throughout the course of the year. Even on the days of maximum volume, the Traffic Study did not find that there would be any reduction in peak hours level of service for traffic. The one turning movement that typically experiences significant delay involves westbound traffic on Applebutter Road turning left onto southbound Shimersville Road, which is currently at a level of service E during the afternoon peak hour. This means trucks need to wait for a break in traffic to make the left turn. The only way to improve the level of service would be to signalize the intersection, but the study reports that a signal would not meet required PennDOT signal warrants at that location.

There is a curve on Applebutter Road, but it includes warning signs and pavement markings to cause vehicles to slow down. There are no steeply slope roads or bridges with problematic weight limits along the primary route.

Zoning Section 180-109.F.2(c) addresses internal circulation. The proposed expansion will utilize the current driveway entrance from Applebutter Road, which functions properly according to the Traffic Study, with levels of service of B or better for all turning movements, and with more than the required sight distances. The Traffic Study reports that Applebutter Road only has an average daily traffic volume of 1,293 vehicles. Sufficient driveway length is provided within the landfill property to avoid vehicles backing out onto Applebutter Road. A system of internal access has been designed through the proposed expansion phases, without needing any new driveways onto existing public roads. An interior driveway around the perimeter of the disposal area is proposed on the Conditional Use Plans.

The landfill uses a scale to weigh incoming trucks at the entrance. This allows the landfill to detect overweight trucks that otherwise may cause excessive wear upon public roads. Drivers face penalties by the Landfill Company for excessive weights.

Therefore, in my professional opinion, based upon the Traffic Impact Study and the related professional testimony, and the commitment to not increase the maximum daily flow, the Conditional Use plans meet the applicable traffic management provisions of the Zoning Ordinance.

Sound Development Standards

Zoning Section 180-12.1(6) requires that the application be in accordance with sound standards of subdivision and land development practice, where applicable. The Conditional Use Plans have been prepared to minimize impacts upon surrounding properties, including provisions for proper stormwater management, odor control, gas management, groundwater protection, buffering, landscaping, setbacks and traffic access. Two new stormwater basins are proposed as part of the expansion, one to the southeast of the disposal area, and another to the northeast of the disposal area.

Additional details will be required to be submitted as part of a future land development plan submittal under the SALDO, which will need to be approved by the Township Council. Additional engineering details will also be submitted as part of the PADEP review and approval process. PADEP typically will not review a full submittal under State landfill regulations until after municipal zoning approval has been obtained.

Therefore, in my professional opinion, based upon the testimony, exhibits and conditional use plans, the application would be in accordance with sound standards of subdivision and land development practice.

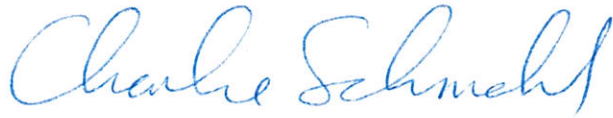
Conclusion

In my professional opinion, because of the proposed location, design, mitigation measures, buffers, conservation easements and State and Township regulatory protections, the proposed Phase V expansion meets all of the applicable Conditional Use provisions of the Lower Saucon Township Zoning Ordinance.

It is also my professional opinion that the Phase V Expansion as proposed will not generate any unusual or substantial impacts beyond what can be customarily expected from normal modern landfill operations. In my professional opinion, the Bethlehem Landfill Company is proposing to utilize all reasonable available measures to reduce and mitigate the impacts of the Phase V upon the surrounding community and upon the environment.

Sincerely,

URBAN RESEARCH AND DEVELOPMENT CORPORATION

A handwritten signature in blue ink that reads "Charlie Schmehl". The signature is written in a cursive, flowing style with a large initial "C".

Charlie Schmehl, Principal

Appendix A

Curriculum Vitae of Charlie Schmehl, Principal of Urban Research & Development



Urban Research & Development Corporation

81 Highland Avenue, Suite 120 Bethlehem, Pennsylvania 18017 610-865-0701 www.urdc.com

Urban Research and Development Corporation (URDC) is a consulting firm that specializes in community planning, landscape architecture, grants administration and downtown revitalization projects. URDC was founded in 1968.

CHARLIE SCHMEHL

Principal

Mr. Schmehl directs URDC's projects involving comprehensive planning and preparation of development regulations. Mr. Schmehl's work with URDC since 1985 has included the preparation of comprehensive plans and development ordinances for almost 100 communities throughout eastern and central Pennsylvania and Maryland.

Mr. Schmehl recently completed new zoning ordinances for Ephrata, Coopersburg, Jessup, Lebanon and East Hanover Township (north of Hershey). He previously prepared the bulk of the zoning ordinances of the cities of Allentown, Reading, Bethlehem, Chester and Scranton, and assisted with three major updates of Lancaster's zoning ordinance.

He also prepared a draft new Subdivision and Land Development Ordinance for the City of Bethlehem, which is pending adoption.

Mr. Schmehl wrote a new Schuylkill County Zoning Ordinance and assisted in updating the Zoning Maps for 32 municipalities that are under the jurisdiction of that Ordinance.

He was one of two URDC's staff-members who wrote a new Comprehensive Plan for Sussex County, which covers the southern one-third of the state of Delaware, and also wrote zoning amendments for Sussex County.

Mr. Schmehl was the primary author of the following comprehensive plans:

- Lower Paxton Township (which is one of the most populated municipalities in the Harrisburg area).
- Southwestern Lehigh Region (6 municipalities in Lehigh, west of Allentown),
- Governor Mifflin Region (5 municipalities in Berks, south of Reading),
- Suburban Berks West Region (5 municipalities in Berks, west of Reading),
- City of Bethlehem (Northampton),
- Forks Township (Northampton),
- Mount Joy Township (Adams),
- Bonneauville Borough and Mt. Pleasant Township (Adams),
- Manchester Township and North York Borough (York),
- City of Scranton (Lackawanna), and

- Greenwich Township and Lenhartsville (Berks)

He has prepared the bulk of the zoning ordinance for each of the following municipalities:

- City of Bethlehem (Northampton)
- City of Allentown (Lehigh)
- City of Reading (Berks)
- Myerstown (Lebanon)
- Fairview Township (Luzerne)
- East Petersburg Borough (Lancaster)
- Swatara Township (Dauphin)
- Camp Hill Borough (Cumberland)
- Lower Paxton Township (Dauphin)
- West Lampeter Township (Lancaster)
- Westfall Township (Pike)
- Macungie Borough (Lehigh)
- Mount Pleasant Township (Adams)
- Bonneauville Borough (Adams)
- North York Borough (York)
- Palmer Township (Northampton)
- Upper Macungie Township (Lehigh)
- Lower Nazareth Township (Northampton)
- Bethlehem Township (Northampton)
- Upper Milford Township (Lehigh)
- City of Scranton (Lackawanna)
- Emmaus Borough (Lehigh)
- Columbia Borough (Lancaster)
- Mount Joy Township (Lancaster)
- Beaver Meadows Borough (Carbon)
- Mount Joy Borough (Lancaster)
- Bridgeport Borough (Montgomery)
- North Codorus Township (York)
- Palmerton Borough (Carbon)
- Bowmanstown Borough (Carbon)
- Western Berks Region (Joint zoning ordinance for 4 municipalities in Berks, west of Reading)
- Boyertown/Colebrookdale Township/Pike Township (Joint zoning ordinance.)
- Yoe Borough (York)
- Lehman Township (Pike)
- Ross Township (Monroe)
- Chestnuthill Township (Monroe)
- Tatamy Borough (Northampton)
- Upper Nazareth Township (Northampton)
- Jacobus Borough (York)

Mr. Schmehl prepared substantial revisions of the zoning ordinances for the following municipalities:

- Stroudsburg Borough (Monroe)
- East Stroudsburg Borough (Monroe)

- Plainfield Township (Northampton)
- Manchester Township (York)

Mr. Schmehl has developed new Subdivision and Land Development Ordinances for:

- Upper Milford Township (Lehigh)
- Palmer Township (Northampton)
- Williams Township (Northampton)
- Bushkill Township (Northampton)
- Bethlehem Township (Northampton)
- Tatamy Borough (Northampton)
- Fountain Hill Borough (Lehigh)
- Spring Township (Berks)
- Chestnuthill Township (Monroe)
- Ross Township (Monroe)
- Bridgeport Borough (Montgomery)
- the Countywide Subdivision Ordinance for Garrett County, Maryland.

Mr. Schmehl has been recognized as an expert in community planning and zoning through testimony he provided in approximately 40 cases in Pennsylvania. The following are examples of where he has provided officially recognized expert testimony:

- Before the Northampton Township Zoning Hearing Board concerning an interpretation, which resulted in the Board overturning their Zoning Officer's permit denial.
- Before the Newtown Township Zoning Hearing Board concerning variances for a commercial development.
- Before the Hatboro Zoning Hearing Board concerning variances and interpretation for a commercial development.
- Before the Guilford Township Zoning Hearing Board involving a substantive challenge of regulations for a proposed wind farm.
- Before the Greene Township Zoning Hearing Board to defend a zoning amendment as it applied to a proposed distribution center.
- Before the Plumstead Township Zoning Hearing Board concerning variances and interpretation for a commercial development.
- Before the Upper Gwynedd Township Zoning Hearing Board concerning variances and interpretation for a commercial development.
- Before the Lower Milford Township Zoning Hearing Board on behalf of the Board of Supervisors to oppose a quarry, concrete plant and asphalt plant complex.
- Before the Hatboro Zoning Hearing Board to seek approval of a proposed commercial use.
- Before the Plumstead Township Zoning Hearing Board to seek approval of a proposed commercial use.
- Before the Easton Zoning Hearing Board concerning a proposed sign variance.
- Before the Forks Township Zoning Hearing Board to defend the Township against a substantive challenge of Farmland Protection zoning on 600 acres of farmland.
- Before the Forks Township Zoning Hearing Board to defend the Township against a procedural challenge of a new zoning ordinance.
- Before the Forks Township Zoning Hearing Board to defend the Township against a challenge of a zoning amendment to allow a new grocery store.

- Before the Schuylkill County Court of Common Pleas on behalf of the Schuylkill County Planning Office, in defense of regulations on adult live entertainment uses.
- Before the Schuylkill County Zoning Hearing Board on behalf of the Schuylkill County Planning Office, in defense of the County's regulations on group homes.
- Before the Summit Hill Zoning Hearing Board concerning a group home.
- Before the Middle Smithfield Township Zoning Hearing Board on behalf of residents, concerning a proposed adult live entertainment use.
- Before the Butler Township Zoning Hearing Board concerning a proposed wind farm.
- Before the Mahanoy Township Zoning Hearing Board concerning a proposed wind farm.
- Before the West Mahanoy Township Zoning Hearing Board concerning a proposed wind farm.
- Before the Maxatawny Township Board of Supervisors regarding a conditional use for a large retail complex.
- Before the Allentown Zoning Hearing Board on behalf of Muhlenberg College for a use variance.
- Before the Allentown Zoning Hearing Board on behalf of St. Luke's Hospital for dimensional variances.
- Before a public hearing of the Board of Supervisors of Plumstead Township (Bucks County) in a critique of a proposed Planned Residential Development on behalf of neighbors.
- Before the Franklin Township (Carbon County) Zoning Hearing Board regarding an enforcement and interpretation matter.
- Before the Schuylkill County Zoning Hearing Board concerning two proposed Wind Farms.
- Before the West Penn Township (Schuylkill County) Zoning Hearing Board in support of an appeal to allow a hunting camp in an agricultural district.
- Before the Penn Forest Township (Carbon County) Zoning Hearing Board to provide testimony concerning ordinance interpretation for a 500 acre outdoor recreation use.
- Before the Penn Forest Township (Carbon County) Zoning Hearing Board to seek a zoning variance for a new home.
- Before the Foster Township (Luzerne County) Zoning Hearing Board opposing a use variance in a residential district.
- Before the Kingston Borough (Luzerne County) Zoning Hearing Board seeking zoning approval for a conversion of a former school into residences.
- Before the Orwigsburg Borough (Schuylkill County) Zoning Hearing Board seeking special exception zoning approval for a townhouse development.
- Before the North Manheim Township Zoning Hearing Board concerning a use variance for an expansion by one of Schuylkill County's largest manufacturers.
- Before the Upper Mount Bethel Township Board of Supervisors regarding a curative amendment challenge concerning a density provision.
- Before the Court of Common Pleas of Northampton County regarding a nuisance court action against a business in Roseto Borough on behalf of neighbors.
- Before the Lower Macungie Township Zoning Hearing Board defending a zoning ordinance change against a challenge of spot zoning.
- Before the Upper Mount Bethel Township Zoning Hearing Board challenging whether a set of commercial recreation uses were permitted under the Zoning Ordinance.

Mr. Schmehl earned a Bachelor of Urban and Environmental Planning degree from the University of Virginia and a Master of City and Regional Planning degree from the University of Pennsylvania. While studying community planning in college, he worked full-time during two summers for the Lehigh Valley Planning Commission.

Mr. Schmehl regularly presents educational programs for local government officials through the Pennsylvania Planning Association. He has made multiple presentations at the Statewide Community Planning Conferences. These have included presentations about the City of Reading Zoning Update, Innovative Zoning Techniques, Comprehensive Planning, Downtown Parking and “Ask the Zoning Experts.”

He also spoke at a Penn State University Wind Energy Conference, on the topic of Zoning for Wind Energy. He has also provided two presentations for the Zoning Officers Association of the Pennsylvania State Association of Township Officials, a presentation at a State Borough Associations convention, and a presentation for municipal managers for the Pennsylvania League of Cities and Municipalities.

Mr. Schmehl currently serves on the Legislative Committee of Pennsylvania Chapter of the American Planning Association (PA-APA). For twelve years, Mr. Schmehl served on two statewide committees of the PA-APA that recommended a series of improvements to the State's Municipalities Planning Code, and that provided comments on proposed bills to amend the law. He also served on a Statewide PA-APA Committee that provided a report recommending policies to manage impacts from the natural gas industry. He also is serving as a member of the Mobile Workshop Committee for the 2023 National Planning Conference of American Planning Association, which is organizing 40 walking and bus tours around the Philadelphia area for conference attendees.

Appendix B

List of Primary Materials URDC Reviewed in Preparing Our Conditional Use Report

Transcripts of the Conditional Use Hearings to date

Lower Saucon Township Zoning Ordinance and Subdivision and Land Development Ordinance

Multi-Municipal Comprehensive Plan for Saucon Valley, 2009, 2022 Updates

Lehigh Valley Planning Commission (LVPC) Regional Plan, 2019

LVPC Letter dated 11/18/22 re: Zoning Ordinance Amendments – Landfills and Waste Disposal Facilities/Zoning Map Amendment – Rural Agricultural to Light Industrial, Lower Saucon Township

Northampton County Act 101 Solid Waste Management Plan, 2019

Bethlehem Landfill Disposal Capacity Agreement with Northampton County, 2020

Pennsylvania Historical and Museum Commission (“PHMC”) online mapping of Redington Historic District

National Register Nomination Forms for Redington Historic District

Map depicting Conservation Overlay on Redington Historic District National Register Boundary Map, dated April 14, 2023, prepared by Martin & Martin

Natural Areas Inventory of Lehigh and Northampton Counties – Update 2013, prepared by the Pennsylvania Natural Heritage Program

Lehigh Valley Return on Environment, LVPC, 2014

Lower Saucon Township Open Space Action Plan, 2007

Lower Saucon Township 2023 Budget

Memorandum and Notice of Covenant (Bushkill Valley Motorcycle Club and Bethlehem Landfill Company), filed 3/28/23

Redacted Agreement between Bethlehem Landfill Company and Bushkill Valley Motorcycle Club, executed by Bushkill Valley Motorcycle Club on 11/3/22 and by Bethlehem Landfill Company on 11/14/22

10/21/91 Lease between Steel City Gun Club and City of Bethlehem and 12/30/14 Addendum thereto (terminated by City of Bethlehem) – for acreage North of Bull Run

9/26/22 Bethlehem Landfill Company/City of Bethlehem Lease – for acreage North of Bull Run

Martin & Martin Existing Conditions Plan (April 2023)

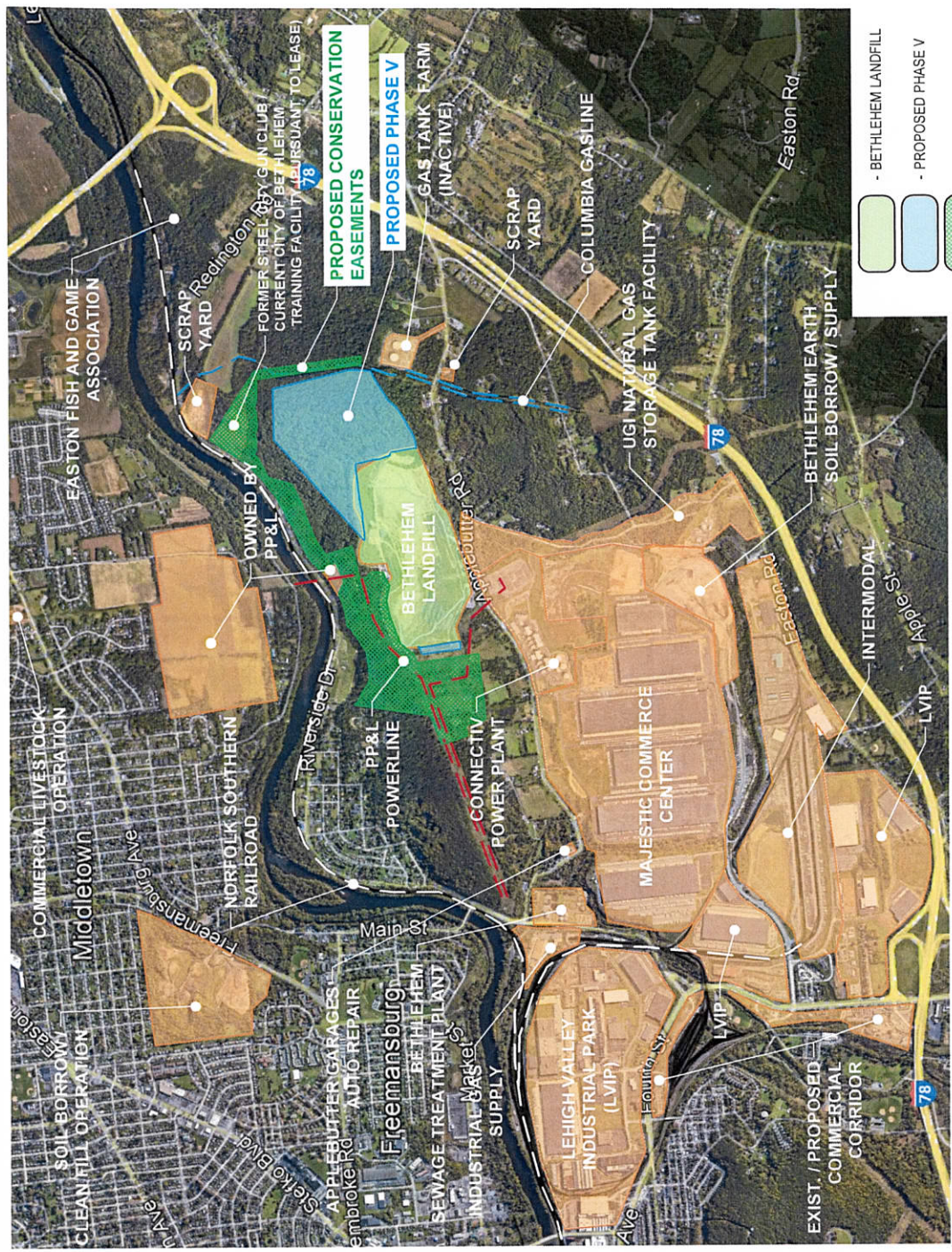
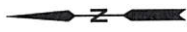
4/17/23 PADEP Approval of Major Permit Modification for Northern Realignment and Permit Renewal

All exhibits introduced and admitted as part of the Phase V Conditional Use Hearings to date, including but not limited to the following:

- BLC Conditional Use Initial Application Package (Hearing Officer 1) Hanover Engineering 1st Review Letter (BLC 14)
- BLC Conditional Use Package, revised in response to 1st Hanover Engineering review letter (BLC 16)
- Hanover Engineering 2nd review letter (BLC 68)
- LST Planning Commission Memo to LST Council dated 2/10/23 (BLC 15)
- Bethlehem Landfill Rules and Regulations Pamphlet (BLC 107)
- Form D Environmental Assessment for Municipal and Residual Waste Management Facilities (BLC 45)
- 8/17/22 DEP Environmental Assessment Letter for Northern Realignment (BLC 39)
- Bethlehem Landfill Northern Realignment Application, Nuisance Minimization and Control Plan Summary (Revised 2/22)(BLC 64)
- Bethlehem Landfill Enhanced Odor Mitigation Plan (Revised 2/20/22) (BLC 65)
- Phase V Conceptual Final Grading Plan (BLC 72)
- Typical Landscaping Notes and Details (BLC 73)
- Phase V Conceptual Closure/Vegetation Plan (BLC 74)
- Bethlehem Landfill – Phase V Comparison Chart (BLC 75A)
- Proposed Conservation Plan (BLC 76)
- Aerial of PADEP Approved Haul Route (BLC 79)
- December 2022 Transportation Impact Analysis prepared by Pennoni Associates (BLC 80)
- Viewshed Maps and Photo Simulations prepared by Matthew Allen of Saratoga Associates (BLC 101-105)
- 1994 “Scenic and Conservation Easement - Former Helms Property - Adjacent to City of Bethlehem Landfill” (Petrie 1)
- 1994 “Scenic and Conservation Easement – Former Bethlehem Steel Property - Adjacent to City of Bethlehem Landfill” (Petrie 2)

Appendix C

Martin & Martin Existing Conditions Plan (April 2023)



EXISTING CONDITIONS

DATE: APRIL 2023

PREPARED BY:
MMI martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania • 17201

Appendix D

Urban Research & Development Corp., Existing Dwellings and Topography Plan, 4-27-23

Existing Dwellings and Topography Within Proximity to the Proposed Expansion of the Bethlehem Landfill

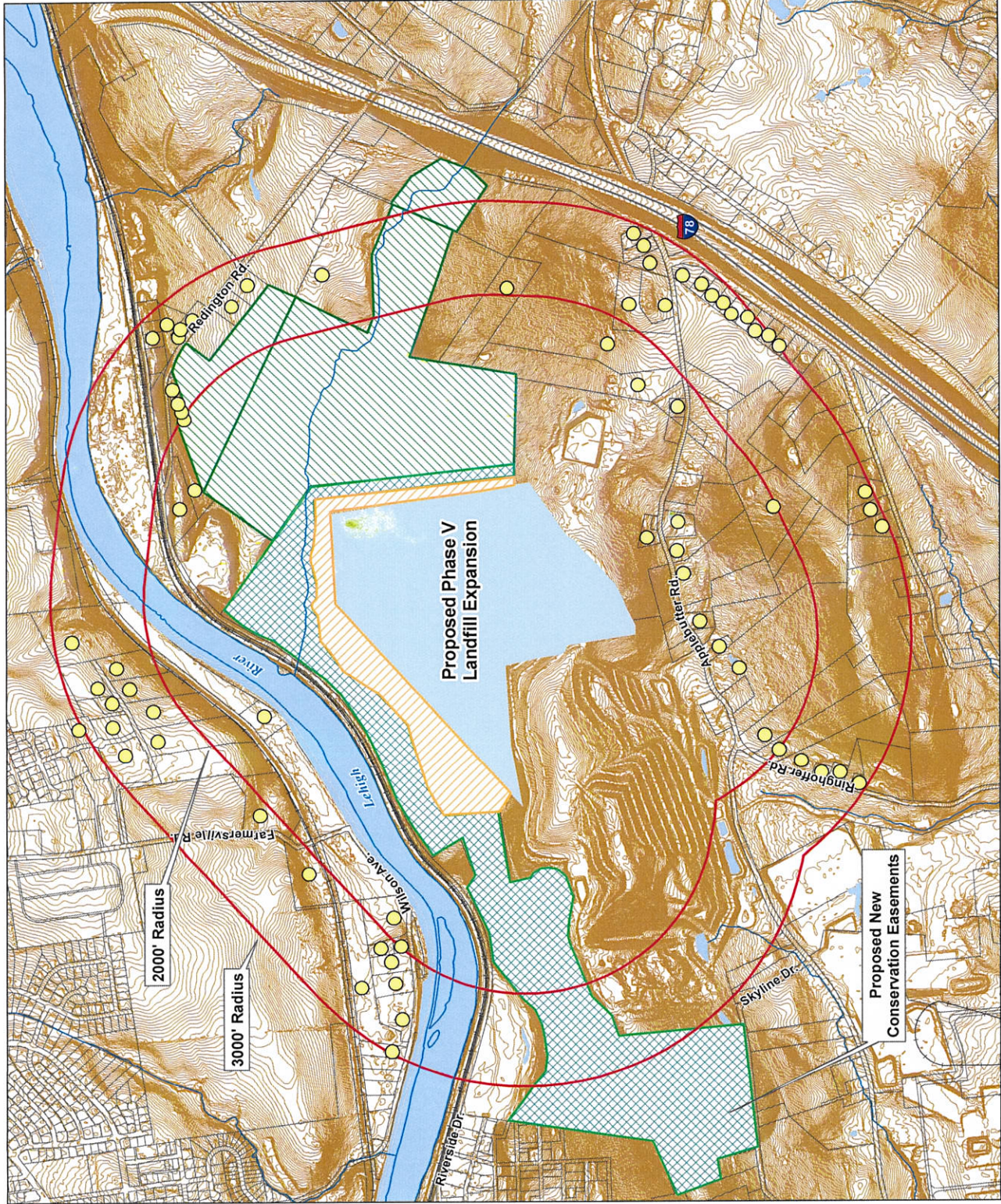
- Privately Owned Occupied Dwellings
- Proposed New Conservation Easements
- Existing Conservation Easement on Petrie Property
- Proposed Covenant Prohibiting Disposal Area and requiring Future Landscaping
- 2' Contours

April 27, 2023

SOURCE OF BASE MAP INFORMATION:
 ESRI, PASDA, and Northampton County GIS.
 SOURCE OF EXISTING EASEMENT:
 Lower Saucon Township Open Space Plan
 SOURCE OF RESIDENTIAL INFORMATION:
 Northampton County online property records, aerial photographs, and URDC field work.



Urban Research & Development Corporation
 81 Highland Ave. Suite 120 Bethlehem, Pa. 18017 610-865-0701
 URDC



Appendix E

Determination of Eligibility Documents

E.O. 11593

DETERMINATION OF ELIGIBILITY NOTIFICATION

**National Register of Historic Places
National Park Service**

Name of property: Redington Historic District
(PA 33 Extension Project)

Location: Northampton Co., *Lower Saucon*

State: PENNSYLVANIA

Request submitted by: FHWA/Manuel A. Marks

Date received: 4/23/90

Additional information received:

Opinion of the State Historic Preservation Officer:

☒ **Eligible**

☐ **Not Eligible**

☐ **No Response**

Comments:

The Secretary of the Interior has determined that this property is:

☒ **Eligible** **Applicable criteria:** *A*

☐ **Not Eligible**

Comments:

**36 CFR Part 63.
Determination**

☐ **Documentation insufficient**

(Please see accompanying sheet explaining additional materials required)

Manuel P. Lanza
Keeper of the National Register

Date: *7 42, 1990*



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
BUREAU FOR HISTORIC PRESERVATION
BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

Jan. 31, 1990

Fred W. Boyser, Director
Bureau of Design
Department of Transportation
1118 Transportation & Safety Bldg.
Harrisburg, PA 17120

Re: ER 88-0224-095-G
Northampton County
S.R. 0033, Sec. A09 & A10
(TR33 Extension Project)
Additional Information for
Determination of Eligibility
of Reddington Historic
District, Lower Saucon Twp.

Dear Mr. Bowser:

Based on the supplemental information recently submitted to the Bureau for Historic Preservation concerning the above referenced project, the Bureau has re-evaluated the effect of this activity on cultural resources. Your cooperation in dealing with this matter has been appreciated.

It is the opinion of the State Historic Preservation Officer that the following properties are eligible for listing in the National Register of Historic Places:

Reddington Historic District, Lower Saucon Township

If you need further information in this matter please consult Susan M. Zacher at (717) 783-9920.

Sincerely,

Brenda Barrett
Director

cc: Alan D. Tabachnick, Cultural Heritage Research Service, Inc.
Roy Leister, PDOT, Bur. of Design
BB/snz



CULTURAL HERITAGE RESEARCH SERVICES, Inc.
403 E. Walnut Avenue North Wales, PA 19454

215-699-8006

December 14, 1989

Ms. Susan Zacher
PHMC
Third and North Streets
Harrisburg, PA 17108

Dear Ms. Zacher:

In response to the comments received from the PHMC concerning the Route 33 Report, and after consulting with you on December 13, I have prepared additional materials for your use in evaluating the Redington Historic District. As per our conversation, I am including this material in the final report, with the Historic Resource forms and with the National Register Nomination. The map clarifies the relationship of all of the contributing elements and identifies the specific buildings described in the text. In addition, the written information further clarifies the relationship of the elements of the site, discusses the different ruins found on the site, and elaborates on the significance of the Redington Historic District under Criterion D. Finally, as per our conversation, the original photographs of Plates 1, 2, and 3, will be inserted into the report.

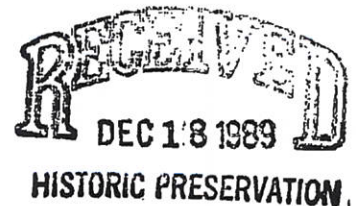
If you have any additional questions, or if I can be of any further help, please contact me.

Sincerely,

Alan D. Tabachnick
Preservation Specialist

encl:

These changes should address your concerns.



REDINGTON HISTORIC DISTRICT: ADDITIONAL INFORMATION

Site Information: The buildings discussed in the architectural description section of the National Register Nomination, and the Pennsylvania Historic Resource Form, are identified on the National Register District Boundary illustration included with the site forms. Although other buildings are identified within the district, only six of the buildings contribute to the district and date from the period of the Coleraine Iron Company. Buildings 1 and 2 are located along the south side of the railroad line along the Lehigh River. Buildings 3 through 6 are located on both sides of Redington Road.

Ruin Identification:

(refer to Redington Historic District Boundary Map, included)

Ruins located in the zone just north of Redington Road, include the large stone arches (A), a concrete guard house, and a large rectangular foundation (B). This section of ruins is visible on historic photographs included with the forms. The only element which clearly dates to the earliest use of this site by the Coleraine Iron Company is the stone and brick arches which were part of the furnace complex (A). Ruins located in the zone west of Redington Road include concrete foundations of various sizes and shapes, brick foundations and walls, fences, utility poles, ramps, and other features. Further examination of this section was not carried out due to its distance from the project area, circa 4,000 feet. Historic photographs of this zone of the site are included with the site forms. The quarry, visible as Zone C, was used as an ordnance testing area, however no standing historic structures appear to remain within the area. Zone D, the site of company housing for the Coleraine Iron Company, and later used by workers at the Bethlehem Steel Company, was not studied, but it is possible that foundations may remain. Historic photographs of this zone are included with the site forms.

Significance Under Criterion D:

(refer to Redington Historic District Boundary Map, included)

The ruins located to the north of Redington Road were identified through a pedestrian walk-over, which discovered concrete foundations, railroad trestles, and other features (Zones A and B). The ruins located to the west of Redington Road, approximately 3000 feet west, were identified by a drive-by (Zones C and Ruins). No pedestrian reconnaissance was carried out in this location, due to its distance from the project area. However, numerous ruins were seen, including concrete foundations of various sizes and shapes, concrete walls, brick foundations, and other structural features. As the district lay entirely outside of the area of project impact, no archaeological testing was performed. There is a potential for archaeological remains in addition to the building foundations which were noted. It is possible that subsurface remains may be present which relate to site use. These would include prehistoric archaeological remains and historical archaeological remains. It is possible that prehistoric archaeological remains are extant within the floodplain beneath the historic materials. Historical archaeological remains which could be anticipated would include ruins, remains of ancillary buildings, and subsurface deposits including: waste from the foundry process, waste products from the munitions operations, and domestic middens associated with the workers housing (no longer standing). These potential remains may be situated throughout all of the zones of the Redington Historic District.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM
BUREAU FOR HISTORIC PRESERVATION Box 1026
PA HISTORICAL & MUSEUM COMMISSION Harrisburg, PA 17120

8. property owners name and address

Joseph J. Deremer
4750 Wm Penn Hwy
Easton, PA 18042

7. Local survey organization

9. tax parcel number / other number
#N8-14-2
Block 10, Parcel 1

11. status (other surveys, lists etc.)

Locus 8

10. U.T.M. zone easting

northing

usgs sheet:

12. classification
site () structure () object ()
building () District
in N.R. district yes () no ()

13. date(s) (how determined)
1871, 1910

14. period
1869-1925

15. style, design or folk type

N/A

19. original use part of an iron producing community

20. present use target range/vacant

16. architect or engineer

Unknown

17. contractor or builder

Bethlehem Steel

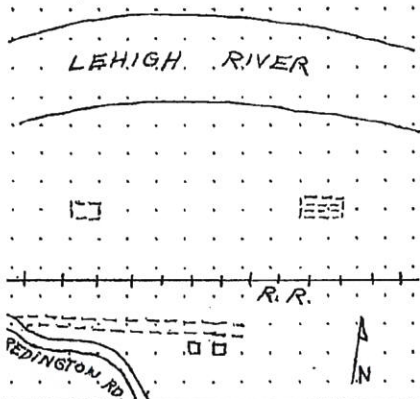
18. primary building mat./construction

Concrete

21. condition concrete ruins/fair

22. integrity foundations/fair

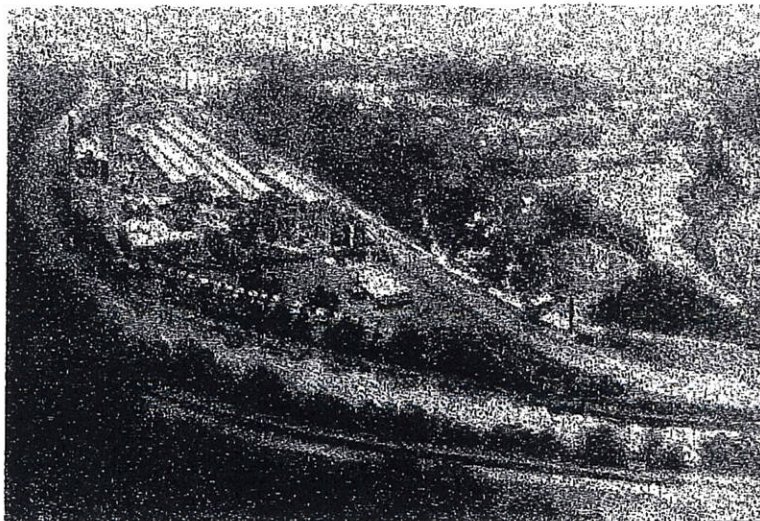
23. site plan with north arrow



24. photo notation

Historical view of industrial complex, ca. 1910.
Drawing at Bethlehem Steel.

25. file/location



26. brief description (note unusual features, integrity, environment, threats and associated buildings)

The Redington area, south of the Lehigh River and west of the study corridor, was the location of a number of important industrial developments, and appears to meet the criteria of eligibility for listing on the National Register of Historic Places, specifically meeting Criterion A. The Coleraine Iron Company functioned here from 1869 to 1893. Remains from this period include large, cut stone and brick arches that were part of the furnace complex. At the height of the company's activity, two furnaces were working on the site. Other remnants from this period include a number of late nineteenth-century, frame houses located south of the site.

Building One: Building One is a two-and-one-half story, two-bay, gable- (cont.)

(continue on back if necessary)

27. history, significance and/or background

The Redington Historic District appears to be eligible for listing on the National Register of Historic Places for its significance under Criterion A of the National Register. The site is significant because of its association with Bethlehem Steel's Proving Grounds and Shell Filling Plant. The significance of the site and of its usage by Bethlehem Steel is discussed fully in the attached information.

(continue on back if necessary)

28. sources of information

(see attached sheets)

29. prepared by:
Alan Tabachnick
CHRS, Inc.

30. date
3/8/88

revision(s)

(continue on back if necessary)

1. County
Northampton County

2. municipality
Lower Saucon Township

3. street address or specific location
Along south bank of Lehigh River near Redington

4. survey code

5. present name
Steel City Gun Club

6. other name (historic name if any)
Redington Works/Proving Grounds

26) (cont.) roofed, frame dwelling; it has internal end chimneys and a modern, frame addition on its west side. The house, which has been sheathed in asbestos shingles, faces south and has a hipped-roofed porch on the main (south) facade. The windows are two/two, double-hung and have wooden frames. A one-story, shed-roofed storage structure is attached to the southern bay of the east facade. The second story of the east facade has one two/two, double-hung window in the southern bay, and a pair of, two/two, double-hung, wooden windows let light into the attic. The roof has been sheathed in composition shingles. There is a two-story addition to the rear facade of the house. This two-bay by one-bay structure has a gable roof. Building One is in fair condition, but its integrity has been greatly diminished by the large addition on the west.

Building Two: Building Two is a two and one-half story, three-bay dwelling with a cross gable at the rear. Aluminum siding obscures the frame construction of the house. The front (north) facade has been altered on the first story, where there is a door at the eastern bay and a large, single-paned window has been added west of the door. The second story, which has three symmetrically placed bays, shows the historically correct fenestration of the house. In the gable is a full sized, wood-framed window; like most of the other windows on the house, it is two/two, double-hung. There is a shed-roofed porch on this facade. The cross-gabled section of Building Two, also two and one-half stories, has six symmetrically placed bays on the east facade. The bay window on the first story of the west facade appears to be original. All of the windows on this facade are wooden, two/two, double-hung. The roof of the house has been sheathed with slate shingles. This house is in good condition and has good integrity despite the recent aluminum siding.

Building Three: The school-house/meeting house associated with the Coleraine Iron Company has been designated as Building Three. It is sited facing east on a rise above the former industrial complex. The frame building, a one and one-half story, three-bay, frame structure, sits with its gable running perpendicular to the road. The building rests on a fieldstone foundation. Its front (east) facade has a shed-roofed porch and a central door flanked by two windows. There is a window at the gable. The door and all the windows on this facade, like most on the building, have been sealed with wood boards. The south facade has three symmetrically placed bays with elaborately carved window moldings. The north facade is identical to the south facade. The building has a slate roof, is in fair condition, and is currently being stabilized.

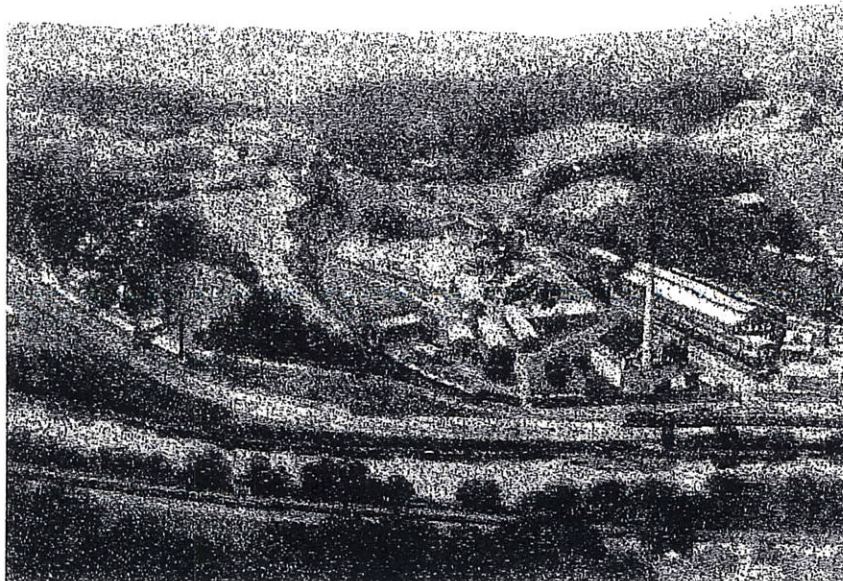
Building Four: Building Four within the Redington Historic District sits on the east side of Redington Road and faces west. This two and one-half story, three-bay, frame dwelling has a gable roof and brick interior end chimneys. The door of the front facade opens from the northern bay and has an elaborate pilastered enframing. The windows on this facade are two/two, double-hung and have wooden frames. The house, which has been covered in (cont.)

EVALUATION

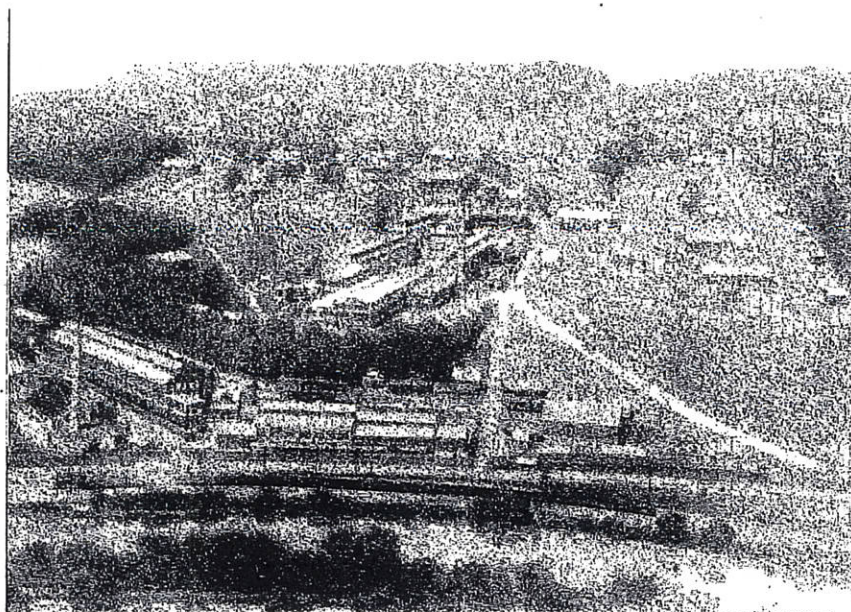
EVALUATOR(S)

ADDITIONAL DATA/PHOTOS
number all continuations from front

4. survey code



Center Section of Redington Site, ca. 1910.



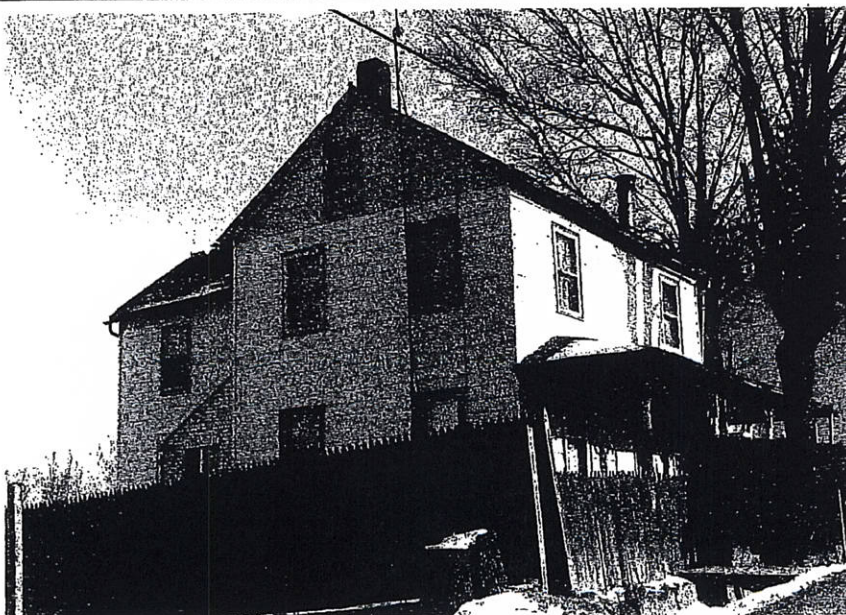
Western section of Redington Site, ca. 1910.
Photo of drawing at Bethlehem Steel Corp, Bethlehem, PA.

EVALUATION

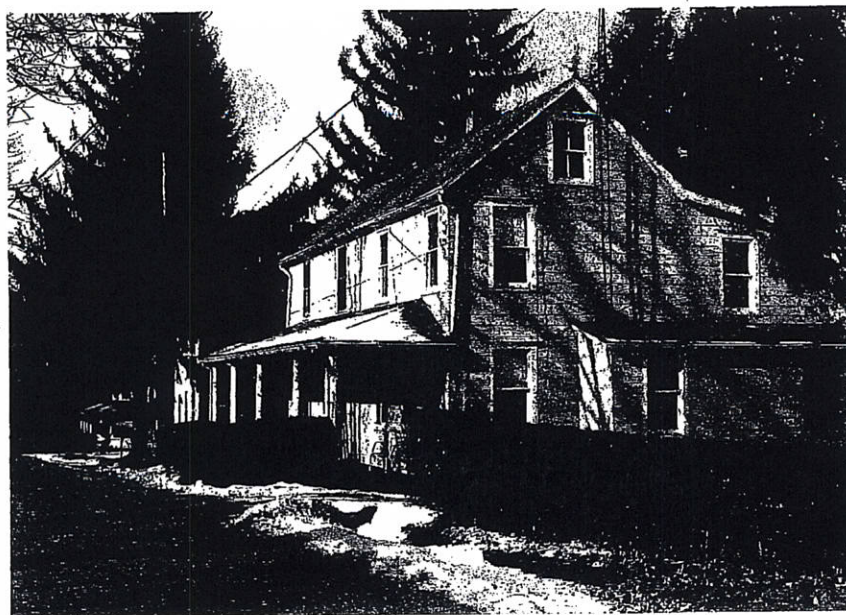
EVALUATOR(S)

ADDITIONAL DATA/PHOTOS
number all continuations from front

4. survey code



Building 5: Coleraine Iron Company worker house.



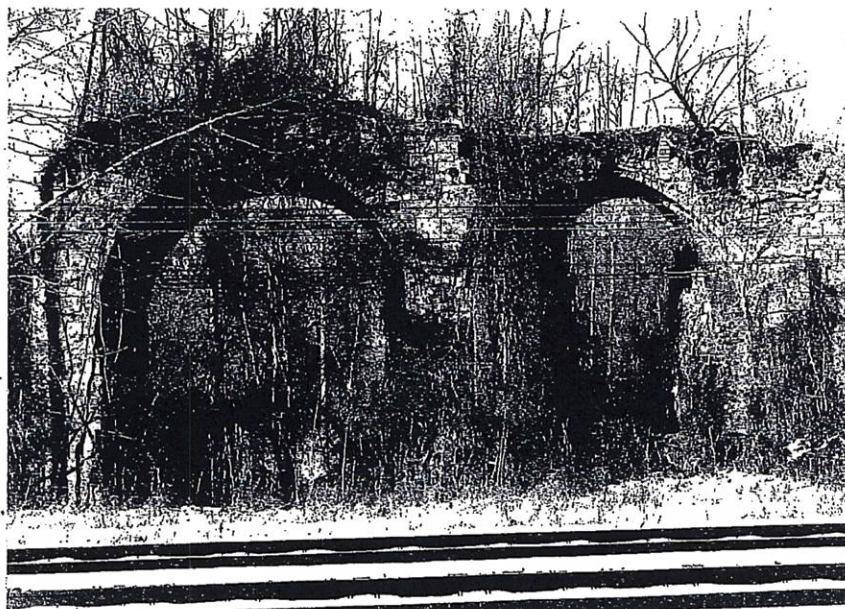
Building 6: Coleraine Iron Company, double worker house.

EVALUATION

EVALUATOR(S)

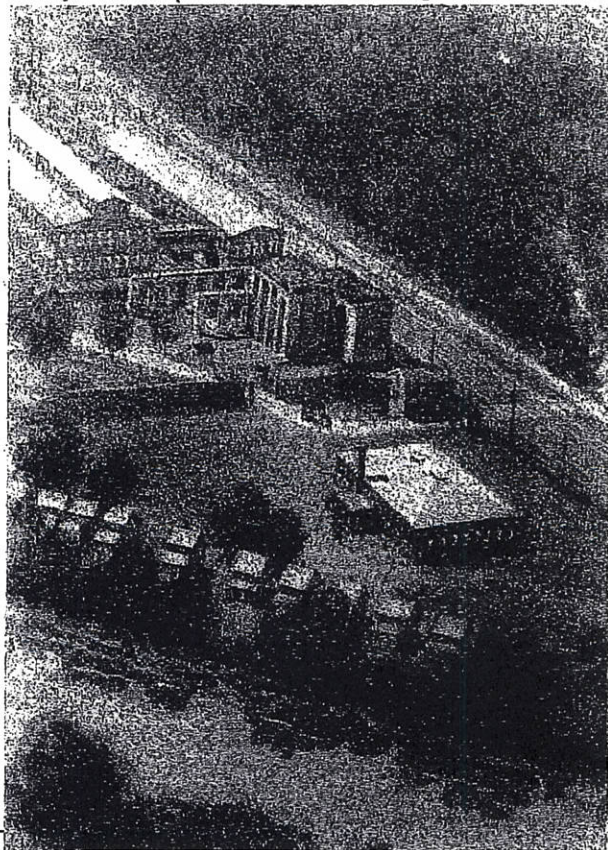
ADDITIONAL DATA/PHOTOS
number all continuations from front

4. survey code



View of stone arches from Coleraine Iron Co., later part of the Redington Works.

Close up view of stone arches as integrated into Works. Note worker houses constructed for the Coleraine Iron Company, but also used later.

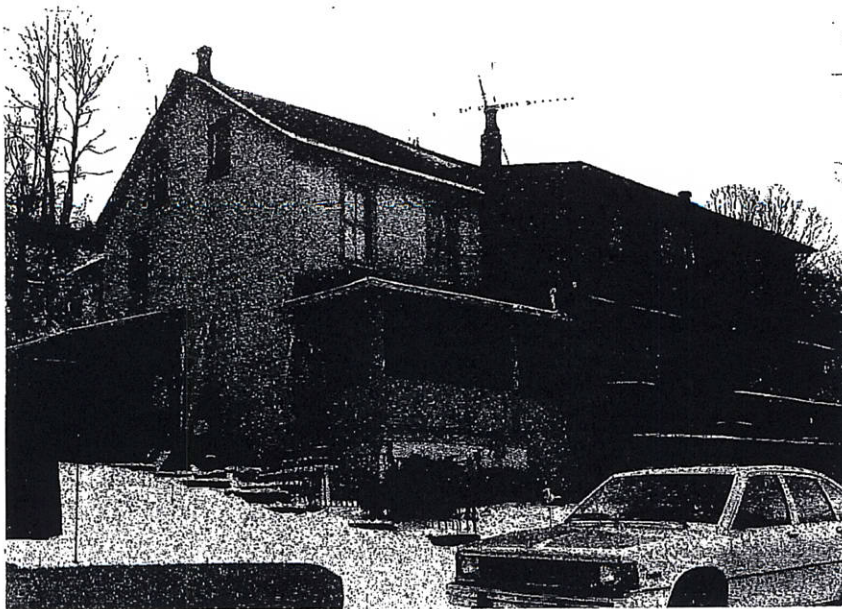


EVALUATION

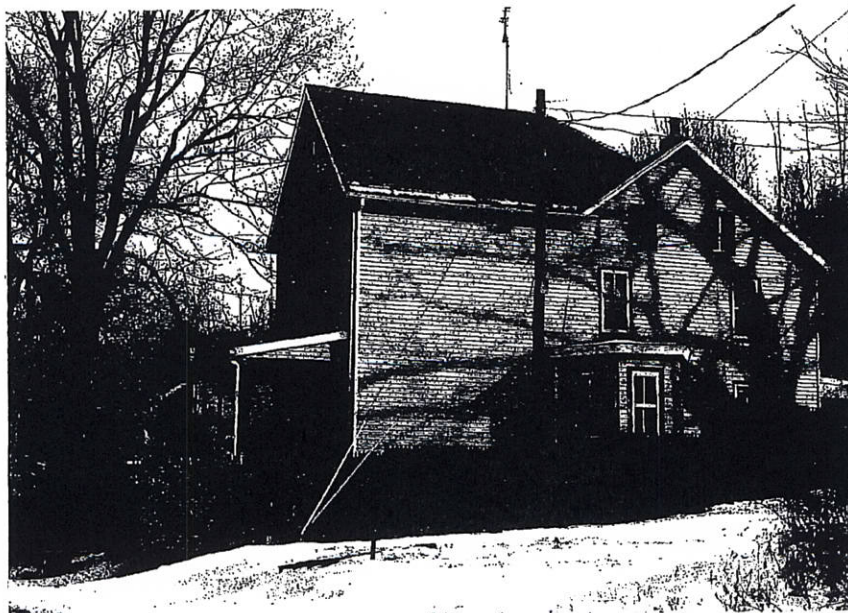
EVALUATOR(S)

ADDITIONAL DATA/PHOTOS
number all continuations from front

4. survey code



Building 1: Coleraine Iron Company House.



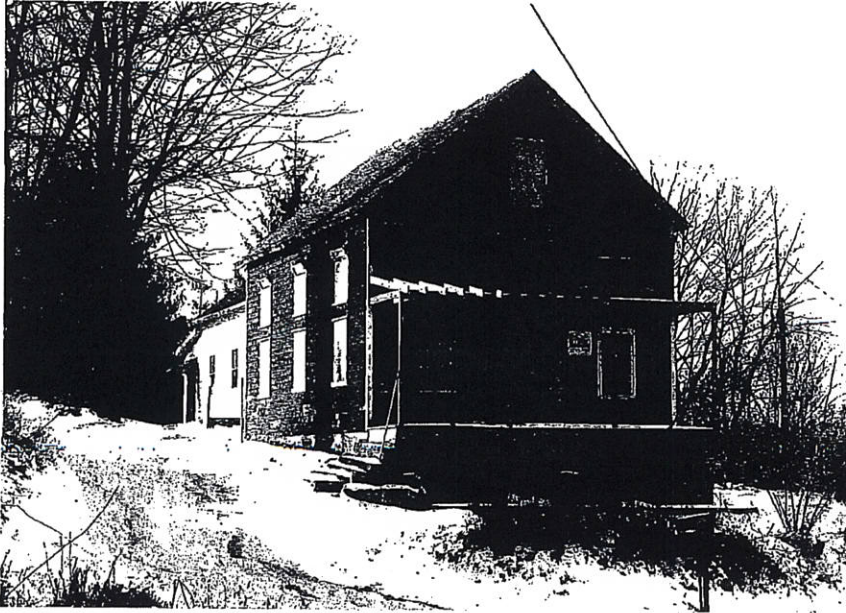
Building 2: Coleraine Iron Company Worker Housing.

EVALUATION

EVALUATOR(S)

ADDITIONAL DATA/PHOTOS
number all continuations from front

4. survey code



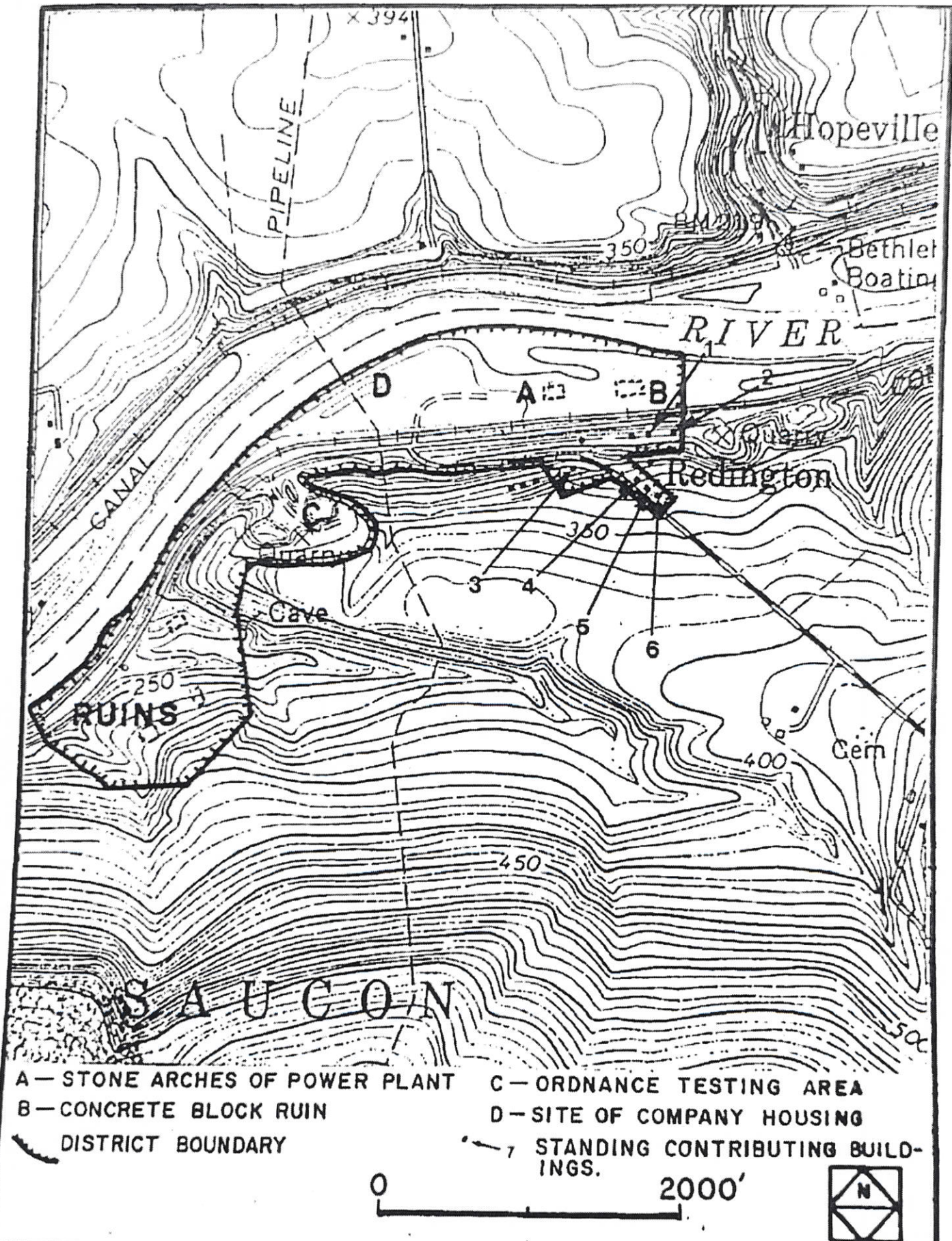
Building 3: Coleraine Iron Company School.



Building 4: Worker Housing.

EVALUATION

EVALUATOR(S)



REDINGTON HISTORIC DISTRICT

NATIONAL REGISTER BOUNDARY

FIGURE

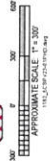
Appendix F

**Conservation Overlay on the Redington Historic District National Register Boundary Map
(April 14, 2023) – Prepared by Martin & Martin**



KEY

- PROPERTY LINE
- APPROXIMATE DEPOSAL AREA
- EXISTING CONSERVATION EASEMENT
- PROPOSED CONSERVATION EASEMENT



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DATE: 6/1/21

