

1.a. Overview of Brownfield Challenges and Description of Target Area (5 points) – Montgomery County, Pennsylvania contains a concentration of brownfield sites resulting from more than a century of institutional, commercial, and industrial development followed by periods of disinvestment. These brownfields are most prevalent in older, urbanized communities where aging building stock, long-term vacancy, and environmental constraints continue to limit redevelopment. Within Montgomery County, downtown Norristown experiences a disproportionate share of these challenges, including deteriorated institutional properties, constrained private investment, and limited local capacity to address complex environmental conditions without external assistance.

The Target Area for this Cleanup Grant is located in downtown Norristown and is defined by four contiguous census tracts: Census Tracts 2038.03, 2038.04, 2039.02, and 2039.01. These tracts encompass the Former Airy Street Prison and surrounding blocks and represent one of the County's most distressed redevelopment areas. The census tract-based Target Area contains a high concentration of vacant and underutilized properties, aging institutional structures, and long-standing brownfield conditions that suppress surrounding property values and limit economic revitalization in the County seat. The Former Airy Street Prison, which operated from 1851 to 1986, is a prominent and long-standing brownfield within this Target Area and exemplifies the challenges facing downtown Norristown. Since that time, the facility has remained vacant and has experienced progressive deterioration, rendering the structures unsuitable for safe access or reuse. Due to its size, central location, and visibility, conditions at the site directly influence redevelopment patterns and investment confidence within the surrounding census tracts. Cleanup of the Former Airy Street Prison through this EPA Brownfields Cleanup Grant will directly address building-related environmental barriers that have prevented redevelopment within the Target Area. By enabling remediation of this high-profile site, the grant will help alleviate broader brownfield challenges affecting downtown Norristown and advance Montgomery County's long-term redevelopment and revitalization objectives.

1.b. Description of the Proposed Brownfield Site(s) (10 points) – The Former Airy Street Prison is the focus of this grant and represents one of the largest and most historically significant brownfield sites in Norristown. Located in the Target Area, the multi-structure complex has stood for more than 150 years and contains well-documented contamination, extensive structural deterioration, and regulated building materials (RBMs), including asbestos, lead-based paint, and PCBs, that pose significant risks to human health and redevelopment. Constructed in the mid-1800s, the prison served as Montgomery County's primary detention facility and underwent multiple expansions through the mid-20th century, resulting a structure comprised of four contiguous buildings. These expansions introduced successive generations of building materials and systems that pre-date modern environmental and building regulations, resulting in widespread RBMs throughout the complex.

Risks have been magnified by prolonged vacancy and ongoing deterioration following closure. Water intrusion through failing roofs and broken windows has damaged interior systems, weakened structural elements, and increased the friability of asbestos-containing materials. Lead-based paint has deteriorated and become more readily dispersed within interior spaces. Mid-20th-century renovations added electrical, lighting, and mechanical systems that introduced PCB- and mercury-containing components, further increasing the concentration of hazardous materials within the building envelope. The physical configuration of the prison presents additional challenges. The complex is enclosed by a 20-foot stone wall and consists of multiple interconnected buildings with thick masonry walls, confined corridors, and limited access points that complicate safe abatement activities. Many interior areas contain accumulated dust and debris, collapsed ceilings, deteriorated flooring, and unstable structural components that elevate safety risks. Environmental assessments have confirmed the presence of RBMs throughout the complex and associated universal wastes. Deteriorated asbestos and lead-based paint pose airborne exposure risks within enclosed spaces, while damaged PCB-containing components present hazards if disturbed. The scale and complexity of building-contained contamination have prevented private redevelopment despite the site's central downtown location. The high cost of RBM abatement, structural stabilization, and regulated waste management exceeds local investment capacity without EPA assistance. No prior cleanup has been completed, and conditions continue to worsen as deterioration progresses. This project will target the most severe hazards through RBM removal and abatement, health and safety planning, air monitoring, containment, waste transportation, and proper disposal, with demolition where necessary to safely access contaminated building materials. Cleanup will eliminate interior environmental barriers that have long prevented redevelopment and create conditions necessary for adaptive reuse of this historic facility.

1.c. Reuse Strategy and Alignment with Revitalization Plans (10 points) – Montgomery County's reuse strategy for the Former Airy Street Prison is grounded in clear, adopted planning documents and ongoing redevelopment efforts that emphasize adaptive reuse, reinvestment in historic structures, downtown revitalization, and community-serving development. The County

is currently interviewing qualified developers to refine the final redevelopment program, with explicit direction that the reuse must preserve and sensitively integrate a portion of the historic prison complex. Cleanup of the site is therefore a necessary precondition to implementing reuse concepts already supported by community priorities and formal planning guidance.

The **Montco 2040: A Shared Vision** county comprehensive plan identifies downtown Norristown as a priority location for reinvestment, stating that the County should “revitalize downtowns and main streets by encouraging redevelopment of underutilized and historic buildings” and “support adaptive reuse that strengthens community identity”. The Former Airy Street Prison is one of the most architecturally significant and underutilized properties in the county seat; its reuse directly fulfills these objectives. The plan further calls for “leveraging county facilities to catalyze redevelopment in Norristown”, which aligns with the County’s use of its own property to anchor broader downtown revitalization efforts. The reuse strategy for the prison intentionally complements these goals by converting a deteriorated county-owned structure into a publicly accessible asset that strengthens Norristown’s civic center. The **Norristown Comprehensive Plan** and **Norristown Revitalization Strategy** reinforce this direction. The Revitalization Strategy emphasizes the importance of redeveloping key historic and catalytic properties downtown, calling for “reinvestment in prominent structures that contribute to Norristown’s architectural character” and “activation of long-vacant buildings to support economic activity, cultural uses, and community life.” The County’s reuse strategy aligns directly with these priorities by focusing on adaptive reuse, historic preservation, and public-serving redevelopment.

Community participation has been central to shaping reuse expectations. Public meetings, stakeholder workshops, and interviews conducted during previous Norristown planning processes consistently highlighted the Airy Street Prison as a community priority and a landmark whose loss would diminish the borough’s historical identity. These engagement efforts emphasized the dual goals of preserving the structure and creating functional community-serving space. The County’s current developer interview phase builds directly on that feedback: developers are being asked to propose concepts that preserve historic elements, align with downtown revitalization goals, and meet community-identified needs. Because the primary environmental barrier to reuse is the presence of RBM that poses airborne inhalation risks, cleanup is a necessary precondition to any safe occupancy, construction activity, or adaptive reuse of the prison complex.

1.d. Outcomes and Benefits of Reuse Strategy (10 points)

The cleanup and reuse of the Former Airy Street Prison will generate transformative economic, cultural, and community benefits for Norristown and Montgomery County, consistent with revitalization priorities outlined in Montco 2040 and the Norristown Revitalization Strategy. As an urban community with limited available land for catalytic redevelopment, Norristown stands to achieve substantial gains by converting a long-vacant, contaminated complex into a modern, community-serving, and historically preserved asset.

The reuse strategy, preserving and adaptively reusing portions of the historic prison while redeveloping the property for mixed-use functions will directly stimulate new economic activity in the heart of downtown. Montco 2040 highlights the importance of “reusing historic structures as anchors for economic revitalization” and “supporting redevelopment that strengthens

Resource	Criterion	Secured?	Details
RDA Assessment Grant	1.e	Secured	Assessment, cleanup planning, or reuse planning
RDA Revolving Loan Fund	1.f	Secured	Cleanup, necessary demolition to access contamination
Montgomery County Capital Funds	1.g	Secured	Existing capital funds will be deployed to support reuse and stabilization.
Private Developer Capital	1.g	Secured	Confidential shortlist firms already confirming ability to finance redevelopment after cleanup; constitutes secured private investment.

downtown employment and expands community services.” Activated redevelopment will bring new employees, visitors, and program participants into the Target Area only after cleanup eliminates RBMs that currently pose airborne exposure risks and prevent safe access and occupancy.

In addition to economic benefits, the project will produce important community and social outcomes. Adaptive reuse of the prison will preserve a landmark structure repeatedly identified by residents as essential to Norristown’s architectural heritage, supporting the Revitalization Strategy’s goal to “protect and showcase the borough’s historic assets in ways that reinforce community identity.” Redeveloping the site as a publicly accessible asset, whether through cultural space, programming facilities, community services, or

institutional uses, will expand resources available to residents and strengthen walkable access to services in a transit-rich location. Cleanup will also improve environmental and climate resilience. The property is not in a floodplain, ongoing deterioration of RBMs presents elevated risk during wind events and heavy rainfall, which can mobilize dust and debris and

worsen indoor air quality conditions. Removal and stabilization of RBMs will reduce these risks and protect both surrounding residents and future occupants.

1.e. Resources Needed for Site Characterization (5 points) – Montgomery County does not anticipate needing additional assessment to complete cleanup at the Former Airy Street Prison because the site has already undergone comprehensive hazardous building material surveys, universal waste inventories, PCB screening, and environmental assessments sufficient to support abatement planning. However, if limited supplemental characterization is required, for example, verification sampling inside concealed structural cavities opened during any necessary demolition, the County can immediately access the Montgomery County Redevelopment Authority's (RDA) active EPA Brownfields Assessment Grant, which has available funding earmarked for County-owned priority projects. The RDA has confirmed that these assessment dollars can be deployed for the Prison property without additional procurement steps. In addition to this secured and available assessment funding, the County can rely on the Pennsylvania Department of Community & Economic Development's Industrial Sites Reuse Program (ISRP) specifically for hazardous substance assessment should a discrete data gap be identified. These two programs, both already active and accessible, are sufficient for any supplemental characterization that may arise and match the scope and contaminants present at the site. Therefore, Montgomery County has **secured**, relevant, and adequate resources in place for any additional assessment necessary to maintain cleanup progress.

1.f. Resources Needed for Site Remediation (5 points) – The requested EPA Cleanup Grant is sufficient to complete all planned remediation activities at the Former Airy Street Prison, including asbestos abatement, lead-based paint removal, PCB ballast and transformer removal, universal waste disposal, and any necessary demolition required due to unsafe conditions. Montgomery County has confirmed that all cleanup tasks have been costed and scoped to fit entirely within the EPA budget. The County has also committed its internal facilities, procurement, and project management capacity to ensure remediation can be executed immediately upon award without the need for additional federal or state funds. If unexpected hazardous materials conditions require supplemental cleanup funding, the RDA's EPA Brownfields Revolving Loan Fund (RLF), which remains capitalized and active can provide a cleanup subgrant or loan for the Prison property. The RLF has sufficient unobligated balance to cover remaining abatement or disposal needs, and the County has confirmed the site's eligibility. Together, the EPA Cleanup Grant and the RLF constitute secured, relevant, and sufficient funding to complete remediation in full and advance the site to redevelopment. Therefore, Montgomery County has **secured**, relevant, and adequate resources in place for any additional cleanup necessary to maintain cleanup progress.

1.g. Resources Needed for Site Reuse (5 points) – Montgomery County has secured the core resources needed to advance reuse of the Former Airy Street Prison immediately following completion of cleanup activities. County capital funds have been appropriated to support post-cleanup design, structural stabilization, and predevelopment work associated with the adaptive reuse of the complex. These funds are programmed within the County's Facilities Master Plan and supported by formal direction from the County Commissioners to pursue redevelopment of the property once environmental conditions are addressed. The presence of RBMs that pose airborne exposure risks prevents safe interior access, construction activity, and long-term occupancy. Montgomery County is concluding a competitive developer interview process for the site. Shortlisted firms have submitted preliminary redevelopment concepts aligned with adopted planning goals and have confirmed their capacity to finance vertical construction, tenant improvements, and long-term adaptive reuse following environmental remediation. These private investments are contingent upon elimination of RBM-related risks and cannot proceed absent cleanup. Together, County capital funding, secured professional service contracts, and demonstrated private developer interest constitute substantial, relevant, and secured resources for site reuse. Therefore, Montgomery County has **secured**, relevant, and adequate resources in place for any site redevelopment necessary to maintain cleanup progress.

1.h. Use of Existing Infrastructure (5 points) – The project will rely extensively on existing downtown infrastructure, and cleanup of the Former Airy Street Prison will directly facilitate its reuse. The site is already fully served by public water, sanitary sewer, stormwater connection, electrical service, natural gas, telecommunications, and proximate transit access, including the Norristown Transportation Center two blocks away. Roadway access, sidewalks, lighting, and adjacent utilities are functioning and do not require expansion. Cleanup will enable safe building access, interior stabilization, and rehabilitation of preserved structures so they can be reconnected to these existing systems as part of redevelopment. No off-site infrastructure improvements are required to support reuse.

2.a. The Community’s Need for Funding (5 points)

The Target Area surrounding the Former Airy Street Prison demonstrates substantial socioeconomic need and limited ability to draw on other sources of funding to support environmental cleanup. This community of approximately 17,931 residents lags behind county conditions in income, poverty, and household economic stability. The population-weighted median household income is approximately \$64,100, and per-capita income of \$24,100 reflects limited capacity to absorb the costs associated with complex environmental remediation. Economic hardship is widespread. A population-weighted poverty rate of 21.8 percent

Demographic Information	Target Area	Norristown	Montgomery County	Pennsylvania	United States
Population	17,931	34,905	860,000	13,000,000	334,000,000
Median Household Income	\$64,100	\$65,058	\$111,521	\$68,957	\$74,755
Per Capita Income	\$24,100	\$27,999	\$60,507	\$38,315	\$39,545
Poverty Rate	21.8%	19.0%	6.5%	11.6%	12.60%
Educational Attainment (Bachelor’s +)	17.9%	23.7%	52.3%	30.7%	32.10%
Foreign Born	23.4%	17.70%	11.20%	8.70%	13.70%

constrains the feasibility of local cost-sharing, special assessments, or other revenue mechanisms that might otherwise support cleanup. Lower educational attainment further limits access to higher-wages, credit, and private capital needed to finance remediation or redevelopment.

These constraints are particularly consequential given the nature of contamination at the Former Airy

* Estimates for PA and U.S. drawn from most recent ACS national/state data.

Street Prison. Cleanup requires specialized handling, containment, air monitoring, and disposal of regulated building materials that pose airborne exposure risks. The cost and technical complexity of these activities exceed the fiscal capacity of the municipality and surrounding community. The absence of private-sector investment at the site demonstrates that remediation costs and environmental uncertainty deter market-driven redevelopment. Demographic characteristics reinforce this limited capacity. A large foreign-born population (23.4 percent) and substantial limited-English-proficiency households (21.5 percent) create additional barriers to accessing competitive funding programs and navigating technical environmental processes. Without federal assistance, the site will remain a deteriorating structure in a community already constrained by economic hardship. EPA Brownfields Cleanup Grant funding is therefore essential to remediate where no alternative funding pathways exist.

2.b. Health or Welfare of Sensitive Populations (5 points)

The Target Area contains a concentration of sensitive populations whose health and welfare are disproportionately affected by environmental hazards associated with the long-vacant Former Airy Street Prison. High poverty (21.8 percent), low per-capita income (\$24,100), a large foreign-born population (23.4 percent), and substantial limited-English-proficiency households (21.5 percent) reduce residents’ ability to avoid or mitigate environmental exposures. Housing conditions further heighten vulnerability. Pre-1960 housing comprises 68.44 percent of units in the Target Area, placing the community in the 86th national percentile and indicating widespread potential for deteriorated regulated building materials and indoor air quality hazards. These conditions are closely associated with increased respiratory sensitivity in populations with limited resources to address structural deficiencies. Health indicators reinforce this sensitivity. Adult asthma prevalence in the Target Area is 11.74 percent, higher than county and state levels, placing the community in the 89.63rd national percentile. Elevated asthma prevalence increases vulnerability to airborne exposure pathways associated with deteriorating regulated building materials at the Prison site. High housing cost burden (44.03 percent of households) further limit residents’ ability to relocate or implement protective measures.

Metric	Target Area	Montgomery County	PA
Pre-1960 housing (percentile)	86.16	60.24	66.66
Asthma ≥18 (percentile)	89.63	48.41	64.79
Asthma ≥18 (%)	11.74	9.64	10.5
Low life expectancy (percentile)	61.72	32.07	47.45
Life expectancy (years)	77.16	80.56	78.54
Adults ≥25 <HS (percentile)	80.55	24.11	41.81
Housing burden (percentile)	89.86	39.32	45.19
Housing burden (%)	44.03	20.09	22.81

Together, these indicators demonstrate that the Target Area includes sensitive populations with elevated health vulnerabilities and limited capacity to protect themselves from environmental exposure. Cleanup of the Former Airy Street Prison will reduce airborne exposure pathways and improve environmental conditions for populations already experiencing disproportionate health and socioeconomic burdens.

2.c. Greater Than Normal Incidence of Disease and Adverse Health Conditions (5 points) – The Target Area experiences a greater-than-normal incidence of respiratory disease, with asthma presenting as the most pronounced and relevant health condition for this criterion. Adult asthma prevalence in the Target Area is 11.74 percent, exceeding both Montgomery County (9.64 percent) and Pennsylvania (10.5 percent), and placing the community in the 89.63rd national percentile. Asthma-related health impacts are further reflected in pediatric outcomes. Childhood asthma hospitalization rates in Norristown are substantially higher than county levels (17.3 per 100,000 compared to 2.9 per 100,000), indicating a sustained respiratory burden affecting families in and around the Target Area. These elevated rates demonstrate greater-than-normal disease incidence consistent with exposure-sensitive respiratory conditions.

Additional health indicators support the presence of cumulative health stressors. Life expectancy in the Target Area is lower than county averages, with particularly pronounced disparities among males. Chronic disease indicators, including diabetes and cardiovascular-related hospitalizations measured at the municipal level, further suggest a population experiencing compounded health vulnerability. Together, these data demonstrate that the Target Area has a documented, greater-than-normal incidence of asthma and related adverse health conditions. Cleanup of the Former Airy Street Prison will reduce environmental exposure pathways that are especially consequential in a community already experiencing elevated respiratory disease burden.

2.d. Economically Impoverished/Disproportionately Impacted Populations (5 points) – The Target Area surrounding the Former Airy Street Prison includes populations that are both economically impoverished and disproportionately impacted by the legacy of institutional and industrial land use in Norristown. As documented in Sections 2.a through 2.c, residents experience lower incomes, higher poverty, and limited access to resources compared to the broader county, constraining their ability to respond to environmental risks or influence redevelopment outcomes. With a population-weighted median household income of approximately \$64,100 and a poverty rate of 21.8 percent, many households lack the financial capacity to absorb or mitigate environmental burdens.

These economic constraints intersect with long-standing disinvestment patterns in the Target Area. The Former Airy Street Prison has remained vacant and deteriorating for 39 years, imposing visual blight, limiting neighborhood reinvestment, and concentrating environmental risk in a community with limited political and economic leverage. The costs and technical complexity of addressing contamination have prevented market-driven redevelopment, leaving residents to bear the ongoing impacts. Disproportionate impacts are reinforced by demographic characteristics that limit access to decision-making and recovery resources. A large foreign-born population (23.4 percent), substantial limited-English-proficiency households (21.5 percent), and lower educational attainment reduce the ability of residents to engage with regulatory processes, access financing programs, or advocate effectively for remediation. Larger average household size increases the number of individuals affected by neighborhood-level environmental conditions.

Cleanup of the Former Airy Street Prison will directly address these inequities by removing a long-standing source of environmental uncertainty and neighborhood distress. By enabling remediation and reuse aligned with community priorities, the project will reduce disproportionate burdens borne by economically constrained populations and advance a more equitable distribution of environmental and redevelopment benefits.

2.e. Project Involvement (5 points) & 2.f. Project Roles (5 points)

Name of Organization	Entity's Mission	Point of Contact	Specific Involvement
Preservation Alliance of Greater Philadelphia	To promote the preservation, protection, and adaptive reuse of historic buildings while supporting redevelopment that respects architectural heritage while enabling productive reuse.	Paul Steinke 1608 Walnut St. Philadelphia, PA 19103 215-546-1146 ext. 1 psteinke@preservationalliance.com	Provide technical guidance on historic preservation during cleanup planning and redevelopment coordination.
Norristown Chamber of Commerce	To support local businesses and economic growth by advancing redevelopment, investment, and job creation in Norristown.	Kym Ramsey P.O. Box 468 Norristown, PA 19404 215-261-5160 ext. 800 kymramsey@gmail.com norristownchamberofcommerce@gmail.com	Soliciting input on redevelopment opportunities and supporting coordination between the cleanup project and broader downtown economic revitalization.
Norristown Brownfield Advisory Committee (NBAC)	To provide community-based input and guidance on brownfield assessment, cleanup, and reuse activities, ensuring projects.	Jayne Musoyne 610-270-0450 jmusoyne@norristown.org	Community liaison providing input on cleanup activities and ensuring community concerns are communicated throughout implementation.

Montgomery County Redevelopment Authority	To facilitate community revitalization and economic development through planning, financing, and implementation of redevelopment projects.	Aliyah Furman Stanger 610-275-5300 Aliyah.Stanger@montgomerycountypa.gov	Support project implementation through coordination of complementary brownfields resources, including assessment and revolving loan fund programs.
Simone Collins Landscape Architecture	To provide professional planning and design expertise that supports redevelopment feasibility, site access, and integration of redeveloped properties into the surrounding community.	Simone Collins 119 E Lafayette St. Norristown, PA 19401 610-239-7601 psimone@simonecollins.com	Provide non-binding technical input on site planning, access, and integration considerations; the firm will not participate in cleanup procurement, contractor selection, implementation decisions. Firm shall not be compensated.
Norristown Historical Architectural Review Board	Created by state and local laws to regulate changes to buildings within the nationally designated.	Jayne Musoyne 610-270-0450 jmusoyne@norristown.org	They will review any development that will take place on the property and will look to see how the prison will be preserved.

The cleanup project will be implemented through coordinated involvement of local, regional, and institutional partners whose missions align with economic redevelopment, workforce development, and community revitalization in Norristown. These partners bring complementary expertise and established relationships that support effective project delivery and long-term reuse of the cleaned sites. Partner roles are clearly defined and tailored to their respective missions, ensuring involvement is relevant, appropriate, and effective.

2.g. Incorporating Community Input (5 points) – Montgomery County will implement an inclusive and accessible engagement plan to ensure residents of the Target Area, particularly those most affected by environmental burdens and past land-use decisions, can meaningfully participate throughout cleanup of the Former Airy Street Prison. Community engagement will be conducted in coordination with the NBAC, which will serve as the primary community liaison for the project and connect residents, local organizations, and the project team. The County, in coordination with the NBAC, will provide quarterly project updates describing upcoming cleanup activities, health and safety measures, and key milestones. Updates will be disseminated through multiple channels, including the County website, social media, printed notices, postings at community hubs, and a publicly accessible project information board at the site. Materials will be written in plain language and translated into Spanish and other locally used languages as needed. Engagement activities will include in-person and virtual meetings scheduled at varied times and locations to accommodate work schedules, childcare needs, and mobility constraints. The NBAC will assist with

outreach, agenda development, and facilitation to keep discussions focused on cleanup activities, site access, and protection of public health during remediation. Virtual participation options, including Zoom and telephone call-in, and interpretation services will be provided.

Community input will be solicited through meetings, surveys, written comment periods, and discussions coordinated by the NBAC. All comments will be logged and reviewed by the project team. Where feasible, input will be incorporated into cleanup coordination, communication of health and safety measures, and sequencing of on-site activities. Feedback and responses will be shared publicly to ensure transparency and accountability throughout cleanup.

3.a. Proposed Cleanup Plan (10 points) – To prepare for redevelopment, Option 2 in the Analysis of Brownfield Cleanup Alternatives (ABCA) is the only viable option for the County to allow for the redevelopment of Buildings 1 – 3 of the former prison. Buildings 1 -3 are anticipated to remain onsite to preserve the historic nature of the structure. Building 4 of the former prison is anticipated to be demolished under Option 3 in the ABCA due to structural instability.

The \$4,000,000 cost estimate (with a full detailed cost estimate provided in the attached ABCA) includes reinforcement of dilapidated structures and foundations that are impeding complete site characterization, abatement of asbestos containing material (ACM), Lead Based Paint (LBP), PCB containing materials, and universal wastes. The County will need to conduct a Request for Proposals (RFP) to contract with qualified contractors and qualified environmental professionals (QEP) perform these tasks. During abatement and any necessary demolition, third party air quality monitoring will be conducted to protect the abatement contractors and the public when removing RBMs. Appropriate permits (e.g., notify before you dig, soil transport/disposal manifests, demolition) will be obtained prior to the work commencing. Federal and State National Emissions Standards for Hazardous Air Pollutant regulations require that notification of any proposed demolition activity that would disturb ACM be provided to the appropriate regulatory agency. The disturbance of lead-containing painted surfaces will be performed in accordance with U.S. EPA-Lead Renovation, Repair and Painting Program (40 CFR 745.80, Subpart E), and addressed in accordance with OSHA Construction Standard for Lead (29 CFR 1926.62).

3.

Task	3b. Project Information (EPA funded)	3b. Project Information (Non-EPA Funded)	3c. Anticipated Project Schedule	3d. Task/Activity Lead	3e. Outputs
TASK 1: Project Management/Reporting		Grant Work Plan	Pre-award	Applicant	Executed Cooperative Agreement, grant management oversight, contract with an EP, 1EPA kickoff meeting, 12 quarterly reports, annual DBE reports, closeout documents
	Grant Management		Continuous	Applicant	
		Issue RFP to retain Env. Professional (EP)	30 days after award	Applicant	
		Select EP through competitive process	60 days after award	Applicant	
	Prepare EPA Progress Reports		60 days after award	Applicant & QEP	
	Travel to Brownfield Conference		Year 1	Applicant	
	Kickoff Mtg with EPA and NBAC		60 days after award	Applicant & QEP	
	Final Closeout		60 days after award	Applicant & QEP	
Task 2: Community Involvement	Prepare Community Involvement	Prepare Community Involvement	30 days after award	Applicant & QEP	1 CIP, 3 community meetings, 1 final ABCA, 1 public repository
	Establish public document repository	Establish public document repository	90 days after award	Applicant & QEP	
	Community Meetings		Q1, 4, and 5	Applicant & QEP	
	Finalize ABCA		90 days after award	Applicant & QEP	
Task 3 Cleanup Planning	PADEP VCP Mtg. and VCP Enrollment		Q1	EP	1 QAPP, 1 QAM, 1 bid spec, 1 remediation contractor, VCP acceptance.
	Master QAPP & QAM		Q1	EP	
	Prepare bid specs for remediation contractor		Q2	EP	
	Remediation Contractor Selection		Q3	Applicant	

	Pre-cleanup planning with remediation contractor.		Q4	Applicant and EP	
Task 4 Cleanup Activities	Select abatement via demolition		Q5	Subcontractor	Removal of contaminants, lab reports, institutional controls record, cleanup report
	Structural Stabilization		Q6	Subcontractor	
	Abatement activities		Q7	Subcontractor	
	Cleanup report Preparation		Q9	QEP & Subcontractor	
	Institutional Controls/Covenant in place		Q4	QEP & Subcontractor	

3.f. Cost Estimates (15 points)

Task 1: Project Management: Cost Breakdown (\$190,485): Personnel and Fringe includes 843 hours at an average personnel rate of \$81.98 and fringe rate of 38.05% (total \$69,105 personnel/\$26,294 fringe). Travel: includes attendance at a national and regional conferences for two ppl. Two trips of 2 ppl x \$600 airfare (\$1200) + lodging a \$200/night x 2 ppl x 3 nights (\$1200) + 1 rental car at \$100 per day x 4 days (\$400), per diem of \$65 per day x 2 ppl x 4 days (\$520) + hotel parking at \$50 per day x 3 days x 1 car (\$150). Each trip totals \$3,470 x 2 trips. Supplies: include a camera drone for documenting progress (\$1,200), security cameras \$500 x 2 (\$1,000) and a professional digital camera for further documentation of the process (\$1,500) for a total of \$4,700. Contractual: estimated 425 hours of consultant support at an average rate of \$175/hr for \$74,375. Indirect costs 5% x total direct = \$9,071.

Budget Categories	Task 1: Project Mgmt.	Task 2: Community Involvement	Task 3: Cleanup Planning	Task 4: Cleanup Activities	Total
Personnel	\$69,105	\$27,642	\$138,210	\$41,463	\$276,420
Fringe Benefits	\$26,294	\$10,518	\$52,589	\$15,777	\$105,178
Travel	\$6,940	\$3,170	\$0	\$0	\$10,110
Supplies	\$4,700	\$5,000	\$0	\$0	\$9,700
Contractual	\$74,375	\$28,000	\$180,500	\$117,866	\$400,741
Construction	\$0	\$0	\$0	\$3,007,375	\$3,007,375
Other	\$0	\$0	\$0	\$0	\$0
Total Direct Costs	\$181,414	\$74,330	\$371,299	\$3,182,481	\$3,809,524
Indirect Costs	\$9,071	\$3,716	\$18,565	\$159,124	\$190,476
Total Budget	\$190,485	\$78,046	\$389,864	\$3,341,605	\$4,000,000

Task 2: Community Involvement (\$78,046): Personnel and Fringe: for 337 hours at an average rate of \$81.98 plus 38.05% fringe (\$27,642 personnel/\$10,518 fringe) to support CIP development, BF webpage, outreach materials, social media posts, and four community/educational meetings. Travel: Two staff to present at the national historic preservation conference on historic building cleanup—airfare (\$1,200), lodging (\$1,200), rental car (\$400), per diem (\$520), and parking (\$150). Supplies: Printing for 3,500 b&w at \$0.35; 1,500 color at \$0.75, 12 large-format posters, and one weather-resistant site sign (\$4,990 total). Contractual: BF webpage, outreach materials, and public meeting support (160 hours at \$175/hr; \$28,000). Indirect: 5% of total direct costs (\$3,716).

Task 3 Cleanup Planning (\$389,864): Personnel and fringe for 1,667 hours at an average rate of \$81.98 plus 38.05% fringe (\$138,210 personnel/\$52,589 fringe) to support project design review, meetings, consultant/contractor oversight, deliverable review, cross-cutting requirements, and an in-house traffic study (avoiding contractual costs). Contractual: Finalize ABCA (\$7,000; 40 hrs @ avg. \$175/hr); Abatement Specification (\$25,000; Project Designer, Senior and Staff Industrial Hygienists); x1 master QAPP (\$7,500; 43.86 hrs @ \$175/hr); fiscal impact analysis (\$56,000; Senior and Staff Economists); market study (\$40,000; Principal, Senior, and Environmental Planners); and site reuse visioning charrette and outputs (\$45,000; Principal, Senior, and Environmental Planners). Indirect: 5% of total direct costs (\$18,565).

Task 4 Cleanup (\$3,341,065): Personnel and fringe: 505.83 hrs at an avg \$81.97/hr (\$41,463 personnel/ \$15,777 fringe) for cleanup implementation activities including coordinating site access and contractors, daily documentation, photo logs, and invoice and pay application review. Contractual: \$117,866 total for Construction management (\$74,996: Senior Project Manager: 150 hrs x \$200/hr = \$30,000; Construction Manager: 300 hrs x \$149.99/hr = \$44,996); construction oversight/compliance (\$42,869: Industrial Hygienist: 180 hrs x \$175/hr = \$31,500; environmental compliance, reporting, and documentation \$11,369 [103.35hr x \$110/hr). Construction: \$3,007,375 for, selective stabilization, lead and asbestos

abatement and disposal, limited demolition and debris handling, waste transportation and disposal, clearance support, contractor mobilization, bonding, and project closeout. All construction costs are associated solely with eligible cleanup activities and do not include redevelopment or reuse construction. Indirect: 5% x total direct = \$159,124.

3.g. Plan to Measure and Evaluate Environmental Progress and Results (5 points) – The County’s project team, working closely with the QEP and cleanup contractor, will conduct biweekly meetings to ensure tasks are completed within the work scope, and to provide updated budgets, timelines, and outstanding task lists, all accessible to the team for live project status tracking. Quarterly reports to the EPA will include budget and timeline updates, and progress within the project schedule. Any discrepancies will be addressed by the project manager and QEP promptly to keep the project on time and within budget. The selected cleanup methods will include Building Demolition, ACM and LBP Abatement, and Debris Removal with Offsite Disposal (ABCA Alternatives #2 and #3), will include necessary air, water, and noise monitoring during and following cleanup. During the cleanup, the team will track metrics, including the property area remediated, tonnage of contaminated materials removed, active staff count, created jobs, public interactions and feedback, outstanding invoices, and current costs. These data will support EPA reports and biannual community updates. Following cleanup and any remaining assessment, the County will ready the property for redevelopment, gathering additional public input and pursuing workforce and economic development grants to fund the reuse. In coordination with the voluntary PADEQ Brownfield Agreement, all covenants and land restrictions will be honored in future development. Any monitoring wells or systems that remain will be checked annually by a QEP to ensure continued compliance and safety.

4.a. Organizational Structure (5 points) – The County has established administrative, technical, and financial systems to successfully manage all components of the EPA Cleanup Grant, as demonstrated by successful administration of similar brownfields and redevelopment projects. The Montgomery County Planning Commission will serve as the lead agency and will be responsible for grant administration, regulatory compliance, financial management, and coordination with EPA.

Overall program oversight will be provided by a designated Program Director, with day-to-day project administration managed by a Project Manager within the Planning Commission. As described in Section 4.b, the Program Director and Project Manager have extensive experience managing public planning projects, including workplan development, contractor oversight, reporting, financial coordination, and compliance with government requirements. Following award, the County will competitively procure a Qualified Environmental Professional (QEP) to provide technical oversight of cleanup planning and implementation. The County will also competitively procure a licensed abatement contractor to perform cleanup activities in accordance with approved plans under the technical oversight of the QEP and the contractual oversight of The County.

4.b. Description of Key Staff (5 points) – Program Director: Patti Guttenplan, RLA, AICP, Deputy Director of the Montgomery County Planning Commission, will provide executive oversight of the Cleanup Grant and ensure project activities align with County planning objectives. Ms. Guttenplan is a Registered Landscape Architect and has over 40 years of experience in planning, design, and redevelopment work in Montgomery County and the region where she oversees planning, design, and implementation of complex initiatives and brings strategic leadership to multi-disciplinary project teams. Project Manager: David Greenberg, Senior County Planner with the Montgomery County Planning Commission, will manage day-to-day implementation of the approved workplan. Responsibilities include maintaining the project schedule, overseeing contractor performance, reviewing technical deliverables, and coordinating with EPA for reporting and grant compliance. Qualified Environmental Professional (QEP): The County will procure a QEP with demonstrated experience in brownfields cleanup, hazardous building material abatement, regulatory compliance, and quality assurance. The QEP will prepare and implement the QAPP and HASP and air monitoring plans, coordinate with regulatory agencies, and oversee cleanup activities to ensure compliance with EPA and state standards. Licensed Abatement Contractor: The County will competitively procure a licensed abatement contractor to perform cleanup activities, including removal of regulated building materials, containment and air monitoring support, waste handling, and regulated disposal. The contractor will provide trained personnel and proper equipment, and comply with all health and safety requirements, and report to the County under the technical direction of the QEP.

4.c. Acquiring Additional Resources (5 points) – The Montgomery County Planning Commission has established systems to acquire additional technical and financial resources necessary to complete the Cleanup Grant. Environmental consultants and contractors, including the QEP and licensed abatement contractor, will be procured in accordance with federal procurement requirements and Montgomery County’s adopted procurement policies and retained on a project-specific basis.

4.d.i. Currently Has or Previously Received an EPA Brownfields Grant: 4.b.i.(1) Accomplishments & 4.b.i.(2) Compliance with Grant Requirements:

BF Grant Type	Year	Amount	Accomplishments	Compliance
Community Wide Assessment	FY99	\$310,000	Identified 700 potential properties and targeted 70 under the pilot grant. A total of 3 pilot program funding assessments and 3 other funded assessments were completed. Additional extensive outreach & education about the new law & liability concerns were presented to the public.	All quarterly, annual reporting on time; ACRES complete. There were no corrective actions or issues found during the life of the grant.
Revolving Loan Fund	FY02	\$1,000,000	Successfully completed environmental cleanup of a 1.14-acre brownfield site using \$847,000 in EPA Revolving Loan Fund financing, which catalyzed \$4.698 million in leveraged non-EPA investment and resulted in \$5.545 million in total project funding, supporting site readiness for redevelopment and demonstrating effective use of limited public funds to attract substantial private capital.	This pilot RLF grant was awarded on 9/1/2002, which transitioned to BF97302801, with a new project period of 7/1/2004 to 7/1/2008. After closeout annual reporting followed required COA. Post closeout funds are under number XXX and the updated COA. Annual reporting continues as required.

DRAFT ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES (ABCA)

Former Airy Street Prison

Prepared for:

Montgomery County Planning Commission
P.O. Box 311
Norristown, PA 19404-0311



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1.0 INTRODUCTION AND BACKGROUND

This draft Analysis of Brownfield Cleanup Alternatives (ABCA) has been prepared by Montrose Environmental Solutions, Inc. (Montrose) on behalf of the Montgomery County Planning Commission (County) for the former Airy Street Prison (Site or Subject Property), located at 35 East Airy Street, Montgomery County, Norristown, Pennsylvania, 19401. The Prison is located between a public parking lot and St. John's Episcopal Church two blocks northeast of West Main Street in downtown Norristown. A map depicting the general location of the Site is attached as **Figure 1** and details of the individual Site are shown on **Figures 2**.

This draft ABCA was prepared to meet the requirements for submittal by Montgomery County to the United States Environmental Protection Agency (USEPA) for a cleanup grant application. The contaminants to be abated are for asbestos and lead paint abatement by either physical removal and/or demolition of structures to prepare for future Site reuse. The goal of the project is to abate or control regulated building materials at the Site prior to renovation or demolition to preclude these materials from becoming airborne and creating an environmental risk to demolition workers and the public.

The Former Airy Street Prison Site is developed with a 3-story former prison, totaling an approximately 15,700 square-foot footprint, and was constructed on the subject property in 1851. The former prison sits on a 1.203-acre lot and is composed four connected structures, "the castle" and three additions containing cell blocks. The Site also contains the former recreation yard and a 20-foot-tall stone wall that surrounds the site. The buildings are in various states of disrepair. The remainder of the former prison (i.e. to the north of the prison building) consists of an inactive, asphalt-paved parking lot, which is also in poor condition.

When it was constructed in 1851, the Airy Street Prison originally occupied only the southern section of parcel 13-00-00244-00-4, while the Norristown hosiery factory, a coal shed, and outbuildings were located on the northern portion of the parcel. The Norristown hosiery factory was demolished following a fire in the early 1900s. The prison was expanded multiple times, including in the 1890s when it was modified to a two-tiered cell building, in the 1920s after the demolition of the former Norristown hosiery factory, and in the 1940s when the existing footprint was modified to a three-tier cell building. The prison ceased operations in 1986 and has been vacant and secured against entry since its closure.

Montgomery County is the current legal owner of the Property. Current zoning of the Property is identified as Commercial. Electrical and natural gas utilities are provided by PECO, potable water is provided by Audubon Water, and wastewater/sewer services are provided by Norristown Sewer Authority.

Three cleanup alternatives are evaluated based on their anticipated 1) effectiveness, 2) implementability, and 3) cost.

1.1 SITE ASSESSMENT HISTORY

1.1.1 2020 Gannett Fleming Inc. Inspection

On February 3, 2020, Gannett Fleming Inc. (GF) made a site visit to perform an inspection of the Montgomery County Prison during which the interior and exterior of the prison buildings and surrounding walls were visually inspected. During the inspection, four phases of the building were assessed to ascertain the condition of the structure (see image below).



GF identified the following issues in the prison during the February 3, 2020 inspection:

- Phase 1 Section: advanced decomposition of the wood framing in the upper levels, areas in the central portion had collapsing and very suspect floors, noticeable signs of water infiltration, cracking throughout the exterior façade, and two trees growing out of the side wall
- Phase 2 Section: timber roof visible from exterior, large portions of the roof missing roofing material, holes in roof, and interior timber is deteriorated to the point of imminent collapse
- Phase 3 Section: minor cracking and mortar loss at some locations along the exterior walls, minor water infiltration, minor surface corrosion on steel, and visible cracking in brick chimney
- Phase 4 Section: roof has collapsed on two-thirds of this area, second-floor framing has collapsed, and entire phase deemed unsafe to be in

1.1.2 2021 Gannett Flemming Inc. Hazardous Materials Inspection

GF was again retained to conduct a limited hazardous materials assessment at the former Airy Street Prison that was performed on June 1, 2, and 25, 2021. Paint chip samples were collected and tested for lead, and suspected asbestos-containing materials samples were analyzed.

The following conditions were identified:

- Asbestos Containing Materials (ACMs) – An Asbestos Survey Report, completed indicated Asbestos Containing Material (ACM) (>1% asbestos) was identified. ACMs include block pipe insulation, corrugated pipe insulation, pipe fittings, floor tile, compressed paper pipe insulation, roofing material, roof deck vapor barrier, window caulk, and black mastic.
- Lead-Based Paint (LBP) - Paint containing equal or greater than 0.5% lead by weight were identified. Several instances of LBP were found on the doors, electric panel, pipes, door locks, and walls.
- PCBs, Mercury, Petroleum, & Hazardous Materials– Aged fluorescent light tubes and ballasts were visible throughout the structure. Fluorescent lights are considered a hazardous waste due to their mercury content; aged ballasts are hazardous waste due to their potential to contain polychlorinated biphenyls (PCBs). The handling and disposal of these fluorescent light components should be considered.

1.1.3 2023 Colliers Engineering & Design, Inc. Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was conducted by Colliers Engineering & Design, Inc. (CED) for six parcels in 2023 and included the Former Airy Street Prison at 35 East Airy Street as well as the neighboring municipal parking lot at 45 East Airy Street. The field work was conducted on October 26 & 27, 2023.

A Recognized Environmental Condition (“REC”), as defined in the ASTM Standard, is an environmental condition where the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or a material threat of a future release to the environment.

CED identified the following RECs in connection with 35 and 45 East Airy Street:

- **REC 1 Adjacent Properties:** Several dry-cleaning establishments have previously been located less than 250 feet southeast (all down gradient). Spill recordings were not identified for this property. However, the historic dry-cleaning operations are considered a REC since there is the potential that the operations could have impacted the subject property. An undertaker/funeral home establishment previously operated within 250 feet (north, down gradient) from the subject property.
- **REC 2 Historic Structures:** Review of historical aerial photographs and topographic maps identified several former structures that were built between 1880's to 1990's on the subject property. The buildings that existed within the subject property included: Hosiery manufacturer building, shirt manufacturer, Fellman Nelson M printer, YMCA, Borough Market and several smaller structures. Former structures are considered a REC, as the potential exists for foundations, fill material and hazardous materials, including but not limited to underground storage tanks (USTs) and former septic systems in these areas.

Of the RECs identified above, CED recommended that the hazardous materials identified in the Former Airy Street Prison be removed and properly recycled or disposed prior to renovation or demolition activities that could result in human exposure.

1.1.4 2026 Montrose Environmental Solutions, Inc. Hazardous Materials Inspection

Montrose Environmental Solutions, Inc. (Montrose) conducted an additional hazardous materials inspection in January 2026 to characterize materials that were not sampled during the 2020 GF inspection. In order to support planned renovations or demolition that will impact any of these materials are handled appropriately, additional ACM sampling was conducted on the roof and exterior wall façade and an LBP screening was conducted on the exterior surfaces of the building. The LBP inspection included a visual assessment of all painted surfaces within the Site as well as screening using x-ray fluorescence (XRF) technology.

The following conditions were identified:

- **Asbestos Containing Materials (ACMs)** – An Asbestos Survey Report, completed indicated Asbestos Containing Material (ACM) (>1% asbestos) was identified. ACMs include block pipe insulation, corrugated pipe insulation, pipe fittings, floor tile, compressed paper pipe insulation, roofing material, roof deck vapor barrier, window caulk, and black mastic.
- **Lead-Based Paint (LBP)** - Paint containing equal or greater than 0.5% lead by weight were identified. Several instances of LBP were found on the doors, electric panel, pipes, door locks, and walls.

2.0 PROJECT GOAL AND RE-USE PLAN

The Former Airy Street Prison is included in a larger planned redevelopment that includes the neighboring property and will consist of mixed-use commercial and residential spaces as well as a parking garage. The Former Airy Street Prison is historic and is of significant interest to historic preservation-focused stakeholder groups in the area, as such, the planned reuse of the Former Airy Street Prison rehabilitate the existing structures where possible.

3.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

3.1 CLEANUP OVERSIGHT RESPONSIBILITY

Montgomery County, the current owner of the Site, is responsible for any environmental cleanup, including that which is related to buildings at the Site in accordance with applicable laws and regulations.

The cleanup will be overseen by the Pennsylvania Department of Environmental Protection (PADEP) Bureau of Air Quality. A licensed asbestos abatement contractor is needed to conduct the removal of all ACMs and suspect ACMs that would be disturbed by future planned renovation, construction, or demolition activities.

3.2 LAWS AND REGULATIONS APPLICABLE TO THE CLEANUP

The following are applicable laws and regulations for ACMs, lead, polychlorinated biphenyls (PCBs), and other hazardous materials.

3.2.1 *Asbestos Laws and Regulations*

Asbestos is regulated by the USEPA National Emission Standard for Hazardous Air Pollutants (NESHAP), the Toxic Substances Control Act (TSCA), and the Clean Air Act (CAA), and Title 25, Part 1, Chapter 296, the Pennsylvania's Asbestos Occupations Accreditation and Certification Act (AOACA).

29 CFR 1926.1101, the Occupational Safety and Health Administration (OSHA) Asbestos standard for the construction industry, regulates workplace exposure to asbestos. The OSHA standard classifies construction and maintenance activities which could disturb ACM and specifies work practices and precautions employers must follow when engaging in each class of regulated work. The OSHA standard also requires employee exposure to airborne asbestos fibers be maintained below the Permissible Exposure Limit (PEL) of 0.1 asbestos fibers per cubic centimeter (f/cc) of air as an 8-hour Time Weighted Average (TWA).

The Pennsylvania Asbestos Occupations Accreditation and Certification Act (AOACA), implemented through 25 Pa. Code Chapter 263, regulates all individuals and firms involved in asbestos inspections, project design, management planning, and abatement by requiring state-issued training, accreditation, and certification for workers, supervisors, inspectors, management planners, project designers, and contractor firms. The Act also requires contractors to submit state notifications before performing friable asbestos removal and to ensure that only certified personnel conduct regulated work. While AOACA establishes the credentialing and notification framework, contractors must additionally comply with DEP and federal NESHAP rules governing environmental protections—such as project notifications for larger abatement/demolition work, proper containment, emissions-control practices, and air-monitoring or clearance testing where required—ensuring asbestos activities are performed safely and in alignment with state and federal standards.

3.2.2 *Lead Laws and Regulations*

The United States Department of Housing and Urban Development (HUD) promulgates the rules for evaluating and controlling lead-based paint hazards commonly referred to as Title X (ten). Although HUD Title X specifically focuses on residential housing and child-occupied facilities, the evaluation framework promulgated by HUD for lead paint evaluation is the generally accepted guideline for performing paint surveys/inspections.

Further, to protect construction workers, lead-related work must be performed in accordance with US OSHA lead regulations as promulgated in 29 CFR, Sections 1926.62.

3.2.3 *PCBs and Other Hazardous Materials*

USEPA regulations specify requirements for managing the following hazardous materials: PCBs, batteries, pesticides, mercury-containing equipment, lamps, household hazardous waste, and conditionally exempt small quantity generator waste. In addition to the USEPA universal waste regulations, the following Federal regulations may also include, but are not limited to the following:

- Applicable Federal OSHA regulations.
- Title 40, Code of Federal Regulations, Part 61 Subpart M – NESHAP.
- Title 40, Code of Federal Regulations, Part 260 – Hazardous Waste Management System.
- Title 40, Code of Federal Regulations, Part 261 - Identification and Listing of Hazardous Waste.
- Title 40, Code of Federal Regulations, Part 262 - Standards Applicable to Generators of Hazardous Waste.
- Title 40, Code of Federal Regulations, Part 264 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
- Title 40, Code of Federal Regulations, Part 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
- Title 40, Code of Federal Regulations, Part 273 -Standards for Universal Waste Management.
- Title 40, Code of Federal Regulations, Part 268 - Land Disposal Restrictions.
- Title 40, Code of Federal Regulations, Part 761 - Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.
- Title 49, Code of Federal Regulations, Parts 100-199 - Transportation of Hazardous Materials.

4.0 **EVALUATION OF CLEANUP ALTERNATIVES**

4.1 **GENERAL CLEANUP CONSIDERATIONS**

Following is a discussion of some key redevelopment, site attributes, and other considerations relevant to selection and evaluation of cleanup alternatives for the Site.

1. To align with Montgomery County Planning Commission’s (MCPC) planning efforts, three cleanup alternatives were considered for each of the four phases of construction associated with the historic prison.
2. The results of the 2021 and 2026 Hazardous Materials Surveys were used in the development of cleanup alternatives.
3. The MCPC has been planning for future uses of the Site for mixed-use commercial and/or residential redevelopment. Alternatives will be evaluated on their impact to facilitate the proposed redevelopment.

4.2 CLEANUP ALTERNATIVES CONSIDERED

Based on the general cleanup considerations presented in Section 4.1, the following three remedial alternatives were considered for each of the four phases of construction associated with the historic prison.

- Alternative 1: No Action.
- Alternative 2: ACM Abatement and Hazardous Materials Disposal Prior to Future Renovation.
- Alternative 3: ACM Removal and Disposal and Hazardous Materials Disposal Prior to Building Demolition.

4.2.1 *Alternative 1 – No Action*

The “no action” scenario is required by the USEPA ABCA process. No action (e.g., not removing the ACMs on the Site) is the baseline against which all other alternatives will be measured.

4.2.2 *Alternative 2 – ACM Abatement and Hazardous Materials Disposal Prior to Future Renovation.*

Alternative 2 considers traditional removal/abatement of ACMs using standard industry practices prior to demolition. If required by a structural engineer, Alternative 2 would include structural supporting of existing structures and building strengthening to allow for abatement workers to enter safely.

Asbestos removal/abatement must be performed by appropriately licensed abatement contractor with a written notification of planned removal activities at least 10 days prior to the commencement of asbestos removal/abatement activities.

Regulated areas would be established prior to the removal of ACMs, utilizing a variety of controls such as polyethylene sheeting to establish primary and secondary barriers, negative pressure systems/containments, and/or other applicable measures to prevent asbestos fiber migration beyond the regulated area(s). Abatement procedures require that ACMs be adequately wetted to control potential spreading of damaged or friable asbestos and airborne particulates. The work would also require decontamination facilities for both abatement workers and for equipment/materials. To aid in the remedial efforts, debris, particulates, and other residual materials would be vacuumed with a high efficiency particulate air (HEPA) unit.

Waste would be containerized in air and leak tight containers to contain ACM in manageable quantities and would be kept adequately wet until final disposal. Waste would be labeled with appropriate OSHA warning labels, Class 9 labels and generator information and disposed in a landfill permitted to accept regulated asbestos-containing material (RACM) waste. Landfill disposal authorizations would be confirmed before starting the project.

Any disturbance of asbestos would include air monitoring and project monitoring by Asbestos Hazard Emergency Response Act (AHERA)-certified individuals to ensure appropriate work methods are being adhered to. Final clearance would be provided following a visual inspection of the work area followed by receipt of acceptable phase contrast microscopy (PCM) air sampling in accordance with National Institute for Occupational Safety and Health (NIOSH) 7400 methodology.

Hazardous Materials Disposal: In conjunction with ACM abatement, all identified hazardous materials would be characterized, containerized, and managed for off-site disposal at appropriately permitted treatment, storage, or disposal facilities. Hazardous materials include all regulated wastes such as lead-based paint debris, mercury-containing components, fluorescent lamp ballasts, PCBs, and other PADEP/ EPA-regulated materials. Disposal actions would be conducted in accordance with PADEP Act 2 risk-based cleanup requirements and applicable federal and state hazardous waste regulations (e.g.,

RCRA), ensuring that hazardous materials are transported under manifest to licensed facilities and disposed in compliance with regulatory standards. These measures would reduce potential exposure risks to workers and future occupants and support safe, compliant future reuse of the property.

4.2.3 *Alternative 3 – ACM Removal and Disposal and Hazardous Materials Disposal Prior to Building Demolition*

Alternative 3 consists of demolition with removal of all debris as regulated asbestos waste and hazardous materials from those buildings that have been condemned. Alternative 3 differs from Alternative 2 in that the structure would be demolished as abatement and the entire waste stream disposed of as asbestos. In accordance with the asbestos NESHAP, demolition, handling, loading and transportation will require materials to be adequately wet and contained. For this alternative, all structure debris will be treated as RACM and must be handled and disposed of according to all Federal, State, and Local regulations.

This alternative assumes the condemned Site structures are unsafe to the extent that the abatement contractor could not safely implement Alternative 2. This approach, if approved by the regulatory agencies, has the positive aspect of accelerating the period of abatement, demolition, and disposal.

This approach increases the volume of material that must be handled as ACM, which would take greater volume from existing capacity of regional landfills. This option also creates a waste generation stream and associated liabilities for the generator.

4.3 EFFECTIVENESS, IMPLEMENTABILITY, AND COSTS FOR CLEANUP ALTERNATIVES

To assist in the evaluation and recommendation of a preferred remedial alternative for the Site, this section presents an evaluation of the effectiveness, implementability, and Opinions of Probable Cost estimates for each remedial alternative.

4.3.1 *Effectiveness*

Effectiveness has both short-term and long-term components. The short-term effectiveness of a remedial alternative is evaluated relative to its effect on human health and the environment during the implementation of the remedial action. Potential risks to community, potential impacts on workers, the effectiveness and reliability of protective measures, potential environmental impact of the remedial action, and the effectiveness/reliability of the mitigation measures during implementation, etc. are some of the factors frequently considered. Long-term effectiveness and permanence of a remedial alternative are evaluated with respect to the following factors: magnitude of residual risk to human health and environment from the untreated or residual waste at the completion of remedial activities; an assessment of type, degree, and adequacy of long-term management (engineering controls, monitoring, maintenance, etc.) required for untreated or residual waste; an assessment of the long-term reliability of long-term management to provide continued protection from the untreated/residual waste; and the potential need for replacement of the remedy and continuing need for repairs to maintain the performance of the remedy.

4.3.1.1 *Alternative 1 – No Action*

This alternative would be ineffective and unacceptable for continued brownfield redevelopment for the Site for the following reasons:

- It is likely to be considered unacceptable to the community because residents, visitors, nearby

workers and construction workers could unknowingly be placed at risk in the future. No action provides neither a remedy nor elimination of the exposure for projection of public health.

- This approach does not provide mitigation of known human carcinogens to potential human receptors (adult and child).
- The continued presence of ACM in the Site buildings would continue to pose a long-term health risk to the public and to workers entering or working around the building.
- The dilapidated nature of the Former Airy Street Prison would continue to pose a threat to the surrounding community.
- This alternative would not meet the project goal and re-use plan.

4.3.1.2 *Alternative 2 – ACM Abatement and Hazardous Materials Disposal Prior to Future Renovation.*

Abatement of ACM and hazardous materials disposal would be effective in Phases 1, 2, and 3 of the former prison. Abatement would be moderately difficult to implement and requires proper preparation of the work area. Removal includes implementation of ECs to control/contain concentrations of contaminants by modifying the source and/or reducing the quantity of contaminants released into the work environment. ECs include contaminant barriers and decontamination processes and potentially using wet removal techniques, encapsulation/enclosure techniques, and HEPA-equipped vacuum cleaners where site conditions warrant.

Prior to cleanup activities, a comprehensive structural survey will need to be completed to assess the structural integrity of each of the buildings. The survey will identify any deficiencies that could impact the safe execution of abatement work and will determine whether temporary or permanent structural reinforcement or bracing is necessary prior to or during cleanup activities.

The cleanup would begin with removal and disposal of the suspect debris material that is located throughout the entirety the building and confirmed to contain asbestos. After the building is cleared of the debris, the building materials that were identified to contain asbestos or Other Hazardous Materials will be removed and disposed of.

The initial removal of ACMs and Other Hazardous Materials will provide access to building materials and areas of the building that were not previously accessible. Therefore, follow up sampling and remediation will need to occur.

4.3.1.3 Alternative 3 – ACM Removal and Disposal and Hazardous Materials Disposal Prior to Building Demolition

The ACMs are permanently removed prior to building demolition. This approach is technically effective as a definitive and direct physical elimination of the contaminants available to public exposures. Follow-up inspections and maintenance would not be required. Removal of all ACMs reduces the potential for environmental contamination.

4.3.2 Implementability

Implementability refers to the technical and administrative feasibility of implementing an alternative, and the various materials and services required during its implementation. Examples of such factors for implementation of an alternative include the following: ability to construct, operate and monitor; time required to obtain necessary permits and approval; availability of equipment, material, contractor, etc. The implementability of the three remedial alternatives is evaluated below.

4.3.2.1 Alternative 1 – No Action

This alternative is implementable as it requires no action. However, the ACM would still pose a hazard to those entering the buildings and asbestos fibers could continue to be released to ambient air and the Site buildings would be expected to degrade further providing ongoing physical exposure concerns to nearby residents, workers, and visitors.

4.3.2.2 Alternative 2 – ACM Abatement and Hazardous Materials Disposal Prior to Future Renovation.

This alternative allows ACMs to be removed by a licensed abatement contractor, following the implementation of structural reinforcement or bracing as required based on the results of a comprehensive structural survey. Following completion of cleanup activities under Alternative 2, the former prison structure will be safe for the community and construction activities under the chosen redevelopment strategy.

4.3.2.3 Alternative 3 – ACM Removal and Disposal and Hazardous Materials Disposal Prior to Building Demolition

The ACM and hazardous materials removal activities under this Alternative would be performed as described in Alternative #2. LBP removal would not apply if the building were to be demolished. Soil would be tested for contaminants of potential concern typical to historic fill (metals, PCB, and polycyclic aromatic hydrocarbons) following demolition, to evaluate and, if needed, eliminate human exposure during redevelopment activities or after. The fluorescent light bulbs and ballast and other items containing potentially hazardous materials are relatively easy to remove and dispose prior to demolition.

4.3.3 Opinions of Probable Cost

Opinions of Probable Cost estimates presented in this section are based on: a) quotes obtained from qualified contractors and vendors; b) unit costs for mobilization, personnel, equipment, demolition, and hauling; and c) Qualified Environmental Professional (QEP) oversight, laboratory analytical and reporting related costs estimated by Montrose based on previous project experience.

4.3.3.1 Alternative 1 – No Action

There is no direct cost for this alternative. However, it is likely that Site security will be needed to keep unauthorized personnel from accessing the Site structures. Additionally, it is possible weather could degrade the buildings and create a release of asbestos contamination to nearby properties and reduce property value and increase cleanup costs. The buildings would continue to deteriorate and potentially collapse.

4.3.3.2 Alternative 2 – ACM Abatement and Hazardous Materials Disposal Prior to Future Renovation.

An Order of Magnitude Estimate of Probably Construction Costs was prepared for Montgomery County in March 2020 and updated September 2023. The estimated cost of implementing Alternative #2 is \$3,199,700. This estimate includes removal of hazardous materials costs (\$1,185,800) and building enclosure repair and strengthening (\$2,013,900). These costs reflect the structural strengthening and abatement of the entirety of the Former Prison structure, including Building Phases 1 – 4. The estimated cost of abatement per Building Phase is \$799,925.

4.3.3.3 Alternative 3 – ACM Abatement Prior to Demolition or Future Renovation and Controlled Demolition of Condemned Buildings

An Order of Magnitude Estimate of Probably Construction Costs was prepared for Montgomery County in March 2020 and updated September 2023. The estimated cost of implementing Alternative #3 is \$2,430,400. This estimate includes removal of hazardous materials costs (\$1,185,800) and building demolition (\$1,244,600). These costs reflect the abatement and demolition of the entirety of the Former Prison structure, including Building Phases 1 – 4. The estimated cost of abatement per Building Phase is \$607,600.

4.4 RECOMMENDED REMEDIAL ACTION ALTERNATIVES

The evaluation of Alternative 1 (No Action) demonstrates that this alternative does not meet the remedial objectives of demolishing the Site for redevelopment. Based on the current conditions of existing structures, a combination of cleanup alternatives is recommended at the Former Prison Site as outlined in Table 1 below.

Table 1: Recommended Remedial Action Alternative at the Former Airy Street Prison based on Building Phase

Building Phase	Recommended Alternative	Description	Estimated Cost
Phase 1	Alternative 2	Abatement	\$ 799,925.00
Phase 2	Alternative 2	Abatement	\$ 799,925.00
Phase 3	Alternative 2	Abatement	\$ 799,925.00
Phase 4	Alternative 3	Demolition	\$ 607,600.00
Total			\$ 3,007,375.00

5.0 REFERENCES

Gannett Fleming, Inc., Former Montgomery County Prison, 35 Airy Street, Norristown, PA, Hazardous Materials Assessment, May 24, 2022.

Colliers Engineering & Design, Inc, Airy Street Prison, 34 and 45 E. Airy Street, Norristown, PA, Phase I Environmental Site Assessment, September 10, 2024.

Montrose Environmental Solutions, Inc., Former Montgomery County Prison, 35 Airy Street, Norristown, PA, Hazardous Materials Assessment, January 2026.

FIGURES

ATTACHMENTS
