



PRESERVATION MARYLAND

SUBJECT: RFP Addendum and Q&A

RFP: Rock Run Mill Architectural and Engineering Services

DATE ISSUED: January 9, 2024

DATE OF RFP RELEASE: December 18, 2023

REVISION

Revisions are indicated either by a ~~strike through~~ for deletions or underline for insertions.

Page 3, Section 4.7 Inquiries, Language Amendment

“...request for a written interpretation or correction must be received at least ~~fourteen (14)~~ seven (7) days prior to the proposal due date...”

Q&A

1. Does the referenced NPS grant comprise the entirety of the project budget? Or will there be additional sources of funding for this project?

The NPS Semiquincentennial Grant is the sole source of funding for the project and is intended to cover all project costs.

2. What is the budget for construction and does that include A/E fees?

The total funding amount anticipated for this phase of the mill’s restoration is roughly \$659,000. This is expected to cover all A/E costs as well as all construction costs.

3. Based on the RFP description, it appears that Preservation Maryland will manage the project with involvement from state/federal agencies (MPS, MHT, and NPS) at milestone submissions for review and input. Are the state and federal agencies expected to be involved in the management of the project beyond these milestone reviews?

MHT and NPS will not be involved in the management of the project beyond the milestone reviews. They will serve a regulatory role to ensure that work proposed and completed meets SOI and applicable State Standards.

The project is being executed in partnership with MPS, so staff will have a greater level of involvement. PM will serve as the main point of contact, contract signatory, and coordinator between the hired project professionals and government agencies. It is anticipated that MPS will be involved in the kick-off and status meetings, project documentation review, and site visits and will serve as final authority on decisions.

4. Please confirm that a civil engineering/landscape architecture consultant is not required.

Affirmative. A civil engineering/landscape architecture consultant is **not** required.

5. Please confirm that an MEP/FP engineering consultant is not required.

Affirmative. An MEP/FP engineering consultant is **not** required.

6. Please confirm cost-estimating services should be provided. If so, please indicate for which submissions that estimates should be provided?

Respondents may include in their proposed budget the anticipated expense for cost-estimating services for PM's consideration. Cost estimates for the construction scope of work are not expected at this time and, if included as part of the contracted services, will not be expected until the DD/CD stage.

7. Has a hazardous materials survey been completed at the building? If not, should these services be included? Or alternatively, is it preferred that these services be deferred to the general contractor during construction?

As best can be ascertained, a hazardous materials survey has not been completed. Respondents may include in their proposed budget the anticipated cost of completing a hazmat survey for PM's consideration.

8. Is there a current plan for the sitework which is intended to redirect water away from the building in a future phase? If not, is there any expectation that the selected A/E team will need to develop strategies for this goal to the extent that the listed alterations could be impacted by the future plan?

Plans for the sitework have not been developed and are conceptual at this time. With input and assistance from PM and MPS, the A/E team will be relied upon to develop strategies for the mill's protection vis-à-vis its existing surroundings but with the future anticipated mitigation efforts in mind.

9. Does the building currently meet accessibility requirements for public use? If not, should the architect be prepared to complete an accessibility survey as well as designing any necessary accessibility upgrades?

The building's first floor currently meets accessibility requirements for public use. No, the architect will not be expected to complete an accessibility survey.

10. Per the objective listed to "restore exterior to period of significance," has a period of significance been determined?

The NRHP listing does not specify a period of significance for the mill. It operated from approx. 1797-1954, seeing little modification during that time. The basic structural components, including stone walls, windows, window frames, principle-beam roof members, beams, and posts are original to 1797; however, the current Fitz waterwheel was installed ca. 1900. DNR anticipates referring to the 1933 [HABS photographic documentation](#) as a basis for the mill's restoration.

11. Per the objective listed to "restore exterior to period of significance," has sufficient archival research been completed to accomplish this task? Or should bidders include time in their budgets to complete any archival research (in addition to the referenced review of existing documentation)?

Respondents may include in their proposed budget anticipated costs for archival research for PM's consideration. Because some amount of archival research has already been conducted for the purpose of this scope of work, it is not anticipated that extensive research will be needed. The selected A/E team will be provided with assembled documentation that includes historic photographs, MIHP file, NRHP listing, written history, and structure/site descriptions.

12. Are there previously produced measured drawings for the building that can be provided to the selected bidder? If so, what file format were they produced in? If not, please indicate the extent of measured drawings desired.

Measured drawings were completed in 2006. A copy exists (and is attached) but is not legible. As such, newly completed measured drawings will be desired.

13. Are there existing reports describing the existing conditions of the structure?

There are no formal existing conditions reports. A summary prepared internally by DNR staff is attached.

14. The RFP requires Respondents to include a Project Budget as part of the proposal submission. Can PM provide more information on what is envisioned?

The project budget that is requested at this time as part of the proposal is for anticipated A/E costs for the completion of the scope of work listed in Section 3, with Respondents outlining cost per service/deliverable. Respondents may include anticipated costs for services identified above (i.e. hazmat survey, construction cost estimation, archival research) for PM's consideration. PM does not expect construction cost estimates as part of the proposal.



PRESERVATION MARYLAND

REQUEST FOR PROPOSALS

Rock Run Mill Architectural and Engineering Services

Preservation Maryland (PM), a nonprofit organization headquartered in Baltimore, Maryland, is soliciting competitive proposals from qualified firms for architectural and engineering services for restoration of Rock Run Mill, sited within Susquehanna State Park at 761 Stafford Road, Havre de Grace, MD 21078.

To be considered as eligible, Respondents must be legally licensed as applicable under pertinent laws in the State of Maryland; meet one or more of the Professional Qualification Standards—or their equivalent—as set forth by the Secretary of the Interior’s Standards and Guidelines; and have demonstrated experience in historic restoration.

Preservation Maryland requests that interested parties respond to the solicitation by **8:30 A.M. ET on Monday, January 22, 2023.**

1. CLIENT

Preservation Maryland is a statewide non-profit working to protect Maryland’s unique and irreplaceable heritage while creating a more equitable and sustainable future. The organization harnesses the power of historic places to revitalize and reinvest in communities, advocate, and build the historic trades workforce for the benefit of all Marylanders. To learn more, visit www.preservationmaryland.org.

2. PROJECT OVERVIEW

2.1 Background

Owned by the Maryland Park Service (MPS), a division of the Maryland Department of Natural Resources (DNR), Rock Run Mill is a contributing resource within the NRHP-listed Lower Deer Creek Valley Historic District. Built in 1798 along the banks of the Susquehanna River, the Rock Run grist mill in Susquehanna State Park is a surviving connection to when the wheat and flour trade provided a much-needed economic foundation for the new American republic. Constructed from recycled material from a mill built in 1736, Rock Run Mill is a relatively rare example of a fully intact industrial building from the early national period, with colonial- and revolutionary-era lineage. The Rock Run gristmill is an embodiment of the early American industries that would launch the former colonies to economic dominance in North America. It operated commercially until 1954 and continues to open for demonstrations on weekends throughout the summer.

Preservation Maryland is partnering with the Maryland Park Service to restore the historic mill, ensuring its survival as an educational resource for the American public and a connection to the nation’s earliest years. This project is being supported by a Historic Preservation Fund grant administered by the National Park Service, Department of the Interior, through the Semiquincentennial Grant Program commemorating the 250th anniversary of the founding of the United States.

2.2 Description

Serving as project manager on behalf of the Maryland Park Service, Preservation Maryland is seeking architectural and engineering services for restoration of the historic Rock Run Mill. Sited within Susquehanna State Park at 761 Stafford Road, Havre de Grace, MD, the property (parcel 0003; tax map 0037; MIHP HA-191) comprises a three-story coursed-stone structure, two-bay deep, three-bay wide on the west elevation, and four-bay on the east, with a gable roof and water wheel on the south elevation. The site sees frequent flooding from the Susquehanna River and runoff from Stafford Road that threaten the building’s structural integrity.

The goal of this project is to restore the historic mill and protect it against moisture infiltration until future sitework to redirect water away from the structure can take place, thereby ensuring continued public use for decades to come. As funding allows, the anticipated construction scope of work may include: repair/replace front and basement doors and frames, basement posts and beams, first-floor joists, and cedar shake roof; install gutter and down spouts on east elevation; restore attic siding and window sashes and frames; reconstruct historic chimney; and repoint forebay pipe supports and interior stonework.

Objectives include:

- Stabilize structural system
- Seal building envelope
- Restore exterior to period of significance

3. SERVICES AND SCOPE OF WORK

The precise scope of work is subject to feedback from the selected consultants and budget limitations. However, anticipated work to be undertaken by the consultants may include, but is not limited to, the following:

- Review of existing structure documentation
- Design services, including preparation of construction and bid documentation for the above defined construction scope of work
- Engaging with PM, MPS, MHT, and NPS for input and feedback at 50%, 75%, and 100% CD completion at minimum
- Construction administration
- Project inspection services including periodic progress reviews
- Review of contractor pay requests
- Review of contractor change order requests, as necessary

Work is expected to begin immediately upon Preservation Maryland's execution of the contract and conclude as expeditiously as possible, allowing for a construction completion date of no later than June 30, 2026 to adhere to the grant funding deadline. Work performed and recommended shall adhere to the Secretary of the Interior's Standards and local, state and federal laws and regulations.

4. INSTRUCTIONS TO RESPONDENTS

4.1 Where to Deliver Proposal

All proposals must be submitted as a single PDF attached to an email delivered to LHouston@presmd.org.

4.2 Proposal Due Date

Proposals are due by **8:30 A.M. E.T. on Monday, January 22, 2023.**

4.3 Preparation of Proposal

Respondents must submit the following:

- Qualifications
- Proposal
- Project budget
- Project schedule

Respondents shall submit one (1) digital copy of the proposal package as an attachment to an email and are encouraged to include as much pertinent data and information as necessary to ensure proper evaluation.

4.4 Subcontracts

Respondents must identify all portions of the work intended to be performed through subcontractors. Acceptance of the proposal does not constitute approval of the subcontractors identified in the proposal.

4.5 Minimum Qualifications

Respondents must demonstrate personnel assigned are legally licensed as applicable under pertinent laws in the State of Maryland; meet one or more of the Professional Qualification Standards—or their equivalent—as set forth by the Secretary of the Interior’s Standards and Guidelines; and have demonstrated experience in historic restoration.

4.6 Site Visit

To assist in proposal preparation, Respondents may choose to complete a walk-through of the structure with Preservation Maryland and the Maryland Park Service during a scheduled site visit taking place on **Thursday, January 11, 2024** between **10:00 A.M. – 12:00 P.M.** The grounds are otherwise accessible independently at Respondents’ convenience. Please email Laura Houston at LHouston@presmd.org by **Tuesday, January 9, 2024** to confirm attendance.

4.7 Inquiries

Every request for a written interpretation or correction must be received at least seven (7) days prior to the proposal due date in order to be considered. Requests may be submitted by e-mail to LHouston@presmd.org. Interpretations, corrections and supplemental instructions will be communicated by written addenda to this solicitation to all prospective Respondents no later than five (5) days prior to the proposal due date.

Submission of a proposal constitutes acknowledgment of receipt of all addenda. Proposals will be construed as though all addenda had been received. Failure of the Respondent to receive any addenda does not relieve Respondents from any and all obligations under the proposal, as submitted.

4.8 Rejection of Proposal

Proposals must be delivered to the specified location and received by the proposal due date to be eligible for evaluation. Proposals will be considered irregular and may be rejected if they show material omissions, additions not called for, conditions, limitations, unauthorized alternate proposals or other material irregularities. Preservation Maryland may consider incomplete any proposal not prepared and submitted in accordance with the provisions specified herein and reserves the right to waive any minor deviations or irregularities in an otherwise valid proposal.

4.9 Withdrawal of Proposal

Respondents may withdraw their proposal prior to the designated due date if they submit such a written request to Preservation Maryland. Respondents may be permitted to withdraw their proposal up to 48 hours after the due date for good cause, as determined by Preservation Maryland in its sole judgment and discretion.

5. EVALUATION AND AWARD PROCEDURES

5.1 Evaluation Procedure

Each response will be evaluated in accordance with the indicated criteria:

Background and Qualifications <ul style="list-style-type: none">a) Past relevant experience following SOI Standards for Restorationb) Special expertise of personnel, as applicablec) Demonstrated experience coordinating with multiple stakeholders
Project Management <ul style="list-style-type: none">a) Names and functions of personnel assignedb) Commitment to project completion within time and budget constraintsc) Ability to meet project needs, including current workloadd) QA/QC methods
Technical Merit <ul style="list-style-type: none">a) Demonstrated comprehension of tasks to be completedb) Completeness and clarity of submittalc) Adequately addresses project goal(s) and objective(s)

5.2 Award

Acceptance of the successful Respondent's proposal does not create a contractual relationship between Preservation Maryland and the successful Respondent.

Preservation Maryland reserves the right to award the agreement to the next available Respondent in the event the successful Respondent fails to enter into the agreement, or the agreement with said Respondent is terminated within 30 days of the effective date.

6. EXECUTION OF AGREEMENT

Submittal of a proposal binds the successful Respondent to perform the work upon acceptance of the proposal and Preservation Maryland's execution of the project agreement provided by the successful Respondent.

Upon acceptance of the proposal, the successful Respondent must provide:

- Contract/Agreement for review
- Completed Form W9
 - General Liability coverage with minimum limits of no less than \$1,000,000.00 per claim
 - Workers' Compensation and Employer's Liability coverage with minimum limits of no less than that required by Maryland law
 - Professional Liability coverage, if applicable, with minimum limits of no less than \$1,00,000 per claim
- ACH Payment information if EFT preferred

Preservation Maryland reserves the right to cancel award of the agreement without liability at any time before the agreement has been fully executed by all parties. Failure upon the part of the successful Respondent to execute the agreement or timely submit the required documentation will be just cause, if Preservation Maryland so elects, for award of the agreement to be rescinded.



MARYLAND PARK SERVICE CAPITAL IMPROVEMENTS PROGRAM PROJECT REQUEST FORM

GENERAL INFORMATION

DATE	4/11/18 (Revised 3/5/20) (Updated 1/24/23)
PARK OR LAND UNIT	Susquehanna State Park
BUILDING OR AREA	Rock Run Historic Area
COUNTY	Harford
REGION	Central
PROJECT TITLE	Rehabilitate and Repair Rock Run Historic Area
ORIGINATOR	Robert Bailey/Andrew Hangen
FACILITY MANAGER	Andrew Hangen Angela Crenshaw
REGIONAL MANAGER	Steve McCoy

PROJECT DESCRIPTION

The Rock Run Historic Area is among the primary attractions of Susquehanna State Park. It is in the geographic center of the park where almost all the park roads lead. The area is a primary attraction for those looking to explore the area's history, and is one of the key features of the Lower Susquehanna Heritage Greenway and the Deer Creek National Historic District. The Historic Area's most notable attractions include the Carter-Archer Mansion, the Jersey Tollhouse and the Rock Run Grist Mill. All three structures have suffered from differed maintenance, and all require significant repair—especially mill and tollhouse.

Rock Run Mill

The Rock Run Mill is the only working gristmill managed by the Maryland Park Service, and, to my knowledge, it is the only publically accessible surviving gristmill in the Baltimore metropolitan area that still partially functions. Its use of waterpower, rather than electric motors, makes it especially unique. Therefore, the Rock Run Mill is a poignant surviving example of an industry that played a large role in shaping both Baltimore and the region's economy in the early 19th century. Its value as an educational resource is clear.

Prior to the COVID-19 Pandemic, the Rock Run Mill operated on summer and fall weekends and holidays. Visitation level was consistently highest between the hours of 1 and 3 p.m., when the mill is in operation. The Rock Run Mansion's visitation also increased during these hours.

The mill was first restored by the Department of Forests and Parks in 1960s. While the mill has benefited from several large expenditures over the years, such as a partially replaced fore-bay pipe in the 1990s, new waterwheel buckets in the early 2000s, and a rebuilt dam in the late 2000s, the building's scale and complicated infrastructure require more investment in staff and resources than the park has been able to provide. The mill's proximity to county roads, and its location within a major flood plain and the Chesapeake Bay's Critical Area have only further complicated matters. Therefore, the mill and its infrastructure have reached a point where a major infusion of capital resources is needed to ensure that the mill can continue to operate in the coming years.

To restore the Rock Run Grist Mill building and infrastructure to optimal operating condition, the following repairs are recommended:

- Repoint interior and exterior walls of mill building.
- Repair/replace attic siding.
- Repair/Replace both doors and frames
- Replace cedar-shake roof.
- **Install gutter on east side of mill roof.**
- Repaint and re-glaze window sashes, plus replace broken glass panes.
- Repair and repaint shutters (**Or remove, as they are anachronistic**).
- **Replace rotted basement window frames.**
- ~~Repoint and repair upper floors of chimney.~~ (Chimney removed above roofline in 2022)
- Replace mill basement posts and beams.
- Replace mill's first-floor joists.
- Replace and upgrade mill's electrical and lighting system.
- Scrape and repaint Fitz waterwheel.
- ~~Repair leaks in mill fore-bay pipe.~~ (Leaks sealed, for now in 2022)
- Repoint/Repair tailrace arch.
- Reline mill race with bentonite clay layer.
- Seal leak around mill dam head race gate.
- Remove existing trees from edge of mill's tailrace exit and repair damaged stonework.
- Remove trees from edge of mill race and pond.
- Repoint fore-bay pipe support abutment and pier.
- ~~Redress millstones.~~ (Redressed in 2022).
- ~~Replace millstone crane.~~ (Replaced in 2022).
- Replace wooden shaker pulley with a beveled steel pulley or adjustable wood pulley.
- **True-up Fitz waterwheel ring gear.** (Waterwheel position adjusted in 2023).
- Modify first floor and exterior grounds for accommodate ADA accessibility.
- Plan, design and install new exhibits (especially on the first floor).
- Complete installation of belts and pulleys to run corn sheller and corn fan (either via waterpower on a separate electric motor).
- Regrade road or add curb to divert rainwater around Rock Run Mill.
- **Repair damage to mill race near dam from Tropical Storm Ida damage.**

ISSUE/NEED

The Rock Run Mill

Chimney:

The mill's defunct brick chimney is the most immediate maintenance need. The mortar inside the chimney has severely eroded and several bricks have disintegrated. ~~Maynard Masonry, who specializes in historic masonry, recommended taking the chimney down into the third floor and rebuilding it.~~ **The chimney was taken down below the roofline in 2022, though the interior portion could use repoint, but it is not a major priority.**

Basement:

After the chimney, the most urgent need in the mill is to permanently address excess moisture in the basement. The original main support posts and beams are rotting away, as well most of the first-floor joists where they meet the western stone wall. Sometime in the past, the beams were given pressure-treated supplemental support beams and posts, but the original beams have continued to rot and spread. Nearly all the first-floor joists exhibit some rot and several are close to rotting through completely. Nearly all joists are supported by steel jack-posts. There is no mechanical ventilation system.

The basement moisture problems are caused by two factors: 1) the basement is subject to periodic flooding from the Susquehanna River, and, more importantly, 2) it is frequently subject to runoff from Stafford Road. Little can be done about the first factor, but the second is frustratingly preventable. Over the years, Stafford Road's grade has been raised several feet. It is now between one-to-three feet higher than mill's the first floor joists. Therefore, rain water rushes downhill, washes across the road and penetrates the mill's stone foundation and rots the joists. The county did some minor grading at the mill two years ago in an attempt to divert some of the water away from the mill. This effort succeeded in temporarily reducing the amount of moisture in the basement, but a more permanent solution is needed. It would be ideal if the county road could be lowered. Regardless, installing a system for diverting the water around the building should also be considered. This may have to be accomplished in coordination with Harford County. If the water infiltration issues are not addressed, replacing the mill's joists, posts and beams would be a wasted effort in the long run.

The estimate for replacing the posts and beams in 2015 suggested using steel instead of wood.

If the floor is replaced, raising the floor about 6 to 8 inches higher should be considered, in order to make the first floor more ADA accessible.

Waterwheel:

The Fitz waterwheel is an example of how even routine maintenance on the mill can prove challenging. The waterwheel is an amalgamation of parts, some of which date back to 1900, other parts (notably the buckets) date from the early 2000s. The wheel should be repainted about every 5-to-10 years. However, since it is sitting in the Critical Area and the wheel's well is populated with a rare-and-endangered fern species, several precautions need to be taken in order to accomplish this relatively simple task. ~~Moreover, because the fore-bay pipe leaks, it is difficult to keep water from flowing into the wheel's well. The wheel's ring gear also needs to be adjusted, as its teeth slightly bind against the pinion gear that drives the mill's machinery.~~ Ben Hassett adjusted the waterwheel's position in 2023, so the ring gear may not need readjusting.

Walls:

The mill's exterior walls appear to have been repointed with Portland cement—probably in the 1960s. Some areas have been patched with other mortar types; however, the exterior walls are, relative to other areas, in fair-to-good condition. The interior walls, on the other hand, consist of much older lime-based mortar and whitewash, and both are reaching the end of their 100-year life cycle. Some of the

worst areas were repointed with park operational funds in 2016; however, this accounts for only a fraction of the work that is needed. Sand, mortar and whitewash routinely fall off the walls—especially in the winter

Gable Siding:

The unpainted siding in the attic gables include several loose and warped boards. None, however, are rotted, so many could be repaired and only a few replacements are needed.

Windows and Shutters:

Many of the mill's 66 window sashes have broken or missing panes. Muntins have been damaged and/or are missing on several sashes. Many frames are missing stops and basic hardware. The frames themselves need to be repainted. Most shutters are also missing the hardware that secures them closed, and the park staff has installed lesser-quality "homemade" replacements. The shutter hardware appears to have been custom-made for the mill. Most shutters need to be repainted. About a third of the shutter dogs are missing, broken, or misaligned. Because there are 33 windows (35 including the basement), and nearly all of them exhibit some level of disrepair, the scale of work needed to bring all of them back into good repair is beyond the park's ability to address in-house. **Moreover, the shutters are an anachronism installed by the Department of Forests and Parks for security purposes. To truly restore the mill to its historic appearance, the agency should consider removing all the shutters and hardware and install shatter-resistant glass with UV filters.**

Front Door:

Another victim of water infiltration and rot, the front door frame needs to be completely replaced. The original wood frame has been replaced with formed concrete at the base on each side, which has forced the door jamb out of alignment and has rendered the lowest hinge of the Dutch-style door unusable.

Basement Door:

The basement door exhibits the same problems as the front door. The staff replaced the hinge-side jamb in 2016, but the other side continues to rot at the base. Also, the bottom of the wood door itself has rotted and a 6-inch space now separated the bottom of the door and the stone sill. The park received approval to replace the wood door with a steel "jail-cell" door in an effort to get more airflow into the basement; however this idea was never implemented, as there were concerns that this type of door would invite in wildlife.

Roof:

At present, the mill's cedar shake roof is in fair condition. Installed in about 1990, it is exhibiting the early stages of moss growth, however no leaks have been observed. Given the limited life-span of cedar-shake rooves, a replacement should be pursued before it begins to fail. If approved by MHT, synthetic alternatives to wood shakes should be considered.

Electricity:

The mill's electric system dates from the 1960s. An "explosion proof" electrical system was installed as part of a requirement. It is unclear if any replacement system would be required to be "explosion proof." The present system has shorts in several locations. "New" wires, switches and outlets have been haphazardly added over the years, often not up to code, and making the system no longer "explosion proof." The present lighting system does not provide adequate light and is unsuitable for exhibit areas. The most of the breaker box toggles are broken.

The mill's electric system was scheduled to be replaced (along with the mansion and tollhouse) in 2017; however it was cancelled in favor of just upgrading the mansion. Nevertheless, the following recommendations were made for the mill's replacement electrical and lighting system:

- Except for where specific displays are concerned, the mill's lighting should largely retain an "industrial feel." Workshop-style lighting fixtures, similar to the existing lighting with incandescent-style bulbs (that could actually be LEDs but still give the appearance of incandescent bulbs) should be considered. Due to their higher ultraviolet light output, fluorescent lighting (compact or tubes) should not be considered for this project (outside of the basement area).
- Special display areas should feature track lighting. This type of lighting will largely be implemented on the first floor and in the second floor post office.
- Each floor will have its own isolated circuit.
- Each floor (except basement) will have two electrical plug outlets.
- Basement will include a mechanical ventilation system with a humidity sensor, and include both manual and automatic shut-off systems (in case of flooding).
- Attic will include at least one (possibly two) 240-volt junction box to accommodate potential electric motors to run additional milling machinery.
- The mill's exterior will include at least two flood lights that will include motion sensors.

Milling Equipment:

Years of use have taken some toll on the mill's operating equipment. ~~The waterwheel's ring gear is out of alignment—as it rides up against the pinion gear as it turns.~~ However, a MHAA grant allowed for several elements of the milling equipment to be repaired in 2022 and 2023.

~~The millstones themselves have not been dressed since the 1990s, and were declared "the most polished stones I've ever seen" by an experienced miller from the Society for the Preservation of Old Mills. The running stone needs to be rebalanced. The running stone shaft needs to be realigned.~~

A new, beveled steel shaker pulley, resized to run the shaker at full speed by accommodating for a slower stone speed, would reduce corn production while allowing the shaker to sift properly.

~~A new mill stone crane is needed, as the existing crane's horizontal arm has a large crack.~~

If the running stone could be perfectly balanced, it could run without grist (which would cut down on the amount of corn needed to operate the mill).

Additional milling equipment, most notably the corn-sheller, a grain elevator and the corn cleaner/sifter (the "Invincible Separator") could be restored to operation at relatively little cost, which would greatly expand and improve the mill's interpretive value.

Fore-bay Pipe, Pipe Supports and Gate Valve:

~~The gate valve at the end of the pond that feeds water in to the fore-bay pipe has leaked for years. The gate valve is encased in a concrete bulkhead, which itself consists of several pieces of concrete. Water from the mill pond escapes through all the cracks in the bulkhead, seeps through the hillside, and creates a mud hole at the base of the hill. There is concern that continued and repeated applications of leaking water will cause the hillside slide apart. The original sections of the fore-bay pipe itself leaks at two points: through a crack in the pipe near the gate valve, and at a bell junction. There is a noticeable dip at the coupling where the two sections of pipe meet, which is likely the cause of the leak. The section of pipe that crosses Stafford Road was replaced in the 1990s; however the section closer to the gate valve is much older (probably circa 1900). There is a noticeable dogleg where the two generations of pipe join.~~

A MHAA grant allowed the MPS to repair the leaking pipe, replace the concrete bulkhead and install a new sluice gate to replace the gate valve.

The stone abutments and pier that support the fore-bay pipe is, perhaps, the most in need of repointing.

Mill Pond and Mill Race:

The mill pond and race are a constant maintenance and operational headache. The race leaks near the mansion driveway entrance. It is unclear if the pond only leaks at the gate valve, or elsewhere. The area between Stafford Road and the base of the hillside that supports the mill pond is consistently a mud-hole during summer months—most likely from water seeping out from the gate valve bulkheads.

There is a noticeable hump in the mill pond that traps water between the gate valve and the drainage discharge pipe that is used to evacuate water from the pond. Therefore, it is nearly impossible to completely drain the pond. The pond was originally lined with a layer of bentonite clay; however, silt has built-up in the pond, which has allowed for the growth of a considerable amount of vegetation. This vegetation punches holes in the bentonite layer. Because the pond cannot be completely drained, it is very difficult to mechanically cut down vegetation. Plant life grows quickly and hip waders often sink over a foot into the mud. Years ago, the pond was treated with Round-Up, but given the pond's location and in the Critical Area, this is no longer a viable option.

Large trees have been permitted to grow-up right next to the mill race, which punches holes in its bentonite layer. Like the pond, a layer of silt has filled in much of the race. Social trails also crisscross the race.

Most of the vegetation should be removed from the race and pond. This would require the removal of about 25 full-grown trees and a good amount of underbrush. A split rail fence should be installed onto of the mill race to discourage the establishment of social trails. A method for better controlling vegetation in the pond and race should be investigated. If the pond is to be drained regularly, perhaps some sort of solid foundation could be installed in the pond to make using large lawn-mowing equipment feasible.

Repair Leak at Dam Gate:

When the mill dam was dredged in 2017, the contractor was required to rebuild the mill race gate and stop it from leaking. The gate was partially rebuilt, but it still leaks. At present, the only way to keep water out of the mill race is to open the discharge pipe on the dam.

Repair Tail Race, Aqueduct Arch and S&T Canal Retaining Walls:

The mill's tail race reaches the Susquehanna River via an aqueduct arch that supports the bed of the former Susquehanna & Tidewater Canal. The condition of the inside of the aqueduct arch is unknown. It is unknown if the stone archway was dry-laid, or built with mortar. If this archway collapses, it will be impossible to operate the mill using waterpower.

The canal bed consists of two retaining walls, a small one next to the mill, and a large one that runs beside the Susquehanna River. The wall next to the mill is between 8 to 15 feet high and is about 40 feet long. The riverside retaining wall is about 15 feet high and runs several hundred feet up and downstream from the mill. In some places, there is a spit of land separating the wall from the river; in other places the wall butts-up against the Susquehanna River. Near the mill, the wall butts-up against the river. Like the aqueduct arch, it is unknown if the wall was dry laid, or built with mortar. If mortar was used, not traces of it remain. Both walls exhibit stonework being pushed out of position. The riverside wall, in particular, is covered with trees, the roots of which are causing significant damage. There are four silver maple trees bracketing the sides of the aqueduct arch which need to be removed.

This report only requests that the walls near the mill and about 50 feet of the riverside wall be stabilized; however, the agency should develop a long-term plan/vision for these retaining walls—should it wish to retain them. If the vegetation was removed and walls stabilized, not only would a historic resource be preserved, but the view-scape from the mill and mansion would be dramatically improved.

Exhibits and Accessibility:

At present, the only interpretation in the mill consists of small descriptive labels on most pieces of machinery. Beyond that, the mill lacks any comprehensive interpretive exhibits that articulate how the mill operated (and still operates), the role flour milling played in the development of the region's economy, and the important role the mill played in the immediate area's history. Efforts should be made to plan, design, fabricate and install interior exhibits to tell the mill's story. However, installing new exhibits in the mill should only be considered once the basement structural members have been replaced. This is also the one portion of the mill that could be made ADA accessible.

Miscellaneous:

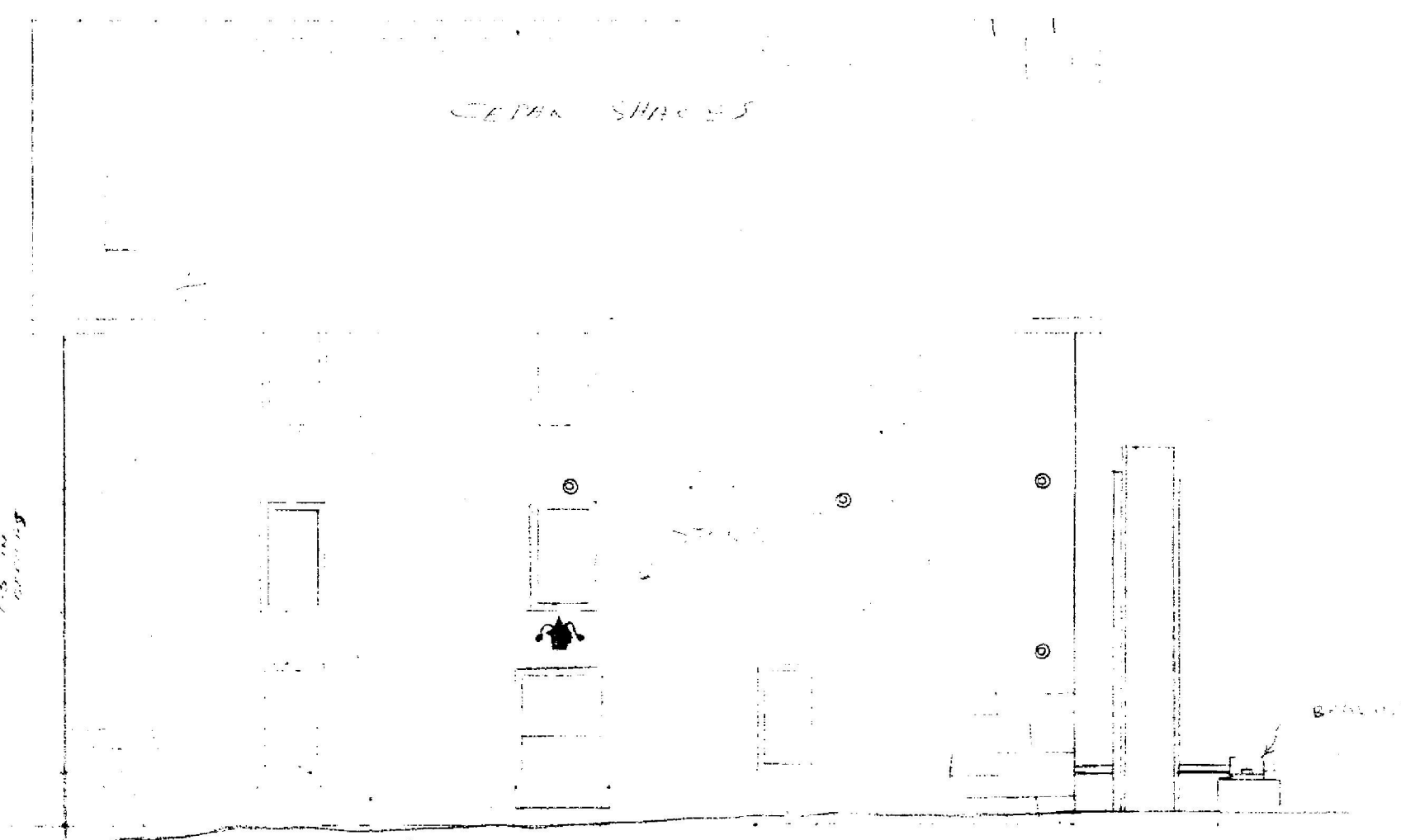
The stone wall at the base of the mill pond needs to be restacked and repaired. It is unclear if these stones were dry laid or laid with mortar. It is recommended that these walls be rebuilt with mortar for stability.

The former Susquehanna & Tidewater Canal within the Historic Area is supported by a large dry-laid stone wall immediately next to the Susquehanna River. Large trees have been allowed to grow along base of the wall, which undermines the wall's long-term stability. If the agency wishes to retain this section of the S&T Canal, then these trees should be removed, the stumps treated/removed and the wall repaired.

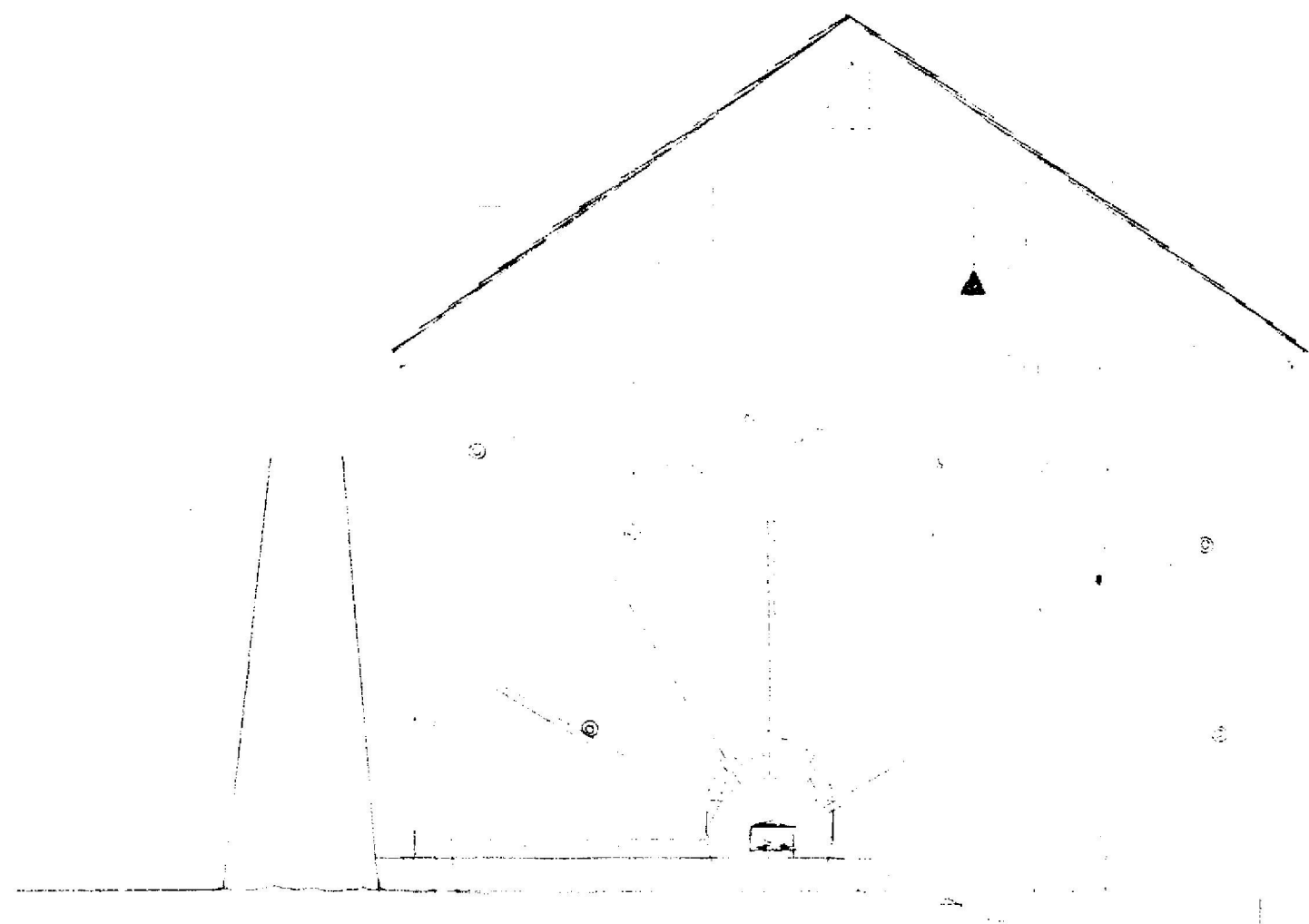
As stated above, over the years, Stafford Road's grade has been raised several feet. It is now between one-to-three feet higher than mill's the first floor joists. Therefore, rain water rushes downhill, washes across the road and penetrates the mill's stone foundation and rots the joists. Either the agency should lobby for the county to lower the road, or infrastructure (such as a concrete curb) should be considered to redirect runoff around the mill.

CONSEQUENCES IF NOT ADDRESSED

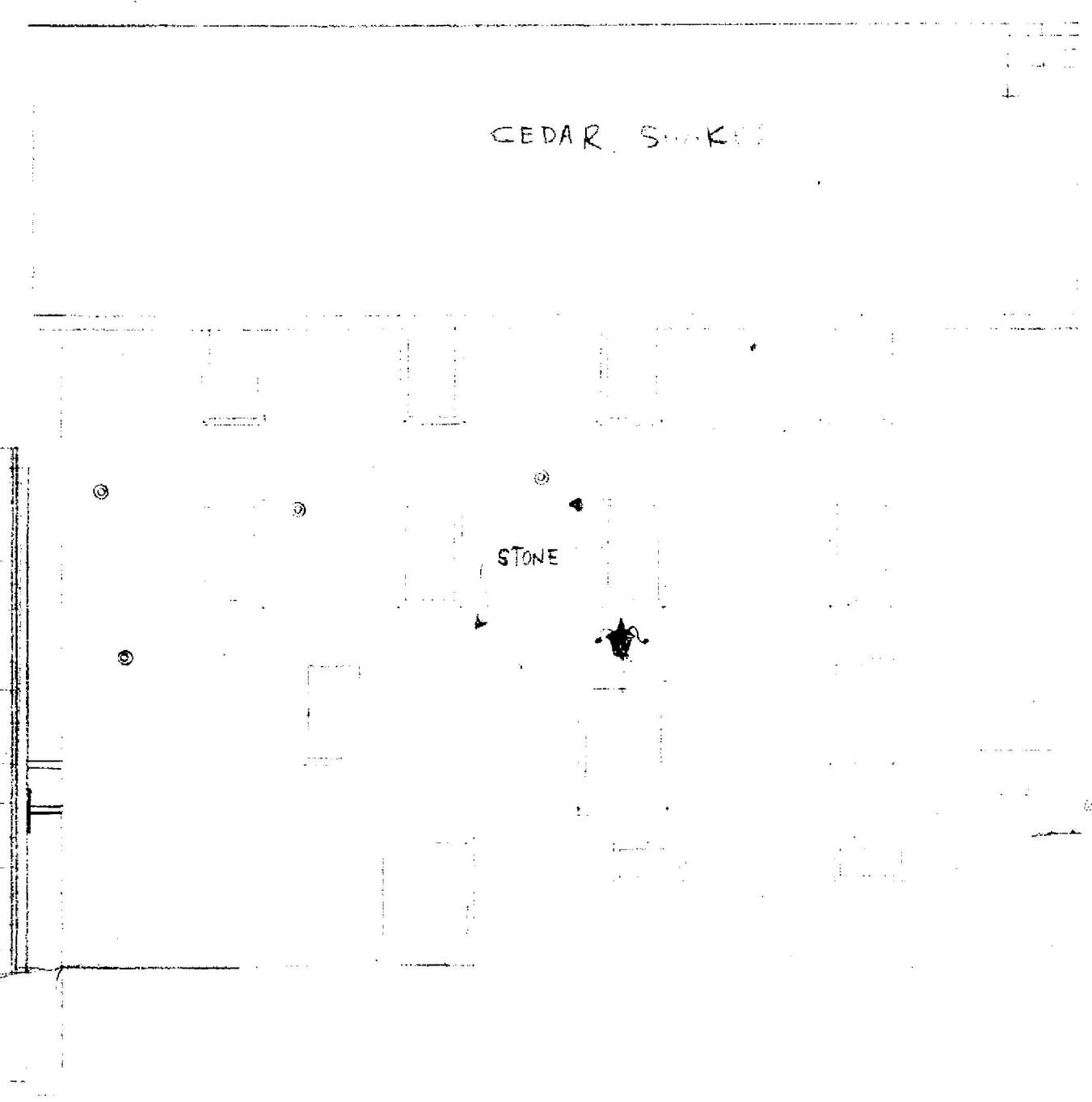
The Rock Run Gristmill is a real factory. The mill's infrastructure has reached a point where if steps to bring it back into optimum condition are not made soon, the cost to make these same repairs will only get higher (at best), and/or the mill could be rendered operable (at worst)—due either to safety reasons or due to a major failure in infrastructure, or both. Consequences could take several forms: the pond gives way due to water infiltration; the basement posts and beams and/or the first floor joists rot to the point where the building can no longer be safely occupied; the waterwheels rust to the point that it needs to be replaced (not simply repainted); misaligned and worn-out gears snap shafts and pulleys; a fire breaks out due to faulty wiring; the tail race aqueduct collapses; the S&T Canal retaining walls collapse; and the chimney falls through the roof or falls off the building.



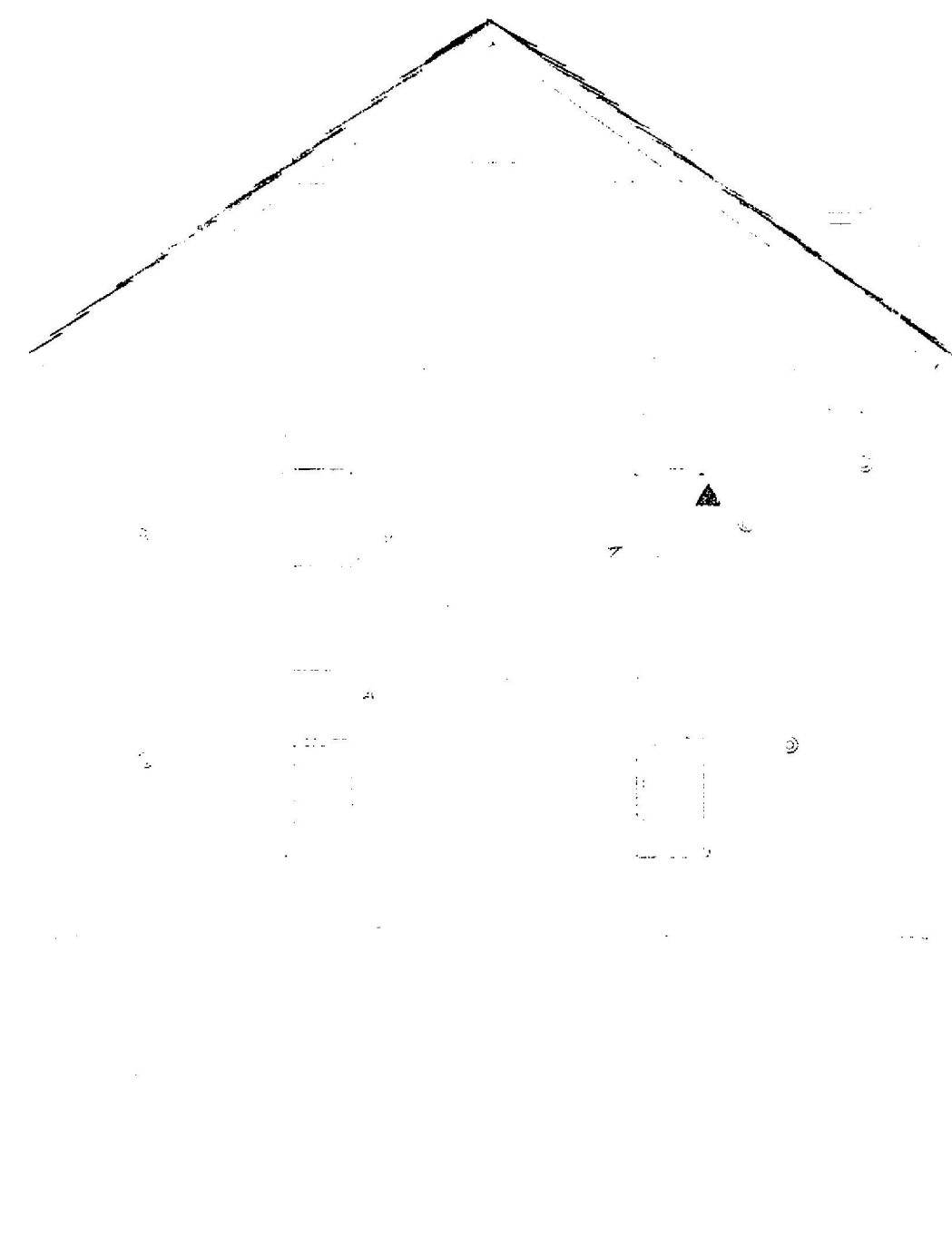
FRONT ELEVATION
1/8" = 1'-0"



RIGHT SIDE



REAR ELEVATION



LEFT SIDE

REVISIONS

ELEVATIONS

CUSQUERHAWK STATE PARK	DRAWING NO.
ROCK RUN WATER CONTROL	2
DEPARTMENT OF PUBLIC IMPROVEMENTS	OF SHEETS
STATE OF MARYLAND	1 OF 1
DRAWN BY: J.A.C.	DATE
CHECKED BY:	

FILE No. 41

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