


MEMORANDUM

TO: Town Council

FROM: David E. Cox, Town Manager 

DATE: July 20, 2023

SUBJECT: Agenda Information – 7/25/2023

The following is additional or summary information regarding matters on the upcoming Town Council Agenda. The numbering below follows the agenda, and some routine or self-explanatory items are not discussed in this memo. As you review your packet materials, please do not hesitate to contact the appropriate staff member or me prior to the Council meeting with any questions or concerns.

6 Bids and Contracts

6a Consideration of a motion to waive competitive bidding and award a contract for the replacement of the Fire Station #1 Roof – As noted in Facilities Director Fontanella’s memo, three quotes were received for the planned replacement of the upper roof section on Fire Station #1 on Barton Hill Road. The lowest quote is for \$34,990 from C&M Roofing of South Windsor. Pursuant to Town Code, the Council provided notice that it is in the best interest of the Town to conserve staff resources, to waive the competitive bidding for this project and award a contract.

Recommendation: Waive bidding and award a contract to C&M Roofing.

6b Consideration of a motion to approve award of an agreement related to lake consultation/Limnologist services – The Conservation Lake commission received qualification statements and proposals from two firms to perform various professional services to the Town as they relate to Lake Pocotopaug including water quality testing and reporting, advice for water quality improvement steps, educational activities among other activities. This firm will be replacing Northeast Aquatic Research (NEAR) who previously served in this capacity. After interviewing the two firms, the Conservation Lake Commission subcommittee for this process is recommending GZA GeoEnvironmental, Inc. of Manchester. The full Commission will consider that recommendation at a meeting prior to the Town Council meeting. Assuming a final recommendation from the Commission, the Town Council is asked to award the contract to GZA GeoEnvironmental, Inc. of Manchester in the annual amount not to exceed the funds allocated in the Town budget, which is \$35,000 for the 2024 fiscal year.

Recommendation: Approve award of the professional services contract.

6c Consideration of a contract for Asbestos abatement at the Middle School – The approved Capital Improvements Plan for FY2024 includes abatement of asbestos in a portion of the flooring at the Middle School along with installation of the new floors in the amount of \$82,000. This project is being funded with American Rescue Plan Act funds pursuant to a previously approved Council Resolution. In conformance with the requirements related to use of those funds, staff is receiving sealed proposals for the abatement of asbestos and disposal of the existing tile and other flooring. Bids will be received on Monday, July 24 from up to six contractors who participated in a walk-through of the project site. The

work being bid includes hallways in the school as well as abatement in the Music Room, which is the topic of an action later on this agenda. Details on the proposals received will be distributed to the Council on Monday and discussed during the meeting. If the contract is approved on Tuesday, it is expected that the abatement work and much of the flooring work will be complete by the beginning of school.

Recommendation: Approve the contract based on proposals received.

7 Resolutions/Ordinances/Policies/Proclamations

7a Consideration of Resolution related to accepting a Document Preservation Grant – The Council is asked to approve a resolution accepting a \$6,000 grant from the State Library for the Town Clerk that will fund the purchase of materials to replace the storage binders for records and to replace the public access computer in the Town Clerk’s office. The Resolution authorizes the Town Manager to execute grant-related documents as well.

Recommendation: Approve the Resolution.

7b Consideration of a Resolution regarding use of ARPA funds – The Council is asked to consider a resolution allocating up to \$25,000 to fund the abatement of asbestos and replacement of the flooring in the music room at the middle school. As noted above, the abatement portion of this work is being bid along with other abatement work at the school. The replacement of the flooring is under state bid and would be installed using that contract. Currently, the Facilities Director estimates the cost of abatement to be approximately \$5,000, plus \$3,000 for the related environmental oversight and testing services. The flooring is estimated to cost about \$17,000 for a final estimated cost of \$25,000. Once the final figures for abatement and environmental services are known, the Council may be asked to consider a final figure.

Recommendation: Approve the additional use of ARPA funds to allow this work to be completed.

7c Consideration of a Resolution related to grants and easements for the Christopher Property purchase – The Council is asked to consider a resolution that gives final acceptance of the \$46,500 Open Space and Watershed Acquisition grant that the Town used to support the purchase of the Christopher Pond Property. The grant was awarded in 2021, the same year the Town made the purchase. In the interim, staff and the Town Attorney have been working with the State to ensure that proper documentation was in place, that corrected legal descriptions were used and surveys were updated to reflect State standards. Additionally, language for the required conservation easements was reviewed. Based on the completion of that work, the Town can finally accept the grant payment and must authorize the execution of the easement documents.

Recommendation: Approve the Resolution.

7d Consideration of an Electronic Document Retention and Records Management Policy – The Council is asked to consider a formal policy that allows documents to be created or converted to purely electronic format for storage and to declare that the electronic version is the official record for retention purposes. This policy is needed to allow the Town to convert records that it must hold permanently or for the life of a structure into electronic form for filing as has been done in the Building and Land Use office and elsewhere in the organization. In accordance with the proposed policy, the paper version of these records could be disposed unless it was deemed to have historic value or was subject to some other regulation that disallowed its disposal. This policy does not impact the land and vital records maintained by the Town Clerk, which are subject to other rules. The policy only applies to general records of the Town, and was developed in consideration of guidance from the State as well as review by Town management staff.

Recommendation: Approve the policy.

8 Continued Business

8b Update regarding an official representative to the Ambulance Association Board – As discussed at the previous Town Council meeting, the Council is being provided an opportunity to update the discussion, and possibly act, regarding Council representation to the East Hampton Ambulance Association board.

Recommendation: Discuss the matter and determine how to move forward.

8c Review of the concept agreement related to Town acceptance of maintenance and capital replacement responsibility for Edgewater Circle – The Town Council is asked to continue its review of a concept to amend the agreement the Town has with the owner/developer of the Edgewater development in which Town Hall is located. Currently, the roads in the development are private roads maintained by the developer and the association of property owners in the development along with maintenance of commonly owned areas. As a result of the proposed amendment, the main road in the development, Edgewater Circle, and the drainage system under the road, would be maintained by the Town at the Town's expense as if it were a public road with no participation by the developer or the other owners except their normal tax payments. In exchange, the Town would no longer pay the annual fee for maintenance of roads and property. Additional information has been provided in a memo in this packet related to potential costs in the future as well as other matters for the Council to consider. The amendment is still in concept form and not ready for action at this time. The Council is asked to determine whether and how it wishes to proceed.

Recommendation: Review the concept.

8d Consideration of a possible wage adjustment of the Town Manager – In follow up to the review undertaken earlier this year, the Council is asked to determine what, if any, wage adjustment it wishes to give to the Town Manager.

Recommendation: Determine a raise amount.

The remainder of the items are of a routine nature, in the sole purview of the Council or are announcements. Please contact me or the appropriate staff member with questions or concerns.

**Town of East Hampton
Town Council Regular Meeting
Tuesday, July 11, 2023
Town Hall Meeting Room #117 and Zoom**

MINUTES

Present: Chairman Mark Philhower, Vice Chairman Tim Feegel, Council Members Pete Brown, Brandon Goff, Eric Peterson, Kevin Reich and Alison Walck and Town Manager David Cox.

Call to Order & Pledge of Allegiance

Chairman Philhower called the meeting to order at 6:30 p.m. in the Town Hall Meeting Room #117 and via Zoom.

Adoption of Agenda

A motion was made by Ms. Walck, seconded by Mr. Peterson, to adopt the agenda as presented. Voted (7-0).

Approval of Minutes

A motion was made by Ms. Walck, seconded by Mr. Peterson, to approve the minutes of the Town Council Regular Meeting of June 27, 2023 as written. Voted (7-0)

Public Hearing

Chapter 278 - Taxation of the Code of the Town of East Hampton

- 1. Amendment to Stipend for Volunteer Fire and Ambulance Personnel Ordinance**
- 2. Amendment to Business Incentive Program Ordinance**

Mr. Cox provided an overview of the changes to the Business Incentive Ordinance requested by the Town Council that provided them more flexibility when reviewing the applications.

No members of the public provided comments.

A motion was made by Mr. Reich, seconded by Mr. Peterson, to close the Public Hearing. Voted (7-0)

Public Remarks

None

Presentations

None

Bids & Contracts

None

Resolutions/Ordinances/Policies/Proclamations

Discussion and Possible Action on Amendments to Chapter 278 – Taxation of the Code of the Town of East Hampton

- 1. Article V – Stipend for Volunteer Fire and Ambulance Personnel**
- 2. Article IX – Business Incentive Program**

The full ordinances will be included with the minutes filed in the Town Clerk's Office.

A motion was made by Mr. Reich, seconded by Mr. Feegel, to adopt the ordinances for Chapter 278 Taxation of the Code of the Town of East Hampton for Article V – Stipend for Volunteer Fire and Ambulance Personnel and Civil Preparedness Director and Article IX – Business Incentive Program as presented. Voted (7-0)

Continued Business

Sub-Committee Reports & Updates

Mr. Reich reported that the Middle School Roof is moving forward. The contractor is removing the skylights and the roofing materials. They should meet the opening of school deadline. If not, the gym and cafeteria area will be done last as work on those areas can be done when school is in session.

Mr. Reich also reported the Contractor for the tennis courts is prepared to remove the top layer of asphalt. The project should be done by winter.

Mr. Cox reported that the Water Sub-Committee should be meeting on Wednesday, July 26 to discuss next steps.

Mr. Philhower thanked the Bevin Park Sub-Committee for the work they did on the memorial bench.

Update, Discussion and Possible Action on Town Council Appointment to the Ambulance Association Board

Mr. Goff was given a tour of the ambulance building. He will be going to their next board meeting to discuss future group meetings. At the end of each month a report on operations will be given to the Town Manager. The position will be starting out as a liaison.

New Business

Discussion and Possible Action on a Parking Lot Public Use Agreement with the Congregational Church

Mr. Cox provided an overview of a proposed Parking Lot Public Use agreement with the Congregational Church to allow the public to be formally allowed to use the lot as it would any Town owned lot when the lot is not being used by the church for its activities. The Town will provide line striping and snow plowing for the lot. Any major capital improvements to the lot would be done as part of a separate discussion and agreement as to cost share between the Town and the church.

A motion was made by Mr. Reich, seconded by Mr. Peterson, to approve the Public Use Agreement for the Congregational Church parking lot as presented. Voted (7-0)

Discussion of an Amendment to the Agreement for Edgewater Related to Town Maintenance of Edgewater Circle

The Council reviewed an initial draft of an agreement with the owner/developer of the Edgewater development for the Town to take over Edgewater Circle and the drainage system under the road. In exchange for this the Town would no longer pay the annual fee for maintenance of roads and property. Mr. Cox will gather some additional information for the next meeting.

Discussion and Possible Action on a Motion to Provide Public Notice that the Council will Waive the Competitive Bidding Process for Fire Station #1 Roof Replacement in Favor of Three Quotes

Mr. Cox reported that the Facilities Director is requesting the competitive bidding process be waived in favor of three quotes for the Fire Company #1 upper roof replacement.

A motion was made by Mr. Reich, seconded by Mr. Peterson, to consider the bid waiver for the Fire Company #1 upper roof replacement. A notice will be posted in the newspaper regarding the bid waiver and the item will be considered at the July 25, 2023 Town Council meeting. Voted (7-0)

Discussion and Possible Action Regarding Police Department Policies/General Orders

1. General Order 2.3 – Unity of Command/Span of Control
2. General Order 5.3 – Equipment
3. General Order 5.10 – Securing Prisoners
4. General Order 9.5 – In-Service, Roll Call and Advanced Training
5. General Order 10.5 – Line of Duty Deaths

A motion was made by Ms. Walck, seconded by Mr. Peterson, to approve Police Department General Orders 2.3 – Unity of Command/Span of Control, 5.3 – Equipment, 5.10 – Securing Prisoners, 9.5 – In-Service, Roll Call and Advanced Training and 10.5 – Line of Duty Deaths as presented. Voted (7-0)

Town Manager Report

Mr. Cox provided his written report for the Council members which will be included with the minutes filed in the Town Clerk’s Office. He also noted that on Sunday, July 16 a mass casualty drill will be held at Sears Park and the boat launch will be closed at that time. Also, Eversource will be moving a large piece of equipment through town on Route 66 and Rt 151 on Thursday, July 13 sometime between 9am and 4pm.

Appointments

None

Tax Refunds

None

Public Remarks

None

Communications, Correspondence & Announcements

June 2023 Board and Commission Summary

Council members received the June 2023 Board and Commission Summary.

CT Siting Council – Battery Energy Storage Facility at 44 Skinner Street

Council members received a letter from the CT Siting Council regarding a battery storage facility at 44 Skinner Street.

Mr. Peterson thanked the Police Department for all of their work at Old Home Days with the road race, parade and generally keeping the peace.

Adjournment

A motion was made by Mr. Reich, seconded by Mr. Brown, to adjourn the meeting at 7:23pm. Voted (7-0).

Respectfully Submitted,

Cathy Sirois
Recording Clerk

MEMORANDUM

TO: David E. Cox, Town Manager
FROM: Steve Fontanella, Director of Facilities
DATE: June 19, 2023
SUBJECT: Fire Station #1 Roofing Project

Attached are three quotes to replace the upper section of the roof of Fire CO1. I am requesting to waive competitive bidding in favor of the 3 quotes received.

The quotes are to remove the existing roofing and insulation, install new insulation and 60 Mil EPDM roof membrane and appropriate flashing. Existing drains will remain, and all roof penetrations will be new. All materials will be provided to insure proper pitch to the drains. All quotes provide a 20 year warranty.

The low quote is from CM Roofing although all proposals were very competitive. CM roofing is a quality company that I feel will do a great job for us. We have a budget of \$38,000 which will allow us to repair some drains and decking as needed. Bert Dorr roofing quote was from last year. They asked I add 10% to the \$38,000 bid for a total of \$41,800.

If you have any questions, please feel free to call me.

SF

C & M ROOFING Co., LLC

P.O. Box 307, South Windsor, CT 06074

06/07/23

Town of East Hampton, BOE
1 Community Dr.
East Hampton, CT 06424
Attn: Steve Fontanella

Re: Roof – C Replacement @ Firehouse, 3 Barton Hill Rd. East Hampton, CT

Pursuant to your request, I have inspected roof area C on the firehouse and I'm pleased to offer the following quote for replacement;

- Remove the existing roofing material exposing the metal deck (2,370 sf.)
- Install 5.2" Polyisocyanurate insulation over the metal deck (R-30)
- Install additional wood blocking to match the new insulation thickness
- Install 060" EPDM Fully Adhered Rubber Roof System over insulated substrate (inc. 20 year Manufacturers NDL Full System Warranty)
- Flash all walls and mechanical curbs using 060" EPDM
- Flash all roof penetrations according to manufacturers requirements
- Flash existing roof drains according to manufacturer requirements
- Fabricate and install 040" Aluminum Edge Metal and flash into roof system
- Remove all job related debris from the site

Total cost = \$34,990.00

- This cost includes all labor, material, disposal, safety, permit and applicable tax
- This cost does not include hazardous waste removal, steel deck, drains or mech curbs

Additional costs:

- Roof Drain Insert – \$350.00 ea.
- Metal Deck Replacement – \$7.50 sf.
- Wood Blocking Replacement – \$4.00 lf.
- Drainage Scupper and Leader Pipe Replacement - \$950.00

In closing, if you have any questions please contact me at your convenience.

Best regards,

Mike Brunelle
Managing Member
(860) 758-7708

HERITAGE SYSTEMS, INC.

348 Huntingdon Avenue, Waterbury, CT 06708 (203)-755-2101~Fax (203) 755-2774
Website: www.heritage-systems.com

Roof Proposal

Proposal #081321-08 REV 6/7/23

SUBMITTED TO: sfontanella@easthamptonct.org	PHONE	FAX	DATE
Steve Fontanella Director of Facilities	860-365-4000		6/7/23
COMPANY	JOB NAME		
East Hampton Public Schools	Fire House		
STREET	JOB LOCATION		
1 Community Drive	3 Barton Hill Rd., East Hampton CT		
CITY, STATE AND ZIP CODE	TOTAL PAGES:		
East Hampton CT 06424	2 Pages		

We propose to furnish all materials, labor, tools, equipment, taxes and insurance to perform the work outlined below for the price of:

Lump Sum Price Excluding Taxes:

\$35,620.00

Scope of Work

(Approximately 2,350 SQFT)

1. Provide roof top safety to meet OSHA standards and Heritage System's Safety Program.
2. Remove existing roofing and insulation as non-hazardous materials to the metal deck and dispose properly.
3. Inspect the steel deck and replace any deteriorated deck on a unit price basis; \$6.80/square foot if required.
4. Provide wood blocking fastened to the existing wood blocking to match the new roof insulation thickness.
5. Provide R-30 polyisocyanurate roof insulation mechanically fastened to the steel deck.
6. Provide adhered 60 mil EPDM membrane per manufacturer's standard specification.
7. Provide EPDM membrane flashings at all roof penetrations including at roof drains, scuppers, curbs and sleepers.
8. Provide .040' thick aluminum sheet metal flashings at the roof perimeter.
9. Provide roofing manufacturer's 20 Year Warranty.



Terms of Payment: Upon Completion

****Re-Roof Disclaimer:***

As neither Heritage Systems itself nor its representatives practice architecture, Heritage Systems offers no opinion on and expressly disclaims responsibility for the soundness of any structure on which the above scope of work is to be applied. If questions arise as to the soundness of a structure or its ability to support the planned installation properly, the owner should obtain opinions of competent structural Engineers before proceeding. Heritage Systems accepts no liability for any structural failure or resultant damages and no Heritage Systems representative is authorized to vary this disclaimer. Heritage Systems, Inc. is to be indemnified from claims related to mold, mildew, or indoor air quality.

Please note that deck vibration due to roof tear off and installation of the new roof may cause excessive dust and/or improperly secured fixtures to fall from the underside of the roof structure during installation. Heritage Systems, Inc. cannot be held responsible for these occurrences. It is the owner's responsibility to safeguard and protect the areas and machinery beneath the roof. In addition, Heritage Systems, Inc. cannot be held responsible for damage to conduits or other devises if they are attached to the underside of the deck or structure.

Thank you for giving us the opportunity to price the roofing at this facility to you. Please do not hesitate to contact me to discuss this proposal further.

By: _____ **Title:** _____ **Date:** 6/7/23
Bill Bernhardt

All material is guaranteed to be as specified. All work to be completed in a workman like manner according to standard practices. Any alteration or deviation from the specifications above involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado, and other necessary insurance. Our company is fully insured for Workmen's Compensation, General Liability, and Automobile Coverage.

Agreement:

If you are in agreement with the proposed pricing and scope of work as clarified in this proposal, please sign and date below. By signing this proposal, you agree to contract/subcontract Heritage Systems to furnish and install the roofing and sheet metal work as clarified in this proposal. This signed proposal shall serve as the "Letter of Intent" for Heritage Systems to proceed with the scope of work at your direction. Customer is to be responsible for any and all legal fees and court costs incurred in any collection processing necessary.

Signature: _____

Print Name and Title: _____

Date: _____

Please visit our website at www.heritage-systems.com

Bert Dorr Roofing Company, Inc.

General Roofing Contractor

860.349.3709

PO Box 241

Middlefield, CT 06455

www.bertdorroofing.com

Dated: November 18, 2022

Proposal Submitted to:

Steve Fontanella

C/o East Hampton Fire Department

Job Location:

3 Barton Hill Rd.

East Hampton, CT 06424

Upper Roof

We hereby submit specifications and estimates for:

A new, fully adhered .060 EPDM roof system over upper roof

Work to be performed:

1. First, we will remove existing EPDM, insulation, and aluminum edge-metal.
2. Existing BUR will remain, gravel to be removed.
3. Install 2-inch Polyiso insulation board over existing BUR.
4. Insulation to be adhered using two-part epoxy.
5. Fasten a 2x4 nail-board along perimeter of roof.
6. Install a new, fully adhered .060 EPDM roof system.
7. Seams in EPDM to be bonded using six-inch seam-splice tape.
8. Inside corners and penetrations to be flashed according to manufacturer spec.
9. Install new .040 aluminum edge-metal along perimeter.
10. Edge-metal to be flashed using cured EPDM cover strip.
11. New EPDM roof to be flashed into existing drains.
12. Grounds to be kept clean and all debris removed.

Notes: LTTTR of new insulation = 11.4

Weight of new roof approximately 0.83LBS/SQFT

We propose to furnish material and labor – complete in accordance with above specifications for the sum of:

Total:
Thirty-eight thousand dollars

(\$38,000.00)

Intentionally left blank

Guarantee: Any leaks occurring within a period of **Ten (10)** years from job completion will be repaired without charge. Guarantee applies to defective material and workmanship furnished by Bert Dorr Roofing only. There is no guarantee for leaks arising from foot-traffic, weather, acts of God, or the installation of any roof top equipment (e.g. units, signs, posts, wires, satellites, poles, hatches, etc.). No liability is assumed for damage to building or its contents. Guarantee only valid if full payment has been made within 30 days of job completion.

A one-third deposit of:

Twelve thousand six hundred sixty-six dollars

(\$12,666.00)

is required prior to the start of work.

Final payment due within 30 days of job completion.

All material is guaranteed to be as specified. All work to be completed in a workman-like manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements are contingent upon strikes, accidents or delays beyond our control. Owner is to carry fire, tornado and other necessary insurance. Our workers are fully covered by workmen's compensation insurance. Sheet metal work not included in guarantee. We reserve the right to withdraw this proposal if it is not accepted within thirty (30) days.

Authorized By:

Michael Salvatore

Acceptance of proposal: The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature:

Date:



MEMO

July 20, 2023

To: Town Council

From: Jeremy Hall, Parks and Recreation Director

CC: David Cox, Town Manager,
Chuck Yenker, Conservation-Lake Commission Chair

At its July 20, 2023 special meeting, the Conservation-Lake Commission Sub Committee listened to presentations from both GZA Environmental, Inc and GEI Consultants Inc. to determine which company would represent the Town of East Hampton as the next Limnologist for Lake Pocotopaug.

The subcommittee members took turns asking each company a series of eight questions and based on their answers the committee determined that GZA Environmental, Inc of Manchester, CT was the most suitable company for the Town of East Hampton moving forward. Both companies were well qualified to do the job, however, GZA impressed the committee with their abilities for fast turn around times for testing of nutrients and their state-of-the-art testing abilities as it related to Cyanobacteria.

The Conservation – Lake Commission will be holding a special meeting on Monday, July 24 at 10:00 am to consider a motion of approval for GZA Environmental Inc. to become the represented Limnologist for Lake Pocotopaug. Assuming Council’s approval, staff will work with GZA Environmental Inc. to create a contract for services and will outline the scope of work in more detail. The scope of work will remain on budget as indicated in this years Conservation Lake Commission professional services line item. The contract amount should not exceed \$35,000 as represented in the budget for fiscal year 2024.



Ecosystem Consulting Service
A Division of GZA

GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

135 Sheldon Road
Box 1, Unit I
Manchester, CT 06042
T: 860.742.0744
ecosystemconsulting.com
gza.com



GZA RESPONSE TO THE PROFESSIONAL SERVICES PROCUREMENT NOTICE REQUEST FOR QUALIFICATIONS/FEE SCHEDULE LAKE CONSULTANT – LIMNOLOGIST RFQ-2023-CLC TOWN OF EAST HAMPTON

JULY 2023

File No. 05.P000200.24



PREPARED FOR:

Town of East Hampton
East Hampton, Connecticut

GZA GeoEnvironmental, Inc.

135 Shelton Road, Box 1, Unit 1 | Manchester, CT 06042
860-742-0744

31 Offices Nationwide
www.gza.com

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GEOTECHNICAL
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**Town of East Hampton
 GZA Response to the Professional Services Procurement Notice
 Request for Qualifications/Fee Schedule for Lake Consultant – Limnologist
 RFQ-2023-CLC**

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	c. Coventry Lake, Coventry, CT	
	d. Indian Lake, Bristol, CT	
	e. Stockbridge Bowl, Stockbridge, MA	
5.	Project Personnel	3
	a. Ben Burpee, PhD (Project Manager, Contact)	
	b. Bob Kortmann, PhD (Consulting Senior Limnologist)	
	c. Steve Roy, PG (Principal)	
	d. Chris Mayne, CLM (Consultant)	
	e. Paul Grulke (Field Scientist)	
	f. Shane Hoyt (Field Scientist)	
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T: 860.742.0744
ecosystemconsulting.com
gza.com



LETTER OF INTEREST

July 14, 2023
File No. 05.P000200.24

Mr. Jeremy Hall
Parks and Recreation Director
1 Community Drive
East Hampton, CT 06424
jhall@easthamptonct.gov

Dear Mr. Hall,

It is our great pleasure to respond to the RFP issued by the Town of East Hampton for limnological consulting of Lake Pocotopaug. ECS, a division of GZA (ECS), performs full service applied limnology. We are not a 'traditional lake and pond management company'—we provide diagnostic study, feasibility analysis, design-implementation-operation of water system management approaches, and collaborative consulting for recreational lake and pond management.

Dr. Robert Kortmann (Senior Limnologist) founded ECS and began working on large lake restoration projects in the late 1970's. Dr. Benjamin Burpee (Project Limnologist) joined ECS in 2020. He has a decade of experience working on lakes that involve both consulting and academic research in the field lake ecology and climate change. ECS joined GZA, a full-service water, environmental, geotechnical, ecology and construction management firm, in April 2021.

Our goal in recreational lake limnology work is to collaborate with municipalities and lake associations to identify effective means of monitoring water quality for both recreational use and ecological health, and to assist in implementation and long-term operations and management. Our approaches to monitoring are nuanced and lake specific. Our expert staff quickly identifies the crucial features of a lake or pond that influence water quality and focuses our monitoring accordingly. This saves time and money and provides the client with a detailed diagnosis of their waterbody.

Management measures that ECS implements are based on empirical data rather than market trends or easy, short-term solutions. Thus, management solutions provided by ECS are carefully considered for the system and client, to work effectively long-term. ECS has provided such service to lake and pond associations for decades. Our management techniques range from watershed-based planning for small, recreational ponds to deployment of innovative in-lake apparatus in large, utility-owned drinking water reservoirs. Various in-lake management apparatus that we routinely design, fabricate, deploy, for monitor long term system optimization include:

- Full-circulation air diffusers
- Controlled mixing diffusers
- Hypolimnetic aerators
- Layer aerators




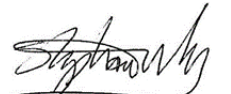
- Solar powered mechanical circulators
- Wind powered mechanical circulators
- Hydrologic discharge control assemblies
- Basin partition curtains
- Open top flow control boxes

Please note that Stephan T. Roy, Principal, as signatory below, is legally authorized to bind the firm to a contract and we have made ourselves knowledgeable of the matters and conditions in the Town that influence this RFQ. Relative to the contractual and project insurance requirements, we are confident that our coverages will meet or exceed your needs and that contract terms can be negotiated in a mutually acceptable manner.

Very truly yours,
GZA GeoEnvironmental, Inc.


Benjamin Burpee, PhD
Project Limnologist


Robert Kortmann, PhD
Senior Limnologist


Stephan T Roy, PG
Principal

CONTACT PERSON FOR FURTHER INFORMATION

For questions or clarification on this RFQ, please contact:

Ben Burpee, PhD (Project Manager, Project Contact)

Office #: 860-544-9048

Cell #: 207-887-0358

benjamin.burpee@gza.com



BACKGROUND AND QUALIFICATIONS

ECS is uniquely qualified to perform monitoring and management services for the Town of East Hampton’s Lake Pocotopaug. We have two PhD level limnologists on staff, a certified lake manager, and field ecologists and technicians specialized in limnological sampling. We have been involved with large and small lake restoration projects in Southern New England since the late 1970’s. Our strategies are multifaceted, using ‘Designing With Nature’ approaches to achieve long-term success for the client and ecosystem. We take great pride in accomplishing water quality and cost-efficiency goals. Our office location in Manchester, CT is close to Lake Pocotopaug, allowing for budget-friendly monitoring and quick response time. Individuals that will be involved with this project are provided in the Project Personnel below. Staff resumes are included in Appendix A.

REFERENCE PROJECTS

We list the following five reference clients and projects as examples of the work we routinely conduct for municipalities and recreational lake clients.

Lake Waramaug, Warren/New Preston, CT

Sean Hayden
Executive Director
Lake Waramaug Task Force
50 Cemetery Road
Warren, CT 06754
www.lakewaramaug.org
seanhayden@lakewaramaug.org
860-868-0331

Lake Waramaug was one of the original recreational lake projects conducted by ECS since the 1980’s. ECS designed and deployed three aeration apparatus in the lake to control deep anoxia and internal lake loading. Lake water quality and cyanobacteria have drastically improved over the decades as a result. Since then, ECS has worked very closely with the Lake Association and more recently with Sean Hayden of the Lake Waramaug Task force to conduct continued monitoring, consultation, and in-lake water quality apparatus optimization.

Gardner Lake, Salem/Bozrah/Oakdale, CT

Scott Soderberg
Co-Chair
Gardner Lake Authority
PO Box 2006
Salem, CT 06415
scott.soderberg@att.net
860-859-7946

Scott Soderberg, Co-Chair of the Gardner Lake Authority (GLA), leads the cooperative client monitoring annually conducted on Gardner Lake. ECS has conducted this type of coop monitoring at Gardner Lake for years. In this model, ECS conducts a single sampling at Gardner every year, along with a macrophyte survey to track aggressive colonizing plants species around the lake. ECS analyzes and summarizes data collected by Scott and the GLA and presents to the GLA annually to summarize lake conditions and answer questions posed by the public.



Coventry Lake, Coventry, CT

Eric Trott
Coventry Director of Planning and Development
Town of Coventry, CT
1712 Main Street
Coventry, CT 06238
etrott@coventryct.org
<https://www.coventryct.org>
860-742-4062

ECS has conducted basic annual monitoring on Coventry Lake for decades on behalf of the town. Most recently, we have implemented a cooperative client monitoring program. Over the years our work has included lake advisories and analysis reports pertaining to cyanobacteria bloom conditions.

Indian Lake, Bristol, CT

Scott Heth
Executive Director
Environmental Learning Centers of Connecticut
501 Wolcott Rd
Bristol, CT 06010
sheth@elcct.org
<https://elcct.org>
(860) 583-1234 Office
(860) 480-4787 Mobile

Indian Lake is a recent monitoring project conducted by ECS. Indian Lake is a key feature for the Environmental Learning Centers of Connecticut and is the center of youth summer camp activities. It is used for recreation and environmental teaching, but faces some water quality issues such as cyanobacteria, nuisance macrophytes, and sediment infilling from beach sand and high-flow tributaries. We provided the client with annual monitoring concluded by a management recommendations report. We continue to consult with them for ongoing management and water quality improvement projects.

Stockbridge Bowl, Stockbridge, MA

Roxanne McCaffrey
Stockbridge Bowl Stewardship Commission
Town of Stockbridge
50 Main Street
PO Box 417
Stockbridge, MA 01262
pineroftcottage@aol.com
<https://www.stockbridge-ma.gov/stockbridge-bowl-stewardship-committee>
413-822-1120

Stockbridge Bowl is a eutrophic lake with surface area of 398 acres and a maximum depth of 52 feet. The lake is a highly used recreational resource and one of the most visited lakes in Western Massachusetts. The lake is impacted by aquatic plant growth which is dominated by Eurasian Milfoil and is prone to developing harmful algal



blooms. GZA has worked on Stockbridge Bowl for many years conducting ecological inventory studies, dredging feasibility and sediment analysis, and most recently, ECS performs annual monitoring and watershed-based planning.

PROJECT PERSONNEL

The following GZA personnel would be involved with this project. Key staff resumes are in Appendix A.

GZA office location:

135 Sheldon Road, Box 1, Unit I
Manchester, CT 06042

Ben Burpee, PhD (Project Manager, Project Contact) – 3 years with ECS, 10 years' experience total

Office #: 860-544-9048

Cell #: 207-887-0358

benjamin.burpee@gza.com

Supervisor: Bob Kortmann, PhD and Steve Roy, PG

Supervises: Paul Grulke and Shane Hoyt

Bob Kortmann, PhD (Consulting Senior Limnologist) – over 40 years' experience

Office #: 860-544-9052

robert.kortmann@gza.com

Supervisor: Steve Roy, PG

Supervises: Benjamin Burpee, PhD

Steve Roy, PG (Principal) – 3 years with ECS, over 40 years' experience total

Office #: 860-858-3191

stephan.roy@gza.com

Supervises: Benjamin Burpee, PhD, Robert Kortmann, PhD, Chris Mayne, CLM

Chris Mayne, CLM (Consultant) – 10 years with ECS, over 20 years' experience total

Office #: 860-858-3113

christopher.mayne@gza.com

Supervisor: Steve Roy, PG

Paul Grulke (Field Scientist) – 2 years with ECS, 5 years' experience field work

paul.grulke@gza.com

Supervisor: Benjamin Burpee, PhD

Shane Hoyt (Field Scientist) – 1 year with ECS, 3 years' experience with CT based water supply company

shane.hoyt@gza.com

Supervisor: Benjamin Burpee, PhD



SCOPE OF WORK

Based on existing data gathered and observations made by others, ECS would propose the implementation of annual limnological monitoring (**Task 1**), a summary report for 2023 findings (**Task 2**), and Client Training (**Task 3**) as requested in the RFQ. Task 3 could be separate sessions with Town staff and other invited parties, or they could be ‘ride along’ training on the days we are doing field sampling (see **CLIENT COOP MODEL AND CLIENT TRAINING** section below).

There may also be interest in having a data summary and discussion summit meeting at some point during the winter months in preparing for longer term specific tasks to answer on-gong questions about the nature and health of the lake. We have not estimated those costs at this time, but they could be discussed in a scoping meeting after project award.

TASK 1: 2023 Monitoring - will include 6 monthly samplings, from August through October 2023, and from May through July 2024.

General limnological monitoring data ECS collects and uses to develop data-driven lake management strategies include the following:

Type of data	Individual Parameters	Significance
Field measurements	Lake water level, water clarity (Secchi disk depth), water level, general observations	These basic field observations are important for monitoring the aesthetic qualities of the lake that would be noticed by the general public. Water clarity has ecological implications as well.
Water column profiles	Temperature, stratification, dissolved oxygen, transmissivity, pH, turbidity, specific conductivity, total dissolved solids, oxidation-reduction potential, algal pigments, dissolved organic matter	These measurements provide a snapshot of monthly lake conditions from top to bottom. These various physical and chemical parameters are all collected quickly and in tandem by submersible instruments deployed over the side of the boat. Together, these data provide insight into water quality and ecological conditions.
Chemistry samples	Total phosphorus, ammonia, nitrate, silica oxide, iron, manganese, CO2	These chemistry samples are typically collected from three depths in the water column (top, middle, and deep) and delivered to UCONN’s CESE lab. They provide information on nutrient concentrations (which is important for anticipating cyanobacteria), and other water quality parameters.
Biological samples	Phytoplankton samples for counting, pigment and dissolved organic matter analysis, and zooplankton samples	Phytoplankton samples are preserved and counted to track the general community through the summer, which specific attention given to cyanobacteria. The pigment analyses allow us to rapidly identify how much cyanobacteria are occurring, and where in the water column they are located. Zooplankton are an important part of the larger ecosystem, and also provide insight into overall lake health and phytoplankton changes.



TASK 2: Summary Report - ECS will provide a summary report following the completion of monitoring for the calendar year, consisting of written interpretation with data tables, illustrative images and figures and recommendations for continued management. The summary report will be presented to the Town at the end of the year at a mutually agreed upon date and time.

TASK 3: Client Training – as described above, ‘ride along’ training or separate sessions, as determined by the Town.

METHODS AND APPROACH

ECS will work with the Town to schedule a monthly monitoring and sampling schedule. Sampling will be comprehensive, and will include the following monthly collection from a single point corresponding to the greatest depth of 10 m, collected by ECS personnel from an ECS-provided boat operated by electric motor:

- **IN FIELD MEASUREMENTS:** Secchi disk depth, stage (water level), and sonde profile at 0.5 m depth increments for: temperature, stratification intensity, dissolved oxygen, pH, specific conductivity, oxidation-reduction potential, total dissolved solids, fDOM, turbidity, and algal pigments.
- **OPTICAL ANALYSES:** 1 m, 5 m, and 9 m water collected via van Dorn bottle for GZA to perform an optical suite for Chl-a, phycocyanin, phycoerythrin, cDOM, UVA₂₅₄, CH:PC, CO₂ assay.
- **CHEM LAB TESTING:** 1 m, 5 m, and 9 m water chemistry samples collected via van Dorn bottle: total phosphorus, total nitrogen, NH₃, NO_x, SiO₂, total Fe, and total Mn.
- **ZOOPLANKTON ENUMERATION:** Water-column integrated sample (0-9m) collected by net to capture the community and density of zooplankton “grazers” that can exhibit top-down control of phytoplankton density.
- **PHYTOPLANKTON ENUMERATION:** Surface (0-5 m) integrated sample collected by straw and possibly a second deep targeted sample collected by van Dorn bottle, dependent on conditions, to capture highest cyanobacteria density. All taxa are enumerated to cells/mL (cell density) and cyanobacteria are also enumerated in mm³/L (biovolume).

PLEASE NOTE: Chemistry samples will be delivered to UConn’s CESE lab for analysis. The costs of these analyses have been included in the estimated budget for Task 1, but the Town may qualify for reduced CT municipality rates. In this case, CESE could bill the municipality (East Hampton) directly for analyses at a reduced cost. Please let us know if the Town wishes to pursue this option, so we can adjust the estimated budget and set up direct billing between CESE and the Town.



SCOPE BUDGET

An approximate estimate cost for Year 1 Tasks 1 (annual monitoring) and 2 (annual summary report) is **\$20,600**.

This does not include any specific further scope or analysis requests that may occur in discussions with the Town. A final annual fee will be determined based on those discussions. These costs are broken down in the Table 1, below:

Task 1: 6 rounds of monthly lake monitoring at Pocotopaug

Labor

Personnel	Position	Rate	Est. Hours	Est. Days	Field Trips	Sub Total
Dr. Ben Burpee	Project Manager	\$ 165	20	2.50	1	\$ 3,300
Dr. Bob Kortmann	Senior Consultant	\$ 200	8	1.00	0	\$ 1,600
Steve Roy	Principal	\$ 250	4	0.50	0	\$ 1,000
Paul G./Shane H.	Field Scientist	\$ 120	58	7.25	5	\$ 6,960
Sub Total:						\$ 12,860

Expenses

Item	Cost per Trip	Qty.	Sub Total
Chemistry	\$ 324	6	\$ 1,943
Phytoplankton	\$ 92	6	\$ 550
Mileage	\$ 46	6	\$ 276
Equipment usage	\$ 150	6	\$ 900
Communication fee	\$ 82	6	\$ 494
Sub Total:			\$ 4,163

Est. per trip cost: \$ 2,837
TOTAL MONITORING ESTIMATE: \$ 17,000

Task 2: Annual Summary Report

Labor

Personnel	Position	Rate	Est. Hours	Est. Days	Sub Total
Dr. Ben Burpee	Project Manager	\$ 165	12	1.50	\$ 1,980
Dr. Bob Kortmann	Senior Consultant	\$ 200	2	0.25	\$ 400
Steve Roy	Principal	\$ 250	1	0.13	\$ 250
Paul G./Shane H.	Field Scientist	\$ 120	8	1.00	\$ 960
TOTAL REPORT ESTIMATE:					\$ 3,600

TOTAL PROJECT ESTIMATE: \$ 20,600

TABLE 1. SCOPE BUDGET BREAKDOWN FOR '23 – '24 SERVICES



Task 3 – Client Training is estimated to be between \$1,000 (for ‘ride along’ training) to \$2,000 for separate sessions, depending on scope, time requested and equipment needs for on-water activities.

Please note that this cost estimate includes administrative fees that are totaled under the line described as ‘Communication Fee’ which is typically 3% of labor costs. If additional services are requested over the term of this contract, a mutually agreed upon scope and fee will be determined based on the Rate Table attached in Appendix B.

CLIENT CO-OP MODEL AND CLIENT TRAINING

GZA - Client Based Water Quality Monitoring Program

*GZA has identified a client training task that would fit naturally into the proposed monitoring program, would maintain budget (even potentially decreasing future annual budgets allowing deployment of funds to other studies identified by the Town), and would benefit the Pocotopaug Lake community at large. **This task includes two client coop monitoring training sessions, to be conducted during one of our routine monitoring visits as a ‘ride-along’.** Schedule and dates for these training sessions is flexible and will be coordinated between ECS and the Town.*

The town will select up to two volunteers to assist with the monitoring during two of ECS’s field visits, which will include a ride-along in the boat with our personnel. These visits will be with Dr. Ben Burpee, the project manager and limnologist. The training sessions will familiarize the volunteers with the sampling procedure and prepare them for client sampling in the future (should such an arrangement be desired by the Town). Volunteers will also be able to discuss Lake Pocotopaug with Dr. Burpee and ask any questions regarding their lake or the monitoring work. Specific monitoring skills that will be reviewed will be Secchi disk readings; water column profile data collection using a submersible probe; water collection using a van Dorn bottle sampler; phytoplankton sampling using a straw; zooplankton sampling using a zooplankton net; and transmissivity using a transmissometer. Implications and interpretation of collected data will be discussed. The sampling will only take a couple of hours, but discussion between Dr. Burpee and the volunteers may extend that time.

Overall, client monitoring provides valuable information at reduced cost to help monitor, understand, and protect lake water quality. Information collected can be used to make management decisions and help educate the community on best practices to preserve the value and beauty of their lake. This model has been very successfully implemented with a number of our clients (Stockbridge Bowl, Gardner Lake, and Coventry Lake as examples). As identified Pocotopaug/East Hampton personnel become more comfortable with the sampling routine that we would teach during our ride along sessions, they could gradually take over some sampling responsibilities in future years and decrease project budget costs, if the client so wishes. Scheduling for this is flexible and could be coordinated at the client’s discretion and convenience.

More about our client coop model:

In certain circumstances, ECS offers a client-cooperative monitoring model when local individuals can be identified to perform field sampling with lake association owned or rented equipment. Such a model may work for Lake Pocotopaug and save some field sampling costs in the future. If the Town is interested in pursuing this approach, volunteers may join ECS field personnel in 2023-24 to familiarize themselves with the sampling process, and a cooperative model could be implemented in following years. The ECS - Client Monitoring Program is a cooperative client study program where clients participate to gather information at lower cost. Client based monitoring



programs can be an extremely useful tool for companies and communities to observe, understand, and protect surface water health and quality. Client monitoring requires minimal time and expense yet provides essential information to make well guided management decisions. This program is designed to maximize collection of essential information on a water body at lower cost by providing the client with the tools necessary to collect data and samples themselves. Water quality observations can include Secchi disk readings, water sample collection of surface water and watershed streams for analysis in a lab, temperature & dissolved oxygen readings using a profiling instrument, zooplankton sample collection, and algae sample collection.

Secchi disk readings provide information on water clarity in a water body. A Secchi disk is a circular weighted plate, 20cm in diameter, with an alternating pattern of black and white quadrants attached to a calibrated line. The disk is lowered into the water column until just out of sight, and the depth read at the water's surface on the calibrated line is the transparency reading. Water transparency is a quick and easy measurement that provides good information on a lake's water quality. First, it indicates the amount of light penetration into a lake. Second, Secchi transparency provides an indirect measure of the amount of suspended material in the water, which in many cases is an indication of the amount of algae in the water. Long-term transparency monitoring by volunteers provides a valuable basis for detecting trends in water quality. Generally, the sooner water-quality problems are detected, the easier and less expensive it is to restore the lake to its previous state.

Water, algae, and zooplankton samples would require analysis by a lab and would provide very valuable information. Water samples from watershed streams and surface water can provide essential information on the amount of turbidity, metals, and nutrients running into a lake and their potential sources. The levels of turbidity, nutrients, and metals in a lake effect many things including the aquatic plants (weeds), algae, and zooplankton communities. It is important to monitor the changes in each of these components to develop a good understanding of how each of them affects the overall quality of the lake. This information can also be used to help develop management programs to improve and correct any issues that may develop.

Temperature and dissolved oxygen readings by depth are important to help understand how conditions in a lake change throughout the year. This information tells how much of the water column is oxygenated, and how strongly the water is stratified (layered) because of temperature differences. These data can be analyzed and used to make decisions and develop management strategies to improve water quality.

Client Water Quality Monitoring Kits Offered by Ecosystem Consulting Service, Inc.

The program is customized for each client to suit the needs of a particular lake or reservoir ecosystem.

Basic Sampling Equipment Kit

For basic monitoring and sampling. Includes:

1. Secchi disk with calibrated line
2. Temperature & dissolved oxygen probe
3. Water sampler
4. Water sample bottles
5. Cooler for samples with ice packs
6. Sampling Equipment Storage Bin
7. Data entry sheets (Field Data sheet and Reporting Worksheet Excel File)



Intermediate Sampling Equipment Kit

For basic sampling with algae included. In addition to Basic Kit Includes:

1. Depth integrated algae “straw” sampler
2. Sample bottles for algae samples
3. Lugol’s Solution for algae sample preservation

Advanced Sampling Equipment Kit

For complete sampling. In addition to Basic Kit Includes:

1. Depth integrated algae straw sampler
2. Zooplankton net sampler
3. Sample bottles for algae and zooplankton samples
4. Lugol’s Solution for zooplankton and algae sample preservation

COMMUNICATIONS AND MONTHLY UPDATES

In addition to monitoring data sharing between GZA and the Town, GZA will provide the Town with brief monthly interpretations of the collected data to date. We will also provide potential management recommendations, should they be needed. Please note that while some data will be readily available and current (such as profile data) there may be a lag in reporting other data such as a phytoplankton and chemistry that can have significant turnaround time.

GZA will prepare and provide a summary of lake conditions following the completion of the annual monitoring for the calendar year. This summary will consist of a written report with figures and summarized data, as well as recommendations for continued management. The summarized report will also be presented in-person to the Town by GZA at the end of the year at a mutually agreed upon date, time, and location. The monitoring budget includes funds for this activity.

FINAL STATEMENT

GZA is uniquely qualified to serve the Town of East Hampton as lake expert consultants because of our knowledge base, experience, and depth of related engineering and science expertise within GZA. The Manchester GZA office focuses on lakes and water supply reservoirs. We are familiar with Lake Pocotopaug and the cyanobacteria issues experienced since the early 1990s when the productivity of the lake likely shifted from plant-dominance to phytoplankton-dominance.

Restoring the lake to its prior plant-dominated, clear water condition, without problematic cyanobacteria densities is the goal at Lake Pocotopaug. Accomplishing that goal will need to include watershed management action (already initiated) as well as in-lake management. We have some knowledge regarding the artificial circulation air diffuser system that was recently installed. Artificial circulation is a simple and often effective approach, but it does have limitations and can have adverse impacts that need to be avoided.

At Lake Pocotopaug, you have invested in a lake management system that can be an effective tool for cyanobacteria bloom reduction. Looking over 2021 Monitoring Report documents, we see that performance of this management system may be somewhat compromised. Currently, data are suggesting that its operation may



be having some negative impacts on lake water quality and stimulation of phytoplankton, impacts that could probably be avoided by optimizing operation of the system. We have some ideas regarding how the diffused air artificial circulation system might be optimized to increase its benefit simply and inexpensively through a couple operational changes, and perhaps some modest modifications. We would likely be able to make initial suggestions for improvement and further study following the completion of a seasons' monitoring and data collection.



APPENDIX A
RESUMES FOR GZA PROJECT PERSONNEL



Ben Burpee, Ph.D.

Limnologist & Freshwater Ecosystem Specialist

Summary of Experience

Dr. Ben Burpee is an Applied Limnologist and Project Manager at Ecosystem Consulting Service (ECS), a division of GZA GeoEnvironmental, Inc. Dr. Burpee specializes in lake and reservoir management in the New England and New Jersey area. He promotes and implements empirically based, effective, and proactive lake and reservoir management in the face of ongoing environmental issues including contamination, eutrophication, cyanobacteria blooms, and climate change impacts. The systems Dr. Burpee routinely focuses on range from large drinking water reservoirs for utility clients to small recreational lakes and ponds managed by volunteer associations.

Dr. Burpee draws on 10 years of experience as an applied and academic research limnologist. He has extensive experience conducting lake monitoring, remote instrument deployment, data collection, analysis and diagnosis, data visualization, and technical writing for client summary reports and scholarly journal publication.

Project Experience

WATER SUPPLY

Limnologist, Aquarion Water Company annual reservoir monitoring data management and reporting for Connecticut. For over a decade our office has managed, analyzed, and reported data collected from over 20 Aquarion reservoirs. Since 2020, I have consulted with Aquarion to acquire and deploy remote high-frequency data transmitting buoy systems in two of their reservoirs to supplement their data collection efforts. From spring to fall, I provide Aquarion weekly data update reports and bi-weekly data meetings to facilitate their management decisions.

Limnologist, Connecticut Water Company's Kelseytown Reservoir management, Clinton, Connecticut. One of many projects for CWC, this involved the management of thermal stratification and manganese for a shallow drinking water source by installation of a source water-to-intake flow modification system. The project includes ongoing monitoring (since 2020), data analysis, interpretation, and annual reporting of raw water quality improvement and potential source water quality issues.

Limnologist, City of Portsmouth New Hampshire, Madbury, New Hampshire. This project took place on Bellamy Reservoir, a large, riverine drinking water source that has historically struggled with organics and manganese management. We implemented a custom-built, 300-ft submerged baffle curtain to isolate the terminal end of the reservoir and effectively manage anoxia and poor water quality conditions closest to the raw water intake. Ongoing monitoring following implementation demonstrates greatly improved water quality and reduced organics, nutrients, and manganese.

ANNUAL MONITORING

Limnologist and Project Manager, annual lake and reservoir monitoring for multiple clients throughout Connecticut, Massachusetts, and New Jersey. I have developed, organized, and executed regular monitoring programs for several clients during the April-November field season. Routine data collection included profiles, Secchi disks measurements, zooplankton, phytoplankton, and water chemistry. I

Education

Ph.D., Limnology and Freshwater Ecology,
University of Maine, 2020
M.S., Limnology and Freshwater Ecology,
University of Maine, 2015
B.S., Biology,
University of Maine, 2010

Areas of Specialization

- Source water supply systems
- Diagnostic limnology
- Statistical analysis / data visualization
- Monitoring/high frequency data logging
- Lake restoration and management
- Freshwater ecology
- New England lake and reservoir ecology
- Arctic/alpine lake ecology



Ben Burpee, Ph.D.

Limnologist & Freshwater Ecosystem Specialist

regularly deployed remote data logging instruments such as PME miniDOTs to collect high-frequency temperature and DO datasets important for diagnosis of water quality issues. I have consulted on the setup and use of high-frequency data transmission buoy systems to measure several different physical, chemical, and biological parameters in real time. Throughout these monitoring projects I manage, interpret, and present or report on the collected datasets for my clients. Such datasets allow for timely management decisions and provide accurate diagnosis that facilitates effective management implementation going forward.

LAKE RESTORATION

Project Limnologist, Stockbridge Bowl monitoring and watershed management, Stockbridge, Massachusetts. I recently assisted the Town of Stockbridge with production of a watershed-based plan. Last year I conducted a historical literature survey and synthesized my findings into a comprehensive report. Since 2020 I have conducted annual monitoring, data analysis, interpretation, and presentation of potential water quality issues, including internal phosphorus loading and high cyanobacteria abundance.

Experience Prior to GZA

ACADEMIC RESEARCH

Graduate Researcher, Field Coordinator, and Research Assistant, University of Maine, Orono, Maine. I conducted lake surveys, laboratory analyses, and statistical interpretation for research publication. I organized and coordinated field expeditions for lake sampling to remote locations such as the Rocky Mountains, Northern Patagonia, Greenland, Australia, and South Georgia Island. I guided graduate students with development, planning, and the execution of lake research expeditions.

Scholarly Publications

Burpee B T, Saros J E, Nanus L, Baron J, Brahney J, Christianson K R, Ganz T, Heard A, Hundey B, Koinig K A, Kopáček J, Moser K, Nydick K, Oleksy I, Sadro S, Sommaruga R, Vinebrooke R, Williams J. "Identifying factors that affect mountain lake sensitivity to atmospheric nitrogen deposition across multiple scales." *Water Research*, 2022.

Hazuková V, **Burpee B T**, McFarlane-Wilson I, Saros J E. "Under Ice and Early Summer Phytoplankton Dynamics in Two Arctic Lakes with Differing DOC." *Journal of Geophysical Research: Biogeosciences*, 2021.

Burpee B T, Saros J E. "Cross-ecosystem nutrient subsidies in Arctic and alpine lakes: implications of global change for remote lakes." *Environmental Science: Processes & Impacts*, 2020.

Saros J E, Anderson N J, Juggins S, McGowan S, Yde J, Telling J, Bullard J, Yallop M, Heathcote A, **Burpee B T**, Fowler R, Barry C, Northington R, Osburn C, Pla-Rabès S, Mernild S, Whiteford E, Andrews M G, Kerby J, Post E. "Arctic climate shifts drive rapid ecosystem responses across the West Greenland landscape." *Environmental Research Letters*, 2019.

Northington R M, Saros J E, **Burpee B T**, McCue J. "Changes in mixing depth reduce phytoplankton biomass in an Arctic lake: results from a whole-lake experiment." *Arctic, Antarctic, and Alpine Research*, 2019.

Burpee B T, Anderson D, Saros J E. "Assessing ecological effects of glacial meltwater on lakes fed by the Greenland Ice Sheet: The role of nutrient subsidies and turbidity." *Arctic, Antarctic, and Alpine Research*, 2018.

Burpee B T, D'Andrilli J. "Impacts of a changing cryosphere on lakes and streams in mountain regions: a China-United States cooperation workshop." *Limnology and Oceanography Bulletin*, 2017.

Anderson N J, Saros J E, Bullard J E, Cahoon S M P, McGowan S, Bagshaw E A, Barry C D, Bindler R, **Burpee B T**, Carrivick J L, Fowler R A, Fox A D, Fritz S C, Giles M E, Hamerlik L, Ingeman-Nielsen T, Law A C, Mernild S H, Northington R M, Osburn C L, Pla-Rabès S, Post E, Telling J, Stroud D A,



Ben Burpee, Ph.D.

Limnologist & Freshwater Ecosystem Specialist

Whiteford E J, Yallop M L, Yde J C. "The Arctic in the 21st century: Changing biogeochemical linkages across a paraglacial landscape of Greenland." *BioScience*, 2016.

Saros J E, Northington R M, Osburn C L, **Burpee B T**, Anderson N J. "Thermal stratification in small arctic lakes of southwest Greenland affected by water transparency and epilimnetic temperatures." *Limnology and Oceanography*, 2016.

Burpee B T, Saros J E, Northington R M, Simon K S. "Microbial nutrient limitation in Arctic lakes in a permafrost landscape of southwest Greenland." *Biogeosciences*, 2016.

Presentations

Burpee B T, Kortmann R. "Management of New England Drinking Water Reservoirs in a Changing Climate." 27th Annual ATCAVE, Southington, CT, 2023.

Burpee B T. "Design, Permitting, and Installation of Reservoir Partition and Aeration Improvements in a Large, Anoxic, and Highly Organic Reservoir." GZA Technical Conference, Norwood, Massachusetts, 2023.

Burpee B T, Kortmann R. "Monitoring and managing the effects of climate change on lakes and reservoirs." National Water Quality Monitoring Conference, Virginia Beach, Virginia, 2023.

Burpee B T, Pratt A, Kortmann R. "Reservoir Partitioning to Improve Management in a Large, Anoxic, and Highly Organic New Hampshire Reservoir." NEWWA Spring Conference, Worcester, Massachusetts, 2023.

Burpee B T, Kortmann R. "Management of lake and reservoir thermal stratification and anaerobic respiration byproducts in a changing climate." Joint Aquatic Sciences Meeting 2022, Grand Rapids, Michigan, 2022.

Kortmann R, **Burpee B T**. "Managing thermal stratification to adapt to climate change." Joint Aquatic Sciences Meeting 2022, Grand Rapids, Michigan, 2022.

Burpee B T. "Kelseytown Reservoir Manganese Management: Flow Control and Verification Study." GZA Technical Conference, Norwood, Massachusetts, 2022.

Burpee B T, Kortmann R, Sonone P. "Managing for manganese and thermal stratification in a shallow drinking water reservoir." NEWWA Spring Conference, Worcester, Massachusetts, 2022.

Burpee B T, Kortmann R. "Cyanotoxins, Climate Change, and Adaptive Source Water Management." NJ AWWA Annual Conference, Atlantic City, New Jersey, 2022.

Burpee B T. "Ecological Effects of Recent Climate Change on Southern New England Lakes and Reservoirs: Implications for Water Quality and Management." Fall Lakes Symposia, Connecticut Federation of Lakes, Connecticut, 2021.

Burpee B T. "Climate Change Impacts on New England Lakes and Reservoirs." Connecticut Envirothon, Vernon, Connecticut, 2021.

Burpee B T, Saros J E, Nanus L, the Alpine Lake Sensitivity Working Group. "Scale-dependent lake characteristics determine ecological sensitivity to atmospheric nutrient deposition in alpine regions." AGU Fall Meeting, San Francisco, California, 2019.

Burpee B T, Saros J E. "Lake characteristics that determine ecological sensitivity to atmospheric nutrient deposition in alpine areas." Harold W. Borns Jr. Symposium, Orono Maine, 2019.

Burpee B T, Slemmons K, Anderson D, Saros J E. "Do nutrient subsidies to alpine lakes amplify warmingdriven changes in diatom community turnover?" IPAIAL 2018 Joint Meeting, Stockholm, Sweden, 2018.

Burpee B T, Anderson D, Saros J. "Ecological effects of nutrients and turbidity in lakes fed by Greenland Ice Sheet meltwater." Harold W. Borns Jr. Symposium, Orono, Maine, 2017.

Burpee B T, Saros J. "Glacially-derived nitrogen increases temporal coherence of algal community changes in alpine lakes." University of Melbourne Environmental Reconstruction Workshop, Melbourne, Australia, 2017.



Ben Burpee, Ph.D.

Limnologist & Freshwater Ecosystem Specialist

Burpee B T, Slemmons K, Anderson D, Saros J. "Glacially-derived nitrogen increases temporal coherence of algal community changes in alpine lakes." ASLO 2017 Aquatic Sciences Meeting, Honolulu, Hawaii, 2017.

Burpee B T, Saros J. "Do nitrogen subsidies in glacier meltwater modify the response of alpine lakes to abrupt warming?" Harold W. Borns Jr. Symposium, Orono, Maine, 2016.

Burpee B T, Simon K, Northington R, Saros J. "Bacterial nutrient limitation in arctic lakes of southwest Greenland." Harold W. Borns Jr. Symposium, Orono, Maine, 2015.

Burpee B T, Northington R M, Simon K S, Saros J E. "Within-lake potential for microbial degradation of DOC in arctic lakes of southwestern Greenland." ASLO 2015 Aquatic Sciences Meeting, Grenada, Spain, 2015.

Burpee B T, Northington R, Simon K S, Saros J E. "Dissolved Organic Carbon Degradation in Response to Nutrient Amendments in Southwest Greenland Lakes." AGU Fall Meeting, San Francisco, California, 2014.

Burpee B T, Saros J, Northington R. "What can bacterial enzyme activities tell us about nutrient limitation in southwest Greenland lakes?" Harold W. Borns Jr. Symposium, Orono, Maine, 2014.

Affiliations/Memberships

- American Water Works Association (AWWA)
Sections: Connecticut, New England, New Jersey
- North American Lake Management Society (NALMS)



Robert (Bob) Kortmann, Ph.D.

Senior Consultant, Applied Limnology

Summary of Experience

Dr. Kortmann is an applied diagnostic-feasibility limnology specialist with over 40 years of experience for restoration and management of lakes and water supply systems. Dr. Kortmann has conducted cooperative research projects with Environmental Engineering Companies, Water Utility Companies, University of Connecticut, Kent State University, Canada Ministry for the Environment, and Regulatory Agencies. Dr. Kortmann is a life member of AWWA, and has received several research publication awards including two Dexter Brackett Awards, Quarternary Transatlantic Award (England), and three Past President's Awards for publications. Dr. Kortmann has conducted water supply resource research and consulting nation-wide and as far away as Sao Paulo, Brazil. He founded Ecosystem Consulting Service in 1980, now a Division of GZA. Under the direction of Dr. Kortmann, the research performed by ECS, Inc. has led to the development of new diagnostic techniques and innovative lake-reservoir restoration methods including four US patents. He received the Lake Restoration Project Award for innovative restoration techniques employed at Lake Waramaug, CT; and the Environmental Technology Innovation Award for the development of Layer Aeration from the EPA New England. Dr. Kortmann was recently appointed as a lead to the Harmful Algal Bloom and Lakes Management Expert Team, New Jersey Sea Grant/NJ DEP, 2021.

Education

B.S. 1974, Environmental Science, Teacher Certification, Rutgers University
 M.S. 1977, Botany, Plant Ecology
 University of Connecticut
 Ph.D. 1981, Limnology, Ecosystem Ecology
 Interdisciplinary-Life Sciences, Natural Resources, Engineering,
 University of Connecticut

Licenses & Registrations

- SCUBA Certification

Areas of Specialization

- Diagnostic Limnology
- Lake Restoration and Management
- Restoration Technologies / Inventor
- Source Water Systems
- Water Supply Limnology
- Aeration Technologies

Memberships

- American Water Works Association
 Sections: CT, New England, NY, VA, NJ
- North American Lake Management Society (NALMS)
- American Society of Limnology and Oceanography (ASLO)
- Sigma Xi Research Society, UConn
- State Advisory Board - Institute of Water Resources - CT
 Chairman 1991-1993
- American Fisheries Society

Relevant Project Experience- Major Projects

Lake Restoration

- Developed innovative lake restoration methods at Lake Waramaug, CT in the early 1980's that uses iron generated by deep anaerobic respiration to remove phosphorus from lake water to prevent cyanobacteria blooms.
- Developed and implemented a quantitative watershed management approach, Nutrient Allocation, to preserve the quality of Columbia Lake, CT (a predecessor of the TMDL watershed management approach).
- Conducted numerous diagnostic-feasibility studies and lake restoration projects under Section 314 of the Clean Water Act Phases I, II, and III.

Water Supply – Source Water System Management

- Designed and installed a Layer Aeration System to eliminate blooms of cyanobacteria and chrysophytes in a water supply lake, Lake Shenipsit CT, to optimize the GAC water treatment plant process.
- Designed and installed Hypolimnetic and Layer Aeration Systems in New Hampshire, Massachusetts, Connecticut, New Jersey, Virginia, Florida, Arizona, California, Colorado, Illinois, and Ohio.
- Designed and installed hypolimnetic aeration in the source water reservoirs serving Norfolk VA, to reduce raw water iron and manganese, DBP precursors, and cyanobacteria.

- Designed multiple operating mode aeration systems, integrating hypolimnetic layer aeration, full diffused air artificial circulation, and re-diffused vented air for expanding the mixing depth for cyanobacteria avoidance at the Brick Township Reservoir NJ, and Tampa Bay Water reservoir FL.
- Developed, designed, and implemented whole surface source water system operation procedures, reservoir partitioning, and flow routing systems at numerous source water systems in Connecticut, New Hampshire, and New Jersey.

Major Publications (* pdf available on request, ** lake management specific to cyanobacteria control)

Kortmann, R.W. 1980. Benthic and atmospheric contributions to the nutrient budgets of a soft-water lake. *Limnology and Oceanography* 25(2): 229-33. *

Kortmann, R.W. 1981. Functional relationships between nutrient dynamics, oxidation-reduction capacity, and eutrophication in a soft-water lake. *University of Connecticut. Ph.D. Dissertation.*

Kortmann, R.W., D.E. Henry, A. Kuether, and S. Kaufman. 1982. Epilimnetic nutrient loading by metalimnetic erosion and resultant algal responses in Lake Waramaug, Conn. *Hydrobiologia* 92: 501-10. * **

Kortmann, R.W., E. Davis, C.R. Frink, and D.D. Henry. 1983. Hypolimnetic Withdrawal: Restoration of Lake Wononscopomuc, Ct. pp. 46-55 in: *Lake Restoration, Protection and Management. Proceedings of the 2nd Annual Conf. of the North American Lake Management Society.* Oct. 26-29, 1982. Vancouver, B.C., Canada. EPA-44015-83-001.

Kortmann, R.W. 1984. The utility of a hydrograph flowstage phosphorus loading model. *Lake and Reservoir Management - Practical Applications. Proceedings of the 4th International Conf. of the North American Lake Management Society.* Oct. 16- 19, 1984. McAfee, N.J. pp. 173-179.

Kortmann, R.W. and D.D. Henry, 1987. "Mirrors of the Landscape: An Introduction to Lake Management". Conn. *Institute of Water Resources*, US Dept. of the Interior, Univ. of Conn., Storrs, CT. 103 pp.

Kortmann, R.W. 1988. Utility of Layer Aeration for Reservoir and Lake Management. *Lake and Reservoir Management Journal* 4(2):35-50.

Kortmann, R.W. 1988. Aeration Technologies for Reservoir Management. *AWWA-WQTC Conf. Proceedings.* St. Louis, MO.

Kortmann, R.W. "Raw Water Quality Control: An Overview of Reservoir Management Techniques". *Journal New England Water Works Association*, April 1989.

Awards: Dexter Brackett Meritorious Paper Award, *New England Water Works Association*
Quarternary Transatlantic Award-1990; *Institution of Water and Environmental Management* (England).

Kortmann, R.W. and G.W. Knoecklein. "Aeration Technologies and Depth-Selective Flow Configuration for Lake Management, Habitat Restoration, and Supply Water Quality." *Proceedings New Jersey Academy of Science*; April, 1989.

Kortmann, R.W., G.W. Knoecklein, C.H. Bonnell, 1994. Aeration of Stratified Lakes: Theory and Practice. *Lake and Reservoir Management Journal*, 8(2):99-120. * **

Kortmann, R.W. and P.H. Rich, 1994. Lake Ecosystem Energetics: The missing management link. *Lake and Reservoir Management Journal*, 8(2):77-97. * **

Kortmann, R.W. 1994. Oligotrophication of Lake Shenipsit by Layer Aeration. *Lake and Reservoir Management Journal*, 9(1):94-97.



Kortmann, R.W., and Robert Karl. 2011. **Decreasing Cyanobacteria Blooms by Managing Seasonal Succession of Phytoplankton.** *Proceedings AWWA-WQTC 2011*, Phoenix, Arizona. * **

Barry Moore, Mark Mobley, John Little, Bob Kortmann, and Paul Gantzer. 2015. **Aeration and Oxygenation Methods for Stratified Lakes and Reservoirs.** *NALMS LakeLine Spring 2015.*

Kortmann, R.W., 2015. **Cyanobacteria in Reservoirs: Causes, Consequences, Controls.** *NEWWA Journal*, June 2015. * **

Kortmann, R.W., Elizabeth Cummins, 2018. **Climate Change in the Northeast: What Might it Mean to Water Quality Management?** *NEWWA Journal- December 2018* (NEWWA Past President's Award) * **

Kortmann, R.W., Elizabeth Cummins, 2019. **Gypsy Moth Caterpillar Defoliation: Is Detritus Productive?** *NEWWA Journal June 2019* (NEWWA Past President's Award) *

Kortmann, R.W., 2020. **Layer Aeration in Reservoirs: A 35 Year Review of Principles and Practice** *NEWWA Journal- September 2020* * **

Kortmann, R.W., 2021. **Managing Reservoir Stratification in a Variable Climate** *NEWWA Journal- March 2021.*

Patents

Kortmann, R. W. 1987. Hydrologic Discharge Control Assembly and Method. U.S. Patent No. 4,669,914.

Kortmann, R.W. 1988. Apparatus and Method for Conditioning Stratified Water Bodies. U.S. Patent No. 4,724,086.

Kortmann, R.W. 1998. Pneumatic Bubble Aeration Reactor and Method of using same. U.S. Patent No. 5,755,976. (AKA Down-bubble solute phase contactor.)

Kortmann, R.W. 2014. Wind, Solar, and hybrid wind-solar water circulation and aeration methods and apparatus. U.S. Patent No. 8,651,766 B2.

Research Grants Awarded

USEPA Research Grant: Section 314: Clean Water Act -- Research into Trophic Interactions, Microbiological Processes, Enhanced Interflow, Withdrawal, and Withdrawal-Treatment-Injection Restoration Technologies.

Research Participants: Kent State University, University of Connecticut, Ecosystem Consulting Service.

Grant Authored by: Robert.W. Kortmann, Ph.D.

Institute of Water Resources - University of Connecticut *In vitro* fluorimetry for water supply reservoir monitoring.

Research Participants: University of Connecticut, SCC Regional Water Authority, Ecosystem Consulting Service.

Grant co-Authored by: R.W. Kortmann, Ph.D., Peter H. Rich, Ph.D.



Stephan T. Roy, P.G.

Principal/Senior Vice President –Manchester, CT

Summary of Experience

Mr. Roy serves as a Principal and Senior Vice President for GZA as well as Group Leader for Ecosystem Consulting Service (ECS), a Division of GZA. His assignments include overall management and responsibility for the success of ECS and their individual projects in waterbodies, watersheds, and reservoirs. These responsibilities include project planning, estimating, permitting, design, system fabrication, coordination and collaboration with subconsultants, subcontractors and vendors, and execution of both surface water diagnostic studies and installation of water quality improvement systems (aeration, baffle/flow control, and other submerged structures). These projects require review of both in house engineering analyses and on-site construction field work. Mr. Roy also has four years of previous experience working as a staff engineer in the underground mining industry.

Relevant Project Experience

WATER

Principal-in-Charge, Various Surface Water Lakes/Reservoirs Diagnostic Studies (CT -Waramaug, Groton, Amos, Gardner, Dunham, Coventry; MA – Stockbridge, Averic; NJ – Glendola, Brick, Clyde Potts; NH – Bellamy). Responsible for project estimating, contract documentation, project execution and final deliverables. Supervises the lead and staff scientists to assure projects are completed on time, within budget and meet project technical expectations.

Principal-in-Charge, Aquarion Water Company – System-wide Annual Monitoring, Data Review/Reporting and Capital Projects, Monroe, Connecticut. Responsible to oversee the services provided across their four major watershed systems and other reservoirs across central and western CT/NY. Services include providing annual estimates of operating and capital expenses for inclusion into their CIP budgeting process, overseeing lead and staff scientists to execute the work, coordinate with vendors and labs and produce weekly, biweekly and other project specific deliverables. Several capital improvements are typically executed each year related to new or improvements of aeration systems, flow control devices or other submerged structures.

Principal-in-Charge, CT Water Company – System-wide Annual Monitoring, Data Review/Reporting and Capital Projects, Clinton, Connecticut. Responsible to oversee the services provided across their four major watershed systems and other reservoirs in central and northern CT. Services include providing annual estimates for monitoring systems, observing, inspecting and performing repairs on installed aeration and flow control structures, overseeing lead and staff scientists to execute the work, and coordinate with vendors and labs. Capital improvement projects are performed on a case-by-case basis and are often executed under design-build agreements (full planning, permitting, system design, fabrication and complete installation using specialty subcontractors and vendors).

Project Manager, Bathymetric Survey and Sediment Evaluation, New York City DEP Reservoirs, Catskills, New York. GZA was under contract to the New York City Department of Environmental Protection (DEP) to perform a detailed bathymetric survey, sediment mapping and sediment nutrient evaluation for seven water supply

Education

B.S., 1981, Geological Engineering,
Cornell University

M.S., 1992, Civil Engineering
(Environmental), Worcester Polytechnic
Institute

Licenses & Registrations

Professional Geologist – 2018, New York,
#711

Areas of Specialization

- Project Management and Execution
- Surface Water Quality Improvement System Installations
- Automated Data Collection and Monitoring
- Geological and Earth Science Services



Stephan T. Roy, P.G.

Principal/Senior Vice President—Manchester, CT

reservoirs in the Catskill region of New York. Mr. Roy has overall project responsibility for execution of this project including coordination with the DEP, subcontractors, project start-up including purchases and rentals, scheduling, staffing, and production of project technical report and other deliverables.

Project Manager, Manasquan Reservoir Dam, Howell Township, New Jersey. Lead project responsibility working for the project general contractor for complete field installation of a large-scale monitoring system for an earth dam during construction. Project involves traditional stress load and water pressure monitoring devices connected to a data acquisition system. Radio links were used as the primary data transmission media from the dam to remote locations for data review and analysis.

Principal-in-Charge, Massachusetts Water Resources Authority (MWRA) North Dorchester Bay CSO Tunnel, Boston, Massachusetts. Lead technical consultant to the contractor for the project permits and specified plans for this 17-mile-long, 30-foot-diameter storage tunnel for combined sewer overflow storage in South Boston. On this project NPDES/NOI/SWPPP/RGP, health and safety, and excavated soil management and groundwater control plans were prepared, submitted and approved by the Owner and regulatory agencies for use during construction. Licensed Site Professional (LSP) services to comply with the site wide URAM plan and other Massachusetts Contingency Plan (MCP) issues were performed during the construction of the two vertical shafts and nine intermediate structures.

Principal-in-Charge, MWRA Union Park Detention/Treatment Facility, Boston, Massachusetts. Provided services to the general contractor covering a wide range of disciplines on this multi-faceted project. These services included environmental consulting, geotechnical consulting and monitoring, noise and vibration monitoring, soil management, and dewatering monitoring related to the construction activities and schedule. Soil pre-characterization was performed to allow for a "load and go" approach for soil disposal. A site specific dewatering plan was also required to meet tight constraints on flow rates and discharge contaminant levels. More than 50,000 tons of contaminated soil and debris was excavated, tracked and disposed of from the site.

Principal-in-Charge, MWRA Water Main Extension, Woburn, Massachusetts. Provided technical and regulatory submittals for a water supply project partially constructed through the EPA Superfund Site. In addition to typical health and safety, environmental analysis and disposal of excess materials, submittals required by the EPA were prepared, accepted and executed in the field. Field oversight was provided to the contractor for compliance with the approved submittals.

Project Manager, Thurston Basin Storm Sewer Replacement, Queens, New York. Managed the environmental issues related to the construction of a 2,000-foot-long, 80-foot-wide, four-barrel sewer through an existing construction debris landfill. The work was performed as a consultant to the contractor on behalf of the Owner (New York City Department of Environmental Protection [NYCDEP]). Issues dealt with during this work included: preparation of various project-related work plans; obtaining and maintaining the necessary permits for the work; pre-characterization of the excavation soils along the project alignment to determine potential disposal options; observation of the excavation process for health and safety purposes; monitoring of the dewatering discharge; and monitoring/relocation of existing wetlands impacted by the construction.

Project Manager, Richmond Avenue Water Main Installation, Staten Island, New York. Managed environmental investigation along the new water main alignment for assessing extent of petrochemical contamination. Coordinated field drilling activities, laboratory analyses and reporting requirements for submission to the New York City Department of Environmental Protection. Acted as Site Health and Safety Officer (SSHO) for all field activities.

ENVIRONMENTAL

Principal-in-Charge, Various Massachusetts Bay Transportation Authority (MBTA) Project Locations. Technical lead for a variety of services such as environmental permitting, air quality, noise and vibration, asbestos and lead assessment, removal and disposal, environmental plans and implementation of soil and groundwater sampling, analysis and disposal/treatment alternatives.

Principal-in-Charge, Various Park Construction Projects. Led technical and management considerations for the proper characterization, handling, management and disposal of various hazardous and contaminated fill materials discovered on park development projects. Contaminants ranged from high levels of PCBs (TSCA waste) to RCRA hazardous materials (oils and TCLP-



Stephan T. Roy, P.G.

Principal/Senior Vice President –Manchester, CT

failed soils) and asbestos containing materials (ACM) and asbestos-impacted soils. Work was performed in accordance with regulatory requirements within the allotted time frame for project completion.

Principal-in-Charge, Various Massachusetts Highway Department (MHD) and Municipal Roadway Improvements – MCP, Permitting and Material Management Services, State-wide in Massachusetts. Lead technical and project management responsibilities for over 50 road and bridge projects supporting Contractor requirements to comply with State and Federal regulations as well as project specific requirements. Work performed on these projects included preparation of Health and Safety Plans, collection, analysis and interpretation of soil/groundwater/sediment samples, preparation of regulatory documents for management of these materials, provision of Licensed Site Professional (LSP) services, site health and safety/air quality monitoring, contaminated soil/sediment and groundwater disposal or on-site treatment, NPDES permits, and wetlands and endangered species documentation and management.

INSTRUMENTATION

Mr. Roy served in GZA's Contractor's Services Division for over 22 years starting as a field engineer and advancing to the position of Associate Principal. He had overall project responsibility on a broad array of projects, including planning, coordination and supervision of instrumentation installation, monitoring, data reduction and analysis. Relevant project experience includes:

Project Manager, Boston Marine Industrial Park Terminal, South Boston, Massachusetts. Overall project responsibility for coordinating submittals, purchasing, installation, data collection, reduction and reporting of geotechnical instrumentation on the Central Artery/Tunnel (CA/T) Contract CO4A2. Project requirements included the review of instrumentation data which monitored the excavation dewatering and lateral support systems, preparation of weekly data reports and routine interfacing with project management, consultants and contractors.

Project Reviewer/Technical Specialist, Schoeller Technical Papers, Inc., Pulaski, New York. Provided technical assistance in the design, construction and implementation of geotechnical instrumentation system to monitor the closure of a paper mill sludge lagoon. Project requirements included choosing and designing instruments to measure long-term performance of the lagoon during closure and post-closure activities. A datalogging system with custom software was included for cost-effective data collection and potential future expansion.

Project Manager, Saint Lawrence Seaway Development Corporation, Massena, New York. Overall project responsibility for the installation and set-up operation of new and existing piezometer instrumentation into an automatic data acquisition system for the Snell and Eisenhower Locks. In addition to providing standard software to operate the datalogging system, specialty software was developed for testing groundwater response to the lock operation.

Project Manager, Niagara Mohawk Power Corporation, Glens Falls, New York. Overall project responsibility for design and layout of the new geotechnical instrumentation datalogging system installed at the Sherman Island Dam for long-term stability monitoring. Project requirements included the design of a system to cost effectively incorporate the monitoring of existing piezometers and settlement devices into an automatic system to include new instruments to measure upstream and downstream water levels and lateral structural movement. Modifications to existing software was performed to meet the client's needs.

Publications

Roy, Stephan T., Curtin, Thomas J., Guertin, Joseph D., "Data Volume and Data Reliability: Case Studies of Unusual Problems and Their Solutions", Transportation Research Board Annual Meeting January 1995.



Christopher Mayne, CLM, CSP, CHMM

Project Manager

Summary of Experience

Chris is both a Certified Lake Manager and Environmental Health and Safety/Compliance professional with over 20 years of experience working with numerous clients in diverse industries. Chris possesses a unique combination of both freshwater lake and reservoir diagnostic and evaluation skills coupled with his environmental management and safety expertise. Highlights of experience include: Senior-level project management for lake, pond and reservoir studies, EHS projects, risk assessments and process audits and for worker health and exposure control methods, experienced trainer, technical writing and program development, implementation, and management.

Relevant Project Experience

Project Manager – Lake and Pond Management. Performed studies on multiple lakes and reservoirs across the country. Work included water quality assessments to aid in the protection of source water and to develop restoration strategies for both recreational lakes/ponds and drinking water reservoirs. Techniques used in these studies included in-situ profiling, water chemistry analysis, zooplankton community analysis, algal community analysis, macrophyte identification and mapping, fish community assessments, and GIS evaluations of surrounding watersheds. In performing these studies, Chris also assisted lake association owners and representatives and reservoir managers to address issues associated with harmful algal blooms (HABs) and invasive aquatic plants.

Lake/Pond Management

- **Limnological Study of Stockbridge Bowl.** Performed lake monitoring and data analysis and interpretation to determine factors involved with lake trophic status and cyanobacterial / algal bloom formation, resulting in recommendations for future lake management efforts.
- **Management of Manganese in a Drinking Water Reservoir.** Team member that designed and installed weir baffle around the water treatment plant intake structure to avoid high concentrations of manganese in over-bottom waters and pull water from the surface of the reservoir for higher quality water for the treatment plant.
- **Water quality assessment of a drinking water reservoir to identify sources of manganese to aid the water company in identifying sources of manganese to better optimize the water treatment process and focus future monitoring efforts.** Helped identify the daily fluctuations in manganese concentrations within the system.
- **Assisted with the preparation and development of Cyanobacterial Management Plans for several drinking water reservoirs in New Jersey.** Plans were developed according to USEPA protocols and submitted to NJDEP.
- **Assessed a variety of water bodies including drinking water reservoirs for proper lake management techniques.** This included collecting water samples at various depths for water chemistry analysis, collecting in-situ data using a multiprobe data sonde, zooplankton sampling and identification, algae sampling, and aquatic plant identification.
- **Installation and maintenance of large-scale aeration systems in a variety of lakes and water reservoirs to help control internal nutrient loading issues for the control of algal growth in source waters.**
- **Assisted with the in-situ water quality data collection on the internal loading rates of a New Jersey water supply reservoir.**

Education

B.S., 1992, Biology, Creighton University
M.S., 1997, Applied Ecology & Conservation
Biology, Frostburg State University

Registrations & Certificates

Certified Lake Manager
Certified Safety Professional
Certified Hazardous Materials Manager
Authorized OSHA Construction Trainer
OSHA 510 and 511 Trained
Hazardous Waste 40 Hour Initial Trained
8 Hour Hazardous Waste Refresher
Red Cross First Aid/CPR Instructor
Lead RRP Trained
Lead Auditor Iso 14001
SCUBA Certification
Electrical Safety
Machine Guarding

Areas of Specialization

- Lake and Pond Management
- Stormwater
- EHS Compliance
- Data Analysis and Interpretation
- Industrial Hygiene Surveys
- Environmental Site Assessments
- Environmental and Safety Training



Christopher Mayne

EHS Project Manager

- Study of barley straw on impact of algae growth in several ponds in Connecticut.
- Implementation of goose control strategies.
- Oversight of the volunteer secchi disk monitoring program for the Connecticut Federation of Lakes for over a decade.
- Identification of water chestnut and management strategies for controlling growth in a drinking reservoir.
- Identification and density estimates of macrophyte populations in various waterbodies.
- Identification of a nuisance growth of azola in a small NY pond.
- DMR submittals for a NPDES permit for a land-based aeration system for Waramaug Lake.
- Assessment of the alewife population in a small lake using fish nets
- Use of GIS to map the watershed boundaries of various waterbodies and determine land use within the watershed.

Municipal Water Treatment

- Working with water treatment facilities on source water protection strategies including raw water source protection, algae cycle dynamics, benthic algae mat surveys, aquatic plant surveys, lake chemical profiling, and implementation of aeration technology.
- Addressed health and safety issues at the Town of Meriden Water Treatment Plant, the Broad Brook Water Filter Plant, and the Evansville Wastewater Treatment Plant, including performing numerous process and job safety analyses to develop safe work practices including identifying proper personal protective equipment required in potentially hazardous environments at municipal wastewater treatment plants.

Wastewater Treatment System Consulting

- Coordinated the installation of wastewater treatment monitoring equipment for the facility. Duties included budgeting, scheduling, discussions with local government agencies, site safety officer, oversight of installation and equipment operation, and development of Standard Operating Procedures for facility operators.
- Submittal of application for registration of treatment systems with CT DEEP, perform inspections, collect samples for analysis, and submit DMRs to the local agency and CT DEEP.

Stormwater Monitoring

- Performed MS₄ monitoring for the Towns of Hamden and Wallingford, CT and the City of New Haven, CT. Prepared Stormwater registrations, SWPPPs, and performed site inspections, collected stormwater
- Responded to a CT DEEP Notice of Violation regarding stormwater issues. Prepared a stormwater pollution prevention plan, conducted site inspections, developed corrective actions for issues found with recommendations, and conducted onsite training. Prepared written response to the CT DEEP on the client's behalf.

Higher Education Campuses

- Completed an Aquifer Protection Plan; quarterly post remedial groundwater monitoring for University-owned properties, including a former trash hauling facility with wide spread soil contamination and a residential property contaminated by illegal dumping; manage hazardous waste disposal services; prepped several environmental plans and performed environmental permitting through the local town municipality and the CT DEEP; wastewater discharge sample collection and permitting; environmental and safety compliance audits; hazardous chemical inventories; and oil/water separator inspections.

PUBLICATIONS/PRESENTATIONS

Harmful Algal Blooms and Their Impact on Our Nation's Water Resources, Lorman Technical Series Webinar, November 2018. Presented in association with Lindsay Birt and Paul Davis of GZA.

Integrating Safety into our Management Projects, NALMS Annual Conference Proceedings, November 2019

A Decade of Volunteer Monitoring by CT Lake Associations, NECNALMS Annual Conference Proceedings, June 2014

Effects of Barley Straw on Algal Growth, NALMS Annual Conference Proceedings, November

Creating a Culture of Safety in Lake Management, NALMS Quarterly Article, March 2012

AFFILIATIONS

Connecticut Federation of Lakes Board Member

NALMS Member



Paul Grulke

Freshwater Ecologist II

Summary of Experience

Paul is a Freshwater Ecologist II at Ecosystem Consulting Service (ECS), a division of GZA GeoEnvironmental, Inc. Since joining GZA in 2021, Paul has conducted limnological field activities including routine lake and reservoir sampling, zooplankton and phytoplankton collection, macrophyte surveying, and remote sensing equipment installation. Paul has routinely utilized equipment such as In-Situ AquaTroll 500 for both optical and chemical profiling, Van Dorn bottle for discrete water column sampling, and zooplankton tow for specimen collection. Paul has deployed and monitored long-term monitoring equipment including HOBO and PME MiniDOT data loggers and performed in-house chemistry and optical analysis. These analyses have included testing for colored dissolved organic matter, chlorophyll-a, phycocyanin, and phycoerythrin. Paul had organized, analyzed, and summarized annual data for interpretation and reporting. Paul also has routinely worked out of a canoe and other small watercraft for field sampling efforts.

Paul provides a diverse ideas and perspective based on his 6 years of consulting and natural resource management experiences. As a result, Paul is relied upon to collect high quality samples and data. Additionally, Paul leverages his education and professional career to accurately analyze data and author technical reports.

Education

B.S., Biology, Eastern Connecticut State University, 2018

PSM, Fisheries and Wildlife Administration, Oregon State University, 2022- Present

Areas of Specialization

- Monitoring/high frequency data logging
- Statistical analysis / data visualization
- Freshwater ecology
- Wetland ecology
- Fisheries biology

Relevant Project Experience

ANNUAL MONITORING

Field Scientist: Annual lake and reservoir monitoring for multiple clients throughout Connecticut, Massachusetts, New Hampshire, and New Jersey. Paul has assisted in and developed, organized, and executed regular monitoring programs for several clients during the April-November field season. Routine data collection includes profiles, Secchi disks measurements, zooplankton, phytoplankton, and water chemistry. Paul manages the deployment of remote data logging instruments such as PME miniDOTs to collect high-frequency temperature and DO datasets important for diagnosis of water quality issues. Paul has setup and deployed high-frequency data transmission buoy systems to assist in collection of diagnostic data for his supervisors to analyze. This diagnostic data includes several different physical, chemical, and biological parameters in real time. Paul continues to be responsible for planning and executing water quality field activities, as well as interpreting data from the field in real time and providing accurate and well-articulated information to senior limnologists.

WATER SUPPLY

Field Scientist: Connecticut Water Company's Shenipsit Reservoir management, Vernon, Connecticut. Paul has assisted in the design of Shenipsit Reservoir's turbidity baffle by conducting preliminary location evaluation, as well as baffle transect depth profiling. With the accurate measurements that were collected, further design and installation of a turbidity baffle were possible.



Paul Grulke

Freshwater Ecologist II

Field Scientist: City of Portsmouth's Bellamy Reservoir management, Madbury, New Hampshire. Paul has assisted in the design of Bellamy Reservoir's turbidity baffle by conducting preliminary location evaluation, as well as baffle transect depth profiling. With the accurate measurements that were collected, further design and installation of a turbidity baffle were possible. Paul continues to be responsible for planning and executing water quality field activities, as well as interpreting data from the field in real time and providing accurate diagnostic information to senior limnologists.

Experience Prior to GZA

Hydrogeologist I, Fuss & O'Neil, Manchester, CT

Paul conducted field activities including sampling various media including soil, water, and vapor to characterize extent and source of contamination. While working as a hydrogeologist, Paul collected, analyzed, and logged soil samples collected by split- spoon and soil coring methods. Implemented water sampling methods utilizing peristaltic low-flow and bladder pumps, as well as bailers and scoops to collect water samples. Paul conducted routine water monitoring activities such as collecting and recording dissolved oxygen, conductivity, pH, temperature, and turbidity. While working in the field Paul utilized equipment such as YSI Professional Plus multiparameter meter, Tiger PID, and In-Situ Rugged Reader, set and monitored long-term monitoring equipment including piezometers, monitoring wells, and sub-slab soil vapor ports. Paul authored technical reports and conducted research for reports such as Phase I environmental site assessments and transaction screens and provided oversight for contractor and construction activities related to site remediation.

Fisheries Seasonal Resource Assistant, Connecticut Department of Energy and Environmental Protection, Marlborough, CT

Paul conducted fisheries field activities including boat, stream, and backpack electrofishing for ongoing lake, pond, and stream monitoring programs. Paul became proficient at identifying the native and non-native fishes of Connecticut. He Set and retrieved a variety of nets for fish collection for species population surveys and draw down procedures. Paul stocked fish including walleye, channel catfish, northern pike, kokanee salmon, and rainbow, brown and brook trout and worked closely with, and has a strong knowledge of, pike marsh drawdown and stocking procedure. While working in the field Paul conducted water monitoring activities such as collecting and recording dissolved oxygen, conductivity, pH and temperature, as well as recorded water flow measurements at DEEP long term reference sights. Paul also created digital resources for future fisheries use and conducted other duties which included processing and aging catfish spines, data entry and analysis, carpentry, and mechanical repair.

Affiliations/Memberships

- American Fisheries Society (AFS)
- North American Lake Management Society (NALMS)



Shane Hoyt

Freshwater Ecologist II

Summary of Experience

Shane is a freshwater ecologist II at GZA GeoEnvironmental Inc. Shane specializes in watershed ecology as well as lake and reservoir management in New England. Contamination, eutrophication, cyanobacteria blooms, and climate change impacts threaten Northeastern watershed and degrade water quality of recreational and drinking source waterbodies. It is Shane's task to promote and implement empirically based, effective, and proactive watershed management in the face of these ongoing environmental issues.

To meet this objective, Shane draws on his 7 years of professional experience as well as his diverse educational background. He has extensive experience in field monitoring, data analysis, data visualization and technical writing.

Education

ALM, Sustainability, Harvard University
Extension Studies

Graduate Certificate, Natural Resource
management and Sustainable
Ecosystems. 2022

B.S., Ecology, Western Connecticut State
University, 2017

Areas of Specialization

- Source water supply systems
- Freshwater ecology
- New England lake and reservoir ecology
- New England watershed ecology
- Land Use Management
- Wetland Ecology

Relevant Project Experience

WATER SUPPLY

Field Scientist, Aquarion Water Company annual reservoir monitoring data management and reporting for Connecticut. For over a decade our office has managed, analyzed, and reported data collected from over 20 Aquarion reservoirs. I have managed large-scale limnological datasets for 16 reservoirs, using these datasets to create yearly data presentations based on my interpretation of data. I have led the deployment of remote high-frequency data transmitting buoy systems in two of their reservoirs to supplement their data collection. I also have led the assembly, installation, diagnosis and fixing of sonic and circulator units in Aquarion's reservoirs.

ANNUAL MONITORING

Field Scientist, annual lake and reservoir monitoring for multiple clients throughout Connecticut, Massachusetts, and New Jersey. I have developed, organized, and executed regular monitoring programs for several clients during the April-November field season. Routine data collection includes profiles, Secchi disks measurements, zooplankton, phytoplankton, and water chemistry. I regularly deploy remote data logging instruments to collect high-frequency temperature and DO datasets that are important for diagnosis of water quality issues. Throughout these monitoring projects I interpret and report on the collected datasets for clients. Such datasets allow for timely and empirically based management decisions or provide accurate diagnosis such that I can recommend effective management implementation going forward.

WATERSHED MANAGEMENT PLAN

Field Scientist, Amos Lake Watershed Plan in Preston, CT. I created an updated watershed management plan for Amos Lake, using field observations and historical reports. I calculated the watershed's total maximum daily load as well as the watershed's water budget. Using land-sat imagery and field observations, I recommended effective management plans that would reduce external nutrient loading into the reservoir while promoting a healthier watershed and ecosystems.



Shane Hoyt

Freshwater Ecologist II

Experience Prior to GZA

Field Scientist, Easton, CT I have executed routine forestry, fish, and wildlife management programs in the Saugatuck Watershed. I was involved in numerous raptor surveying, fish stocking, and game monitoring projects. I worked directly under the head forester to assess forest stand health, invasive species removal, and consulting adjacent landowners on management practices.

Field Scientist, Asian tiger mosquito monitoring program in Putnam County, NY. I led field monitoring for Asian tiger mosquito (*Aedes albopictus*) in Putnam County, New York while under the instruction of New York States Department of Epidemiology. Survey methods involved the use of non-lethal traps, larva sampling, and species identification with the use of microscope. This field monitoring program resulted in the finding of the northern-most location of the Asian tiger mosquito's home range.

Interim Field Scientist, Red and Mexican Wolf Species Protection Plan, North Salem, NY. Working alongside multiple organizations, I participated in Red and Mexican Wolf health checkups as well as aiding with the artificial insemination of wolves to promote genetic diversity in species populations. During this time, I also ran outreach programs including public educational programs, school programs, and fundraisers

Master's Thesis, Cambridge MA I am currently looking at alterations to hydrological source water release and the potential effects this has on downstream riparian zones. I am using land-sat imagery, large scale SNOTEL and flow rate data and species survey reports to compile meaningful results that can have broad-scale management implications.

Student Scientist, Great Hollow Nature Preserve Fisher Cat Conservation Plan, New Fairfield, CT In conjunction with Great Hollow Nature Preserve and Western Connecticut State University, I developed a fisher cat conservation plan. This project involved species monitoring using various field methods as well as land and resource assessments to determine management strategies for the local fisher cat populations.

Student Scientist, Salmon Smolt's Ability to Regulate NaCl Under Different Transportation Stressors, Bar Harbor, Maine In conjunction with Mount Desert Island Research Facility, U.S. Fisheries, and Western Connecticut State University, I performed field tests on Salmon smolts to simulate various transportation stressors the fish experience while being transported to ocean pens. I then performed lab tests on the Salmon's gills and analyzed the results to determine the best methods of salmon stock transportation.

Affiliations/Memberships

- North American Lake Management Society (NALMS)



APPENDIX B
ECS, A DIVISION OF GZA RATE TABLE

**GZA GEOENVIRONMENTAL, INC.
SCHEDULE OF FEES- CALENDAR YEAR 2023**

<u>LABOR</u>	<u>Per Hour</u>
Senior Principal	\$260
Principal.....	\$250
Associate Principal.....	\$230
Senior Consultant.....	\$200
Senior Project Manager/Senior Technical Specialist.....	\$185
Project Manager/Technical Specialist	\$165
Assistant Project Manager.....	\$150
Engineer I/Scientist I	\$130
Engineer II/Scientist II	\$120
Field Technician I	\$100
Field Technician II	\$90
Technical Administrative Support	\$90
Outside Services and Subcontractors.....	Cost plus 15%
Expenses	Cost plus 15%

The above rates for technical and support personnel will be charged for actual time worked on the project, including time required for travel from company office to job or meeting site and return. For work requiring out-of-town overnight stay, the minimum charge for work on the project will be eight (8) hours per day.

Overtime work by “Non-Exempt” personnel will be billed at 1.5 times the standard rate.

A fifty percent (50%) premium will be added to the above rates for expert witness and other special services.

The above-listed rates are valid for the calendar year in which this proposal is accepted by Client. GZA reserves the right to modify this rate schedule on an annual basis to reflect changes in employee compensation and Client acknowledges that labor rates may change during the execution of this project.

The actual average Labor rate varies due to numerous factors, including project size and complexity

EXPENSES

- Rental of specialized field or monitoring equipment and vehicle charges based on GZA standard unit prices
- Transportation, lodging and subsistence for out-of-town travel
- Printing, reproduction, plotting, and wide format scanning
- Express mail and shipping charges
- Project-specific computer hardware and software
- Long distance, local and cellular telephone, facsimile and postage (via U.S. Postal Service) are included in a flat rate Communication Fee of 3 percent per invoice on labor only

INVOICES

GZA will submit invoices periodically and payment will be due within 20 days from invoice date. Overdue payments will bear interest at 1½ percent per month or, if lower, the maximum lawful rate. GZA may terminate its services upon 10 days' written notice any time your payment is overdue on this or any other project.

BUDGETS

The Budget contained within GZA's Proposal represents our estimate of the work involved. Actual charges can vary either upward or downward depending upon many factors. GZA considers a significant budget variance to be 15% and we will not exceed this variance without notifying Client.

RETAINER

Any retainer specified in GZA 's Proposal shall be due prior to the start of services and will be applied to the final invoice for services.



APPENDIX C
NON-COLLUSION STATEMENT

6/14/2023

ATTACHMENT A

**TOWN OF EAST HAMPTON
PROFESSIONAL SERVICES PROCUREMENT NOTICE
REQUEST FOR QUALIFICATIONS/FEE SCHEDULE
LAKE CONSULTANT- LIMNOLOGIST
RFP 2023-CLC**

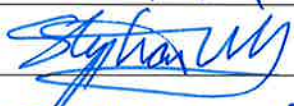
NON-COLLUSION STATEMENT

The company submitting this RFQ certifies that it is being submitted without any collusion, communication or agreement as to any matter relating to it with any other respondent or competitor. We understand that this proposal must be signed by an authorized agent of our company to constitute a valid proposal.

Date: July 13, 2023

Name of Company: GZA GEOENVIRONMENTAL, INC

Name and Title of Agent: STEPHAN T. ROY SENIOR VICE PRESIDENT

By (SIGNATURE): 

Address: 135 SHELTON ROAD
BOX 1, UNIT I
MANCHESTER, CT 06042

Telephone Number: 860-858-3113



GZA GeoEnvironmental, Inc.

EAST HAMPTON PUBLIC SCHOOLS

REQUEST FOR PROPOSALS

FOR

ASBESTOS-CONTAINING FLOOR TILE AND MASTIC ABATEMENT

FOR

EAST HAMPTON MIDDLE SCHOOL
19 CHILDS ROAD
EAST HAMPTON, CT

JULY 17, 2023

WRITTEN PROPOSALS DUE ON MONDAY JULY 24, 2023

AND MUST BE SUBMITTED TO:

**Mr. Steve Fontanella
East Hampton Public Schools
1 Community Drive
East Hampton, CT 06424**

**QUESTIONS: CONTACT STEVE FONTANELLA, DIRECTOR OF FACILITIES SFONTANELLA@EASTHAMPTONCT.ORG.
NO QUESTIONS WILL BE ACCEPTED AFTER 3:00 P.M. ON FRIDAY, JULY 21, 2023.**

TABLE OF CONTENTS

- I. Invitation to Submit Proposals
- II. Initial Schedule
- III. Project Description
- IV. Scope of Services
- V. The Response - Written

**Request for Proposals
Asbestos Abatement – Phase I Floor Tile and Mastic
East Hampton Middle School**

I. INVITATION TO SUBMIT PROPOSALS

The East Hampton Public Schools is seeking to engage a State of Connecticut licensed Asbestos Contractor (Contractor) to abate asbestos flooring materials at the East Hampton Middle School located at 19 Childs Road East Hampton, CT (the “Site”). Asbestos-containing flooring materials will be abated in support of the installation of new flooring materials in three corridors at the Site. Proposals should be addressed to Mr. Steve Fontanella and delivered to:

East Hampton Public Schools
1 Community Drive
East Hampton, CT 06424

All submissions must be received by date and time on cover.

II. INITIAL SCHEDULE

The following represents the expected selection time line:

RFP distributed to firms	7/17/23
On-Site Pre-Bid walk through	7/19/23 3:00 PM
Proposals due	7/24/23 by 12:00 Noon
Award	7/25/23

III. PROJECT DESCRIPTION

The project consist of the proper preparation of State and Federal asbestos abatement notifications, preparation of work areas, removal of asbestos-containing flooring materials and tear down of containment(s) and post tear downs cleaning, if required, by the Contractor. The work will be performed in three phases consisting of three separate work areas to allow the flooring installation contractor to begin installation of new flooring materials as soon as possible. The East Hampton Public Schools as retained the services of a State of Connecticut licensed Asbestos Project Monitor to perform project monitoring and re-occupancy clearance services. The asbestos abatement work shall be completed in fifteen (15) business days.

IV. SCOPE OF SERVICES

The scope of asbestos abatement work includes the following:

1. Phase 1 Work Area: Removal and disposal of ~1,600 SF floor tile and mastic
2. Phase 2 Work Area: Removal and disposal of ~720 SF floor tile and mastic
3. Phase 3 Work Area: Removal and disposal of ~700 SF floor tile and mastic

Plans and Specifications for floor tile and mastic abatement can be obtained by contacting Steve Fontanella at sfontanella@easthamptonct.org. The Contractor shall be licensed by the State of Connecticut State Department of Public Health as an Asbestos Contractor and shall use only supervisors and workers who possess current training certifications and Connecticut Department of Public Health licenses. The Contractor shall make all requisite EPA and Connecticut Department of Public Health Asbestos Abatement Notifications on behalf of the East Hampton Public Schools.

The Contractor shall lawfully dispose of all asbestos-containing waste generated during the abatement project and shall provide Waste Shipment Records the authorized landfill within thirty-five (35) days of waste shipment from the Site.

**Request for Proposals
Asbestos Abatement – Phase I Floor Tile and Mastic
East Hampton Middle School**

The Owner may elect to perform all, some or none of the work described in the Scope of Services. Submittal of this Proposal does not bind the owner to perform this work. All costs associated with preparation of the Contractor’s Proposal shall be borne by the Contractor and are not reimbursable. The Contractor shall price each work area as if it were going to be done separately from the other work areas. Notice to Proceed for each work area will be based on the overall timing of the project and the ability to complete the project in a timely fashion allowing the flooring installation contractor ample time for installation of the new floors prior to school returning to session in late August 2023.

The Contractor will be afforded the use of the Owner’s power and water at no cost to the Contractor. Asbestos abatement work will be performed while no children under the age of 18 are within the building or on school grounds. All work shall be completed within fifteen business days.

V. THE RESPONSE - WRITTEN

The following fee structure format has been established for the purposes of this proposal request. All schedule of values items must be not-to-exceed or lump sum fees.

Phase 1 Work Area: _____ (\$ _____)
Written Price

Phase 2 Work Area: _____ (\$ _____)
Written Price

Phase 3 Work Area: _____ (\$ _____)
Written Price

Total Phase 1, 2, 3 Work Areas: _____ (\$ _____)

Credit (if any) if all three work areas are performed within one containment at the same time:

Written Price (\$ _____)

Signed by authorized signatory of Firm

Firm Name: _____

Printed Name: _____

Authorized Signatory: _____

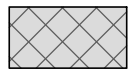
Date: _____

END OF REQUEST FOR PROPOSALS (RFP)

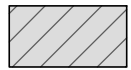
SIDE-B

ASBESTOS ABATEMENT NOTES:

AC = ASBESTOS-CONTAINING



REMOVE AND DISPOSE OF ALL LAYERS OF FLOOR TILE, AC MASTIC AND LEVELING COMPOUND. DISPOSE OF AS ASBESTOS-CONTAINING WASTE.

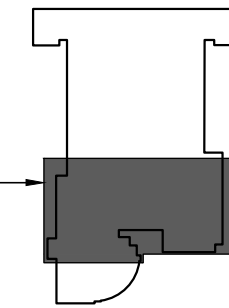


REMOVE AND DISPOSE OF ALL LAYERS OF FLOOR TILE, AC MASTIC AND LEVELING COMPOUND UNDER CARPET. DISPOSE OF CARPET AS ASBESTOS-CONTAMINATED WASTE.

KEY PLAN



PLAN VIEW



PROJECT NO.: 23-038.10T3

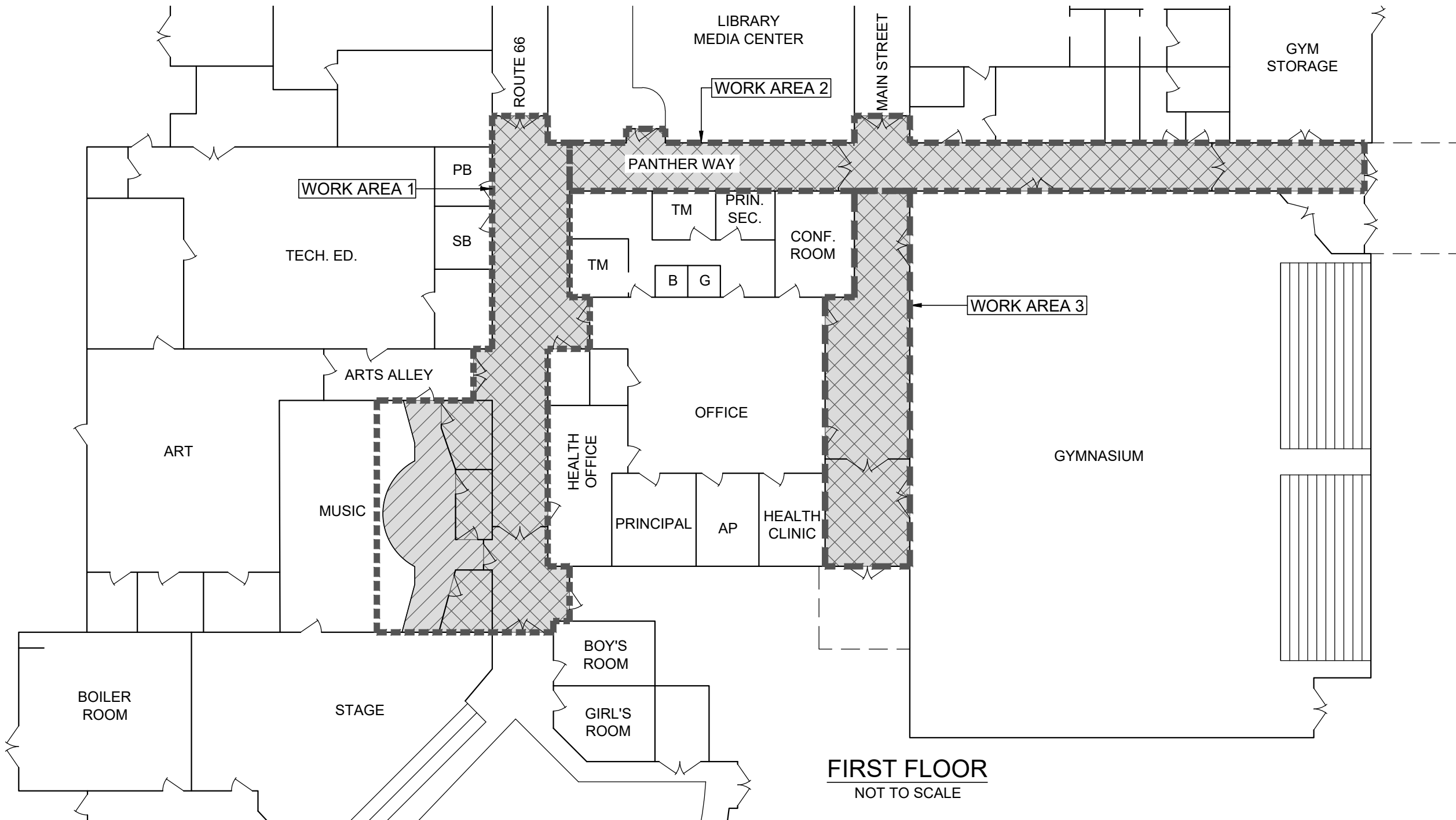
DATE: 07/11/2023

DRAWN BY: BB

REVIEWED BY: PF

SIDE-A (STREET SIDE)

SIDE-C



FIRST FLOOR
NOT TO SCALE

ASBESTOS-CONTAINING MATERIALS ABATEMENT PLAN
EAST HAMPTON PUBLIC SCHOOLS - EAST HAMPTON MIDDLE SCHOOL
PHASE I - FLOOR TILE ABATEMENT - CORRIDORS
19 CHILDS ROAD
EAST HAMPTON, CONNECTICUT



SHEET NO.

HM-1

SHEET 1 OF 1

SIDE-D

SECTION 02080 - ASBESTOS REMOVAL

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Supplementary Conditions and Division 1 Specifications Sections, apply to this Section.
- B. Coordinate the work of this section with the work of all general trades Sections.

1.2 - PROJECT DESCRIPTION

- A. The East Hampton Public Schools will be performing flooring replacement at the East Hampton Middle School located at 19 Childs Road, East Hampton, CT. Asbestos containing materials (ACM) testing has identified floor tile mastic that contain asbestos and will be impacted by this work. Asbestos abatement work will be performed to remove floor tile, carpet, asbestos-containing mastic, floor leveling compounds and vinyl cove base prior to installation of new flooring materials by others.
- B. Flooring abatement will be performed within specified corridors and the music room during the summer 2023 academic recess when no students under the age of eighteen (18) are in the school building.
- C. The work of this project may be performed within three (3) separate work areas to allow the flooring installation contractor to begin installation of new flooring materials as work areas are completed.
- D. All floor tile, mastic, carpet, and leveling compound shall be treated as asbestos-containing and disposed of as asbestos waste. Walk off mats in the two entry ways shall remain in place and be protected from water and asbestos contamination. The walk off mats shall be HEPA vacuumed by the Hazardous Materials Abatement Contractor (HMAC) following removal of the containments.
- E. The asbestos abatement work associated with this project is further defined on Plan HM-1. Plan HM-1 is not to scale and is a diagrammatic representation of the work areas only. The Asbestos Contractor shall verify all quantities flooring materials for their Bid.
- F. The HMAC must complete all abatement and containment removal following re-occupancy air testing in ten (10) business days. Power and water will be available for the HMAC's use.
- G. The HMAC shall be responsible for filing state and federal notifications of asbestos abatement for the project.

1.3 - SCOPE OF WORK

- A. The Base Bid Scope of Work for this project entails the removal of the following materials on a lump sum basis:

WORK AREA	LOCATION	ACM	ESTIMATED QUANTITY
Area #1	Music Room	Floor Tile and Mastic	~280 SF
		Floor Tile and Mastic Under Carpet	~425 SF
	Corridors	Floor Tile and Mastic	~895 SF
Area #2	Corridors	Floor Tile and Mastic	~720 SF
Area #3	Corridors	Floor Tile and Mastic	~700 SF

- B. The HMAC shall not damage surfaces scheduled to remain. Repairs to damaged surfaces and all Consultant fees incurred to properly repair asbestos-containing flooring scheduled to remain shall be borne by the HMAC.
- C. If rental equipment will be utilized during abatement activities, the HMAC shall provide written acknowledgement to the rental equipment provider and copy the Owner's Consultant stating that equipment will be used during hazardous material removal and will be thoroughly decontaminated prior to being returned.

1.4 - QUALITY ASSURANCE

- A. The HMAC shall be licensed by the State of Connecticut Department of Public Health to perform asbestos abatement.
- B. The Asbestos Abatement Supervisor(s) and Asbestos Abatement Workers shall be accredited in accordance with EPA regulation 40 CFR Part 763, subpart E, Appendix C; and shall be licensed by the State of Connecticut Department of Public Health.

1.5 - APPLICABLE CODES

- A. The HMAC shall be solely responsible for conducting this project and supervising all work in a manner that will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos abatement. Specifically, the HMAC shall comply with the requirements of the following:
 - 1. USEPA NESHAP Regulations (40 CFR 61, Subpart M);
 - 2. OSHA Asbestos Regulations (29 CFR 1910.1001 and 1926.1101);
 - 3. Connecticut DEEP Regulations (Section 22a-209-8 (I) and Section 22a-220 of the Connecticut General Statutes);
 - 4. Connecticut DPH Standard for Asbestos Abatement Sections 19a-332-1 to 19a-332-16;
 - 5. Licensure and Training Requirements Section 20-440-1 to Section 20-440-9;
 - 6. Connecticut Basic Building Code;
 - 7. Connecticut Fire Safety Code;
 - 8. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including ASTM, ANSI, and Underwriter's Laboratories.

1.6 - EXEMPTIONS

- A. This project was designed by a licensed State of Connecticut Department of Public Health Asbestos Abatement Designer (Peter J. Folino – license No. 000195). Any deviation from these specifications requires the written approval and authorization from the Owner.

1.7 - EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- A. The HMAC shall carefully examine and read and review all aspects of the Contract Documents and visit the site of work to become familiar with the existing site conditions.
- B. All work called for in the Contract Documents but not shown on the Contract Drawings in their present form, or visa versa, is required, and shall be performed by the HMAC as though it were originally delineated or described.
- C. Work not particularly specified in the Contract Documents, but involved in carrying out their intent or in the complete and proper execution of work, is required pursuant to this Contract

and shall be performed by the HMAc.

- D. The apparent silence of the Contract Documents as to any detail, or the apparent omission from the Contract Documents of a detailed description concerning any work to be done and materials to be furnished, shall be interpreted to mean that only the best practice of the industry is to prevail and that only the best materials and workmanship is to be used.
- E. Should any conflict occur in or between the Contract Drawings, Specification and/or other elements of the Contract Documents, the HMAc shall be deemed to have estimated on the most expensive way of performing the work unless the HMAc shall have asked for and obtained a decision in writing from the Owner's Representative before the submission of its bid as to which shall govern.

1.8 - INDEMNIFICATION

- A. The HMAc and its subcontractors shall indemnify and hold harmless the Owner and the Owner's Representative, and their directors, officers, agents, employees, and consultants from and against all claims, damages, losses, liabilities, and expenses, out of or resulting from the performance of the work specified herein.

1.9 - NOTIFICATIONS, POSTINGS AND PERMITS

- A. The HMAc will make the following notifications, and provide the submittals to the following agencies ten (10) days prior to the commencement of work (10 business days for USEPA, 10 calendar days for CTDPH):
 - 1. CT Department of Public Health
Indoor Air Program, MS #12 AIR
410 Capitol Ave.
P.O. Box 340308
Hartford, CT 06134-0308
 - 2. USEPA New England Headquarters
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Note: Effective December 14, 2017, EPA needs to be notified directly for all asbestos abatement projects involving >160 square feet or >260 linear feet or 35 cubic feet of ACM.

- B. The minimum information included in the notification includes:
 - 1. Name, address, and telephone number of building owner/operator
 - 2. Name, address, and telephone number of asbestos contractor
 - 3. Facility location
 - 4. Facility size, age, and use
 - 5. Amount of asbestos to be removed
 - 6. Work schedule, including proposed start and completion date
 - 7. Asbestos removal procedures to be used

8. Name and location of disposal site for generated asbestos waste, residue, and debris
9. Type of asbestos abatement activity.
10. The nature of asbestos abatement

C. Each of the eight (8) structures requires its own CTDPH and USEPA ten-day notification.

1.10 - WORK SITE SAFETY PLAN

- A. The HMAc shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The minimum requirements of the safety plan should include provisions for the following:
 1. Evacuation of injured workers.
 2. Emergency and fire exit routes from all work areas.
 3. Emergency first aid treatment.
 4. Local telephone numbers for emergency services including ambulance, fire, and police.
 5. A method to notify occupants of the building in the event of a fire or other emergency requiring evacuation of the building.
 6. Confined space entry program.
 7. 24-hour site security program.
- B. The HMAc is responsible for training all workers in these procedures.

1.11 - ALTERNATIVE WORK PRACTICES (AWP)

- A. Any modification from the standard work practices identified in the State of Connecticut Department of Public Health (CTDPH) Standard for Asbestos Abatement Section 19a-332a-1 to 19a-332a-16 must be requested in writing to the CTDPH and must be approved in writing by DPH.
- B. There are no approved AWP's for this project.

1.12 - REOCCUPANCY CLEARANCE

- A. Re-occupancy air clearance monitoring shall be performed by the Owner's Representative for all interior asbestos abatement work involving the removal or repair of greater than three (3) linear feet or three (3) square feet of asbestos-containing materials. The initial cost of the re-occupancy air clearance monitoring shall be the responsibility of the Owner. Additional costs related to failed visual inspections or re-occupancy air clearance monitoring shall be the responsibility of the HMAc.
- B. The HMAc is required to provide a 48-hour notice to the Owner's Representative indicating abatement schedule and when a final visual inspection is required.

- C. Re-occupancy air clearance sampling will be required for each work area utilizing Transmission Electron Microscopy (TEM) analysis. TEM air samples will be analyzed on a twenty-four-hour turnaround time. Turnaround times begin once samples reach the laboratory. The HMAAC shall factor the TEM analysis turnaround times into their overall schedule.

1.13 - CONTROL OVER REMOVAL WORK

- A. All HMAAC work procedures shall be monitored by the HMAAC's "competent person" to ensure that areas outside the designated work locations do not become contaminated. The following controls shall be implemented each working day to help ensure this:
 - 1. Prior to work on any given day, the HMAAC's designated "competent person" shall evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination of the building or the employees. This includes a visual survey of the work area and the decontamination enclosure systems.
- B. The HMAAC shall maintain control of and be responsible for access to all work areas to ensure the following requirements:
 - 1. Nonessential personnel are prohibited from entering the area;
 - 2. All authorized personnel entering the work area shall sign the work area entry log.
 - 3. All authorized personnel entering the work area shall read the "worker protection procedures" which are posted at the entry points to the enclosure system, and shall be equipped with properly fitted respirators and protective clothing;
 - 4. All personnel who are exiting from the decontamination enclosure system shall be properly decontaminated;
 - 5. Asbestos waste that is taken out of the work area must be properly bagged and labeled in accordance with these specifications. The surface of the bags shall be decontaminated. Asbestos leaving the enclosure system must be transported off site or immediately placed in locked, posted temporary storage on site, and be removed within 24 hours of the project conclusion.
 - 6. Any material, equipment, or supplies that are brought out of the decontamination enclosure system shall be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming of all surfaces.

1.14 - SITE SECURITY

- A. The HMAAC shall be responsible for the security of regulated areas. Post asbestos abatement warning signs at entrances to the work area including the waste load out and worker decontamination chamber. The HMAAC shall have an outside supervisor monitoring the entrance of the worker decontamination chamber during abatement work.
- C. The supervisor shall maintain a work area access log for each work area. The access log shall document each person that enters the work area, the time entered, and the time exited. Copies of the work area access logs shall be provided to the Owner's Consultant during the course of the project.

1.15 - CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

- A. The HMAC shall monitor airborne asbestos concentrations in the workers' breathing zone to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001 and 1926.1001.
- B. The HMAC's air sampling professional shall document all air sampling results and provide all air sampling reports within five (5) days of collection. OSHA air monitoring results shall be posted at a conspicuous location at the job site.
- C. All personnel air sampling shall be conducted in accordance with methods described in OSHA standards 29 CFR 1910.1001 and 1926.1101.

1.16 - SUBMITTALS

- A. The HMAC will provide two (2) hard copies of the following submittals available prior to the commencement of removal work:
 - 1. HMAC's construction schedule.
 - 2. Waste generator label to be used including Owner information, specific unit address and HMAC information.
 - 3. Waste shipment and disposal form to be used with generated information for each address.
 - 4. Waste hauling contractor.
 - 5. Landfill to be used.
 - 6. Training, licenses, fit test record and medical record of each employee who may be on the project site.
 - 7. All project personnel engaged in the work covered under this section shall be trained with OSHA 40-Hour HAZWOPER training in accordance with OSHA Regulations 29 CFR 1910 and 1926.
 - 8. Copies of all State and EPA notifications.
 - 9. Copies of all SDS sheets for materials to be used on site.
 - 10. Negative Exposure Assessment.
 - 11. Contractor's State of Connecticut Asbestos Contractor license.
- B. The HMAC will provide one (1) hard copy of the following submittals following the completion of removal work at each site:
 - 1. State / EPA Notifications and any revisions for each address.
 - 2. Contractor Daily Logs (with identification of site supervisor).
 - 3. Work area access logs for each containment area.
 - 4. OSHA personnel monitoring results.

5. Worker and Supervisor training certificates, medical clearance letters, respirator fit-test records and State of Connecticut licenses for any additional workers.
6. Completed waste shipment records signed by disposal facility.

1.17 - DEFINITIONS

- A. **ABATEMENT** - Procedures to control fiber release from asbestos-containing materials; includes removal, encapsulation, and enclosure.
- B. **AIRLOCK** - A system for permitting ingress and egress while assuring air movement to a contaminated area from an uncontaminated area. Two curtained doorways spaced a minimum of six feet apart can form an airlock.
- C. **AIR MONITORING** - The process of measuring the fiber concentration of an area or of a person.
- D. **AIR SAMPLING PROFESSIONAL** – A licensed professional capable of developing air sampling protocols and conducting air monitoring and analysis. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 1926.1101.
- E. **ADEQUATELY WETTED** - Means sufficiently mixed or coated with water, amended or an aqueous solution; or the use of removal encapsulant to prevent dust emissions.
- F. **AMENDED WATER** - Water to which a surfactant has been added.
- G. **ASBESTOS** - The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and includes Chrysotile, Amosite, Crocidolite, Tremolite, Anthophyllite, and Actinolite, or any of these forms that have been chemically altered.
- H. **ASBESTOS ABATEMENT** - Means the removal, encapsulation, enclosure, renovation, or repair of asbestos-containing materials except activities that are related to the removal or repair of asbestos cement pipe and are performed by employees of a water company as defined in Section 25-32a of the Connecticut General Statutes.
- I. **ASBESTOS ABATEMENT SITE SUPERVISOR** - Means any licensed individual who is employed or engaged by an HMAC to supervise an asbestos abatement project.
- J. **ASBESTOS ABATEMENT WORKER** - Means any employee of an HMAC who engages in asbestos abatement.
- K. **ASBESTOS CONSULTANT** - Any person who engages in any activity directly involved with asbestos consultation services and who has been issued a certificate by the commissioner and a license by the department.
- L. **ASBESTOS CONTAINING MATERIAL (ACM)** - A material composed of asbestos of any type and in an amount greater than one percent by weight, either alone or mixed with other fibrous or non-fibrous material.
- M. **ASBESTOS CONTROL AREA** - An area where asbestos abatement operations are performed which is isolated by physical boundaries to prevent the spread of asbestos dust, fibers, or debris.

- N. ASBESTOS FIBERS - Those particles with a length greater than five (5) microns and a length to diameter ratio of three to one (3:1) or greater.
- O. ASBESTOS PERMISSIBLE EXPOSURE LIMIT (PEL) - The maximum airborne concentration of asbestos fibers to which an employee is allowed to be exposed. The current level established by OSHA is 0.1 fibers per cubic centimeter of air as an eight (8) hour time weighted average and 1.0 fibers/cc averaged over a sampling period of thirty (30) minutes as an excursion limit. The HMAc is responsible for maintaining work areas in a manner that this standard is not exceeded.
- P. ASBESTOS PROJECT MONITOR - The licensed asbestos consultant who is certified as a project monitor and who functions as an on-site representative of the facility Owner or other persons by over-seeing the activities of the asbestos abatement contractor.
- Q. AUTHORIZED VISITOR - Any person authorized by the Owner to enter the building.
- R. BUILDING OWNER - For this Contract only, the building Owner is the East Hampton Public Schools
- S. CLEAN ROOM - An uncontaminated area or room, which is a part of the workers' decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.
- T. CLEARANCE SAMPLING - Final air sampling performed aggressively after the completion of the abatement project in a regulated area. Five (5) air samples collected by the asbestos abatement project monitor inside the work area, and having a fiber concentration of less than 0.010 fibers/cc of air will denote acceptable clearance sampling by Phase Contrast Microscopy. Five air samples collected by the asbestos abatement project monitor having an average asbestos concentration of less than seventy (70) asbestos structures mm/sq. will denote acceptable clearance sampling for Transmission Electron Microscopy.
- U. COMMISSIONER - Means the Commissioner of the Connecticut Department of Health Services or his/her authorized agent.
- V. COMPETENT PERSON - A representative of the HMAc who has completed the 40 Hour Contractor/Supervisor course and is certified by the Department of Public Health. The Site Supervisor shall be capable of identifying an asbestos hazard and who has the authority to take prompt corrective measures to eliminate the hazard during asbestos removal.
- W. CONFINED SPACE - A work zone where access and egress are restricted, a potential for gaseous vapors to accumulate exist, or a potential for low oxygen content exists.
- X. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
- Y. DEPARTMENT – The State of Connecticut Department of Public Health.
- Z. EPA - Means the U.S. Environmental Protection Agency.
- AA. ENCAPSULANT - A liquid material that can be applied to asbestos-containing material that controls the possible release of asbestos fibers from the materials by either creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its

components together (penetrating encapsulant).

- BB. ENCAPSULATION - A specified asbestos remediation strategy involving the application of an encapsulant to asbestos containing materials to control the release of asbestos fibers into the air.
- CC. EQUIPMENT DECONTAMINATION ENCLOSURE - That portion of a decontamination enclosure system designed for controlling the transfer of materials and equipment, typically consisting of a washroom and a holding area.
- DD. EQUIPMENT ROOM - A contaminated area or a room, which is part of the workers' decontamination enclosure with provisions for storage of contaminated clothing and equipment.
- EE. FACILITY - Means any private or public building or structure including but not limited to those used for institutional, residential (including single family homes), commercial or industrial purposes and vessels while ashore or in dry-dock.
- FF. FIXED OBJECT - A unit of equipment or furniture in the work areas which cannot be removed from the work area.
- GG. FRIABLE ASBESTOS MATERIAL - Any material that contains more than 1% asbestos by weight, which can be crumbled, pulverized, or reduced to powder by hand pressure.
- HH. GLOVE BAG - An impervious plastic bag-like enclosure affixed around asbestos containing material, with glove-like appendages through which materials and tools may be handled.
- II. HAZARDOUS MATERIALS ABATEMENT CONTRACTOR (HMAC) - Means the Asbestos Contractor, Lead Based Paint Abatement Contractor and or PCB/DEHP and Mercury Vapor Lamp Removal Contractor.
- JJ. HEPA FILTER - A high efficiency particulate air (HEPA) filter in compliance with ANSI Z9.2-1979.
- KK. HEPA VACUUM EQUIPMENT - Vacuum equipment with a HEPA filter system for filtering the effluent air from the unit.
- LL. HOLDING AREA - An air-locked chamber in the equipment decontamination enclosure located between the washroom and an uncontaminated area.
- MM. INSPECTOR (ASBESTOS ABATEMENT PROJECT MONITOR)- An individual, retained by the Building Owner, who is a "qualified asbestos abatement project monitor" as defined by the State of Connecticut Department of Public Health, and who will be responsible for monitoring the HMAC during the asbestos abatement project.
- NN. MOVABLE OBJECT - A unit of equipment or furniture in the work area, which can be removed from the work area.
- OO. NEGATIVE AIR FILTRATION EQUIPMENT - A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.
- PP. OWNER'S REPRESENTATIVE -The Asbestos Consultant and Project Monitor for the project.

- QQ. NESHAPS - National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.
- RR. PLASTICIZE - To cover floors and walls with plastic sheeting as specified herein.
- SS. SEPARATION BARRIER - A rigid barrier sealed with two (2) layers of six (6) mil polyethylene sheeting installed between an occupied area and the asbestos abatement work area.
- TT. SHOWER ROOM - A room between the clean room and the equipment room in the workers' decontamination enclosure with hot/cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.
- UU. STRIPPING - Removing asbestos materials from any structural member, pipe surface, HVAC, or other equipment.
- VV. WASHROOM - A room between the work area and the holding area in the equipment decontamination enclosure with provisions for storage of contaminated clothing and equipment.
- WW. WET CLEANING - The process of reducing asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools, which have been dampened by amended water, and by then disposing of these cleaning items as asbestos contaminated waste.
- XX. WORK AREA - Designated rooms, spaces, or areas of the project in which asbestos abatement actions are occurring and which may become contaminated as a result of such abatement actions. The work area must be totally self-contained by sealing, plasticizing, and equipping the area with a decontamination enclosure system.
- YY. WORKER DECONTAMINATION ENCLOSURE SYSTEM - That portion of a decontamination enclosure system designated for controlled passage of workers, other personnel, and authorized visitors, typically consisting of a clean room, a shower room, and an equipment room.
- ZZ. WORK STOPPAGE CLEANUP PROCEDURE - A process following the issuance of a written stop work order, whereby the HMAC thoroughly cleans and decontaminates the work area, the decontamination enclosure system, and any other areas of the building affected by the removal project, to the satisfaction of the Asbestos Project Monitor.
- AAA. WORK ZONE - The area of the decontamination enclosure system where asbestos is being removed.

1.18 - PRECONSTRUCTION MEETING

- A. The HMAC shall be required to attend a preconstruction conference with its site supervisor and project manager and any subcontractor that they employ for the purpose of reviewing the contract requirements.

PART 2 - MATERIALS AND EQUIPMENT

2.1 - MATERIALS

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the

manufacturer and the brand name and product technical description.

- B. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be decontaminated or disposed of as asbestos waste.
- C. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to job site with factory label indicating four (4) or (6) mil.
- D. Polyethylene disposable bags shall be true six (6) mil with preprinted labels.
- E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
- F. Surfactant (wetting agent) - shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one (1) ounce surfactant to five (5) gallons of water or as directed by manufacturer.
- G. Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site.
(The containers shall be labeled in accordance with OSHA Standard 29 CFR 1926-1101.)
Containers must be both air and watertight.
- H. Labels and signs, as required by OSHA Standard 29 CFR 1926.1001 will be used.
- I. Encapsulant shall be bridging or penetrating type which has been found acceptable to Eagle Environmental. Usage shall be in accordance with manufacturer's printed technical data.
- J. Disposal labels shall be preprinted on self-adhesive labels with the generator name, abatement site and contractor's name and address. Labels shall not be photocopied and applied with spray adhesive.

2.2 - TOOLS AND EQUIPMENT

- A. Provide suitable tools for asbestos removal, encapsulation, and enclosure.
- B. The HMAc shall have air monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.
- C. The HMAc shall have available sufficient inventory on site for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape, and air filters.
- D. The HMAc shall provide temporary electrical power sources such as generators (when required).
- E. The HMAc shall have available shower stalls and sufficient hose length and a drain system equipped with five (5) micron filters.
- F. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative pressure of 0.02 inches of water within the enclosure with respect to the outside area. Equipment shall be checked for proper operation by smoke tubes or a

differential pressure gauge before the start of each shift and at least twice during the shift. Adequate exhaust air shall be provided for a minimum of four (4) air changes per hour within the enclosure. No air movement system or air filtering equipment shall discharge unfiltered air outside.

- G. Vacuum units, of suitable size and capacities for project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.
- H. The HMAc will have reserve exhaust air filtration system units in order to maintain negative air filtration in the event that a unit malfunctions during use.
- I. The HMAc shall have available and use recording manometers to monitor pressure differential between the work area and occupied areas of the building. A minimum negative pressure differential of 0.02 inches of water column shall be maintained.
- J. The HMAc shall have available spray equipment capable of mixing a wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas with asbestos.
- K. HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports where asbestos-containing materials may be disturbed.

PART 3 - EXECUTION

3.1 - INTERIOR CONTAINMENT WORK AREA PREPARATION - GENERAL

- A. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All temporary installations are to be done by a licensed electrician. Under no circumstances during the abatement procedures will lighting fixtures be permitted to be operating when the spraying of amended water may contact the fixture
- B. Isolate heating, cooling, and ventilation air systems or zones to prevent contamination and fiber dispersal to other areas of the structure. Lock and tag out circuits associated with heating and cooling units. During the work, vents within the work area shall be sealed with duct tape and polyethylene sheeting.
- C. Seal off all openings, including but not limited to windows, corridors, doorways, skylights, ducts, grills, diffuser, and any other penetration of the work areas, with polyethylene sheeting minimum of six (6) mils thick sealed with duct tape.
- D. The HMAc shall protect all surfaces scheduled to remain from damage during application of isolation barriers, tape, and polyethylene sheeting.
- E. Where friable asbestos containing materials are present, establish worker decontamination facility, airtight barriers, and negative air filtration prior to conducting pre-cleaning activities. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with minimum six (6) mil polyethylene sheeting sealed with duct tape.
- F. After HEPA vacuum pre-cleaning, conduct work area preparation in accordance with this Specification section.
- G. Where fixed walls are not used, one layer of six (6) mil polyethylene sheeting will be applied

to a rigid framework of wood, metal, or PVC. An additional two layers of four (4) mil polyethylene sheeting shall be installed over the six (6) mil airtight barriers. All overlaps shall be sealed with tape or spray adhesive.

- H. Cover all floors in the work area where asbestos-containing flooring is not present or asbestos-containing flooring is scheduled to remain with a double layer of six (6) mil polyethylene sheeting. Extend the polyethylene flooring a minimum of twelve (12) inches up the walls. Ensure that the wall sheeting overlaps the floor sheeting from the top.
- I. Install an airtight double layer of six-mil polyethylene critical barrier on the basement ceiling under flooring removal activities on the floor above where sub-floor is not capable of containing debris during removal activities.
- J. Maintain emergency and fire exits from the work area, or establish alternative exits satisfactory to fire officials.
- K. Create pressure differential between work areas and occupied areas by the use of acceptable negative air pressure equipment. The HMAc shall ensure the required negative air pressure is obtained throughout the containment and the total volume of air within the work area is changed every fifteen (15) minutes.
- L. Post all approaches to each work area with Asbestos Warning signs. Warning signs shall be of size and type that are easily readable and are visible from all approaches to the work areas.

3.2 - INTERIOR CONTAINMENT CONTIGUOUS PERSONNEL DECONTAMINATION SYSTEM

- A. The HMAc shall establish contiguous to each work area, where feasible, a personnel decontamination system consisting of equipment room, shower room and clean room in series. Access between the contaminated and uncontaminated areas shall be through this decontamination enclosure only. The decontamination system shall be constructed of two (2) layers of six (6) mil polyethylene sheeting.
- B. The HMAc shall protect flooring materials under the personnel decontamination system from water and physical damage. Repairs to flooring materials damaged during the abatement project shall be performed at the HMAc's expense.
- D. Access between rooms in the decontamination system shall be through double flap-curtained openings. The clean room, shower and equipment room within the decontamination system shall be completely sealed ensuring that the sole source of air flow through this area originates from uncontaminated areas outside the work area.
- E. The shower unit shall be equipped with an adequate supply of warm water. A shower filtration pump containing two (2), five (5) micron sock filters or the best available technology shall be installed to filter shower water. Filtered shower water shall be discharged into sanitation drains and shall not be discharged into storm drains or onto floor or ground surfaces.
- F. The shower shall contain soap and an adequate supply of drying towels. Provide an adequate number of shower units in accordance with OSHA 29 CFR 1926.1101.
- G. If the decontamination system will be constructed on the exterior of the building, the entire unit shall be constructed of a solid frame and sturdy wall and ceiling system to prevent unauthorized entry and to keep out the weather. The entrance to the decontamination system shall be lockable and vented to allow for adequate make-up air into containment.

3.3 - REMOTE PERSONNEL DECONTAMINATION SYSTEM

- A. Remote personnel decontamination systems may only be used when a contiguous decontamination system is not feasible.
- B. The HMAc shall establish a remote personnel decontamination system in a heated room where contiguous decontamination systems are not feasible due to prevailing winter weather conditions, consisting of equipment room, shower room and clean room in series. Access between the contaminated and uncontaminated areas shall be through a single chamber airlock. The decontamination system shall be constructed of two (2) layers of six (6) mil polyethylene sheeting.
- C. Access between rooms in the decontamination system shall be through double flap-curtained openings. Clean room, shower and equipment room within decontamination system shall be completely sealed between chambers.
- D. The shower unit shall be equipped with an adequate supply of warm water. A shower filtration pump containing two (2), five (5) micron sock filters or the best available technology shall be installed to filter shower water. Filtered shower water shall be discharged into sanitation drains and shall not be discharged into storm drains or onto floor or ground surfaces.
- E. The shower shall contain soap and an adequate supply of drying towels. Provide an adequate number of shower units in accordance with OSHA 29 CFR 1926.1101.

3.4 - WASTE LOAD OUT SYSTEMS

- A. The HMAc shall establish waste load out systems, where feasible, attached to the work areas. Waste load out systems shall consist of a minimum of two (2) chambers that are of suitable size for transporting waste out of the work area. Waste load out systems shall be constructed of two layers of six-mil polyethylene sheeting.
- B. Access between rooms in the waste load out system shall be through double flap-curtained openings. The waste load out system shall be used for decontaminating waste containers, bags, bundles, etc. prior to removal from the work area and transporting waste from the work area to the non-work area.
- C. Persons working inside the contaminated work area are not permitted to pass from the work area to the non-work area through the waste load out system. Persons inside the contaminated work area shall not be permitted to enter into the clean area of the waste load out system.
- D. The waste load out system shall remain sealed at all times except during decontamination of waste containers and transport of waste from the work area to the non-work area.

3.5 - ASBESTOS REMOVAL PROCEDURE - GENERAL

- A. The HMAc shall have a designated "competent person" on the job at all times to ensure the establishment of a proper enclosure system and proper work practices throughout the project. At a minimum, the HMAc competent person shall perform or supervise the following duties, as applicable:
 - 1. Ensure the integrity of the containment or enclosure.

2. Set up procedures to control entry to and exit from the enclosure.
 3. Supervise employee exposure monitoring.
 4. Ensure that employees set up, use, and remove engineering controls, use work practices and personal protective equipment in compliance with OSHA regulations.
 5. Ensure that employees use the worker decontamination facilities and observe decontamination procedures.
 6. Provide work area entry log for each work area and confirm workers complete form upon entering and exiting each work area.
- B. Abatement work will not commence until all work area preparation is completed in accordance with this technical specification section.
- D. Spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to reduce the release of fibers during removal operation. The Owner's Representative will pre-approve use of amended water as the wetting agent.
- E. Fill disposal containers as removal proceeds, seal filled containers before moving to waste load out system. Wet clean each container thoroughly, double bag, drum or use other approved containerization methods and apply a caution label before moving to the holding area. Floor tile waste shall be containerized in rigid lined drums.
- F. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris.
- G. Solidify all liquid waste prior to containerization for disposal.
- H. Sealed disposal containers and all equipment used in the work area shall be included in the cleanup and shall be removed from work areas, via the waste load out system at an appropriate time in the cleaning sequence. Floor tiles shall be placed in lined fiber drums or steel drums.
- I. At any time during asbestos removal, should the competent person suspect contamination of areas outside the work area(s), they shall cause to stop all abatement work until steps to decontaminate these areas and eliminate causes of such contamination are completed. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections certify decontamination.
- J. Upon acceptance of the work area by the Owner's Representative, the HMAc shall apply an even coating of bridging encapsulant to all exposed surfaces contained within the work area. Apply encapsulant in accordance with manufacturer's recommendation.

3.6 - WASTE PACKAGING AND REMOVAL PROCEDURE

- A. The HMAc shall strictly adhere to the requirements of this section for ACM waste packaging and transporting waste from the work area enclosure to the disposal dumpster.
- B. The HMAc shall utilize lined drums or nylon mesh bags for waste packaging of floor tiles.
- C. Waste disposal bags and drums shall be affixed with pre-printed OSHA warning labels, DOT labels and NESHAP labels.

- D. Each container of ACM waste shall be made adequately wet prior to sealing the container. Bags shall be sealed immediately following additional wetting procedures. Bags of ACM waste shall not be permitted to remain unsealed while in the work area enclosure.
- E. Each bag of ACM waste shall be doubled during waste load out procedures. The following waste load out procedure shall be strictly adhered to:
 - 1. Wet wipe inner bag or drum to remove all ACM contamination. Ensure the inner bag is sealed.
 - 2. Transport bag or drum to the equipment room located in the worker decontamination enclosure.
 - 3. One worker, equipped with personal protective equipment, shall be inside the clean room of the worker decontamination enclosure.
 - 4. The worker in the clean room of the decontamination enclosure shall open a six-mil disposal bag and hold it open inside the shower room where the inner bag containing the ACM waste shall be placed.
 - 5. The outer bag shall be sealed with duct tape inside the shower room.
 - 6. The double bagged or drummed waste shall be removed from the decontamination enclosure and waste generator labels shall be immediately affixed to the outer bag or drum.
 - 7. Waste generator labels shall be printed self-adhering labels and shall contain the Owner's name, the site location address, and the HMAAC's name.
 - 8. The properly labeled waste shall be transported directly to the lined waste container.
 - 9. The waste container shall be double lined with 6-mil polyethylene sheeting.
 - 10. OSHA warning signs shall be secured to the waste container prior to any loading operations.
 - 11. The waste container shall be kept locked at all times other than loading and unloading.

3.7 - MINIMUM SPECIFIC ASBESTOS REMOVAL PROCEDURE - FLOOR TILE AND ASSOCIATED ADHESIVE

- A. Provide selective demolition to remove base cove and other restrictive molding to access all floor tiles as specified herein. In addition, the contractor shall be responsible for removing all floor-mounted cabinets, fixtures, built-ins, furnishings, equipment, etc., if any, in the work areas in order to access floor tile and mastic that may exist underneath those units that is scheduled for removal. The floor tile under the trophy cabinet in the main entry is scheduled to remain.
- B. Remove vinyl cove base attached to sheetrock or concrete block walls as necessary to accomplish flooring removal. Do not damage walls or trim components scheduled to remain.
- C. Minimum specific requirements relative to the removal of asbestos-containing non-friable flooring materials are as follows.

1. Prior to the removal of any non-friable flooring products, the HMAc shall ensure the work area is prepped in accordance with the requirements of Part 3.1 INTERIOR WORK AREA PREPARATION – GENERAL.
2. The HMAc shall continuously mist the non-friable flooring products with amended water, removal encapsulant, or detergent solution, so that entire surface is wet. Do not allow wetting agent to puddle, or run off to other areas. If removal encapsulant is used, use it in strict accordance with the manufacturer's instructions.
3. Where asbestos-containing flooring materials are scheduled to be removed, the HMAc shall remove all layers of flooring down to bare concrete.
4. Carpet shall be removed and disposed of as asbestos-contaminated waste.
5. Remove tiles using manual or mechanical methods. Continuously mist floor in area where flooring is being removed. Wet any debris generated as necessary to keep continuously wet.
6. Continuously pick up tiles and debris, place in lined drums or in nylon mesh bags. Place nylon mesh bags into six (6) mil thick disposal bags with pre-printed OSHA warning labels. Ensure that all waste is placed in six (6) mil disposal bags during waste load out operations.
7. Following removal of floor tiles, there will be a layer of adhesive remaining on the abated surface. Where adhesive is on concrete, the adhesive shall be removed using mechanical methods including but not limited to blast track or grinder with a dust collection device fitted with a HEPA filtration system. One worker shall be dedicated to continuously misting the work area during grinder use.
8. The HMAc is responsible for the even removal of mastic from the slab. The HMAc shall ensure that the depth of removal is consistent and even across the entire floor. Costs to level the floor due to HMAc improper removal operations shall be the HMAc's responsibility. The HMAc shall document the floor condition prior to mastic removal and notify the consultant of any imperfections prior to commencing with mastic removal.
9. Manually remove mastic from all imperfections, seams, cracks, gaps, or other spaces in floor, which is not removed during blast track operations.
10. All liquid wastes shall be solidified once packaged for disposal. No liquid wastes shall be permitted to leave the Site in liquid form.
11. Remove asbestos-containing flooring materials from beneath all cabinets and trim.
12. Thoroughly HEPA vacuum all sub-floors to remove debris.
13. Remove asbestos waste from work area in accordance with Section 3.6 WASTE PACKAGING AND REMOVAL PROCEDURE

3.8 - INTERIOR WORK AREAS FINAL CLEANING AND ENCAPSULATION

- A. Upon completion of gross removal of all ACM specified for removal, the HMAc shall begin final cleaning of the effected work area. The HMAc shall HEPA vacuum and wet wipe all surfaces contained within the work area.

- B. All tools or equipment that are not necessary for final cleaning shall be decontaminated or bagged and removed from the work area enclosure.
- C. The HMAc shall begin final cleaning procedures at the furthest and highest most points from the personnel decontamination facility. The HMAc shall ensure that all exposed building components and or surfaces are thoroughly HEPA vacuumed and wet wiped.
- D. The HMAc shall HEPA vacuum and wet wipe any component specified to remain inside the work area enclosure.
- E. The HMAc shall thoroughly wet wipe all polyethylene sheeting inside the work area enclosure.
- F. Once all surfaces and components within the work area have been thoroughly cleaned, the HMAc's Competent Person shall perform a visual inspection of all surfaces and components within the work area enclosure. The HMAc's Competent Person shall sign off on the work area stating that all abatement has been completed for this portion of work and that the work area has met final visual inspection requirements as outlined in ASTM E1368.
- G. The HMAc's Competent Person shall then request a final visual inspection to be performed by the Owner's Representative. The Owner's Representative shall visually inspect all surfaces and components in the work area for residual debris and or dust. Additional cleaning shall be performed at the HMAc's expense if the Owner's Representative identifies visual debris and or dust during the visual inspection.
- H. Upon acceptance of the work area by the Owner's Representative, the HMAc shall apply an even layer of bridging encapsulant to all surfaces contained within the work area. The Owner's Representative shall verify the completeness of work area encapsulation. The HMAc shall ensure that the bridging encapsulant is compatible with the replacement flooring materials.

3.11 - DISPOSAL OF ASBESTOS AND ASBESTOS CONTAMINATED WASTE

- A. All disposal of asbestos containing and or asbestos contaminated material must be in compliance with requirements of the Office of the Department of Environmental Protection, State of Connecticut Department of Public Health and the USEPA NESHAP regulations.
- B. Disposal approvals shall be obtained from the State Department of Environmental protection before commencing asbestos removal if asbestos will be disposed of in the state of Connecticut.
- C. Waste container storage locations shall be pre-approved by the Owner and Owner's Representative.
- D. A copy of the approved disposal authorization shall be provided to the Owner and Owner's Representative and any required federal, state, or local agencies.
- E. Copies of all landfill receipts will be retained by the Owner's Representative as part of the project file. The receipts will be signed by the landfill operator on receipt, and the quantity of asbestos debris leaving the job site and arriving at the landfill acknowledged.
- F. All asbestos debris shall be transported in covered, sealed vans, boxes, or dumpsters, which are physically isolated from the driver by an airtight barrier. All vehicles must be properly licensed to meet United States Department of Transportation (US DOT) requirements.

- G. Friable ACM waste shall be placed in double lined enclosed waste containers equipped with a lockable hasp. Waste containers shall be posted with OSHA warning signs during loading and unloading.
- H. All liquid waste generated during the work shall be solidified. At no time will liquid wastes be permitted to be stored on site. Liquid waste generated during this project shall be solidified prior to the end of each work shift.
- I. Completed waste shipment records signed by the landfill must be returned to the Owner or Owner's Representative no later than 45 days from the time the waste was transported off-site. Completed waste shipment records that are not received by the Owner within 35 days shall require the HMAc to begin tracking the waste. The HMAc must notify the Owner of intentions on tracking the waste.
- J. The HMAc must take appropriate actions as outlined in 40 CFR Part 61 NESHAP regulations when completed waste manifests are not forwarded to the Owner or Owner's Representative within 45 days from the time the waste was transported off-site.

3.12 - OWNER'S REPRESENTATIVE RESONSIBILITY

- A. The Owner has retained the services of Eagle Environmental, Inc. to monitor this project. The Owner's Representative shall collect and analyze air samples to ascertain the integrity of controls, which protect the building from asbestos contamination. Independently, the HMAc shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.
- B. The Owner's Representative shall collect and analyze air samples during a minimum of three time periods:
 - 1. Pre-Abatement Sampling Period: The Asbestos Abatement Project Monitor may collect a sufficient number of air samples, inside and outside the proposed work area locations, to establish background air quality conditions. At least one sample will be taken outside of the building.
 - a. Pre-Abatement air samples shall be collected for a minimum period of ninety minutes at a minimum flow rate of 12 liters per minute, or as required to obtain a volume of 1,000 liters. Samples shall be analyzed by phase contrast microscopy (PCM) using the NIOSH 7400 protocol.
 - 2. Abatement Period: The Asbestos Abatement Project Monitor shall collect samples on a daily basis during the work period. A sufficient number of background samples shall be taken outside of the work area, at the exhaust of the negative pressure filtration equipment, and outside of the building to evaluate the degree of cleanliness or contamination of the building during asbestos removal. Additional samples may be taken inside the work area and decontamination enclosure system, at the discretion of the Asbestos Abatement Project Monitor.
 - a. The Asbestos Abatement Project Monitor shall provide a continual evaluation of the air quality of the building during asbestos abatement, using his/her best professional judgments in respect to the State Department of Public Health guideline of .010 fibers/cc and the background air quality established during the pre-abatement period.
 - b. If the Asbestos Abatement Project Monitor determines that the building air quality has become contaminated from the project, he/she shall immediately inform the HMAc to cease all removal operations and implement a work

- stoppage clean up procedure. The HMAc shall conduct a thorough cleanup of areas of the building designated by the Asbestos Abatement Project Monitor. No further asbestos abatement work shall take place until the Asbestos Abatement Project Monitor has determined that the building's air has been decontaminated.
- c. Abatement air samples shall be collected for a minimum period of ninety minutes at a minimum flow rate of twelve (12) liters per minute, or as required to obtain a volume of one thousand (1,000) liters. Samples shall be analyzed by phase contrast microscopy (PCM) using the NIOSH 7400 protocol.
3. Post-Abatement Period: The Asbestos Abatement Project Monitor shall conduct air sampling following the final cleanup phase of the project, once the "no visible residue" criterion as established by the site supervisor and the Asbestos Abatement Project Monitor has been met.
- a. Transmission Electron Microscopy (TEM) - For work areas containing greater than 260 linear feet or 160 square feet of ACM, post abatement analysis of the samples to determine if re-occupancy clearance standards have been met shall be conducted by TEM. A minimum of five (5) samples shall be collected inside containment utilizing aggressive methods to comply with State of Connecticut DPH Standard for Asbestos Abatement sections 19a-332a-12, and 19a-332a-13. An asbestos abatement project shall be considered complete when the average concentration of asbestos fibers of five air samples collected within the work area and analyzed by the TEM method in Appendix A of 40 CFR Part 763 subpart E is less than 70.0 structures per square millimeter (s/mm²) of filter surface or is not statistically significantly different, as determined by the Z-test calculation found in Appendix A of 40 CFR Part 763, subpart E, from the average asbestos concentration of five air samples collected at the same time outside the work area and analyzed in the same manner, and the average asbestos concentration of the three field blanks described in Appendix A of 40 CFR Part 763, subpart E, is below the filter background level, as defined in Appendix A of 40 CFR Part 763 subpart E, of 70 s/mm².
 - b. Phase Contrast Microscopy (PCM) - For work areas containing less than 260 linear feet or 160 square feet of ACM, post abatement analysis of the samples to determine if re-occupancy clearance standards have been met shall be conducted by PCM. A minimum of five (5) samples shall be collected inside containment utilizing aggressive methods to comply with State of Connecticut DPH Standard for Asbestos Abatement sections 19a-332a-12, and 19a-332a-13. The project shall be considered complete when the results of samples collected in the work area and analyzed by phase contrast microscopy using the most current National Institute for Occupational Safety and Health (NIOSH) method 7400, to show that the concentration of fibers for each of the five samples is less than or equal to a limit of quantification for PCM (0.010 fibers per cubic centimeter of air).
4. Elevated fiber counts: If elevated fiber counts exceeding the establish pre-abatement level or 0.01 fibers per cubic centimeter of air are recorded, the State Department of Public Health will be notified, and the air sample will be analyzed by TEM utilizing the NIOSH 7402 Method. Sample analyses will be performed on a 24-hour turn around. If asbestos is detected on the air sample the project will be shut down and the environmental controls will be reevaluated. The HMAc shall be responsible for cleaning the effected area and will provide additional support to lower the air born fiber levels.

- C. Inspections shall be conducted by the Owner's Representative throughout the progress of the abatement project. Inspections shall be conducted in order to document the progress of the abatement work as well as the procedures and practices employed by the HMAc. The Asbestos Abatement Project Monitor shall perform the following inspections during the course of abatement activities.
1. Precommencement Inspection: Precommencement inspections shall be performed at the time requested by the HMAc. The Asbestos Abatement Project Monitor shall be informed forty-eight (48) hours prior to the time the inspection is needed. During the course of the precommencement inspection, the Asbestos Abatement Project Monitor shall inspect the containment. This shall include, but not be limited to, inspection of barrier integrity, the worker decontamination, facility, negative air filtration equipment etc. If during the course of the precommencement inspection, deficiencies are found, the HMAc shall perform the necessary adjustments in order to obtain compliance.
 2. Work Area Inspections: Work area inspections shall be conducted on a daily basis at the discretion of the Asbestos Abatement Project Monitor. During the course of the work area inspections, the Asbestos Abatement Project Monitor shall observe the HMAc removal procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the HMAc of specific remedial activities if deficiencies are noted.
 3. Presealant Inspection: Upon the request of the HMAc, The Asbestos Abatement Project Monitor shall conduct a presealant inspection. The presealant inspection shall be conducted after completion of the initial final cleaning procedures, but prior to work area encapsulation. The presealant inspection shall verify that all ACM and residual debris have been removed from the work area. If, during the course of the presealant inspection, the Asbestos Abatement Project Monitor identifies residual dust or debris, the HMAc shall comply with the request of the Asbestos Abatement Project Monitor, in order to render the area is free of visible residue.
 4. Final Visual Inspection: Following receipt of acceptable reoccupancy air monitoring results and concurrent with removal of the work area containment, the Asbestos Abatement Project Monitor shall conduct a final visual inspection. If residual dust or debris is identified during the course of the final inspection, the HMAc shall comply with the request of the Asbestos Abatement Project Monitor, in order to render the area free of visible residue.

END OF SECTION 02080

Town of East Hampton

RESOLUTION

Authorization – State Library Historic Document Preservation Grant

BE IT RESOLVED THAT, David E. Cox, Town Manager of the Town of East Hampton, is empowered to execute and deliver in the name of and on behalf of this municipality a contract with the Connecticut State Library for a Historic Documents Preservation Grant.

Approved this 25th day of July 2022.

TOWN COUNCIL

Mark A. Philhower, Chairperson

ATTEST

Kelly Bilodeau, Town Clerk

**Historic Documents Preservation Program
Connecticut State Library
Hartford, Connecticut 06106**

GRANT CONTRACT

Targeted Grant FY 2024, Cycle 1 — Grant # 042-PC-24

This contract made between the State of Connecticut, Connecticut State Library (hereinafter “State Library”) and the **Town of East Hampton** (hereinafter “Contractor”) pursuant to C.G.S. §§ 11-8i through 11-8n, inclusive.

WHEREAS, the State Library’s Office of the Public Records Administrator administers the Historic Documents Preservation Grant Program (“Program”) for the purpose of preserving and managing historic documents;

WHEREAS, all Connecticut municipalities are eligible to apply for a Targeted Grant (“Grant”) from this Program; and

WHEREAS, the Contractor is a municipality;

NOW THEREFORE, in consideration of the aforesaid and the mutual promises hereinafter contained the parties do hereby agree as follows:

1. The State Library hereby authorizes a Grant for an amount not to exceed **\$6,000** (hereinafter “Grant Funds”), for the following (hereinafter referred to as the “Project”) as approved in the municipality’s Targeted Grant Application on **June 30, 2023**, on file at the State Library:
 - A. **Purchase of archival supplies for the preservation of public records.**
 - B. **Purchase and use of information technology hardware to manage and improve access to a collection of public records.**

2. **The approved Project Budget is as follows:**

	Expense Type	Funds Approved
1.	Consultants/Vendors	\$
2.	Equipment	\$ 1,375.00
3.	Supplies	\$ 4,625.00
4.	Town Personnel Costs	\$
5.	Other (specify)	\$
6.	TOTAL	\$ 6,000.00

The Contractor is responsible for any Project expenses greater than the Grant Funds.

3. **Contract Period.** The Contractor shall complete the Project and expend the Grant Funds as described in the Project Budget within the contract period. The contract period is from **July 1, 2023, or the date of approval of this contract by the State Librarian or, if applicable, the Connecticut Attorney General, whichever is later**, through **June 30, 2024**. Any Grant Funds remaining unexpended on **June 30, 2024**, must be returned to the State Library with the *Project Evaluation/Expenditure Report*.

4. **Payment.** The State of Connecticut shall assume no liability for payment of services under the terms of this contract until the Contractor is notified that this contract has been approved. Payment to the Contractor shall be processed within 45 days of approval of this contract, or within 45 days of the first day of this contract period, whichever is later.
5. **Contract Amendment.** To request approval for a change to the Grant's purpose, methodology, budget and/or completion deadline, the Contractor shall submit an *Amendment Request Form*, available on request from the State Library, to the State Library at least two (2) months prior to the then-current end of the contract period. (a) The State Library must approve any changes to the Grant's purpose and/or methodology which are deemed significant by the State Library. (b) The State Library must approve any budget reallocation that exceeds ten percent (10%) of the total Grant Funds. The Contractor may reallocate up to ten percent (10%) of the total Grant Funds among line items contained in the approved Project Budget as detailed in Paragraph 2 of this contract without prior approval. (c) The State Library must approve any extension to the completion deadline. The Contractor must notify the State Library immediately if difficulties arise that could affect the timely completion of all grant work and expenditures. Extensions are at the sole discretion of the State Library and will not be considered except in the most extenuating situations beyond the municipality's control.
6. **Final Report.** The Contractor shall submit a *Project Evaluation/Expenditure Report*, available on the State Library website at ctstatelibrary.org, for receipt at the State Library by **September 1, 2024**. Failure to submit a completed *Project Evaluation/Expenditure Report* for receipt by the due date may result in termination of the Grant and the requirement that the Contractor return the full Grant Funds, as well as loss of eligibility for the next grant cycle. This filing deadline shall not be extended. Financial and other supporting documentation for the grant must be maintained by the municipality as part of the grant file in accordance with the municipal records retention schedules.
7. **Insurance.** The Contractor agrees that while performing services specified in this contract that it shall carry sufficient insurance (liability and/or other) as applicable according to the nature of the service to be performed so as to "save harmless" the State of Connecticut from any insurable claim whatsoever. If requested, certificates of such insurance shall be filed with the State Library prior to the performance of services.
8. **Indemnification.** The Contractor agrees to indemnify and hold the State, its officials, agents, and employees harmless from and against any and all claims, suits, actions, costs, and damages resulting from the negligent performance or non-performance by the Contractor or any of its officials, agents, or employees of the Contractor's obligations under this agreement. It is further understood that such indemnity shall not be limited by any insurance coverage which is required herein Paragraph 7.
9. **Audit Requirements for State Grants.** For purposes of this clause, the word "Contractor" shall be read to mean "nonstate entity," as that term is defined in C.G.S. § 4-230. The Contractor shall provide for an annual financial audit acceptable to the State Library for any expenditure of State-awarded funds made by the Contractor. Such audit shall include management letters and audit recommendations. The State Auditors of Public Accounts shall have access to all records and accounts for the fiscal year(s) in which the award was made. The Contractor will comply with federal and State single audit standards as applicable.
10. **Inspection of Work Performed.** (a) The State Library or its authorized representative shall at all times have the right to enter into the Contractor's or subcontractor's premises, or such other places where duties under this Contract are being performed, to inspect, to monitor or to evaluate the work being performed in accordance with C.G.S. § 4e-29 to ensure compliance with this contract. The Contractor and all subcontractors must provide all reasonable facilities and assistance to State Library representatives. All inspections and evaluations shall be performed in such a manner as will not unduly delay work. Written evaluations pursuant to this paragraph shall be made available to the Contractor.

- (b) The Contractor must incorporate this section verbatim into any contract it enters into with any subcontractor providing services under this contract.
11. **Refund.** The Contractor shall refund any amounts found to be owing to the State as a result of an error or the discovery of any fraud, collusion, or illegal actions and shall make such refund within thirty (30) days from the notice in writing by the State. In the event that the Contractor fails to make such refund, the State shall deduct such amount from any current or future sums owing to the Contractor on the part of the State from any source or for any purpose whatsoever.
 12. **Governing Law.** This contract and the rights and obligations of the parties hereunder shall be governed by, and construed in accordance with, the laws of the State of Connecticut.
 13. **Assignment.** The Contractor shall not assign any of its rights or obligations or sublet under this contract, voluntarily or otherwise, in any manner without the prior written consent of the State Library. The State Library may void any purported assignment in violation of this paragraph and declare the Contractor in breach of contract. Any cancellation by the State Library for a breach is without prejudice to the State Library or the State's rights or possible claims.
 14. **Claims Against the State.** The sole and exclusive means for the presentation of any claim against the State arising from this contract shall be in accordance with Chapter 53 of the Connecticut General Statutes (Claims Against the State) and the Contractor further agrees not to initiate legal proceedings in any State or Federal Court in addition to, or in lieu of, said Chapter 53 proceedings.
 15. **Executive Orders and Other Enactments.**
 - (a) All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the State Library's authority to require compliance with the Enactments.
 - (b) This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.
 - (c) This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017 concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04. If any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.
 16. **Termination.** The State may terminate this contract upon thirty (30) days written notice to the Contractor if the Contractor fails to comply with this contract or time schedules to the satisfaction of the State. In the event of such a termination, the State shall not be responsible for any future payments to the Contractor, and the State may recover any payments already made to the Contractor by any available means, including the withholding of grants of funds otherwise due the Contractor from the State.

- 17. **Sovereign Immunity.** The parties acknowledge and agree that nothing in this contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of this contract. To the extent that this section conflicts with any other section, this section shall govern.
- 18. **Entire Agreement.** This written contract shall constitute the entire agreement between the parties and no other terms and conditions in any document, acceptance or acknowledgment shall be effective or binding unless expressly agreed to in writing by the State Library. This contract may not be changed other than by a formal written contract amendment signed by the parties hereto and approved by the Connecticut Attorney General, if applicable. This contract shall be binding upon and shall inure to the benefit of the Contractor and its successors.

IN WITNESS WHEREOF, the parties have executed this Contract by their duly authorized representatives with full knowledge of and agreement with its terms and conditions.

Municipality:

Signature of Municipal CEO, duly authorized

Date

Name *(Print Clearly)*

Title *(Print Clearly)*

Municipality *(Use "City of __" or "Town of __" Format)*

Email

Municipality Mailing Address *(Print Clearly)*

Connecticut State Library:

Deborah E. Schander, State Librarian

Date

For STATE LIBRARY Use Only:

Fund	Department	SID	Program	Account	Project	Budget Ref.
12060	CSL66091	35150	73001	55070	CSL_000000020151	2024

RESOLUTION

East Hampton Town Council

A Resolution Allocating American Rescue Plan Funds
Number 7

DRAFT – July 20, 2023

WHEREAS, the American Rescue Plan was approved in March 2021 and includes State and Local Fiscal Recovery Funds (SLFRF) to be distributed to state, local and Tribal governments across the country, including the Town of East Hampton, and

WHEREAS, the Town of East Hampton will receive \$3,788,167.51 under the program to be used as authorized in the guidance issued by the US Department of the Treasury, and

WHEREAS, the Town of East Hampton has designated its entire allocation as lost public sector revenue under US Department of the Treasury regulations that authorize municipalities to utilize up to \$10 million of the individual municipality’s SLFRF distribution as a replacement to lost public sector revenue, and

WHEREAS, funds used to replace lost public sector revenue may be used for the provision of government services at the discretion of the municipality with some limitations as indicated in the guidance, and

WHEREAS, the Town of East Hampton will determine specific expenditures via the Town Council pursuant to Resolution, and

WHEREAS, the Town of East Hampton desires to fund the abatement of asbestos and replacement of flooring in the Middle School Music Room.

NOW, THEREFORE, BE IT RESOLVED by the Town of East Hampton Town Council, to hereby allocate funds in the not to exceed amount of \$25,000 abatement of asbestos and replacement of flooring in the Middle School Music Room.

BE IT FURTHER RESOLVED, that the Town Manager and the Finance Director take appropriate steps to identify and earmark these funds for this purpose including moving the funds to an appropriate holding or expenditure account or fund.

Approved this 25th day of July, 2023.

TOWN COUNCIL

ATTEST

Mark A. Philhower, Chairperson

Kelly Bilodeau, Town Clerk

RESOLUTION

East Hampton Town Council

DRAFT – 7/20/23

A Resolution Accepting a
State of Connecticut Open Space and Watershed Land Acquisition Grant

WHEREAS, in 2021, the Town of East Hampton was awarded a State of Connecticut Open Space and Watershed Land Acquisition Grant in the amount of \$46,500 to support the purchase of the Christopher Pond Property, which purchase was approved by Town Meeting and completed on or about June 29, 2021, and

WHEREAS, a condition of the State of Connecticut Open Space and Watershed Land Acquisition Grant program is the establishment of conservation easements on the purchased property to protect the open space status of the property and to ensure the purpose of the intended purchase is met, and

WHEREAS, the Town desires to accept the grant funds and to grant to the State of Connecticut the required conservation easements.

NOW, THEREFORE, BE IT RESOLVED by the Town of East Hampton Town Council that the Town of East Hampton will accept the State of Connecticut Open Space and Watershed Land Acquisition Grant and hereby authorizes the granting of conservation easements to the State of Connecticut for the Christopher Pond Property; and

BE IT FURTHER RESOLVED, that the Town Manager be, and hereby is, authorized and directed to enter into, execute, deliver and implement any and all agreements, easements, contracts and documents necessary to obtain said State of Connecticut Open Space and Watershed Land Acquisition Grant and to grant conservation easements to the State of Connecticut.

Approved this 25th day of July, 2023.

TOWN COUNCIL

ATTEST

Mark A. Philhower, Chairperson

Kelly Bilodeau, Town Clerk

Town of East Hampton

Electronic Document Retention and Records Management Policy

Authority

The Town of East Hampton is specifically empowered to adopt rules for the creation, protection, maintenance, and storage of electronic municipal records in accordance with *Public Records Policy 04: Electronic Records Management*.

This policy is intended to be read together with the following Policies and Standards (the Standards):

- *Public Records Standards 04-1: Electronic Records*
- *Public Records Standards 04-2: Digital Imaging*
- *Public Records Policy 05: Disposition of Public Records*

Purpose and Scope

Purpose: The purpose of this policy is to allow each Town Department (the Department(s)) to create and retain electronic records in order to allow for proper disposition of paper records within the Town of East Hampton (the Town). The Town is committed to managing its records in a way that preserves institutional knowledge, enriches our historical understanding, supports municipal functions, recognizes environmental consciousness, and meets legal standards. Conversion to electronic records is not a requirement; however, any department proposing to convert their records, shall adhere to this policy.

Scope: It is the responsibility of all employees who create, receive and maintain public records to ensure their safekeeping and availability to the public. This policy applies to all electronic records and information systems created and managed within the Town of East Hampton.

Definitions

Electronic record: A record kept in an electronic format such as a word-processing document, a spreadsheet, a database, a scanned or imaged document, and any other type of file stored on a computer, server, or mainframe storage device or medium, or on any external or off-site storage medium, or with a third-party acting as the Town's agent. Electronic records have the same retention periods as paper and other tangible records.

Historical value: The importance or usefulness of records for understanding the past that justifies continued preservation because of the enduring administrative, legal, fiscal, or evidential information they contain.

Personal Identifiable Information: A person's name, personal mark, or other information which can be used on its own to identify the person, together with at least one of the person's data element: social security number, driver's license number, identification card number, mother's maiden name, financial services account codes, bank account codes/numbers, debit card numbers, electronic serial numbers, or other personal identification number.

Retention period: The minimum required length of time for which a department/unit is responsible for the maintenance of records as set forth by the Connecticut State Library office of the Public Records Administrator (the State).

Retention schedule: The record retention schedule describes categories of records, providing a length of time they should be kept and includes instructions for disposition. Many of the schedule items are broad and describe the purpose or function of records rather than identifying individual documents and forms.

Creation of Electronic Records

As much as practical and possible, departments should accept and create records electronically in lieu of paper records. In the event a department contains historical paper records or accepts paper records, records should be converted to an electronic format for long term or permanent preservation. In order to be considered for disposition in accordance with State Laws, all paper documents must be converted to digital images in accordance with the State of Connecticut *Public Records Standards 04-2: Digital Imaging*, as amended from time to time. Digitizing of records must be done in PDF (mainly for textual content) or TIFF (mainly for graphic content) format to properly preserve them. Other formats may be acceptable in accordance with the Standards. All electronic records shall be maintained on Town servers or in the cloud, not on removable media. The Town maintains internal servers which are regularly backed up in the cloud. **Once a record is converted to electronic format in accordance with this policy and applicable statutes and standards, the electronic version shall be deemed the official record.** If a secondary or backup copy of historic records is kept on removable media, said media shall not be taken out of the department and must be kept in a secure location within the department. Individual user storage accounts (ie: desktop folders, local hard drives, individual One Drive, etc.) shall not be used to store or maintain records.

File maintenance of electronic records requires coordination among the places where they are stored. Records that are maintained only in electronic format should be named and labeled in a manner that is consistent with the department's needs for ease of coordination and cross-referencing.

Each department or division is responsible for the records management in their department/area and the department or division head, or that person's designee, is responsible for the following:

- The creation of file organization and naming conventions for electronic files held by the department network and/or other cloud-based storage systems.
- A determination whether the Records Retention Schedule addresses records pertaining to the Department's activities and ensuring that records are maintained and destroyed consistent with that Schedule.
- If the Records Retention Schedule does not address certain records retained by the Department, development of a department-specific schedule that assists department members in managing those records.
- Review of records that have been digitized for accuracy and completeness. Any images not meeting the standards are to be re scanned.
- Maintain documentation about information systems used by the department to identify, retain, read, process, migrate, or dispose of electronic records.

Departments or divisions intending to replace paper records with electronic or imaged copies are required to ensure that:

- The images will accurately and completely reproduce all the information in the records being digitized.
- The digitized records will not be rendered unusable due to changing or proprietary technology before their retention and preservation requirements are met.
- The digitizing system will not permit additions, deletions, or changes to the images without leaving a record of such additions, deletions, or changes.
- The digitalized records are maintained in a system that is backed-up on a regular basis.
- Ensure that the originals are maintained in a secure location if the originals must be retained.
- Outside contractors used for scanning adhere to the Standards when creating electronic records.

Each department or division is responsible for creating a procedure which all employees will follow when digitizing and storing records. That procedure shall be approved by the Town Manager prior to implementation. At a minimum, the procedure shall address the following:

- Determination of software to be used for records management
 - Selected product must meet the minimum requirements found in the Standards
- Process for creation of electronic record
- Process for importing electronic record into department storage/software
- Process for retrieval of record as needed
- Process for distributing the electronic record upon request

Upon approval by the Town Manager, the departmental procedure will be attached to this policy as an Addendum.

Retention and Security

All records must be retained on site or in the cloud in sufficient manner such that they are backed up and retrievable at any time. Public Records must be obtainable by the public within a reasonable time through any means necessary, including, but not limited to being copied to a flash drive, compact disc, sent via email, or other means. All electronic records shall be retained in accordance with the record's entire authorized retention period. Records that have reached the end of their retention period but have historical or research value should be retained. It is the responsibility of the designated individual in each department to determine whether to retain or dispose of said records.

Any third-parties managing or storing electronic records must return all records upon the expiration of any contract or failure to adhere to the Standards.

Records containing Personal Identifiable Information or sensitive/confidential information must be secured in such a manner that they are protected from viewing by any unauthorized users.

To ensure compliance with the existing policy, departments must ensure procedures are implemented that achieve the following security goals:

- Ensure that only authorized personnel have access to electronic records
- Backup and recovery of records to protect against information loss

- Personnel are trained in how to safeguard sensitive or classified electronic records
- Minimized risk of unauthorized modification or deletion of electronic records
- Ensure that electronic records security is included in overall information technology systems security plans.

Digital Record as Official Record

After all requirements have been satisfied, it is hereby declared that the electronic record is the Official Record acknowledged by the Town of East Hampton.

Disposition of Paper Records

In most cases, once a record has been properly digitized and verified, the paper record may be destroyed prior to the end of its retention period. Records that must be maintained in their original form will be indicated on the Record Retention Schedule.

Unless records have been defined as “permanent” or “historical,” they may be destroyed according to the Retention Schedule. The department responsible for the records must contact the State Archives prior to destruction of original records with permanent/archival/life of structure retention requirements. The following methods are acceptable means of disposition:

- *Returning to Original Owner:* Documents submitted to the Town which have been digitized may be returned to their original owner or that owner’s successor. A timeline should be given for retrieval, after which one of the below methods of disposition should be used.
- *Recycling:* Generally appropriate for all non-confidential paper documents, including, but not limited to, public documents of other organizations, magazines, annual reports, newsletters, announcements, and drafts or policies or other memos which do not contain personal identifiable or sensitive/confidential information.
- *Shredding:* Any hardcopy document containing Personally Identifiable Information or sensitive/confidential information must be shredded. For example, if a document contains an employee number or Social Security number, that document must be shredded. When disposing of such records, the disposer must ensure that no unauthorized person will have access to the personal identifying information contained in the record.



Public Records Standards 04-1: Electronic Records

Standards effective December 1, 2022 and supersede *Digital Imaging Standards, 2014*.

Approved scanning projects prior to this date shall meet the previous standards document except records designated as permanent, archival or life of structure on a records retention schedule.

These standards shall be read together with *Public Records Policy 04: Electronic Records Management* to ensure a full understanding of the Office of the Public Records Administrator (OPRA) and State Archives (SA) joint policy regarding (1) the preservation and authentication of electronic records, and (2) the retention and disposition of electronic records.

These standards shall be read together with *Public Records Standards 04-2: Digital Imaging* to ensure a full understanding of the Office of the Public Records Administrator (OPRA) and State Archives (SA) joint policy regarding the use of digital imaging technology for the reformatting of analog public records; and regarding the retention and disposition of original and digitized records.

These standards apply to records of public agencies (hereinafter "public records/records") that are (a) born digital or (b) digitized images of analog records (both of which are hereinafter "electronic records"). Public agencies are defined as executive branch state agencies, as defined in C.G.S. § 4-5; certain quasi-public agencies; towns, cities, boroughs, and districts; and other political subdivisions of the state (hereinafter "public agency/agencies").

Public agencies should work in conjunction with appropriate IT staff, either individually or through central IT (where applicable), to implement information systems that are compliant with the below standards.

Public agencies must establish a clear and sustainable plan for maintaining long-term electronic records and dedicate sufficient resources to this plan. Electronic records require proactive attention as they are more fragile and complex to preserve than paper and microform records. Without preservation actions, electronic records can be overwritten in databases, lost in media migrations, or become inaccessible due to incompatible legacy systems. Public agencies must be aware of the new skill sets, training, considerable significant resources, and ongoing management that will be required over many decades to ensure that the electronic records remain available to future generations.

For the purposes of this document, the term "shall" or "must" indicates a requirement and the terms "should" and "may" indicate a recommendation or best practice.

I. Legal Issues

- A. Any public agency contemplating using digital imaging technology for the reproduction of public records shall be aware of all applicable statutes or regulations and any legal issues. Consultation with appropriate legal counsel regarding rules of evidence and any other legal issues is advisable.
- B. References to electronic records can be found in many sections of the *Connecticut General Statutes*, including but not limited to, sections contained within Chapter 3, *Public Records: General Provisions*; Chapter 14, *Freedom of Information Act*; Chapter 15, *Connecticut Uniform Electronic Transactions Act*; Chapter 15b, *Uniform Electronic Legal Material Act*; Chapter 92, *Town Clerks*; and Chapter 899, *Evidence*.

II. Authenticity of Records

Public agencies must establish and maintain procedures to ensure authenticity of electronic records during creation and maintenance of information systems. Authenticity procedures should be designed to show that the record is unaltered from the original throughout the duration of the life of the record, including but not limited to:

1. Documentation showing that similar kinds of records generated and stored electronically are created by the same processes each time and have a standardized retrieval approach.
2. Security procedures that prevent unauthorized addition, modification, or deletion of a record and ensure system protection against such problems as power interruptions or natural disasters.
3. Identification of electronic media on which records are stored throughout their life cycle, the maximum time span that records remain on each storage medium, and the Office of the Public Records Administrator-approved disposition process for all public agency records.
4. Chain of custody detailing information on a record's lifecycle from its original creation version to its final production version to verify that the agency or vendor have not altered information either in the copying process or during analysis.
5. Checksums to detect if the contents of a file have been corrupted or changed; or audit trails to link specific records in a system and track such information as the user, date and time of event, and type of event (data added, modified, deleted, etc.).
6. Evidence that no manipulation, substitution, or falsification occurred after record creation.

III. System Trustworthiness

- A. To ensure the trustworthiness of any information system, the public agency shall in consultation with IT create policies and procedures defining the normal operations and use of such systems. These written policies and procedures shall be kept up to date, be quickly accessible if needed for training and legal situations, and include the following:
 1. an overview of the system that describes the purpose and uses of the system;
 2. the methods used to create, modify, duplicate, transfer, and destroy records;
 3. the roles and responsibilities of those individuals involved in electronic records creation, maintenance, and destruction; and
 4. the systems in place to ensure consistent quality control and problem resolution.
- B. The public agency shall develop and establish policies and procedures for training and support that include instructions for imaging, indexing, quality control, and retrieval, and that document user training relating to the use of the system.
- C. The public agency shall implement checksums and/or audit trails to verify no unauthorized deletions, additions, or changes have entered the system and that support the public agency's ability to identify the source of any such unauthorized action.
- D. Ensure the system employed includes performance assurance processes that routinely test the hardware and software and document system testing and performance issues.
- E. The system shall include security protocols that limit system access and update privileges to appropriate users, prevent unauthorized modification of records, and include disaster preparedness and security backup procedures.
- F. All security controls required by regulation, policy, and/or law for paper records shall be addressed for electronic records unless those regulations, policies, and/or laws state otherwise. The public agency shall ensure the protection of records that contain confidential or sensitive information.

IV. Protection of Confidential Information.

- A. Public agencies and vendors have a duty to protect and shall protect against a confidential information breach all confidential information which they come to possess or control, wherever and however stored or maintained, in accordance with current industry standards.
- B. Vendors shall develop, implement, and maintain a comprehensive data security program for the protection of confidential information in agency records. The safeguards contained in such program shall be consistent

with and comply with the safeguards for protection of confidential information, and information of a similar character, as set forth in all applicable federal and state law and written policy concerning the confidentiality of information. Such data-security program shall include, but not be limited to, the following:

1. a security policy for employees related to the storage, access, and transportation of data containing confidential information;
 2. reasonable restrictions on access to records containing confidential information, including access to any locked storage where such records are kept;
 3. a process for reviewing policies and security measures at least annually;
 4. creating secure access controls to confidential information, including but not limited to passwords; and
 5. encrypting confidential information that is stored on laptops, portable devices, or being transmitted electronically.
- C. Vendors and vendor parties shall notify the public agency and appropriate legal counsel as soon as practical, but no later than twenty-four (24) hours, after they become aware of or suspect that any confidential information which vendor or vendor parties have come to possess or control has been subject to a confidential information breach.

V. Documentation for Operating Environments:

Public agencies either individually or through central IT (where applicable) should maintain documentation about operating environments used for information systems including but not limited to hardware, operating systems, configurations, associated service packs, common applications and their associated updates.

VI. Digital Preservation Systems

- A. State agencies are required to contact and work with the State Archives for inclusion in the Connecticut Digital Archive (CTDA), the State Library's digital preservation system. Executive branch state agencies and quasi-public agencies shall not directly contact the CTDA.
- B. Executive branch state agencies and quasi-public agencies shall consult and coordinate with the State Archives and statewide information technology prior to creating project requirements for digital preservation.
- C. Local public agencies (towns, cities, boroughs, and districts) shall consult with the State Archives prior to implementing a digital preservation system and follow the requirements listed in section D below.
- D. Digital preservation systems used by public agencies must meet the following requirements:
 1. Follows the ISO 14721:2012 Open Archives Information System (OAIS) – Reference Model for digital asset preservation and repository construction.
 2. Maintains necessary back-ups.
 3. Monitors the performance of hardware and software and responds to infrastructure issues.
 4. Creates a PREMIS (PREservation Metadata Implementation Strategies) metadata record to document the audit trail and chain of custody of each digital object in the digital preservation system.
 5. Maintains a disaster recovery plan.
 6. Supports online bulk ingest of records and supports the bulk transfer via portable media.
 7. Accommodates a wide variety of file formats.
 8. Automates as much electronic records processing work (i.e., virus scans, checksum generation, extraction of preservation and administrative metadata) as possible.
 9. Ensures that each record has metadata sufficient to ensure its authenticity, support ongoing preservation, and facilitate access.

10. Maintains sufficient metadata required to search and understand the content, context, and structure of the records.
11. Facilitates migration or conversion to preservation-friendly formats when appropriate.
12. Safeguards against unauthorized access.
13. Ensures that records remain uncorrupted.
14. Creates and stores geographically redundant copies.
15. Supports searching and access by users.
16. Packages records in ways that facilitate their movement to next-generation preservation systems.
17. Minimizes the overall cost of preserving electronic records of enduring value.

VII. Maintenance

- A. Electronic records and metadata shall be effectively and efficiently managed throughout the designated retention period.
- B. The cost of ongoing maintenance and sustainability of information systems should be factored into the public agency's budget.
- C. *Data Integrity*: Records shall be protected against file corruption, alteration, or deletion throughout the designated retention period. The public agency shall have policies and procedures in place to ensure the integrity of electronic records.
 1. Records shall be checked regularly for integrity according to public agency policy, such as using a disk-error checking utility which is built into most operating systems such as Microsoft Windows.
 2. When data is written to a storage medium, an error-checking value called a checksum is computed and written along with the data. Any time the data is read, the checksum is recalculated and compared to the stored value to verify that the data on the disk was written and read correctly.

D. Migration

Due to the technological advances and the potential obsolescence of technology currently in place, the public agency shall plan for future migrations to new media and systems. Storage media often become obsolete and are replaced with new technology before the end of their life expectancy. If a system stores records with retention periods exceeding the lifespan of the hardware and software in use, it becomes essential to plan for future data migration. To ensure the contents of the media remain accessible, the public agency shall migrate all electronic records and their associated metadata to a newer media platform as needed.

1. The public agency in consultation with IT should establish a migration plan *before* imaging or adoption of new media and information systems. This plan should be reviewed periodically. The reality of technological obsolescence requires that the public agency monitor technology trends and industry developments to ensure their records are accessible over the required retention periods of the systems on which they are stored.
2. The cost of migration should be factored into the public agency's budget, as migration is an ongoing expense that may grow substantially with time depending on the storage medium.
3. In some instances, it might be advisable to maintain electronic records in multiple file formats (i.e., the original Microsoft Word document and also in PDF) to avoid loss of information, understanding, or use.

VIII. Cloud Storage

- A. Regardless of which cloud service providers and deployment models are adopted, public agencies are still required to manage their records in accordance with records retention schedules pursuant to C.G.S. § 11-8a. Variations among cloud service providers and deployment models, however, will affect how and by whom (agency/contractor) records management activities can be performed.

- B. Cloud providers may not be able to easily meet the type of security and/or information access controls that satisfy local, state and/or federal regulation. Cloud providers may desire to charge additional costs to cover unique or specialized security requirements. Further, a public agency may have little control over who among the cloud provider's employees is authorized to access public agency data.
- C. Storage of data outside of the physical and/or legal boundaries of the state may compromise the public agency's ability to manage and control its data.
- D. Any data sourced to a cloud services provider shall remain the legal property of the public agency and this must be clearly articulated in any agreements with the provider.
- E. The public agency must include in any agreement with a cloud provider an exit strategy to protect its data in the event the storage contract or relationship is terminated with the cloud provider including but not limited to receiving data in a usable format.
- F. State agencies must obtain written approval of the state's Chief Information Officer before committing to the services of a cloud vendor.
- G. For guidance and best practices refer to the National Institute of Standards and Technology (NIST) Special Publication 800-145 *The NIST Definition of Cloud Computing*.

IX. Transfer and Storage Media

- A. *Transfer Media*: Transfer media is intended only for short-term storage or while moving electronic records and index data from the source (such as a vendor hired for imaging services) to the public agency's records storage or to the Connecticut State Archives.
 - 1. For the purposes of transferring electronic records external hard drives, SFTP, VPN, or USB-drive media are preferred.
 - 2. The use of transfer media shall not be permitted for the long-term storage of electronic records because of media instability and fragility.
- B. *Storage Media*: Storage media is intended for long-term storage of electronic records.
 - 1. Any storage media used shall comply with the applicable International Standards Organization (ISO) standards.
 - 2. Storage media should be kept in a secure, dust-free area under proper environmental conditions.
 - 3. Electronic records and their associated metadata are best stored on server-class hard drives utilizing a RAID (Redundant Array of Inexpensive Discs) configuration and/or mirroring across geographically separated data centers (geo redundancy). RAID 5 or higher is typically the preferred configuration to ensure proper protection and availability in the event of a disc failure.
 - 4. If use of RAID 5 or other RAID level drive array is not available, storing electronic records and their associated index data on server-class hard drives which are designed for greater tolerances and durability than standard desktop PC hard drives can be used, assuming that daily backup, cloud, and off-site storage of the data is available.
 - 5. It is recommended that public agencies implement and use an electronic content management system (ECMS) to manage electronic records during their authorized retention periods. An ECMS provides the ability to capture, store, retrieve, display, and transmit records electronically. An ECMS uses a database to manage descriptive information to aid in the retrieval of records contained in the ECMS repository.
 - 6. Storing electronic records outside of an ECMS is not recommended due to the greater chance of accidental deletion of these records and lack of an audit trail to ensure a record's authenticity. State agencies shall consult with the Department of Administrative Services (DAS)/Bureau of Information Technology Solutions (BITS) regarding appropriate ECMS technology.
 - 7. Individual user storage accounts (e.g., desktop folders, OneDrive, Google Drive) should not be used to indefinitely store or maintain public agency records.

X. File Formats

- A. Public agencies create and receive electronic records in a variety of file formats. Over time, file formats may become obsolete or unusable, rendering these electronic records inaccessible. Monitoring and regulating the usage of file formats can help minimize the risk of records loss. Standardizing formats reduces costs and provides a platform to better manage records over time.
- B. For the creation and effective management of electronic records, agencies should manage the file formats used and be prepared to migrate to more stable and widely used formats as needed. These practices are especially important for long-term and indefinite retention records as well as records that have a permanent retention managed by the agency and for those records that will be transferred to the State Archives.
- C. For preservation purposes, the Connecticut State Library (based on the Library of Congress Recommended Formats Statement) strongly suggests records be saved as:

Images – tiff, jpeg, jp2, png, gif, svg

Documents – txt, rtf, doc, docx, odt, PDF, or PDF/A

Spreadsheets – csv, txt, PDF, PDF/A, ods

Databases – sql (with CREATE and INSERT statements), csv, xls, xlsx

Presentations – ppt, PDF, PDF/A, odp

Audio – Broadcast wave (bwf, wav), mp3

Video – avi (lossless), mov, mp4

Email – eml, html, mbox, msg, pst

Compression folders – zip

XI. File Naming

Creating unique, consistent, logical, and predictable file names distinguishes similar records from one another in the file hierarchy and facilitates the storage and retrieval of records. Well-named files allow users to browse file names more effectively and efficiently. In general, file names should be fewer than 20 characters, be short but descriptive, avoid special characters or spaces, include dates in the format YYYY-MM-DD, and include a version number or designate which is the draft or final version.

XII. Metadata Requirements

- A. *General.* Whether embedded into image files or captured in an information system, metadata provides information explaining what each record contains, when and why it was created, what media it was recorded on, original dimensions, and whether any restrictions govern its access and use.
 1. Depending on the public agency's existing record-keeping practices and level of intellectual control, the public agency may use information from the record series, file, or project as the source for administrative and descriptive metadata fields. If the components of a record have not been individually indexed with unique descriptions, the public agency may apply the series or file level descriptions to all records within that grouping. If the components of the record do not have individual titles, the public agency must apply unique identifier(s) instead.
 2. Appropriate and accurate metadata (index) information is required to properly identify and later retrieve electronic records.
 3. Indexing typically consists of a structured format and controlled vocabulary that allows more precise description of a record's content and often includes information such as record type, creation date, last modified date, last modified by, record creator, and disposition date, among other information.
 4. The public agency shall be responsible for defining the specific metadata requirements needed to access the records efficiently.

5. Indexing shall comply with the specific requirements of the public agency and include a unique identifier for each electronic record. Unique filenames or other identifiers are preferably sequential and can be numeric, alphanumeric, or alphabetic as required by the public agency. They should be unique across all record series and storage media.
6. The index of electronic records should consist of a limited but sufficient number of field names to ensure adequate access to the records. Whenever possible, the field data should consist of objective indexing terms (such as personal names, file numbers, retention schedule numbers, and dates) from a controlled vocabulary, rather than subjective data.
7. Optical Character Recognition (OCR) can be performed to convert records into searchable text. Due to error rates, OCR should not be used as the sole tool for the retrieval of electronic records, and it is not a substitute for indexing and production metadata.
8. **Permanent records only:** If the public agency provides other metadata elements in addition to the metadata requirements in this section, the Connecticut State Library will accept that metadata as part of the transfer process.
9. "Mandatory if applicable" instructions in the tables in this section mean that public agencies must provide the metadata if the public agency captures the metadata as part of its business processes. Public agencies do not have to create "mandatory if applicable" metadata as an extra step to transfer records to the State Archives.
10. "Strongly Encouraged" instructions in the tables in this section mean that public agencies are strongly encouraged but not required to capture or create this metadata.
11. "Suggested" instructions in the tables in this section mean that it is only a recommendation that the public agency consider capturing or creating this metadata but it is not required.

B. *Overall requirements.*

1. For all electronic records public agencies must:
 - a. Capture the metadata specified by paragraphs C, D, and E of this section at the record series, file unit or project level.
 - b. When public agencies determine that records are no longer in active use and no longer subject to changes that would alter a checksum or audit trail, public agencies must generate checksums or capture an audit trail and record them as technical metadata in an information system for each electronic record, and use them to monitor records for corruption or alteration.
 - c. Create file names and unique identifier(s) for each file (although public agencies must capture other metadata at the file or item level, some might be common to multiple files or items, but not these two elements).
 - d. Transfer metadata specified by paragraphs C and D of this section to the State Archives in CSV or other appropriate format as agreed upon between the public agency and the Connecticut State Library.
2. For digitized records public agencies must also:
 - a. Embed the metadata specified by paragraph C of this section in each image file, capture and maintain it in an information system, associate it with the records it describes, and keep it consistent and accurate in both places.
 - b. Ensure that scanning equipment or camera embeds the system-generated technical metadata specified by paragraph E of this section in each image file and that image processing does not alter or delete it.

C. *Administrative Metadata*

1. Capture in an information system the following administrative metadata:

TABLE 1 TO PARAGRAPH C.1

Metadata label	Description	Requirement level
File Name	The complete name of the computer file, including its extension.	Mandatory.
Unique Identifier(s)	The unique identifier(s) is assigned by a public agency or a information system.	Mandatory.
Records Retention Schedule Record Series Number	The records retention schedule series number assigned to the records.	Strongly Encouraged.
Relation Has Part	A related record that is either physically or logically required in order to form a complete record. Mixed-media files that contain records on multiple media types should use this element to identify all components.	Strongly Encouraged if a record includes multiple parts, such as the component parts of a case file or mixed-media file.
Relation Is Part Of	A related record or file in which the described record is physically or logically included. Records that are components of mixed media files should use this element to indicate their status.	Strongly Encouraged if file is a component of a multi-part record.

2. Capture in an information system the following access and use restrictions metadata inherited from the original source records:

TABLE 2 TO PARAGRAPH C.2

Metadata label	Required fields	Description	Requirement level
Access Restrictions	Access Restriction Status.	Indicate whether there are access restrictions on the record (i.e. not public).	Mandatory if applicable.
	Specific Access Restriction.	Specific access restrictions on the record, based on Freedom of Information Act (FOIA) exemptions, donor restrictions, court orders, and other federal and state statutory or regulatory provisions.	Mandatory if access restriction exists.
Use Restrictions	Use Restriction Status.	Indicate whether there are use restrictions on the record.	Mandatory if applicable.
	Specific Use Restriction.	The type of use restrictions on the record, based on copyright, trademark, service mark, donor, or statutory provisions, including Freedom of Information Act (FOIA) exemptions.	Mandatory if use restriction exists.
Rights Holder		A person or organization owning or managing intellectual property rights relating to the record.	Mandatory if there is a rights holder.

D. Descriptive Metadata

Capture in an information system the following descriptive metadata from source records at the lowest level needed to support access and preservation and to maintain contextual information.

TABLE 3 TO PARAGRAPH D

Metadata label	Description	Requirement level
Title	A name given to the original record. If a name does not exist, the mandatory metadata element File Name and/or Unique Identifier(s) serves as the title for the record.	Mandatory.
Description	A narrative description of the content of the record, including abstracts for document.	Suggested.
Creator	The agent (person, agency, other organization, etc.) primarily responsible for creating the original record.	Mandatory.
Creation Date	The date or date range of the original record.	Mandatory.
Last Modified By	The user to last modify the record.	Suggested
Last Modified	The date or date range the record was modified.	Suggested
Source Type	The medium of the original source record scanned to create a digital image.	Mandatory.
Source Dimensions	The dimensions of the original source record (including unit of measure).	Suggested.

E. Technical Metadata

Capture in an information system the following technical metadata describing the electronic records:

TABLE 4 TO PARAGRAPH E

Metadata label	Definition	Requirement level
File Size	The size in bytes of the image file.	Mandatory.
Format Name and Version	The format name or description of the file format.	Mandatory.
Image Width	The width of the digital image, i.e., horizontal or X dimension, in pixels.	Mandatory.
Image Height	The height of the digital image, i.e., vertical or Y dimension, in pixels.	Mandatory.
Date and Time Created	The Date or Date Time the digital image was created.	Mandatory.
Scanner Make and Model	The manufacturer and model of the scanner used to create the image.	Mandatory if using a scanner.
Scanning Software Name and Version	The name and version of the software the scanner uses to create the image.	Mandatory if using scanning software.
Digital Camera Make and Model	The manufacturer and model of the digital camera used to create the image.	Mandatory if using a digital camera.

TABLE 5 TO PARAGRAPH E

Fixity metadata label	Description	Requirement level
Message Digest Algorithm	The specific algorithm used to construct the message digest for the digital object or bitstream.	Mandatory if using checksum.
Message Digest (checksum)	The output of Message Digest Algorithm.	Mandatory if using checksum.
Audit Trail	The output of the audit trail in the information system.	Mandatory if using audit trail.

F. *Transfer metadata for permanent records to the Connecticut State Library.*

1. When a public agency transfers legal and physical custody of electronic records to the Connecticut State Library, it must also transfer the associated metadata specified by paragraphs C, D, and E of this section.
2. In addition, the public agency must follow *State Archives Policy 01: Transfer of Historical Records to the State Archives or Other Approved Archival Repository; Procedures for the Transfer of Historical Public Records to the State Archives*; and complete a *Memorandum of Transfer* form.

XIII. Back Up Copies

- A. Public agencies either individually or through central IT (where applicable) shall perform periodic backups of all electronic records, associated indexes, and production metadata to ensure the continued accessibility of records in the event of a disaster. It is recommended that public agencies perform regular testing of the backup media to ensure electronic records have been backed up and are readable.
- B. A backup copy shall be stored in a location that is geographically remote from the location where the use copies of the records are stored. An appropriate backup location is one where it is highly unlikely that the backup location will simultaneously suffer the same disaster as the public agency offices. For example, if the public agency is in or near a flood plain, the backup location should be in an area that is away from that flood plain.
- C. Backup copies should be destroyed after/along with approved destruction of electronic records as part of the disposition process.

XIV. Disposition of Electronic Records

- A. The disposition of electronic records shall be in accordance with *Public Records Policy 04: Electronic Records Management* and *Public Records Policy 05: Disposition of Public Records*.
- B. Public agencies shall have documented policies and procedures that specifically address the defensible destruction of electronic records.
- C. These practices shall be consistent with the public agency's procedures for the lawful disposition of public records in other formats and should follow a regular and systematic disposition schedule.
- D. *Confidential and Sensitive Information*: Electronic records shall be destroyed in a manner that ensures that any information that is confidential or sensitive, including proprietary or security information, cannot practicably be read or reconstructed. Recorded media previously used for electronic records containing information that is confidential or sensitive, including proprietary or security information, shall not be reused.
- E. *Transfer*: Archival electronic records may be transferred to the State Archives or approved archival repository in accordance with *State Archives Policy 01: Transfer of Historical Records to the State Archives or Other Approved Archival Repository* and *Procedures for the Transfer of Historical Public Records to the State Archives*.

XV. Electronic Communications

- A. Email, text, and chat messages (electronic communications) have changed the way public agencies communicate with their users, but management of electronic communications records are often neglected. If public business is being conducted, it is an official record. Not all communications rise to the level of official record, but generally if users are conducting official government business, any related communication is a public record. Public business on private accounts is still public. Users should avoid combining business and personal communications.
 1. Public agencies need to understand how third-party tools operate prior to using them for business functions. Using email and text and chat messages for government communication complicates the process of capturing, managing, and preserving records, since these platforms are typically operated by

parties outside of government. Public agencies should also clearly understand the limits and agreements of the technologies being used and plan for records management.

- B. Public agencies should have policies and procedures that clearly document how each communication technology should be used, set limits on what content may be transmitted by such technologies, and outline procedures for retention, retrieval, preservation, and disposition of communication content. Both record and non-record communication should be addressed. Agencies should consider the following questions:
 - 1. What type of agency business (if any) is appropriate to be conducted via electronic communications?
 - 2. Who in the agency can conduct agency business via text and chat messaging (e.g., elected officials, executive management, line employees, etc.)?
 - 3. Is conducting agency business via electronic communications allowed using personally owned devices or only using agency-owned devices?
 - 4. With public records created and received as email and text and chat messages, how is the agency going to:
 - a. capture the communications?
 - b. retain the communications for the minimum retention period in accordance with current approved records retention schedules?
 - c. destroy or transfer those communications once their minimum retention period has been met?
 - d. enforce these policies and procedures?
- C. Public agencies must ensure that everyone who is part of the agency: (a) is aware of their agency's policies and procedures; (b) understands their responsibilities; and (c) knows how to comply with the policies and procedures.
- D. Content, not format is important. Just as you would not keep a letter on yellow paper longer than one on white paper just because of its color, you would not keep or destroy communications based solely on format. Whether a message is sent via email, text, or other means, the content of the message is what determines its value and retention.
- E. The responsibility for ensuring that public records of agency business conducted via electronic communications are appropriately retained lies with the agency. Third party companies are governed by their own policies, compliance with their own regulatory framework and by the agreements and contracts a public agency makes with them. Agencies need to be aware and understand what their contract with their text and chat messaging service provider covers in terms of retention of messages and the agency's ability to access those records, especially if agencies are choosing to rely on their provider to meet the agency's records retention responsibilities.

XVI. Text Messages

Text messaging is an important part of communication that is increasingly used by public agencies. Like many other forms of communication, it is important to remember that text messages that relate to public business are public records. All content relating to the conduct of the public's business, are public records, pursuant to C.G.S. § 1-200(5). As such text messages must be retained for the minimum retention period as listed on the Connecticut State Library's Records Retention/Disposition Schedules. Retention periods for text messages should be based on the record series related to the content of the text.

XVII. Options for Capturing and Retaining Text Messages

Public agencies should consider the options below regarding the capture and retention of text messages:

- 1. Users Save Messages – Public agencies can choose to have their users be responsible for manually saving their text messages to an agency-controlled storage device such as an Enterprise Content Management (ECM) system or a server. However, it may be difficult to demonstrate that this is done consistently.

2. Automatic Capture to Public Agency-Controlled Storage – Public agencies can choose to either configure their text messaging service or use third-party software to automatically capture each text message sent and received either into a repository or as an email sent to the agency.
3. Vendor Capture and Store Services – Public agencies can choose to use a vendor service to capture and retain their public record text messages. Again, public agencies will need to be aware and understand what their contract with their vendor service provides in terms of retention, access to the records, what happens to the text message records at the end of their minimum retention periods and what happens if the contract is terminated, or the vendor goes out of business.

XVIII. Retention of Electronic Communications

Electronic communications must be retained for the minimum retention period as listed on the Connecticut State Library's Records Retention/Disposition Schedules. Retention periods for electronic communications should be based on the record series related to the function and content of the communication, not its format or method of transmission. How long electronic communications messages need to be kept depends on the public agency's business, legal and accountability needs to retain the evidence of the transaction that is documented in the communication. The questions to ask to determine the function/content of electronic communications are:

1. What is the communication about? (content); and
2. Why was it sent and for what purpose? (function)

XIX. Social Media Sites

- A. All content, including, but not limited to, comments and postings on a public agency's social media accounts, relating to the conduct of the public's business, are public records, pursuant to C.G.S. § 1-200(5). As such, comments and postings must be retained for the minimum retention period as listed on the Connecticut State Library's Records Retention/Disposition Schedules. Retention periods for social media postings should be based on the record series related to the content of the post. For example, if an agency uses Twitter™ for public relations purposes, these records should be retained in accordance with Public Relations Records series on the State General and Municipal General Schedules.
- B. As a general rule, do not rely on the social media tool for recordkeeping; government bodies should keep a copy of the record within their own filing system. Methods to capture social media records include:
 1. copy and paste into a word document;
 2. use web crawling or other software to create local versions of sites;
 3. use web capture tools to capture social media;
 4. use platform-specific application programming interfaces (APIs) to pull content;
 5. use RSS Feeds, aggregators, or manual methods to capture content; and
 6. use tools built into some social media platforms to export content.
- C. The options for successful social media capture will depend on the technical configuration of the social media platform. Agency needs may also affect which social media capture method is used. Once the agency determines the capture method, they should provide training to applicable staff on how and when to use capture tools for social media. Agencies may need to work with third-party providers to implement social media capture.

XX. Websites

- A. All content on a public agency's website(s) relating to the conduct of the public's business are public records, pursuant to C.G.S. § 1-200(5). As such website management and operations records must be retained for the minimum records retention periods listed on the Connecticut State Library's Records Retention/Disposition Schedules. The records retention periods for content on a public agency's website should be based on the record series related to the content on the website. For example, if an agency uses their website for public

relations purposes, these records should be retained in accordance with Public Relations Records series on the State General and Municipal General Schedules.

- B. Website management and operations are an integral part of a public agency's program. Managing web records properly is essential to effective website operations, especially mitigation of the risks associated with using the web to carry out business.
- C. Public agencies should incorporate into their records management policies and procedures the department, program, users, and/or teams responsible for (a) website content and (b) website management and operation records. There might be multiple users involved in managing website management and operation records.
- D. Public agencies that contract out their website development should work closely with the vendor to ensure that web management and operations records can be captured and preserved according to records management policies and procedures.
- E. Public agencies should develop a governance strategy to retain web content and website management and operations records. The agency's strategy should address roles and responsibilities; capture and maintenance of web content; and determining the proper retention and disposal of web records and content.
- F. ***What Constitutes a Web Record?***
 - 1. The first step in managing web records is determining whether it meets the definition of an "official" record and shall follow Connecticut statutes concerning the creation of, retention of, and continuing access to public records. Public agency users, vendors, and partners supporting web management and operations should understand that much of the content and documentation associated with public agency websites may meet the definition of a record and must be managed as such.
 - 2. Website-related records can be broken into two main categories:
 - a. web content records representing information presented on a website, and
 - b. website management and operations records, which provide evidence of the management, operations, and structure of the website.
 - 3. ***Web Content Records***
 - a. Web content is comprised of information on the website itself. This can include but is not limited to content pages that make up a website (e.g., public agency information, meeting agendas/minutes, reports, policy explanations), as well as records that can be created dynamically when a user interacts with the website.
 - b. For all web content, the determination must be made if official records will be managed solely on the website. Managing official records solely on the website requires the implementation of separate records management controls.
 - c. An alternative option is managing web content in agency recordkeeping systems using existing records management controls and considering the website information as convenience copies of those records.
 - 4. ***Website Management and Operations Records***

There are two categories of website management and operations records that need to be actively managed to ensure the trustworthiness of an agency website – contextual and structural.

 - a. Contextual records are the administrative and technical records used to develop and maintain the website. These can include records such as policies and procedures for managing the website, site design and testing documentation, and reports that track web activity (metrics). Maintenance of these records provides a context for web operations, which attests to the reliability, authenticity, and integrity of a public agency's website.

- b. Structural records provide information related to the appearance or arrangement of the information. A site map for mission-critical websites indicating the arrangement of a site's content pages is helpful in providing a framework for content records and enables the integrity and usability of both current and preserved versions of an agency website.

G. *Retention and Disposition of Web Records*

1. *Retention and Disposition of Web Content*

- a. The records series under which a web content record is classified depends solely on the information content.
 - i. Non-Records
 - (1) If web content does not meet the definition of a record, take the necessary steps to dispose of/update the content when it no longer has value and to ensure the content is not kept longer than the official record.
 - ii. Official Record Copy
 - (1) If web content meets the definition of a record and is being managed solely on a public agency's website as the official record, determine whether an existing records series applies. Web content that is the official record may not be destroyed without an approved records series and agencies must follow disposition procedures as outlined in *PRP 05: Disposition of Public Records*.

2. *Retention and Disposition of Web Management and Operations Records*

- a. Web management and operations records should be retained and disposed of following disposition procedures as outlined in *PRP 05: Disposition of Public Records*.
- b. Any portion of website administrative information that contains official records should be retained and disposed of per the appropriate records series. This may differ significantly from one website to another based on business function and criticality.
- c. Agencies may consider capturing the following where appropriate:
 - i. Metadata that makes it easier to retrieve, use, or manage web records/content.
 - ii. How information is displayed on the website, revised and removed, in addition to having an awareness of what records are created when these actions take place.
 - iii. Transaction logs for transaction-based website functions.
 - iv. Versioning of website content and records (may want to establish the difference between a minor version and a major version and what needs to be captured).
 - v. Rollbacks where changes have been made affecting user views and functionality.

H. *Capturing and Maintaining Website Records*

1. Automated or manual processes are recommended to be in place for capturing web content to document compliance with state laws and regulations. Web content that contains an official record needs to be captured and remain accessible for its entire lifecycle, which can be accomplished via electronic content management systems (ECMS) or similar tools.
2. Where possible, web content should be a copy of the record and the official record copy should be maintained within the agency's recordkeeping system.

I. *Decommissioning Websites No Longer in Use*

1. Public agencies should develop a content lifecycle strategy that includes what to do in cases where websites or their sub-sites have become stale or obsolete. When websites or sub-sites are ready to be decommissioned, consider the following before deleting the site and associated content of the site from the web server:

- a. There may be official records retained on the site that need to be managed per a record series and where the content must be moved and appropriately retained through alternative storage for its entire lifecycle.
- b. Public agency users can work with IT to collect and archive the pages just prior to decommissioning of the website.

XXI. Google Workspace

1. Google documents, slides and sheets require different methods of handling, as they exist as data that is rendered within the browser, rather than as distinct files. Depending on the type of documents, slides and sheets you may be able to download into Microsoft Office or PDF formats. In some instances, the original format cannot be downloaded and rendered as is possible with a Word Document or PDF file.
2. For office style documents and spreadsheets, the Microsoft or Open Office formats offer the most similar functionality.

Definitions

The definitions below are from the National Archives and Records Administration (NARA) and the Society of American Archivists (SAA) *Dictionary of Archives Terminology*, except where noted. See also *OPRA Records Management Terms*; policy and standards resources, and additional information are available on the Office of the Public Records Administrator website (<https://ctstatelibrary.org/publicrecords/>).

Accessible is information arranged, identified, indexed, or maintained in a manner that permits the custodian of the public record to locate and retrieve the information in a readable format within a reasonable time. (Wisconsin Public Records Board (PRB), *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Authentic/authenticity means that the record is unaltered from the original; that it is what it purports to be, and/or that its representation is transparent.

Approved archival repository is a repository that meets professionally accepted archival facility and infrastructure requirements including but not limited to the care, management, security, preservation, and accessibility of public records. Contact the Office of the Public Records Administrator and the State Archives prior to any archival records transfer to an archival repository.

Audit Trails link to specific records in an information system and track such information as the user, date and time of event, and type of event (data added, modified, deleted, etc.). Since audit trails may play an integral part in prosecution, disciplinary actions, or audits or other reviews, public agencies are responsible for ensuring that internal management policies are in place for retaining audit trails as long as necessary for these purposes following the minimum retention period as listed on the Connecticut State Library's Records Retention/Disposition Schedules. Audit trails help prove a record's authenticity.

Batch is a group of files that are created under the same conditions or are related intellectually or physically. During digitization, batches represent groups of records that are digitized and undergo Quality Control inspection processes together.

Chain of Custody is the complete, documented, chronological history of the possession and handling of a piece of information or a record from the time of its creation through its authorized destruction. The ability to demonstrate an unbroken chain of custody is an important test of the authenticity of records. This includes all information on a file's travels from its original creation version to its final complete version or a detailed account of the location of each document/file from the beginning of a project until the end. A sound chain of custody verifies that the agency or vendor has not altered information either in the copying process or during analysis.

Checksum is a function that takes an input string, which can be of any length, and generates an output of fixed length. The output, or hash, is used to authenticate information, such as whether a file has been corrupted or modified. The values returned by a hash function are called hash values, hash codes, digests, or simply hashes. A digital signature is a special form of checksum, whose hash value is generated by a private key and verified with a public key.

Cloud or Cloud Computing consists of three parts: 1) delivery of hosted services over the internet, or an organization's intranet, instead of on a user's local computer; 2) storing, accessing, sharing, and using data with those hosted services; and 3) the hardware, networks, and staffing required to maintain the data and services. When the Cloud resources are owned and operated by an organization itself, it is known as a "private cloud." Most commonly, cloud resources are offered as a service from a third-party provider and are known as a "public cloud."

Color management is using software, hardware, and procedures to measure and control color in an imaging system, including capture and display devices.

Content means the basic data or information carried in a record. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Context is the relationship of the information to the business and technical environment in which it arises. "Context" can include, but is not limited to, such elements as: the origin of the record; date and time the record was created; identification of the record series to which the information belongs. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*).

Defensible disposition is a process by which content is systematically deleted with an audit trail that is legally admissible in court.

Digitization project is any action an agency (including an agent acting on the public agency's behalf, such as a contractor) takes to digitize records. For example, a digitization project can range from a one-time digitization effort to a multi-year digitization process, can involve digitizing a single document into an electronic records management system or digitizing boxes of records from storage facilities; or can include digitizing active records as part of an ongoing business process or digitizing inactive records for better access.

Digitized record is an electronic record created by converting paper or other media formats to a digital form that is of sufficient authenticity, reliability, usability, and integrity to serve in place of the original source record.

Disposition is "a final administrative action taken with regard to records, including destruction, transfer to another entity, or permanent preservation." (ARMA)

Electronic Content Management System (ECMS) is a software system that provides the strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. An ECMS can include features such as document management, content taxonomies, auditing capabilities, check-in/check-out and other workflow controls and security mechanisms.

Enterprise content management (ECM) is used to create, store, distribute, discover, and manage unstructured content (such as scanned documents, email, reports, medical images and office documents) and ultimately analyze usage to enable organizations to deliver relevant content to users where and when they need it. (Gartner Information Technology Glossary)

Extranet is a computer network that allows controlled access from the outside, for specific business or educational purposes. In a business-to-business context, an extranet can be viewed as an extension of an organization's intranet that is extended to users outside the organization, usually partners, vendors, and suppliers, in isolation from all other Internet users. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

File (noun) is a document or group of documents related by use or topic, typically housed in a folder (or a group of folders for a large file).

File (verb) is the action of placing a record or document in a folder.

Folder is a container used to group records.

Geographically remote means storing backups or duplicate copies outside of the building in which the server resides.

Image quality is a measurement of a digital image's overall accuracy in faithfully reproducing an original. A digital image created to a high degree of accuracy meets or exceeds objective performance attributes (such as level of detail, tonal and color fidelity, and correct exposure), and has minimal defects (such as noise, compression artifacts, or distortion).

Information system is an organized set of procedures, tools, and techniques designed to store, retrieve, manipulate, analyze, and display information. Note: "Information system" usually connotes the use of computers. If automated, 'information system' also refers to the hardware and software. Automated information systems are generally distinguished from real-time control systems, message-switching systems, and software engineering environments.

Intellectual control is having the information necessary to identify and understand the content and context of the records. This includes knowing the disposition schedule under which the records fall, the date range when the records were created, and any access or use restrictions that apply to the records.

Integrity means that the image is an exact copy of the original and that the data has not been altered through loss, tampering, or corruption. This is verified using an audit trail or checksum.

Intranet is a private network inside a company or organization, which is for internal use only and not accessible to the public or outside the organization's network. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Lifecycle means all phases of a record's existence: creation, active use, preservation and management through to disposition. "Disposition" includes permanent preservation as well as designation for destruction. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Mass digitization is the large-scale scanning of source records using scanners capable of high-volume throughput. Mass digitization approaches are appropriate for paper records of uniform size and type that can be digitized without being damaged by the equipment, and in which there is no information requiring higher specifications to ensure accurate capture (such as fine detail or precise color accuracy).

Media are the physical forms on which records are stored, such as paper, photographs, compact discs (CDs), digital video discs (DVDs), analog tapes, flash drives, local hard drives, or servers.

Metadata is the characterization or description documenting the identification, management, nature, use, or location of information resources (data). Note: Metadata is commonly defined as "data about data." Metadata is frequently used to locate or manage information resources by abstracting or classifying those resources or by capturing information not inherent in the resource. Typically, metadata is organized into distinct categories and relies on conventions to establish the values for each category.

Administrative metadata is necessary to manage and use information resources and that is typically external to informational content of resources. Note: Administrative metadata often captures the context necessary to understand information resources, such as creation or acquisition of the data, rights management, and disposition.

Descriptive metadata is information that refers to the intellectual content of material and aids discovery of such materials. Note: Descriptive metadata allows users to locate, distinguish, and select materials on the basis of the material's subjects or 'aboutness.' It is distinguished from information about the form of the material, or its administration.

Embedded metadata are textual components that exist alongside the content (usually binary data) within the file. Embedded metadata may be used to make self-describing digital files that contain specified administrative, rights, and technical metadata and can be appropriately managed outside of a recordkeeping system.

Preservation metadata is technical information that can help support the longer-term sustainability of digitized content. Information about an object used to protect the object from harm, injury, deterioration, or destruction.

Structural metadata is information about the relationship between the parts that make up a compound object.

Technical metadata are elements of information that describe processes used to create electronic files, and parameters that aid a system in rendering the files properly. Technical metadata may include elements such as a file's byte size, file format and version, color encoding, and the type of equipment used to make the file (camera name, scanner manufacturer, etc.).

Mixed-media files are records in different forms of media. A file, when used in the phrase "mixed-media file," is a group of records—regardless of location and type of media—that belong together or relate to a topic, such as a case file. For example, a mixed-media case file could be a box with paper notes, audio recordings of interviews, and a CD of photographs, along with physical evidence stored separately in an evidence locker. Records in a file may be in more than one media type due to changes in how agencies create, maintain, and use records, shifts in technology, and the topic or activity involved.

Official Record Copy is the specific copy of a public record, as provided in C.G.S. § 1-200(5), designated by the public agency as the legally recognized copy that must be maintained for records retention, preservation, and authentication. For example, if records are kept in both electronic and hard copy format, the agency must identify the official record copy.

Physical control is having the information necessary to physically manage the records. This includes knowing where the records are housed, whether any records that fall within the project's scope are missing or stored separately, and the records' physical form (such as media types, the records' dimensions, and the smallest level of detail used to convey information).

Project plan establishes the vision and goals for the project, summarizes key points of historical or referential context, identifies stakeholders, addresses any areas of concern or risk for the long-term preservation of and access to digitized materials, and communicates in broad strokes the overall plan for the project.

Public Record as defined by C.G.S. § 1-200(5), is "any recorded data or information relating to the conduct of the public's business prepared, owned, used, received or retained by a public agency, or to which a public agency is entitled to receive a copy by law or contract under section 1-218, whether such data or information be handwritten, typed, tape-recorded, printed, photostated, photographed or recorded by any other method."

Quality control (QC) is the process by which a public agency reviews the quality of all steps in the creation and maintenance of electronic records through inspection or testing to determine if they meet their specifications. The purpose is to detect defects (deviations from predetermined requirements) in records or processes.

Reference target is a chart of test patterns with known values used to evaluate the performance of an imaging system.

Reflective digitization is a process in which an imaging system captures reflected light off of scanned objects such as bound volumes, loose pages, cartographic materials, illustrations, posters, photographic prints, or newspaper.

Reliable means the electronic record produced accurately reflects the initial record each time the system is requested to produce that record. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Reproduction scale accuracy measures the relationship between the physical size of the original object and the size in pixels per inch (ppi) of that object in the digital image.

Resolution is the level of spatial detail an imaging system can resolve in an image.

Rollback is the operation of restoring information to a previous state by canceling a specific transaction or transaction set. Rollbacks are either performed automatically by database systems or manually by users. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Sharpening is used to artificially enhance details to create the illusion of greater definition.

Source record/original source record is the record from which a digitized version or digitized record is created.

Structure is the appearance or arrangement of the information in the record. "Structure" can include, but is not limited to, such elements as heading, body and form. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

System trustworthiness means a system that is believed to be capable of operating within defined levels of risk despite the environmental disruptions, human errors, structural failures, and purposeful attacks that are expected to occur in its environment of operation.

Transaction logs is a system generated history of actions for a specific business purpose. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Transmissive digitization is a process in which the system transmits light through a photographic slide or negative.

User is any person who creates, modifies, deletes, or accesses electronic records. In the present context, users include, but are not limited to public agency employees, contractors, individuals on a PSA, interns, volunteers, or the public.

Versioning is creating updated versions of content records. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Web Archiving is the process of collecting, preserving, and providing enduring access to web content.



Public Records Standards 04-2: Digital Imaging

Standards effective December 1, 2022 and supersede *Digital Imaging Standards, 2014*.

Approved scanning projects prior to this date shall meet the previous standards document except records designated as permanent, archival or life of structure on a records retention schedule.

These standards shall be read together with *Public Records Policy 04: Electronic Records Management* and *Public Records Standards 04-1: Electronic Records* to ensure a full understanding of the Office of the Public Records Administrator (OPRA) and State Archives (SA) joint policy regarding (1) the preservation and authentication of electronic records, and (2) the retention and disposition of electronic records.

These standards apply to records of public agencies (hereinafter “public records/records”) that are (a) born digital or (b) digitized images of analog records (both of which are hereinafter “electronic records”). Public agencies are defined as executive branch state agencies, as defined in C.G.S. § 4-5; certain quasi-public agencies; towns, cities, boroughs, and districts; and other political subdivisions of the state (hereinafter “public agency/agencies”).

Public agencies should work in conjunction with appropriate IT staff, either individually or through central IT (where applicable), to implement digital imaging processes that are compliant with the below standards.

Public agencies must establish a clear and sustainable plan for maintaining long-term electronic records and dedicate sufficient resources to this plan. Electronic records require proactive attention as they are more fragile and complex to preserve than paper and microform records. Without preservation actions, electronic records can be overwritten in databases, lost in media migrations, or become inaccessible due to incompatible legacy systems. Public agencies must be aware of the new skill sets, training, considerable significant resources, and ongoing management that will be required over many decades to ensure that the electronic records remain available to future generations.

Public agencies should weigh the pros and cons of maintaining analog records as protection against electronic records loss. Agencies should also consider access needs and ensure that public access would not be negatively impacted by the disposal of the hard copy records. Any decision to dispose of analog permanent records after scanning should be clearly outlined in the agency’s records management policies and procedures.

For the purposes of this document, the term “shall” or “must” indicates a requirement and the terms “should” and “may” indicate a recommendation or best practice.

I. Legal Issues

- A. Any public agency contemplating using digital imaging technology for the reproduction of public records shall be aware of all applicable statutes or regulations and any legal issues. Consultation with appropriate legal counsel regarding rules of evidence and any other legal issues is advisable.
- B. References to electronic records can be found in many sections of the *Connecticut General Statutes*, including but not limited to, sections contained within Chapter 3, *Public Records: General Provisions*; Chapter 14, *Freedom of Information Act*; Chapter 15, *Connecticut Uniform Electronic Transactions Act*; Chapter 15b, *Uniform Electronic Legal Material Act*; Chapter 92, *Town Clerks*; and Chapter 899, *Evidence*.

II. Scope

- A. This section covers the standards and procedures a public agency must apply when digitizing paper records using reflective digitization techniques. Such records include most paper-based documents regardless of size, such as modern office paper, maps, posters, manuscripts, graphic-arts prints (lithographs, intaglio, etc.),

drawings, bound volumes, and photographic prints. This section also covers any records that may be incorporated into mixed-media records.

- B. This section does not cover standards and procedures public agencies must apply when digitizing records using transmissive digitization techniques. Such records include photographic negatives, transparencies, aerial film, roll film, and micrographic and radiographic materials. In addition, this does not cover records on dynamic media, such as motion picture and audio-visual records, videotapes, and audio cassette tapes.
- C. These standards apply regardless of who performs the digitizing activities for the public agency, whether the agency itself, a department/division/unit of the agency, a vendor or other similar entity acting on the agency's behalf. This document uses the terms "imaging" and "digitizing" interchangeably to refer to this process.
- D. For guidance on digitizing out of scope media types or non-paper-based portions of mixed-media records, such as dynamic media, x-rays, negative or positive film, or other special media types, contact the Office of the Public Records Administrator.
- E. This section also does not cover standards and procedures for optical character recognition (OCR) technology. Public agencies may perform OCR during digitization to meet agency business needs and transfer the resulting files to the State Archives, but this section does not require OCR.
- F. This section does not address other applicable laws and regulations governing documents and electronic files, including, but not limited to, proper handling of confidential, restricted, or exempt from disclosure information. Public agencies should work with their legal counsel and other officials to ensure compliance with these and other applicable requirements.
- G. This section does not address other business needs or legal constraints that may make it necessary for an agency to retain original source records for a period of time after digitizing. Public agencies should work with legal counsel to determine whether such retention might be necessary because it relates to rights and interests, appeal rights, benefits, litigation holds, or other similar reasons.
- H. Provided there are no statutory, regulatory, or policy requirements to retain the record in a physical eye-readable format, and that the record is not designated on a records retention schedule as (1) permanent, (2) archival, (3) archival review required, (4) may have historical value, or (5) life of structure, public agencies may destroy the paper or analog record after scanning, completion of quality control, and designate the digital image as the official record copy. There is no requirement to request permission for such destruction from the Office of the Public Records Administrator.
- I. If a record is designated on a records retention schedule as (1) permanent, (2) archival, (3) archival review required, (4) may have historical value, or (5) life of structure, the public agency may digitize the records. After scanning and quality control is completed, prior to disposal of analog records, public agencies must contact the State Archives. The State Archivist may request transfer of the analog records and/or digitized records to the State Archives. Analog records or digitized records may also be transferred to another approved repository in accordance with *State Archives Policy 01: Transfer of Historical Records to the State Archives or Other Approved Archival Repository and Procedures for the Transfer of Historical Public Records to the State Archives*.
- J. If there are statutory, regulatory, or policy requirements to retain the record in a physical eye-readable format, the agency may digitize the records but also must continue to maintain the required physical format.

III. General Requirements

- A. Purpose and objectives. This section establishes processes and requirements to ensure that public agencies:
 - 1. Identify the scope of each digitization project and efficient use of resources.
 - 2. Account for all records included in the scope of the project regardless of their media type.

3. Produce complete and accurate digitized records that can be used for all the same purposes as the original source records.
 4. Where applicable follow specific requirements for digitizing permanent, archival, or life of structure records.
- B. Records management requirements. Public agencies must comply with existing records management requirements identified in *Public Records Policy 05: Disposition of Public Records*. Before starting a digitization project, public agencies must have intellectual and physical control over the original source records that will be included in the project. Having and maintaining an appropriate level of intellectual and physical control over source records is critical to the success of a project, regardless of whether the agency, or an agent acting on the agency's behalf (such as a vendor), performs the digitization activities.
1. Establish and document all the elements of intellectual control.
 2. Establish and document all the elements of physical control.
 - a. Understanding the physical properties of original source records is necessary to properly identify a project's scope and acquire appropriate equipment and/or vendor services.
 - b. Non-standard media, such as sticky notes, envelopes, or onion-skin paper, may require special handling and equipment. Using improper equipment may result in damage to original records.
 - c. Public agencies must also document any records that cannot be digitized according to the standards in this section.
 - d. For more information about records that need special handling, contact the Office of the Public Records Administrator.
 3. Public agencies must create an inventory of records to be digitized, ensure that the proposed series are complete, document any missing records or gaps in records, and document any restrictions relating to the source records that will also apply to digitized records and note them in the metadata. Public agencies will need to maintain intellectual and physical control over the records throughout the project.
 4. Public agencies must also document the contents of any electronic or analog storage media, such as CDs, DVDs, or magnetic tapes, discovered when preparing records for digitization.

Determine whether any files on the storage media are records. If the files are non-records, the public agency may dispose of them.
 5. Vendors must provide digitized records in a format as required by the public agency.
 6. Public agencies must place digitized records in an information system that can successfully search, retrieve, and manage the records over time.

IV. Preparing records for digitization.

- A. A successful digitization project relies on maintaining source records in their original order throughout the process, capturing all the information and characteristics of the source material, and performing visual and automated quality control inspections at multiple stages during a project to ensure the resulting digital record is complete.
- B. Quality control is a necessary component of digitizing as a records management activity. Public agencies must:
 1. Account for all records included in the project's scope prior to digitization. Note any missing records or records being retained in their original form in the metadata and include scans of any charge-out documentation so that skipped or missing records can be inter-filed if they are located at a later date.
 2. Survey source records for items that require special handling and select equipment that safely digitizes the originals without damaging them during the scanning process.
 3. Capture all information in records or files, regardless of the original media type.

4. Establish a consistent image file naming convention.
 5. Select an appropriate file format to capture source records, including verification of compliance with the PDF/A format for purported PDF/A files.
 6. Accurately capture administrative metadata including access and use restrictions, descriptive metadata, and technical metadata.
 7. Determine and apply an appropriate method for associating digitized records with each other, when relevant (such as when digitizing each page of a paper document separately, or each document in a paper file folder separately). Acceptable methods include associating individual image files in a folder structure matching the original paper folder structure or utilizing file formats with support for multi-page files such as PDF or TIFF.
 8. Ensure that each individual file is usable including but not limited to:
 - a. proper orientation (landscape or portrait),
 - b. appropriate contrast in the images (neither too light nor too dark),
 - c. no distortion of images,
 - d. no extraneous materials (sticky notes, fasteners, etc.) obscure the images,
 - e. and no skewed images.
 - f. correct size and resolution
 - g. image digitized at appropriate ppi for the source record's original format.
 - h. no additional information added to the image that is not part of the original source record
 - i. all pages are present and in proper order
 9. Upon inspection, any image deemed of unacceptable quality shall be re-digitized followed by a re-inspection of the new image.
 10. Ensure that each individual file can be located, retrieved, and accessed over time.
 11. Index data shall be verified to ensure accuracy. Industry acceptable methods include:
 - a. Dual data entry where two operators independently index the same document, and the results are compared to find any discrepancies (this is also known as double-blind indexing)
 - b. Verification of data by another individual other than the person performing the initial data entry
- C. Public agencies must also take steps to maintain intellectual and physical control of source records during the digitization process. Public agencies doing digitization in-house must:
1. Document the age, media types (CDs, microfilm, paper), dimensions (height and width), required level of detail, and condition of source records prior to digitization; and
 2. Implement procedures and controls that:
 - a. Safeguard records against loss and damage,
 - b. Restrict and log access to records while they are being digitized to minimize the risk of unauthorized additions, deletions, or alterations, and
 - c. Ensure that staff appropriately digitize all records or, if the agency keeps some records in their original format (for example, if they are too fragile to scan), maintain the association between the digitized and original records relationship in the metadata. Public agencies should note in the metadata any records that are not digitized and include scans of any charge-out documentation so that skipped or missing records can be inter-filed if they are located or transferred at a later date.
- D. Public agencies using vendors should ensure that the contract includes these same safeguards.

- E. Vendors shall exercise all reasonable care to avoid damage to the public agency's property or to property being made ready for the public agency's use, and to all property adjacent to any work site. All forms, documents, data and/or reproduction are the property of the public agency. The vendor shall promptly report any damage, regardless of cause, to the public agency.
- F. Background Checks. Federal and state criminal history background checks may be required by the State, the State of Connecticut Department of Emergency Services and Public Protection (DESPP), or as provided for in any State or Local document that governs procedures for background checks.

V. Project management and documentation requirements.

- A. Public agencies must ensure that any project to digitize records meets the parameters in this section, and the records are complete, unaltered, and meet all quality control criteria.
- B. Accordingly, public agencies must have the following documents when digitizing records and retain them in association with the digitized records
 - 1. A defined project plan that identifies the:
 - a. Record series or file units the public agency will digitize and note in the metadata any missing records and provide scans of check-out documentation.
 - b. Estimated volume and media types of the original source records.
 - c. Image quality parameters the public agency must meet to capture the appropriate level of detail present in the original in order to interpret the information in the records including resolution, color, and tonal fidelity. See section VI.C and VI.D for the minimum requirements for image quality parameters. The color mode must be either RGB or grayscale; bi-tonal mode is only acceptable for modern office documents that are black-and-white with good contrast.
 - d. Public agencies must digitize in color when the original source records have color present.
 - e. Estimated date range of the source records.
 - f. Estimated storage requirements (number of bytes, gigabytes, etc.) for the records once digitized (which may affect project decisions, such as compression and file format).
 - 2. Applicable Office of the Public Records Administrator approved records retention schedule(s).
 - 3. Any related finding aids, indexes, inventories, logs, registers, or metadata the public agency uses to manage the records.
 - 4. Quality control procedures to identify and correct errors during digitization.
 - a. Quality control procedures shall be in place to ensure the creation of accurate and authentic images and accurate indexes and production metadata that follow these standards, as well as ensuring that the specific requirements of the public agency are met.
 - b. The quality control process shall be documented and maintained throughout the digitization conversion process, including but not limited to, problem resolution procedures and reporting requirements for each step of a conversion project.
 - 5. Identify detected errors and remediation steps.

VI. Digitization requirements for paper and photographic print records.

A. Equipment requirements.

The equipment used to digitize public records must be appropriate for the media type, capable of achieving documented project objectives, and meet the parameters specified in paragraph C of this section for paper records in good physical condition that are suitable for mass digitization or paragraph D of this section for photographic print records and paper records that require higher resolution or color accuracy or that cannot physically be digitized by mass digitization.

1. The specifications in paragraph C of this section are applicable for paper records that are suitable for mass digitization using high-volume scanners. To be suitable for this set of standards, the records must be in good physical condition, with well-defined printed type (such as typeset, typed, laser-printed, etc.), and have moderate to high contrast between the ink of the text and the paper background.
2. The specifications in paragraph D of this section are applicable for photographic prints and paper records that are old, brittle, or folded, or that could be damaged by high-speed equipment. For records in poor physical condition, public agencies must use equipment that does not result in further damage. For records with poor legibility or diffuse characters (such as carbon copies, Thermofax/Verifax, etc.), handwritten annotations or other markings, low inherent contrast, staining, fading, halftone illustrations, or photographs, digitization equipment or record staging must be capable of capturing record content, including all text, any embossed seals, or other details that can't be digitized by mass digitization.
3. For records where the smallest significant detail in a record is 1.0 mm or smaller, such as aerial photographs and topographic maps (which require a high degree of enlargement and precision regarding the dimensional accuracy of the scans when compared to textual documents or other types of photographs), public agencies should follow the Federal Agencies Digital Guidelines Initiative (FADGI) Technical Guidelines for Digitizing Cultural Heritage Materials. For many imaging devices, increasing the ppi settings may not increase the actual level of resolution or capture the desired detail. The equipment selected for digitizing records with fine detail must be capable of meeting higher quality parameters.

B. *Implementation requirements.*

1. Public agencies must:
 - a. Implement a quality control process and use device-level reference targets to verify that digitization devices conform to imaging parameters in this section.
 - b. Replace reference targets as they fade, or accumulate dirt, scratches, and other surface marks that reduce their usability.
 - c. Test equipment to ensure scanners and digital cameras/copy systems are performing optimally.
 - i. If applicable scan a reference target containing a grayscale, color chart, and accurate dimensional scale at the beginning of each workday.
 - ii. Perform additional tests when problems are detected.
 - d. Test equipment with the specific software/device driver combination(s) in use, and re-test after every software update.
 - e. Ensure that equipment operation, settings, and image processing actions remain consistent for the entire batch and are applied to all images in the batch.
 - f. Encode original image files using a lossless compression type, and in a format, specified in Section X, and with the resolution, color mode, bit depth, and color space specified in table 1 to paragraph C of this section.
 - g. Not reformat, use a lossy compression codec, or interpolate (up-sample) files to meet the standards in this section.
 - i. Any compression technique used by a public agency for non-permanent records shall be a non-proprietary, lossless compression method that does not remove data or otherwise alter the appearance of the original image.
 - ii. Permanent records shall not use lossy compression.
2. If a public agency creates or saves images with redactions (in order to fulfill FOIA requests, for example), the public agency must also maintain the unredacted master image.

3. Digital enhancement techniques commonly used in imaging software (de-skewing, cropping image data beyond the document, and rotating an image to the proper orientation) are allowed so far as the information on the record image is not altered by such processes.

If adequate image quality cannot be obtained without unacceptable enhancement techniques, then the paper or film shall be retained.

4. Any page with a sticky note on it must have the sticky note removed from the page prior to imaging and placed on a clean, blank page and digitized separately, unless the sticky notes have been designated as non-records, in which case these may be discarded.

C. Digitizing requirements for mass digitization of paper records in good physical condition.

1. Records suitable for the specifications in table 1 are paper records with well-defined printed type (such as typeset, typed, laser-printed, etc.), and with moderate to high contrast between the ink of the text and the paper background.
2. The specifications in table 1 are not appropriate for records that include fine detail, require a high degree of color accuracy, or have other unique characteristics that cannot be captured using the specifications in this table, or that cannot safely undergo high-volume digitization because they are fragile, would be damaged, or have other physical conditions that do not lend themselves to high-volume or mass digitization.
3. For these records, public agencies shall produce image files at a minimum of 200 ppi sized to the original document.

The required minimum resolution level for standard business documents is 200 pixels per inch (ppi).

The required minimum resolution for the use of optical character recognition (OCR) processing is 300 ppi.

4. Digitize in an RGB color mode when the original source paper records have color present. Non-photographic print paper records may be digitized in grayscale mode if there is no color present.
5. At a minimum, public agencies shall digitize paper records covered by this paragraph to the following parameters:

TABLE 1 TO PARAGRAPH C

Digital file specifications ¹	Attributes
Color mode ²	RGB color or grayscale
Bit depth	8- or 16-bit

¹ Count values are expressed as 8-bit equivalents.

² Must digitize in color when the original source paper records have color present.

D. Digitizing requirements for photographic prints, and paper records not suitable for mass digitization.

1. The photographic print specifications also apply to maps and plans, manuscripts, illustrations, or graphics, as well as documents with poor legibility or diffuse characters, such as carbon copies, Thermofax, etc.
2. For these records, public agencies shall produce image files (as described in table 2 to paragraph D) at a minimum of 300 ppi sized to the original document. A higher resolution may be necessary for some photographic prints to capture fine detail. The required minimum resolution for the use of optical character recognition (OCR) processing is 300 ppi. Higher levels of resolution ranging from 300 to 600 ppi may be required for some records, including smaller, damaged, or low-contrast documents.
3. Digitize photographic prints (and items outlined in paragraph D.1 of this section), including monochrome and black and white originals, using RGB color mode (which captures nuances in black, gray, sepia, etc, as

well as color contained in the original). Paper records may be digitized in grayscale mode if there is no color present; if color is present, digitize them using RGB color mode.

4. At a minimum, public agencies shall digitize the records covered by this paragraph to the following parameters:

TABLE 2 TO PARAGRAPH D

Digital file specifications ¹	Attributes
Color mode ²	RGB color or grayscale
Bit depth	24-bit

¹ Count values are expressed as 8-bit equivalents.

² Must digitize photographic prints, manuscripts, etc., in color, even when originals are in black and white or monochrome. Must digitize other paper documents in color when the original source paper records have color present; otherwise, may digitize such paper records in grayscale.

VII. Digitization requirements for mixed-media files.

- A. Related records may be managed together but stored on more than one media type. For example, a “case file” may include paper records, on-line electronic records, and electronic records on storage media such as magnetic tapes or other optical media. This reflects the way public agencies create, maintain, and use these records; these are mixed-media files.
- B. When digitizing files that fall within the scope of this section but are part of a mixed-media file, public agencies must:
 1. Assess any electronic records in the mixed-media file to determine if they are digitized copies of paper records.
 - a. If they are not digitized versions of paper records, ensure the electronic records remain associated with the rest of the records in the original mixed media file.
 - b. If they are digitized versions of paper records, determine whether they meet the digitization standards in this section. If so, ensure they remain associated with the rest of the records in the original mixed-media file. If not, re-digitize the original paper records to the standards of this section.
 2. Digitize any paper records and photographic prints in the mixed-media file according to standards in Section VI.

VIII. Digitization requirements for microfilm or microfiche.

- A. To produce images of adequate quality, the approach used to digitize microforms may vary from the requirements for paper-based records.
- B. Before imaging microforms, the public agency or vendor should produce an inventory that will allow for an assessment of the difficulty of imaging the microforms. The inventory should record the:
 1. location of the master negatives
 2. location of duplicate negatives
 3. location of service copies
 4. the type of microforms (16mm, 35mm, microfiche)
 5. film base (nitrate, cellulose acetate, or polyester)
 6. the length if applicable (100 or 215 feet)

7. general film quality (resolution, density, image spacing, and the existence of targets, blips, splices, and scratches or other damage)
 8. general image quality (such as blurry images)
- C. The public agency should discuss with the vendor the advantages of scanning the master or duplicate negatives against the disadvantages.
 - D. A test digital image of the microfilm or microfiche intended to be digitized should be performed prior to a wholesale conversion to ensure a quality image can be produced.

IX. Digitization requirements for bound volumes.

- A. The resolution and pixel depth for digitizing bound volumes must follow the recommendations for paper records.
- B. Unbind volumes for digitizing where possible without damaging the contents.
- C. If a bound volume cannot be unbound, the pages of that volume must be digitized in such a way that the image of each page is not excessively warped and that all the information on each page, even handwritten additions, is captured.
- D. If the entire image of each page cannot be captured, the bound volume must be retained after imaging.
- E. Bound volumes should be digitized using a book scanner or camera that holds the volume open at an angle that reduces the curvature of the pages.
- F. Curvature correction of the document is allowed so long as the correction does not obscure or distort the original image and all data in the record is captured.

X. Requirements for disposal of hard copies

- A. Quality control shall be conducted by the public agency before the destruction of any original source records, including, but not limited to, visual inspection of the digitized documents to ensure clarity, readability, and accurate representation of the original record and checking the indexing fields against the original or imaged record.
- B. If adequate image quality cannot be obtained without unacceptable enhancement techniques, then the paper or film shall be retained.
- C. Prior to disposal of analog records designated on a records retention schedule as (1) permanent, (2) archival, (3) archival review required, (4) may have historical value, or (5) life of structure the public agencies must contact the State Archives. The State Archivist may request transfer of analog records to the State Archives or a scheduled transfer of the digitized records.
- D. When a public agency has validated that the digitized versions meet the required standards, the agency may destroy the original source records, subject to any pending legal constraint on the agency, such as a litigation hold.
- E. The public agency must treat the digitized versions, now the official record copies, in the same way it would have treated the original source records. The agency must retain the digitized versions for the remaining portion of any retention period established by the applicable records schedule.
- F. Public agencies do not need to obtain Public Records Office approval to destroy scheduled less-than permanent records they have digitized according to these standards.

XI. File Naming

Creating unique, consistent, logical, and predictable file names distinguishes similar records from one another in the file hierarchy and facilitates the storage and retrieval of records. Well-named files allow users to browse file names more effectively and efficiently. In general, file names should be fewer than 20 characters, be short but descriptive, avoid special characters or spaces, include dates in the format YYYY-MM-DD, and include a version number or designate which is the draft or final version.

XII. Metadata Requirements

- A. *General.* Whether embedded into image files or captured in an information system, metadata provides information explaining what each record contains, when and why it was created, what media it was recorded on, original dimensions, and whether any restrictions govern its access and use. Metadata also describes the digitization process and the technical attributes of the resulting electronic records. It is important to capture this information about original source records and about the intervening digitization steps because the original source records or other project documentation will not be available when maintaining the digitized versions as records in the future.
1. Public agencies should consider business and legal needs when developing a digitization project plan and how the public agency will capture metadata (indexing, elements, properties, etc.).
 2. Depending on the public agency's existing record-keeping practices and level of intellectual control, the public agency may use information from the record series, file, or project as the source for administrative and descriptive metadata fields. If the components of a record have not been individually indexed with unique descriptions, the public agency may apply the series or file level descriptions to all records within that grouping. If the components of the record do not have individual titles, the public agency must apply unique identifier(s) instead.
 3. Appropriate and accurate metadata (index) information is required to properly identify and later retrieve electronic records.
 4. Indexing typically consists of a structured format and controlled vocabulary that allows more precise description of a record's content and often includes information such as record type, creation date, last modified date, last modified by, record creator, and disposition date, among other information.
 5. The public agency shall be responsible for defining the specific metadata requirements needed to access the records efficiently.
 6. Indexing shall comply with the specific requirements of the public agency and include a unique identifier for each electronic record. Unique filenames or other identifiers are preferably sequential and can be numeric, alphanumeric, or alphabetic as required by the public agency. They should be unique across all record series and storage media.
 7. The index of electronic records should consist of a limited but sufficient number of field names to ensure adequate access to the records. Whenever possible, the field data should consist of objective indexing terms (such as personal names, file numbers, retention schedule numbers, and dates) from a controlled vocabulary, rather than subjective data.
 8. Optical Character Recognition (OCR) can be performed to convert records into searchable text. Due to error rates, OCR should not be used as the sole tool for the retrieval of electronic records, and it is not a substitute for indexing and production metadata.
 9. **Permanent records only:** If the public agency provides other metadata elements in addition to the metadata requirements in this section, the Connecticut State Library will accept that metadata as part of the transfer process.
 10. "Mandatory if applicable" instructions in the tables in this section mean that public agencies must provide the metadata if the public agency captures the metadata as part of its business processes. Public agencies do not have to create "mandatory if applicable" metadata as an extra step to transfer records to the State Archives.
 11. "Strongly Encouraged" instructions in the tables in this section mean that public agencies are strongly encouraged but not required to capture or create this metadata.
 12. "Suggested" instructions in the tables in this section mean that it is only a recommendation that the public agency consider capturing or creating this metadata but it is not required.

B. Overall requirements

1. For all electronic records public agencies must:
 - a. Capture the metadata specified by paragraphs C, D, and E of this section at the record series, file unit or project level.
 - b. When public agencies determine that records are no longer in active use and no longer subject to changes that would alter a checksum or audit trail, public agencies must generate checksums or capture an audit trail and record them as technical metadata in an information system for each electronic record, and use them to monitor records for corruption or alteration.
 - c. Create file names and unique identifier(s) for each file (although public agencies must capture other metadata at the file or item level, some might be common to multiple files or items, but not these two elements).
 - d. Transfer metadata specified by paragraphs C and D of this section to the State Archives in CSV or other appropriate format as agreed upon between the public agency and the Connecticut State Library.
2. For digitized records public agencies must also:
 - a. Embed the metadata specified by paragraph C of this section in each image file, capture and maintain it in an information system, associate it with the records it describes, and keep it consistent and accurate in both places.
 - b. Ensure that scanning equipment or camera embeds the system-generated technical metadata specified by paragraph E of this section in each image file and that image processing does not alter or delete it.

C. Administrative Metadata.

1. Capture in an information system the following administrative metadata:

TABLE 1 TO PARAGRAPH C.1

Metadata label	Description	Requirement level
File Name	The complete name of the computer file, including its extension.	Mandatory.
Unique Identifier(s)	The unique identifier(s) is assigned by a public agency or a information system.	Mandatory.
Records Retention Schedule Record Series Number	The records retention schedule series number assigned to the records.	Strongly Encouraged.
Relation Has Part	A related record that is either physically or logically required in order to form a complete record. Mixed-media files that contain records on multiple media types should use this element to identify all components.	Strongly Encouraged if a record includes multiple parts, such as the component parts of a case file or mixed-media file.
Relation Is Part Of	A related record or file in which the described record is physically or logically included. Records that are components of mixed media files should use this element to indicate their status.	Strongly Encouraged if file is a component of a multi-part record.

2. Capture in an information system the following access and use restrictions metadata inherited from the original source records:

TABLE 2 TO PARAGRAPH C.2

Metadata label	Required fields	Description	Requirement level
Access Restrictions	Access Restriction Status. Specific Access Restriction.	Indicate whether there are access restrictions on the record (i.e. not public). Specific access restrictions on the record, based on Freedom of Information Act (FOIA) exemptions, donor restrictions, court orders, and other federal and state statutory or regulatory provisions.	Mandatory if applicable. Mandatory if access restriction exists.
Use Restrictions	Use Restriction Status. Specific Use Restriction.	Indicate whether there are use restrictions on the record. The type of use restrictions on the record, based on copyright, trademark, service mark, donor, or statutory provisions, including Freedom of Information Act (FOIA) exemptions.	Mandatory if applicable. Mandatory if use restriction exists.
Rights Holder		A person or organization owning or managing intellectual property rights relating to the record.	Mandatory if there is a rights holder.

D. Descriptive Metadata

Capture in an information system the following descriptive metadata from source records at the lowest level needed to support access and preservation and to maintain contextual information.

TABLE 3 TO PARAGRAPH D

Metadata label	Description	Requirement level
Title	A name given to the original record. If a name does not exist, the mandatory metadata element File Name and/or Unique Identifier(s) serves as the title for the record.	Mandatory.
Description	A narrative description of the content of the record, including abstracts for document.	Suggested.
Creator	The agent (person, agency, other organization, etc.) primarily responsible for creating the original record.	Mandatory.
Creation Date	The date or date range of the original record.	Mandatory.
Last Modified By	The user to last modify the record.	Suggested
Last Modified	The date or date range the record was modified.	Suggested
Source Type	The medium of the original source record scanned to create a digital image.	Mandatory.
Source Dimensions	The dimensions of the original source record (including unit of measure).	Suggested.

E. *Technical Metadata*

Capture in an information system the following technical metadata describing the electronic records:

TABLE 4 TO PARAGRAPH E

Metadata label	Definition	Requirement level
File Size	The size in bytes of the image file.	Mandatory.
Format Name and Version	The format name or description of the file format.	Mandatory.
Image Width	The width of the digital image, i.e., horizontal or X dimension, in pixels.	Mandatory.
Image Height	The height of the digital image, i.e., vertical or Y dimension, in pixels.	Mandatory.
Date and Time Created	The Date or Date Time the digital image was created.	Mandatory.
Scanner Make and Model	The manufacturer and model of the scanner used to create the image.	Mandatory if using a scanner.
Scanning Software Name and Version	The name and version of the software the scanner uses to create the image.	Mandatory if using scanning software.
Digital Camera Make and Model	The manufacturer and model of the digital camera used to create the image.	Mandatory if using a digital camera.

TABLE 5 TO PARAGRAPH E

Fixity metadata label	Description	Requirement level
Message Digest Algorithm	The specific algorithm used to construct the message digest for the digital object or bitstream.	Mandatory if using checksum.
Message Digest (checksum)	The output of Message Digest Algorithm.	Mandatory if using checksum.
Audit Trail	The output of the audit trail in the information system.	Mandatory if using audit trail.

F. *Transfer metadata for permanent records to the Connecticut State Library*

1. When a public agency transfers legal and physical custody of electronic records to the Connecticut State Library, it must also transfer the associated metadata specified by paragraphs C, D, and E of this section.
2. In addition, the public agency must follow *State Archives Policy 01: Transfer of Historical Records to the State Archives or Other Approved Archival Repository; Procedures for the Transfer of Historical Public Records to the State Archives*; and complete a *Memorandum of Transfer* form.

Definitions

The definitions below are from the National Archives and Records Administration (NARA) and the Society of American Archivists (SAA) *Dictionary of Archives Terminology*, except where noted. See also *OPRA Records Management Terms*; policy and standards resources, and additional information are available on the Office of the Public Records Administrator website (<https://ctstatelibrary.org/publicrecords/>).

Accessible is information arranged, identified, indexed, or maintained in a manner that permits the custodian of the public record to locate and retrieve the information in a readable format within a reasonable time. (Wisconsin Public Records Board (PRB), *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Authentic/authenticity means that the record is unaltered from the original; that it is what it purports to be; and/or that its representation is transparent.

Approved archival repository is a repository that meets professionally accepted archival facility and infrastructure requirements including but not limited to the care, management, security, preservation, and accessibility of public records. Contact the Office of the Public Records Administrator and the State Archives prior to any archival records transfer to an archival repository.

Audit Trails link to specific records in an information system and track such information as the user, date and time of event, and type of event (data added, modified, deleted, etc.). Since audit trails may play an integral part in prosecution, disciplinary actions, or audits or other reviews, public agencies are responsible for ensuring that internal management policies are in place for retaining audit trails as long as necessary for these purposes following the minimum retention period as listed on the Connecticut State Library's Records Retention/Disposition Schedules. Audit trails help prove a record's authenticity.

Batch is a group of files that are created under the same conditions or are related intellectually or physically. During digitization, batches represent groups of records that are digitized and undergo Quality Control inspection processes together.

Chain of Custody is the complete, documented, chronological history of the possession and handling of a piece of information or a record from the time of its creation through its authorized destruction. The ability to demonstrate an unbroken chain of custody is an important test of the authenticity of records. This includes all information on a file's travels from its original creation version to its final complete version or a detailed account of the location of each document/file from the beginning of a project until the end. A sound chain of custody verifies that the agency or vendor has not altered information either in the copying process or during analysis.

Checksum is a function that takes an input string, which can be of any length, and generates an output of fixed length. The output, or hash, is used to authenticate information, such as whether a file has been corrupted or modified. The values returned by a hash function are called hash values, hash codes, digests, or simply hashes.

Cloud or Cloud Computing consists of three parts: 1) delivery of hosted services over the internet, or an organization's intranet, instead of on a user's local computer; 2) storing, accessing, sharing, and using data with those hosted services; and 3) the hardware, networks, and staffing required to maintain the data and services. When the Cloud resources are owned and operated by an organization itself, it is known as a "private cloud." Most commonly, cloud resources are offered as a service from a third-party provider and are known as a "public cloud."

Color management is using software, hardware, and procedures to measure and control color in an imaging system, including capture and display devices.

Content means the basic data or information carried in a record. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Context is the relationship of the information to the business and technical environment in which it arises. "Context" can include, but is not limited to, such elements as: the origin of the record; date and time the record was created; identification of the record series to which the information belongs. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*).

Defensible disposition is a process by which content is systematically deleted with an audit trail that is legally admissible in court.

Digitization project is any action an agency (including an agent acting on the public agency's behalf, such as a contractor) takes to digitize records. For example, a digitization project can range from a one-time digitization effort to a multi-year digitization process; can involve digitizing a single document into an electronic records management system or digitizing boxes of records from storage facilities; or can include digitizing active records as part of an ongoing business process or digitizing inactive records for better access.

Digitized record is an electronic record created by converting paper or other media formats to a digital form that is of sufficient authenticity, reliability, usability, and integrity to serve in place of the original source record.

Disposition is "a final administrative action taken with regard to records, including destruction, transfer to another entity, or permanent preservation." (ARMA)

Electronic Content Management System (ECMS) is a software system that provides the strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. An ECMS can include features such as document management, content taxonomies, auditing capabilities, check-in/check-out and other workflow controls and security mechanisms.

Enterprise content management (ECM) is used to create, store, distribute, discover, and manage unstructured content (such as scanned documents, email, reports, medical images and office documents) and ultimately analyze usage to enable organizations to deliver relevant content to users where and when they need it. (Gartner Information Technology Glossary)

Extranet is a computer network that allows controlled access from the outside, for specific business or educational purposes. In a business-to-business context, an extranet can be viewed as an extension of an organization's intranet that is extended to users outside the organization, usually partners, vendors, and suppliers, in isolation from all other Internet users. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

File (noun) is a document or group of documents related by use or topic, typically housed in a folder (or a group of folders for a large file).

File (verb) is the action of placing a record or document in a folder.

Folder is a container used to group records.

Geographically remote means storing backups or duplicate copies outside of the building in which the server resides.

Image quality is a measurement of a digital image's overall accuracy in faithfully reproducing an original. A digital image created to a high degree of accuracy meets or exceeds objective performance attributes (such as level of detail, tonal and color fidelity, and correct exposure), and has minimal defects (such as noise, compression artifacts, or distortion).

Information system is an organized set of procedures, tools, and techniques designed to store, retrieve, manipulate, analyze, and display information. Note: 'Information system' usually connotes the use of computers. If automated, 'information system' also refers to the hardware and software. Automated information systems are generally distinguished from real-time control systems, message-switching systems, and software engineering environments.

Intellectual control is having the information necessary to identify and understand the content and context of the records. This includes knowing the disposition schedule under which the records fall, the date range when the records were created, and any access or use restrictions that apply to the records.

Integrity means that the image is an exact copy of the original and that the data has not been altered through loss, tampering, or corruption. This is verified using an audit trail or checksum.

Intranet is a private network inside a company or organization, which is for internal use only and not accessible to the public or outside the organization's network. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Lifecycle means all phases of a record's existence: creation, active use, preservation and management through to disposition. "Disposition" includes permanent preservation as well as designation for destruction. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Mass digitization is the large-scale scanning of source records using scanners capable of high-volume throughput. Mass digitization approaches are appropriate for paper records of uniform size and type that can be digitized without being damaged by the equipment, and in which there is no information requiring higher specifications to ensure accurate capture (such as fine detail or precise color accuracy).

Media are the physical forms on which records are stored, such as paper, photographs, compact discs (CDs), digital video discs (DVDs), analog tapes, flash drives, local hard drives, or servers.

Metadata is the characterization or description documenting the identification, management, nature, use, or location of information resources (data). Note: Metadata is commonly defined as "data about data." Metadata is frequently used to locate or manage information resources by abstracting or classifying those resources or by capturing information not inherent in the resource. Typically, metadata is organized into distinct categories and relies on conventions to establish the values for each category.

Administrative metadata is necessary to manage and use information resources and that is typically external to informational content of resources. Note: Administrative metadata often captures the context necessary to understand information resources, such as creation or acquisition of the data, rights management, and disposition.

Descriptive metadata is information that refers to the intellectual content of material and aids discovery of such materials. Note: Descriptive metadata allows users to locate, distinguish, and select materials on the basis of the material's subjects or 'aboutness.' It is distinguished from information about the form of the material, or its administration.

Embedded metadata are textual components that exist alongside the content (usually binary data) within the file. Embedded metadata may be used to make self-describing digital files that contain specified administrative, rights, and technical metadata and can be appropriately managed outside of a recordkeeping system.

Preservation metadata is technical information that can help support the longer-term sustainability of digitized content. Information about an object used to protect the object from harm, injury, deterioration, or destruction.

Structural metadata is information about the relationship between the parts that make up a compound object.

Technical metadata are elements of information that describe processes used to create electronic files, and parameters that aid a system in rendering the files properly. Technical metadata may include elements such as a file's byte size, file format and version, color encoding, and the type of equipment used to make the file (camera name, scanner manufacturer, etc.).

Mixed-media files are records in different forms of media. A file, when used in the phrase "mixed-media file," is a group of records—regardless of location and type of media—that belong together or relate to a topic, such as a case file. For example, a mixed-media case file could be a box with paper notes, audio recordings of interviews, and a CD of photographs, along with physical evidence stored separately in an evidence locker. Records in a file may be in more than one media type due to changes in how agencies create, maintain, and use records, shifts in technology, and the topic or activity involved.

Official Record Copy is the specific copy of a public record, as provided in C.G.S. § 1-200(5), designated by the public agency as the legally recognized copy that must be maintained for records retention, preservation and authentication. For example, if records are kept in both electronic and hard copy format, the agency must identify the official record copy.

Physical control is having the information necessary to physically manage the records. This includes knowing where the records are housed, whether any records that fall within the project's scope are missing or stored separately, and the records' physical form (such as media types, the records' dimensions, and the smallest level of detail used to convey information).

Project plan establishes the vision and goals for the project, summarizes key points of historical or referential context, identifies stakeholders, addresses any areas of concern or risk for the long-term preservation of and access to digitized materials, and communicates in broad strokes the overall plan for the project.

Public Record as defined by C.G.S. § 1-200(5), is any recorded data or information relating to the conduct of the public's business prepared, owned, used, received or retained by a public agency, or to which a public agency is entitled to receive a copy by law or contract under section 1-218, whether such data or information be handwritten, typed, tape-recorded, printed, photostated, photographed or recorded by any other method."

Quality control (QC) is the process by which a public agency reviews the quality of all steps in the creation and maintenance of electronic records through inspection or testing to determine if they meet their specifications. The purpose is to detect defects (deviations from predetermined requirements) in records or processes.

Reference target is a chart of test patterns with known values used to evaluate the performance of an imaging system.

Reflective digitization is a process in which an imaging system captures reflected light off of scanned objects such as bound volumes, loose pages, cartographic materials, illustrations, posters, photographic prints, or newsprint.

Reliable means the electronic record produced accurately reflects the initial record each time the system is requested to produce that record. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Reproduction scale accuracy measures the relationship between the physical size of the original object and the size in pixels per inch (ppi) of that object in the digital image.

Resolution is the level of spatial detail an imaging system can resolve in an image.

Rollback is the operation of restoring information to a previous state by canceling a specific transaction or transaction set. Rollbacks are either performed automatically by database systems or manually by users. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Sharpening is used to artificially enhance details to create the illusion of greater definition.

Source record/original source record is the record from which a digitized version or digitized record is created.

Structure is the appearance or arrangement of the information in the record. "Structure" can include, but is not limited to, such elements as heading, body and form. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

System trustworthiness means a system that is believed to be capable of operating within defined levels of risk despite the environmental disruptions, human errors, structural failures, and purposeful attacks that are expected to occur in its environment of operation.

Transaction logs is a system generated history of actions for a specific business purpose. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*)

Transmissive digitization is a process in which the system transmits light through a photographic slide or negative.

User is any person who creates, modifies, deletes, or accesses electronic records. In the present context, users include, but are not limited to public agency employees, contractors, individuals on a PSA, interns, volunteers, or the public.

Versioning is creating updated versions of content records. (Wisconsin PRB, *Guidance for Managing Web Records for State Agencies and Local Units of Government Appendix A*).

Web Archiving is the process of collecting, preserving, and providing enduring access to web content.



Public Records Policy 05: *Disposition of Public Records*

Date Issued: November 28, 2011

Supersedes: *General Letter #5: Destruction of Public Records* (revised 07/25/1995), *Disposition of Local Government Records* (1999), and *Disposition of Education Records* (1999).

I. Scope and Authority

Scope

This policy provides guidance for the disposition of public records, including destruction or transfer. It applies to all employees of state agencies within the executive department, towns, cities, boroughs, districts, and other political subdivisions of the state.

Authority

The Office of the Public Records Administrator is authorized to approve disposition of public records, under the authority granted by §11-8, §11-8a, §11-8b, and §7-109 of the *General Statutes of Connecticut* (CGS).

Definitions

“Agency” means a state agency, municipality, or political subdivision falling under the authority of the records management program administered by the Connecticut State Library as referred to in CGS §11-8.

“Public record” means any recorded data or information relating to the conduct of the public's business prepared, owned, used, received or retained by a public agency, or to which a public agency is entitled to receive a copy by law or contract under section 1-218, whether such data or information be handwritten, typed, tape-recorded, printed, photostated, photographed or recorded by any other method. [Source: CGS §1-200(5).]

“Official record copy” means the original or official copy of a record that is retained for legal, operational, or historical purposes. For example, if records are kept in both electronic and hard copy format, the agency must identify the official record copy. [Source: ARMA International. *Glossary of Records and Information Management Terms*, 3rd ed. Lenexa, KS: ARMA International, 2007.]

“Non-record” means any item that is not usually included within the scope of official records. Examples of non-records are extra (duplicate) copies kept only for convenience, reference materials, and blank forms. [Source: ARMA, *Glossary*.]

II. Policies

Agency Responsibility

Agencies are responsible for providing all employees with a copy of this policy, obtaining a signed acknowledgment of receipt from each employee, and keeping the signed acknowledgment on file.

Retention of Records

Records must be retained for the established retention periods as listed on published records retention schedules, available at <http://ctstatelibrary.org/publicrecords/>. Retention requirements apply only to the official record copy.

Disposition of Records

Disposition of records refers to either **destruction** of records or **transfer** of records to the custody of another entity. Records may not be destroyed or transferred until the Office of the Public Records Administrator has returned a signed *Records Disposition Authorization* form to the requester. If a record does **not** appear on a records retention schedule, it does **not** mean that an agency may dispose of the record without permission from this office. Please contact this office for guidance.

Legal Framework

Pursuant to CGS §11-8b and §7-109, records shall not be removed, destroyed, mutilated, transferred or otherwise damaged or disposed of, in whole or in part, except as provided by law or under the rules established by the Office of the Public Records Administrator. Pursuant to CGS §1-240 and §53-153, unauthorized removal or destruction of records is a misdemeanor or felony offense and is punishable by fine or imprisonment. In addition, the destruction of records is an illegal subject of collective bargaining pursuant to *Lieberman v. Board of Labor Relations* [216 Conn. 25 (1990)]. Therefore, a union agreement that involves the destruction of public records prior to the retention period established by this office would conflict with the relevant provisions of the *General Statutes of Connecticut*.

Destruction Holds

No record may be destroyed if there are pending or active litigation; investigations; audits; Freedom of Information Act (FOIA) requests; or other cases, claims, or actions. If there is a destruction hold placed on a record, the retention period does not change, but is suspended until the action is resolved and the hold is lifted. Once the hold is lifted, the record may be destroyed after the Office of the Public Records Administrator has returned a signed *Records Disposition Authorization* form to the requester.

Removal of Personal Data

Pursuant to CGS §4-193(e), an agency shall maintain information about a person which is relevant and necessary to accomplish the lawful purposes of the agency. To obtain permission to destroy or remove records classified as "irrelevant" and "unnecessary" under these provisions, agencies may submit a *Request for Removal of Public Records Personal Data Files* (Form RC-076 or Form RC-077).

III. Procedures

A. Destruction of Records

Approval Process

Once records have met the retention period, agencies should submit the appropriate *Records Disposition Authorization* form to this office at least thirty days prior to the proposed date of destruction. The Public Records Administrator and the State Archivist will review the form to ensure the records have fulfilled the retention requirements and that no record of enduring historical value will be destroyed. This office will return the form to the agency indicating approval or denial. This form serves as evidence of authorized legal destruction if the records are audited, investigated, or subpoenaed as evidence.

Method of Destruction

The records may be destroyed after receipt of the signed disposition form. This office recommends a method that ensures the total destruction of the record. The format of the record dictates the method by which it should be destroyed:

- Hard copy formats, such as paper, microfilm, microfiche, and x-rays, should be shredded with a cross cut shredder and recycled.
- Electronic media, such as floppy disks, Compact Disks, VHS tapes, audiocassettes, hard drives, and rewritable disks, should be degaussed, overwritten, or erased. Agencies should be aware of special conditions associated with confidential or sensitive electronic records as erasure does not always ensure data destruction. Physical destruction of the media may be the only secure way to destroy data permanently.

At the time of disposal, the agency should record the actual date of destruction on the *Records Disposition Authorization* form and attach any supporting documentation, such as a Certificate of Destruction. Please note that if the organization contracts with a commercial vendor, the vendor should provide a Certificate of Destruction attesting to the actual destruction of the records. Retain these records for the retention period for Records Disposition Authorization records.

B. Transfer of Records

Approval Process

Agencies should submit the appropriate *Records Disposition Authorization* form to this office at least thirty days prior to the proposed date of transfer. The Public Records Administrator and the State Archivist will review the form to ensure the records are eligible for transfer and that the new custodian is approved for transfer. This office will return the form to the agency indicating approval or denial. This form serves as evidence of authorized transfer of legal custody of records if the records are audited, investigated, or subpoenaed as evidence.

Transfer to Archival Repository

For records that have a retention period of “permanent/archival,” the agency should transfer the records to the Connecticut State Archives or another approved archival repository. All agencies should use the appropriate *Records Disposition Authorization* form, as well as the State Archives’ *Memorandum of Transfer* or an equivalent form from an archival repository. For transfer to the State Archives, refer to *Transfer of Records to the State Archives* and *Collection Policy for the State Archives*, available at <http://ctstatelibrary.org/state-archives/>.

Transfer to Another Entity

Many agencies have faced or will face consolidation, relocation, or reorganization. Agencies must consider how records will be handled and plan accordingly. Pursuant to CGS §11-8b, “Public records shall be delivered by outgoing officials and employees to their successors and shall not be otherwise removed, transferred, or destroyed unlawfully.”

State agencies should refer to *Public Records Policy 06: Retention of Records for Agency Closures, Mergers, and Consolidations*. Pursuant to CGS §4-38d(f), “Unless otherwise expressly provided by law, the head of a department, institution or agency, the functions, powers or duties of which are so assigned or transferred, shall deliver to the department, institution, agency or authority to which such assignment or transfer is made all contracts, books, maps, plans, papers, records and property pertaining to or used in connection with the functions, powers or duties so assigned or transferred.”

Records should be organized for transfer to the successor agency or program. Agencies should utilize the *Records Disposition Authorization* form to request transfer of records to another entity (e.g., from one agency to another). Agencies may choose to establish a written agreement, such as a Memorandum of Understanding, and should include a copy of any agreement when submitting the *Records Disposition Authorization* form.

C. Disposition of Education Records

Educational institutions must comply with additional records maintenance requirements of applicable Federal laws, such as the Family Educational Rights and Privacy Act (FERPA) and the Individuals with Disabilities Education Act (IDEA). Educational institutions are defined as “federally funded educational agencies or institutions.” Education records are defined as “records that are (1) directly related to a student and (2) maintained by an educational agency or institution or by a party acting for the agency or institution” [20 USC §1232(g) and 34 CFR §99].

Retention requirements for education records are listed on the *Municipal Records Retention Schedule M8: Education Records* and the *State of Connecticut Records Retention Schedule S5: Higher Education Records*. The State of Connecticut considers records to be no longer needed to provide educational services to a child when the retention requirement is fulfilled. **If a student moves from one educational institution to another, the agency should maintain a copy of the student’s education record and send the original to the receiving school district (the record follows the student).** Both educational institutions should retain their copy of the student’s education record for the retention period.

Special Education Records

Pursuant to 34 CFR §300.573(a), “The public agency shall inform parents when personally identifiable information collected, maintained, or used under this part is no longer needed to provide educational services to the child” and (b) “The information must be destroyed at the request of the parents. However, a permanent record of a student's name, address, and phone number, his or her grades, attendance record, classes attended, grade level completed, and year completed may be maintained without time limitation.” The agency shall only destroy these records after they have met the retention period. Before executing a directive to destroy records, the agency should inform parents / adult students, in record destruction notices, that the parent or student may need these records in the future for Social Security benefits or other purposes.

APSEP and RESC Education Records

Records of students placed by local or regional boards of education or other state agencies in regional education service centers (RESCs) or approved private special education programs (APSEPs) are education records (including, but not limited to, medical records). In accordance with Section E of the *Principles, Procedures and Standards for the Approval of Private Special Education Program* (06/1998), “when a copy of a student’s education record is maintained by the facility, the facility must inform the parents/guardians that a copy of their student’s records is maintained within the agency and must provide the parents/guardians access to the copy. The private facility must also inform the local education agency that they are maintaining a copy of the student’s record.” In addition, “when children placed by a local school district or other public agency are discharged from a private facility, that facility shall ensure that all records are forwarded to that public agency.”

Please note that RESC-operated magnet schools, unlike APSEPs, maintain the responsibility to collect and retain student records as any other local education agency. The magnet school is responsible for maintaining

the records, destroying such records with approval of the Office of the Public Records Administrator, and for transferring records to another school in which the child enrolls.

If you have any questions regarding this policy, please contact this office at (860) 757-6540.

Approved by



LeAnn R. Power, CRM
Public Records Administrator

November 28, 2011

Date



MEMORANDUM

TOWN COUNCIL

Mark Philhower
Chairperson

Tim Feegel
Vice Chairperson

James Brown

Brandon Goff

Eric Peterson

Kevin Reich

Alison Walck

TO: Town Council

FROM: David E. Cox, Town Manager

DATE: July 20, 2023

SUBJECT: Edgewater Circle Maintenance

At the last Council meeting, I was asked to outline in more detail the cost breakdown in the current agreement related to maintenance of Edgewater Circle. As the Council may recall, Edgewater Circle is a private road and maintenance of the road and other common areas is paid by the developer with contributions from the owners in the development.

The agreement executed in 2018 for the Town's purchase of the Town Hall property calls for the Town, like other property owners, to pay a pro-rata share of the annual operating costs for maintaining and insuring the common areas and common infrastructure of the development. Further, the agreement outlines that the Town and other owners would pay a pro-rata share of any capital costs for replacement or major capital projects.

The calculation for pro-rata share is based on square footage of the structures. Town Hall is calculated at 33,400 square feet. In 2022, the last year for which the pro-rata calculation has been completed, the total occupied development included 135,000 square feet, of which the Town Hall accounts for about 24.7%. Based on annual expenses for operating costs, the Town paid just over \$14,000. The overall development is anticipated to be approximately 390,000 square feet of occupied building space assuming full buildout of the overall plan as revised to include the Town Hall. The Town would be approximately 8.6% of this total.

Public Works Director Walsh estimated the annual cost of regular Town maintenance of the road once it is fully complete to be approximately \$9,000 including plowing and ice control as well as pothole patching and the like. Long term maintenance costs are estimated as shown below.

- Crack sealing at about year 7 - \$13,500
- Chip seal surface repair at about year 10 - \$65,000
- Mill and overlay at about year 20 - \$235,000
- Road Reconstruction at about year 30 - \$600,000



These costs will be significant in the future, and, under the current agreement, future owners will face some sort of an assessment to cover the cost. On a purely financial basis, if the owners all continued to pay their share of the costs based on the pro-ration, the Town would pay less out of pocket if the current agreement were followed. However, the Council may want to consider that future owners may complain to the Town that the cost of major road replacement work should not be their direct responsibility despite the agreement. This argument has been made to the Council in the past and some costs for some private roads have been absorbed by the Town. Further, not only are there monetary considerations for the Council related to eliminating the annual payment to the developer in favor of absorbing these costs into the Town budget, but the Council may also want to consider any issues around the Town Hall being on a privately owned and maintained road.

I have attached an excerpt from the Agreement related to these payments for information.

DC

provides an explanation for such failure that is satisfactory to the Town and such failure does not unreasonably interfere with the Town's rights hereunder, the Town may not elect to perform such work. The foregoing notwithstanding, in an emergency, if Edgewater or Hill, as applicable fails, to perform such repairs and maintenance to the Internal Drive Drainage Facilities or Drainage Collection Facilities as required hereby, then the Town shall only be required to give such notice and opportunity to cure as is reasonable under the circumstances.

2. The Town hereby covenants, at its sole cost and expense, to install and maintain, repair and replace, at the Town's sole cost and expense, in good order and operating condition, fit for their intended purposes, the Town Drainage Facilities (and any maintenance, repair, or replacement work of the Town Drainage Facilities shall be subject to the provisions above in Sections II C. regarding Utility Work).

IV. Common Infrastructure

A. Identification of Common Infrastructure. The parties understand that the Town Property is one of several properties comprising the Master Plan Area, and that the Town is expected to pay its respective Pro Rata Share (as defined herein) of, and contribute to, the costs of Major Repairs and Ordinary Maintenance to the infrastructure which serves the Master Plan Area as may exist from time to time (collectively, the "Common Infrastructure"), and costs incurred by and with respect to the operation, maintenance, repair and replacement of such Common Infrastructure. The parties agree that their intent expressed under the preceding sentence shall be effectuated and carried out solely by the provisions below under this Article IV. "Common Infrastructure" includes, without limitation, the following facilities and systems to the extent each may exist within, and serve, the Master Plan Area from time to time: (i) Project Roadways (inclusive of the Internal Drives); (ii) utility systems; (iii) drainage facilities (such as the Internal Drives Drainage Facilities and Drainage Collection Facilities, but expressly excluding the Town Drainage Facilities [as hereafter defined]); (iv) sidewalks, and (v) landscaping. Common Infrastructure specifically excludes any infrastructure or facilities that exclusively serve any one specific owner of any of the properties located within the Master Plan Area or that is located on the Town Property. Notwithstanding anything to the contrary herein, the Town shall be responsible for all costs in connection with the construction, maintenance and repair of the Emergency Access Driveway and Public Driveways.

B. Town's Common Infrastructure Operations Fee and Reserve Fee.

1. Operator. For purposes of administering the provisions in this Article IV, the term "Operator" shall, where the context reasonably indicates, refer to Edgewater and/or Hill collectively and/or an agent or representative of Edgewater and/or Hill designated by Edgewater and Hill to administer and carry out such provisions on their behalf.

2. Payment of Operations Fee and Reserve Fee Generally. The parties agree that the Town shall pay to the Operator as and when required under Section IV B. 4. below the Operations Fee and the Reserve Fee (all as more particularly defined below), and the Town's payment of the Operations Fee and Reserve Fee shall satisfy in full the Town's obligation to pay and contribute to the Town's Pro Rata Share of the Operating Costs (as hereafter defined). Except for Common Infrastructure Capital Costs (as defined below) and amounts that the Town

is required to pay on account of its default or failure to perform as required hereunder, the Town shall not be obligated to pay or contribute any other amount to Operator for the Operator's operation, maintenance or repair of the Common Infrastructure other than the Operations Fee and Reserve Fee.

3. Certain Definitions.

a) Operating Costs. For purposes hereof, and determining the Operations Fee to be paid by the Town as more particularly provided below, the term "Operating Costs" shall mean and include any and all costs and expenses incurred by Operator (i.e., Edgewater and/or Hill") for Major Repairs and Ordinary Maintenance to Common Infrastructure and Operator's general operation and maintenance of the Common Infrastructure and common areas of the Master Plan Area, including, without limitation, the cost of utilities consumed or used with respect to Common Infrastructure (e.g., electric for lighting) and insurance premiums allocable to the Common Infrastructure, but "Operating Costs" expressly excludes Common Infrastructure Capital Costs (as defined below) and any amounts incurred by Edgewater and/or Hill on account of the Town's default or failure to perform as required hereunder or pursuant to any express written agreement entered into by the Town.

b) Operations Fee. The "Operations Fee" is an annual amount to be paid by the Town in monthly installments to the Operator, all as more particularly provided herein, for the purposes of contributing to the Town's Pro Rata Share (as hereafter defined) of Operating Costs.

c) Reserve Fee. The "Reserve Fee" shall be equal to 15% of the applicable Operations Fee and accrued Reserve Fees received by Operator shall be maintained and/or applied in Operator's sole but reasonable discretion and the accrual of such Reserve Fees shall not limit the amount of the Operations Fee or Reserve Fee to be paid at any time. Accumulated Reserve Fees, shall only be used to pay for Operating Costs but nothing herein shall require Operator to use any such accumulated Reserve Fees and Operator may instead continue to hold such accumulated Reserve Fees as a reserve in its sole discretion. Without limitation, Operator shall not be required to apply or use such Reserve Fees for any Common Infrastructure Capital Costs (the Pro Rata Share of which shall be paid by the Town as provided below).

d) Operations Fee Notice. An "Operations Fee Notice" is a statement to be given to the Town as and when provided herein which shall set forth the Operations Fee, Reserve Fee, and the Monthly Fee for the Fiscal Year immediately following the date such Operations Fee Notice is given (except as otherwise expressly provided herein). The Operations Fee Notice shall also include a short and general narrative and summary describing the basis for the Operator's determination of the Operations Fee (and any increase thereto) and, if applicable, a short explanation of the calculation of the CPI Factor if applicable to the determination of the Operations Fee. Notwithstanding the Operator's agreement to provide such narrative and information, the parties agree that the Town shall have no audit or investigation rights (or any similar types of rights) with respect to the Operations Fee, the Operator's determination thereof, nor shall the Town have any other rights other than those expressly provided herein.

e) CPI Factor. The “CPI Factor” shall be a fraction, the numerator of which is the Current Index Number and the denominator of which is the Base Index Number (as defined below). The “Base Index Number” shall be the lowest level of the Index for the Fiscal Year prior to the Determination Date (as hereafter defined). The “Current Index Number” shall be the highest level of the Index for the Fiscal Year during Determination Date. The “Index” shall be the Consumer Price Index for All Urban Consumers (CPI-U), Northeast Region, All Items, 1982-84=100, not seasonally adjusted, as published by the Bureau of Labor Statistics of United States Department of Labor, or any successor index thereto as hereinafter provided. If publication of the Index is discontinued, or if the basis of calculating the Index is materially changed, then the Operator shall substitute for the Index comparable statistics as computed by an agency of the United States Government or, if none, by a substantial and responsible periodical or publication of recognized authority most closely approximating the result which would have been achieved by the Index.

4. Commencement of Town’s Operations Fee and Reserve Fee Payments; Determination of Operations Fee. Commencing on January 1, 2020 and continuing thereafter each month, the Town shall pay to the Operator one twelfth (1/12) of the annual Operations Fee as provided below together with the Reserve Fee (such monthly installments of the Operations Fee and Reserve Fee maybe referred to herein together as the “Monthly Fee”) on or **prior to the fifth day of each month** as provided hereinbelow. Without limitation, for all periods below a Reserve Fee shall be paid together with the applicable Operations Fee described below.

a) **Operations Fee for January 1, 2020 – June 30, 2021**. For the period commencing January 1, 2020 and ending June 30, 2021 (“Initial Period”), the parties agree that the annual Operations Fee shall be \$6,000 (prorated for the partial year and payable in monthly installments of \$500).

b) Operations Fee for July 1, 2021 – June 30, 2022. For the first Fiscal Year (as hereafter defined) following the Initial Period (i.e., July 1, 2021 - June 30, 2022) the “Operations Fee” shall be equal to the Base Operations Fee (as defined below) or, if greater than the Base Operations Fee, Operator’s estimate of the Town’s Pro Rata Share of Operating Costs for such Fiscal Year commencing July 1, 2021 – June 30, 2022 provided such estimated amount is not greater than the Base Operations Fee by an amount that is more than the greater of (i) 5% or (ii) the CPI Factor (as defined below). The Operations Fee for such Fiscal Year commencing July 1, 2021 – June 30, 2022 shall be set forth in an Operations Fee Notice (as defined below) given to the Town on or prior to January 30, 2021. Solely with respect to such first Operations Fee Notice to be given on or prior to January 30, 2021, the Operator shall include a statement setting forth the Town’s Pro Rata Share and the actual Operating Costs incurred by Operator (i.e., Edgewater and/or Hill) for the year period commencing January 1, 2020 and ending December 31, 2020 (the “Base Year”) and the product of such actual Operating Costs for the Base Year and the Town’s Pro Rata Share during such Base Year (or average thereof if it changed during such period) as reasonably determined by Operator shall be the “Base Operations Fee”, which Base Operations Fee may be equal to, greater or less than Operations Fee paid during the Initial Period.

c) Operations Fee following July 1, 2022. For all Fiscal Years following Fiscal Year July 1, 2021 – June 30, 2022, the Operations Fee for each subsequent Fiscal Year shall be as set forth in a notice an Operations Fee Notice (as defined below), and shall be equal to the Town’s Pro Rata Share of estimated Operating Costs for such Fiscal Year as determined by the Operator in its sole and reasonable discretion; provided, however, that the Operations Fee for each Fiscal Year shall not increase from Operations Fee paid for the prior year by more than the greater of: (i) 5% or (ii) the CPI Factor (as defined below). Provided that the Operation Fee Notice is given on or prior to the January 30 immediately preceding a given Fiscal Year, the Town shall pay its Monthly Fee (i.e., Operations Fee plus applicable Reserve Fee) as determined by Operator and set forth in any Operations Fee Notice during such Fiscal Year. In the event that the Operator fails to provide the Town with an Operations Fee Notice, then the Town shall continue to pay the Monthly Fee as set forth in the most recent Operations Fee Notice for the applicable Fiscal Year until the next Operations Fee Notice is given with respect to the following Fiscal Year.

5. Common Infrastructure Capital Costs. In addition to the Town’s obligations to pay the Monthly Fee to the Operator, the Town shall also be required to pay its Pro Rata Share of Common Infrastructure Capital Costs as and when provided herein. “Common Infrastructure Capital Costs” are all capital (as determined by Operator’s accountant in accordance with GAAP) costs and expenses incurred by Operator (i.e., Edgewater and/or Hill) for Major Repairs and Ordinary Maintenance to Common Infrastructure, which for purposes hereof, without limitation, shall include any capital repairs or replacements to any of the Common Infrastructure, but “Common Infrastructure Capital Costs” expressly excludes any amounts incurred by Edgewater and/or Hill which are to be paid 100% by the Town on account of the Town’s default or failure to perform as required hereunder (except to the extent caused by negligence or misconduct of Edgewater or Hill), any other express provisions of this Easement or pursuant to another written agreement. From time to time, the Operator shall have the right to give the Town notice of Common Infrastructure Capital Costs incurred or to be incurred by the Operator and the Town’s Pro Rata Share thereof and the Town shall pay its Pro Rata Share of any such Common Infrastructure Capital Costs on or prior that date which is twelve months after the July 1 immediately following the Operator giving the Capital Cost Notice (and in no event later than twenty-three (23) months following the giving of such Capital Cost Notice. A Capital Cost Notice shall be deemed adequate and sufficient for purposes of determining the amount to be paid by the Town pursuant hereto provided that includes either, in the case of costs previously incurred by the Operator, an invoice or similar statement for the costs incurred or, in the case of costs to-be incurred, a copy of the contract to be performed or a certification from the contractor or party to perform such work confirming the existing of the contract, the work to be generally performed and the contract cost thereof. The Town shall not have any audit or similar rights. Without limitation, Operator shall not be required to use the Reserve Fees to pay for any Common Infrastructure Capital Costs, but shall, in its sole discretion, have the right to use accrued Reserve Fees to cover such costs pending reimbursement by the Town.

C. Pro Rata Share. As used in this Agreement, the term “Pro Rata Share” shall be based upon the Town’s fractional share of the total habitable square footage of finished buildings for which a certificate of occupancy has been issued within the Master Plan Area (i.e., a fraction, the numerator of which is the total actual square footage of finished buildings located on the

Town Property and denominator of which is the total actual square footage of finished buildings within the Master Plan Area), and as such, the Pro Rata Share will change from time to time as new buildings are incorporated into the Project and/or as new buildings are constructed within the Town Property. Until such time as a certificate of occupancy has been issued for the buildings to be constructed (i.e., the Town Hall and Police Station) pursuant to the Site Plan as part of the Town Project, the square footage used in calculating the Town's Pro Rata Share shall be established utilizing the square footage of the buildings to be constructed pursuant to the Site Plan as part of the Town Project (i.e., the Town Hall and Police Station), which for purposes of this sentence shall be deemed to be 33,400 sq. ft..

1. Notwithstanding the preceding, the parties agree that the cost for any particular Major Repair or Ordinary Maintenance that is the responsibility and sole cost of a particular owner of property within the Master Plan Area or its tenant pursuant to another agreement (e.g., a Property owner or its tenant that is required pursuant to a separate agreement by and between that owner and Edgewater and/or Hill to plow snow within a certain portion of the Project Roadways), the total habitable square footage of finished buildings on the Property responsible for such Major Repair or Ordinary Maintenance shall be excluded from the denominator for purposes of the calculation of Pro Rata Share for that particular Major Repair or Ordinary Maintenance. Notwithstanding anything to the contrary herein, there shall be no obligation to perform any Common Infrastructure Maintenance and Repairs, except to the extent expressly provided by the terms of this Agreement (such as with respect to the Internal Drives Parcel), imposed on (by implication or otherwise) Edgewater, Hill and/or any of their successors or assigns.

D. Capital Improvements. The parties hereto hereby agree that, in the case of a future permit or approval for development within the Master Plan Area that is conditioned upon Edgewater or Hill constructing and/or installing a major capital improvement benefiting the Master Plan Area, and Edgewater or Hill provides written evidence reasonably satisfactory to the Town that the requirement or timing of such capital improvement was necessitated in part by the construction of the Town Project, the parties shall exercise good faith efforts to establish a commercially reasonable cost-sharing arrangement with respect to the construction and installation of such major capital improvement that is reflective of the Town Project's proportionate connection to necessitating such capital improvement. Thereafter, Edgewater or Hill, as applicable, shall be solely responsible, for the repair and maintenance of any such capital improvement and, to the extent required, shall also be solely responsible for all negotiation and transactions with any third parties required in connection with the capital improvement.

V. Reservation of Rights; Use Restrictions; Work; Restoration.

A. Reservation of Rights. As used herein, (i) the term "Edgewater Easement Areas" means all portions of the Edgewater Property and Hill Property in which an easement for the benefit of the Town Property was created pursuant to Sections I, II and III of this Agreement and (ii) the term "Town Easement Areas" means all portions of the Town Property in which an easement for the benefit of the Edgewater Property and Hill Property was created pursuant to Section I of this Agreement. The Edgewater Easement Areas and the Town Easement Areas are collectively referred to as the "Easement Areas" and individually as an "Easement Area".

CONCEPT DRAFT

An amendment to the Agreement between the Town and Edgewater development to take over maintenance responsibility for Edgewater Circle and treat it as a Town Road.

**Amendment to
Reciprocal Access and Utility Easement Agreement**

This AMENDMENT TO RECIPROCAL ACCESS, UTILITY AND DRAINAGE EASEMENT AGREEMENT (“Amendment”) is made and entered into as of the _____ day of _____, 2023 by and among EDGEWATER HILL ENTERPRISES, LLC, a Connecticut limited liability company with an office at 207 Hog Hill Road, East Hampton, Connecticut 06424 (“Edgewater”), EDGEWATER HILL PROPERTIES, LLC, a Connecticut limited liability company with an office at 207 Hog Hill Road, East Hampton, Connecticut 06424 (“Hill”), and the TOWN OF EAST HAMPTON, a Connecticut municipality, with an address at 1 Community Drive, East Hampton, Connecticut 06424 (“Town” and with Edgewater, and Hill, collectively, the "Owners" and individually, each an "Owner").

WITNESSETH

WHEREAS, Edgewater, Hill and Town entered into a RECIPROCAL ACCESS, UTILITY AND DRAINAGE EASEMENT AGREEMENT (“Agreement”) on the 26th day of September, 2018 and filed on September 26, 2018 in the office of the East Hampton Town Clerk in volume 588 at page 593;

WHEREAS, Edgewater, Hill, and Town are owners of certain real property located in the Town of East Hampton identified and described in said Agreement;

WHEREAS, the Edgewater Property, the Hill Property and the Town Property (and any other property resulting from the subsequent subdivision of the Edgewater Property or the Hill Property) are collectively referred to herein as the “Properties” and are each individually referred to herein as a “Property;”

WHEREAS, Edgewater, Hill and Town intend to revise certain terms and agreements described and defined in the aforementioned Agreement for the purpose of providing for Town maintenance and oversight of certain internal roads and other facilities as described herein;

NOW THEREFORE, in consideration of the above and in consideration of good and valuable consideration the receipt and sufficiency of which are hereby mutually acknowledged, the Owners hereby agree as follows:

1. Except as provided in this Amendment, all provisions of the Reciprocal Access, Utility and Drainage Easement Agreement shall remain valid and in force unless modified in writing or otherwise found unenforceable.
2. Subject to Section 7 of this Amendment, the Town will provide maintenance and capital improvements, including capital replacement, for the main loop of the internal drive known as Edgewater Circle as it may, from time to time, exist as identified on the attached Exhibit A in a manner similar to other public Town roads at the Town's sole discretion, including, but not limited to, snow and ice control, pavement marking, crack filling, and other surface treatments and replacements. Said maintenance and capital improvements shall be limited to the paved facilities between the back of curbs on both sides or to the edge of roadway pavement, including parking areas, for surfaces that do not have curbs. Further, such maintenance shall extend to the stormwater drainage system and facilities beneath said Edgewater Circle roadway, but not to connections or extensions thereof that exist outside the area defined as being between the back of curbs adjacent to or edge of pavement of Edgewater Circle.
3. The Town shall not be responsible for grass or landscaped islands within the limits of the area between the back of curb on both sides of the paved area of Edgewater Circle nor shall it be responsible for sidewalks, grass, lighting or other infrastructure or utility facilities adjacent to the paved portions of Edgewater Circle.
4. Edgewater and Hill shall continue to provide Ordinary Maintenance , as described in the aforementioned Agreement to which this is an Amendment, for all areas outside the paved area of Edgewater Circle between the back of curb or edges of pavement where no curb exists including the landscaped or grassed areas between pavement lanes as currently exist or may exist in the future, including, but not limited to, the areas within the entrance from State Highway Rt 66.
5. A perpetual easement is hereby granted to Town by Edgewater and Hill over and below the area of the Internal Drives and Project Roadways in the Master Plan Area known as Edgewater Circle between the back of curbs on both sides or to the edge of roadway pavement, including parking areas, for surfaces that do not have curbs.
6. As part of this Amendment and in consideration of the Town accepting the maintenance, repair and replacement costs of Edgewater Circle, the Town shall make no payment to Edgewater or Hill or any successor or successors thereof for any Operating Costs, Operating Fee, Reserve Fee or any other payment or fee as defined and described in the Agreement. Any payment made prior to the approval and execution of this Amendment shall remain the property of Edgewater and Hill.
7. Edgewater and Hill hereby covenant to construct the full extent of the Internal Drives and related improvements located within the Internal Drives Parcel including without limitation all attendant lighting, the Internal Drives Drainage Facilities and related curbing for the Internal Drives in the same manner as previously constructed segments of Edgewater Circle and in

accordance with Town approval identified in the Agreement. The Town's responsibilities for maintenance and capital improvements under this Amendment shall commence when a given section of Edgewater Circle has been completed through final surface asphalt and the commencement of maintenance and capital improvement responsibilities has been accepted by the Town through action of the Planning and Zoning Commission and the Town Council in the manner similar to acceptance of a public road.

8. Notices to the Town under the Agreement and this Amendment shall be made in accordance with the Agreement to the following address:

Town Manager
Town of East Hampton
1 Community Drive
East Hampton CT 06424

9. For portions of Edgewater Circle that have been accepted for Town maintenance and capital improvements as described herein, the Town shall be authorized to issue permits for and otherwise regulate construction within the area of Town maintenance and capital improvements between the back of curbs on both sides or to the edge of roadway pavement, including parking areas, for surfaces that do not have curbs in the same manner as it does for other public, Town-owned roads.

[SIGNATURES FOLLOW; REMAINDER INTENTIONALLY BLANK]

IN WITNESS WHEREOF, Edgewater, Hill and the Town have executed this Amendment to the Reciprocal Access, Utility and Drainage Easement Agreement, intending to be legally bound hereby as of the day and year first above written.

EDGEWATER HILL ENTERPRISES, LLC

Witnesses:

By: _____
Name: Stephen Motto
Its: Manager

Print Name: _____

Print Name: _____

EDGEWATER HILL PROPERTIES, LLC

By: _____
Name: Stephen Motto
Its: Manager

Print Name: _____

Print Name: _____

TOWN OF EAST HAMPTON

By: _____
Name: David E. Cox
Its: Town Manager, Duly Authorized

Print Name: _____

Print Name: _____

[NOTARY ACKNOWLEDGEMENTS FOLLOW; REMAINDER INTENTIONALLY BLANK]

STATE OF CONNECTICUT

COUNTY OF _____ SS. _____

On this the _____ day of _____, 2023, before me, _____, the undersigned officer, personally appeared _____, who acknowledged himself/herself to be the _____, of _____ a corporation, and that he/she, being authorized so to do, executed the foregoing instrument and acknowledged that he/she executed the same in the capacity therein stated and for the purposes therein contained.

In witness whereof I hereunto set my hand.

Commissioner of the Superior Court
Notary
Date Commission Expires:

STATE OF CONNECTICUT

COUNTY OF _____ SS. _____

On this the _____ day of _____, 2023, before me, _____, the undersigned officer, personally appeared _____, who acknowledged himself/herself to be the _____, of _____ a corporation, and that he/she, being authorized so to do, executed the foregoing instrument and acknowledged that he/she executed the same in the capacity therein stated and for the purposes therein contained.

In witness whereof I hereunto set my hand.

Commissioner of the Superior Court
Notary
Date Commission Expires:

NOTARY ACKNOWLEDGEMENTS CONTINUE

STATE OF CONNECTICUT

COUNTY OF _____ SS. _____

On this the _____ day of _____, 2023, before me, _____, the undersigned officer, personally appeared _____, who acknowledged himself/herself to be the _____, of _____ a corporation, and that he/she, being authorized so to do, executed the foregoing instrument and acknowledged that he/she executed the same in the capacity therein stated and for the purposes therein contained.

In witness whereof I hereunto set my hand.

Commissioner of the Superior Court
Notary
Date Commission Expires:



July 25, 2023

To: The East Hampton Town Council,

The documentation for the tax refunds listed below is available in the Office of the Collector of Revenue for your review. There are ten (10) refunds totaling \$2,122.98.

Respectfully Submitted,

Joshua Gambeski
Assistant Collector of Revenue
On Behalf Of:
Kristy L. Merrifield, CCMC
Collector of Revenue

	299.19+
	29.31+
	37.75+
	54.37+
	290.48+
	990.00+
	118.53+
	128.93+
	79.52+
	94.90+
010	
	2,122.98*



You're Invited to a Home Dedication & Recognition of Volunteers, Donors, and Sponsors!

Join Middlesex Habitat for Humanity to celebrate the completion of the Lake Drive | East Hampton house.



every one
deserves a safe,
affordable home

Saturday, July 29 from 11 - 12 PM

Location: East Hampton Public Library
105 Main St #1, East Hampton, CT

After the program, everyone is invited to visit and walk through the newly built home.

Please RSVP to Sarah Bird at sbirde@habitatmiddlesex.org or 860.398.6485 by July 26th.



Lake Drive | East Hampton build has been made possible through the generous support of amazing community partners:



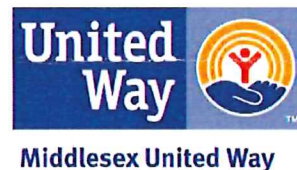
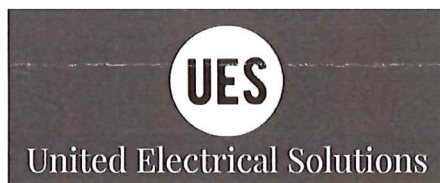
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MIDDLETOWN, CT



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Kevin O'Connor | St. John's Episcopal Church
United Mechanical Resources