TOWN OF HEBRON
CAPITAL IMPROVEMENT PROGRAM
FY 2024-2025
TOWN MANAGER PROPOSED
MARCH 1, 2024

Priority	Project	Amount
	Road Resurfacing and Road Improvements	$ 330,558
	Replace Truck 45 (2005)	$ 275,466
	Jones Street Culvert Replacement - Second (Final) Year Funding	$ 44,500
	HBOE - GHS School Roof Restoration	$ 500,000
	HBOE - HES School Roof Restoration	$ 100,000
	Senior Center Parking Drainage, Repave and Expansion	$ 75,000
	Horton House Improvements	$ 50,000
	Total Recommended CIP Budget	$ 1,375,524

FY 2024-2025
CIP Budget Revenue
Town Manager Proposed March 1, 2024

	Approved 2023-2024	Proposed 2024-2025
Balance from Previous Appropriations	$ 33,639	$ 5,238
LOCIP Funding	$ 68,830	$ 102,152
Funding from Other Sources: Public Safety Fund	$ 11,400	$ 11,400
Interest	$ 1,000	$ 30,000
General Fund Contribution	$ 488,017	$ 1,226,734
Total Revenues	$ 602,886	$ 1,375,524

Completed Project Balances

Large Dump Truck 20-21	5,000
Large Dump Truck 22-23	238
	5,238

CAPITAL IMPROVEMENT PROGRAM
FIVE YEAR PLAN

	Total Request	Approved Appropriation	23-24 APPROVED	24-25 Town Manager Recommendation	24-25 Department Request	25-26	26-27	27-28	28-29	29-30
Town Wide Roads										
Road Resurfacing and Road Improvements	On Going	On Going	320,930	330,558	330,558	340,475	350,689	361,210	372,046	383,207
Town Wide Roads Sub Total			320,930	**330,558**	**330,558**	**340,475**	**350,689**	**361,210**	**372,046**	**383,207**
Public Works										
Bridge Replacement - Old Colchester Road	544,700			Grant Funded	Grant Funded					
Replace Truck 52 (2007)	226,956		226,956							
Jones Street Culvert Replacement	99,500	55,000	55,000	44,500	44,500					
Street Sweeper (1999)	314,493				150,000	150,000	164,493			
Large Dump w/Plow (replace Truck 45)(2005)	275,466			275,466	275,466					
Large Six Wheel Dumpr Truck w/ Plow and Sander (Truck 24)	275,466				275,466	275,466				
Ten Wheel Dump Truck (replace Truck 18)(2007)	347,905					347,905				
Large Dump w/Plow (replace Truck 9)(2009)	289,340					289,340				
Large Dump w/Plow (replace Truck 26) (2003)	303,701						303,701			
Large Dump w/Plow (replace Truck 31) (2012)	303,701						303,701			
Large Dump Truck (replace Truck 2) (2006)	318,886							318,886		
Large Dump Truck (replace Truck 46) (2006)	334,830					.....			334,830	
Old Slocum Road Culvert Replacement	840,000								420,000	420,000
Engineering/Design New Public Works Facility - (to be bonded)	*15,000,000+*									
Public Works Sub Total			281,956	**319,966**	**745,432**	**1,062,711**	**771,895**	**318,886**	**754,830**	**420,000**
Board of Education										
PA and Clock System - GHS and HES	297,400				297,400	297,400				
Air Conditioning and HVAC Upgrade GHS	1,635,100				7,500	1,635,100				
Air Conditioning and HVAC UpgradeHES	1,623,800				7,500	1,623,800				
Gilead Hill School Roof Restoration and Study	550,000	50,000		500,000	500,000					
HES Roof	160,000	60,000		100,000	100,000					
Backup Generator HES	193,500						193,500			
Glass Brick Wall to Window Replacement GHS	149,500							149,500		
Glass Brick Wall to Window Replacement HES	53,500							53,500		
Parking Lot HES	100,000								100,000	
Board of Education Sub Total			-	**600,000**	**912,400**	**3,556,300**	**193,500**	**203,000**	**100,000**	-
Fire Department/EMS										
Replace Rescue 110 and Engine 110 w/ Rescue Pumper	1,050,000			Fund Outside of CIP	350,000					
Replace Chief's Vehicle	75,000			Fund Outside of CIP	75,000					
Ambulance 610	350,000						350,000			
Fire Department Sub Total			-	-	**425,000**	-	**350,000**	-	-	-
Recreation										
Trackless Snow Machine	180,000				180,000	180,000				
Skid Steer	87,775				87,775	87,775				
Veteran's Memorial Park Baseball Field Lighting	250,000			ARPA	ARPA					
Pickleball Courts	120,000					ARPA				
Pond Dredging	100,000						100,000			
Grayville Upgrades	75,000							75,000		
Pickleball Lighting	100,000								100,000	
Burnt Hill Playscape	200,000									200,000
Recreation Sub Total			-	-	**267,775**	**267,775**	**100,000**	**75,000**	**100,000**	**200,000**

CAPITAL IMPROVEMENT PROGRAM
FIVE YEAR PLAN

	Total Request	Approved Appropriation	APPROVED	Town Manager Recommendation	Department Request	25-26	26-27	27-28	28-29	29-30
Douglas Library										
Douglas Library Parking Lot Paving	173,919				173,919	173,919				
Douglas Library Sub Total			-	-	**173,919**	**173,919**	-	-	-	-
Senior Center										
Natural Gas Generator	75,000				75,000	75,000				
Senior Center Parking Drainage, Repave and Expansion	100,000			75,000	100,000	25,000				
Senior Housing Needs Study/Engineering	TBD									
Senior Center Sub Total			-	**75,000**	**175,000**	**100,000**	-	-	-	-
Planning & Development										
ADA Self-Evaluation and Transition Plan	150,000				75,000	75,000				
Horton House Improvements	81,600			50,000	81,600	31,000				
Parks and Recreation Master Plan	75,000				75,000	75,000				
Planning & Development Sub Total			-	**50,000**	**231,600**	**181,000**	-	-	-	-
Miscellaneous										
VHF Radio System - All Town Departments (Bancroft)	*95,713*				*95,713*	*95,713*				
WPCA	*TBD*									
Miscellaneous Sub Total			-	-	**95,713**	**95,713**	-	-	-	-
GRAND TOTAL			602,886	**1,375,524**	**3,357,397**	**5,677,893**	**1,766,084**	**958,096**	**1,326,876**	**1,003,207**

CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Paul Forrest **Contact Person for Questions:** Paul Forrest

Department: Public Works **Date Prepared:** 11/14/23

1. Project Title: Road Resurfacing and Road Improvements **2. Department Priority:**

3. Purpose of Project Request Form (check one)

	Add a new item to the program		Continue a CIP request in the same year
x	Modify a project already in the program		Delete an item already a part of the program

4. Location: Town roads in Hebron

5. Description: Mill and paving of town roads. Money will be used for road resurfacing and reconstruction for Hebron roadways.

(If this request is part of a regular equipment replacement program, please attach a copy of that schedule.)

6. Justification and Useful Life:

Roads PCI ratings are at 60 and below.

7. Requested Cost Estimates for:

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$330,558.00	**$340,475.00**	**$350,689.00**	**$361,210.00**	**$372,046.00**	**$383,207.00**

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:
5% increase for inflation used. Total price represented.

8. Project Cost Summary:

Equipment Acquisition:	
Property Acquisition:	
Planning / Engineering / Legal:	
Construction:	
Furnishings / Equipment:	
Contingency / Other:	
TOTAL COST:	**$330,558.00**

9. Recommended Method of Financing:

	%	
Taxes / Current revenues:		
Grants:		
Finance - Lease:		
Bonds:		
Capital reserve:		
Other:		
TOTAL FINANCING:		**$330,558.00**

10. Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.

11. If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.

12. Reserved:

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Paul Forrest **Contact Person for Questions:** Paul Forrest

Department: Public Works **Date Prepared:** 11/09/23

1. Project Title: Truck 45 **2. Department Priority:** 3

3. Purpose of Project Request Form (check one)

	Add a new item to the program		Continue a CIP request in the same year
X	Modify a project already in the program		Delete an item already a part of the program

4. Location: Public Works Department

5. Description: Large Six Wheel Dump Truck with Plow and Sander to replace T-45 (2005)

(If this request is part of a regular equipment replacement program, please attach a copy of that schedule.)

6. Justification and Useful Life:

Replace due to age and mileage. Year of Model: 2005 Mileage: 62,809.00

7. Requested Cost Estimates for:

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$275,466.00					

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:
5% increase for inflation used. Total price represented.

8. Project Cost Summary:

Equipment Acquisition:	
Property Acquisition:	
Planning / Engineering / Legal:	
Construction:	
Furnishings / Equipment:	
Contingency / Other:	
TOTAL COST:	**$275,466.00**

9. Recommended Method of Financing:

	%
Taxes / Current revenues:	
Grants:	
Finance - Lease:	
Bonds:	
Capital reserve:	
Other:	
TOTAL FINANCING:	**$275,466.00**

10. Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.

11. If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.

12. Reserved:

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

Prepared for:
Paul Forrest
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Prepared by:
Greg Martinotti
FREIGHTLINER OF HARTFORD
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QUOTATION - BUDGETARY

SA PLOW TRUCK W/ 10' BODY PACKAGE

114SD PLUS CONVENTIONAL CHASSIS

SET FORWARD AXLE - TRUCK
CUM L9 370 HP @ 2100 RPM; 2100 GOV RPM, 1250 LB-FT @ 1200 RPM
ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION
RS-30-185 30,000# U-SERIES SINGLE REAR AXLE
CHALMERS 1030 30,000# REAR SUSPENSION
DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE
20,000# TAPERLEAF FRONT SUSPENSION
114 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
4725MM (186 INCH) WHEELBASE
NO FIFTH WHEEL
7/16X3-9/16X11-1/8 INCH STEEL FRAME (11.11MMX282.6MM/0.437X11.13 INCH) 120KSI
1600MM (63 INCH) REAR FRAME OVERHANG
PARTIAL INNER FRAME REINFORCEMENT AT FRONT SUSPENSION
TEM TO EVALUATE AND INSTALL FRAME RAIL REINFORCEMENT AS NEEDED FOR FRONT FRAME MOUNTED EQUIPMENT

			PER UNIT		TOTAL
CHASSIS & BODY	**TOTAL # OF UNITS (1)**	$	275,466.00	$	275,466.00
CUSTOMER PRICE BEFORE TAX		**$**	**275,466.00**	**$**	**275,466.00**
TRADE-IN ALLOWANCE		$	(0)	$	(0)
BALANCE DUE	**(LOCAL CURRENCY)**	**$**	**275,466.00**	**$**	**275,466.00**

COMMENTS:
Projected delivery on ___ / ___ / ___ provided the order is received before ___ / ___ / ___.

APPROVAL:
Please indicate your acceptance of this quotation by signing below:

Customer: X_____ Date: ___ / ___ / ___.

Prepared for:
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CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Paul Forrest **Contact Person for Questions:** Paul Forrest

Department: Public Works **Date Prepared:** 11/14/23

1. Project Title: Jones Street Culvert Replacement **2. Department Priority:** 1

3. Purpose of Project Request Form (check one)

	Add a new item to the program		Continue a CIP request in the same year
X	Modify a project already in the program		Delete an item already a part of the program

4. Location: Jones Street

5. Description: Replacement of culvert on Jones Street

(If this request is part of a regular equipment replacement program, please attach a copy of that schedule.)

6. Justification and Useful Life:

7. Requested Cost Estimates for:

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$44,499.05					

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:
5% used for inflation

8. Project Cost Summary:

Equipment Acquisition:	
Property Acquisition:	
Planning / Engineering / Legal:	
Construction:	
Furnishings / Equipment:	
Contingency / Other:	
TOTAL COST:	**$99,500.00**

9. Recommended Method of Financing:

	%	
Taxes / Current revenues:		
Grants:		
Finance - Lease:		
Bonds:		
Capital reserve:		
Other:		
TOTAL FINANCING:		**$99,500.00**

10. Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.

This CIP request meets the criteria for priority funding due to the prior funding is has already received. Not receiving the rest of the funding would mean that only half of the Jones Street Culvert Replacement would be completed.

11. If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.

Jones Street Culvert Replacement has prior funding from 2023-2024 CIP, $44,499.05 is the remaining cost.

12. Reserved:

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

SAVY & SONS
Building the future.
Restoring the past.

612 Church Street, Amston,
Connecticut, United States, 06231
(860) 500-6929
savyandsons.com

COMPANY NAME	Town of Hebron	TODAY'S DATE	12/12/2023
		JOB ID	2211-776239-08
PROJECT ADDRESS	Jones Street, Hebron, Connecticut, 06231		
PROJECT NAME	Hebron Jones rd Storm CIPP	PROJECT CONTACT	Town of Hebron, Darren Norton
PROPOSAL COMPOSED BY	Gino Padewski	SALES REP CONTACT NUMBER	(860) 204-7479

Project Description

This proposal is for the Mainline CIPP installation of two separate CMP storm culvert lines on Jones St. in Hebron CT.

If both Culverts lines are accepted and scheduled during one mobilization Savy and Sons discount the total project cost by 5%.

1)CCTV Camera Inspection:

An inspection will be completed before the project start.

2) Jetting and Cleaning:

As needed, per pipe camera inspection, we will use high-pressure hydro jetting to clean and sweep downstream any debris and/or clogged pipes and cut and descale blockages as discovered and necessary. anything other than roots/ rocks/ dirt and debris that cannot be removed using standard drain cleaning jetting and descaling equipment will require an additional Robotic cutting service below.

3)Robotic cutting/ reinstatement

After the cured in place pipe liner is installed inside the pipe, we will use our robotic cutting tools and equipment to cut out all tied in service laterals where we had lined over. This will put the entire piping system back in full use service.

The total number of reinstatements is to be determined once the final jetting and descaling is performed (as often build up and debris hide the reinstatements) And total number of reinstatements will be charged $650 per reinstatement

~Individual Service Price:

$650 each reinstatement X ____0___estimated reinstatements = $___0___ Included in project total cost below

4)Vacuum and Removal (Estimated not to be needed for this project)

If vacuum services are required in order for Savy & Sons to complete inspection and/or jetting services, the

rates are listed below.

~Jet/ Vacuum Combo Truck With 2 Operators Rates:

- $2,000 minimum charge for 4 hours port to port

- $4,000.00 per day 8 hours port to port

-After 4 hour minimum charge, hourly rate will be charged at $500/ hr

~Disposal Costs; $195/ ton (non hazardous) $235/ ton (hazardous), unless customer has a dump site. A 4 ton minimum load charge shall apply

~Traffic control rates (24 hr notice required for traffic control hiring): $58.00 per hour (4 hour minimum)

~Services onsite exceeding 8 hours, price is subject to change

5)Mainline Repairs and Relining:

36" CMP with a length of 65'

There is approx. 10% repair needed to the Flow line before the CIPP installation.

S&S will bypass pump from the damn area that TOH installs before our arrival.

~Individual Service Price: $52,396.00

30" CMP with a length of 40'

There is approx. 15% repair needed to the Flow line before the CIPP installation.

S&S will bypass pump from the damn area that TOH installs before our arrival.

~Individual Service Price: $42,365.00

- Total Estimated Price if both Culverts are performed in the same mobilization : $90,023

Project Specific Notes:

- Town of Hebron to provide traffic control
- Town of Hebron to install damning to prevent any water to enter the work area prior to S&S arriving, Savy and Sons will bypass pump from this damned area.
- Bypass pumping will cross the roadway at each location.
- Does not include job specific or necessary permit fees, once this proposal is signed, Savy & Sons will apply for permits and all associated costs will be added to the project total cost.
- CBYD will be performed before project start.
- If an on-site witness inspector is required for this service, a predetermined time of inspection must be planned prior to job start.

Savy and Sons will first locate all on site access points and or clean outs and CCTV (closed circuit television) and perform a pipe camera inspection. This inspection will determine the condition of the pipe and be recorded for documentation.

At this point we will assess and determine the repair and lining options as Savy & Sons can dig and replace or use trenchless technology to install Cured in Place Pipe systems. Savy and Sons are certified applicators of many

Cured In Place Pipe systems that we will install.

Pipe Preparation and Reinstatement

All pipes will be cleaned and prepared to manufacture recommendations. Savy and Sons has top of the line pipe preparation and inspection equipment. All our technicians are fully trained on CCTV camera, Jetting, descaling and robotic cutting equipment. Savy and Sons is NASSCO trained and stays up to date on the latest industry technologies.

CIPP Lining Solution CIPP (Cured In Place Pipe Lining) technology is a resin-saturated felt tube made of polyester, fiberglass cloth and resin impregnation. It is inverted with air or pulled into a damaged pipe. This system will create a monolithic seamless liner inside the pipe which increases original flow rate by eliminating all pipe joints and reducing friction . CIPP Lining is best suited for straight pipe runs but can be used for bends in some instances.

SIPP Lining Solution SIPP (Spray In Place Pipe Lining) technology is 100% Solids Epoxy resin that is spray/ brush applied in multiple layers and provides a damp proof, corrosion resistant, wear-resistant lining. The lining thickness and material can be adjusted based on your specific project needs. We offer solutions for high heat, high pressure and even NSF/ANSI 61 potable water.

Both SIPP and CIPP application methods create little to no dig solutions making it a "Trenchless" technology. This makes for a cost effective and less disruptive method rather than the traditional "dig and replace" pipe repair methods. Both of these methods hold extreme chemical resistance.

Savy and Sons SIPP/ CIPP Warranty Both systems carry a full ten year warranty and have a 50 year life expectancy per ASTM- F 1216 Third Party Testing. Max flow temps not to exceed 140F. No cables/ drain snake type equipment to be used after liner is installed. Call Savy & Sons for all future service. Please see Savy and Sons Warranty for details. Custom warranty options are available at owners request.

Please Note: Savy and Sons will submit the video inspection report and written report to the customer. Customer agrees to pay the Inspection charge in full.

Payment terms & conditions: A nonrefundable 50% down payment due before project start. Upon receiving invoice, customer agrees to pay the remaining 50% in full within 30 days of when customer receives invoice.
We accept checks or credit card for your convenience (3% additional merchant fee added to total invoice)
There will be a 2% **late fee** on any invoice not paid after 30 days, an additional 2% will be charged every 15 days thereafter. If Invoice is 30 days delinquent, a bond claim will be filed. If invoice is 60 total days delinquent, a mechanics lien may be filed to enforce collection and buyer agrees to pay all costs accrued.

If Estimator was not made aware of prevailing wage rates and job becomes prevailing wage, additional charges may apply

Please Note:
1. Any project scheduled after November 1st may be subject to price increase due to below freezing weather conditions which require additional equipment and services.

2. Due to the current situation that COVID-19 and other circumstances beyond our control has caused, material pricing is only valid for 5 days upon receipt of this proposal . If any COVID-19 testing or specific protocol is required, pricing is subject to change.

This constitutes the full agreement between buyer and Savy & Sons, changes will only be executed upon written and signed orders and may result in change of costs. This proposal is valid for 5 days of proposal date.

Assumptions:

1. State Sales tax will be charged to the customer on all invoices unless a tax exempt certificate (ST-5 and ST-5C forms) is received.

2. Above quantities are for estimating purposes only. Actual quantities recorded in the field will be invoiced. We are assuming quantities/dimensions provided to us by customer. If quantities/dimensions are agreed upon, any work exceeding those number will be subject to additional charge. If there are any project changes the price is subject to change

3. Pricing assumes that any utilities are not active. If live utilities are found and restrict work from progressing, additional charges may be applied.

4. Owner to supply access to all safe openings, all necessary permits, police details and/or traffic control if needed. If parking is off-site, customer to provide temporary location for contractor to load/unload equipment.

5. If owner does not provide and accept responsibility of debris disposal, additional cost for debris disposal will be applied.

6. Any project concerns such as odors, noise, vibrations, dust, over-spray must be formally discussed prior to work. Any unexpected hold-points will be additional charge.

7. Check-in/Check-out/Orientation procedures to be disclosed by customer prior to proposal. Unexpected delays caused by undisclosed check-in/check-out/Orientation procedures will be additional charge.

8. Contractor projects hold a standard 1 year craftsmanship warranty. See warranty page for full details regarding Warranties. Executed warranty will be sent once completed and paid in full

9. All work will be performed during regular work hours unless otherwise noted.

10. Where applicable the owner will receive and store (or permit the contractor to store) within one hundred feet of the work area, and properly protect from damage or loss, the materials and equipment for carrying out this contract, and allow the contractor reasonable use of light, heat, water, power and available elevators, hoists etc. necessary to perform this contract as well as access to roof, if required.

11. Contractor will provide submittals and a Work Schedule prior to commencement of any work, if so required. Submittals and sample testing provided to the owner are a representative sample. Finish products may vary slightly in color, texture, etc.

12. Any alteration or deviation from above specification involving extra costs will be executed only upon a written change order and will become an extra charge over and above the contract price.

13. All pricing is based on all existing materials being non-hazardous and does not include any special removal or disposal costs associated with such.

GENERAL TERMS AND CONDITIONS

I. General Conditions: These general conditions are incorporated by reference into the proposal and are part of the Agreement under which services are to be performed by the Contractor for the Customer.

II. Customer Supplied Labor: Where the Customer supplies labor for the Contractor; the Customer will indemnify the Contractor for liability, loss or expense for work related injuries to the Customer's employees. The Customer agrees to waive all rights of subrogation against the Contractor arising out of the work in this Agreement.

III. Damage Limitations: Under no circumstances will the Contractor be responsible for indirect, incidental or consequential damages. The Contractor also is not responsible for the rendering of or failure to render architectural, engineering or surveying professional services.

IV. Preexisting Conditions: The Contractor will not be responsible for liability, loss or expense where the primary cause of the claim or damage is pre existing conditions including unsound concrete, faulty, inadequate or defective design, construction, maintenance or repair of property or contamination of the subsurface where the condition existed prior to the start of the Contractor's work. Customers are responsible for loss of service caused by the preexisting conditions at the jobsite.

V. Environmental Conditions: The Customer represents and warrants to the Contractor that the debris relating to the work being done under this Proposal is non-hazardous, requiring no manifesting or special permitting. The Customer understands and agrees that it will be responsible for any additional costs or claims associated with any permitting, treatment, transport, storage or disposal of the removed debris, regardless if it is hazardous or non-hazardous.

VI. Indemnification: The Customer and Contractor will each indemnify the other for liability, loss and expense incurred by the other party resulting from a negligent act or omission in performance of work under this Agreement, or any breach of any provision of this Agreement. If both parties are jointly at fault, each will indemnify the other in proportion to their relative fault. The Customer will also indemnify Contractor for liability, loss and expense resulting from Contractor's services if the Contractor is acting at the direction or instruction of the Customer, or where the primary cause of any damages is due to information provided by the Customer, or for any environmental condition that arises as a result of the performance of the work under this Agreement. In the event of any litigation arising from or related to this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party all reasonable attorneys' fees and costs incurred in such litigation.

VII. Entire Agreement: This proposal together with any written documents, which may be incorporated by specific reference herein, constitutes the entire agreement between the parties and supersedes all previous communications between them, either oral or written. The waiver by contractor of any term, condition or provision herein stated shall not be construed to be a waiver of any other term, condition or provision hereof.

By signing this proposal, you give Savy & Sons permission to feature this project anonymously on our website and advertising platforms as an informational awareness case study to help others.

By signing this proposal you are agreeing that our attached presented Certificate of Insurance meets your companies requirements and are accepted. Any added items to our Certificate of Insurance may be subject to a price change

Please sign and return via e-mail or fax before start of project.
Thank you for your consideration.

Signature Date

COMPANY NAME
Town of Hebron

PRINTED NAME
Kevin Kelly

CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Kaitlyn Shelar — Contact Person for Question: Kaitlyn Shelar

Department: Board of Education — Date Prepared: 11/01/23

1. Project Title: Roof-GHS
2. Department Priority: 3

3. Purpose of Project Request Form (check one)

	Add a new item to the program		Continue a CIP request in the same year
x	Modify a project already in the program		Delete an item already a part of the program

4. Location: Gilead Hill School

5. Description: Remove & Replace 1,073 square feet of insulation on levels A, C & E. Add tapered crickets & saddles to 5,400 sq. ft. of ponding area. Add additional drains to assist positive drainage in roof A. C. Complete full reinforced 20 year roof restoration to all surfaces.

(If this request is part of a regular equipment replacement program, please attach a copy of that schedule.)

6. Justification and Useful Life:

7. Requested Cost Estimates for:

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$ 550,000.00					

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:

8. Project Cost Summary:

Equipment Acquisition:		
Property Acquisition:		
Planning / Engineering / Legal:		
Construction:		550,000.00
Furnishings / Equipment:		
Contingency / Other:		
TOTAL COST:	$	550,000.00

9. Recommended Method of Financing:

	%	
Taxes / Current revenues:	44.28%	$243,564.36
Grants:		
Finance – Lease:		
Bonds:		
Capital reserve:		
Other:	55.72%	$306,435.64
TOTAL FINANCING:	$	243,564.36

10. Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.

This project has been identified as an "essential project", as these roof repairs fall into two bullet descriptors: facilities/ equipment maintenance, and severity of need for the project. If unattended to, this could create an unsafe space for students, and would escalate this project to a "core project" on the grounds of health and safety concerns.

11. If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.

$50,000 allocated in FY23 for initial work on roof.

12. Reserved:

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

INFRARED PREDICTIVE SURVEYS INCORPORATED

NUCLEAR BACKSCATTER INSPECTION

Gilead Hill School

FOR:

Tremco
Mike Boudreau

DATE:

March 11, 2020

BY:

Infrared Predictive Surveys, Inc.
PO Box 224
Adamstown, MD 21710

Phone: 301-831-1978
Toll Free: 800-869-3720
Fax: 301-874-2295

INFRARED PREDICTIVE SURVEYS INCORPORATED

SYNOPSIS

A nuclear backscatter survey of one of the roofs was performed at the Gilead Hill School, located at 580 Gilead St., Hebron, CT 06248. Visual observations have been made and the data has been documented.

INTRODUCTION

This report has been prepared for the exclusive use of Mike Boudreau at Tremco, for the specific application of the roofs at 580 Gilead St., Hebron, CT 06248.

Authorization

Authorization to perform this evaluation, analysis and nuclear backscatter roof scan was in the form of an agreement between Mike Boudreau at Tremco and Infrared Predictive Surveys Inc. (IPSI)

Scope

The scope of the roof survey included nuclear backscatter and core sampling verification. Data from this survey has been incorporated into this final report. The scope of this specific scan is to detect subsurface moisture or wet insulation.

Purpose

The purpose of this scan was to locate areas of subsurface moisture in multiple roofs.

General

Observations described in this report are based upon roof at the time of the survey and these conditions may change as the roof ages.

Infrared Predictive Surveys, Inc. warrants that these findings are published after being prepared in accordance with generally accepted practices of the construction industry. No other warranties are implied or expressed.

INFRARED PREDICTIVE SURVEYS INCORPORATED

TEST INSTRUMENT DESCRIPTION

(Only testing that has been completed during your survey will be checked.)

☐ Infrared Testing

The infrared roof survey locates moisture in a roof by seeking areas of increased surface temperature. Roof areas that contain moisture have higher thermal conductivity and capacitance than dry areas. During the heating season, heat from the building interior is lost at a greater rate through wet roof areas and their surface temperatures are elevated. Alternatively, during the cooling season, solar heat is absorbed into the wet area, and then retained for hours after the sun sets.

When viewed through the infrared imager, wet areas appear as brighter, lighter tones of gray in black-and-white images. Alternatively, in color images, wet areas will appear as hotter colors. A color scale appears at the side of color images. As colors progress upward, temperatures increase. In general, the higher the concentration of water, the higher the surface temperatures.

Because higher surface temperatures, and consequently hotter colors, may be produced by several phenomena not related to moisture intrusion, tests are made to verify the findings of the infrared inspection using destructive testing (core cuts) and other non-destructive tests (capacitance & nuclear). Wet areas found by infrared testing are illustrated with thermograms (photographs of infrared images).

☐ Capacitance Verification (Hand Held Tramex Meter)

The Tramex capacitance meter is a mobile device that is used for detecting relative moisture content of roof areas. This non-destructive testing method is often combined with nuclear and thermal testing and/or moisture intrusion testing to accurately identify water entry pathways and areas of entrapped water. The Tramex moisture meter is designed for testing built up roofing and non-conductive single ply membrane. It provides instantaneous, clear indications of roof conditions and is able to detect as little as 2% excess moisture in roofing systems.

☒ **Nuclear Backscatter**

A radioactive isotope consisting of Americium-241 with a Beryllium target is utilized. The measurement method relies on the thermalization (slowing) of fast neutrons by the hydrogen atoms in water. Since other Hydrogen bearing materials also thermalize neutrons, a measurement survey is necessary to establish a relative base level before an analysis can be performed.

☒ **Core Sampling**

Core samples consist of cuts through the roof membrane. The sample provides an absolute test of moisture content and location. The core cut also permits the constituents of the roof system, and their condition, to be determined. Core sample may be weighed, dried and reweighed to provide a quantitative measure of moisture content.

A cut is made into the roof with a two inch (2") circumference roof sampling tool. The repaired core cuts are made with an appropriate material.

EQUIPMENT USED

☐ The qualitative infrared scan was conducted by a certified thermographer using a Mikron 7515 uncooled infrared imager. Lens for the Mikron was 29 degree FOV, 320 X 240 array with 7.5-13 spectral response. Temperature sensitivity is .1 degree C with accuracy of 2%.

☐ Inframetrics-ThermaCAM PM390. Temperature sensitivity is <0.1 degree C with a spectral response of 3.4 to 5 µm and a focal array of 256 x 256.

☐ Inframetrics-ThermaCAM SC1000. Temperature sensitivity is <0.1 degree C and a focal array of 256 x 256.

☐ The qualitative infrared scan was conducted by a certified thermographer using a Mikron 7600 Pro. Lens was a 21-degree FOV lens, 320 X 240 focal plane array with 7.5-13 spectral response. Temperature sensitivity is .1 degree C with accuracy of 2%.

☒ Troxler 3216 Nuclear Backscatter Moisture Gauge

☒ Delmhorst (pin type) Moisture Meter

INFRARED PREDICTIVE SURVEYS INCORPORATED

FIELD SURVEY METHODS

Visual Observations

Visual observations were made by Infrared Predictive Surveys, Inc. (IPSI) personnel. These observations included roofing structure, roof drainage, roof surface conditions and other accessory items.

Photographic Documentation

Photographs were made by IPSI personnel. While these photographs were not intended to provide a complete record of the roof, they do provide a visual description of typical roof conditions or selected problem areas.

PROJECT IDENTIFICATION

Project Location

580 Gilead St., Hebron, CT 06248

NUCLEAR BACKSCATTER ROOF SCAN

Date(s) of Scan: March 6, 2020

This scan was performed in conjunction with the visual roof survey conducted the same day. The purpose of this scan was to locate areas of suspected subsurface moisture and determine the extent of the moisture migration.

Weather Conditions

March 6, 2020–Maximum daytime roof temperature: 50°F.

FINDINGS AND RESULTS

Notes

- Roof designations were made by IPSI personnel for reporting purposes only.
- A 10' x 10' grid pattern was used for all roof sections tested.

Roof A

- Three (3) suspected wet areas were found on this roof section.
  - Three (3) core cuts were taken on this roof section.
    - #CCA1 (Dry)
      - PVC
      - 1.5" Polyisocyanurate (0%)
      - 1.5" Polyisocyanurate (0%)
      - Metal Deck
    - #CCA2-Wet area #A1. (Wet)
      - PVC
      - 1.5" Polyisocyanurate (Top: 60%; Bottom: 75%)
      - 1.5" Polyisocyanurate (0%)
      - Metal Deck
    - #CCA3-Wet area #A1. (Wet)
      - PVC
      - 1.5" Polyisocyanurate (Top: 25%; Bottom: 2.7%)
      - 1.5" Polyisocyanurate (0%)
      - Metal Deck

Roof B

- No suspected wet areas were found on this roof section.
  - One (1) core cut was taken on this roof section.
    - #CCB1 (Dry)
      - PVC
      - 1.5" Polyisocyanurate (0%)
      - 1.5" Polyisocyanurate (0%)
      - Metal Deck

Roof C

- One (1) suspected wet area was found on this roof section.

Roof D

- No suspected wet areas were found on this roof section.

Roof E

- One (1) suspected wet area was found on this roof section.

INFRARED PREDICTIVE SURVEYS INCORPORATED

If additional information is required, please do not hesitate to contact me. Thank you again for giving us the opportunity to provide our services.

Sincerely,

Joseph Fitzpatrick
Infrared Predictive Surveys, Inc.
PO Box 224
Adamstown, MD 21710

Phone: 301-831-1978
Toll-Free: 800-869-3720
Fax: 301-874-2295
E-mail: joe@infraredpsi.com
Website: www.InfraredPSI.com

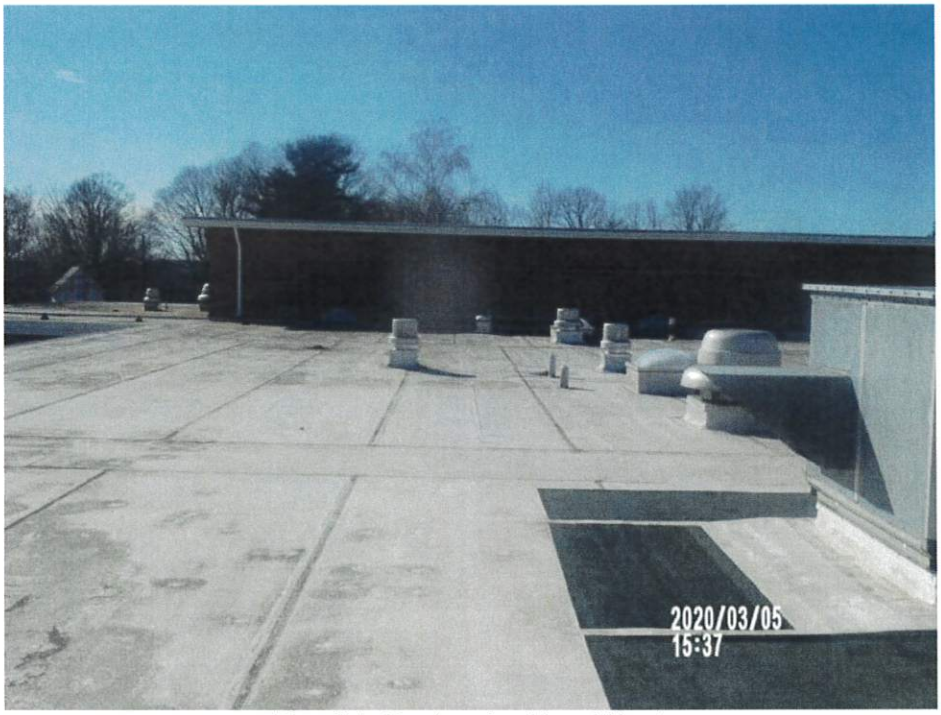
APPENDIX

- Digital Images
- CAD Drawing

School-looking East

Roof A-North side, looking West

Roof A-South side, looking West



Roof A-Center, looking West

Roof A-Center, looking East

Roof A-Wet area A-1, looking East

Roof A-Core cut #CC2 at wet area #A1 (Wet)

Roof A-Core cut #CC2 repaired, looking East

Roof A-Core cut #CC3 at wet area #A1 (Wet)

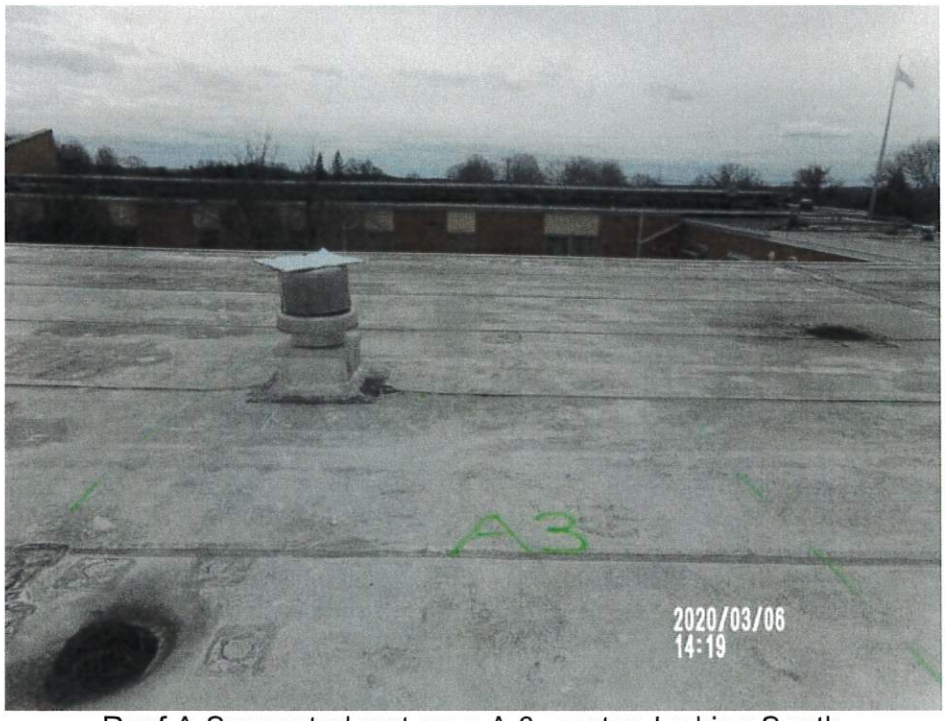
Roof A-Core cut #CC3 repaired, looking East

Roof A-Core cut #CC1 (Dry)

Roof A-Core cut #CC1 repaired, looking East

Roof A-Suspected wet area A-2, looking South

Roof A-Suspected wet area A-3, center, looking North



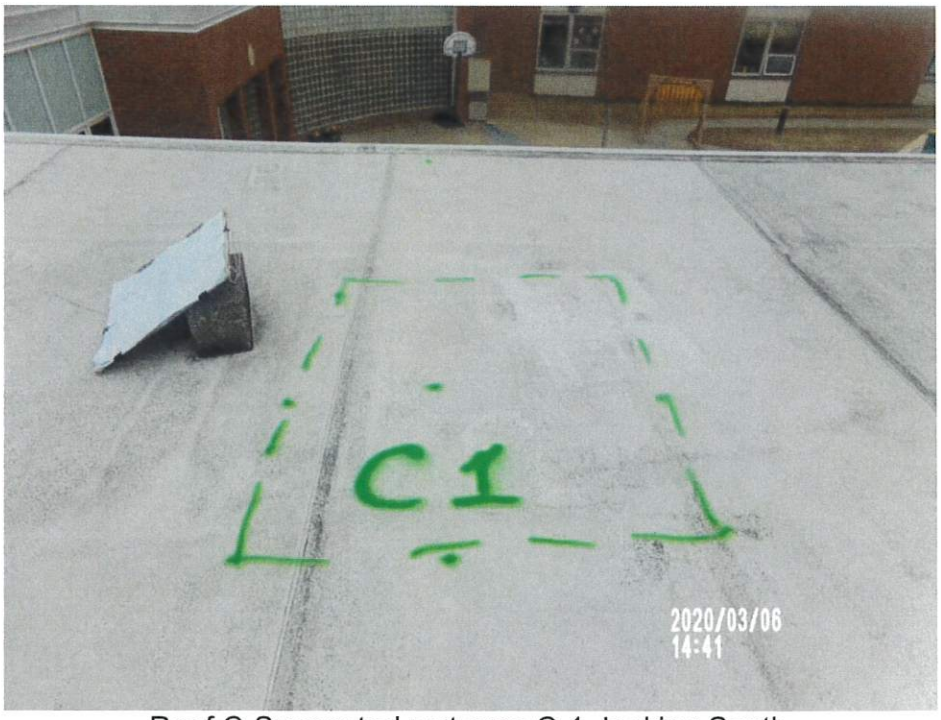
Roof A-Suspected wet area A-3, center, looking South

Roof B-Looking North

Roof B-Core cut #CCB1 (Dry)

Roof B-Core cut #CCB1 repaired, looking East

Roof C-Looking North



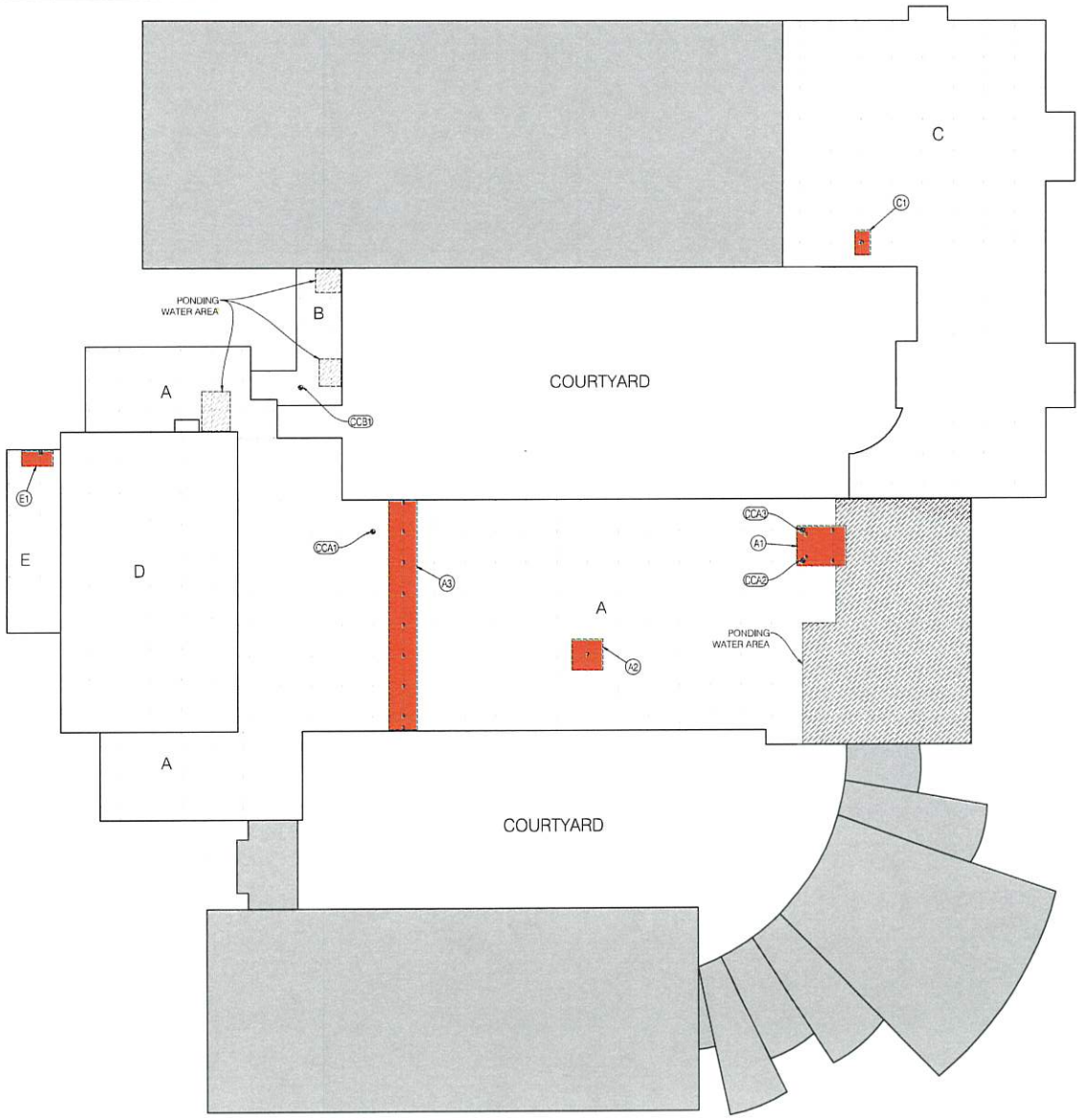
Roof C-Suspected wet area C-1, looking South

Roof D-Looking South

Roof E-Looking South

Roof E-Suspected wet area E-1, West side, looking North

Roof E-Suspected wet area E-1, East side, looking North



ROOF SCAN OVERVIEW N

'A' TOTAL SUSPECTED WET SQ FT = 983

AREA#	SIZE			SQ FT	NOTES
A1	16	x	13	208	CCA2, CCA3
A2	10	x	10	100	–
A3	9	x	75	675	–

'C' TOTAL SUSPECTED WET SQ FT = 40

AREA#	SIZE			SQ FT	NOTES
C1	5	x	8	40	–

'E' TOTAL SUSPECTED WET SQ FT = 50

AREA#	SIZE			SQ FT	NOTES
E1	10	x	5	50	–

SCAN NOTES:

- GRAY ROOF INDICATES AREA NOT SCANNED
- SUSPECTED MOISTURE AREAS SHADED RED
- NUCLEAR READINGS TAKEN ON A ' x ' GRID U.N.O.
- CC# – CORE CUT NUMBER, P# = PROBE NUMBER
- DATE OF SCAN : 03.06.20

TREMCO

GILEAD HILL SCHOOL
580 GILEAD ST.
HEBRON, CT 06248

BUILDING ROOF - MOISTURE SCAN

INFRARED PREDICTIVE SURVEYS INCORPORATED	DRAWN:	DATE DRAWN:	REV:	SHEET NO.
	AJR	03/16/20	0	845A

HEBRON PUBLIC SCHOOLS

HIGH EXPECTATIONS, BRIGHT FUTURES

Roof Analysis for:

Gilead Hill School

580 Gilead St. Hebron, CT

GENERAL INFORMATION:

ROOF AREAS:	5 Roofing Sections (A-E)
SQUARE FOOTAGE:	41,000 square feet (approx.)
DATE INSTALLED:	1998 (est.)

ROOF COMPOSITION:

MEMBRANE:	PVC Single Ply
INSULATION:	Polyisocyanurate 3" base layer (Ave R 18)
DECK:	Metal

Inspector Notes:

- Roofs currently performing in Poor to Fair condition
- Diagnostics proved 1,073sqft of wet insulation, 3% found, 5 areas
- Signs of membrane delamination
- Thermal bridging occurring along joints
- Discolored membrane
- Significant ponding (roof A- 5,200sf, roof B – 400sf)
- Algae growth

mboudreau@tremcoinc.com • www.tremcoroofing.com

RECOMMENDATIONS: Repairs, Restoration

Repairs

1. Remove & Replace 1,073 square feet of wet insulation found during the thermal scan located on roof levels A, C, & E returning overall roofing system observed to a dry condition.
2. Consider adding tapered crickets & saddles to all identified ponding areas to promote positive drainage (5,400 square feet of ponding area)
3. Consider adding additional drains to assist positive drainage of ponding water conditions (roof A)
4. Consider cleaning the roofing membrane of all roof contaminants using RoofTec Cleaning program (EPA compliant roof cleaning program, https://www.rooftecsystems.net/)

Long-Term Restoration Solutions

Alpha Guard BIO NR Roof Restoration (Better Option): Clean all roofing areas clean if all debris & oils. Replace all found wet insulation areas and replace in kind. Prime all roofing areas to receive restorative materials. Apply Alpha Guard BIO Base coat to all roofing areas at 2.5gl/sq embedding reinforcements to all seams and flashing systems. After initial coat has cured properly, install Alpha Guard Top coat at 1-1.5gl/sq to all roof surfaces to complete. Provide a 15year QA Watertight Warranty with inspections at years 2, 5, 10, & 15. On year 15, the Tremco Field Advisor will provide warranty extension or recoat solutions to prolong the existing roof system.

Alpha Guard BIO Full Reinforced Roof Restoration (Best Option): Clean all roofing areas clean if all debris & oils. Replace all found wet insulation areas and replace in kind. Prime all roofing areas to receive restorative materials. Apply Alpha Guard BIO Base coat to all roofing areas at 3gl/sq embedding reinforcements to all roofing areas. After initial coat has cured properly, install Alpha Guard Top coat at 2gl/sq to all roof surfaces to complete. Provide a 20year QA

HEBRON PUBLIC SCHOOLS

HIGH EXPECTATIONS, BRIGHT FUTURES

Watertight Warranty with inspections at years 2, 5, 10, & 15. On year 20, the Tremco Field Advisor will provide warranty extension or recoat solutions to prolong the existing roof system.

ROOF CATEGORY: **Repairs & Restoration vs. Replacement**
BUDGET ESTIMATE:

Roof Name	Roof Square Feet	Repairs & Maintenance	15 Year Restoration	20 Year Restoration	Vs. 20 Year Replacement
A & B	1,073	$14,500 (Repairs only)			
A & B	5,400	$81,000 (Ponding Areas)			
All Levels	77,000	$6,500 (Tremcare Maintenance)			
Roofs A-E	41,000		$390k - $450k	$480k - $550k	$700k - $900k

mboudreau@tremcoinc.com • www.tremcoroofing.com

CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Kaitlyn Shelar — Contact Person for Question: Kaitlyn Shelar

Department: Board of Education — Date Prepared: 11/01/23

1. Project Title: **Roof-HES**
2. Department Priority: 3

3. Purpose of Project Request Form (check one)

	Add a new item to the program		Continue a CIP request in the same year
x	Modify a project already in the program		Delete an item already a part of the program

4. Location: Hebron Elementary School

5. Description: Remove & Replace 100 sq. ft. of insulation on roof level B. Complete full 20 year reinforced roof restoration on all levels.

(If this request is part of a regular equipment-replacement program, please attach a copy of that schedule.)

6. Justification and Useful Life:

7. Requested Cost Estimates for:

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$ 160,000.00					

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:

8. Project Cost Summary:

Equipment Acquisition:		
Property Acquisition:		
Planning / Engineering / Legal:		
Construction:		160,000.00
Furnishings / Equipment:		
Contingency / Other:		
TOTAL COST:	$	160,000.00

9. Recommended Method of Financing:

	%	
Taxes / Current revenues:	44.28%	$70,855.09
Grants:		
Finance - Lease:		
Bonds:		
Capital reserve:		
Other:	55.72%	$89,144.91
TOTAL FINANCING:	$	160,000.00

10. Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.

This project has been identified as an "essential project", as these roof repairs fall into two bullet descriptors: facilities/ equipment maintenance, and severity of need for the project. If unattended to, this could create an unsafe space for students, and would escalate this project to a "core project" on the grounds of health and safety concerns.

11. If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.

$60,000 Allocated in FY23 for roof study

12. Reserved:

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

INFRARED PREDICTIVE SURVEYS INCORPORATED

INFRARED ROOF INSPECTION

Hebron Elementary School

FOR:

Tremco
Mr. Mike Boudreau

DATE:

March 11, 2020

BY:

Infrared Predictive Surveys, Inc.
P.O. Box 224
Adamstown, MD 21710

Phone: 301-831-1978
Toll Free: 800-869-3720
Fax: 301-874-2295

INFRARED PREDICTIVE SURVEYS INCORPORATED

SYNOPSIS

An Infrared survey of the roofs was made at the Hebron Elementary School, located at 92 Church St., Hebron, CT. Visual observations have been made and the data has been documented.

INTRODUCTION

This report has been prepared for the exclusive use of Mike Boudreau at Tremco, for the specific application of the roofs at 92 Church St., Hebron, CT.

Authorization

Authorization to perform this evaluation, analysis and Infrared roof scan was in the form of a written agreement between Mike Boudreau at Tremco and Infrared Predictive Surveys Inc. (IPSI)

Scope

The scope of the roof survey included infrared thermography, capacitance and core sampling verification. Data from this survey has been incorporated into this final report.

Purpose

The purpose of the roof survey was to gain an overview of the condition of the roof areas.

General

Observations described in this report are based upon roof at the time of the survey and these conditions may change as the roof ages.

Infrared Predictive Surveys, Inc. warrants that these findings are published after being prepared in accordance with generally accepted practices of the construction industry. No other warranties are implied or expressed.

INFRARED PREDICTIVE SURVEYS INCORPORATED

TEST INSTRUMENT DESCRIPTION

(Only testing that has been completed during your survey will be checked.)

☒ Infrared Testing

The infrared roof survey locates moisture in a roof by seeking areas of increased surface temperature. Roof areas that contain moisture have higher thermal conductivity and capacitance than dry areas. During the heating season, heat from the building interior is lost at a greater rate through wet roof areas and their surface temperatures are elevated. Alternatively, during the cooling season, solar heat is absorbed into the wet area, and then retained for hours after the sun sets.

When viewed through the infrared imager, wet areas appear as brighter, lighter tones of gray in black-and-white images. Alternatively, in color images, wet areas will appear as hotter colors. A color scale appears at the side of color images. As colors progress upward, temperatures increase. In general, the higher the concentration of water, the higher the surface temperatures.

Because higher surface temperatures, and consequently hotter colors, may be produced by several phenomena not related to moisture intrusion, tests are made to verify the findings of the infrared inspection using destructive testing (core cuts) and other non-destructive tests (capacitance & nuclear). Wet areas found by infrared testing are illustrated with thermograms (photographs of infrared images).

☒ Capacitance (Verification)

The Tramex capacitance meter is a mobile device that is used for detecting relative moisture content of roof areas. This non-destructive testing method is often combined with nuclear and thermal testing and/or moisture intrusion testing to accurately identify water entry pathways and areas of entrapped water. The Tramex moisture meter is designed for testing built up roofing and non-conductive single ply membrane. It provides instantaneous, clear indications of roof conditions and is able to detect as little as 2% excess moisture in roofing systems.

☒ **Core Sampling**

Core samples consist of cuts through the roof membrane. The sample provides an absolute test of moisture content and location. The core cut also permits the constituents of the roof system, and their condition, to be determined. Core sample may be weighed, dried and reweighed to provide a quantitative measure of moisture content.

A cut is made into the roof with a two inch (2") circumference roof sampling tool. The repaired core cuts are made with an appropriate material.

☐ **Nuclear Backscatter-Verification**

A radioactive isotope consisting of Americium-241 with a Beryllium target is utilized. The measurement method relies on the thermalization (slowing) of fast neutrons by the hydrogen atoms in water. Since other Hydrogen bearing materials also thermalize neutrons, a measurement survey is necessary to establish a relative base level before an analysis can be performed.

The meter used, Troxler 3216, is a portable instrument with a periodic counter to measure the rate of thermalization of neutrons.

EQUIPMENT USED

☐ The qualitative infrared scan was conducted by a certified thermographer using a Mikron 7515 uncooled infrared imager. Lens for the Mikron was 29 degree FOV, 320 X 240 array with 7.5-13 spectral response. Temperature sensitivity is .1 degree C with accuracy of 2%.

☒ FLIR PM1000

☒ Tramex Meter

INFRARED PREDICTIVE SURVEYS INCORPORATED

FIELD SURVEY METHODS

Visual Observations

Visual observations were made by Infrared Predictive Surveys, Inc. (IPSI) personnel. These observations included roofing structure, roof drainage, roof surface conditions and other accessory items.

Photographic Documentation

Photographs were made by IPSI personnel. While these photographs were not intended to provide a complete record of the roof, they do provide a visual description of typical roof conditions or selected problem areas.

PROJECT IDENTIFICATION

Project Location

92 Church St., Hebron, CT

INFRARED ROOF SCAN

Date of Scan: October 18, 2019

This scan was performed in conjunction with the visual roof survey conducted the same day. The purpose of this scan was to locate areas of suspected subsurface moisture and determine the extent of the moisture migration.

Environmental Conditions

October 18, 2019-Scan time temperature: 62˚F.

FINDINGS AND RESULTS

Infrared Findings

Roof A

- No suspected wet areas were found on this roof section.

Roof B

- One (1) wet area was found on this roof section.
  - One (1) core cut was taken at wet area #B1.
    - #CC1 (Wet)
      - TPO
      - 1.5" Polyisocyanurate (Top: 70%; Bottom: 67%)
      - ½" Polyisocyanurate (Top: 78%; Bottom: 77%)
      - 3" Polyisocyanurate (Top: 72%; Bottom: 0%)
      - Metal Deck

Roof C

- No suspected wet areas were found on this roof section.

Roof D

- No suspected wet areas were found on this roof section.

Roof E

- No suspected wet areas were found on this roof section.

INFRARED PREDICTIVE SURVEYS INCORPORATED

If additional information is required, please do not hesitate to contact me. Thank you again for giving us the opportunity to provide our services.

Sincerely,

Joseph Fitzpatrick
Infrared Predictive Surveys, Inc.
PO Box 224
Adamstown, MD 21710

Phone: 301-831-1978
Toll-Free: 800-869-3720
Fax: 301-874-2295
E-mail: joe@infraredpsi.com
Website: www.InfraredPSI.com

INFRARED PREDICTIVE SURVEYS INCORPORATED

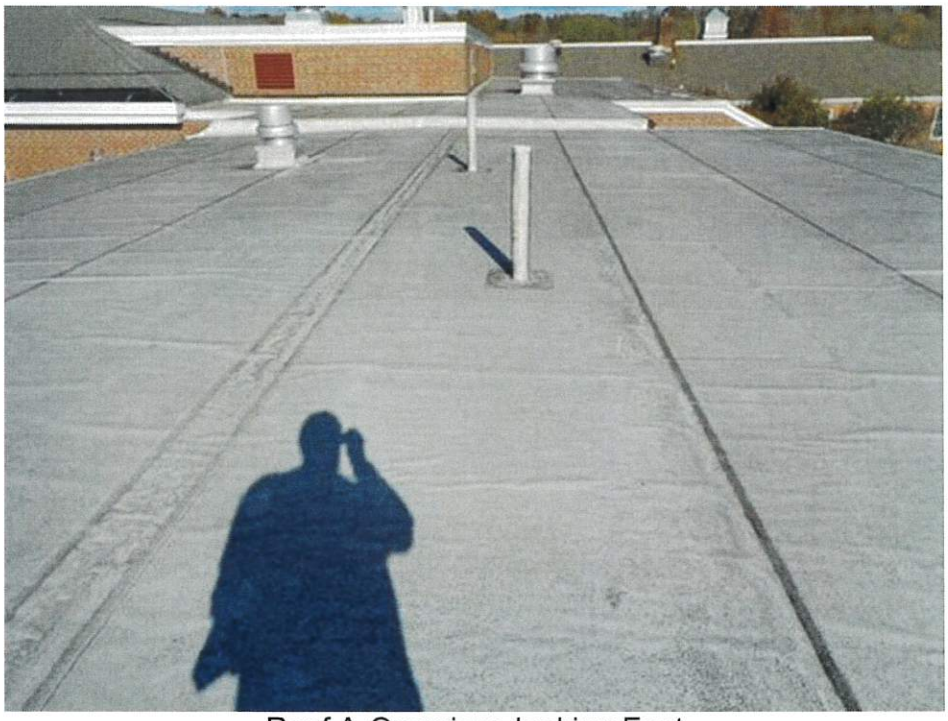
APPENDIX

- Maintenance Program
- Digital Photographs
- Infrared Photographs
- CAD Drawing

Hebron Elementary School


North side of building, looking South

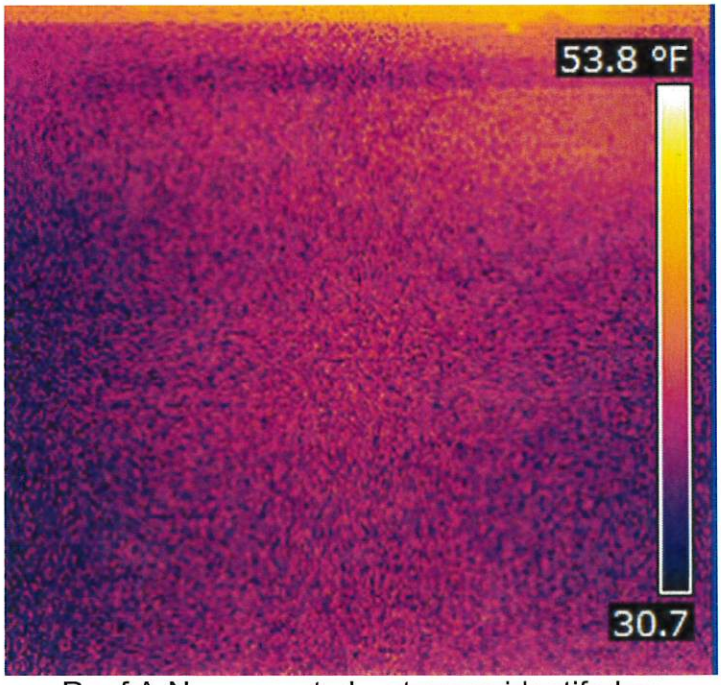
Roof A-Overview, looking North



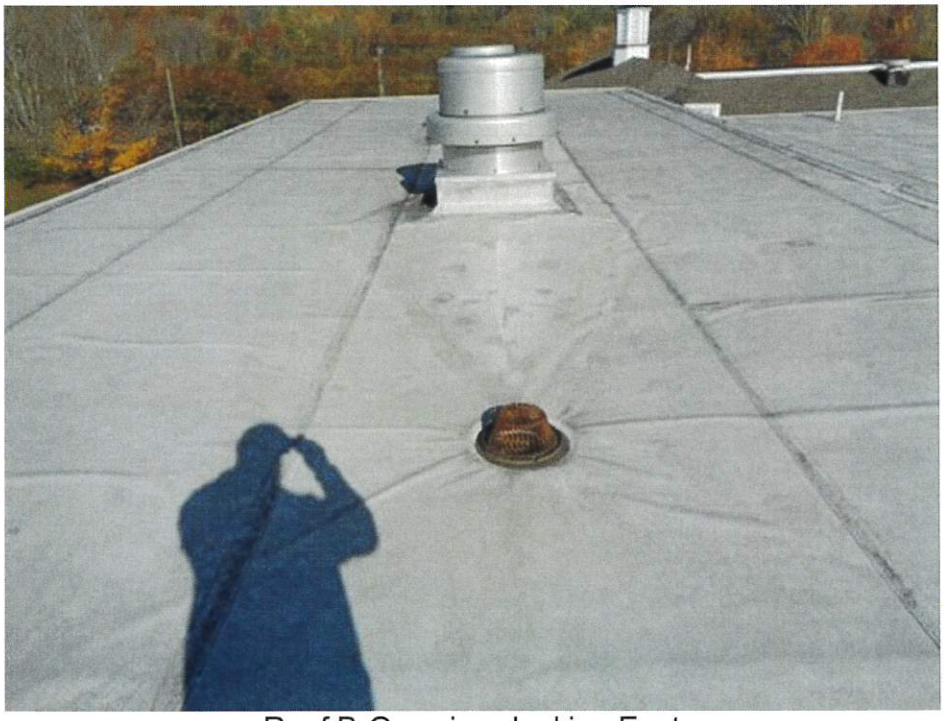
Roof A-Overview, looking East

Roof A-Overview, looking South

Roof A-Overview, looking West



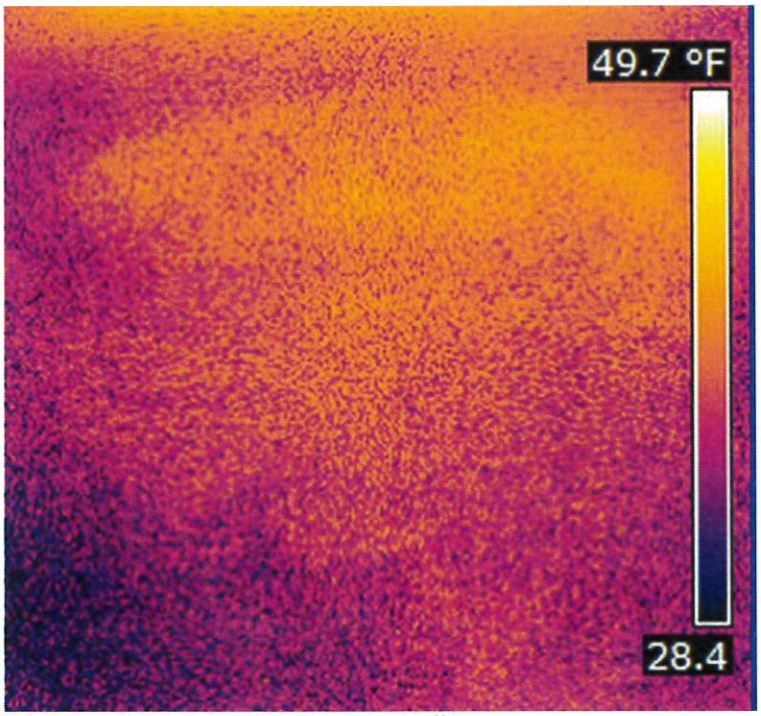
Roof A-No suspected wet areas identifed or recorded on this roof section.


Roof B-Overview, looking East

Roof B-Wet area #1, looking East


Core Cut #CC1-TPO, 1 1/2" Polyisocyanurate, 1/2" Polyisocyanurate, 3" Polyisocyanurate and a metal deck. (Wet)

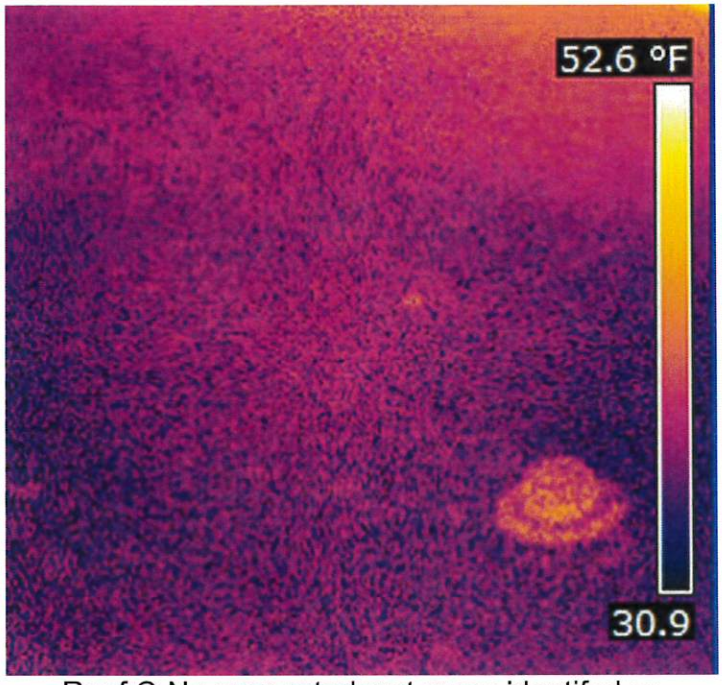
Core Cut #CC1 repaired



Wet area #1

Roof C-Overview, looking North

Roof C-Overview, looking East

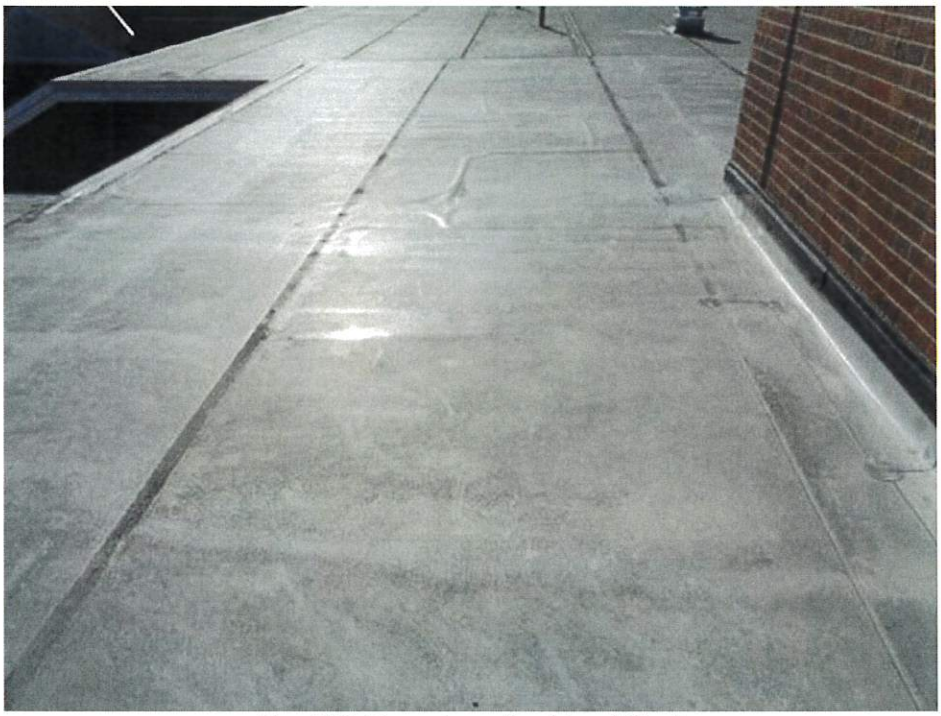


Roof C-No suspected wet areas identifed or recorded on this roof section.

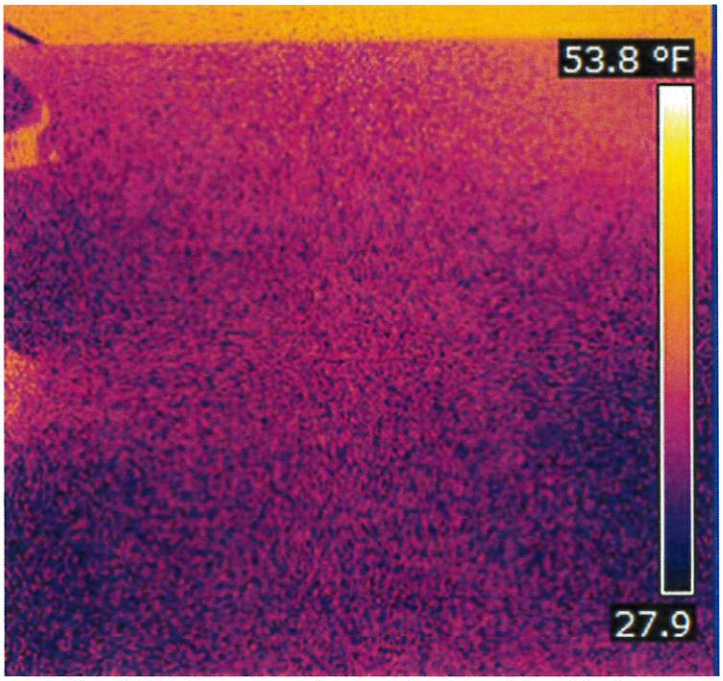

Roof D-Overview, looking North

Roof D-Overview, looking East

Roof D-Overview, looking South

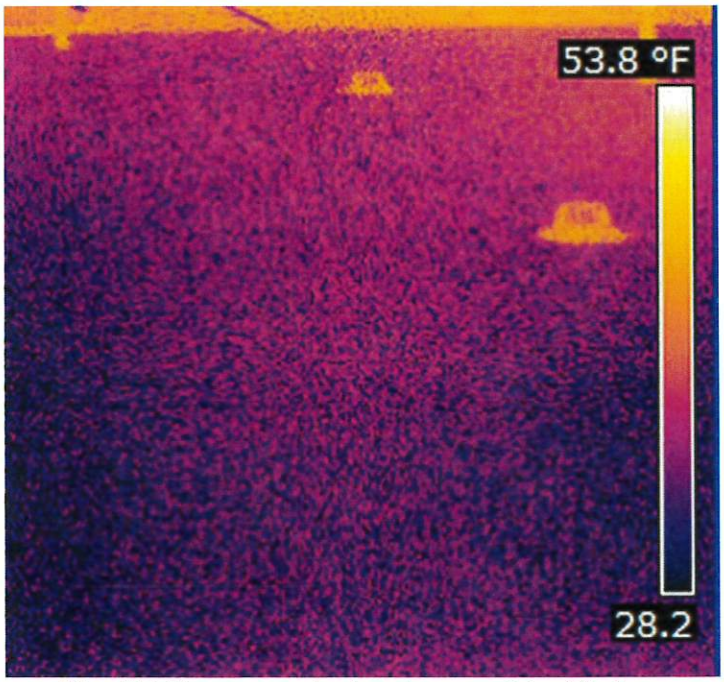


Roof D-Overview, looking West



Roof D-No suspected wet areas identifed or recorded on this roof section.

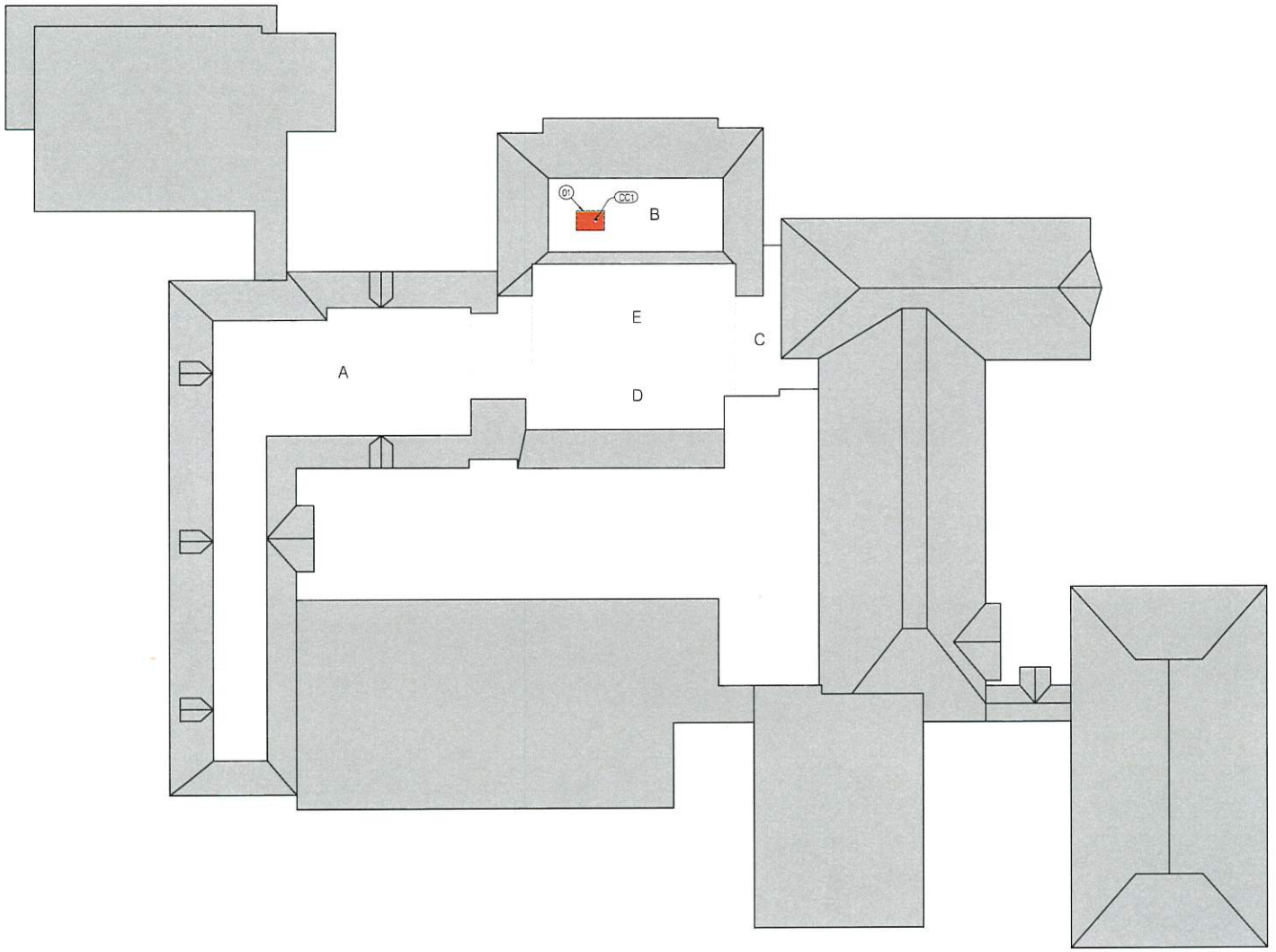
Roof E-Overview, looking East



Roof E-No suspected wet areas identifed or recorded on this roof section.

'B' TOTAL SUSPECTED WET SQ FT = 70

AREA#	SIZE			SQ FT	NOTES
01	10	x	7	70	CC1



ROOF SCAN OVERVIEW

SCAN NOTES:

- GRAY ROOF INDICATES AREA NOT SCANNED
- SUSPECTED MOISTURE AREAS SHADED RED
- NUCLEAR READINGS TAKEN ON A 'x' GRID U.N.O.
- CC# = CORE CUT NUMBER, P# = PROBE NUMBER
- DATE OF SCAN : 10.18.19

TREMCO

HEBRON ES
92 CHURCH ST.
HEBRON, CT

BUILDING ROOF - MOISTURE SCAN

INFRARED PREDICTIVE SURVEYS INCORPORATED	DRAWN:	DATE DRAWN:	REV:	SHEET NO.
	AJR	03/16/20	0	844A

HEBRON PUBLIC SCHOOLS

HIGH EXPECTATIONS, BRIGHT FUTURES

Roof Analysis for:

Hebron Elementary

92 Church St. Hebron, CT

GENERAL INFORMATION:

ROOF AREAS:	5 Roofing Sections (A-E)
SQUARE FOOTAGE:	14,600 square feet (approx.)
DATE INSTALLED:	2000 (est.)

ROOF COMPOSITION:

MEMBRANE:	PVC Single Ply
INSULATION:	Taperd Polyisocyanurate 3.5" base layer (Ave R 25)
DECK:	Metal

Inspector Notes:

- Roofs currently performing in fair condition
- No current leaks reported internally
- Diagnostics proved 70sqft of wet insulation < 1% found
- Signs of membrane delamination
- Thermal bridging occurring along joints
- Discolored membrane

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HEBRON PUBLIC SCHOOLS

HIGH EXPECTATIONS, BRIGHT FUTURES

RECOMMENDATIONS: Repairs, Restoration

Repairs

1. Remove & Replace 100 square feet of wet insulation found during the thermal scan located on roof level B returning overall roofing system observed to a dry condition.
2. Consider cleaning the roofing membrane of all roof contaminants using RoofTec Cleaning program (EPA compliant roof cleaning program, https://www.rooftecsystems.net/)

Long-Term Restoration Solutions

Alpha Guard BIO NR Roof Restoration (Better Option): Clean all roofing areas clean if all debris & oils. Replace all found wet insulation areas and replace in kind. Prime all roofing areas to receive restorative materials. Apply Alpha Guard BIO Base coat to all roofing areas at 2.5gl/sq embedding reinforcements to all seams and flashing systems. After initial coat has cured properly, install Alpha Guard Top coat at 1-1.5gl/sq to all roof surfaces to complete. Provide a 15year QA Watertight Warranty with inspections at years 2, 5, 10, & 15. On year 15, the Tremco Field Advisor will provide warranty extension or recoat solutions to prolong the existing roof system.

Alpha Guard BIO Full Reinforced Roof Restoration (Best Option): Clean all roofing areas clean if all debris & oils. Replace all found wet insulation areas and replace in kind. Prime all roofing areas to receive restorative materials. Apply Alpha Guard BIO Base coat to all roofing areas at 3gl/sq embedding reinforcements to all roofing areas. After initial coat has cured properly, install Alpha Guard Top coat at 2gl/sq to all roof surfaces to complete. Provide a 20year QA Watertight Warranty with inspections at years 2, 5, 10, & 15. On year 20, the Tremco Field Advisor will provide warranty extension or recoat solutions to prolong the existing roof system.

HEBRON PUBLIC SCHOOLS

HIGH EXPECTATIONS, BRIGHT FUTURES

ROOF CATEGORY: **Repairs & Restoration vs. Replacement**
BUDGET ESTIMATE:

Roof Name	Roof Square Feet	Repairs & Maintenance	15 Year Restoration	20 Year Restoration	Vs. 20 Year Replace ment
B	100	$6,250 (Repairs only)			
All Levels	14,600		$100k - $125k	$130k - $160k	$260k - $325k
All Levels	74,000	$5,900 (Tremcare Maintenance)			

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CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Sharon Garrard **Contact Person for Questions:** Sharon Garrard / Paul Forrest

Department: Senior Services **Date Prepared:** 12/21/23

1. Project Title: Reclaim Fine Grade & Pave Senior Center Parking Lot

2. Department Priority: Core

3. Purpose of Project Request Form (check one)

X	Add a new item to the program		Continue a CIP request in the same year
	Modify a project already in the program		Delete an item already a part of the program

4. Location: Russell Mercier Senior Center

5. Description: Reclaim Fine Grade & Pave Senior Center Upper & Lower Parking Lot plus additional materials to address drainage
In-kind labor can be used before the paving is done with the purchase of necessary additional paving materials not included in All States Materials Group Proposal

(If this request is part of a regular equipment replacement program, please attach a copy of that schedule.)

6. Justification and Useful Life: Current parking lot has numerous cracks, divots and uneven pavement which create a tripping/fall/injury concern. Additionally, drainage is poor creating hazardous icing conditions; Useful life 30 years

7. Requested Cost Estimates for:

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$ 100,000.00					

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:

8. Project Cost Summary:

Equipment Acquisition:	
Property Acquisition:	
Planning / Engineering / Legal:	
Construction:	100,000.00
Furnishings / Equipment:	
Contingency / Other:	
TOTAL COST:	**$ 100,000.00**

9. Recommended Method of Financing:

	%	
Taxes / Current revenues:	100	100,000.00
Grants:		
Finance - Lease:		
Bonds:		
Capital reserve:		
Other:		
TOTAL FINANCING:		**$ 100,000.00**

10. Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.

Core: Current condition of parking lot creates hazardous conditions with concerns for tripping, falls, and injuries

11. If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.

12. Reserved:

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

ALL STATES MATERIALS GROUP
PO Box 91, Sunderland, MA 01375

Contractor:
☐All States Construction, Inc. 413.665.7021
☐Warner Bros., LLC 413.665.4055

PROPOSAL - CONTRACT

Buyer

Name: Town Of Hebron
Address: Highway Dept.
City: Hebron State: CT Zip:
Contact: Paul I Forest
Telephone: 860-573-4650 Ext:
Facsimile: 860-228-5988 Cell:
Email:

Project

Description: Reclaim Fine Grade and Pave
Location: Senior Center Hebron
Owner: Engineer:
Job No.:
Date: 12-18-23
May be withdrawn after 30 days
General Contractor:

The above Contractor is pleased to propose the following Scope of Work:

		ESTIMATED QUANTITIES	PRICE
Reclaim Remove Curb, Fine Grade and Roll Gravel (Excess Material Removed by Town)		**2,300 SQYDS**	**$ 7.75 Per SQYD**
Machine Pave 2" Binder Coarse 1 ½" Top Coarse	**.5**	**265 Tons**	**$ 125.00 Per Ton**
With HMA .5 and .375 Super Pave	**.375**	**198 Tons**	**$ 130.00 Per Ton**
6 Inch Curb Furnish and Install on Top Course		**1,195 LFT**	**$ 7.75 Per LFT**

NOTES:
1.) Final job cost based on per ton per slip count for Paving and Square Yard for Reclamation.
2.) Liquid escalation clause based at $ 585.00.
3.) All Traffic Control and Signage done by Town.
4.) All special permits and notifications done by Town.
5.) Milling Machine for Key Cuts $ 500.00 per hour.
6.) All layout and engineering done by Town.
7.) If required Calcium Chloride $ 4.00 per gallon.
8.) Driveway Aprons saw cutting $ 10.00 LFT.
9.) Traffic Control available $ 10.00 per ton.

17825
33125
25740
9261.25
85,951.25

Paving Details

Ready for Paving by	Required Complete by	Time of Day Restrictions	Day of Week Restrictions	Price Firm Through	Existing Subbase

Provided by:	Fine grade Contr	Fine grade Buyer	Sweeping Contr	Sweeping Buyer	Joint cutting Contr	Joint cutting Buyer	Fine grade compact Contr	Fine grade compact Buyer	Structure adjust Contr	Structure adjust Buyer	Traffic control Contr	Traffic control Buyer	Additional materials

State Spec	Certified	Retainage Allowed	Taxable	Berm Price	Handwork Price	Tack Coat Price
	Y (N)	0 %	Y (N) Incl	$ 8.00	$ 275.00	$10.00 Per Gal.

MOBILIZATIONS: Prices are based on 1 mobilization(s). Additional mobilizations which become necessary will be subject to a charge of $12,000.00 each.
ESCALATION: Prices are based upon current liquid asphalt costs, which are not guaranteed by suppliers and, therefore, subject to sudden adjustment during the term of this agreement. The base cost (index) of asphalt for this quote is $ 585.00 per ton. Any increase in this index will necessitate an additional charge of $ .060 per TON for every $1.00 per ton increase in the cost of liquid asphalt.
NOTE: All fees, permits, and engineering will be the responsibility of the Buyer unless otherwise noted above. No bonds will be supplied. Above quantities are estimates only and are subject to adjustment determined by Field Measure unless otherwise noted above. Payment terms are net 30 days, no retainage is permitted by Buyer, unless stated above, and subject to credit approval. Contractor may set off past due balances against any amount due or which becomes due to the Buyer from Contractor or any of its affiliates or subsidiaries. Balances not paid within above terms are subject to default interest at 1.5% monthly percentage rate. In such event, Buyer agrees to reimburse Contractor all collection costs including reasonable attorney's fees and court costs. Contractor reserves all rights to file lawfully permitted liens and seek other lawful remedies.

BY SIGNING BELOW, BUYER ACKNOWLEDGES AND AGREES THAT IT HAS ALSO READ AND APPROVED CONTRACTOR'S STANDARD CONDITIONS, ON THE REVERSE SIDE, AS REQUIRED INCLUDED PARTS OF THIS CONTRACT. This Contract constitutes the entire agreement between the Contractor and Buyer and may only be modified by a written amendment executed by both parties. This Proposal is accepted upon receipt of Buyer's signature, and the Contract is effective as of the date of Contractor's signature tendered to Buyer. Executed by both parties as a sealed instrument.

BUYER
Signature _____ Date _____
Name _____ Title _____

CONTRACTOR
Signature BRUCE PAIGE Date _____
Name _____ Title _____

CAPITAL PROJECTS/INFRASTRUCTURE REQUEST

Request Prepared By: Matthew R. Bordeaux **Contact Person for Questions:** Matthew R. Bordeaux

Department: Planning and Development **Date Prepared:** 11/15/23

1. **Project Title:** Horton House Improvements
2. **Department Priority:** #1

3. **Purpose of Project Request Form (check one)**

	Add a new item to the program		Continue a CIP request in the same year
	Modify a project already in the program		Delete an item already a part of the program

4. **Location:** 8 Marjorie Circle

5. **Description:** See Attached.

(If this request is part of a regular equipment replacement program, please attach a copy of that schedule.)

6. **Justification and Useful Life:** Historic Buildling occupied by Planning and Development Dept requires improvements for safety, proficient working environment and structural integrity

7. **Requested Cost Estimates for:**

2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
$81,600					

If your estimate is indexed for inflation, indicate the adjustment percent (%) used or method of deriving the calculated future cost:

8. **Project Cost Summary:**

Equipment Acquisition:	
Property Acquisition:	
Planning / Engineering / Legal:	
Construction:	
Furnishings / Equipment:	
Contingency / Other:	
TOTAL COST:	

9. **Recommended Method of Financing:**

	%	
Taxes / Current revenues:		
Grants:		
Finance - Lease:		
Bonds:		
Capital reserve:		
Other:		
TOTAL FINANCING:		

10. **Please review the funding priorities in the CIP Policy Document. What priority(ies) does your request fall under and write a brief description as to how your request meets the CIP criteria for priority funding.**

This request will address an immediate health and safety concern. As an historic structure under the Town's care, it is our responsibility to maintain and address issues that have a potential impact on employee and customer safety, as well as the asthetic appeal of the building on a highly visible corner in the Hebron Green Village District.

11. **If the project funding is over several years, outline the schedule for completing the project, and what work has been done in prior years, including studies or other planning.**

12. **Reserved:**

CIP Action:

Funding Recommendation:
BOS Action:
BOF Action:

Town Manager Review: / /

(complete one sheet for each request)

Horton House Repairs

The Horton House is occupied by the Planning and Development Department. The structure has a Preservation Restriction administered by the CT State Historic Preservation Office. The House has seen many renovations over the years including heating and cooling, and new windows.

As a result of a flooding event, the basement walls were stripped of gypsum board, presumably to prevent mold from growing, however no follow-up improvements were made. Electrical wiring, security equipment, baseboard heating and related piping are now suspended, not secured, and in a general unfinished condition. Further, it was brought to my attention during an inspection as part of the Facilities' Conditions Assessment (FCA) conducted by Bureau Veritas, that structural degradation was identified and could become a growing concern, if not addressed.

Likewise, due to its age, the Horton House demands more frequent maintenance than you can get away with on a new structure. As a Town-owned, historic asset, at a highly visible traffic intersection, the structure warrants special attention.

Exterior Improvements - The House must be painted, the north side is in need of attention now. Typically, a wall should be painted once every 4-5 years. Cleaning could increase the length of time between required painting. Several of the green shutters have broken, fallen off or been removed and not replaced. They should be replaced. Estimated cost supported by Draft FCA - $32,100

Interior Improvements - The bathrooms may have been renovated within memory but are now in need of revisitation. Certain interior features need work as well, including water damaged windowsills, light and vent fan fixtures, etc. The windows need to be cleaned, including the window wells where debris can collect and cause water retention and rot. The flooring needs to be replaced. Estimated cost supported by Draft FCA - $12,000

Basement – Wiring, presumably electrical and communications, needs to be repaired. This will likely require some walls to be framed, which may require some waterproofing. The baseboard heating should either be repaired or removed. Unless the basement walls are waterproofed and insulated, it's unclear to me whether heating is necessary. At least once since the significant flooding event that caused the basement walls to be demolished, water has penetrated the walls and deposited a significant amount of silt on the floor. Estimated cost supported by Draft FCA - $6,400

Structural Integrity – After review of the building files and inspection of the structure, the assessor/inspector from Bureau Veritas that visited the Horton House questioned some structural elements of the building, as well as the load capacity of the floor where records are kept. A recommendation was made to have a structural review conducted and improvements made. Draft FCA Estimate - $31,100