Arlington Conservation Commission

Date: Thursday, June 5, 2025
Time: 7:00 PM
Location: Conducted by Remote Participation.

Please register in advance for this meeting. Reference materials, instructions, and access information for this specific meeting will be available 48 hours prior to the meeting on the Commission's agenda and minutes page. This meeting will be conducted in a remote format consistent with An Act Extending Certain COVID-19 Measures Adopted During the State of Emergency, which further extends certain COVID-19 measures regarding remote participation in public meetings until June 30, 2027. Please note: Not all items listed may in fact be discussed and other items not listed may be brought up for discussion to the extent permitted by law. This agenda includes those matters which can be reasonably anticipated to be discussed at the meeting.

Agenda

1. Administrative
    a. Review Meeting Minutes.
    b. Correspondence Received.
2. Discussion
    a. Arlington High School Building Committee Artificial Turf Test Results.
    b. Fishing Line Impacts Update.
    c. Vote on Floodplain Regulations.
    d. Water Bodies Working Group.
        1. Vote to add New Member Michelle Durocher.
    e. CPA Committee Liaison.
    f. Tree Committee Update.
    g. Symmes Conservation Restriction.
    h. Recreation Department Update.
    i. Mt. Gilboa Conservation Area Feasibility Study Review.
3. Hearings

Notice of Intent: 39 Reed Street (DEP #091-0370).

Notice of Intent: 39 Reed Street (DEP #091-0370).

The Arlington Conservation Commission will hold a public hearing to consider a Notice of Intent under the Wetlands Protection Act and Arlington Bylaw for Wetlands Protection for construction of an addition and screened porch to a single-family dwelling at 39 Reed Street within the 200' Riverfront Area to Reed's Brook, 100' Buffer Zone, and 100' Adjacent Upland Resource Area.

Correspondence Received.

Summary:
Correspondence Received.

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Correspondence_Received_-_Fishing_at_Menotomy_Rocks_-_Julie_Ford.pdf	Correspondence Received - Fishing at Menotomy Rocks - Julie Ford.pdf
🗋	Reference Material	Correspondence_Received_-_Fishing_at_Menotomy_Rocks_-_Susan_Chapnick.pdf	Correspondence Received - Fishing at Menotomy Rocks - Susan Chapnick.pdf
🗋	Reference Material	Correspondence_Received_-_Fishing_at_Menotomy_Rocks_-_Toshia_McCabe.pdf	Correspondence Received - Fishing at Menotomy Rocks - Toshia McCabe.pdf

Julie Ford

Free Bird & Wildlife Rehabilitation Inc.
501c3 EIN 92-2160089 USFWS permit #3651894
19 Valentine Road
Hopkinton, MA 01748
508-625-0365
jford175@comcast.net

May 19, 2025

Town of Arlington
Town Manager James Feeney
Parks and Recreation Dept.
Conservation Commission

Dear Town of Arington Officials,

As you discuss fishing options at various bodies of water around the area, I'd like to share my personal experience as a state and federally permitted rehabilitator in Hopkinton.

I met Laura late summer last year, when she arrived with a very stressed juvenile Black-crowned Night Heron from Spy Pond. She untangled the majority of the discarded line, and brought heron to Hopkinton. When I examined the bird I found a very large salt water fishing lure attached to the tissues under the right wing, and to the right thigh. These lures can not be pulled out, they will do extensive tissue damage. We had to carefully cut off the barbs, and remove the lure. I sent the heron to Tufts for sedation and sutures the following day. Tufts did an amazing job fixing up the heron, but the window for migration was closing. After a few weeks at Tufts, heron was released back to Spy Pond in time for migration, thankfully. Migratory birds need to be in perfect flight condition to make their journeys, and most can not be held over the winter for rehab, the stress of captivity on some species is lethal.

We have also had an American Crow since last fall, after being found 60 feet in the air, struggling in fishing line, over a pond in Belmont. Fortunately, our crow has no permanent physical injuries, but can not fly due to ALL primary feathers being shredded and sheared off while struggling in the discarded fishing line. American Crows molt much slower than other birds, only once per year at the end of summer, similar to raptors' molt..

As I write this letter, I am consulting finders at a pond in Hopedale that have discovered 2 young Goslings, tangled together in fishing line. This is a very

preventable issue. Birds need safe, clean areas to live and raise their young, with as little human interference as possible, including left over garbage like fishing line and dangerous lures dangling in the trees.

Sincerely,

Julie Ford

David Morgan

From: Susan D. Chapnick <s.chapnick@comcast.net>
Sent: Thursday, May 29, 2025 3:23 PM
To: David Morgan; Chuck Tirone; ConComm
Cc: Natasha Waden
Subject: Fw: fishing line issue

Categories: ConCom Correspondence

Please see below communication from Laura Kiesel that the city of Malden paused fishing due to fishing line injury to goslings.
Susan

Susan D. Chapnick

From: Laura Kiesel <lakiesel@gmail.com>
Sent: Monday, May 26, 2025 1:10 PM
To: Susan D. Chapnick <s.chapnick@comcast.net>
Subject: Re: fishing line issue

Sounds good. See you then. In the meantime, it looks like the City of Malden just put in a fishing pause at a popular fishing spot this weekend after several goslings were injured after being entangled in fishing line waste there. Last night, my volunteers pulled another dead Great Blue Heron entangled in a fishing line--this time @ Medford Boat House near the Arlington border.

David Morgan

From: Toshia McCabe <toshia@fcolors.com>
Sent: Wednesday, May 28, 2025 11:53 AM
To: Natasha Waden
Cc: Jim Feeney; ConComm
Subject: Fishing at Hill's Pond

Categories: ConCom Correspondence

Toshia McCabe
43 Scituate St. Arlington, MA 02476
toshia@fcolors.com

Natasha Waden
Director of Recreation and Community Services
nwaden@town.arlington.ma.us

May 28, 2025

Dear Director Waden,

As a resident of Arlington for over 23 years and a birder, I was horrified to learn of the recent decision of the Arlington Parks and Recreation department to continue to allow fishing at Hill's Pond at Menotomy Rocks Park. Despite the entanglement and death of a Great Blue Heron at Hill's Pond, the presumed death of another heron that swallowed a bobber and hook, the constant mess in the trees, several assertions that Hill's Pond is inappropriate for fishing, and hundreds of signatures to pause fishing, Arlington has decided to look the other way.

As I understand it, most of the fishing line litter originates from unsupervised children at the pond. Instead of using this crisis as an opportunity to teach children to appreciate and respect wildlife, Arlington is enabling more wildlife casualties and destruction of habitat, leaving children none the wiser.

It's disconcerting that the primary force protecting wildlife from fishing lines is a group of volunteers and the unpaid nonprofit Save Arlington Wildlife. Without their intervention, the park would likely suffer much greater numbers of wildlife casualties. Arlington needs to step up and take more responsibility for this situation.

I urge you to reconsider and place an immediate moratorium on fishing at Hill's Pond.

Sincerely,

Toshia McCabe
Arlington Resident

CC: Town Manager Jim Feeney (jfeeney@town.arlington.ma.us), Arlington Conservation Commission (concomm@town.arlington.ma.us)

Arlington High School Building Committee Artificial Turf Test Results.

Summary:
Arlington High School Building Committee Artificial Turf Test Results.

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	AHSBC_Memo_to_ConCom_5-29-2025.pdf	AHSBC Memo to ConCom_5-29-2025.pdf
🗋	Reference Material	Synthetic_Turf_Fibers_ASTM-2765_(Lead)_test_results.pdf	Synthetic Turf Fibers ASTM-2765 (Lead) test results.pdf
🗋	Reference Material	Synthetic_Turf_Fibers-CAM17-metals_and_PFAS_test_results.pdf	Synthetic Turf Fibers-CAM17-metals and PFAS test results.pdf
🗋	Reference Material	Synthetic_Turf_Infill-CAM17-metals_and_PFAS_test_results.pdf	Synthetic Turf Infill-CAM17-metals and PFAS test results.pdf

ARLINGTON HIGH SCHOOL BUILDING COMMITTEE

Date: May 29, 2025

From: Arlington High School Building Committee

To: Arlington Conservation Commission

Re: Arlington High School Order of Conditions

Dear Members of the Conservation Commission:

This memo is in support of our requested working session on June 5, 2025.

We are pleased to report that the Arlington High School building project is presently on time and within budget. We expect to complete the project by September 2025, which will allow AHS students to use our new fields, both for competitions and gym classes. Thanks to your support, the fields will significantly increase the amount of time our students are able to enjoy outdoor recreation.

In 2020, the Arlington High School Building Committee (AHSBC) agreed with an enhanced battery of tests for turf products to ensure that the product placed on the fields protected users and the nearby waterway. As we have worked diligently through the submittal and testing process for the artificial turf field, it has become evident that one of the 17 heavy metals included in the CAM-17 protocol will exceed the identified threshold. The artificial turf field testing of the infill material and fibers has passed all typical, applicable tests, including ASTM 2765 (lead in fiber), ASTM 3188 (8 metals in infill) and EPA-1633 for PFAS (infill and fiber). However, testing infill and fibers per the CAM-17 protocol using EPA Method-6010D passed all metals of concern (arsenic, mercury, antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, vanadium) except for zinc within the infill material.

This may be understandable or even expected given that zinc plays a critical role in the manufacture of tires, and EPA method 6010D is an extremely aggressive testing method which turns a solid into gas by

means of acid digestion followed by the sample solution being aspirated (i.e. nebulized) to determine trace elements in aqueous solutions. It is clear the detection of zinc using this test method does not accurately represent the in-situ conditions the infill material will experience over its 10 to 15-year lifespan, if ever.

The Order of Conditions, as amended in 2024, requires the Town as owners of the property to take steps necessary to protect Mill Brook by installing screen baskets that will catch any infill material that migrates into the trench drain, and a test port to test the water that leaves the sports fields for the purpose of testing for 6ppd-quinone, another chemical known to be in tires. The Arlington High School Committee wishes to discuss potential strategies regarding additional leachate testing to provide future information as to any levels of zinc in the synthetic turf drainage runoff as we make a good faith effort to substantially comply with the Order of Conditions in service of the community.

We look forward to collaborating with the Conversation Commission on possible next steps to ensure the project is completed as planned by September of 2025.

Sincerely,

The Arlington High School Building Committee

78 LONDONDERRY TPK UNIT D5
HOOKSETT, NH 03106
PHONE: (603) 715-5453
EMAIL: CONTACT@FIREFLYSPORTSTESTING.COM
WEBSITE: WWW.FIREFLYSPORTSTESTING.COM

Laboratory Test Report

Arlington-Field Green/Lime Green Blend Synthetic Turf

Job No.	100673/10848
Client Information	Sprinturf 146 Fairchild St Suite 150 Daniel Island, SC 29492
Outsource Laboratory Information	Eurofins MTS Consumer Product Testing US, Inc. 349 Lenox Street Norwood, MA 02062
Test Method	ASTM F2765 Standard Specification for Total Lead Content in Synthetic Turf Fibers
Sample Arrival Date	5/12/2025
Test Date(s)	5/15/2025-5/22/2025
Report Date	5/27/2025
Report Status	Final

Prepared by *Adam Kalil*
Laboratory Manager

Checked by *Jeffrey Gentile*
Co-Founder & CFO

Notes:
1. This report has been prepared by Firefly Sports Testing with all reasonable skill, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
2. This report is confidential to the Client and Firefly Sports Testing accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.
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TEST REPORT

LAB LOCATION: Norwood, MA USA
DATE IN: May 15, 2025

REPORT NUMBER: 67425-05006-1
DATE OUT: May 22, 2025

To:	Firefly Sports Testing		
Contact:	Adam Kalil		
Address:	78 Londonderry Tpk. Unit D5 Hooksett, NH 03106 United States		
Tel:	6037155453	**Fax:**	/
E-mail:	contact@fireflysportstesting.com		
Copy To:	/		

OVERALL RATING

SATISFACTORY	**X**
UNSATISFACTORY	
Subject to Client's Approval	

NOTE: RATING IS BASED ON TESTING LAB RESULTS. FINAL ACCEPTANCE OR REJECTION IS PER CLIENT ONLY.

Sample Information			
Product Description:	100673-Arlington-Field Green/Lime Green Blend		
Item/ Style Number:	202505071-1		
Purchase Order Number:	200011379	**No. of Sample Submitted:**	5
Lot/Batch/Tracking Info:	-	**Date of Manufacture:**	-
Country of Origin:	USA	**Country of Destination:**	-
Vendor/ Agent:	-	**Manufacturer:**	Sprinturf

Testing Status							
☐	**Pre-production**	☒	**Production**	☐	**Retest**	☐	**Previous Report No.:**
Other/ Comments:							

For and on behalf of
Eurofins MTS Consumer Product Testing US, LLC (Norwood, MA)

John R. Gerringer

John Gerringer, Analytical Director

Eurofins MTS' smart screening approach is a restricted substance pre-screening method that effectively ensures compliance for any countries that do not require mandatory certification test reports based on a specified test method. Any positive detection results from the screening test will trigger individual tests to be performed according to the preferred test method of the country that restricts the detected substance. For any countries that require mandatory certification test reports based on a specified test method, individual tests will be performed according to the specified test methods to ensure compliance.

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TEST REPORT

Sample Photo:

Testing Result Summary				
Test Property	**SAT** **PASS**	**UNSAT** **FAIL**	**Subject to Client's Approval**	**COMMENTS**
ASTM 2765 Lead Content in Synthetic Turf Fibers	**X**			**See Test Results Below**

COMPONENT BREAKDOWN LIST:

Test Item(s)	Component Description
A	**Turf Samples**
A1	100673-Arlington-Field Green/Lime Green Blend (Grass)
A2	100673-Arlington-Field Green/Lime Green Blend (Base)

TEST RESULTS:

Total Lead Content – Client's Requirement with reference to ASTM F2765 Total Lead Content in Synthetic Turf Fibers

Test Item	Accessibility (Remark 1)	Classification	Total Lead (Pb) (ppm)		Conclusion
			Result	Limit	
A1	Accessible as received	Accessible substrate	<10	100	**PASS**
A2	Accessible as received	Accessible substrate	<10	100	**PASS**

Method: With reference to US EPA 3052. The lead content was analyzed by Inductively Coupled Argon Plasma Spectrometer / Inductively Coupled Mass Spectrometer.

Note: ppm = part per million = mg/kg (milligram per kilogram)

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TEST REPORT

"<" = less than

****End of Test Report****

NOTE:

If there is question or concern regarding the above results, please contact the lab person below:

Technical question & concern:
John Gerringer
Director - Analytical
Phone: 508-638-1793
John.Gerringer@cpt.Eurofinsus.com

78 LONDONDERRY TPK UNIT D5
HOOKSETT, NH 03106
PHONE: (603) 715-5453
EMAIL: CONTACT@FIREFLYSPORTSTESTING.COM
WEBSITE: WWW.FIREFLYSPORTSTESTING.COM

Laboratory Test Report

Arlington-Vegas Gold Synthetic Turf

Job No.	100674/10849
Client Information	Sprinturf 146 Fairchild St Suite 150 Daniel Island, SC 29492
Outsource Laboratory Information	Eurofins MTS Consumer Product Testing US, Inc. 349 Lenox Street Norwood, MA 02062
Test Method	ASTM F2765 Standard Specification for Total Lead Content in Synthetic Turf Fibers
Sample Arrival Date	5/12/2025
Test Date(s)	5/15/2025-5/22/2025
Report Date	5/27/2025
Report Status	Final

Prepared by *Adam Kalil*
Laboratory Manager

Checked by *Jeffrey Gentile*
Co-Founder & CFO

Notes:
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TEST REPORT

LAB LOCATION: Norwood, MA USA
DATE IN: May 15, 2025

REPORT NUMBER: 67425-050060-2
DATE OUT: May 22, 2025

To:	Firefly Sports Testing		
Contact:	Adam Kalil		
Address:	78 Londonderry Tpk. Unit D5 Hooksett, NH 03106 United States		
Tel:	6037155453	**Fax:**	/
E-mail:	contact@fireflysportstesting.com		
Copy To:	/		

OVERALL RATING

SATISFACTORY	**X**
UNSATISFACTORY	
Subject to Client's Approval	

NOTE: RATING IS BASED ON TESTING LAB RESULTS. FINAL ACCEPTANCE OR REJECTION IS PER CLIENT ONLY.

Sample Information			
Product Description:	100674-Arlington-Vegas Gold		
Item/ Style Number:	202505071-2		
Purchase Order Number:	200011379	**No. of Sample Submitted:**	5
Lot/Batch/Tracking Info:	-	**Date of Manufacture:**	-
Country of Origin:	USA	**Country of Destination:**	-
Vendor/ Agent:	-	**Manufacturer:**	Sprinturf

Testing Status							
☐	**Pre-production**	☒	**Production**	☐	**Retest**	☐	**Previous Report No.:**
Other/ Comments:							

For and on behalf of
Eurofins MTS Consumer Product Testing US, LLC (Norwood, MA)

John R. Gerringer

John Gerringer, Analytical Director

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TEST REPORT

Sample Photo:

Testing Result Summary				
Test Property	SAT PASS	UNSAT FAIL	Subject to Client's Approval	COMMENTS
ASTM 2765 Lead Content in Synthetic Turf Fibers	X			See Test Results Below

COMPONENT BREAKDOWN LIST:

Test Item(s)	Component Description
A	Turf Samples
A3	100674-Arlington-Vegas Gold (Grass)
A4	100674-Arlington-Vegas Gold (Base)

TEST RESULTS:

Total Lead Content – Client's Requirement with reference to ASTM F2765 Total Lead Content in Synthetic Turf Fibers

Test Item	Accessibility (Remark 1)	Classification	Total Lead (Pb) (ppm)		Conclusion
			Result	Limit	
A3	Accessible as received	Accessible substrate	<10	100	PASS
A4	Accessible as received	Accessible substrate	<10	100	PASS

Method: With reference to US EPA 3052. The lead content was analyzed by Inductively Coupled Argon Plasma Spectrometer / Inductively Coupled Mass Spectrometer.

Note: ppm = part per million = mg/kg (milligram per kilogram)

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TEST REPORT

"<" = less than

****End of Test Report****

NOTE:

If there is question or concern regarding the above results, please contact the lab person below:

Technical question & concern:
John Gerringer
Director - Analytical
Phone: 508-638-1793
John.Gerringer@cpt.Eurofinsus.com

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HOOKSETT, NH 03106
PHONE: (603) 715-5453
EMAIL: CONTACT@FIREFLYSPORTSTESTING.COM
WEBSITE: WWW.FIREFLYSPORTSTESTING.COM

Laboratory Test Report

Arlington-Maroon Synthetic Turf

Job No.	100676/10851
Client Information	Sprinturf 146 Fairchild St Suite 150 Daniel Island, SC 29492
Outsource Laboratory Information	Eurofins MTS Consumer Product Testing US, Inc. 349 Lenox Street Norwood, MA 02062
Test Method	ASTM F2765 Standard Specification for Total Lead Content in Synthetic Turf Fibers
Sample Arrival Date	5/12/2025
Test Date(s)	5/15/2025-5/22/2025
Report Date	5/27/2025
Report Status	Final

Prepared by *Adam Kalil*
Laboratory Manager

Checked by *Jeffrey Gentile*
Co-Founder & CFO

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TEST REPORT

LAB LOCATION: Norwood, MA USA
DATE IN: May 15, 2025

REPORT NUMBER: 67425-050060
DATE OUT: May 22, 2025

To:	Firefly Sports Testing		
Contact:	Adam Kalil		
Address:	78 Londonderry Tpk. Unit D5 Hooksett, NH 03106 United States		
Tel:	6037155453	**Fax:**	/
E-mail:	contact@fireflysportstesting.com		
Copy To:	/		

OVERALL RATING

SATISFACTORY	**X**
UNSATISFACTORY	
Subject to Client's Approval	

NOTE: RATING IS BASED ON TESTING LAB RESULTS. FINAL ACCEPTANCE OR REJECTION IS PER CLIENT ONLY.

Sample Information			
Product Description:	100676-Arlington-Maroon		
Item/ Style Number:	202505071-5		
Purchase Order Number:	200011379	**No. of Sample Submitted:**	5
Lot/Batch/Tracking Info:	-	**Date of Manufacture:**	-
Country of Origin:	USA	**Country of Destination:**	-
Vendor/ Agent:	-	**Manufacturer:**	Sprinturf

Testing Status							
☐	**Pre-production**	☒	**Production**	☐	**Retest**	☐	**Previous Report No.:**
Other/ Comments:							

For and on behalf of
Eurofins MTS Consumer Product Testing US, LLC (Norwood, MA)

John R. Gerringer

John Gerringer, Analytical Director

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TEST REPORT

Sample Photo:

Testing Result Summary				
Test Property	**SAT** **PASS**	**UNSAT** **FAIL**	**Subject to Client's Approval**	**COMMENTS**
ASTM 2765 Lead Content in Synthetic Turf Fibers	**X**			**See Test Results Below**

COMPONENT BREAKDOWN LIST:

Test Item(s)	Component Description
A	**Turf Samples**
A9	100676-Arlington-Maroon (Grass)
A10	100676-Arlington-Maroon (Base)

TEST RESULTS:

Total Lead Content – Client's Requirement with reference to ASTM F2765 Total Lead Content in Synthetic Turf Fibers

Test Item	Accessibility (Remark 1)	Classification	Total Lead (Pb) (ppm)		Conclusion
			Result	Limit	
A9	Accessible as received	Accessible substrate	<10	100	**PASS**
A10	Accessible as received	Accessible substrate	<10	100	**PASS**

Method: With reference to US EPA 3052. The lead content was analyzed by Inductively Coupled Argon Plasma Spectrometer / Inductively Coupled Mass Spectrometer.

Note: ppm = part per million = mg/kg (milligram per kilogram)
"<" = less than

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TEST REPORT

****End of Test Report****

NOTE:

If there is question or concern regarding the above results, please contact the lab person below:

Technical question & concern:
John Gerringer
Director - Analytical
Phone: 508-638-1793
John.Gerringer@cpt.Eurofinsus.com

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EMAIL: CONTACT@FIREFLYSPORTSTESTING.COM
WEBSITE: WWW.FIREFLYSPORTSTESTING.COM

Laboratory Test Report

Arlington-White Synthetic Turf

Job No.	100677/10852
Client Information	Sprinturf 146 Fairchild St Suite 150 Daniel Island, SC 29492
Outsource Laboratory Information	Eurofins MTS Consumer Product Testing US, Inc. 349 Lenox Street Norwood, MA 02062
Test Method	ASTM F2765 Standard Specification for Total Lead Content in Synthetic Turf Fibers
Sample Arrival Date	5/12/2025
Test Date(s)	5/15/2025-5/22/2025
Report Date	5/27/2025
Report Status	Final

Prepared by *Adam Kalil*
Laboratory Manager

Checked by *Jeffrey Gentile*
Co-Founder & CFO

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TEST REPORT

LAB LOCATION: Norwood, MA USA
DATE IN: May 15, 2025

REPORT NUMBER: 67425-050060-3
DATE OUT: May 22, 2025

To:	Firefly Sports Testing		
Contact:	Adam Kalil		
Address:	78 Londonderry Tpk. Unit D5 Hooksett, NH 03106 United States		
Tel:	6037155453	**Fax:**	/
E-mail:	contact@fireflysportstesting.com		
Copy To:	/		

OVERALL RATING

SATISFACTORY	**X**
UNSATISFACTORY	
Subject to Client's Approval	

NOTE: RATING IS BASED ON TESTING LAB RESULTS. FINAL ACCEPTANCE OR REJECTION IS PER CLIENT ONLY.

Sample Information			
Product Description:	100677-Arlington-White		
Item/ Style Number:	202505071-3		
Purchase Order Number:	200011379	**No. of Sample Submitted:**	5
Lot/Batch/Tracking Info:	-	**Date of Manufacture:**	-
Country of Origin:	USA	**Country of Destination:**	-
Vendor/ Agent:	-	**Manufacturer:**	Sprinturf

Testing Status							
☐	**Pre-production**	☒	**Production**	☐	**Retest**	☐	**Previous Report No.:**
Other/ Comments:							

For and on behalf of
Eurofins MTS Consumer Product Testing US, LLC (Norwood, MA)

John R. Gerringer

John Gerringer, Analytical Director

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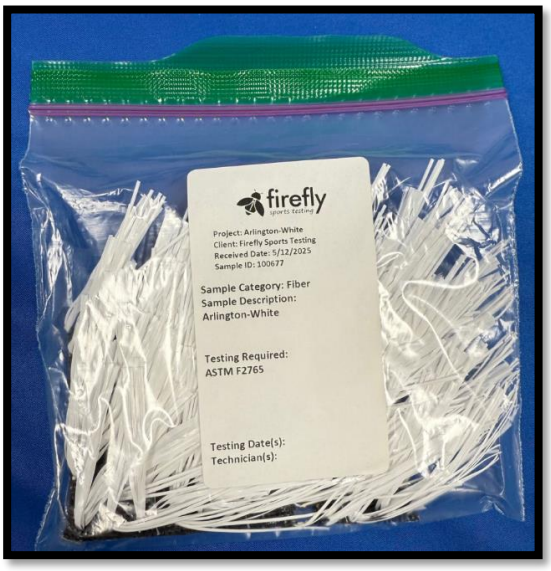
TEST REPORT

Report Number: 67425-050060

Sample Photo:



Testing Result Summary				
Test Property	SAT PASS	UNSAT FAIL	Subject to Client's Approval	COMMENTS
ASTM 2765 Lead Content in Synthetic Turf Fibers	X			See Test Results Below

COMPONENT BREAKDOWN LIST:

Test Item(s)	Component Description
A	Turf Samples
A5	100677-Arlington-White (Grass)
A6	100677-Arlington-White (Base)

TEST RESULTS:

Total Lead Content – Client's Requirement with reference to ASTM F2765 Total Lead Content in Synthetic Turf Fibers

Test Item	Accessibility (Remark 1)	Classification	Total Lead (Pb) (ppm)		Conclusion
			Result	Limit	
A5	Accessible as received	Accessible substrate	<10	100	PASS
A6	Accessible as received	Accessible substrate	<10	100	PASS

Method: With reference to US EPA 3052. The lead content was analyzed by Inductively Coupled Argon Plasma Spectrometer / Inductively Coupled Mass Spectrometer.

Note: ppm = part per million = mg/kg (milligram per kilogram)
"<" = less than

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TEST REPORT

****End of Test Report****

NOTE:

If there is question or concern regarding the above results, please contact the lab person below:

Technical question & concern:
John Gerringer
Director - Analytical
Phone: 508-638-1793
John.Gerringer@cpt.Eurofinsus.com

78 LONDONDERRY TPK UNIT D5
HOOKSETT, NH 03106
PHONE: (603) 715-5453
EMAIL: CONTACT@FIREFLYSPORTSTESTING.COM
WEBSITE: WWW.FIREFLYSPORTSTESTING.COM

Laboratory Test Report

Arlington-Gray Synthetic Turf

Job No.	100678/10853
Client Information	Sprinturf 146 Fairchild St Suite 150 Daniel Island, SC 29492
Outsource Laboratory Information	Eurofins MTS Consumer Product Testing US, Inc. 349 Lenox Street Norwood, MA 02062
Test Method	ASTM F2765 Standard Specification for Total Lead Content in Synthetic Turf Fibers
Sample Arrival Date	5/12/2025
Test Date(s)	5/15/2025-5/22/2025
Report Date	5/27/2025
Report Status	Final

Prepared by *Adam Kalil*
Laboratory Manager

Checked by *Jeffrey Gentile*
Co-Founder & CFO

Notes:
1. This report has been prepared by Firefly Sports Testing with all reasonable skill, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it.
2. This report is confidential to the Client and Firefly Sports Testing accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.
3. This report shall not be used for engineering or contractual purposes unless signed by the Author and the Checker and unless the report status is "Final."

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TEST REPORT

LAB LOCATION: Norwood, MA USA
DATE IN: May 15, 2025

REPORT NUMBER: 67425-050060
DATE OUT: May 22, 2025

To:	Firefly Sports Testing		
Contact:	Adam Kalil		
Address:	78 Londonderry Tpk. Unit D5 Hooksett, NH 03106 United States		
Tel:	6037155453	**Fax:**	/
E-mail:	contact@fireflysportstesting.com		
Copy To:	/		

OVERALL RATING

SATISFACTORY	**X**
UNSATISFACTORY	
Subject to Client's Approval	

NOTE: RATING IS BASED ON TESTING LAB RESULTS. FINAL ACCEPTANCE OR REJECTION IS PER CLIENT ONLY.

Sample Information			
Product Description:	100678-Arlington-Gray		
Item/ Style Number:	202505071-4		
Purchase Order Number:	200011379	**No. of Sample Submitted:**	5
Lot/Batch/Tracking Info:	-	**Date of Manufacture:**	-
Country of Origin:	USA	**Country of Destination:**	-
Vendor/ Agent:	-	**Manufacturer:**	Sprinturf

Testing Status							
☐	**Pre-production**	☒	**Production**	☐	**Retest**	☐	**Previous Report No.:**
Other/ Comments:							

For and on behalf of
Eurofins MTS Consumer Product Testing US, LLC (Norwood, MA)

John R. Gerringer

John Gerringer, Analytical Director

Eurofins MTS' smart screening approach is a restricted substance pre-screening method that effectively ensures compliance for any countries that do not require mandatory certification test reports based on a specified test method. Any positive detection results from the screening test will trigger individual tests to be performed according to the preferred test method of the country that restricts the detected substance. For any countries that require mandatory certification test reports based on a specified test method, individual tests will be performed according to the specified test methods to ensure compliance.

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TEST REPORT

Sample Photo:

Testing Result Summary				
Test Property	**SAT** **PASS**	**UNSAT** **FAIL**	**Subject to Client's Approval**	**COMMENTS**
ASTM 2765 Lead Content in Synthetic Turf Fibers	**X**			**See Test Results Below**

COMPONENT BREAKDOWN LIST:

Test Item(s)	Component Description
A	**Turf Samples**
A7	100678-Arlington-Gray (Grass)
A8	100678-Arlington-Gray (Base)

TEST RESULTS:

Total Lead Content – Client's Requirement with reference to ASTM F2765 Total Lead Content in Synthetic Turf Fibers

Test Item	Accessibility (Remark 1)	Classification	Total Lead (Pb) (ppm)		Conclusion
			Result	Limit	
A7	Accessible as received	Accessible substrate	<10	100	**PASS**
A8	Accessible as received	Accessible substrate	<10	100	**PASS**

Method: With reference to US EPA 3052. The lead content was analyzed by Inductively Coupled Argon Plasma Spectrometer / Inductively Coupled Mass Spectrometer.

Note: ppm = part per million = mg/kg (milligram per kilogram)
"<" = less than

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TEST REPORT

****End of Test Report****

NOTE:

If there is question or concern regarding the above results, please contact the lab person below:

Technical question & concern:
John Gerringer
Director - Analytical
Phone: 508-638-1793
John.Gerringer@cpt.Eurofinsus.com

Arlington HS – CAM 17 Test Results JJA Sports:NET (No Exceptions Taken)
April 07, 2025 Tests of Synthetic Fiber

Please see the below chart summarizing the metals data from Pace Analytical.

Metal	Detection Limit (mg/kg)	FG/LG Results (mg/kg)	White Results (mg/kg)	Gray Results (mg/kg)	Vegas Gold Results (mg/kg)	Maroon Results (mg/kg)	Result
Antimony	500	ND	5.4	1.8	ND	9.2	PASS
Arsenic	500	ND	ND	ND	ND	ND	PASS
Barium	10000	1.5	0.82	1.2	0.74	0.9	PASS
Beryllium	75	ND	ND	ND	ND	ND	PASS
Cadmium	100	ND	ND	ND	ND	ND	PASS
Chromium	2500	7.2	16.9	11.1	9.9	17.6	PASS
Cobalt	8000	ND	ND	ND	ND	ND	PASS
Copper	2500	1.5	0.56	ND	ND	0.73	PASS
Lead	1000	2.9	ND	0.8	0.56	ND	PASS
Molybdenum	3500	ND	ND	ND	ND	ND	PASS
Nickel	2000	20.3	ND	ND	ND	ND	PASS
Selenium	100	ND	ND	ND	ND	ND	PASS
Silver	500	ND	ND	ND	ND	ND	PASS
Thallium	700	ND	ND	ND	ND	ND	PASS
Vanadium	2400	ND	ND	ND	ND	ND	PASS
Zinc	5000	477	ND	ND	ND	ND	PASS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

April 07, 2025

Caitlin Olive
Sprinturf
146 Fairchild Street
Charleston, SC 29492

RE: Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Dear Caitlin Olive:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

This report was revised April 7, 2025, to report reanalysis results for 6010 and 7471 on all samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kirsten Hogberg
kirsten.hogberg@pacelabs.com
(612)607-1700
Project Manager

Enclosures

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10727316001	**FG/LG Blend**	Solid		03/14/25 11:50
10727316002	**White**	Solid		03/14/25 11:50
10727316003	**Gray**	Solid		03/14/25 11:50
10727316004	**Vegas Gold**	Solid		03/14/25 11:50
10727316005	**Maroon**	Solid		03/14/25 11:50

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1700 Elm Street
Minneapolis, MN 55414
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SAMPLE ANALYTE COUNT

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10727316001	**FG/LG Blend**	EPA 6010D	DM, IP	16	PASI-M
		EPA 7471B	LMW	1	PASI-M
		EPA 1633	AJG	65	PASI-M
10727316002	**White**	EPA 6010D	DM, IP	16	PASI-M
		EPA 7471B	LMW	1	PASI-M
		EPA 1633	AJG	65	PASI-M
10727316003	**Gray**	EPA 6010D	DM, IP	16	PASI-M
		EPA 7471B	LMW	1	PASI-M
		EPA 1633	AJG	65	PASI-M
10727316004	**Vegas Gold**	EPA 6010D	IP	16	PASI-M
		EPA 7471B	LMW	1	PASI-M
		EPA 1633	AJG	65	PASI-M
10727316005	**Maroon**	EPA 6010D	IP	16	PASI-M
		EPA 7471B	LMW	1	PASI-M
		EPA 1633	AJG	65	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: FG/LG Blend **Lab ID: 10727316001** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.001 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:51	7440-36-0	
Arsenic	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:51	7440-38-2	
Barium	**1.5**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:51	7440-39-3	
Beryllium	ND	mg/kg	0.25	1	03/24/25 07:43	03/26/25 12:51	7440-41-7	
Cadmium	ND	mg/kg	0.15	1	03/24/25 07:43	03/26/25 12:51	7440-43-9	
Chromium	**7.2**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:51	7440-47-3	
Cobalt	ND	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:51	7440-48-4	
Copper	**1.5**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:51	7440-50-8	
Lead	**2.9**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:51	7439-92-1	
Molybdenum	ND	mg/kg	0.75	1	03/24/25 07:43	03/26/25 12:51	7439-98-7	
Nickel	**20.3**	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:51	7440-02-0	
Selenium	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:51	7782-49-2	
Silver	ND	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:51	7440-22-4	
Thallium	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:51	7440-28-0	
Vanadium	ND	mg/kg	0.75	1	03/24/25 07:43	03/26/25 12:51	7440-62-2	
Zinc	**477**	mg/kg	2.0	1	03/24/25 07:43	03/26/25 12:51	7440-66-6	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.051 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**10.0**	mg/kg	0.95	1	04/04/25 08:47	04/04/25 13:12	7440-36-0	
Arsenic	ND	mg/kg	0.95	1	04/04/25 08:47	04/04/25 13:12	7440-38-2	
Barium	**1.7**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:12	7440-39-3	
Beryllium	ND	mg/kg	0.24	1	04/04/25 08:47	04/04/25 13:12	7440-41-7	
Cadmium	ND	mg/kg	0.14	1	04/04/25 08:47	04/04/25 13:12	7440-43-9	
Chromium	**31.5**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:12	7440-47-3	
Cobalt	ND	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:12	7440-48-4	
Copper	**3.6**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:12	7440-50-8	
Lead	**1.4**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:12	7439-92-1	
Molybdenum	ND	mg/kg	0.71	1	04/04/25 08:47	04/04/25 13:12	7439-98-7	
Nickel	**9.5**	mg/kg	0.95	1	04/04/25 08:47	04/04/25 13:12	7440-02-0	
Selenium	ND	mg/kg	1.9	2	04/04/25 08:47	04/04/25 15:42	7782-49-2	D3
Silver	ND	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:12	7440-22-4	
Thallium	ND	mg/kg	0.95	1	04/04/25 08:47	04/04/25 13:37	7440-28-0	
Vanadium	ND	mg/kg	0.71	1	04/04/25 08:47	04/04/25 13:12	7440-62-2	
Zinc	**428**	mg/kg	1.9	1	04/04/25 08:47	04/04/25 13:12	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.331 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	**0.047**	mg/kg	0.018	1	03/21/25 17:02	03/27/25 11:13	7439-97-6	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: FG/LG Blend **Lab ID: 10727316001** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.346 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	ND	mg/kg	0.017	1	04/01/25 13:15	04/04/25 08:59	7439-97-6	
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.395 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
11Cl-PF3OUdS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	763051-92-9	
3:3 FTCA	ND	ug/kg	3.6	1	03/18/25 13:50	03/19/25 11:22	356-02-5	
4:2 FTS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	757124-72-4	
5:3 FTCA	ND	ug/kg	17.9	1	03/18/25 13:50	03/19/25 11:22	914637-49-3	
6:2 FTS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	27619-97-2	
7:3 FTCA	ND	ug/kg	17.9	1	03/18/25 13:50	03/19/25 11:22	812-70-4	
8:2 FTS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	756426-58-1	
ADONA	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	919005-14-4	
HFPO-DA	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	13252-13-6	
NEtFOSAA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	2991-50-6	
NEtFOSA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	4151-50-2	
NEtFOSE	ND	ug/kg	7.2	1	03/18/25 13:50	03/19/25 11:22	1691-99-2	
NFDHA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:22	151772-58-6	
NMeFOSAA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	2355-31-9	
NMeFOSA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	31506-32-8	
NMeFOSE	ND	ug/kg	7.2	1	03/18/25 13:50	03/19/25 11:22	24448-09-7	
PFBS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	375-73-5	
PFDA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	335-76-2	
PFHxA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	307-24-4	
PFBA	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:22	375-22-4	
PFDS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	335-77-3	
PFDoS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	79780-39-5	
PFEESA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:22	113507-82-7	
PFHpS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	375-92-8	
PFMBA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:22	863090-89-5	
PFMPA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:22	377-73-1	
PFNS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	68259-12-1	
PFOSA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	754-91-6	
PFPeA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:22	2706-90-3	
PFPeS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	2706-91-4	
PFDoA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	307-55-1	
PFHpA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	375-85-9	
PFHxS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	355-46-4	
PFNA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	375-95-1	
PFOS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	1763-23-1	
PFOA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	335-67-1	
PFTeDA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	376-06-7	

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: FG/LG Blend **Lab ID: 10727316001** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.395 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
PFTrDA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	72629-94-8	
PFUnA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:22	2058-94-8	
Surrogates								
13C2-PFDoA (S)	58	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C3HFPO-DA (S)	73	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C3-PFBS (S)	82	%.	40-135	1	03/18/25 13:50	03/19/25 11:22		
13C3-PFHxS (S)	85	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C4-PFBA (S)	81	%.	8-130	1	03/18/25 13:50	03/19/25 11:22		
13C4-PFHpA (S)	85	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C5-PFHxA (S)	83	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C5-PFPeA (S)	81	%.	35-130	1	03/18/25 13:50	03/19/25 11:22		
13C6-PFDA (S)	85	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C8-PFOA (S)	87	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C8-PFOS (S)	81	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C8-PFOSA (S)	111	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C9-PFNA (S)	85	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
d3-MeFOSAA (S)	72	%.	40-135	1	03/18/25 13:50	03/19/25 11:22		
d3-NMeFOSA (S)	72	%.	10-130	1	03/18/25 13:50	03/19/25 11:22		
d5-EtFOSAA (S)	105	%.	40-150	1	03/18/25 13:50	03/19/25 11:22		
d5-NEtFOSA (S)	85	%.	10-130	1	03/18/25 13:50	03/19/25 11:22		
d7-NMeFOSE (S)	86	%.	20-130	1	03/18/25 13:50	03/19/25 11:22		
d9-NEtFOSE (S)	62	%.	15-130	1	03/18/25 13:50	03/19/25 11:22		
13C2-PFTA (S)	69	%.	20-130	1	03/18/25 13:50	03/19/25 11:22		
13C7-PFUdA (S)	84	%.	40-130	1	03/18/25 13:50	03/19/25 11:22		
13C24:2FTS (S)	61	%.	40-135	1	03/18/25 13:50	03/19/25 11:22		
13C26:2FTS (S)	89	%.	40-215	1	03/18/25 13:50	03/19/25 11:22		
13C28:2FTS (S)	72	%.	40-275	1	03/18/25 13:50	03/19/25 11:22		
13C3-PFPrA (S)	60	%.	8-130	1	03/18/25 13:50	03/19/25 11:22		

Sample: White **Lab ID: 10727316002** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.046 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**5.4**	mg/kg	0.96	1	04/04/25 08:47	04/04/25 13:16	7440-36-0	
Arsenic	ND	mg/kg	0.96	1	04/04/25 08:47	04/04/25 13:16	7440-38-2	
Barium	**0.82**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:16	7440-39-3	
Beryllium	ND	mg/kg	0.24	1	04/04/25 08:47	04/04/25 13:16	7440-41-7	
Cadmium	ND	mg/kg	0.14	1	04/04/25 08:47	04/04/25 13:16	7440-43-9	
Chromium	**16.9**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:16	7440-47-3	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: White **Lab ID: 10727316002** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.046 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Cobalt	ND	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:16	7440-48-4	
Copper	**0.56**	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:16	7440-50-8	
Lead	ND	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:16	7439-92-1	
Molybdenum	ND	mg/kg	0.72	1	04/04/25 08:47	04/04/25 13:16	7439-98-7	
Nickel	ND	mg/kg	0.96	1	04/04/25 08:47	04/04/25 13:16	7440-02-0	
Selenium	ND	mg/kg	0.96	1	04/04/25 08:47	04/04/25 13:16	7782-49-2	
Silver	ND	mg/kg	0.48	1	04/04/25 08:47	04/04/25 13:16	7440-22-4	
Thallium	ND	mg/kg	0.96	1	04/04/25 08:47	04/04/25 13:39	7440-28-0	
Vanadium	ND	mg/kg	0.72	1	04/04/25 08:47	04/04/25 13:16	7440-62-2	
Zinc	ND	mg/kg	1.9	1	04/04/25 08:47	04/04/25 13:16	7440-66-6	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.049 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**1.2**	mg/kg	0.95	1	03/24/25 07:43	03/26/25 12:52	7440-36-0	
Arsenic	ND	mg/kg	0.95	1	03/24/25 07:43	03/26/25 12:52	7440-38-2	
Barium	**0.86**	mg/kg	0.48	1	03/24/25 07:43	03/26/25 12:52	7440-39-3	
Beryllium	ND	mg/kg	0.24	1	03/24/25 07:43	03/26/25 12:52	7440-41-7	
Cadmium	ND	mg/kg	0.14	1	03/24/25 07:43	03/26/25 12:52	7440-43-9	
Chromium	**8.6**	mg/kg	0.48	1	03/24/25 07:43	03/26/25 12:52	7440-47-3	
Cobalt	ND	mg/kg	0.48	1	03/24/25 07:43	03/26/25 12:52	7440-48-4	
Copper	**0.61**	mg/kg	0.48	1	03/24/25 07:43	03/26/25 12:52	7440-50-8	
Lead	**1.5**	mg/kg	0.48	1	03/24/25 07:43	03/26/25 12:52	7439-92-1	
Molybdenum	ND	mg/kg	0.71	1	03/24/25 07:43	03/26/25 12:52	7439-98-7	
Nickel	ND	mg/kg	0.95	1	03/24/25 07:43	03/26/25 12:52	7440-02-0	
Selenium	ND	mg/kg	0.95	1	03/24/25 07:43	03/26/25 12:52	7782-49-2	
Silver	ND	mg/kg	0.48	1	03/24/25 07:43	03/26/25 12:52	7440-22-4	
Thallium	ND	mg/kg	0.95	1	03/24/25 07:43	03/26/25 12:52	7440-28-0	
Vanadium	ND	mg/kg	0.71	1	03/24/25 07:43	03/26/25 12:52	7440-62-2	
Zinc	ND	mg/kg	1.9	1	03/24/25 07:43	03/26/25 12:52	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.341 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	ND	mg/kg	0.018	1	03/21/25 17:02	03/27/25 11:16	7439-97-6	
Mercury	ND	mg/kg	0.018	1	04/01/25 13:15	04/04/25 09:01	7439-97-6	
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.387 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
11Cl-PF3OUdS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	763051-92-9	
3:3 FTCA	ND	ug/kg	3.6	1	03/18/25 13:50	03/19/25 11:31	356-02-5	
4:2 FTS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	757124-72-4	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: White **Lab ID: 10727316002** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.387 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
5:3 FTCA	ND	ug/kg	18.0	1	03/18/25 13:50	03/19/25 11:31	914637-49-3	
6:2 FTS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	27619-97-2	
7:3 FTCA	ND	ug/kg	18.0	1	03/18/25 13:50	03/19/25 11:31	812-70-4	
8:2 FTS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	756426-58-1	
ADONA	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	919005-14-4	
HFPO-DA	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	13252-13-6	
NEtFOSAA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	2991-50-6	
NEtFOSA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	4151-50-2	
NEtFOSE	ND	ug/kg	7.2	1	03/18/25 13:50	03/19/25 11:31	1691-99-2	
NFDHA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:31	151772-58-6	
NMeFOSAA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	2355-31-9	
NMeFOSA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	31506-32-8	
NMeFOSE	ND	ug/kg	7.2	1	03/18/25 13:50	03/19/25 11:31	24448-09-7	
PFBS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	375-73-5	
PFDA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	335-76-2	
PFHxA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	307-24-4	
PFBA	ND	ug/kg	2.9	1	03/18/25 13:50	03/19/25 11:31	375-22-4	
PFDS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	335-77-3	
PFDoS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	79780-39-5	
PFEESA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:31	113507-82-7	
PFHpS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	375-92-8	
PFMBA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:31	863090-89-5	
PFMPA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:31	377-73-1	
PFNS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	68259-12-1	
PFOSA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	754-91-6	
PFPeA	ND	ug/kg	1.4	1	03/18/25 13:50	03/19/25 11:31	2706-90-3	
PFPeS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	2706-91-4	
PFDoA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	307-55-1	
PFHpA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	375-85-9	
PFHxS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	355-46-4	
PFNA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	375-95-1	
PFOS	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	1763-23-1	
PFOA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	335-67-1	
PFTeDA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	376-06-7	
PFTrDA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	72629-94-8	
PFUnA	ND	ug/kg	0.72	1	03/18/25 13:50	03/19/25 11:31	2058-94-8	
Surrogates								
13C2-PFDoA (S)	92	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C3HFPO-DA (S)	75	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C3-PFBS (S)	86	%.	40-135	1	03/18/25 13:50	03/19/25 11:31		
13C3-PFHxS (S)	94	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C4-PFBA (S)	82	%.	8-130	1	03/18/25 13:50	03/19/25 11:31		
13C4-PFHpA (S)	95	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: White **Lab ID: 10727316002** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.387 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
Surrogates								
13C5-PFHxA (S)	94	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C5-PFPeA (S)	89	%.	35-130	1	03/18/25 13:50	03/19/25 11:31		
13C6-PFDA (S)	101	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C8-PFOA (S)	99	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C8-PFOS (S)	86	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C8-PFOSA (S)	117	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C9-PFNA (S)	89	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
d3-MeFOSAA (S)	86	%.	40-135	1	03/18/25 13:50	03/19/25 11:31		
d3-NMeFOSA (S)	82	%.	10-130	1	03/18/25 13:50	03/19/25 11:31		
d5-EtFOSAA (S)	120	%.	40-150	1	03/18/25 13:50	03/19/25 11:31		
d5-NEtFOSA (S)	89	%.	10-130	1	03/18/25 13:50	03/19/25 11:31		
d7-NMeFOSE (S)	93	%.	20-130	1	03/18/25 13:50	03/19/25 11:31		
d9-NEtFOSE (S)	67	%.	15-130	1	03/18/25 13:50	03/19/25 11:31		
13C2-PFTA (S)	84	%.	20-130	1	03/18/25 13:50	03/19/25 11:31		
13C7-PFUdA (S)	96	%.	40-130	1	03/18/25 13:50	03/19/25 11:31		
13C24:2FTS (S)	69	%.	40-135	1	03/18/25 13:50	03/19/25 11:31		
13C26:2FTS (S)	99	%.	40-215	1	03/18/25 13:50	03/19/25 11:31		
13C28:2FTS (S)	86	%.	40-275	1	03/18/25 13:50	03/19/25 11:31		
13C3-PFPrA (S)	60	%.	8-130	1	03/18/25 13:50	03/19/25 11:31		

Sample: Gray **Lab ID: 10727316003** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.02 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**1.8**	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:54	7440-36-0	
Arsenic	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:54	7440-38-2	
Barium	**1.2**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:54	7440-39-3	
Beryllium	ND	mg/kg	0.25	1	03/24/25 07:43	03/26/25 12:54	7440-41-7	
Cadmium	ND	mg/kg	0.15	1	03/24/25 07:43	03/26/25 12:54	7440-43-9	
Chromium	**11.1**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:54	7440-47-3	
Cobalt	ND	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:54	7440-48-4	
Copper	ND	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:54	7440-50-8	
Lead	**0.80**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:54	7439-92-1	
Molybdenum	ND	mg/kg	0.74	1	03/24/25 07:43	03/26/25 12:54	7439-98-7	
Nickel	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:54	7440-02-0	
Selenium	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:54	7782-49-2	
Silver	ND	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:54	7440-22-4	
Thallium	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:54	7440-28-0	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Gray **Lab ID: 10727316003** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.02 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Vanadium	ND	mg/kg	0.74	1	03/24/25 07:43	03/26/25 12:54	7440-62-2	
Zinc	**5.0**	mg/kg	2.0	1	03/24/25 07:43	03/26/25 12:54	7440-66-6	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.085 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**8.5**	mg/kg	0.92	1	04/04/25 08:47	04/04/25 13:22	7440-36-0	
Arsenic	ND	mg/kg	0.92	1	04/04/25 08:47	04/04/25 13:22	7440-38-2	
Barium	**3.0**	mg/kg	0.46	1	04/04/25 08:47	04/04/25 13:22	7440-39-3	
Beryllium	ND	mg/kg	0.23	1	04/04/25 08:47	04/04/25 13:22	7440-41-7	
Cadmium	ND	mg/kg	0.14	1	04/04/25 08:47	04/04/25 13:22	7440-43-9	
Chromium	**182**	mg/kg	0.46	1	04/04/25 08:47	04/04/25 13:22	7440-47-3	
Cobalt	**0.54**	mg/kg	0.46	1	04/04/25 08:47	04/04/25 13:22	7440-48-4	
Copper	**7.0**	mg/kg	0.46	1	04/04/25 08:47	04/04/25 13:22	7440-50-8	
Lead	ND	mg/kg	0.46	1	04/04/25 08:47	04/04/25 13:22	7439-92-1	
Molybdenum	**8.5**	mg/kg	0.69	1	04/04/25 08:47	04/04/25 13:22	7439-98-7	
Nickel	**5.2**	mg/kg	0.92	1	04/04/25 08:47	04/04/25 13:22	7440-02-0	
Selenium	ND	mg/kg	0.92	1	04/04/25 08:47	04/04/25 13:22	7782-49-2	
Silver	ND	mg/kg	0.46	1	04/04/25 08:47	04/04/25 13:22	7440-22-4	
Thallium	ND	mg/kg	0.92	1	04/04/25 08:47	04/04/25 13:41	7440-28-0	
Vanadium	**0.73**	mg/kg	0.69	1	04/04/25 08:47	04/04/25 13:22	7440-62-2	
Zinc	**14.9**	mg/kg	1.8	1	04/04/25 08:47	04/04/25 13:22	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.32 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	ND	mg/kg	0.019	1	04/01/25 13:15	04/04/25 09:06	7439-97-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.342 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	ND	mg/kg	0.018	1	03/21/25 17:02	03/27/25 11:17	7439-97-6	
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.265 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
11Cl-PF3OUdS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	763051-92-9	
3:3 FTCA	ND	ug/kg	4.0	1	03/18/25 13:50	03/19/25 11:40	356-02-5	
4:2 FTS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	757124-72-4	
5:3 FTCA	ND	ug/kg	19.8	1	03/18/25 13:50	03/19/25 11:40	914637-49-3	
6:2 FTS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	27619-97-2	
7:3 FTCA	ND	ug/kg	19.8	1	03/18/25 13:50	03/19/25 11:40	812-70-4	
8:2 FTS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	39108-34-4	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Gray **Lab ID: 10727316003** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.265 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
9Cl-PF3ONS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	756426-58-1	
ADONA	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	919005-14-4	
HFPO-DA	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	13252-13-6	
NEtFOSAA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	2991-50-6	
NEtFOSA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	4151-50-2	
NEtFOSE	ND	ug/kg	7.9	1	03/18/25 13:50	03/19/25 11:40	1691-99-2	
NFDHA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:40	151772-58-6	
NMeFOSAA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	2355-31-9	
NMeFOSA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	31506-32-8	
NMeFOSE	ND	ug/kg	7.9	1	03/18/25 13:50	03/19/25 11:40	24448-09-7	
PFBS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	375-73-5	
PFDA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	335-76-2	
PFHxA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	307-24-4	
PFBA	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:40	375-22-4	
PFDS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	335-77-3	
PFDoS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	79780-39-5	
PFEESA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:40	113507-82-7	
PFHpS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	375-92-8	
PFMBA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:40	863090-89-5	
PFMPA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:40	377-73-1	
PFNS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	68259-12-1	
PFOSA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	754-91-6	
PFPeA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:40	2706-90-3	
PFPeS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	2706-91-4	
PFDoA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	307-55-1	
PFHpA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	375-85-9	
PFHxS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	355-46-4	
PFNA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	375-95-1	
PFOS	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	1763-23-1	
PFOA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	335-67-1	
PFTeDA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	376-06-7	
PFTrDA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	72629-94-8	
PFUnA	ND	ug/kg	0.79	1	03/18/25 13:50	03/19/25 11:40	2058-94-8	
Surrogates								
13C2-PFDoA (S)	111	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C3HFPO-DA (S)	100	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C3-PFBS (S)	117	%.	40-135	1	03/18/25 13:50	03/19/25 11:40		
13C3-PFHxS (S)	122	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C4-PFBA (S)	110	%.	8-130	1	03/18/25 13:50	03/19/25 11:40		
13C4-PFHpA (S)	121	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C5-PFHxA (S)	119	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C5-PFPeA (S)	115	%.	35-130	1	03/18/25 13:50	03/19/25 11:40		
13C6-PFDA (S)	122	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C8-PFOA (S)	126	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		

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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Gray **Lab ID: 10727316003** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.265 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
Surrogates								
13C8-PFOS (S)	116	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C8-PFOSA (S)	162	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		S3
13C9-PFNA (S)	119	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
d3-MeFOSAA (S)	107	%.	40-135	1	03/18/25 13:50	03/19/25 11:40		
d3-NMeFOSA (S)	105	%.	10-130	1	03/18/25 13:50	03/19/25 11:40		
d5-EtFOSAA (S)	164	%.	40-150	1	03/18/25 13:50	03/19/25 11:40		S3
d5-NEtFOSA (S)	118	%.	10-130	1	03/18/25 13:50	03/19/25 11:40		
d7-NMeFOSE (S)	126	%.	20-130	1	03/18/25 13:50	03/19/25 11:40		
d9-NEtFOSE (S)	72	%.	15-130	1	03/18/25 13:50	03/19/25 11:40		
13C2-PFTA (S)	107	%.	20-130	1	03/18/25 13:50	03/19/25 11:40		
13C7-PFUdA (S)	120	%.	40-130	1	03/18/25 13:50	03/19/25 11:40		
13C24:2FTS (S)	87	%.	40-135	1	03/18/25 13:50	03/19/25 11:40		
13C26:2FTS (S)	135	%.	40-215	1	03/18/25 13:50	03/19/25 11:40		
13C28:2FTS (S)	126	%.	40-275	1	03/18/25 13:50	03/19/25 11:40		
13C3-PFPrA (S)	76	%.	8-130	1	03/18/25 13:50	03/19/25 11:40		

Sample: Vegas Gold **Lab ID: 10727316004** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.003 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:56	7440-36-0	
Arsenic	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:56	7440-38-2	
Barium	**0.74**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:56	7440-39-3	
Beryllium	ND	mg/kg	0.25	1	03/24/25 07:43	03/26/25 12:56	7440-41-7	
Cadmium	ND	mg/kg	0.15	1	03/24/25 07:43	03/26/25 12:56	7440-43-9	
Chromium	**9.9**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:56	7440-47-3	
Cobalt	ND	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:56	7440-48-4	
Copper	ND	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:56	7440-50-8	
Lead	**0.56**	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:56	7439-92-1	
Molybdenum	ND	mg/kg	0.75	1	03/24/25 07:43	03/26/25 12:56	7439-98-7	
Nickel	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:56	7440-02-0	
Selenium	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:56	7782-49-2	
Silver	ND	mg/kg	0.50	1	03/24/25 07:43	03/26/25 12:56	7440-22-4	
Thallium	ND	mg/kg	1.0	1	03/24/25 07:43	03/26/25 12:56	7440-28-0	
Vanadium	ND	mg/kg	0.75	1	03/24/25 07:43	03/26/25 12:56	7440-62-2	
Zinc	**3.3**	mg/kg	2.0	1	03/24/25 07:43	03/26/25 12:56	7440-66-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Vegas Gold **Lab ID: 10727316004** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.021 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**8.6**	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:12	7440-36-0	
Arsenic	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:12	7440-38-2	
Barium	**0.95**	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:12	7440-39-3	
Beryllium	ND	mg/kg	0.24	1	04/01/25 14:28	04/02/25 12:12	7440-41-7	
Cadmium	ND	mg/kg	0.15	1	04/01/25 14:28	04/02/25 12:12	7440-43-9	
Chromium	**20.8**	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:12	7440-47-3	
Cobalt	ND	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:12	7440-48-4	
Copper	**1.6**	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:12	7440-50-8	
Lead	ND	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:12	7439-92-1	
Molybdenum	ND	mg/kg	0.73	1	04/01/25 14:28	04/02/25 12:12	7439-98-7	
Nickel	**1.7**	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:12	7440-02-0	
Selenium	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:12	7782-49-2	
Silver	ND	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:12	7440-22-4	
Thallium	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:12	7440-28-0	
Vanadium	ND	mg/kg	0.73	1	04/01/25 14:28	04/02/25 12:12	7440-62-2	
Zinc	**15.6**	mg/kg	2.0	1	04/01/25 14:28	04/02/25 12:12	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.327 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	ND	mg/kg	0.018	1	04/01/25 13:15	04/04/25 09:07	7439-97-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.336 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	**0.037**	mg/kg	0.018	1	03/21/25 17:02	03/27/25 11:19	7439-97-6	
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.277 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
11Cl-PF3OUdS	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	763051-92-9	
3:3 FTCA	ND	ug/kg	3.9	1	03/18/25 13:50	03/19/25 11:49	356-02-5	
4:2 FTS	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	757124-72-4	
5:3 FTCA	ND	ug/kg	19.6	1	03/18/25 13:50	03/19/25 11:49	914637-49-3	
6:2 FTS	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	27619-97-2	
7:3 FTCA	ND	ug/kg	19.6	1	03/18/25 13:50	03/19/25 11:49	812-70-4	
8:2 FTS	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	756426-58-1	
ADONA	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	919005-14-4	
HFPO-DA	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	13252-13-6	
NEtFOSAA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	2991-50-6	
NEtFOSA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	4151-50-2	
NEtFOSE	ND	ug/kg	7.8	1	03/18/25 13:50	03/19/25 11:49	1691-99-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Vegas Gold **Lab ID: 10727316004** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.277 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
NFDHA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:49	151772-58-6	
NMeFOSAA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	2355-31-9	
NMeFOSA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	31506-32-8	
NMeFOSE	ND	ug/kg	7.8	1	03/18/25 13:50	03/19/25 11:49	24448-09-7	
PFBS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	375-73-5	
PFDA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	335-76-2	
PFHxA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	307-24-4	
PFBA	ND	ug/kg	3.1	1	03/18/25 13:50	03/19/25 11:49	375-22-4	
PFDS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	335-77-3	
PFDoS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	79780-39-5	
PFEESA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:49	113507-82-7	
PFHpS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	375-92-8	
PFMBA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:49	863090-89-5	
PFMPA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:49	377-73-1	
PFNS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	68259-12-1	
PFOSA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	754-91-6	
PFPeA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:49	2706-90-3	
PFPeS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	2706-91-4	
PFDoA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	307-55-1	
PFHpA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	375-85-9	
PFHxS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	355-46-4	
PFNA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	375-95-1	
PFOS	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	1763-23-1	
PFOA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	335-67-1	
PFTeDA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	376-06-7	
PFTrDA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	72629-94-8	
PFUnA	ND	ug/kg	0.78	1	03/18/25 13:50	03/19/25 11:49	2058-94-8	
Surrogates								
13C2-PFDoA (S)	81	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C3HFPO-DA (S)	71	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C3-PFBS (S)	83	%.	40-135	1	03/18/25 13:50	03/19/25 11:49		
13C3-PFHxS (S)	92	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C4-PFBA (S)	81	%.	8-130	1	03/18/25 13:50	03/19/25 11:49		
13C4-PFHpA (S)	91	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C5-PFHxA (S)	90	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C5-PFPeA (S)	84	%.	35-130	1	03/18/25 13:50	03/19/25 11:49		
13C6-PFDA (S)	91	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C8-PFOA (S)	94	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C8-PFOS (S)	90	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C8-PFOSA (S)	116	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C9-PFNA (S)	88	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
d3-MeFOSAA (S)	85	%.	40-135	1	03/18/25 13:50	03/19/25 11:49		
d3-NMeFOSA (S)	75	%.	10-130	1	03/18/25 13:50	03/19/25 11:49		
d5-EtFOSAA (S)	112	%.	40-150	1	03/18/25 13:50	03/19/25 11:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Vegas Gold **Lab ID: 10727316004** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.277 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
Surrogates								
d5-NEtFOSA (S)	88	%.	10-130	1	03/18/25 13:50	03/19/25 11:49		
d7-NMeFOSE (S)	92	%.	20-130	1	03/18/25 13:50	03/19/25 11:49		
d9-NEtFOSE (S)	58	%.	15-130	1	03/18/25 13:50	03/19/25 11:49		
13C2-PFTA (S)	78	%.	20-130	1	03/18/25 13:50	03/19/25 11:49		
13C7-PFUdA (S)	87	%.	40-130	1	03/18/25 13:50	03/19/25 11:49		
13C24:2FTS (S)	65	%.	40-135	1	03/18/25 13:50	03/19/25 11:49		
13C26:2FTS (S)	96	%.	40-215	1	03/18/25 13:50	03/19/25 11:49		
13C28:2FTS (S)	88	%.	40-275	1	03/18/25 13:50	03/19/25 11:49		
13C3-PFPrA (S)	55	%.	8-130	1	03/18/25 13:50	03/19/25 11:49		

Sample: Maroon **Lab ID: 10727316005** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.019 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**9.2**	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:14	7440-36-0	M1
Arsenic	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:14	7440-38-2	M1
Barium	**0.90**	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:14	7440-39-3	M1
Beryllium	ND	mg/kg	0.25	1	04/01/25 14:28	04/02/25 12:14	7440-41-7	M1
Cadmium	ND	mg/kg	0.15	1	04/01/25 14:28	04/02/25 12:14	7440-43-9	M1
Chromium	**17.6**	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:14	7440-47-3	M1,R1
Cobalt	ND	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:14	7440-48-4	M1
Copper	**0.73**	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:14	7440-50-8	M1
Lead	ND	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:14	7439-92-1	M1
Molybdenum	ND	mg/kg	0.74	1	04/01/25 14:28	04/02/25 12:14	7439-98-7	M1
Nickel	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:14	7440-02-0	M1
Selenium	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:14	7782-49-2	M1
Silver	ND	mg/kg	0.49	1	04/01/25 14:28	04/02/25 12:14	7440-22-4	M1
Thallium	ND	mg/kg	0.98	1	04/01/25 14:28	04/02/25 12:14	7440-28-0	M1
Vanadium	ND	mg/kg	0.74	1	04/01/25 14:28	04/02/25 12:14	7440-62-2	M1
Zinc	ND	mg/kg	2.0	1	04/01/25 14:28	04/02/25 12:14	7440-66-6	M1
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.022 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	**1.5**	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:57	7440-36-0	
Arsenic	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:57	7440-38-2	
Barium	**0.89**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:57	7440-39-3	
Beryllium	ND	mg/kg	0.24	1	03/24/25 07:43	03/26/25 12:57	7440-41-7	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Maroon **Lab ID: 10727316005** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.022 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Cadmium	ND	mg/kg	0.15	1	03/24/25 07:43	03/26/25 12:57	7440-43-9	
Chromium	**10.8**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:57	7440-47-3	
Cobalt	ND	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:57	7440-48-4	
Copper	**0.67**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:57	7440-50-8	
Lead	**0.95**	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:57	7439-92-1	
Molybdenum	ND	mg/kg	0.73	1	03/24/25 07:43	03/26/25 12:57	7439-98-7	
Nickel	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:57	7440-02-0	
Selenium	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:57	7782-49-2	
Silver	ND	mg/kg	0.49	1	03/24/25 07:43	03/26/25 12:57	7440-22-4	
Thallium	ND	mg/kg	0.98	1	03/24/25 07:43	03/26/25 12:57	7440-28-0	
Vanadium	ND	mg/kg	0.73	1	03/24/25 07:43	03/26/25 12:57	7440-62-2	
Zinc	**4.2**	mg/kg	2.0	1	03/24/25 07:43	03/26/25 12:57	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.33 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	**0.027**	mg/kg	0.018	1	03/21/25 17:02	03/27/25 11:21	7439-97-6	
Mercury	ND	mg/kg	0.018	1	04/01/25 13:15	04/04/25 09:09	7439-97-6	
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.237 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
11Cl-PF3OUdS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	763051-92-9	
3:3 FTCA	ND	ug/kg	4.0	1	03/18/25 13:50	03/19/25 11:58	356-02-5	
4:2 FTS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	757124-72-4	
5:3 FTCA	ND	ug/kg	20.2	1	03/18/25 13:50	03/19/25 11:58	914637-49-3	
6:2 FTS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	27619-97-2	
7:3 FTCA	ND	ug/kg	20.2	1	03/18/25 13:50	03/19/25 11:58	812-70-4	
8:2 FTS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	756426-58-1	
ADONA	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	919005-14-4	
HFPO-DA	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	13252-13-6	
NEtFOSAA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	2991-50-6	
NEtFOSA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	4151-50-2	
NEtFOSE	ND	ug/kg	8.1	1	03/18/25 13:50	03/19/25 11:58	1691-99-2	
NFDHA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:58	151772-58-6	
NMeFOSAA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	2355-31-9	
NMeFOSA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	31506-32-8	
NMeFOSE	ND	ug/kg	8.1	1	03/18/25 13:50	03/19/25 11:58	24448-09-7	
PFBS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	375-73-5	
PFDA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	335-76-2	
PFHxA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	307-24-4	
PFBA	ND	ug/kg	3.2	1	03/18/25 13:50	03/19/25 11:58	375-22-4	

REPORT OF LABORATORY ANALYSIS

l Services, LLC
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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Maroon **Lab ID: 10727316005** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.237 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
PFDS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	335-77-3	
PFDoS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	79780-39-5	
PFEESA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:58	113507-82-7	
PFHpS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	375-92-8	
PFMBA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:58	863090-89-5	
PFMPA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:58	377-73-1	
PFNS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	68259-12-1	
PFOSA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	754-91-6	
PFPeA	ND	ug/kg	1.6	1	03/18/25 13:50	03/19/25 11:58	2706-90-3	
PFPeS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	2706-91-4	
PFDoA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	307-55-1	
PFHpA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	375-85-9	
PFHxS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	355-46-4	
PFNA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	375-95-1	
PFOS	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	1763-23-1	
PFOA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	335-67-1	
PFTeDA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	376-06-7	
PFTrDA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	72629-94-8	
PFUnA	ND	ug/kg	0.81	1	03/18/25 13:50	03/19/25 11:58	2058-94-8	
Surrogates								
13C2-PFDoA (S)	105	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C3HFPO-DA (S)	93	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C3-PFBS (S)	112	%.	40-135	1	03/18/25 13:50	03/19/25 11:58		
13C3-PFHxS (S)	114	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C4-PFBA (S)	106	%.	8-130	1	03/18/25 13:50	03/19/25 11:58		
13C4-PFHpA (S)	117	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C5-PFHxA (S)	119	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C5-PFPeA (S)	114	%.	35-130	1	03/18/25 13:50	03/19/25 11:58		
13C6-PFDA (S)	120	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C8-PFOA (S)	128	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C8-PFOS (S)	109	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C8-PFOSA (S)	157	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		S3
13C9-PFNA (S)	124	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
d3-MeFOSAA (S)	111	%.	40-135	1	03/18/25 13:50	03/19/25 11:58		
d3-NMeFOSA (S)	105	%.	10-130	1	03/18/25 13:50	03/19/25 11:58		
d5-EtFOSAA (S)	151	%.	40-150	1	03/18/25 13:50	03/19/25 11:58		S3
d5-NEtFOSA (S)	119	%.	10-130	1	03/18/25 13:50	03/19/25 11:58		
d7-NMeFOSE (S)	133	%.	20-130	1	03/18/25 13:50	03/19/25 11:58		S3
d9-NEtFOSE (S)	75	%.	15-130	1	03/18/25 13:50	03/19/25 11:58		
13C2-PFTA (S)	98	%.	20-130	1	03/18/25 13:50	03/19/25 11:58		
13C7-PFUdA (S)	114	%.	40-130	1	03/18/25 13:50	03/19/25 11:58		
13C24:2FTS (S)	87	%.	40-135	1	03/18/25 13:50	03/19/25 11:58		
13C26:2FTS (S)	135	%.	40-215	1	03/18/25 13:50	03/19/25 11:58		
13C28:2FTS (S)	126	%.	40-275	1	03/18/25 13:50	03/19/25 11:58		

REPORT OF LABORATORY ANALYSIS

l Services, LLC
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ANALYTICAL RESULTS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Sample: Maroon **Lab ID: 10727316005** Collected: Received: 03/14/25 11:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 1.237 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
Surrogates								
13C3-PFPrA (S)	69	%.	8-130	1	03/18/25 13:50	03/19/25 11:58		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

QC Batch: 997653 Analysis Method: EPA 7471B
QC Batch Method: EPA 7471B Analysis Description: 7471B Mercury Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

METHOD BLANK: 5204806 Matrix: Solid
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.018	03/27/25 10:57	

LABORATORY CONTROL SAMPLE: 5204807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.48	0.47	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5204808 5204809

Parameter	Units	10728170003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.073	0.56	0.48	0.59	0.50	94	89	80-120	17	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

QC Batch: 999278 Analysis Method: EPA 7471B
QC Batch Method: EPA 7471B Analysis Description: 7471B Mercury Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

METHOD BLANK: 5212659 Matrix: Solid
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.019	04/04/25 08:56	

LABORATORY CONTROL SAMPLE: 5212660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.49	0.51	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5212661 5212662

Parameter	Units	10727316002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	ND	0.47	0.45	0.46	0.43	98	95	80-120	7	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

QC Batch: 997652
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

METHOD BLANK: 5204802 Matrix: Solid
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/kg	ND	0.99	03/26/25 12:31	
Arsenic	mg/kg	ND	0.99	03/26/25 12:31	
Barium	mg/kg	ND	0.49	03/26/25 12:31	
Beryllium	mg/kg	ND	0.25	03/26/25 12:31	
Cadmium	mg/kg	ND	0.15	03/26/25 12:31	
Chromium	mg/kg	ND	0.49	03/26/25 12:31	
Cobalt	mg/kg	ND	0.49	03/26/25 12:31	
Copper	mg/kg	ND	0.49	03/26/25 12:31	
Lead	mg/kg	ND	0.49	03/26/25 12:31	
Molybdenum	mg/kg	ND	0.74	03/26/25 12:31	
Nickel	mg/kg	ND	0.99	03/26/25 12:31	
Selenium	mg/kg	ND	0.99	03/26/25 12:31	
Silver	mg/kg	ND	0.49	03/26/25 12:31	
Thallium	mg/kg	ND	0.99	03/26/25 12:31	
Vanadium	mg/kg	ND	0.74	03/26/25 12:31	
Zinc	mg/kg	ND	2.0	03/26/25 12:31	

LABORATORY CONTROL SAMPLE: 5204803

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg	46.9	44.1	94	80-120	
Arsenic	mg/kg	46.9	44.1	94	80-120	
Barium	mg/kg	46.9	46.9	100	80-120	
Beryllium	mg/kg	46.9	45.5	97	80-120	
Cadmium	mg/kg	46.9	46.5	99	80-120	
Chromium	mg/kg	46.9	46.7	100	80-120	
Cobalt	mg/kg	46.9	46.1	98	80-120	
Copper	mg/kg	46.9	47.2	100	80-120	
Lead	mg/kg	46.9	46.1	98	80-120	
Molybdenum	mg/kg	46.9	46.4	99	80-120	
Nickel	mg/kg	46.9	45.9	98	80-120	
Selenium	mg/kg	46.9	42.9	91	80-120	
Silver	mg/kg	23.5	21.6	92	80-120	
Thallium	mg/kg	46.9	47.0	100	80-120	
Vanadium	mg/kg	46.9	46.9	100	80-120	
Zinc	mg/kg	46.9	45.6	97	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5204804 5204805

Parameter	Units	10728170003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/kg	<1.1	52.8	56.1	34.0	36.2	64	64	75-125	6	20	M1
Arsenic	mg/kg	1.6	52.8	56.1	49.7	54.2	91	94	75-125	9	20	
Barium	mg/kg	48.3	52.8	56.1	93.4	119	86	126	75-125	24	20	M1,R1
Beryllium	mg/kg	<0.27	52.8	56.1	50.2	55.1	95	98	75-125	9	20	
Cadmium	mg/kg	0.19	52.8	56.1	48.5	51.3	91	91	75-125	6	20	
Chromium	mg/kg	6.4	52.8	56.1	58.6	61.1	99	97	75-125	4	20	
Cobalt	mg/kg	2.8	52.8	56.1	51.5	54.1	92	91	75-125	5	20	
Copper	mg/kg	12.0	52.8	56.1	63.2	69.1	97	102	75-125	9	20	
Lead	mg/kg	61.5	52.8	56.1	106	65.5	84	7	75-125	47	20	M1,R1
Molybdenum	mg/kg	<0.81	52.8	56.1	49.5	53.9	92	95	75-125	9	20	
Nickel	mg/kg	6.7	52.8	56.1	55.0	56.6	92	89	75-125	3	20	
Selenium	mg/kg	<1.1	52.8	56.1	47.6	51.9	89	92	75-125	9	20	
Silver	mg/kg	<0.54	26.3	28.1	24.6	26.9	93	96	75-125	9	20	
Thallium	mg/kg	<1.1	52.8	56.1	49.1	52.2	93	93	75-125	6	20	
Vanadium	mg/kg	10.1	52.8	56.1	64.2	66.4	103	100	75-125	3	20	
Zinc	mg/kg	26.8	52.8	56.1	79.5	74.2	100	84	75-125	7	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

QC Batch: 999276
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10727316004, 10727316005

METHOD BLANK: 5212647 Matrix: Solid
Associated Lab Samples: 10727316004, 10727316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/kg	ND	1.0	04/02/25 12:09	
Arsenic	mg/kg	ND	1.0	04/02/25 12:09	
Barium	mg/kg	ND	0.50	04/02/25 12:09	
Beryllium	mg/kg	ND	0.25	04/02/25 12:09	
Cadmium	mg/kg	ND	0.15	04/02/25 12:09	
Chromium	mg/kg	0.83	0.50	04/02/25 12:09	P8
Cobalt	mg/kg	ND	0.50	04/02/25 12:09	
Copper	mg/kg	ND	0.50	04/02/25 12:09	
Lead	mg/kg	ND	0.50	04/02/25 12:09	
Molybdenum	mg/kg	ND	0.75	04/02/25 12:09	
Nickel	mg/kg	ND	1.0	04/02/25 12:09	
Selenium	mg/kg	ND	1.0	04/02/25 12:09	
Silver	mg/kg	ND	0.50	04/02/25 12:09	
Thallium	mg/kg	ND	1.0	04/02/25 12:09	
Vanadium	mg/kg	ND	0.75	04/02/25 12:09	
Zinc	mg/kg	ND	2.0	04/02/25 12:09	

LABORATORY CONTROL SAMPLE: 5212648

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg	46.1	43.2	94	80-120	
Arsenic	mg/kg	46.1	43.5	94	80-120	
Barium	mg/kg	46.1	46.7	101	80-120	
Beryllium	mg/kg	46.1	44.8	97	80-120	
Cadmium	mg/kg	46.1	45.7	99	80-120	
Chromium	mg/kg	46.1	46.0	100	80-120	
Cobalt	mg/kg	46.1	45.3	98	80-120	
Copper	mg/kg	46.1	46.8	101	80-120	
Lead	mg/kg	46.1	45.3	98	80-120	
Molybdenum	mg/kg	46.1	45.6	99	80-120	
Nickel	mg/kg	46.1	45.4	98	80-120	
Selenium	mg/kg	46.1	42.3	92	80-120	
Silver	mg/kg	23	21.6	94	80-120	
Thallium	mg/kg	46.1	46.8	102	80-120	
Vanadium	mg/kg	46.1	46.1	100	80-120	
Zinc	mg/kg	46.1	45.2	98	80-120	

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REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5212905 5212906

Parameter	Units	10727316005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/kg	9.2	48.6	48.4	38.4	46.0	60	76	75-125	18	20	M1
Arsenic	mg/kg	ND	48.6	48.4	31.3	37.8	64	78	75-125	19	20	M1
Barium	mg/kg	0.90	48.6	48.4	31.3	37.8	63	76	75-125	19	20	M1
Beryllium	mg/kg	ND	48.6	48.4	31.1	38.2	64	79	75-125	20	20	M1
Cadmium	mg/kg	ND	48.6	48.4	33.2	37.9	68	78	75-125	13	20	M1
Chromium	mg/kg	17.6	48.6	48.4	46.8	58.4	60	84	75-125	22	20	M1,R1
Cobalt	mg/kg	ND	48.6	48.4	29.1	35.5	60	73	75-125	20	20	M1
Copper	mg/kg	0.73	48.6	48.4	34.5	42.1	70	86	75-125	20	20	M1
Lead	mg/kg	ND	48.6	48.4	32.4	38.1	67	79	75-125	16	20	M1
Molybdenum	mg/kg	ND	48.6	48.4	31.3	37.4	64	77	75-125	18	20	M1
Nickel	mg/kg	ND	48.6	48.4	29.1	35.5	58	72	75-125	20	20	M1
Selenium	mg/kg	ND	48.6	48.4	32.5	38.7	66	79	75-125	18	20	M1
Silver	mg/kg	ND	24.3	24.2	16.4	18.2	67	75	75-125	11	20	M1
Thallium	mg/kg	ND	48.6	48.4	34.0	39.0	70	81	75-125	14	20	M1
Vanadium	mg/kg	ND	48.6	48.4	30.8	37.7	63	78	75-125	20	20	M1
Zinc	mg/kg	ND	48.6	48.4	34.0	38.1	67	75	75-125	11	20	M1

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REPORT OF LABORATORY ANALYSIS

l Services, LLC
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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

QC Batch: 999814
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10727316001, 10727316002, 10727316003

METHOD BLANK: 5215133 Matrix: Solid
Associated Lab Samples: 10727316001, 10727316002, 10727316003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/kg	ND	0.97	04/04/25 13:07	
Arsenic	mg/kg	ND	0.97	04/04/25 13:07	
Barium	mg/kg	ND	0.48	04/04/25 13:07	
Beryllium	mg/kg	ND	0.24	04/04/25 13:07	
Cadmium	mg/kg	ND	0.14	04/04/25 13:07	
Chromium	mg/kg	ND	0.48	04/04/25 13:07	
Cobalt	mg/kg	ND	0.48	04/04/25 13:07	
Copper	mg/kg	ND	0.48	04/04/25 13:07	
Lead	mg/kg	ND	0.48	04/04/25 13:07	
Molybdenum	mg/kg	ND	0.72	04/04/25 13:07	
Nickel	mg/kg	ND	0.97	04/04/25 13:07	
Selenium	mg/kg	ND	0.97	04/04/25 13:07	
Silver	mg/kg	ND	0.48	04/04/25 13:07	
Thallium	mg/kg	ND	0.97	04/04/25 12:21	
Vanadium	mg/kg	ND	0.72	04/04/25 13:07	
Zinc	mg/kg	ND	1.9	04/04/25 13:07	

LABORATORY CONTROL SAMPLE & LCSD: 5215134 5215135

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Antimony	mg/kg	47.3	45.2	45.9	96	96	80-120	1	20	
Arsenic	mg/kg	47.3	44.4	45.1	94	95	80-120	2	20	
Barium	mg/kg	47.3	47.5	48.0	100	101	80-120	1	20	
Beryllium	mg/kg	47.3	45.5	46.2	96	97	80-120	1	20	
Cadmium	mg/kg	47.3	46.2	46.9	98	99	80-120	2	20	
Chromium	mg/kg	47.3	47.2	47.8	100	101	80-120	1	20	
Cobalt	mg/kg	47.3	46.1	46.9	98	99	80-120	2	20	
Copper	mg/kg	47.3	47.5	48.2	101	101	80-120	1	20	
Lead	mg/kg	47.3	45.9	46.5	97	98	80-120	1	20	
Molybdenum	mg/kg	47.3	47.5	48.4	101	102	80-120	2	20	
Nickel	mg/kg	47.3	46.0	46.6	97	98	80-120	1	20	
Selenium	mg/kg	47.3	41.5	41.8	88	88	80-120	1	20	
Silver	mg/kg	23.6	21.5	21.8	91	92	80-120	2	20	
Thallium	mg/kg	47.3	46.3	47.8	98	101	80-120	3	20	
Vanadium	mg/kg	47.3	46.5	47.3	98	99	80-120	2	20	
Zinc	mg/kg	47.3	45.7	45.9	97	97	80-120	0	20	

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REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

QC Batch: 996766 Analysis Method: EPA 1633
QC Batch Method: EPA 1633 Analysis Description: EPA 1633F Soil
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

METHOD BLANK: 5201107 Matrix: Solid
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/kg	ND	0.80	03/19/25 10:36	
3:3 FTCA	ug/kg	ND	1.0	03/19/25 10:36	
4:2 FTS	ug/kg	ND	0.80	03/19/25 10:36	
5:3 FTCA	ug/kg	ND	5.0	03/19/25 10:36	
6:2 FTS	ug/kg	ND	0.80	03/19/25 10:36	
7:3 FTCA	ug/kg	ND	5.0	03/19/25 10:36	
8:2 FTS	ug/kg	ND	0.80	03/19/25 10:36	
9Cl-PF3ONS	ug/kg	ND	0.80	03/19/25 10:36	
ADONA	ug/kg	ND	0.80	03/19/25 10:36	
HFPO-DA	ug/kg	ND	0.80	03/19/25 10:36	
NEtFOSA	ug/kg	ND	0.20	03/19/25 10:36	
NEtFOSAA	ug/kg	ND	0.20	03/19/25 10:36	
NEtFOSE	ug/kg	ND	2.0	03/19/25 10:36	
NFDHA	ug/kg	ND	0.40	03/19/25 10:36	
NMeFOSA	ug/kg	ND	0.20	03/19/25 10:36	
NMeFOSAA	ug/kg	ND	0.20	03/19/25 10:36	
NMeFOSE	ug/kg	ND	2.0	03/19/25 10:36	
PFBA	ug/kg	ND	0.80	03/19/25 10:36	
PFBS	ug/kg	ND	0.20	03/19/25 10:36	
PFDA	ug/kg	ND	0.20	03/19/25 10:36	
PFDoA	ug/kg	ND	0.20	03/19/25 10:36	
PFDoS	ug/kg	ND	0.20	03/19/25 10:36	
PFDS	ug/kg	ND	0.20	03/19/25 10:36	
PFEESA	ug/kg	ND	0.40	03/19/25 10:36	
PFHpA	ug/kg	ND	0.20	03/19/25 10:36	
PFHpS	ug/kg	ND	0.20	03/19/25 10:36	
PFHxA	ug/kg	ND	0.20	03/19/25 10:36	
PFHxS	ug/kg	ND	0.20	03/19/25 10:36	
PFMBA	ug/kg	ND	0.40	03/19/25 10:36	
PFMPA	ug/kg	ND	0.40	03/19/25 10:36	
PFNA	ug/kg	ND	0.20	03/19/25 10:36	
PFNS	ug/kg	ND	0.20	03/19/25 10:36	
PFOA	ug/kg	ND	0.20	03/19/25 10:36	
PFOS	ug/kg	ND	0.20	03/19/25 10:36	
PFOSA	ug/kg	ND	0.20	03/19/25 10:36	
PFPeA	ug/kg	ND	0.40	03/19/25 10:36	
PFPeS	ug/kg	ND	0.20	03/19/25 10:36	
PFTeDA	ug/kg	ND	0.20	03/19/25 10:36	
PFTrDA	ug/kg	ND	0.20	03/19/25 10:36	
PFUnA	ug/kg	ND	0.20	03/19/25 10:36	

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REPORT OF LABORATORY ANALYSIS

l Services, LLC
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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

METHOD BLANK: 5201107 Matrix: Solid
Associated Lab Samples: 10727316001, 10727316002, 10727316003, 10727316004, 10727316005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C2-PFDoA (S)	%.	81	40-130	03/19/25 10:36	
13C2-PFTA (S)	%.	67	20-130	03/19/25 10:36	
13C24:2FTS (S)	%.	67	40-135	03/19/25 10:36	
13C26:2FTS (S)	%.	61	40-215	03/19/25 10:36	
13C28:2FTS (S)	%.	59	40-275	03/19/25 10:36	
13C3-PFBS (S)	%.	93	40-135	03/19/25 10:36	
13C3-PFHxS (S)	%.	95	40-130	03/19/25 10:36	
13C3-PFPrA (S)	%.	55	8-130	03/19/25 10:36	
13C3HFPO-DA (S)	%.	92	40-130	03/19/25 10:36	
13C4-PFBA (S)	%.	80	8-130	03/19/25 10:36	
13C4-PFHpA (S)	%.	96	40-130	03/19/25 10:36	
13C5-PFHxA (S)	%.	99	40-130	03/19/25 10:36	
13C5-PFPeA (S)	%.	93	35-130	03/19/25 10:36	
13C6-PFDA (S)	%.	98	40-130	03/19/25 10:36	
13C7-PFUdA (S)	%.	91	40-130	03/19/25 10:36	
13C8-PFOA (S)	%.	94	40-130	03/19/25 10:36	
13C8-PFOS (S)	%.	96	40-130	03/19/25 10:36	
13C8-PFOSA (S)	%.	85	40-130	03/19/25 10:36	
13C9-PFNA (S)	%.	95	40-130	03/19/25 10:36	
d3-MeFOSAA (S)	%.	85	40-135	03/19/25 10:36	
d3-NMeFOSA (S)	%.	75	10-130	03/19/25 10:36	
d5-EtFOSAA (S)	%.	81	40-150	03/19/25 10:36	
d5-NEtFOSA (S)	%.	74	10-130	03/19/25 10:36	
d7-NMeFOSE (S)	%.	80	20-130	03/19/25 10:36	
d9-NEtFOSE (S)	%.	74	15-130	03/19/25 10:36	

LABORATORY CONTROL SAMPLE: 5201108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	7.5	6.9	91	45-160	
3:3 FTCA	ug/kg	9.9	6.6	67	45-130	
4:2 FTS	ug/kg	7.5	7.4	98	60-150	
5:3 FTCA	ug/kg	49.6	44.3	89	60-130	
6:2 FTS	ug/kg	7.7	7.8	102	55-200	
7:3 FTCA	ug/kg	49.6	42.3	85	60-150	
8:2 FTS	ug/kg	7.7	7.6	99	70-150	
9Cl-PF3ONS	ug/kg	7.5	7.7	102	70-150	
ADONA	ug/kg	7.5	8.2	109	70-160	
HFPO-DA	ug/kg	8	7.9	99	70-145	
NEtFOSA	ug/kg	1.9	1.8	96	70-140	
NEtFOSAA	ug/kg	1.9	1.8	93	65-165	
NEtFOSE	ug/kg	19.2	19.1	100	70-135	
NFDHA	ug/kg	4	3.8	95	60-155	
NMeFOSA	ug/kg	1.9	1.9	100	70-155	

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REPORT OF LABORATORY ANALYSIS

l Services, LLC
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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

LABORATORY CONTROL SAMPLE: 5201108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
NMeFOSAA	ug/kg	1.9	1.9	99	65-155	
NMeFOSE	ug/kg	19.2	19.3	100	70-140	
PFBA	ug/kg	8	7.5	94	70-140	
PFBS	ug/kg	1.8	1.7	99	65-145	
PFDA	ug/kg	1.9	1.9	99	70-155	
PFDoA	ug/kg	1.9	1.9	100	70-150	
PFDoS	ug/kg	1.9	1.6	82	25-160	
PFDS	ug/kg	1.9	1.7	91	40-155	
PFEESA	ug/kg	3.5	3.4	97	70-140	
PFHpA	ug/kg	1.9	2.0	102	65-145	
PFHpS	ug/kg	1.9	1.8	91	65-155	
PFHxA	ug/kg	1.9	1.9	98	65-140	
PFHxS	ug/kg	1.8	1.7	99	60-150	
PFMBA	ug/kg	4	4.1	101	60-150	
PFMPA	ug/kg	4	3.9	98	30-140	
PFNA	ug/kg	1.9	1.8	95	70-155	
PFNS	ug/kg	1.9	1.8	96	55-140	
PFOA	ug/kg	1.9	1.8	95	70-150	
PFOS	ug/kg	1.9	1.7	91	65-160	
PFOSA	ug/kg	1.9	1.8	95	70-140	
PFPeA	ug/kg	4	3.9	97	60-150	
PFPeS	ug/kg	1.9	1.9	97	55-160	
PFTeDA	ug/kg	1.9	2.0	105	65-150	
PFTrDA	ug/kg	1.9	1.9	97	65-150	
PFUnA	ug/kg	1.9	1.9	98	70-155	
13C2-PFDoA (S)	%.			97	40-130	
13C2-PFTA (S)	%.			80	20-130	
13C24:2FTS (S)	%.			77	40-135	
13C26:2FTS (S)	%.			72	40-215	
13C28:2FTS (S)	%.			71	40-275	
13C3-PFBS (S)	%.			112	40-135	
13C3-PFHxS (S)	%.			111	40-130	
13C3-PFPrA (S)	%.			64	8-130	
13C3HFPO-DA (S)	%.			110	40-130	
13C4-PFBA (S)	%.			99	8-130	
13C4-PFHpA (S)	%.			111	40-130	
13C5-PFHxA (S)	%.			114	40-130	
13C5-PFPeA (S)	%.			110	35-130	
13C6-PFDA (S)	%.			113	40-130	
13C7-PFUdA (S)	%.			105	40-130	
13C8-PFOA (S)	%.			119	40-130	
13C8-PFOS (S)	%.			102	40-130	
13C8-PFOSA (S)	%.			94	40-130	
13C9-PFNA (S)	%.			114	40-130	
d3-MeFOSAA (S)	%.			86	40-135	
d3-NMeFOSA (S)	%.			85	10-130	
d5-EtFOSAA (S)	%.			88	40-150	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

LABORATORY CONTROL SAMPLE: 5201108

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
d5-NEtFOSA (S)	%.			82	10-130	
d7-NMeFOSE (S)	%.			84	20-130	
d9-NEtFOSE (S)	%.			80	15-130	

LABORATORY CONTROL SAMPLE: 5201109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	1.5	1.4	90	45-160	
3:3 FTCA	ug/kg	2	1.5	75	45-130	
4:2 FTS	ug/kg	1.5	1.4	94	60-150	
5:3 FTCA	ug/kg	9.9	8.9	89	60-130	
6:2 FTS	ug/kg	1.5	1.4	93	55-200	
7:3 FTCA	ug/kg	9.9	9.1	92	60-150	
8:2 FTS	ug/kg	1.5	1.4	91	70-150	
9Cl-PF3ONS	ug/kg	1.5	1.5	99	70-150	
ADONA	ug/kg	1.5	1.6	103	70-160	
HFPO-DA	ug/kg	1.6	1.5	96	70-145	
NEtFOSA	ug/kg	0.38	0.37	96	70-140	
NEtFOSAA	ug/kg	0.38	0.34	89	65-165	
NEtFOSE	ug/kg	3.8	3.8	99	70-135	
NFDHA	ug/kg	0.8	0.77	96	60-155	
NMeFOSA	ug/kg	0.38	0.41	106	70-155	
NMeFOSAA	ug/kg	0.38	0.34	89	65-155	
NMeFOSE	ug/kg	3.8	3.9	101	70-140	
PFBA	ug/kg	1.6	1.6	102	70-140	
PFBS	ug/kg	0.35	0.34	97	65-145	
PFDA	ug/kg	0.38	0.40	103	70-155	
PFDoA	ug/kg	0.38	0.38	98	70-150	
PFDoS	ug/kg	0.38	0.32	83	25-160	
PFDS	ug/kg	0.38	0.33	87	40-155	
PFEESA	ug/kg	0.7	0.69	98	70-140	
PFHpA	ug/kg	0.38	0.37	97	65-145	
PFHpS	ug/kg	0.38	0.35	90	65-155	
PFHxA	ug/kg	0.38	0.37	96	65-140	
PFHxS	ug/kg	0.35	0.37	104	60-150	
PFMBA	ug/kg	0.8	0.79	99	60-150	
PFMPA	ug/kg	0.8	0.79	99	30-140	
PFNA	ug/kg	0.38	0.40	104	70-155	
PFNS	ug/kg	0.38	0.34	88	55-140	
PFOA	ug/kg	0.38	0.38	98	70-150	
PFOS	ug/kg	0.38	0.37	95	65-160	
PFOSA	ug/kg	0.38	0.39	102	70-140	
PFPeA	ug/kg	0.8	0.75	94	60-150	
PFPeS	ug/kg	0.38	0.38	99	55-160	
PFTeDA	ug/kg	0.38	0.40	104	65-150	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

LABORATORY CONTROL SAMPLE: 5201109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFTrDA	ug/kg	0.38	0.35	92	65-150	
PFUnA	ug/kg	0.38	0.40	103	70-155	
13C2-PFDoA (S)	%.			118	40-130	
13C2-PFTA (S)	%.			90	20-130	
13C24:2FTS (S)	%.			89	40-135	
13C26:2FTS (S)	%.			87	40-215	
13C28:2FTS (S)	%.			80	40-275	
13C3-PFBS (S)	%.			126	40-135	
13C3-PFHxS (S)	%.			117	40-130	
13C3-PFPrA (S)	%.			74	8-130	
13C3HFPO-DA (S)	%.			130	40-130	
13C4-PFBA (S)	%.			115	8-130	
13C4-PFHpA (S)	%.			132	40-130	S0
13C5-PFHxA (S)	%.			134	40-130	S0
13C5-PFPeA (S)	%.			133	35-130	S0
13C6-PFDA (S)	%.			130	40-130	
13C7-PFUdA (S)	%.			128	40-130	
13C8-PFOA (S)	%.			133	40-130	S0
13C8-PFOS (S)	%.			125	40-130	
13C8-PFOSA (S)	%.			109	40-130	
13C9-PFNA (S)	%.			125	40-130	
d3-MeFOSAA (S)	%.			108	40-135	
d3-NMeFOSA (S)	%.			100	10-130	
d5-EtFOSAA (S)	%.			107	40-150	
d5-NEtFOSA (S)	%.			98	10-130	
d7-NMeFOSE (S)	%.			101	20-130	
d9-NEtFOSE (S)	%.			94	15-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 10727316

[1] The enclosed data is not intended for regulatory compliance; certification was waived by the client.

SAMPLE QUALIFIERS

Sample: 10727316001

[1] Sample was cryomilled prior to 1633 extraction based on the Pace Analytical SOP for handling of articles of commerce.

BATCH QUALIFIERS

Batch: 999900

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

P8 Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

R1 RPD value was outside control limits.

S0 Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

ANALYTE QUALIFIERS

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

l Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Arlington HS - Colors-Revised Report
Pace Project No.: 10727316

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10727316001	**FG/LG Blend**	EPA 3050B	997652	EPA 6010D	997903
10727316001	**FG/LG Blend**	EPA 3050B	999814	EPA 6010D	999900
10727316002	**White**	EPA 3050B	997652	EPA 6010D	997903
10727316002	**White**	EPA 3050B	999814	EPA 6010D	999900
10727316003	**Gray**	EPA 3050B	997652	EPA 6010D	997903
10727316003	**Gray**	EPA 3050B	999814	EPA 6010D	999900
10727316004	**Vegas Gold**	EPA 3050B	997652	EPA 6010D	997903
10727316004	**Vegas Gold**	EPA 3050B	999276	EPA 6010D	999483
10727316005	**Maroon**	EPA 3050B	997652	EPA 6010D	997903
10727316005	**Maroon**	EPA 3050B	999276	EPA 6010D	999483
10727316001	**FG/LG Blend**	EPA 7471B	997653	EPA 7471B	998050
10727316001	**FG/LG Blend**	EPA 7471B	999278	EPA 7471B	999377
10727316002	**White**	EPA 7471B	997653	EPA 7471B	998050
10727316002	**White**	EPA 7471B	999278	EPA 7471B	999377
10727316003	**Gray**	EPA 7471B	997653	EPA 7471B	998050
10727316003	**Gray**	EPA 7471B	999278	EPA 7471B	999377
10727316004	**Vegas Gold**	EPA 7471B	997653	EPA 7471B	998050
10727316004	**Vegas Gold**	EPA 7471B	999278	EPA 7471B	999377
10727316005	**Maroon**	EPA 7471B	997653	EPA 7471B	998050
10727316005	**Maroon**	EPA 7471B	999278	EPA 7471B	999377
10727316001	**FG/LG Blend**	EPA 1633	996766	EPA 1633	997434
10727316002	**White**	EPA 1633	996766	EPA 1633	997434
10727316003	**Gray**	EPA 1633	996766	EPA 1633	997434
10727316004	**Vegas Gold**	EPA 1633	996766	EPA 1633	997434
10727316005	**Maroon**	EPA 1633	996766	EPA 1633	997434

Pace® Location Requested (City/State):

f·f'face **Pace Analytical Minnesota**

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody Is a LEGAL DOCUMENT - Complete all rdevant fields

1J0#:10727316

10727316

company Name: Sprinturf LLC

Street Address:

146 Fairchild St Suite 150, Daniel Island SC 29492

Customer Project#: Ar1ington HS - Colors

Project Name:

Arlington HS

SIt C ii i ·1 f /Faciii.ty1[) (i1s apP. 1i ti j;·

Contac:t/ReportTo: Caitlin Olive

Phone#, 843-754-6980

Cc E-Mail:mason.snype@sprinturf.com

111volte to: Sprinturf

JnvoiCeE-mall:. ---

ap@sprinturf.com

p - h 6\r"c1e;:niit

applicable):

Quote#;

TlmeZoneCollected: I)AIC I)PT I)MT I)CT (XET

County /Stateorigkl of sample(s): GA

Data Deliverables:

level1I [ ]LevellU [ ] Level IV

JEQUIS

1Other

Regulatory Program (OW, RCRA, etc.) a5 app11cable: NA

Reportable [I Yes o

I J Same Day (J1 Day [12 Day ( ]3 Day Olher

Date Resu!tS Requested: R h US

OW PWSIO # or WW Permit# as appllcable: NA

Field Filtered (if applicable): ( ) Yes ( ) No

Analysis: NA

• Mattric Co::les (Insert In Matrix roe beb.Y): Orinki'lgWater(DW),Gr01.11dwater(GY4Wa!Z.ev4er(WW).ProoJct(P).Sol/Soid (SS),Oil (Ot.t W C\Wt TISSOe{TS). Bioassay(B), VaporM,Surface Water (SW),Sediment (SEO), Sludge (SL), (aulk (t:k). leachate (LL), Blosolid (BS).- ther (Ol}

Identify Container Preservative Type: Preservative Types: {l) None, (2) HN03, (3) H2S04, (4 HNO, (5)HCI, (6)ZA-acetate, (7 NaHS04, (8) Sod

CuslDmerSampie D	Matrix•	Comp/ Grab	Composite Start Dae	Tl-	Collected or Composite End Dae	Time	If Cont.I	Re5'dua!Ollol1ne Rern"	Units	Sample Comment
FG/LGBlend	Solid	G					1	XIX		001
White	Solid	G					1	XIX		001
Gray	Solid	G					1	XIX		003
Vegas Gold	Solid	G					1	XIX		00'-f
Maroon	Solid	G					1	XIX		005

Additkmal Instructions from Pace• :

Collected By: Al!na Collina

Printed Name

stgnature

Customer Remarks/ Special Conditions/ Possible Hazards:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company:(Signature)	Date/Time:
SpMtutf/Ca inOWe	03/14/2025		
Pellnqulshedby/Company:(Sfgnature)	Date/Time:	ReCElvedby/Company:(Slgnaturel	Date/Time:
Pellnqulshed by/Ccmpany: (Signature)	Date/Time:	Recelvedby/Cmnpany:(SlgnatureJ	Oate/Time:
Rellnqubhed by/Canpiny: !Signature)	Date/rime:	Recelvedby/Cor1'}any:'5lgnature)	Dato/TI=,

Da1ern""3}/I.//ZS \I')O .

Pase: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace• Tenns and Conditions found at https://www.pacelabs.com/resource-Ubrary/resource/pace-tenns-and-condltions/

ENV-fRM-CORQ-0019_vo2_110123

ENV-FRM-MIN4-0150 v19_Sample Condition Upon Receipt

Person Examining & Date: EVM 3/14/25 **PROJECT#:** **WO#:10727316**

PM: KNH Due Date: 04/11/25

CLIENT: Sprinturf

Client Name: S fr.Vilitv-?-; I

Custody Seal Present: ☐-YES cifNo **Seals Intact:** ☐ YES ci?No

Tracking Number: 7726 9955 6415

0 **See Exceptions form ENV-FRM-MIN4-0142.**

Courier: ☐Client ☐ **Commercial** ☑ **FedEx** D Pace Courier/Field ☐ SpeeDee ☐ UPS ☐ USPS

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☑ **None** D Other: _____ **Biological Tissue Frozen:** ☐YES ONO

Thermometer: ☐Tl (0461) ☐T2 (0431) ☑ **T3 (0459)** ☐T4(0402) **Type of Ice:** D Blue D Jrv ☐Wet ☐Melted None

☐TS(0187) D T6 (0396) D T7 (03n) ☐T8(0775)

D T9 (0428) D 01339252 (0710) **Temp Blank:** D YES 11No

***NOTE:** Temp should be 5 6"C, but abovefreezing.* **Did Samples Originate in West Virginia:** D YES NO (list **i,rnps on exception)**

Read Temp w/Temp Blank: ---=----•c **Were All Container Temps Taken:** DYES D NO IB'N/A

Correction Factor: -tiJ. 'X **Average Corrected Temp (No Temp Blank Only):** 2.J..h /

Corrected Temp w/Tem **Blank:** •C D **See E eptions** form **ENV-FRM-MIN4-0142.** Ji1 Container

USDA Regulated Soil: N/A-Water Sample/Other (describe): ---

Did Samples originate from one of the following states (check ma s): ☐ NO Are samples from a foreign source (international, including Hawaii

Circle State: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, VA and Puerto Rico): ☐ YES ONO

***NOTE: If YES to either quest!** , fl/I out a Regulated Soll Checklist {ENV-FRM-MIN4-0l54} and Indude with SCUR/COC paperwork.*

LOCATION (check one): ☐ **DULUTH** ☑ **MINNEAPOLIS** ☐ **VIRGINIA**	**YES**	**NO**	**N/A**	**COMMENT(S)**
Chain of Custody Present and Filled Out? **(i.e., Analysis/ID/Date/Time)**	☐	☑		1. COC provided after receipt
Chain of Custody Relinquished?	☐	☑		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time? If Fecal: ☐<8 hr.s ☐>8 hr but <24 hr ☐>24hr	☑	☐		4.
Short Hold Time **Analysis (<72** hr)?	☐	☑		5. ☐BOD/ cBOD ☐Fecal coliform ☐Hex Chrom ☐HPC ☐Nitrate ☐Nitrite ☐Ortho Phos ☐Total coliform/£. *coli* ☐Turbidity D Other: _
Rush Turn Around Time Requested?	☐	☑		6. ☐Same Day D 1 Day D 2 Day ☐3 Day ☐5 Day Due Date:
Sufficient Sample Volume? **(If NO, list approximate volume in section 7.)**	☑	☐		7.
Correct Containers Used?	☐	☑	☐	8.
- Pace Containers Used?	☐	☑		
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES D NO
ID/Date/Time Match? **(If NO, fill out section 11.)**	☐	☑	☐	11.
Matrix: ☐ Oil ☐ Soil ☐ Water ☑ Other Product				0 **See Exceptions** form **ENV-FRM-MIN4-0142**
All containers needing acid/base preservation have been checked?	☐	☐	☑	12.
Sample#:				

☐ HNO3 _____ 0H2S04 _____ 0 NaOH _____ ☐nc Acetate _____

pH Paper Lot#:

D Residual Chlorine _____ ☐ 0-6 Roll _____ D 0-6 Strip _____ 0 0-14Strip _____

sitive for Residual Chlorine (NaOH containers only): D YES D NO

Preserved containers in compliance with EPA recommendations? (HN03, H2S04, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	D	☑	☐ **See Exceptions form ENV-FRM-MIN4-0142**
EXCECTIONS (water only): VOA, Coliform, TOC/DOC, Oil & Grease, Phenols, DR0/8015, Dioxins, and PFAS	D	☐	☑	
Extra labels present on soil VOA or WIDRO containers? **(soil only)**	D	☐	☑	13.
Headspace in Methyl Mercury Container?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	0 **See Exceptions form ENV-FRM-MIN4-0140**
T_rip:_B,...la_n_ks_P_re_s_e_nt_?	+	D	D	☑
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot# (if purchased):

CLIENT NOTIFICATION/ RESOLUTION: **Labeled By:** JVFV/1 Une:£

Person Contacted & Date/Time: _____ **PM Review & Date:** Kirsten Johnson 3/17/2025

***NOTE:** When there is a discrepancy affecting North Carolina compliance samples, a copy of thisform will be sent to the North Carolina DEQ Certification Office.*

Arlington HS – CAM 17 Test Results - Rubber
April 07, 2025

Please see the below chart summarizing the metals data from Pace Analytical.

Metal	Crumb Rubber Results (mg/kg)	Detection Limit (mg/kg)	Result
Antimony	ND	500	PASS
Arsenic	ND	500	PASS
Barium	4.9	10000	PASS
Beryllium	ND	75	PASS
Cadmium	.36	100	PASS
Chromium	1.3	2500	PASS
Cobalt	67.2	8000	PASS
Copper	14.6	2500	PASS
Lead	8.8	1000	PASS
Molybdenum	ND	3500	PASS
Nickel	2.8	2000	PASS
Selenium	1.2	100	PASS
Silver	ND	500	PASS
Thallium	ND	700	PASS
Vanadium	.82	2400	PASS
Zinc	13600	5000	FAIL

The Federal EPA and the Massachusetts Department of Environmental Protection 310 CMR 30.000, Massachusetts Hazardous Waste Regulations do not specifically regulate the use of SRB crumb rubber in sports fields and other sport surfaces. While the regulations cover hazardous waste management, crumb rubber itself is not classified as a solid or hazardous waste. Crumb rubber, composed of recycled tires, is not generally considered to possess these hazardous characteristics. While it may contain some chemicals, the levels are low and result in low exposure levels.

The testing of SRB crumb rubber using regulations such as CAM 17, and out of state solid and hazardous waste regulation, uses EPA 6010D which utilizes acid digestion prior to analysis followed by inductively coupled plasma—optical emission spectrometry (ICP-OES) used to determine trace elements in aqueous solutions. Basically, this method transforms a solid into a gas (i.e., nebulizes) to determine the concentration of included elements.

The aggressive nature of EPA 6010D, although appropriate for solid and hazardous waste testing, is not appropriate for evaluating the suitability of an infill material used in synthetic fields.

Testing performed as part of the Federal Research on Recycled Tire Crumb Used on Playing Fields and Playgrounds has indicated that any exposures of chemicals of concern are generally very low and at 1 in 1,000,000 risk levels for cancer and non-cancer exposure over a 70 year life span.

- Synthetic Turf Field Recycled Tire Crumb Rubber Research Under the Federal Research Action Plan Final Report Part 2 – Exposure Characterization Volume I April 16, 2024
- And the recent follow up OEHHA Synthetic Turf Study March 2025 Public Review Draft

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

March 20, 2025

Caitlin Olive
Sprinturf
146 Fairchild Street
Charleston, SC 29492

RE: Project: Arlington HS
Pace Project No.: 10725098

Dear Caitlin Olive:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kirsten Hogberg
kirsten.hogberg@pacelabs.com
(612)607-1700
Project Manager

Enclosures

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Arlington HS
Pace Project No.: 10725098

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: Arlington HS
Pace Project No.: 10725098

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10725098001	**Crumb Rubber**	Solid		02/28/25 13:40

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: Arlington HS
Pace Project No.: 10725098

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10725098001	**Crumb Rubber**	EPA 6010D	IP	16	PASI-M
		EPA 7471B	LMW	1	PASI-M
		EPA 1633	MJL	65	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS
Pace Project No.: 10725098

Sample: Crumb Rubber **Lab ID: 10725098001** Collected: Received: 02/28/25 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Initial Volume/Weight: 1.034 g Final Volume/Weight: 50 mL Pace Analytical Services - Minneapolis							
Antimony	ND	mg/kg	0.97	1	03/12/25 10:25	03/12/25 14:17	7440-36-0	
Arsenic	ND	mg/kg	0.97	1	03/12/25 10:25	03/12/25 14:17	7440-38-2	
Barium	**4.9**	mg/kg	0.48	1	03/12/25 10:25	03/12/25 14:17	7440-39-3	
Beryllium	ND	mg/kg	0.24	1	03/12/25 10:25	03/12/25 14:17	7440-41-7	
Cadmium	**0.36**	mg/kg	0.15	1	03/12/25 10:25	03/12/25 14:17	7440-43-9	
Chromium	**1.3**	mg/kg	0.48	1	03/12/25 10:25	03/12/25 14:17	7440-47-3	
Cobalt	**67.2**	mg/kg	0.48	1	03/12/25 10:25	03/12/25 14:17	7440-48-4	
Copper	**14.6**	mg/kg	0.48	1	03/12/25 10:25	03/12/25 14:17	7440-50-8	
Lead	**8.8**	mg/kg	0.48	1	03/12/25 10:25	03/12/25 14:17	7439-92-1	
Molybdenum	ND	mg/kg	0.73	1	03/12/25 10:25	03/12/25 14:17	7439-98-7	
Nickel	**2.8**	mg/kg	0.97	1	03/12/25 10:25	03/12/25 14:17	7440-02-0	
Selenium	**1.2**	mg/kg	0.97	1	03/12/25 10:25	03/12/25 14:17	7782-49-2	
Silver	ND	mg/kg	0.48	1	03/12/25 10:25	03/12/25 14:17	7440-22-4	
Thallium	ND	mg/kg	0.97	1	03/12/25 10:25	03/12/25 14:17	7440-28-0	
Vanadium	**0.82**	mg/kg	0.73	1	03/12/25 10:25	03/12/25 14:17	7440-62-2	
Zinc	**13600**	mg/kg	38.7	20	03/12/25 10:25	03/12/25 14:25	7440-66-6	
7471B Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Initial Volume/Weight: 0.358 g Final Volume/Weight: 30 mL Pace Analytical Services - Minneapolis							
Mercury	**0.019**	mg/kg	0.017	1	03/19/25 08:24	03/19/25 12:39	7439-97-6	
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 2 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
11Cl-PF3OUdS	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	763051-92-9	
3:3 FTCA	ND	ug/kg	2.5	1	03/09/25 08:56	03/10/25 16:54	356-02-5	
4:2 FTS	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	757124-72-4	
5:3 FTCA	ND	ug/kg	12.5	1	03/09/25 08:56	03/10/25 16:54	914637-49-3	
6:2 FTS	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	27619-97-2	
7:3 FTCA	ND	ug/kg	12.5	1	03/09/25 08:56	03/10/25 16:54	812-70-4	
8:2 FTS	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	756426-58-1	
ADONA	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	919005-14-4	
HFPO-DA	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	13252-13-6	
NEtFOSAA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	2991-50-6	
NEtFOSA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	4151-50-2	
NEtFOSE	ND	ug/kg	5.0	1	03/09/25 08:56	03/10/25 16:54	1691-99-2	
NFDHA	ND	ug/kg	1.0	1	03/09/25 08:56	03/10/25 16:54	151772-58-6	
NMeFOSAA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	2355-31-9	
NMeFOSA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	31506-32-8	
NMeFOSE	ND	ug/kg	5.0	1	03/09/25 08:56	03/10/25 16:54	24448-09-7	
PFBS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	375-73-5	

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS
Pace Project No.: 10725098

JJA Sports: NET (No Exceptions Taken) Testing for PFOA Compounds Area Non-Detect Using EPA 1633F

Sample: Crumb Rubber **Lab ID: 10725098001** Collected: Received: 02/28/25 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 2 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
PFDA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	335-76-2	
PFHxA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	307-24-4	
PFBA	ND	ug/kg	2.0	1	03/09/25 08:56	03/10/25 16:54	375-22-4	
PFDS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	335-77-3	
PFDoS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	79780-39-5	
PFEESA	ND	ug/kg	1.0	1	03/09/25 08:56	03/10/25 16:54	113507-82-7	
PFHpS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	375-92-8	
PFMBA	ND	ug/kg	1.0	1	03/09/25 08:56	03/10/25 16:54	863090-89-5	
PFMPA	ND	ug/kg	1.0	1	03/09/25 08:56	03/10/25 16:54	377-73-1	
PFNS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	68259-12-1	
PFOSA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	754-91-6	
PFPeA	ND	ug/kg	1.0	1	03/09/25 08:56	03/10/25 16:54	2706-90-3	
PFPeS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	2706-91-4	
PFDoA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	307-55-1	
PFHpA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	375-85-9	
PFHxS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	355-46-4	
PFNA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	375-95-1	
PFOS	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	1763-23-1	
PFOA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	335-67-1	
PFTeDA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	376-06-7	
PFTrDA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	72629-94-8	
PFUnA	ND	ug/kg	0.50	1	03/09/25 08:56	03/10/25 16:54	2058-94-8	
Surrogates								
13C2-PFDoA (S)	113	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C3HFPO-DA (S)	70	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C3-PFBS (S)	83	%.	40-135	1	03/09/25 08:56	03/10/25 16:54		
13C3-PFHxS (S)	85	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C4-PFBA (S)	78	%.	8-130	1	03/09/25 08:56	03/10/25 16:54		
13C4-PFHpA (S)	87	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C5-PFHxA (S)	85	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C5-PFPeA (S)	82	%.	35-130	1	03/09/25 08:56	03/10/25 16:54		
13C6-PFDA (S)	82	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C8-PFOA (S)	86	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C8-PFOS (S)	90	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C8-PFOSA (S)	64	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
13C9-PFNA (S)	87	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		
d3-MeFOSAA (S)	98	%.	40-135	1	03/09/25 08:56	03/10/25 16:54		
d3-NMeFOSA (S)	26	%.	10-130	1	03/09/25 08:56	03/10/25 16:54		
d5-EtFOSAA (S)	140	%.	40-150	1	03/09/25 08:56	03/10/25 16:54		
d5-NEtFOSA (S)	28	%.	10-130	1	03/09/25 08:56	03/10/25 16:54		
d7-NMeFOSE (S)	12	%.	20-130	1	03/09/25 08:56	03/10/25 16:54		S0
d9-NEtFOSE (S)	8	%.	15-130	1	03/09/25 08:56	03/10/25 16:54		S0
13C2-PFTA (S)	125	%.	20-130	1	03/09/25 08:56	03/10/25 16:54		
13C7-PFUdA (S)	120	%.	40-130	1	03/09/25 08:56	03/10/25 16:54		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Arlington HS
Pace Project No.: 10725098

Sample: Crumb Rubber **Lab ID: 10725098001** Collected: Received: 02/28/25 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633F Soil	Analytical Method: EPA 1633 Preparation Method: EPA 1633 Initial Volume/Weight: 2 g Final Volume/Weight: 4 mL Pace Analytical Services - Minneapolis							
Surrogates								
13C24:2FTS (S)	280	%.	40-135	1	03/09/25 08:56	03/10/25 16:54		S3
13C26:2FTS (S)	406	%.	40-215	1	03/09/25 08:56	03/10/25 16:54		S3
13C28:2FTS (S)	266	%.	40-275	1	03/09/25 08:56	03/10/25 16:54		
13C3-PFPrA (S)	47	%.	8-130	1	03/09/25 08:56	03/10/25 16:54		

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QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

QC Batch: 996644
QC Batch Method: EPA 7471B
Analysis Method: EPA 7471B
Analysis Description: 7471B Mercury Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10725098001

METHOD BLANK: 5200785 Matrix: Solid
Associated Lab Samples: 10725098001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.020	03/19/25 12:33	

LABORATORY CONTROL SAMPLE: 5200786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.47	0.50	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5200787 5200788

Parameter	Units	10725098001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.019	0.42	0.47	0.41	0.47	92	95	80-120	13	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

QC Batch: 995928
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10725098001

METHOD BLANK: 5196344 Matrix: Solid
Associated Lab Samples: 10725098001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	mg/kg	ND	0.94	03/12/25 13:55	
Arsenic	mg/kg	ND	0.94	03/12/25 13:55	
Barium	mg/kg	ND	0.47	03/12/25 13:55	
Beryllium	mg/kg	ND	0.23	03/12/25 13:55	
Cadmium	mg/kg	ND	0.14	03/12/25 13:55	
Chromium	mg/kg	ND	0.47	03/12/25 13:55	
Cobalt	mg/kg	ND	0.47	03/12/25 13:55	
Copper	mg/kg	ND	0.47	03/12/25 13:55	
Lead	mg/kg	ND	0.47	03/12/25 13:55	
Molybdenum	mg/kg	ND	0.70	03/12/25 13:55	
Nickel	mg/kg	ND	0.94	03/12/25 13:55	
Selenium	mg/kg	ND	0.94	03/12/25 13:55	
Silver	mg/kg	ND	0.47	03/12/25 13:55	
Thallium	mg/kg	ND	0.94	03/12/25 13:55	
Vanadium	mg/kg	ND	0.70	03/12/25 13:55	
Zinc	mg/kg	ND	1.9	03/12/25 13:55	

LABORATORY CONTROL SAMPLE: 5196345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/kg	47	43.8	93	80-120	
Arsenic	mg/kg	47	45.1	96	80-120	
Barium	mg/kg	47	47.3	101	80-120	
Beryllium	mg/kg	47	46.2	98	80-120	
Cadmium	mg/kg	47	46.8	100	80-120	
Chromium	mg/kg	47	47.3	101	80-120	
Cobalt	mg/kg	47	47.1	100	80-120	
Copper	mg/kg	47	48.3	103	80-120	
Lead	mg/kg	47	46.7	99	80-120	
Molybdenum	mg/kg	47	46.0	98	80-120	
Nickel	mg/kg	47	46.8	99	80-120	
Selenium	mg/kg	47	43.4	92	80-120	
Silver	mg/kg	23.5	22.2	94	80-120	
Thallium	mg/kg	47	47.9	102	80-120	
Vanadium	mg/kg	47	47.4	101	80-120	
Zinc	mg/kg	47	46.6	99	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5196346 5196347

Parameter	Units	10725146003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/kg	<7.5	356	359	312	307	87	85	75-125	1	20	
Arsenic	mg/kg	<7.5	356	359	333	326	93	90	75-125	2	20	
Barium	mg/kg	57.4	356	359	414	395	100	94	75-125	5	20	
Beryllium	mg/kg	<1.9	356	359	347	338	97	94	75-125	3	20	
Cadmium	mg/kg	<1.1	356	359	347	340	97	94	75-125	2	20	
Chromium	mg/kg	4.1	356	359	359	349	100	96	75-125	3	20	
Cobalt	mg/kg	<3.8	356	359	355	345	99	96	75-125	3	20	
Copper	mg/kg	9.1	356	359	383	373	105	101	75-125	3	20	
Lead	mg/kg	<3.8	356	359	350	341	98	94	75-125	3	20	
Molybdenum	mg/kg	<5.6	356	359	344	336	96	93	75-125	2	20	
Nickel	mg/kg	8.8	356	359	360	349	99	95	75-125	3	20	
Selenium	mg/kg	<7.5	356	359	332	325	92	90	75-125	2	20	
Silver	mg/kg	<3.8	178	180	148	147	83	82	75-125	1	20	
Thallium	mg/kg	<7.5	356	359	355	347	100	97	75-125	2	20	
Vanadium	mg/kg	11.1	356	359	368	356	100	96	75-125	3	20	
Zinc	mg/kg	<15.0	356	359	359	352	97	94	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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(612)607-1700

QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

QC Batch: 994895
QC Batch Method: EPA 1633
Analysis Method: EPA 1633
Analysis Description: EPA 1633F Soil
Laboratory: Pace Analytical Services - Minneapolis

Associated Lab Samples: 10725098001

METHOD BLANK: 5189604 Matrix: Solid
Associated Lab Samples: 10725098001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/kg	ND	0.80	03/10/25 13:06	
3:3 FTCA	ug/kg	ND	1.0	03/10/25 13:06	
4:2 FTS	ug/kg	ND	0.80	03/10/25 13:06	
5:3 FTCA	ug/kg	ND	5.0	03/10/25 13:06	
6:2 FTS	ug/kg	ND	0.80	03/10/25 13:06	
7:3 FTCA	ug/kg	ND	5.0	03/10/25 13:06	
8:2 FTS	ug/kg	ND	0.80	03/10/25 13:06	
9Cl-PF3ONS	ug/kg	ND	0.80	03/10/25 13:06	
ADONA	ug/kg	ND	0.80	03/10/25 13:06	
HFPO-DA	ug/kg	ND	0.80	03/10/25 13:06	
NEtFOSA	ug/kg	ND	0.20	03/10/25 13:06	
NEtFOSAA	ug/kg	ND	0.20	03/10/25 13:06	
NEtFOSE	ug/kg	ND	2.0	03/10/25 13:06	
NFDHA	ug/kg	ND	0.40	03/10/25 13:06	
NMeFOSA	ug/kg	ND	0.20	03/10/25 13:06	
NMeFOSAA	ug/kg	ND	0.20	03/10/25 13:06	
NMeFOSE	ug/kg	ND	2.0	03/10/25 13:06	
PFBA	ug/kg	ND	0.80	03/10/25 13:06	
PFBS	ug/kg	ND	0.20	03/10/25 13:06	
PFDA	ug/kg	ND	0.20	03/10/25 13:06	
PFDoA	ug/kg	ND	0.20	03/10/25 13:06	
PFDoS	ug/kg	ND	0.20	03/10/25 13:06	
PFDS	ug/kg	ND	0.20	03/10/25 13:06	
PFEESA	ug/kg	ND	0.40	03/10/25 13:06	
PFHpA	ug/kg	ND	0.20	03/10/25 13:06	
PFHpS	ug/kg	ND	0.20	03/10/25 13:06	
PFHxA	ug/kg	ND	0.20	03/10/25 13:06	
PFHxS	ug/kg	ND	0.20	03/10/25 13:06	
PFMBA	ug/kg	ND	0.40	03/10/25 13:06	
PFMPA	ug/kg	ND	0.40	03/10/25 13:06	
PFNA	ug/kg	ND	0.20	03/10/25 13:06	
PFNS	ug/kg	ND	0.20	03/10/25 13:06	
PFOA	ug/kg	ND	0.20	03/10/25 13:06	
PFOS	ug/kg	ND	0.20	03/10/25 13:06	
PFOSA	ug/kg	ND	0.20	03/10/25 13:06	
PFPeA	ug/kg	ND	0.40	03/10/25 13:06	
PFPeS	ug/kg	ND	0.20	03/10/25 13:06	
PFTeDA	ug/kg	ND	0.20	03/10/25 13:06	
PFTrDA	ug/kg	ND	0.20	03/10/25 13:06	
PFUnA	ug/kg	ND	0.20	03/10/25 13:06	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

METHOD BLANK: 5189604 Matrix: Solid
Associated Lab Samples: 10725098001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
13C2-PFDoA (S)	%.	64	40-130	03/10/25 13:06	
13C2-PFTA (S)	%.	59	20-130	03/10/25 13:06	
13C24:2FTS (S)	%.	67	40-135	03/10/25 13:06	
13C26:2FTS (S)	%.	58	40-215	03/10/25 13:06	
13C28:2FTS (S)	%.	58	40-275	03/10/25 13:06	
13C3-PFBS (S)	%.	69	40-135	03/10/25 13:06	
13C3-PFHxS (S)	%.	64	40-130	03/10/25 13:06	
13C3-PFPrA (S)	%.	36	8-130	03/10/25 13:06	
13C3HFPO-DA (S)	%.	68	40-130	03/10/25 13:06	
13C4-PFBA (S)	%.	60	8-130	03/10/25 13:06	
13C4-PFHpA (S)	%.	63	40-130	03/10/25 13:06	
13C5-PFHxA (S)	%.	65	40-130	03/10/25 13:06	
13C5-PFPeA (S)	%.	67	35-130	03/10/25 13:06	
13C6-PFDA (S)	%.	67	40-130	03/10/25 13:06	
13C7-PFUdA (S)	%.	66	40-130	03/10/25 13:06	
13C8-PFOA (S)	%.	69	40-130	03/10/25 13:06	
13C8-PFOS (S)	%.	71	40-130	03/10/25 13:06	
13C8-PFOSA (S)	%.	68	40-130	03/10/25 13:06	
13C9-PFNA (S)	%.	69	40-130	03/10/25 13:06	
d3-MeFOSAA (S)	%.	64	40-135	03/10/25 13:06	
d3-NMeFOSA (S)	%.	60	10-130	03/10/25 13:06	
d5-EtFOSAA (S)	%.	64	40-150	03/10/25 13:06	
d5-NEtFOSA (S)	%.	58	10-130	03/10/25 13:06	
d7-NMeFOSE (S)	%.	66	20-130	03/10/25 13:06	
d9-NEtFOSE (S)	%.	65	15-130	03/10/25 13:06	

LABORATORY CONTROL SAMPLE: 5189605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	7.5	7.0	94	45-160	
3:3 FTCA	ug/kg	9.9	6.6	66	45-130	
4:2 FTS	ug/kg	7.5	6.8	90	60-150	
5:3 FTCA	ug/kg	49.6	42.8	86	60-130	
6:2 FTS	ug/kg	7.7	7.5	97	55-200	
7:3 FTCA	ug/kg	49.6	41.8	84	60-150	
8:2 FTS	ug/kg	7.7	6.8	89	70-150	
9Cl-PF3ONS	ug/kg	7.5	7.1	94	70-150	
ADONA	ug/kg	7.5	7.0	92	70-160	
HFPO-DA	ug/kg	8	7.1	88	70-145	
NEtFOSA	ug/kg	1.9	1.8	91	70-140	
NEtFOSAA	ug/kg	1.9	1.7	91	65-165	
NEtFOSE	ug/kg	19.2	17.5	91	70-135	
NFDHA	ug/kg	4	3.5	89	60-155	
NMeFOSA	ug/kg	1.9	1.8	93	70-155	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

LABORATORY CONTROL SAMPLE: 5189605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
NMeFOSAA	ug/kg	1.9	1.7	88	65-155	
NMeFOSE	ug/kg	19.2	17.7	92	70-140	
PFBA	ug/kg	8	6.9	86	70-140	
PFBS	ug/kg	1.8	1.6	92	65-145	
PFDA	ug/kg	1.9	1.7	90	70-155	
PFDoA	ug/kg	1.9	1.8	93	70-150	
PFDoS	ug/kg	1.9	1.7	89	25-160	
PFDS	ug/kg	1.9	1.7	90	40-155	
PFEESA	ug/kg	3.5	3.2	92	70-140	
PFHpA	ug/kg	1.9	1.7	91	65-145	
PFHpS	ug/kg	1.9	1.7	88	65-155	
PFHxA	ug/kg	1.9	1.8	93	65-140	
PFHxS	ug/kg	1.8	1.5	86	60-150	
PFMBA	ug/kg	4	3.6	90	60-150	
PFMPA	ug/kg	4	4.0	100	30-140	
PFNA	ug/kg	1.9	1.8	93	70-155	
PFNS	ug/kg	1.9	1.7	87	55-140	
PFOA	ug/kg	1.9	1.7	88	70-150	
PFOS	ug/kg	1.9	1.6	84	65-160	
PFOSA	ug/kg	1.9	1.7	89	70-140	
PFPeA	ug/kg	4	3.6	89	60-150	
PFPeS	ug/kg	1.9	1.6	85	55-160	
PFTeDA	ug/kg	1.9	1.8	95	65-150	
PFTrDA	ug/kg	1.9	1.8	93	65-150	
PFUnA	ug/kg	1.9	1.8	92	70-155	
13C2-PFDoA (S)	%.			83	40-130	
13C2-PFTA (S)	%.			78	20-130	
13C24:2FTS (S)	%.			98	40-135	
13C26:2FTS (S)	%.			79	40-215	
13C28:2FTS (S)	%.			83	40-275	
13C3-PFBS (S)	%.			94	40-135	
13C3-PFHxS (S)	%.			92	40-130	
13C3-PFPrA (S)	%.			38	8-130	
13C3HFPO-DA (S)	%.			83	40-130	
13C4-PFBA (S)	%.			66	8-130	
13C4-PFHpA (S)	%.			83	40-130	
13C5-PFHxA (S)	%.			84	40-130	
13C5-PFPeA (S)	%.			85	35-130	
13C6-PFDA (S)	%.			89	40-130	
13C7-PFUdA (S)	%.			88	40-130	
13C8-PFOA (S)	%.			86	40-130	
13C8-PFOS (S)	%.			82	40-130	
13C8-PFOSA (S)	%.			83	40-130	
13C9-PFNA (S)	%.			84	40-130	
d3-MeFOSAA (S)	%.			84	40-135	
d3-NMeFOSA (S)	%.			73	10-130	
d5-EtFOSAA (S)	%.			80	40-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

LABORATORY CONTROL SAMPLE: 5189605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
d5-NEtFOSA (S)	%.			74	10-130	
d7-NMeFOSE (S)	%.			80	20-130	
d9-NEtFOSE (S)	%.			80	15-130	

LABORATORY CONTROL SAMPLE: 5189606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	1.5	1.3	87	45-160	
3:3 FTCA	ug/kg	2	1.2	62	45-130	
4:2 FTS	ug/kg	1.5	1.3	86	60-150	
5:3 FTCA	ug/kg	9.9	7.9	79	60-130	
6:2 FTS	ug/kg	1.5	1.4	90	55-200	
7:3 FTCA	ug/kg	9.9	7.3	74	60-150	
8:2 FTS	ug/kg	1.5	1.5	94	70-150	
9Cl-PF3ONS	ug/kg	1.5	1.3	89	70-150	
ADONA	ug/kg	1.5	1.3	90	70-160	
HFPO-DA	ug/kg	1.6	1.4	90	70-145	
NEtFOSA	ug/kg	0.38	0.35	91	70-140	
NEtFOSAA	ug/kg	0.38	0.33	86	65-165	
NEtFOSE	ug/kg	3.8	3.3	86	70-135	
NFDHA	ug/kg	0.8	0.70	88	60-155	
NMeFOSA	ug/kg	0.38	0.36	94	70-155	
NMeFOSAA	ug/kg	0.38	0.35	91	65-155	
NMeFOSE	ug/kg	3.8	3.4	89	70-140	
PFBA	ug/kg	1.6	1.4	85	70-140	
PFBS	ug/kg	0.35	0.30	86	65-145	
PFDA	ug/kg	0.38	0.34	89	70-155	
PFDoA	ug/kg	0.38	0.35	90	70-150	
PFDoS	ug/kg	0.38	0.30	79	25-160	
PFDS	ug/kg	0.38	0.33	85	40-155	
PFEESA	ug/kg	0.7	0.62	88	70-140	
PFHpA	ug/kg	0.38	0.35	90	65-145	
PFHpS	ug/kg	0.38	0.34	89	65-155	
PFHxA	ug/kg	0.38	0.33	85	65-140	
PFHxS	ug/kg	0.35	0.30	86	60-150	
PFMBA	ug/kg	0.8	0.69	86	60-150	
PFMPA	ug/kg	0.8	0.77	97	30-140	
PFNA	ug/kg	0.38	0.32	84	70-155	
PFNS	ug/kg	0.38	0.33	86	55-140	
PFOA	ug/kg	0.38	0.34	88	70-150	
PFOS	ug/kg	0.38	0.31	81	65-160	
PFOSA	ug/kg	0.38	0.34	89	70-140	
PFPeA	ug/kg	0.8	0.68	85	60-150	
PFPeS	ug/kg	0.38	0.32	84	55-160	
PFTeDA	ug/kg	0.38	0.36	93	65-150	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Arlington HS
Pace Project No.: 10725098

LABORATORY CONTROL SAMPLE: 5189606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFTrDA	ug/kg	0.38	0.33	85	65-150	
PFUnA	ug/kg	0.38	0.36	93	70-155	
13C2-PFDoA (S)	%.			88	40-130	
13C2-PFTA (S)	%.			78	20-130	
13C24:2FTS (S)	%.			110	40-135	
13C26:2FTS (S)	%.			87	40-215	
13C28:2FTS (S)	%.			84	40-275	
13C3-PFBS (S)	%.			98	40-135	
13C3-PFHxS (S)	%.			89	40-130	
13C3-PFPrA (S)	%.			38	8-130	
13C3HFPO-DA (S)	%.			85	40-130	
13C4-PFBA (S)	%.			64	8-130	
13C4-PFHpA (S)	%.			86	40-130	
13C5-PFHxA (S)	%.			88	40-130	
13C5-PFPeA (S)	%.			88	35-130	
13C6-PFDA (S)	%.			94	40-130	
13C7-PFUdA (S)	%.			94	40-130	
13C8-PFOA (S)	%.			89	40-130	
13C8-PFOS (S)	%.			89	40-130	
13C8-PFOSA (S)	%.			85	40-130	
13C9-PFNA (S)	%.			91	40-130	
d3-MeFOSAA (S)	%.			89	40-135	
d3-NMeFOSA (S)	%.			73	10-130	
d5-EtFOSAA (S)	%.			86	40-150	
d5-NEtFOSA (S)	%.			76	10-130	
d7-NMeFOSE (S)	%.			81	20-130	
d9-NEtFOSE (S)	%.			81	15-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: Arlington HS
Pace Project No.: 10725098

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 10725098

[1] The enclosed data is not intended for regulatory compliance; certification was waived by the client.

SAMPLE QUALIFIERS

Sample: 10725098001

[1] Sample was cryomilled prior to extraction based on the Pace Analytical SOP for handling consumer products.

ANALYTE QUALIFIERS

S0 Surrogate recovery outside laboratory control limits.

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Arlington HS
Pace Project No.: 10725098

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10725098001	**Crumb Rubber**	EPA 3050B	995928	EPA 6010D	996059
10725098001	**Crumb Rubber**	EPA 7471B	996644	EPA 7471B	997257
10725098001	**Crumb Rubber**	EPA 1633	994895	EPA 1633	995770

Pace® Location Requested (City/State): **Pace Analytical Minnesota**

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 10725098

10725098

Company Name: Sprinturf LLC	Contact/Report To: Caitlin Olive
Street Address: 146 Fairchild St., Daniel Island SC	Phone #: 843-754-6980
	E-Mail: caitlin.olive@sprinturf.com
	Cc E-Mail: mason.snype@gmail.com
Customer Project #:	Invoice to: ITS - Sprinturf
Project Name: Arlington HS	Invoice E-mail: ap@sprinturf.com
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET	County / State origin of sample(s):
Data Deliverables: [X] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: NA — Reportable [ ] Yes [X] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other
	Date Results Requested: Standard TAT = 20 BD
	DW PWSID # or WW Permit # as applicable: NA
	Field Filtered (if applicable): [ ] Yes [ ] No
	Analysis: NA

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	CAM 17 Metals	EPA 1633 w/ Cryomill	Sample Comment
Crumb Rubber	S	G	----------	--------			1			X	X	001

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: Carolynne Trout; AcctNum / Client ID:; Table #:; Profile / Template: 47569; Prelog / Bottle Ord. ID:

Preservation non-conformance identified for sample.

Additional Instructions from Pace® :

Collected By: Alina Collins
Printed Name
Signature

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):	[ ] On Ice
1	T1	-0.1	19.2	19.1	

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
		Cuy Mw PACE	2/28/25 1340
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

Tracking Number:

Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other

Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

WO#: 10725098
PM: KNH Due Date: 03/28/25
CLIENT: Sprinturf

CLIENT NAME: Crumb Rubber **PROJECT #:**

COURIER: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 7722 8740 1505 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☐ YES ☑ NO **Seals Intact:** ☐ YES ☑ NO **Biological Tissue Frozen:** ☐ YES ☐ NO ☑ N/A

Packing Material: ☑ Bubble Bags ☐ Bubble Wrap ☐ None ☐ Other **Temp Blank:** ☐ YES ☑ NO **Type of Ice:** ☐ Blue ☐ Dry ☐ Wet ☐ Melted ☑ None

Thermometer: ☑ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☐ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☑ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☑ N/A
Correction Factor: -0.1 **Cooler Temp Read w/Temp Blank:** ____ °C **Cooler Temp Corrected w/Temp Blank:** ____ °C	**Average Corrected Temp (no Temp Blank Only):** 19.1 °C
NOTE: *Temp should be above freezing to 6°C.*	☐ See Exceptions Form ENV-FRM-MIN4-0142 ☑ 1 Container
USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): Product	**Initials & Date of Person Examining Contents:** NEVM 2/28/25
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☑	☐	CM	1. 3/3/25 COC received after log-in
Chain of Custody Relinquished?	☐	☑		2.
Sampler Name and/or Signature on COC?	☑	☐	CM	3. 3/3/25
Samples Arrived within Hold Time?	☑	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other:
Rush Turn Around Time Requested?	☐	☑		6.
Sufficient Sample Volume?	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☐	☐ ☑	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11 Matrix: ☐ Oil ☐ Soil ☐ Water ☑ Other Product	☐	☑		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☑	12. Sample #:
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☑	☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☑	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☑	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: ____ Date & Time: ____

Comments / Resolution: ____

Project Manager Review: Kirsten Johnson **Date:** 3/3/2025

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: NEVM **Line:** 2

Town of Arlington, Massachusetts

Vote on Floodplain Regulations.

Summary:
Vote on Floodplain Regulations.

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	DRAFT_Arlington_Conservation_Flood_Hazard_Area_Regulations.pdf	DRAFT Arlington Conservation Flood Hazard Area Regulations.pdf

REGULATIONS – PROTECTION OF SPECIAL FLOOD HAZARD AREAS

Section 1 - Introduction and Purpose

A. Introduction. These regulations (the "Special Flood Hazard Area Regulations" or the "SFHA Regulations") are promulgated by the Town of Arlington Conservation Commission (the "Commission") pursuant to the authority granted to it under the Town of Arlington Wetlands Protection Bylaw (the "Bylaw") and the Commission's enabling legislation, M.G.L. ch. 40 § 8C (the "Enabling Legislation"). The SFHA Regulations serve to complement and effectuate the Bylaw by setting forth additional definitions, regulations, and requirements necessary to protect the intent of the Bylaw and additional Resource Areas. In addition, the SFHA Regulations specify standards and procedures stricter than those of the Massachusetts Department of Environmental Protection's Wetlands Protection Act, M.G.L. ch. 131, § 40 (the "Wetlands Protection Act") and corresponding regulations (310 CMR 10.00, the "State Wetlands Regulations").

These SFHA Regulations **are separate from and do not supersede or waive any other regulations promulgated by the Commission. All Commission regulations must be complied with.**

B. Purpose. The Commission's Bylaw regulates activities affecting areas subject to protection under the Bylaw: public or private water supply, ground water supply, flood control, erosion control and sedimentation control, storm damage prevention, other water damage prevention, prevention of pollution, protection of surrounding land and other homes or buildings, wildlife protection, plant or wildlife habitat, aquatic species and their habitats, and the natural character or recreational values of the wetland resources (collectively, "Resource Area Values" or "Interests of the Bylaw"). The SFHA Regulations define and clarify that process for establishing standard definitions and uniform procedures that the Commission shall apply to effectuate its statutory obligations in accordance with the Bylaw regarding Special Flood Hazard Areas. These SFHA Regulations are intended as a temporary measure to ensure the protection of Special Flood Hazard Areas as required by the National Flood Insurance Program (NFIP) until the Arlington Zoning Bylaw can be amended to meet the NFIP requirements.

Section 2 – Findings

The purpose of the protection of Special Flood Hazard Areas is to:

A. Ensure public safety through reducing the threats to life and personal injury
B. Eliminate new hazards to emergency response officials

C. Prevent the occurrence of public emergencies resulting from water quality, contamination, and pollution due to flooding
D. Avoid the loss of utility services which if damaged by flooding would disrupt or shut down the utility network and impact regions of the community beyond the site of flooding
E. Eliminate costs associated with the response and cleanup of flooding conditions
F. Reduce damage to public and private property resulting from flooding waters

Section 3 – Presumption of Significance

Special Flood Hazard Areas are presumed significant to flood control.

Section 4 – Jurisdiction and Enforcement

In accordance with the Town's Zoning Bylaw, Section 5.7.3 (the "Floodplain District Zoning Bylaw"), any proposed use, structure, development, filling, grading, or excavation, including any alteration as defined Section 2-2 of the Zoning Bylaw (collectively for the purposes described herein, the "Subject Activities"), within the Town's Floodplain District or the Special Flood Hazard Areas as defined in Sections 5.7.2 of the Town's Zoning Bylaw, shall be governed by the following and requires a building permit:

A. The Wetlands Protection Act; and
B. The State Wetlands Regulations and any other applicable regulations, such as the Department of Environment Protection's Adopting Inland Wetland Orders, 310 CMR 13.00; and
C. The Bylaw; and
D. The Floodplain Zoning District Bylaw; and
E. Applicable sections of the State Building Code; and
F. Any other laws, regulations, codes, requirements or policies issued by FEMA or any other federal agency or entity.

The building permit is issued by the Town's Department of Inspectional Services, and the Commission has the authority under its Enabling Legislation, the Wetlands Protection Act and the Bylaw to determine the extent of the Floodplain District. The Commission also has the authority under Article 8, Section 2 of the Bylaw to review, approve or otherwise prohibit certain activities in the Floodplain District and the Special Flood Hazard Areas.

Section 5 – Definitions

As used for the purposes herein, the following terms shall have the meanings indicated:

a. DEVELOPMENT means any man-made change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading,

paving, excavation or drilling operations or storage of equipment or materials. [US Code of Federal Regulations, Title 44, Part 59]

b. FLOODWAY. The channel of the river, creek or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. [Base Code, Chapter 2, Section 202]

c. FUNCTIONALLY DEPENDENT USE means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities. [US Code of Federal Regulations, Title 44, Part 59] Also [Referenced Standard ASCE 24-14]

d. HIGHEST ADJACENT GRADE means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. [US Code of Federal Regulations, Title 44, Part 59]

e. HISTORIC STRUCTURE means any structure that is:

   i. (a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

   (b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

   (c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

   (d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

      1. By an approved state program as determined by the Secretary of the Interior or

      2. Directly by the Secretary of the Interior in states without approved programs. [US Code of Federal Regulations, Title 44, Part 59]

f. NEW CONSTRUCTION. Structures for which the start of construction commenced on or after the effective date of the first floodplain management code, regulation, ordinance, or standard adopted by the authority having jurisdiction, including any subsequent improvements to such structures. New construction includes work determined to be substantial improvement. [Referenced Standard ASCE 24-14]

g. RECREATIONAL VEHICLE means a vehicle which is:

   i. (a) Built on a single chassis;

   ii. (b) 400 square feet or less when measured at the largest horizontal projection;

   iii. (c) Designed to be self-propelled or permanently towable by a light duty truck; and

   iv. (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. [US Code of Federal Regulations, Title 44, Part 59]

h. REGULATORY FLOODWAY - see FLOODWAY.

i. SPECIAL FLOOD HAZARD AREA. The land area subject to flood hazards and shown on a Flood Insurance Rate Map or other flood hazard map as Zone A, AE, A1-30, A99, AR, AO, AH, V, VO, VE or V1-30 . [Base Code, Chapter 2, Section 202], including all special flood hazard areas within Arlington designated as Zone A, AE, AH, AO, A99, V, or VE on the Middlesex County Flood Insurance Rate Map (FIRM) dated July 8th, 2025 issued by the Federal Emergency Management Agency (FEMA) for the administration of the National Flood Insurance Program. The exact boundaries of the Areas shall be defined by the 1%-chance base flood elevations shown on the FIRM and further defined by the Middlesex County Flood Insurance Study (FIS) report dated July 8th, 2025. The FIRM and FIS report are incorporated herein by reference and are on file with the Conservation Commission.

j. START OF CONSTRUCTION. The date of issuance for new construction and substantial improvements to existing structures, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement is within 180 days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns.

   Permanent construction does not include land preparation (such as clearing, excavation, grading or filling), the installation of streets or walkways, excavation for a basement, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main building. For a substantial improvement, the actual “start of construction” means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building. [Base Code, Chapter 2, Section 202]

k. STRUCTURE means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. [US Code of Federal Regulations, Title 44, Part 59]

l. SUBSTANTIAL REPAIR OF A FOUNDATION. When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of 780 CMR. [As amended by MA in 9th Edition BC]

m. VARIANCE means a grant of relief by a community from the terms of a flood plain management regulation. [US Code of Federal Regulations, Title 44, Part 59]

n. VIOLATION means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3 is presumed to be in violation until such time as that documentation is provided. [US Code of Federal Regulations, Title 44, Part 59]

Section 6 – Floodplain Administrator

The Town of Arlington hereby designates the position of Conservation Agent as the official Floodplain Administrator for the Town.

Section 7 – Special Flood Hazard Areas

A. The Town of Arlington requires a permit for the Subject Activities in Special Flood Hazard Areas, including new construction or changes to existing buildings, placement of manufactured homes, placement of agricultural facilities, fences, sheds, storage facilities or drilling, mining, paving and any other development that might increase flooding or adversely impact flood risks to other properties.

B. The Town's permit review process includes the requirement that the proponent obtain all local, state and federal permits that will be necessary in order to carry out the proposed development in Special Flood Hazard Areas. The proponent must acquire all necessary permits, and must demonstrate that all necessary permits have been acquired.

C. In Zones A, A1-30, and AE, along watercourses that have not had a regulatory floodway designated, the best available Federal, State, local, or other floodway data shall be used to prohibit encroachments in floodways which would result in any increase in flood levels within the community during the occurrence of the base flood discharge.

In Zones A1-30 and AE, along watercourses that have a regulatory floodway designated on the Town's FIRM encroachments are prohibited, including fill, new construction,

substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.

D. In A Zones, in the absence of FEMA BFE data and floodway data, the building department will obtain, review and reasonably utilize base flood elevation and floodway data available from a Federal, State, or other source as criteria for requiring new construction, substantial improvements, or other development in Zone A and as the basis for elevating residential structures to or above base flood level, for floodproofing or elevating nonresidential structures to or above base flood level, and for prohibiting encroachments in floodways.

E. All subdivision proposals and development proposals in Special Flood Hazard Areas shall be reviewed to assure that:

   a. Such proposals minimize flood damage.
   b. Public utilities and facilities are located & constructed so as to minimize flood damage.
   c. Adequate drainage is provided.

F. When proposing subdivisions or other developments greater than 50 lots or 5 acres (whichever is less), the proponent must provide technical data to determine base flood elevations for each developable parcel shown on the design plans.

G. In A, A1-30, AH, AO, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored in accordance with the zone's regulations for foundation and elevation requirements or be on the site for less than 180 consecutive days or be fully licensed and highway ready.

H. In a riverine situation, the Conservation Agent shall notify the following of any alteration or relocation of a watercourse:

   a. Adjacent Communities, especially upstream and downstream
   b. NFIP State Coordinator
      Massachusetts Department of Conservation and Recreation
   c. NFIP Program Specialist
      Federal Emergency Management Agency, Region I

Section 8 – Map Changes and Variances

A. If the Town acquires data that changes the base flood elevation in the FEMA mapped Special Flood Hazard Areas, the Town will, within 6 months, notify FEMA of these

changes by submitting the technical or scientific data that supports the change(s.) Notification shall be submitted to:

a. NFIP State Coordinator
   Massachusetts Department of Conservation and Recreation
b. NFIP Program Specialist
   Federal Emergency Management Agency, Region I

B. If the State issues a variance to the flood-resistant standards as found in the state building code, the Town will request from the State Building Code Appeals Board a written and/or audible copy of the portion of the hearing related to the variance, and will maintain this record in the community's files. The Town shall also issue a letter to the property owner regarding potential impacts to the annual premiums for the flood insurance policy covering that property, in writing over the signature of a community official that (i) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage and (ii) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions for the referenced development in Special Flood Hazard Areas.

C. A variance from these Special Flood Hazard Area Regulations must meet the requirements set out by State law, and may only be granted if: 1) Good and sufficient cause and exceptional non-financial hardship exist; 2) the variance will not result in additional threats to public safety, extraordinary public expense, or fraud or victimization of the public; and 3) the variance is the minimum action necessary to afford relief.

Section 10 – Supremacy

The floodplain management regulations found in the Special Flood Hazard Area section shall take precedence over any less restrictive conflicting local laws, regulations or codes.

Section 11 – Disclaimer

The degree of flood protection required by these SFHA Regulations is considered reasonable but does not imply total flood protection.

Section 12 - Severability; Compliance with Court Decisions

A. The invalidity of any section or provision of the Bylaw or the SFHA Regulations shall not invalidate any other section or provisions thereof, nor shall it invalidate any permit which previously has been issued.

B. If any Court of the Commonwealth shall invalidate any provisions of the Bylaw or the SFHA Regulations, the Commission may promulgate additional rules and regulations or present to the next Town Meeting after such invalidations, amendments to the Bylaw or

regulations which are designed to comply with any Court decision invalidating such provisions or regulations, as the case may be.

Section 13 - Effective Date

The effective date of the SFHA Regulations shall be July 8th, 2025 and the provisions of these regulations shall apply to all work performed on or after that date until July 8th, 2027, after which these regulations shall become inoperative.

Town of Arlington, Massachusetts

Notice of Intent: 39 Reed Street (DEP #091-0370).

Summary:
Notice of Intent: 39 Reed Street (DEP #091-0370).
The Arlington Conservation Commission will hold a public hearing to consider a Notice of Intent under the Wetlands Protection Act and Arlington Bylaw for Wetlands Protection for construction of an addition and screened porch to a single-family dwelling at 39 Reed Street within the 200' Riverfront Area to Reed's Brook, 100' Buffer Zone, and 100' Adjacent Upland Resource Area.

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	NOI_Application_39_Reed_Street.pdf	NOI Application_39 Reed Street.pdf
🗋	Reference Material	39_Reed_Street_Arlington_-_Revised_Meadow_Buffer_1-10_11x17_6-2-25.pdf	39 Reed Street Arlington - Revised Meadow Buffer 1-10 11x17 6-2-25.pdf

Notice of Intent Application and Wetland Resource Area Analysis

May 21, 2025

Subject Property
39 Reed Street
Parcel ID: 112-5-19.A
Arlington, Massachusetts

Applicant and Property Owner
Katina Leodas
39 Reed Street
Arlington, MA 02474

LEC Environmental Consultants, Inc.
380 Lowell Street, Suite 101
Wakefield, MA 01880
781-245-2500

www.lecenvironmental.com

May 21, 2025

Hand Delivery

Arlington Conservation Commission
Arlington Town Hall Annex
730 Massachusetts Avenue
Arlington, MA 02476

Re: Notice of Intent Application and
Wetland Resource Area Analysis
39 Reed Street (Parcel ID: 112-5-19.A)
Arlington, Massachusetts

[LEC File #: LeoK 24-263.04]

Dear Members of the Conservation Commission:

On behalf of the Applicant and Property Owner, Katina Leodas, LEC Environmental Consultants, Inc., (LEC) is filing the enclosed Notice of Intent (NOI) Application and *Wetland Resource Area Analysis* with the Arlington Conservation Commission to construct an addition and screened porch to a single-family dwelling at 39 Reed Street in Arlington, Massachusetts. The proposed activities are located within the 100-foot Buffer Zone to Bordering Vegetated Wetlands. The Applicant proposes to implement erosion controls to minimize the potential for impacts to the resource areas during construction; provide stormwater management measures; and install native plantings to improve existing site conditions and promote climate resiliency.

LEC was retained to identify Wetland Resource Areas protectable under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*), its implementing Regulations (310 CMR 10.00, the *Act Regulations*), the *Town of Arlington Wetlands Protection Bylaw* (Article 8, the *Bylaw*), and its implementing *Wetlands Protection Regulations* (May 16, 2024, the *Bylaw Regulations*), and to prepare this NOI Application. The proposed conditions are depicted on the *Drainage/Grading Plan*, dated May 15, 2025), and prepared by Gala Simon Associates, Inc. (Appendix B). LEC will prepare and submit a *Buffer Zone Mitigation Planting Plan* in advance of the public hearing.

Enclosed please find a check made payable to the Town of Arlington in the amount of Sixty-Seven Dollars and Fifty Cents ($67.50) for the purpose of filing this Application under State guidelines. Also enclosed is a combined check payable to the Town of Arlington in the amount of Three Hundred and Fifty Dollars ($350.00) for the purpose of filing this Application under the *Bylaw* ($200.00) and the legal advertisement fee ($150.00). Payment to the Commonwealth of Massachusetts in the amount of Forty-Two Dollars and Fifty Cents ($42.50) has been processed via eDEP.

Thank you for your consideration of this Application. We look forward to meeting with you at the June 5, 2025, Public Hearing. Should you have any questions, please do not hesitate to contact me in our Wakefield office at 781-245-2500 or at rkirby@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Richard A. Kirby
Senior Wetland Scientist

Nicole M. Ferrara
Wetland Specialist

cc: DEP, Northeast Region
Rober Survey
Katina Leodas
Gala Simon Associates, Inc.

rak: projects\24-263.04\NOIReport.doc

Appendices

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:
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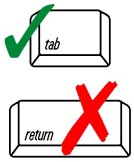
Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note: Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

a. Street Address	b. City/Town	c. Zip Code
39 Reed Street	Arlington	02474

Latitude and Longitude:

d. Latitude	e. Longitude
42.43453	-71.18314

f. Assessors Map/Plat Number	g. Parcel /Lot Number
112	5-19.A

2. Applicant:

a. First Name	b. Last Name
Katina	Leodas

c. Organization: Homeowner

d. Street Address: 39 Reed Street

e. City/Town	f. State	g. Zip Code
Arlington	MA	02474

h. Phone Number	i. Fax Number	j. Email Address
617-594-2600	n/a	katina.leodas@gmail.com

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name	b. Last Name
Same as Applicant	

c. Organization

d. Street Address

e. City/Town	f. State	g. Zip Code

h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

a. First Name	b. Last Name
Richard	Kirby

c. Company: LEC Environmental Consultants, inc.

d. Street Address: 380 Lowell Street, Suite 101

e. City/Town	f. State	g. Zip Code
Wakefield	MA	01880

h. Phone Number	i. Fax Number	j. Email address
781-245-2500	n/a	rkirby@lecenvironmental.com

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid
$110.00	$42.50	$67.50

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

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A. General Information (continued)

6. General Project Description:

The Applicant proposes to construct an addition and enclosed porch off the rear of an existing single family dwelling located within the 100-foot Buffer Zone to BVW. Erosion controls, stormwater management, and native plantings are proposed to protect the adjacent resource areas and to mitigate for the proposed project.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. ☒ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☐ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☐ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☐ Yes ☒ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Southern Middlesex	n/a
a. County	b. Certificate # (if registered land)
73678	65
c. Book	d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☒ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☐ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Bank	1. linear feet	2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. ☐ Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

   ☐ 25 ft. - Designated Densely Developed Areas only

   ☐ 100 ft. - New agricultural projects only

   ☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: _____ square feet

4. Proposed alteration of the Riverfront Area:

   a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No

3. ☐ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete **Section B.2.f**. above.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Town of Arlington Wetlands Protection Bylaw (Article 8)

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW
b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings
b. number of replacement stream crossings

Massachusetts Department of Environmental Protection
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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
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C. Other Applicable Standards and Requirements

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

   a. ☐ Yes ☒ No

   If yes, include proof of mailing or hand delivery of NOI to:

   Natural Heritage and Endangered Species Program
   Division of Fisheries and Wildlife
   1 Rabbit Hill Road
   Westborough, MA 01581

   August 2021
   b. Date of map

   If *yes*, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

   c. Submit Supplemental Information for Endangered Species Review*

      1. ☐ Percentage/acreage of property to be altered:

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

      2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

   (a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

   (b) ☐ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-endangered-species-act-mesa-regulatory-review).
Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

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C. Other Applicable Standards and Requirements (cont'd)

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

*Projects altering **10 or more acres** of land, also submit:*

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☒ Not applicable – project is in inland resource area [Buffer Zone] only b. ☐ Yes ☐ No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Bourne to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Plymouth to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☒ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

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C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a. ☐ Yes ☒ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a. ☐ Yes ☒ No

6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

a. ☐ Yes ☒ No

7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)

2. ☐ A portion of the site constitutes redevelopment

3. ☐ Proprietary BMPs are included in the Stormwater Management System.

b. ☒ No. Check why the project is exempt:

1. ☒ Single-family house

2. ☐ Emergency road repair

3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☒ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)

2. ☒ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Arlington Wetlands Protection Bylaw (Article 8)

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Arlington
City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

Drainage/Grading Plan
a. Plan Title

Gala Simon Associates
b. Prepared By

Alberto M. Gala PE
c. Signed and Stamped by

May 15, 2025
d. Final Revision Date

1"=10'
e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☐ Attach Stormwater Report, if needed.

E. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

9808
2. Municipal Check Number

5/19/2025
3. Check date

Paid electronically via eDEP
4. State Check Number

5. Check date

Katina
6. Payor name on check: First Name

Leodis
7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Arlington
City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

1. Signature of Applicant

2. Date: 5-19-2025

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date: 5-20-2025

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

A. Applicant Information

1. Location of Project:

39 Reed Street	Arlington
a. Street Address	b. City/Town
Paid electronically via eDEP	$42.50
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Katina		Leodas
a. First Name		b. Last Name
Homeowner		
c. Organization		
39 Reed Street		
d. Mailing Address		
Arlington	MA	02474
e. City/Town	f. State	g. Zip Code
617-594-2600	n/a	katina.leodas@gmail.com
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

Same as Applicant		
a. First Name		b. Last Name
c. Organization		
d. Mailing Address		
e. City/Town	f. State	g. Zip Code
h. Phone Number	i. Fax Number	j. Email Address

B. Fees

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

Fee should be calculated using the following process & worksheet. ***Please see Instructions before filling out worksheet.***

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.

NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 1a: work on a single-family dwelling	1	$110.00	$110.00

Step 5/Total Project Fee: $110.00

Step 6/Fee Payments:

Total Project Fee:	$110.00 (a. Total Fee from Step 5)
State share of filing Fee:	$42.50 (b. 1/2 Total Fee **less $**12.50)
City/Town share of filling Fee:	$67.50 (c. 1/2 Total Fee **plus** $12.50)

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

Bylaw Filing Fees and Transmittal Form

Rules:

1.Fees are payable at the time of filing the application and are non-refundable.
2.Fees shall be calculated per schedule below.
3.Town, County, State, and Federal Projects are exempt from fees.
4.These fees are in addition to the fees paid under M.G.L. Ch. 131, s.40 (ACT).

Fee Schedule (ACC approved 1/8/15):

$	No./Area	Category
		(R1) RDA- $150 local fee, no state fee
$200.00		**(N1) Minor Project** - $200 (house addition, tennis court, swimming pool, utility work, work in/on/or affecting any body of water, wetland or floodplain).
		(N2) Single Family Dwelling - $600
		(N3) Multiple Dwelling Structures - $600 + $100 per unit all or part of which lies within 100 feet of wetlands or within land subject to flooding.
		(N4) Commercial, Industrial, and Institutional Projects - $800 + 50¢/s.f. wetland disturbed; 2¢/s.f. land subject to flooding or buffer zone disturbed.
		(N5) Subdivisions - $600 + $4/l.f. feet of roadway sideline within 100 ft. of wetlands or within land subject to flooding.
		(N6) Other Fees - copies, printouts; per public records law
		(N7) Minor Project Change - $50
		(N8) Work on Docks, Piers, Revetments, Dikes, etc - $4 per linear foot
		(N9) Resource Boundary Delineation (ANRAD) - $1 per linear foot
		(N10) Certificate of Compliance (COC or PCOC) - No charge if before expiration of Order, $200 if after that date.
		(N11) Amendments - $300 or 50% of original local filing fee, whichever is less.
		(N12) Extensions -
		a. Single family dwelling or minor project - $100.
		b. Other - $150.
		(N13) Consultant Fee -per estimate from consultant
	TOTAL $200.00	

Note: Submit this form along with the forms submitted for the ACT - the "Wetlands Filing Fee Calculations Worksheet," and the "Notice of Intent Fee Transmittal Form."

Affidavit of Service

I, Sharon A. Sullivan, being duly sworn, do hereby state as follows:

On May 22, 2025, I mailed a "Notification to Abutters" in compliance with the second paragraph of Massachusetts General Laws, Chapter 131, s.40, and the Arlington Wetlands Protection Bylaw, Title V, Article 8 of the Town of Arlington Bylaws in connection with the following matter:

Construction of an addition and screened porch to a single-family dwelling at 39 Reed Street.

The form of the notification, and a list of the abutters to whom it was provided and their addresses, are attached to this Affidavit of Service.

Signed under the pains and penalties of perjury, this 22nd day of May 2025.

Sharon A. Sullivan

Sharon A. Sullivan
Permitting Technician

May 22, 2025

CERTIFIED MAIL

«Name»
«Name2»
«Address»
«City», «State» «Zip»

Re: Notice of Intent Application [LEC File #: LeoK\24-263.02]
39 Reed Street
Assessor's Parcel ID: 112-5-19.A
Arlington, Massachusetts

Dear Abutter:

On behalf of the Applicant, Katina Leodis, LEC Environmental Consultants, Inc. (LEC) has filed a Notice of Intent Application with the Arlington Conservation Commission to construct an addition and screened porch to a single-family dwelling at 39 Reed Street. Portions of the proposed activities are located within the 100-foot Buffer Zone to Bordering Vegetated Wetlands, as jurisdictional under the *Massachusetts Wetlands Protection Act* (the *Act*, M.G.L. c. 131, s. 40) and its implementing *Regulations* (the *Act Regulations*, 310 CMR 10.00), and the *Town of Arlington Wetlands Protection Bylaw* (Article 8, the *Bylaw*) and its *Regulations Pursuant to the Town of Arlington Regulations for Wetlands Protection* (the *Bylaw Regulations*).

The Notice of Intent Application and accompanying plans are available for review by contacting the Arlington Conservation Commission. The remote Public Hearing will be held on June 5, 2025 beginning at 7:00 p.m., in accordance with the provisions of the *Act*, *Act Regulations*, *Bylaw*, and *Bylaw Regulations*. Further information regarding this application will be published at least five (5) days in advance in *The Advocate & Star*. Notice of the Public Hearing will also be posted at the Arlington Town Hall at least 48 hours in advance. Please check the Town's website and the Board/Committee's page for any updated information on the meeting.

Please do not hesitate to review the materials and/or attend the public hearing should you have questions or concerns about the proposed project.

Sincerely,

LEC Environmental Consultants, Inc.

Richard A. Kirby
Senior Wetland Scientist

Abutter Notification

Notification to Abutters Under the

Massachusetts Wetlands Protection Act and the

Arlington Wetlands Protection Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 and the Arlington Wetlands Protection Bylaw, you are hereby notified of the following:

The Conservation Commission will hold a virtual public meeting using Zoom on Thursday, June 5, 2025, at 7:00 p.m. in accordance with the provisions of the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, s. 40, as amended) and the Town of Arlington Bylaws Article 8, Bylaw for Wetland Protection, and in accordance with the Governor's Order Suspending Certain Provisions of the Open Meeting Law, G. L. c. 30A, § 20 relating to the COVID-19 emergency, for a Notice of Intent Application from Katina Leodis to construct an addition and screened porch to a single-family dwelling within the 100-foot Buffer Zone to Bordering Vegetated Wetlands at 39 Reed Street (Assessor's Property Map 112-5-19.A). Please refer to the Commission's online meeting agenda for specific Zoom meeting access information.

A copy of the application and accompanying plans are available by request by contacting the Arlington Conservation Commission at 781-316-3012 or concomm@town.arlington.ma.us. For more information, call the Applicant's representative, LEC Environmental Consultants, Inc., at 781-245-2500 or the Arlington Conservation Commission at 781-316-3012, or the DEP Northeast Regional Office at 978-694-3200.

NOTE: Notice of the Public Hearing will be published at least five (5) business days in advance in *The Advocate & Star* and will also be posted at least 48 hours in advance in the Arlington Town Hall.

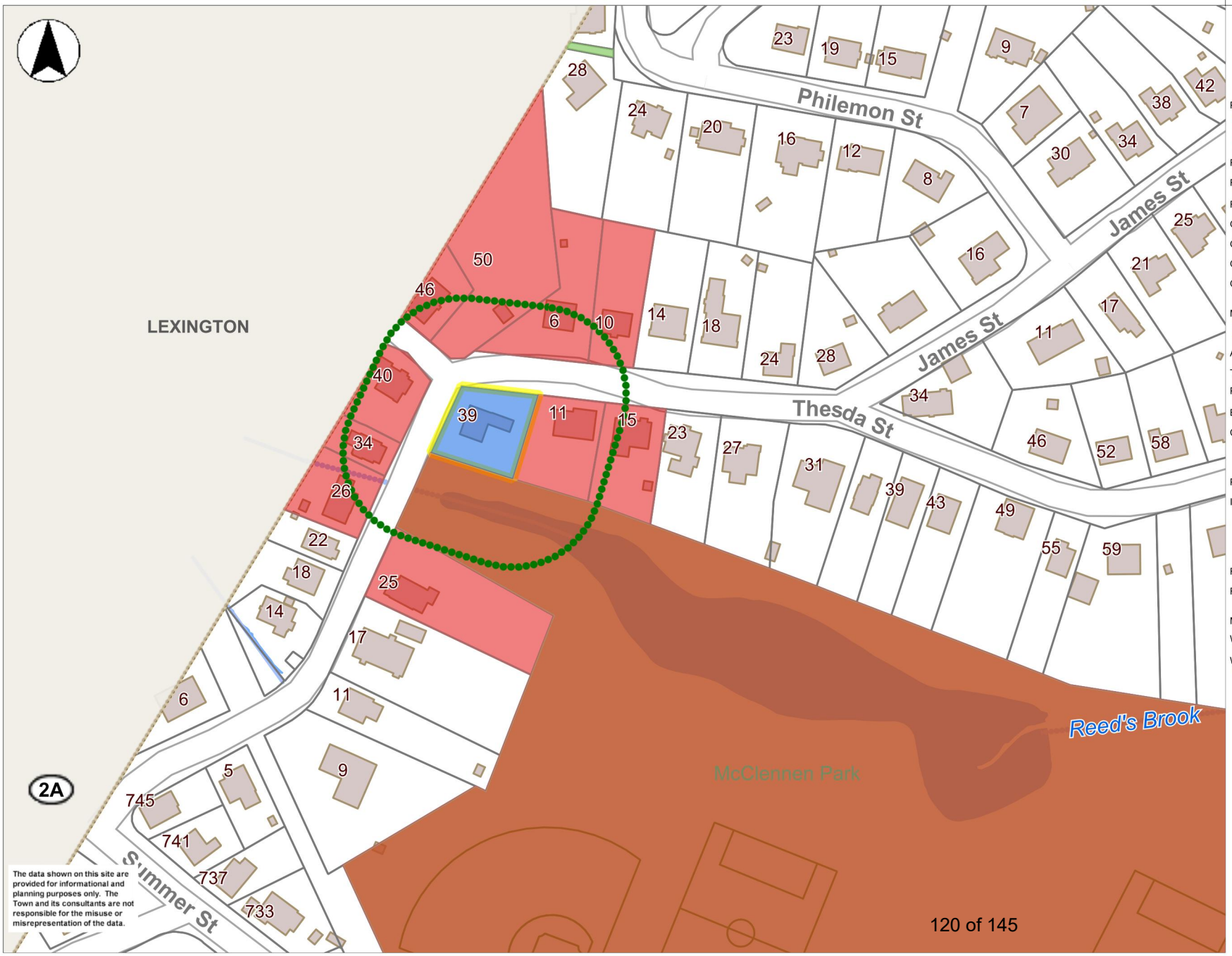
****

CERTIFIED ABUTTERS LIST
Date: May 2, 2025
Subject Property Location: 39 REED ST Arlington, MA
Subject Parcel ID: 112-5-19.A
Search Distance: 100 Feet

Parcel ID	Property Location	Owner 1	Owner 2	Mailing Address	City/Town	State	Zip
109-1-1	40 REED ST	FEYNMAN PAULA		40 REED ST	ARLINGTON	MA	02474
109-1-3	34 REED ST	SUBRAMANIAN LAURA SITA &	KLOSTERMANN DOUGLAS JOHN	34 REED ST	ARLINGTON	MA	02474
109-1-4	26 REED ST	BRADLEY HENRY/SEAN/KIRAN	INGLIS PATRICIA/SPENCE MARY	26 REED ST	ARLINGTON	MA	02474
109-2-9	25 REED ST	GANTIER RENE & FERNANDA		25 REED ST	ARLINGTON	MA	02474
109-2-14	0-LOT SUMMER ST	TOWN OF ARLINGTON		730 MASS AVE	ARLINGTON	MA	02476
112-3-15	10 THESDA ST	HARMAN EDWARD	MILLER CHERYL	10 THESDA ST	ARLINGTON	MA	02474
112-3-16	6 THESDA ST	MESSURI VICTORIA HELENA ANTONIA	SKIRLO SCOTT ALEXANDER	6 THESDA ST	ARLINGTON	MA	02474
112-3-17	50 REED ST	DOHERTY JAMES F/TRUSTEE	50 REED ST REALTY TRUST	1122 MASS AVE	ARLINGTON	MA	02476
112-3-18	46 REED ST	SASSLER EDWARD Z		46 REED ST	ARLINGTON	MA	02474
112-5-17	15 THESDA ST	DWYER PATRICK F	DWYER JENNIFER E	15 THESDA ST	ARLINGTON	MA	02474
112-5-18.A	11 THESDA ST	TROISI DYAN		11 THESDA ST	ARLINGTON	MA	02474
112-5-19.A	**39 REED ST**	**LEODAS KATINA**		**39 REED ST**	**ARLINGTON**	**MA**	**02474**
112-5-20	0-LOT REED ST	TOWN OF ARLINGTON		730 MASS AVE	ARLINGTON	MA	02476

The Board of Assessors certifies the names and addresses of requested parties in interest, all abutters to subject parcel within 100 feet.

Town of Arlington
Office of the Board of Assessors
730 Massachusetts Ave
Arlington, MA 02476
phone: 781.316.3050
email: assessors@town.arlington.ma.us



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.

0 200 400 ft

Printed on 05/02/2025 at 10:57 AM

Notice of Intent Application
and Wetland Resource Area Analysis

39 Reed Street

Assessor's Parcel ID: 112-5-19.A

Arlington, Massachusetts

May 21, 2025

1. Introduction

On behalf of the Applicant and Property Owner, Katina Leodas, LEC Environmental Consultants, Inc., (LEC) is filing the enclosed Notice of Intent (NOI) Application and *Wetland Resource Area Analysis* with the Arlington Conservation Commission under the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40, the *Act*), its implementing Regulations (310 CMR 10.00, the *Act Regulations*), the *Town of Arlington Wetlands Protection Bylaw* (Article 8, the *Bylaw*), and its implementing *Wetlands Protection Regulations* (May 16, 2024, the *Bylaw Regulations*). The Applicant is filing this NOI Application to construct an addition and screened porch to an existing single-family dwelling within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW).

As part of this filing, the Applicant proposes to implement erosion controls to minimize the potential for impacts to the resource areas during construction; provide stormwater management measures; and install native plantings to improve existing site conditions and promote climate resiliency. The proposed conditions are depicted in the *Drainage/Grading Plan*, dated May 15, 2025, and prepared by Gala Simon Associates, Inc. (Appendix B). LEC will prepare and submit a *Buffer Zone Mitigation Planting Plan* in advance of the public hearing.

2. General Site Description

The 7,431± square foot property is located southeast of Patricia Terrace, north of Summer Street, and west of Dothan Street, within the northwestern portion of Arlington. More specifically, the property is located directly north of McClennen Park, southeast of the Thesda Street, Reed Street, and Patricia Terrace intersection. The Lexington-Arlington Municipal border is located to the west, while single-family residential development surrounds the property to the west, north, and east. The main hydrologic feature associated with the property is a pond located offsite to the south within McClennen Park. A Bordering Vegetated Wetland (BVW) characterized as a scrub-shrub wetland borders the pond and continues southeast and southwest of the property. The property contains a 1-story, single-family dwelling with a basement level, 1-car garage accessed via a paved driveway extending easterly from Reed Street. A second paved driveway extends southerly from Thesda Street onto the northern portion of the

Westerly view of existing dwelling, deck, and surrounding lawn and landscaping.

property. A wooden deck extends off the rear of the dwelling, with a set of stairs descending to the backyard. Concrete walkways extend from the two driveways to the dwelling's front (west) and side (north) entrances, while a shed is located within the northeastern property corner. The dwelling is surrounded by lawn and mulched landscape beds, while garden beds occur north of the dwelling. Landscape plants on the property include river birch (*Betula nigra*), Canada yew (*Taxus canadensis*), Japanese barberry (*Berberis thunbergii*), hydrangeas (*Hydrangea* spp.), spiraea (*Spiraea* sp.), rhododendron (*Rhododendron* sp.), rose (*Rosa* sp.), peony (*Paeonia* sp.), day lilies (*Hemerocallis* sp.), lavender (*Lavandula* sp.), and other perennial plants. Scattered shade trees occur within the lawn including red maple (*Acer rubrum*), arborvitae (*Arborvitae* sp.), and northern red oak (*Quercus rubra*).

Using a hand-held, Dutch-style soil auger, LEC inspected soil conditions within the low-lying upland areas adjacent to the BVW and observed a 10± inch thick, loamy sand topsoil (A horizon) with a soil matrix color of 10YR 2/2. The topsoil is underlain by a 10+ inch thick, weathered loamy sand subsoil (B_W Horizon), with a soil matrix color of 10YR 4/3. No Redoximorphic features were observed within the soil profile. Accordingly, the soil profile is not considered hydric according to *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020, the *Field Indicators Guide*).

2.1 Natural Heritage and Endangered Species Program Designation

According to the 15th Edition of the *Massachusetts Natural Heritage Atlas* (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP), no areas of Estimated Habitats of Rare Wildlife or Priority Habitat of Rare Species, or Potential or Certified Vernal Pools exist on or in proximity to the property (Appendix A, Figure 3).

2.2 Floodplain Designation

According to the June 4, 2010 *Federal Emergency Management Agency Flood Insurance Rate Map* for Middlesex County, Massachusetts (Map No: 25017C0416E), the property is located within Zone X [unshaded]: *Areas determined to be outside the 0.2% annual chance floodplain* (Appendix A, Figure 2).

3. Wetland Boundary Determination Methodology

LEC conducted a site evaluation on June 12, 2024 to identify and characterize existing protectable Wetland Resource Areas located on or immediately adjacent to the site, and to delineate the BVW boundary. The extent of Wetland Resource Areas was determined through observations of existing plant communities, and hydrologic indicators, in accordance with the *Act*, its implementing *Regulations*, the *Bylaw*, and the *Bylaw Regulations*.

Based on these methods and review of pertinent maps, LEC delineated the BVW boundary with sequentially numbered, blaze orange surveyor's tape with the words "LEC Resource Area" printed in black, and numbered 1 through 6. LEC flagging stations were surveyed by Rober Survey, and are depicted on the *Drainage/Grading Plan* (Appendix B).

3.1 Plant Species Identification

LEC identified plant species comprising 5% or more of the vegetative cover along the BVW boundary. Identifications were made to the species level when morphologically possible and were used along with other hydrologic indicators to define the BVW boundary in accordance with definitions and criteria in 310 CMR 10.55(2).

3.1.1. Identification of Wetland Indicator Species

The regional wetland indicator status for all identified plant species was obtained from the classification system described in *State of Massachusetts 2016 Wetland Plant List* (Lichvar, R.W, et al. 2016). This classification system divides plant species into ten categories and identifies the wetland indicator status based on the frequency of their occurrence in wetland habitat. These include, in order of lowest to highest frequency within wetlands:

Facultative Upland (FACU),

Facultative (FAC),
Facultative Wetland (FACW),
and Obligate (OBL).

Plant species with a FAC, FACW or OBL wetland indicator status occur in wetlands more than 50% of the time and are considered "wetland indicator plants." Plant species with a FACU wetland indicator status, and those not contained within the list occur in wetlands less than 50% of the time, are not considered "wetland indicator plants." This system of classification has been adopted by the Department of Environmental Protection (DEP) as the definitive source regarding the indicator status of wetland plants.

3.1.2 Measurement of Relative Abundance

The relative abundance or percent cover of each plant species occurring along the BVW boundary was determined visually. When completing DEP BVW (310 CMR 10.55) Delineation Field Data Forms, midpoints were utilized to determine the percent cover of each plant species according to the following classification system: 3% = 1-5%; 10.5% = 6-23%; 20.5 = 16-25%; 38% = 26-50%; 63% = 51-75%; 85.5% = 76-95%; and 98% = 96-100%. The purpose of using midpoints is to reduce variability between wetland scientists when visually determining percent cover. Utilizing midpoints does not affect whether a given species within a sample layer will be a dominant plant and is recommended in DEP's handbook*, Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* (Second edition September 2022).

3.1.3 Measurement of Vegetative Distribution and Density

The relative pattern of plant distribution within each vegetative layer (canopy, sapling, shrub, lianas, and groundcover) was visually determined. Plant species within each layer were determined to occur as single plants, patches or clusters, entanglements, or as the dominant plant species. In addition, LEC observed the relative plant density between each vegetation layer, noting whether the sample layer is densely vegetated, contains moderately dense vegetation, is variably dense within the sample layer, or is sparsely vegetated.

3.2 Evaluation of Edaphic (Soil) Characteristics

3.2.1 General Soil Analysis

Prior to conducting the site evaluation, LEC reviewed United States Geologic Survey (USGS) Topographic Maps and United States Natural Resources Conservation Service

(NRCS) Soil Survey Maps. The purpose of this review was to become familiar with the site's general soil characteristics. During site reconnaissance, LEC determined the approximate location of the BVW boundary and determined which areas along the BVW boundary would best represent the upland and wetland portions of the site. Using a Dutch-style, hand-held auger and/or spade, LEC investigated soil conditions within these representative areas by digging a test pit to a depth of at least 20 inches, or refusal. The purpose of this investigation was to confirm and document the difference in soil conditions between the wetland and adjacent upland areas. Specifically, LEC analyzed soil horizon thickness and depth, soil texture, and soil color, noting the presence or absence of redoximorphic features in accordance with *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* (Second Edition, September 2022), and *Field Indicators for Identifying Hydric Soils in New England* (June 2020).

3.2.2 Soil Horizon Thickness and Depth

LEC noted the presence of all soil layers and horizons (e.g., O, A, E, B, and/or C) and their relative thickness and depth within the test pit. The thickness of the O soil layer may be directly related to wetness and is critical to the identification of a hydric soil. Specifically, histosols (organic soil layers measuring greater than 16 inches thick) and soils with a histic epipedon (an organic layer between 8 and 16 inches thick) always qualify as hydric soils, provided the hydrology that created these soil conditions still exists and has not been altered. Although not directly related to wetness, the thickness of the A or A_p horizons is a function of the depth of plowing (many of New England's forests today were historically agricultural fields) and/or a function of erosion and deposition of organic matter. Interpreting redoximorphic features within the A or A_p horizons can be difficult given their relatively dark color. Redoximorphic features are best observed in the soil layers beneath the A or A_p horizons.

3.2.3 Soil Texture

Soil texture refers to the relative proportions of sand, silt, and clay particles in the soil. Although there are several standard systems for determining soil texture, LEC utilized the United States Department of Agriculture (USDA) system, because it is widely accepted and referred to in the *Field Indicators Guide* referenced above. Specifically, LEC identified whether the soil is classified as sand, loamy sand, sandy loam, loam, silt loam, silty clay loam, or clay. LEC also estimated the relative proportion of organic matter within the topsoil to determine if the soil is classified as an organic soil. Differences in

soil texture affect how water moves through the soil and the type of hydrologic indicators that form when hydric conditions are present during the growing season.

3.2.4 Soil Color

Using the Munsell® Soil Color Charts, LEC examined the hue, value, and chroma of the different soil horizon matrixes (dominant soil color) and redoximorphic features present within the test pits. The purpose of examining the soil color within the A or A_p horizon is to determine whether these horizons are rich in organic material and meet the criteria for dark or very dark. This distinction refers to the relative amount of organic matter within the soil horizon and may indicate the presence of saturated conditions during the growing season.

Within the B and/or C horizons, the soil color and color patterns may indicate the movement of iron and/or other minerals within the soil. The movement and/or concentration of iron and other minerals, such as manganese, may indicate hydric conditions persist during the growing season. Specifically, a soil matrix color with a relatively low chroma (chroma 2 or less) and high value (value 4 or more) due to wetness is often defined as a depleted matrix - the iron and/or other minerals have been removed or depleted from the soil due to groundwater fluctuations, soil saturation, and reduction. A soil with a depleted matrix due to wetness within the upper 20 inches will likely constitute a hydric soil.

3.2.5 Redoximorphic Features

During the soil evaluation, LEC documented the presence or absence of redoximorphic features within the soil sample. Redoximorphic features are changes in soil color and/or texture that contrast from the matrix color and dominant soil texture and include redox depletions (formerly referred to as “low-chroma mottles”), redox concentrations (formerly referred to as “high-chroma mottles”), nodules, concretions, pore linings, and oxidized rhizospheres. Redoximorphic features form through the processes of reduction, translocation, and oxidation of Fe and Mn oxides when groundwater levels fluctuate near the soil surface. Commonly observed redoximorphic features include redox depletions, occurring when minerals in the soil are reduced or removed, and redox concentrations or soil masses, occurring when minerals accumulate. Less commonly observed redoximorphic features include nodules and concretions, which are hardened, cemented soil masses. Pore linings are localized areas of brightly colored soils located adjacent to a pore within the soil. Oxidized rhizospheres are a form of pore lining that occurs on the surface of live roots of certain plants.

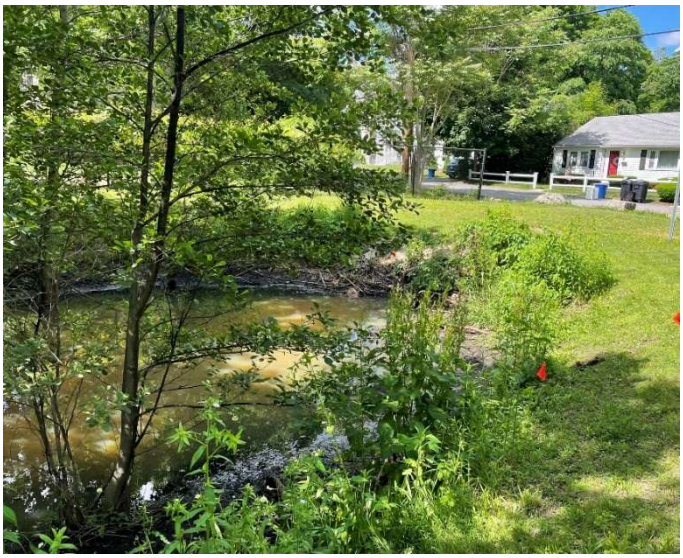
4. Wetland Resource Areas

Wetland Resource Areas associated with the site are limited to Bordering Vegetated Wetlands. The 100-foot Buffer Zone extends from the BVW boundary. The Wetland Resource Areas are further described below.

4.1 Bordering Vegetated Wetlands

According to the *Act Regulations* [310 CMR 10.55(2)], Bordering Vegetated Wetlands are defined as: *freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes…Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants…The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.*

According to the *Bylaw Regulations* [Section 22 B. (1) and (2)], Vegetated Wetlands *are freshwater wetlands, including both bordering vegetated wetlands (i.e., bordering on freshwater bodies such as on creeks, rivers, streams, ponds and lakes), and isolated vegetated wetlands which do not border on any permanent water body. The types of freshwater wetlands are wet meadows, marshes, swamps, bogs and vernal pools. Vegetated Wetlands are areas where soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The ground water and surface water hydrological regime, soils and the vegetational community which occur in each type of freshwater wetlands, including both bordering and isolated vegetated wetlands, are defined under the Bylaw based on G.L. c. 131, § 40. (2) The boundary of Vegetated Wetland, whether Bordering or Isolated, is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. Wetland indicator plants shall include but not necessarily be limited to those plant species identified in the Act.*



Westerly view of the BVW and LEC's wetland flags.

A fringing forested wetland that borders an open water feature occurs south of the property, and continues westerly beneath Reed Street via a concrete pipe. Vegetation within the forested wetland includes a canopy with patches of black alder (*Alnus glutinosa*). The understory contains saplings from the canopy, with patches of sapling silver maple (*Acer saccharum*) and individuals of mulberry (*Morus alba*). The ground cover contains patches of rough stem goldenrod (*Solidago rugosa*), jewelweed (*Impatiens capensis*), and mugwort (*Artemesia vulgaris*), with scattered patches of curly doc (*Rumex crispus*), and individuals of aster (*Symphyotrichum* sp.), plantain (*Plantago major*), fox sedge (*Carex vulpinoidea*), and tickseed (*Coreopsis* sp.). Entanglements of bindweed (*Convolvulus* sp.) occur in individual patches.

Using a hand-held, Dutch-style soil auger, LEC inspected soil conditions within the BVW and observed a 12± inch thick, loamy sand topsoil (A horizon) with a soil matrix color of 10YR 2/1. The topsoil is underlain by an 8+ inch thick loamy sand subsoil (B Horizon), with a soil matrix color of 10YR 3/2. Redoximorphic depletions with a color of 2.5Y 3/2 were observed within 12 inches of the soil profile. While the observed soil profile does not meet any of the hydric soil indicators listed in the *Field Indicators Guide* (the B Horizon matrix would need to be at least a 10YR 4/2), LEC is considering the soil profile as 'hydric' for the purposes of this NOI Application as it is very close to indicator A11: Depleted Below Dark Surface in accordance with the *Field Indicators Guide.*

5. Proposed Activities

The Applicant proposes to construct a 403± square foot addition and 101± square foot screened in porch off the rear of the existing dwelling, within the 100-foot Buffer Zone.

The proposed addition will be constructed atop a full foundation, within the footprint of the existing deck, and adjacent lawn and landscaped land. A set of stairs will descend from the screened-in porch, and provide access to the backyard. While a corner of the porch is within the 50-foot Buffer Zone, the proposed work will not be located closer to the BVW compared to existing conditions. Specifically, the existing deck stairs measure as close as 47± feet from the BVW boundary, while the proposed screened-in porch will measure 48.1± feet from the BVW boundary at its closest point.

The Applicant proposes to convert existing impervious surfaces to pervious surfaces as further discussed below in Section 6.2. As a result, the increase of impervious surface on the site measures 216± square feet.

While the proposed addition and porch measure 504± square feet, the impervious area on the site only increases by 216± square feet. This is achieved by converting a portion of the northern driveway and both existing walkways with pervious materials as shown on the *Drainage/Grading Plan* (Appendix B).

6. Mitigation Measures

The Applicant intends to implement erosion controls to protect the resource areas during construction, implement stormwater management measures, and install native Buffer Zone plantings to improve existing site conditions and promote climate resiliency. These mitigating measures are intended to meet or exceed the regulatory requirements enumerated in the *Act Regulations* and/or the *Bylaw Regulations.* A description of each of these mitigating measures is provided below.

6.1 Erosion and Sedimentation Control

The Applicant proposes to implement an erosion control program to protect the BVW and adjacent properties from sedimentation during construction activities. The plan for the control of potential impacts to the adjacent Wetland Resource Area is based on DEP guidelines and will be comprised of 12-inch staked compost filter tubes surrounding the proposed work area. The compost filter tubes will be installed along the limit of work line around the proposed addition and the sides of the dwelling and driveway. All erosion control measures will remain in place until disturbed areas are stabilized by vegetation. The location of the proposed erosion controls is shown on the *Drainage/Grading Plan* (Appendix B).

6.2 **Stormwater Management**

Under existing conditions, no stormwater management infrastructure occurs on the property for impervious areas, and the proposed increase of impervious surface does not exceed the 350 square-foot threshold that requires stormwater management.

In order to mitigate for the proposed addition and screened in porch, the Applicant proposes to remove 161± square feet of the paved driveway and convert it to pervious asphalt. Further, the 63± square foot concrete walkway extending from the Thesda Street driveway and the 64± square foot concrete walkway extending from Reed Street will also be removed and replaced with permeable pavers. Details of porous pavement and pervious pavers are provided on the *Drainage/Grading Plan.*

In addition to the above, the Applicant also proposes to infiltrate stormwater run-off from the existing shed by installing a 14-foot-long infiltration trench along the sides of the shed. The trench will measure 1 foot wide and 1 foot deep and contain ¾-inch to ½-inch crushed stone, and will capture and infiltrate roof runoff from the existing shed. The Applicant also proposes a swale along the eastern and southern portions of the lawn to control the flow of water away from the house. The swale has been designed to grade the land so that water sheet flows southerly and westerly toward Reed Street. Details and location of the proposed trench and swale are shown on the *Drainage/Grading Plan.*

6.3 **Native Buffer Zone Plantings**

Northerly view of area to be enhanced with native vegetation.

In order to further mitigate for the proposed activities, the Applicant proposes to install native plantings within the Buffer Zone and transplant existing native plantings that are within the footprint of the addition. The 100-foot Buffer Zone will be enhanced by removing the surrounding lawn, and relocating native shrubs and installing native perennial groundcover plants. Only wild native plants shall be planted in the backyard area, and no landscape cultivars shall be planted.

This restoration effort intends to improve the function and value of the Buffer Zone compared to existing conditions by increasing the area of native plantings within the northern portion of the property. LEC will submit a *Buffer Zone Mitigation Planting Plan* to the Commission in advance of the Public Hearing.

7. Regulatory Performance Standards

The *Bylaw Regulations* provide standards for climate resiliency and stormwater management. Citations of the pertinent performance standards are provided below, along with a description of how the project meets these standards.

7.1 General Climate Resiliency

The *Bylaw Regulations* (Section 32 C) states that*: The Applicant shall, to the extent practicable and applicable as determined solely by the Commission, integrate considerations of adaptation planning into their project to promote climate change resilience so as to protect and promote resource area values into the future. These considerations are especially important in Land Subject to Flooding (floodplain) and Riverfront Area and other Resource Areas which protect the interest of Flood Control and Storm Damage Prevention, including Adjacent Upland Resource Areas. These Resource Areas may be directly impacted by extreme weather events expected to be more prevalent or more intense due to climate change, in surface runoff of pollutants, and in wildlife habitat due to changes in temperature.*

Section 32E. states that: *each project shall include at least the following measures to mitigate climate change impacts and adapt to changed climatic conditions. The Applicant shall address the following in writing in their application:*

(1) Describe project design considerations and measures to limit storm and flood damage during extended periods of disruption and flooding as might be expected in extreme weather events, using the FEMA 500-year flood elevation to represent extreme weather event flood levels, depending on the size and nature of the project. Project design considerations may include but not be limited to stormwater mitigation measures sized for increased precipitation expected due to climate change, 2:1 compensatory flood storage replacement, and 2:1 or higher tree replacement/plantings, See Land Subject to Flooding Section 24, Vegetative Wetlands Section 25, Adjacent Upland Resource Area Section 26, and Stormwater Management Section 33 of these Regulations.

The Applicant proposes to construct an addition that is entirely within the footprint of the existing deck and adjacent lawn and landscaped land, resulting in a relatively insignificant change to the cover types on the property compared to existing conditions. The Applicant proposes to convert existing impervious surfaces to pervious surfaces by replacing concrete walkways with pervious paver walkways and replacing pavement with porous pavement. Further, the Applicant proposes to capture the stormwater runoff from the existing shed. The Applicant also proposes to install native plantings within the existing lawn. The proposed mitigation measures are commensurate with the limited scope of the project, and provide an equivalent amount of environmental protection.

(2) Calculate project stormwater surface runoff that is expected to increase due to extreme weather events using NOAA 14 Plus Plus rainfall data (see definition in Section 4) and how this will be managed and mitigated to prevent pollution (including nutrients from fertilizers, roadway runoff, etc.) from entering the resource area in the future, with consideration of eliminating or decreasing impervious surfaces as much as feasible. Project design considerations may include but not be limited to stormwater mitigation measures sized for increased precipitation expected due to climate change. See Stormwater Management Section 33 of these Regulations.

The project results in a net increase of impervious surface of 216± square feet, which is below the 350-square-foot impervious increase threshold that triggers stormwater management under the *Bylaw* and *Bylaw Regulations*. As discussed in Section 6.2, the Applicant proposes to convert impervious surfaces to pervious surfaces and construct an infiltration trench to provide stormwater runoff for the shed to mitigate for the project and provide a commensurate level of climate resiliency.

(3) Describe project vegetation/planting plans and any other measures to improve the resiliency of the resource areas to provide resource area values including but not limited to wildlife habitat; that is, to enable resource areas to withstand extreme precipitation/rainfall changes (drought and excess) and extreme temperatures including extreme heat due to climate change. Project design considerations may include but not be limited to diversity and abundance of replacement plantings and consideration of shading and cooling. See Vegetation Removal and Replacement Section 25 of these Regulations.

The Applicant proposes to install native plantings within the Buffer Zone, to improve wildlife habitat for pollinator species and increase the area of naturally-vegetated land

adjacent to the wetland. LEC will submit a *Buffer Zone Mitigation Planting Plan* to the Commission in advance of the Public Hearing.

(4) Describe project considerations and measures to avoid, minimize, and mitigate for extreme heat effects in resource areas. Project design considerations may include but not be limited to reducing impervious surfaces, increasing or maintaining naturally vegetated surfaces, increasing tree canopy, consideration of shading of structures.

As discussed above, the Applicant proposes to construct an addition and screened porch largely within the footprint of the existing deck, resulting in little change of cover types on the property. As mitigation for the project, the Applicant proposes to increase the area naturally vegetated land by installing native shrub and herbaceous plantings within the Buffer Zone. Maintaining the approximate area of structure on the property and the addition of native plants mitigates for extreme heat effects.

(5) *Describe any additional measures to avoid, minimize, and mitigate for climate change impacts and adapt to changed climatic conditions that are in addition to (1) through (4) above.*

No additional climate resiliency measures are proposed beyond those described above.

7.2 **Stormwater Management Compliance**

As a single-family lot, the project is not required to meet the MA DEP Stormwater Management Standards.

The *Bylaw Regulations* state: *Stormwater management design for all projects (including projects that do not require a Stormwater Management Report under 310 CMR 10.05 (6)(k) or projects that are exempt under Arlington's Stormwater Management Rules and Regulations) specified in a request Arlington Regulations for Wetlands Protection for determination of applicability or an application for a permit shall accomplish the following:*

(1) Not exacerbate or create flooding conditions and shall not result in an increase in the peak rate of stormwater runoff over existing conditions during storm events.

The Applicant proposes to convert the existing concrete walkways and portions of the Thesda Street driveway to porous material, which limits the increase in impervious surface on the site. The Applicant also proposes to install an infiltration trench along the eastern and southern edge of the existing shed to capture the runoff to further mitigation

and promote additional stormwater infiltration. By way of converting existing lawn to naturally vegetated land, and installing a natural swale in the backyard, the Applicant is mitigating stormwater runoff velocity through the site compared to existing conditions.

Given the modest size of the addition, and the mitigation measures mentioned above, LEC does not anticipate the project exacerbating or creating flooding conditions.

(2) Reduce stormwater pollution to the maximum extent possible. Low Impact Development techniques listed in the Massachusetts Stormwater Handbook, (LID BMPs) should be prioritized for their positive impact on overall site climate change resilience, improvements to water quality, and ability to handle water quantity. Depending upon the type of project proposed, this may include but not be limited to reduction in impervious surfaces, bio-retention (rain gardens), and infiltration systems.

The majority of stormwater run-off from this site is from roof areas, which is considered 'clean' stormwater run-off. The potential for stormwater pollution is limited to stormwater run-off from the existing driveways, a portion of which will be converted to pervious asphalt. Considering the limited residential use of the driveways, pollutant run-off is anticipated to be minimal.

(3) Have a written operation and maintenance plan to inspect, properly maintain, and repair installed BMPs after project completion to ensure they are functioning according to the design intent in perpetuity.

The only stormwater 'BMPs' proposed on the site is the infiltration trench. Other than keeping the trench free of debris (leaves, etc.), they require little to no maintenance. The infiltration trench will be kept free of debris by way of raking and disposing of fall leaves.

8. Summary

On behalf of the Applicant and Property Owner, Katina Leodas, LEC is filing the enclosed NOI Application with the Arlington Conservation Commission to construct an addition and screened-in porch at 39 Reed Street in Arlington. The proposed activities are located within the 100-foot Buffer Zone to Bordering Vegetated Wetlands, as jurisdictional under the *Act,* its implementing *Regulations,* and the *Bylaw* and *Bylaw Regulations*.

The Applicant proposes to implement mitigation measures, including erosion controls to protect the adjacent properties and resource areas during construction, a reduction in impervious surface, a stormwater infiltration trench, and native Buffer Zone plantings to improve existing site conditions and promote climate resiliency. The project, including the proposed mitigating measures, meets the performance standards enumerated in the *Act Regulations* and the *Bylaw Regulations*, and the Applicant requests that the Commission issue an Order of Conditions approving the project as proposed herein.

Arlington Conservation Commission, *Town of Arlington Wetlands Protection Bylaw* (Article 8) Town of Arlington, Massachusetts.

Massachusetts Department of Environmental Protection, Division of Wetlands and Waterways *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* (Second Edition, September 2022)

Massachusetts Natural Heritage and Endangered Species Program Atlas of Estimated Habitat of State-listed Rare Wetlands Wildlife, Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife, Route 135, Westborough, MA 01581, www.state.ma.us/dfwele/dfw

Massachusetts Wetlands Protection Act (M.G.L. c. 131, §. 40), www.state.ma.us/dep
Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00), www.state.ma.us/dep

National Flood Insurance Program, Federal Emergency Management Agency Flood Insurance Rate Map (Map Number 25017C0416E), Middlesex County, June 4, 2010.

New England Hydric Soils Technical Committee. 2020, 4th ed., *Field Indicators for Identifying Hydric Soils in New England.*

The State of Massachusetts 2016 Wetland Plant List (Lichvar, R.W, et al. 2016). US Army Corps of Engineers

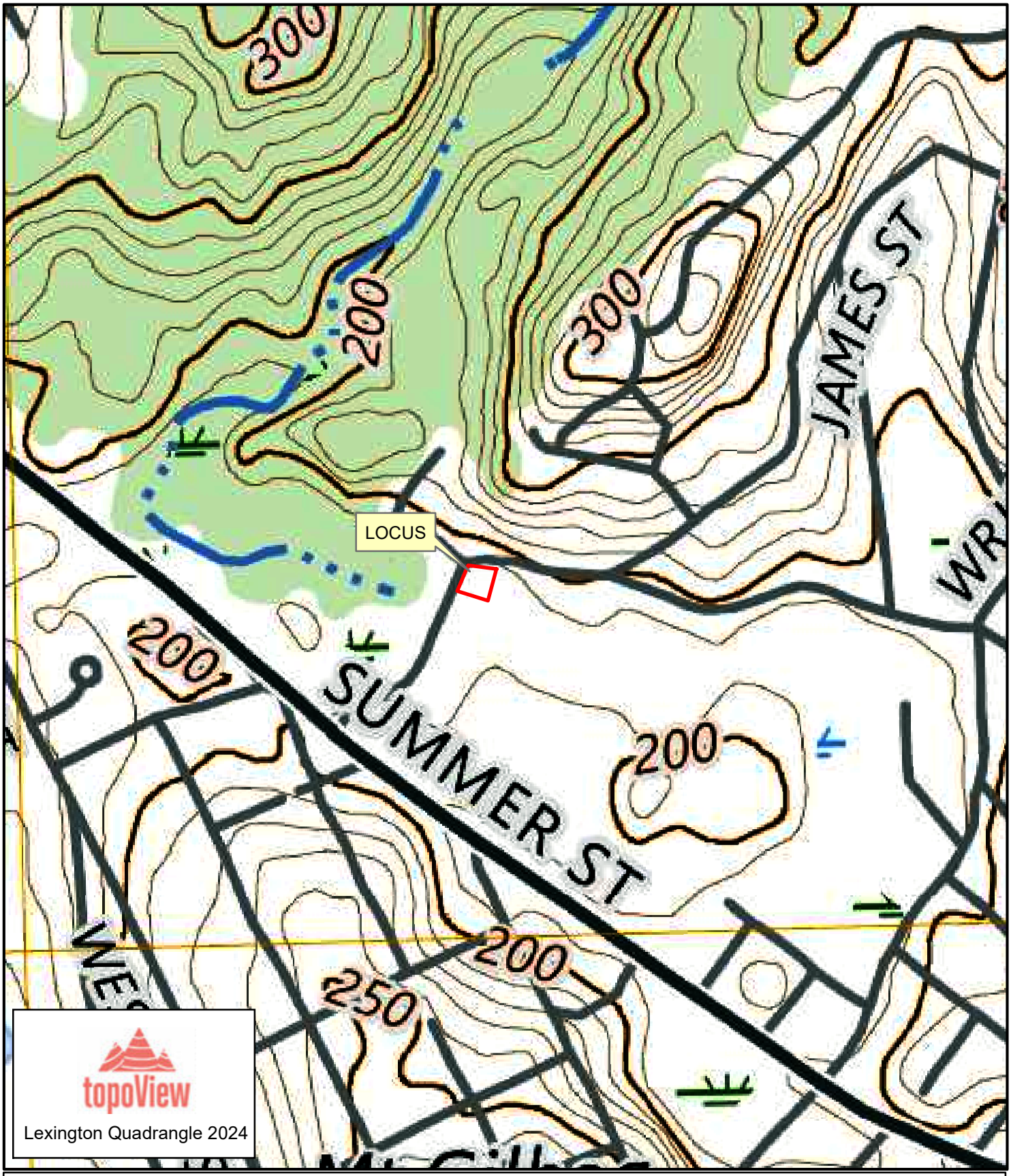
Appendix A

Locus Maps

Figure 1: USGS Topographic Quadrangle

Figure 2: FEMA Flood Insurance Rate Map

Figure 3: MassGIS Orthophoto & NHESP Estimated Habitat Map



LEC
Environmental Consultants, Inc.
Wakefield, MA
781.245.2500

www.lecenvironmental.com

Figure 1: USGS Topographic Map
39 Reed Street
Arlington, MA

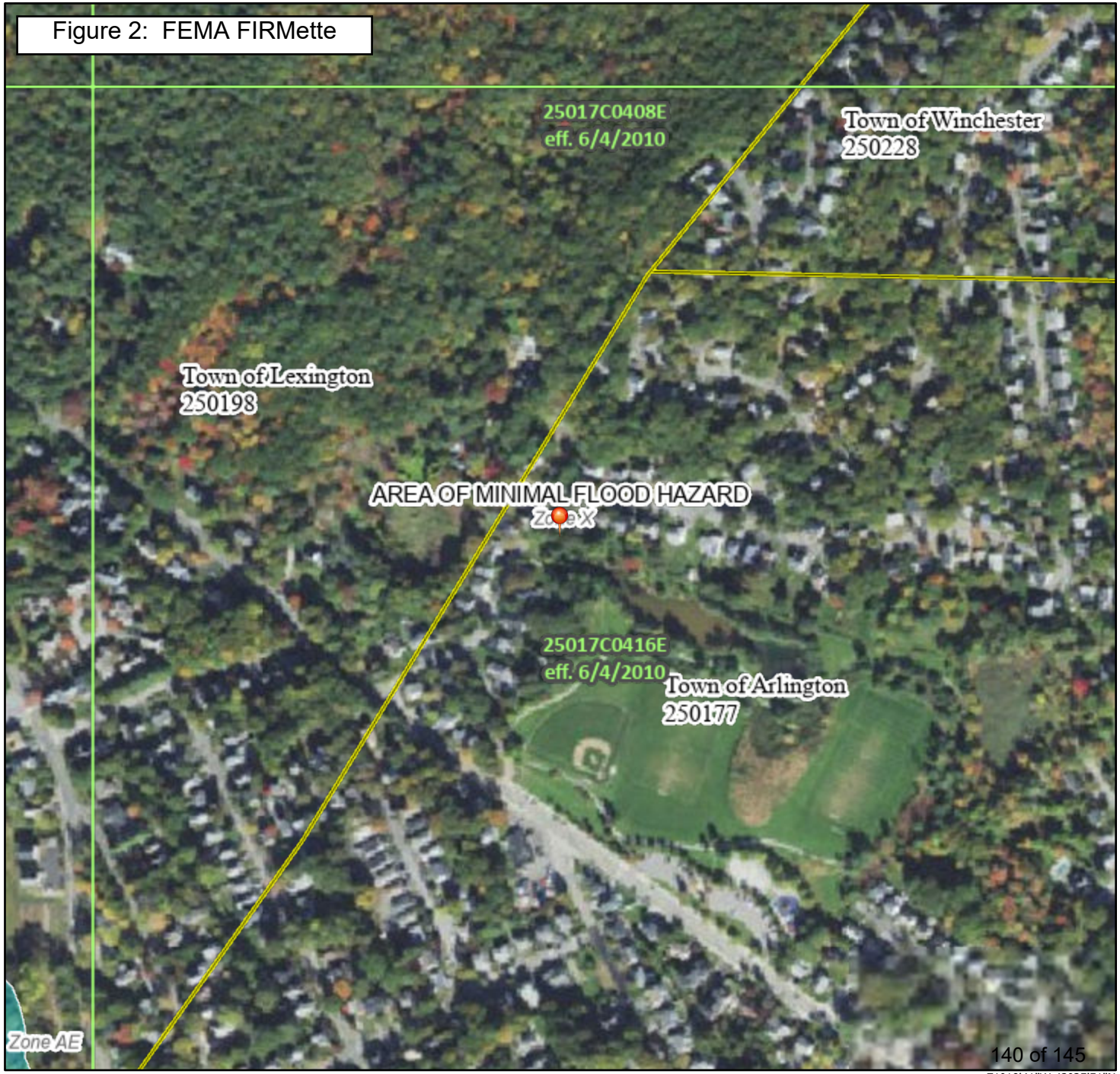
May 21, 2025

N

0 200 400 Feet

National Flood Hazard Layer FIRMette

71°11'18"W 42°26'17"N



71°10'41"W 42°25'51"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

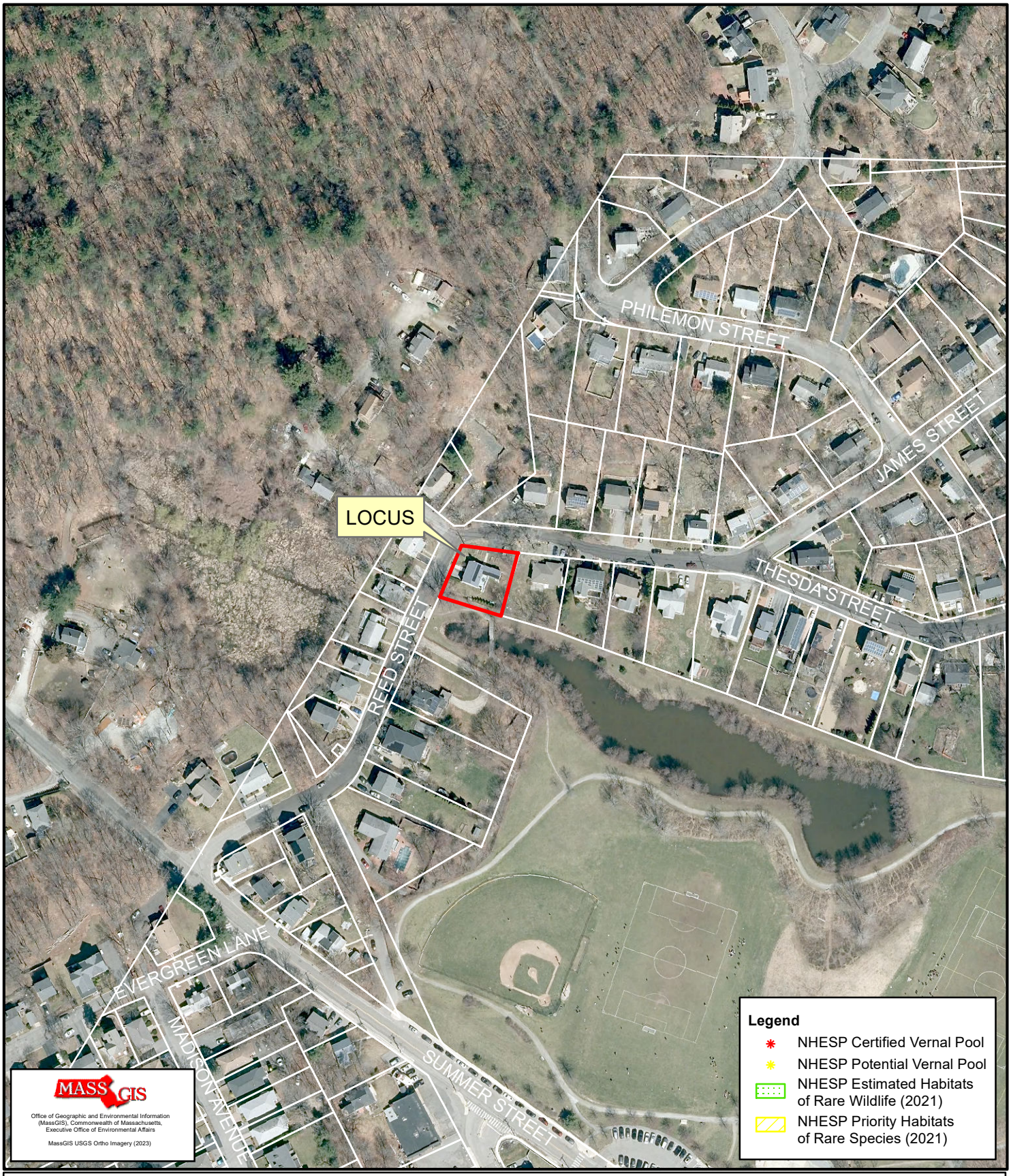
N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/11/2025 at 7:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



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Environmental Consultants, Inc.
Wakefield, MA
781.245.2500
www.lecenvironmental.com

Figure 3: MassGIS Orthophoto & NHESP Map
39 Reed Street
Arlington, MA

May 21, 2025

N
0 100 200 Feet

Appendix B

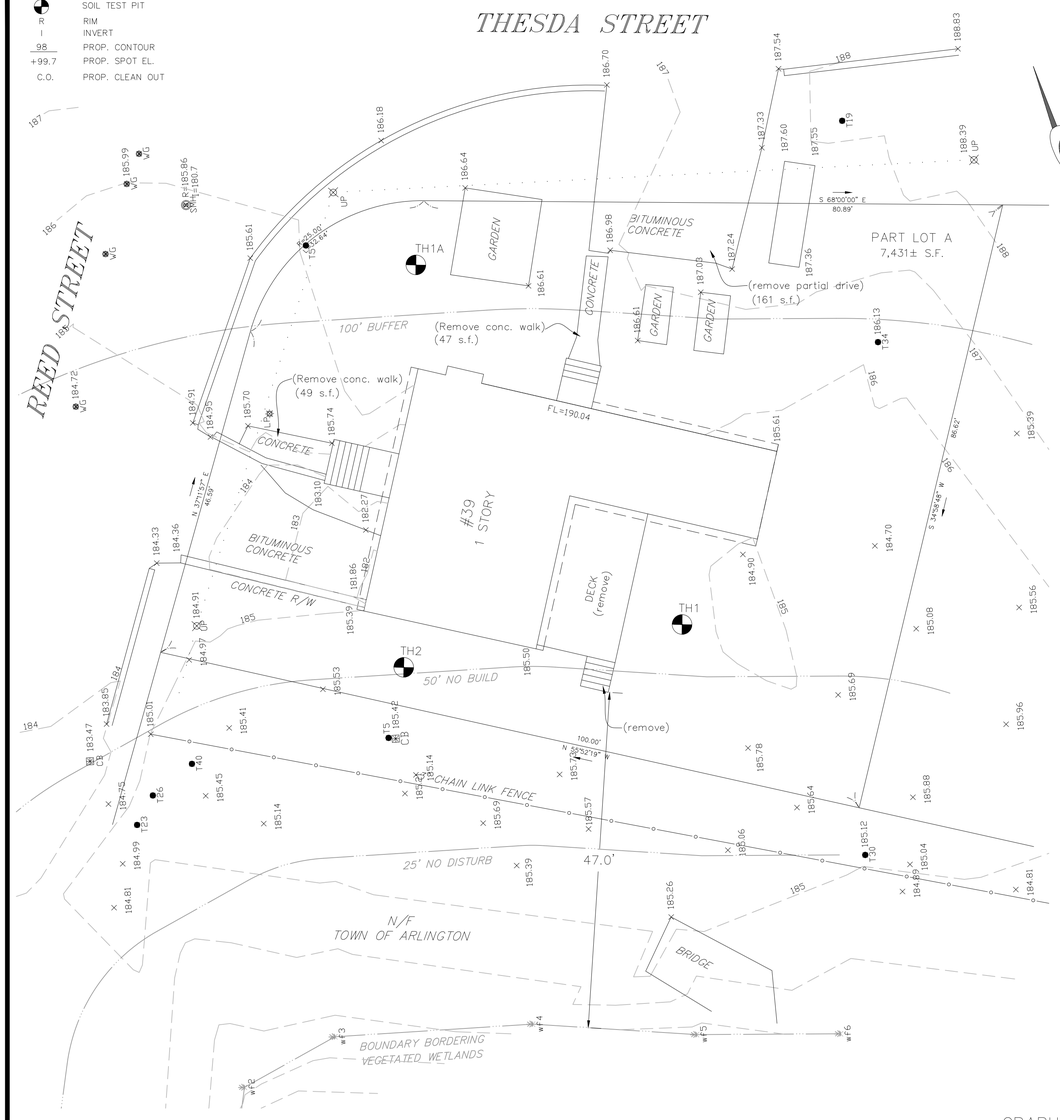
Drainage/Grading Plan

May 15, 2025

prepared by Gala Simon Associates, Inc.

LEGEND

TP	SOIL TEST PIT
R	RIM
I	INVERT
98	PROP. CONTOUR
+99.7	PROP. SPOT EL.
C.O.	PROP. CLEAN OUT

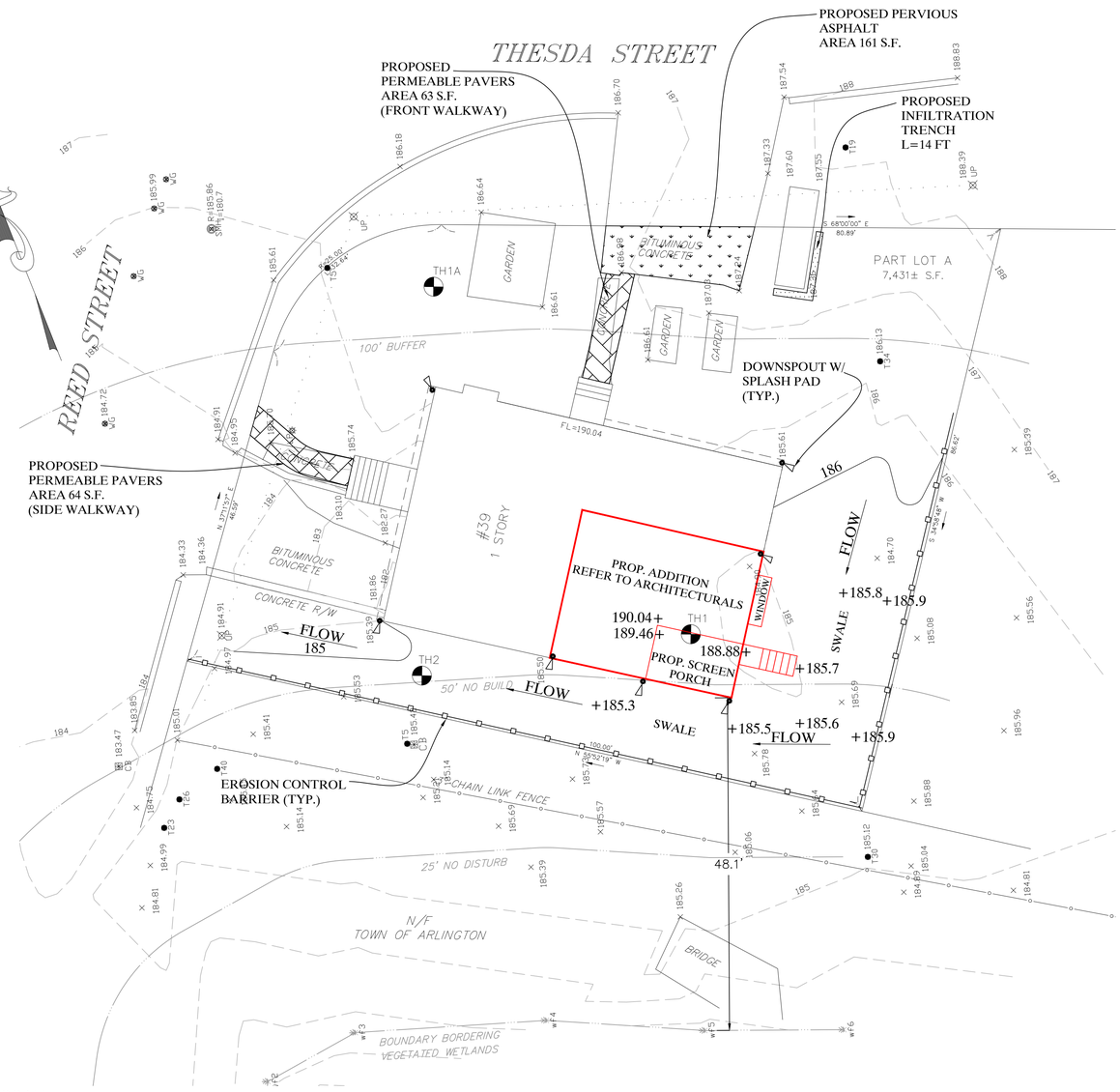


EXISTING SITE PLAN

SCALE: 1" = 10'

GRAPHIC SCALE

0 10 20 30 40ft



PROPOSED SITE PLAN

SCALE: 1" = 10'

SOIL TEST DATA

Performed by Gala Simon Associates, Inc., on 3/10/25

TH1 (EL. 185.2)

Horizon	Depth	Color	Texture	Mottles	Other	Elevation
C1	40"	N/A	FILL	-	-	181.9

NO REFUSAL, NO MOTTLING, WATER @34" EL.182.4

TH2 (EL. 185.4)

Horizon	Depth	Color	Texture	Mottles	Other	Elevation
C1	34"	N/A	FILL	-	-	182.6
A/B	47"	GLAY2 10BG	MUCK	-	-	181.5
C	64"	CH1 4/10Y	SL	-	-	180.1

NO REFUSAL, NO MOTTLING, WATER @42" EL.181.9

Performed by Gala Simon Associates, Inc., on 4/11/25

TH1A (EL. 186.6)

Horizon	Depth	Color	Texture	Mottles	Other	Elevation
C1	23"	N/A	FILL	-	-	184.7
A/B	56"	GLAY1 2.5N	MUCK	-	-	181.9
C	75"	10YR6/2	SL	-	-	180.4

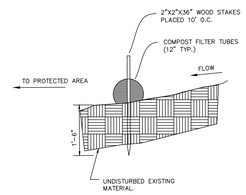
NO REFUSAL, NO MOTTLING, WATER @59" EL.181.7

TOWN OF ARLINGTON
ENGINEERING DIVISION

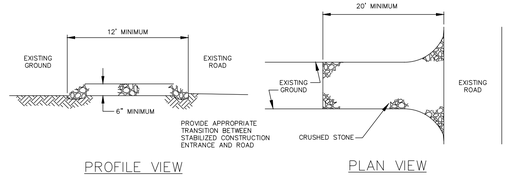
INSPECTION SIGN OFF:

1. BOTTOM OF BED _____ INSPECTOR _____ DATE

2. POST INSTALLATIONS PRIOR TO BACKFILL _____ INSPECTOR _____ DATE



1 C-0 EROSION CONTROL
SCALE: NTS



THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO EXISTING ROAD SHALL BE REMOVED IMMEDIATELY.

2 C-0 STABILIZED CONSTRUCTION ENTRANCE
SCALE: NTS

Gala Simon Associates Inc.
394 LOWELL STREET, SUITE 18
LEXINGTON, MA 02420
Tel: (781) 676-2962

Gala Simon Associates GSA
Civil Engineers

DRAINAGE/GRADING PLAN

39 REED STREET
ARLINGTON, MASSACHUSETTS

Job No. 2506	Date: 05/15/25
Drawn By: TG	Scale: AS SHOWN

Rev#	Date:	Description:

COMMONWEALTH OF MASSACHUSETTS
ALBERTO G. GALA
CIVIL
No. 28184
REGISTERED PROFESSIONAL ENGINEER

C-0

GENERAL NOTES

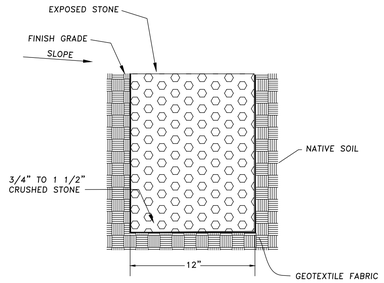
1. EXISTING CONDITIONS SURVEY INFORMATION OBTAINED FROM ROBER SURVEY, ARLINGTON, MA.
   OWNER/CLIENT ASSUMES ALL RESPONSIBILITY FOR SOURCES AND AUTHORIZATION TO USE ELECTRONIC AND RECORD FILES.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING INFORMATION ON THE GROUND AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER IMMEDIATELY FOR A DECISION PRIOR TO CONSTRUCTION.
3. ALL AREAS OUTSIDE OF THE LIMIT OF WORK LINES SHALL NOT BE DISTURBED IN ANY MANNER BY THE CONTRACT OPERATIONS. THE CONTRACTOR SHALL KEEP OUT OF THESE AREAS AND PRESERVE THEIR EXISTING CHARACTER.
4. INSTALL TEMPORARY EROSION CONTROL MEASURES PRIOR TO CONSTRUCTION FOR APPROVAL BY THE DESIGN ENGINEER. EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. PROVIDE SMOOTH TRANSITION AT CHANGES IN GRADE EXCEPT AS INDICATED ON THE DRAWINGS AND AS DIRECTED BY THE ENGINEER.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND UTILITY LINES; ACTIVE OR NOT, AND SHALL MAINTAIN A CLOSE AND CONSTANT CONTACT WITH ALL UTILITY COMPANIES INVOLVED. CALL DIG-SAFE 888-344-7233
   THE TOWN OF ARLINGTON IS NOT A MEMBER OF DIG-SAFE. WHEN ACTIVITIES REQUIRE A DIG-SAFE MARKOUT, THE TOWN OF ARLINGTON SHALL BE CONTACTED AT 781-316-3310 TO REQUEST A MARKOUT.
7. ALL ELEVATIONS ARE REFERENCED TO NAVD88.
8. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS, PERMITTING, AND LICENSES ISSUED AT THE FEDERAL, STATE AND LOCAL AGENCIES.
9. CONTRACTOR SHALL COORDINATE ALL SITE UTILITY IMPROVEMENTS WITH THE TOWN OF ARLINGTON OFFICIALS.
10. ENGINEER IS TO BE CONTACTED BY CONTRACTOR TO PERFORM AS BUILT MEASUREMENTS.
11. OWNER/DEVELOPER IS TO COMPLY WITH ALL OF MASSACHUSETTS DEP SITE DEVELOPMENT REGULATIONS.
12. THE CONTRACTOR/OWNER SHALL ARRANGE FOR THE DESIGN ENGINEER TO DEVELOP AN AS-BUILT PLAN OF ALL IMPERVIOUS AREAS ON THE SITE FOR SUBMITTAL TO THE TOWN OF ARLINGTON ENGINEERING DIVISION.
13. PROPOSED GRADING AND DOWNSPOUT OVERFLOWS SHALL NOT DIRECT RUNOFF TOWARDS ABUTTING PROPERTIES. RUNOFF SHOULD NOT BE DIRECTED ACROSS ADJACENT PROPERTY LINES.
14. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT RUNOFF SEDIMENT FROM THE SITE COLLECTING ON THE SIDEWALK, ROADWAY, OR ABUTTING PROPERTIES DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT OR PRODUCTS OF EROSION FROM THE RIGHT OF WAY WHEN NECESSARY AND COMPLETE PERIODIC SWEEPING OF THE STREETS.
15. ADDITIONAL PERMITTING WILL BE REQUIRED THROUGH THE ARLINGTON ENGINEERING DIVISION FOR PROPOSED UTILITY CONNECTIONS, SIDEWALK WORK, AND CURB CUT WORK.

LAYOUT & GRADING NOTES

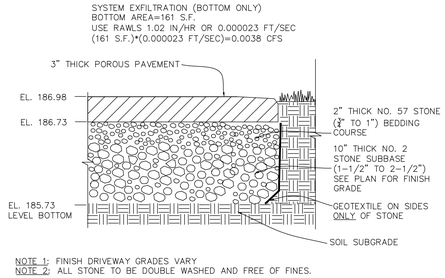
1. CONSULT ALL DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BETWEEN ALL TRADES PRIOR TO COMMENCING NEW CONSTRUCTION.
2. LOCATION OF EXISTING UTILITIES SHOWN ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL CONTACT THE PROPER AUTHORITIES IN WRITING TO CONFIRM THE LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE INCURRED DURING CONSTRUCTION TO ANY UTILITY SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
3. CONTRACTOR TO REFER TO A SURVEYOR PLOT PLAN FOR ACCURATE OFFSETS TO TO PROPERTY LINE.

UTILITY NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THIS PLAN, PRIOR TO ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION BEFORE PROCEEDING WITH THE WORK. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATERGATES, ETC. AND COMPILED FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES. ALL CONTRACTORS SHOULD NOTIFY, IN WRITING, ALL UTILITY COMPANIES OR AGENCIES PRIOR TO ANY EXCAVATION WORK. CALL DIGSAFE AT 1-888-344-7233.

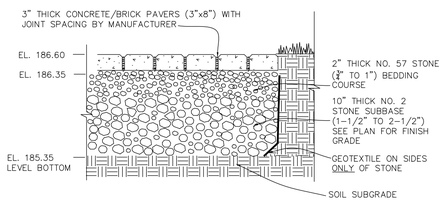


1 / C-1 STONE INFILTRATION TRENCH
SCALE: NTS



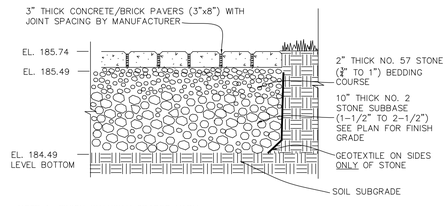
NOTE 1: FINISH DRIVEWAY GRADES VARY
NOTE 2: ALL STONE TO BE DOUBLE WASHED AND FREE OF FINES.

2 / C-1 BITUMINOUS POROUS PAVEMENT
SCALE: NTS



NOTE 1: FINISH WALKWAY GRADES VARY
NOTE 2: ALL STONE TO BE DOUBLE WASHED AND FREE OF FINES.

3 / C-1 CONCRETE/BRICK PERMEABLE PAVERS
SCALE: NTS (front walkway)



NOTE 1: FINISH WALKWAY GRADES VARY
NOTE 2: ALL STONE TO BE DOUBLE WASHED AND FREE OF FINES.

4 / C-1 CONCRETE/BRICK PERMEABLE PAVERS
SCALE: NTS (side walkway)

SAFETY NOTE:

CONTRACTOR IS TO IMPLEMENT ALL NECESSARY SAFETY AND CONSTRUCTION MEASURES AND PROCEDURES FOR THE CONSTRUCTION OF THE PROJECT. STRICT COMPLIANCE WITH FEDERAL, STATE AND LOCAL SAFETY AND CONSTRUCTION REQUIREMENTS IS MANDATORY.

Gala Simon Associates Inc.
394 LOWELL STREET, SUITE 18
LEXINGTON, MA 02420
Tel: (781) 676-2962
Gala Simon Associates GSA Civil Engineers

DRAINAGE PLAN

39 REED STREET
ARLINGTON, MASSACHUSETTS

Job No. 2504		Date: 05/15/25
Drawn By: TG		Scale: AS SHOWN
Rev#	Date:	Description:

COMMONWEALTH OF MASSACHUSETTS
ALBERTO G. GALA
GALA
CIVIL
No. 36184
REGISTERED PROFESSIONAL ENGINEER

C-1

PLAN SCALE
0 10 20 40
1 inch = 10 feet

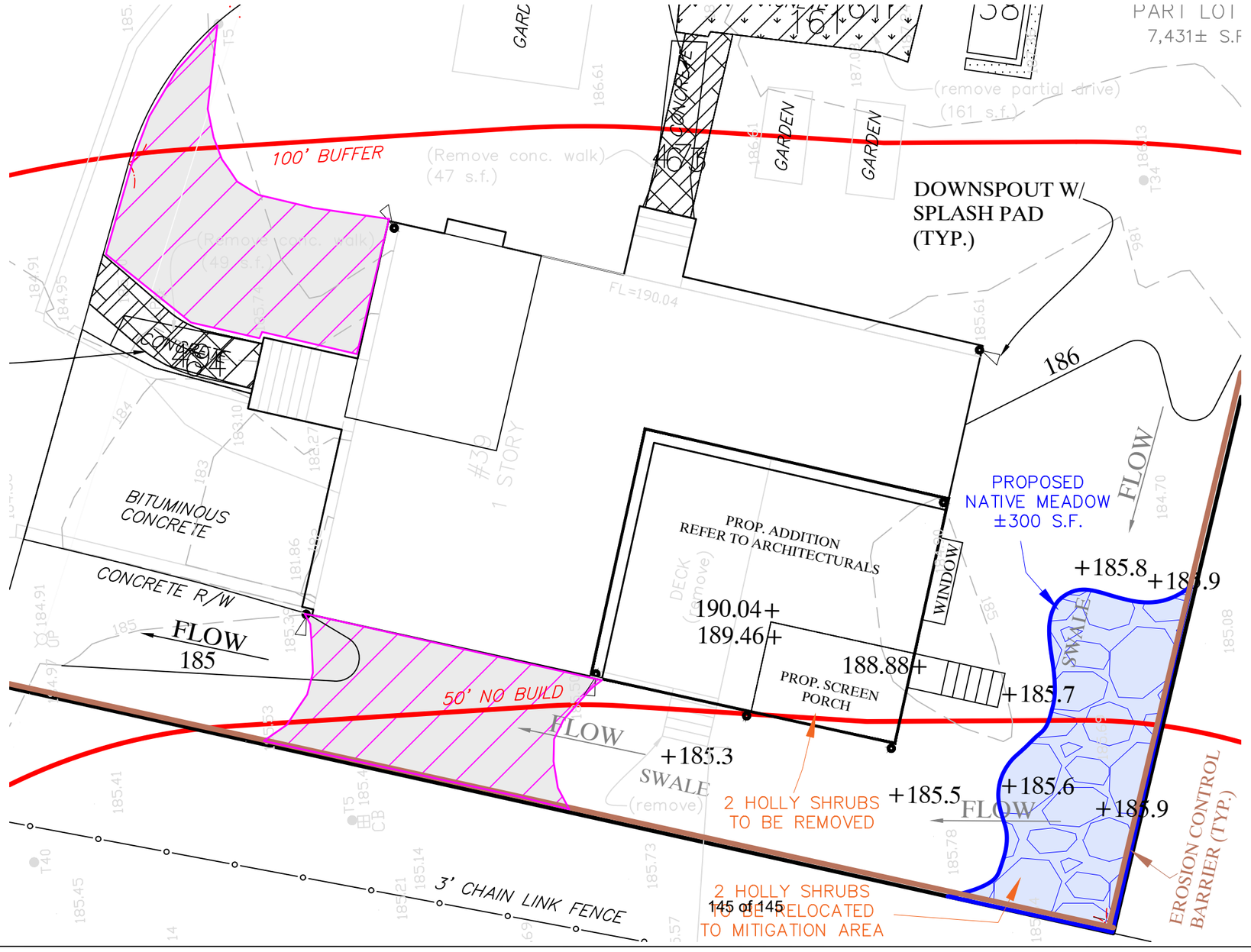
SCALE: 1" = 10'
(11 x17" Print Size)

WATERING NOTES

- A DEEP SOAKING IS RECOMMENDED THE SAME DAY AS PLANTS ARE INSTALLED.
- FOR THE FIRST MONTH AFTER PLANT INSTALLATION, A DEEP WATERING IS RECOMMENDED APPROXIMATELY TWICE A WEEK DEPENDING ON FREQUENCY OF RAIN EVENTS AND TIME OF SEASON.
- GENERAL SUGGESTED WATERING FREQUENCY AFTER FIRST MONTH AND DURING THE FIRST GROWING SEASON: A DEEP SOAKING OF THE ROOT ZONE ONCE A WEEK IN SPRING AND FALL. TWICE A WEEK DURING THE HOTTEST PORTION OF SUMMER..
- AN ADEQUATE WATERING REPLACEMENT RAIN EVENT IS APPROXIMATELY A MINIMUM OF A HALF INCH OF RAINFALL.
- WATERING IS RECOMMENDED IN THE EARLY MORNING HOURS.
- A DEEP SOAKING MEANS INCLUDING THE SOAKING OF THE ENTIRE ROOT BALL AND THE IMMEDIATE SURROUNDING SOIL.
- A REDUCTION IN THE FREQUENCY OF WATERING IS RECOMMENDED AFTER THE FIRST YEAR. RESUME WATERING PROGRAM AS NECESSARY DURING SECOND GROWING SEASON WHEN PERIODS OF DROUGHT OR DURING EXTENDED DRY PERIODS.
- THE ABOVE SHALL ONLY BE APPLIED IN ACCORDANCE WITH LOCAL WATERING REQUIREMENTS/REGULATIONS.

MITIGATION/RESTORATION PLANTING AREA NOTES

1. PRIOR TO WORK ACTIVITY, EXISTING EROSION CONTROLS SHALL BE INSPECTED BY THE WETLAND SCIENTIST. THE CONTRACTOR IS RECOMMENDED TO CONTACT DIGSAFE PRIOR TO DIGGING RELATED WORK ACTIVITY ON-SITE
2. THIS RESTORATION/MITIGATION PLANTING PLAN IS SOLELY INTENDED TO BE USED FOR RESTORATION RELATED WORK ACTIVITY ONLY.
3. THE EXISTING SOD WITHIN THE MITIGATION MEADOW AREA SHALL BE REMOVED PRIOR TO PLANTING. ANY REQUIRED SUPPLEMENTAL TOP SOIL SHALL BE CLEAN (E.G FREE OF UNWANTED CONTAMINANTS OR INVASIVE SPECIES), DARK, ORGANIC RICH SOIL (E.G. TARGET OF APPROXIMATELY 5-12% ORGANIC MATTER CONTENT).
4. A ONE TIME 2 INCH APPLICATION OF LEAF COMPOST, PINE BARK MULCH OR FINE WOOD CHIPS MAY BE APPLIED TO THE ENTIRE PLANTING AREA.
5. SHOULD PLANTS BE STOCKPILED TEMPORARILY, THEY SHALL BE WATERED APPROPRIATELY AND STORED IN THE SHADE.
6. PLANTS SHALL BE PROTECTED FROM THE WIND/COVERED WHEN TRANSPORTED TO THE SITE. 7. PLANTING IN THE EARLY SPRING OR DURING THE FALL IS RECOMMENDED.
7. ANY SUBSTITUTE, AMENDED OR SUPPLEMENTAL NATIVE MEADOW FLOWERS, FERNS OR SEEDS SHALL BE APPROVED BY THE WETLAND SCIENTIST AND NATIVE TO MASSACHUSETTS.
8. RELOCATED AMERICAN HOLLY SHRUBS ARE RECOMMENDED TO BE WATERED DEEPLY 1-2 DAYS PRIOR TO TRANSPLANTING IN THE FALL OR EARLY SPRING.



PROPOSED/RELOCATED PERENNIAL FLOWER GARDENS

THE FOLLOWING SHALL BE TRANSPLANTED TO THE RELOCATED PERENNIAL GARDENS FROM THE EXISTING GARDENS WITHIN THE PROPOSED LOCATION FOR THE ADDITION:

4 PEONIES
1 CLEMATIS
3 FASSEN'S CATNIP
2 WOODLAND SAGE
8 IRISES (4 BEARDED, 4 BLUE FLAG)
3 SHOWY STONECROP
2 LEMON GRASS

NATIVE POLLINATOR MEADOW GROUNDCOVER

THE FOLLOWING NATIVE SPECIES SHALL BE INSTALLED THROUGHOUT THE PLANTING AREA.

A MINIMUM OF 25 OF THE FOLLOWING SPECIES SHALL BE PLANTED IN THE MEADOW (.5 GALLON POTS OR TRAYS OF 2" PLUGS WITH SOIL (TYPICALLY 50 PER TRAY) :

- JOE PYE WEED (EUTROCHIUM PURPUREUM);
- SWAMP SUNFLOWER (HELIANTHUS ANGUSTIFOLIUS);
- BEE BALM (MONDARDA FISTULOSA).
- SMOOTH BEARD TONGUE (PENSTEMON LAEVIGATUS)
- BLACK EYED SUSAN (RUDBECKIA HIRTA)
- RED COLUMBINE (AQUILEGIA CANADENSIS)
- LANCE LEAF COREOPSIS (COREOPSIS LANCEOLATA)

Mitigation Planting Plan

39 Reed Street
Arlington, MA

June 2, 2025

PREPARED BY:
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WETLANDS · WILDLIFE · WATERWAYS

LEC File: LeoK\24-263.01

SHEET 1 OF 1

Plan adapted by:
LEC Environmental Consultants, Inc.
from plan entitled;

DRAINAGE GRADING PLAN
DATED: May 15, 2025

Prepared by:

Gala Simon Associates
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