CITY OF RYE
1051 BOSTON POST ROAD
RYE, NY 10580
AGENDA

REGULAR MEETING OF THE CITY COUNCIL
COUNCIL CHAMBERS, CITY HALL
Wednesday, October 23, 2024
6:30 p.m.

1. Pledge of Allegiance.

2. Roll Call.

3. Draft unapproved minutes of the Regular Meeting of the City Council held October 9, 2024.

4. Members of the public may be heard on matters for Council consideration that do not appear on the agenda.

5. Report of the City Manager.

6. Presentation of project testing results and award bid for Nursery Field turf project.

7. Award bid for Theodore Fremd wall project (Contract # 2024-03).

8. Presentation to the City Council on the comprehensive plan process.

9. Statement by the Rye City Council on gun safety in cooperation with the Rye School District.

10. Resolution designating the days and times of regular meetings of the City Council for 2025, setting January 8, 2025, as the first regular meeting.

11. Old Business/New Business.

12. Adjournment.

* *

The next regular meeting of the City Council will be held on Wednesday, November 6, 2024, at **5:45** p.m. **The Meeting will begin in the Square House before moving to City Hall at approximately 6:30 p.m.**

** City Council meetings are available live on Cablevision Channel 75, Verizon Channel 39, and on the City Website, indexed by Agenda item, at www.ryeny.gov under “RyeTV Live”.

UNAPPROVED MINUTES of the Regular Meeting of the City Council of the City of Rye held in City Hall on October 9, 2024, at 6:30 P.M.

PRESENT:

JOSH COHN, Mayor
KEITH CUNNINGHAM
SARA GODDARD
BILL HENDERSON
JAMIE JENSEN
JOSH NATHAN
JULIE SOUZA
Councilmembers

ABSENT: NONE

ALSO ATTENDING:

GREG USRY, CITY MANAGER
KRISTEN WILSON, CORPORATION COUNSEL
BRIAN SHEA, ASSISTANT CITY MANAGER
CHRISTOPHER CORREALE, GENERAL MANAGER RYE GOLF CLUB
RODRIGO PAULINO, HARBOR MASTER

The Council convened in a public meeting at 6:36 P.M. The meeting was streamed live at www.ryeny.gov for public viewing.

1. Pledge of Allegiance.

   Mayor Cohn led the Pledge of Allegiance.

2. Roll Call.

   The City Clerk called the roll and there was a quorum.

3. Draft unapproved minutes of the Regular Meeting of the City Council held September 18, 2024.

   On motion by Councilperson Souza, seconded by Councilperson Jensen, and unanimously carried, it was

   RESOLVED to approve the drafted minutes of the Regular Meeting of the City Council held September 18, 2024.

4. Additional item: Resolution on Playland Tax Issue

   On motion by Councilperson Souza, seconded by Councilperson Cunningham:

WHEREAS, the County commenced an Article 78 against the City on September 10, 2024, seeking approximately $14 MM in tax payments from the City; and

WHEREAS, the County and Standard will be filing an Article 7 Proceeding with respect to the taxability of the Playland parcel on the 2024 assessment roll; and

WHEREAS, all parties wish to resolve both matters so as to not impact the City, School District and County budgets; and

WHEREAS, consistent with the interim settlement discussions had with the Council, Corporation Counsel will work with the County Attorney's office to draft a settlement agreement to resolve the Article 78 proceeding and also a consent judgment to be "So Ordered" by the Judge to resolve the Article 7 proceeding(s).

NOW, THEREFORE, BE IT RESOLVED, that the City Council authorizes the Corporation Counsel to settle both litigation matters consistent with the above terms.

ROLL CALL
AYES: Councilpersons Cunningham, Goddard, Henderson, Jensen, Nathan, Souza, Mayor Cohn
NAYS: None
ABSENT: None

5. Members of the public may be heard on matters for Council consideration that do not appear on the agenda.

The following members of the public spoke:

- Jenifer Kelley, 5 Wilson Drive, regarding Playland on the tax roll
- Stephen Bear, 22 Locust Ave. 1, regarding Car Park 1

6. Report of the City Manager.

City Manager, Greg Usry, updated the City Council on various items.

7. Consideration of a request from SOUL RYEDERS for the use of City streets on Sunday, May 18, 2025, from 7:30 am to 11:30 am for a half marathon/5k fundraising event.

On motion by Councilperson Souza, seconded by Mayor Cohn, and unanimously carried it was:

RESOLVED to approve the request from SOUL RYEDERS for the use of City streets on Sunday, May 18, 2025, from 7:30 am to 11:30 am for a half marathon/5k fundraising event.

8. Approve appointments to the Boat Basin Commission.

On motion by Councilperson Nathan, seconded by Councilperson Jensen and unanimously carried it was:

RESOLVED to approve the latest appointment of Joe Pecora & Scott Beechert to the Boat Basin Commission for a 3-year term.

9. Presentation and resolution to establish the 2025 budgeted Fees and Charges for the Boat Basin.

On motion by Councilperson Souza, seconded by Councilperson Goddard:

WHEREAS the City of Rye owns and operates the DePauw Municipal Boat Basin in Milton Harbor; and

WHEREAS, pursuant to the Charter of the City of Rye the City Council has the authority to adopt new fees and charges; and

WHEREAS, after an analysis of the associated fees and charges for the Boat Basin, it has been determined that an increase in those fees and charges is necessary to offset costs; and

WHEREAS, a list of those fees and charges has been furnished to the City Council and attached herein; and

WHEREAS, the Boat Basin Commission approved these fees and charges on July 16, 2024;

NOW, THEREFORE, BE IT RESOLVED, that the City Council hereby adopts the proposed 2025 fees and charges as detailed herein.

ROLL CALL
AYES: Councilpersons Cunningham, Goddard, Henderson, Jensen, Nathan, Souza, Mayor Cohn
NAYS: None
ABSENT: None

10. Presentation and resolution to establish the 2025 budgeted Fees and Charges for the Rye Golf Club.

On motion by Councilperson Souza, seconded by Mayor Cohn:

WHEREAS, the City of Rye owns and operates the municipal Rye Golf Club; and

WHEREAS, pursuant to the Charter of the City of Rye the City Council has the authority to adopt new fees and charges; and

WHEREAS, after an analysis of the associated fees and charges for the Golf Club, it has been determined that an increase in certain fees and charges is necessary to offset costs; and

WHEREAS, a list of those fees and charges has been furnished to the City Council and attached herein; and

WHEREAS, the Rye Golf Club Commission approved these fees and charges on August 28, 2024;

NOW, THEREFORE, BE IT RESOLVED, that the City Council hereby adopts the Commission-approved 2025 fees and charges as detailed herein.

ROLL CALL
AYES: Councilpersons Cunningham, Goddard, Henderson, Jensen, Nathan, Souza, Mayor Cohn
NAYS: None
ABSENT: None

11. Resolution authorizing the City Manager to execute an agreement with Connecticut Communications and Ring Central to provide for service and installation of a new City office telephone system.

On motion by Councilperson Souza, seconded by Councilperson Henderson, and unanimously carried, it was:

RESOLVED to authorize the City Manager to execute agreements with Connecticut Communications and Ring Central to provide for a new City office phone system.

12. Resolution amending the FY 2024 budget by increasing the police patrol equipment expense line by $120,000 and the law enforcement technology grant revenue line by $120,000, due to the City receiving a $120,000 grant award from the New York State Division of Criminal Justice's Law Enforcement Technology (LETECH) program.

On motion by Councilperson Henderson, seconded by Councilperson Souza:

AUTHORIZATION TO AMEND THE 2024 CITY OF RYE ADOPTED BUDGET BY INCREASING THE POLICE PATROL EQUIPMENT EXPENSE LINE AND LAW ENFORCEMENT TECHOLOGY GRANT REVENUE LINE BY $120,000.

WHEREAS, the City of Rye received a $120,000 grant award from the New York State Division of Criminal Justice's Law Enforcement Technology (LETECH) program and

WHEREAS, the City of Rye's 2024 General Fund Budgeted appropriations were $50,934,981 and General Fund Budgeted revenues were $47,545,481;

NOW, THEREFORE, BE IT RESOLVED, that the City Council agrees to amend the 2024 City of Rye Adopted Budget, by increasing General Fund appropriations and General Fund revenues by $120,000 each, in recognition of this unbudgeted source of funds.

ROLL CALL
AYES: Councilpersons Cunningham, Goddard, Henderson, Jensen, Nathan, Souza, Mayor Cohn
NAYS: None
ABSENT: None

13. CONSENT AGENDA

a. Consideration of a request by the American Legion Post 128 to conduct its usual Veterans Day observance on the Village Green on Monday, November 11, 2024, from 10:30 a.m. to 11:30 a.m. In case of rain, the American Legion Post 128 requests the use of City Hall on that date and time.

On motion by Councilperson Souza, seconded by Councilperson Henderson, and unanimously carried, it was:

RESOLVED to approve a request by the American Legion Post 128 to conduct its usual Veterans Day observance on the Village Green on Monday, November 11, 2024, from 10:30 a.m. to 11:30 a.m.

14. Old Business/New Business.

The Mayor read two statements: one regarding the Council's stance against hatred, the second offering thoughts and prayers to the residents of Florida in the face of Hurricane Milton as well as to those who suffered as a result of Hurricane Helene.

15. Adjournment

On motion of Councilperson Souza, seconded by Mayor Cohn, and with the Council in favor, the meeting was adjourned at 7:35 P.M.

Respectfully submitted,

Noga Ruttenberg
City Clerk

CITY COUNCIL AGENDA

DEPT.: City Planner
CONTACT: Christian Miller, City Planner

AGENDA ITEM: Presentation of project testing results and award bid for Nursery Field turf project.

FOR THE MEETING OF:

October 23, 2024

RECOMMENDATION: That the Council consider the presentation and resolution.

IMPACT: ☐ Environmental ☒ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND: See attached memo and resolution.

CITY OF RYE

To: Rye City Council

From: Greg Usry, City Manager
Christian K. Miler, City Planner
Ryan X. Coyne, City Engineer

CC: Kristen Wilson, Esq., Corporation Counsel

Date: October 15, 2024

Re: Nursery Field Bid and Test Results

As directed in the City Council's May 1, 2024, resolution the City's consultants completed the final design and bid specifications for the construction of a turf field at Nursery Field. A request for bids was circulated and four responsive bids were received by the August 16, 2024 deadline.

During the bidding process it was determined that the City needed to test the existing soil at Nursery Field in order to confirm potential contaminants that would potentially impact soil disposal costs. The soil tests revealed the presence of contaminants in the existing soil, which required the City to issue a bid addendum requesting bidders to submit a cost to dispose of unsuitable material to a licensed facility. Bid addendums were submitted but only three of the four bidders by the October 2, 2024 deadline. The three bids ranged from $2,039,835 to $2,182,556.

This memorandum provides a detailed discussion of the PFAS and total fluorine test process and a summary of the results. Also discussed are the test results from the existing soil at Nursery Field and the findings of the environmental consultant regarding the existing use of the field and the potential regulatory considerations for the construction of the proposed turf field. This memorandum identifies the enhancement program that will be implemented based on Nursery Field neighbor feedback. Finally, this memorandum presents the bid results and a discussion of the bid alternatives.

PFAS and Total Fluorine Testing Process and Independent Lab Selection

The City Council's May 1, 2024 resolution sets forth requirements that the turf must be tested for total fluorine, targeted testing for PFAS/PFOA and that such components do not require a warning label under California's Proposition 65[3]. To accomplish this, prior to proposal submission, each bidder was required to submit a sample of their proposed turf product (including grass blades and backing) to an independent testing laboratory retained by the City. The infill and shock pad specified in the field design were required to be submitted for lab testing.

In accordance with the City Council resolution, the City contacted Galbraith Labs in TN, however they do not preform targeted PFAS testing. Staff contacted multiple accredited laboratories and contracted with Pace Analytical as the preferred independent tester for the City. Pace performed the total fluorine test and the newest EPA accepted targeted PFAS test (known as US EPA Method 1633), which was finalized on January 31, 2024. The 1633 Method tests for 40 PFAS constituents, including the three PFAS listed on California Proposition 65.

PFAS and Total Fluorine Test Results

All four bidders submitted their turf products to Pace Labs on or before August 16, 2024. Final test results were completed on September 26, 2024. Multiple bidders submitted different turf samples that did "not detect (i.e. "ND")" any of the 40 PFAS parameters tested by the 1633 targeted testing method.

DeRosa Sports Construction, Inc. was the lowest responsive bidder at $2,039,835, with ND for all PFAS parameters and total fluorine of 230 mg/Kg[4]. It is noted that a total fluorine test as required by the City Council in its May 1 resolution includes both ***organic*** and ***inorganic*** fluorine. It is our understanding that only organic fluorine is an indicator of the potential presence of the one of an estimated 10,000 PFAS. Inorganic fluorine is not.

The shockpad brand specified to be used by all bidders also had ND for all 40 PFAS parameters tested by the 1633 targeted testing method and had a total fluorine of 38 mg/Kg.

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[3] *WHEREAS, on December 6, 2023, the City Council passed a resolution to move forward with installing a synthetic turf field at Nursery Field that meets all of the criteria outlined in the December 6th Resolution, including (i) the Council's negative declaration, (ii) City Planning Commission's November 21,2023 Advisory LWRP Coastal Consistency and Wetland Review, and (iii) that all components (grass blades, shock pad, and infill) are tested by an independent third-party lab retained by the City (for example Galbraith Laboratories, Inc. in TN or similar quality lab) to identify total fluorine content and such lab shall conduct appropriate targeted testing for PFAS/PFOA content and verify that such components require no warning labels under California Proposition 65 standards, (the "Nursery Field Project" or "Project");*

[4] *One bidder's results were deemed "not responsive" since the turf sample did not adhere to the chain of custody requirements specified in the bid documents. Their total bid was $2,063,000. The second lowest responsive bidder had a "ND" for all 40 PFAS parameters but a total fluorine of 4,800 mg/Kg and a bid of $2,182,556.*

The infill brand specified by the City Council, which is a natural product consisting of ground pine trees from the state of Georgia. That product had a total fluorine result of 5.7 mg/Kg, but the 1633 test detected one PFAS parameter (NFDHA) at 24.6 ug/Kg in the sample the vendor provided to the City's independent lab. Staff has confirmed with the testing lab that this PFAS is not one of the regulated constituents under California Proposition 65 and is not one of the six PFAS banned in drinking water by the EPA. The lab stated that this product is used in firefighting foam. Attached hereto is a response from the vendor regarding the presence of NFDHA in its sample. Also attached are the test results for the proposed turf system, shockpad and infill.

Nursery Field Soil Testing

The bid specifications require the removal of the top six inches of soil from Nursery Field since topsoil is not structurally suitable for the construction of a turf field. During the bidding process vendors inquired as to whether the existing soil has been tested, since disposal costs could vary depending on the soil characteristics. To answer that question, GZA Geoenvironmental was retained to take soil samples and prepare a waste disposal characterization report. Tenen Environmental was engaged to provide guidance on the GZA findings (both reports are attached hereto).

GZA Soil Samples and Waste Disposal Characterization Report

GZA conducted soil samples at different depths and locations within the field footprint based on the design of the proposed field. The GZA waste characterization report found that within the topsoil (i.e. a depth of 0.0 to 0.5 feet) had elevated levels of pesticides (specifically DDT and its breakdown product DDE) that exceed New York State Unrestricted Use criteria and will require disposal to a licensed disposal facility. The use of DDT has been banned in Rye since 1969 and federally banned since 1972. As recommended by GZA a bid addendum was issued requesting that each bidder provide a cost for the topsoil disposal based on the findings of the GZA report.

At greater depths from 0.5 feet to 1.5 feet soil samples were found to contain DDT, DDE, DDD and metals (including arsenic, lead, nickel and zinc) that exceed New York State Unrestricted Use criteria. Material at this depth is not intended to be removed from the site. GZA's report stated that based on TCLP metal analysis the solid waste "…is considered non-hazardous."

Tenen Environmental Sample Analysis

To further our understanding of GZA's findings, staff engaged Tenen Environmental to provide guidance on what actions should be taken with respect

to the use of the existing field and whether there are any regulatory considerations with respect to the construction of the proposed turf field.

Tenen found that none of the concentrations detected in the soil samples require reporting to any regulatory agency. The existing concentrations of DDT and DDE in the existing topsoil are considered acceptable by NYSDEC standards for the existing active recreational use of the site.

Tenen's analysis addresses the arsenic found at depths between 0.5-1.5 feet below the surface. The arsenic concentrations at Nursery are above the Restricted-Residential Soil Cleanup Objectives (SCOs). Typically, NYSDEC requires a two-foot soil cap or an engineered cap to prevent contact with the underlying contaminated soil. Nursery does not currently meet that standard.

Tenen reviewed the turf plans and details and the proposed field cross-section consisting of a geotextile fabric, an eight-inch graded stone layer, shockpad and turf. Tenen confirmed that this proposed design will allow for the reuse of the remaining material under the field and would provide a sufficient engineered cap to prevent contact with the underlying soil. Currently, Nursery provides no more than six inches of Restricted-Use classified soil from existing arsenic concentrations that are deemed not appropriate for active recreational use.

Bid Results

On or before August 16, 2024, the City received four proposals responsive to the bid that was circulated to prospective bidders on July 29, 2024. One bidder withdrew after not submitting a bid for the topsoil disposal and a second bidder was deemed not responsive for not complying with the chain of custody requirements for the turf sample testing. The table below provides a detailed breakdown of the two bidders by bid specification.

The bid also included two alternates for additional project options that the City Council can choose to add to the base bid at their discretion. Alternate No. 1 is for an infield synthetic turf containment system. This system is designed to collect potential migrating infill and grass blades generated from pedestrians and equipment exiting the field. It is located at field access points and includes steel grates over a below grade concrete structure. Alternate No. 2 is a weighted windscreen that is attached to the perimeter fencing adjacent to the wetland area as an additional measure to prevent potential infill and grass blade migration toward the wetland.

TABLE 1
Nursery Field Turf Bid Results

Spec Section	Description	DeRosa Sports Construction Inc.	Bidder 2
DIVISION 1			
General Conditions & Miscellaneous Conditions		$17,935.00	$45,000.00
Insurance		$12,000.00	$10,000.00
Temporary Facilities		$14,000.00	$1,800.00
Project Closeout		$5,000.00	$1,500.00
Record Documents		$5,000.00	$250.00
Warranties		$5,000.00	$2,500.00
DIVISION 2			
Section 02 21 13	Site Survey	$7,000.00	$12,000.00
Section 02 81 00	Off-site Topsoil Disposal	$64,000.00	$65,000.00
Section 31 05 16	Aggregates for Earthwork	$235,000.00	$268,000.00
Section 31 11 00	Clearing and Grubbing	$30,000.00	$28,000.00
Section 31 20 00	Earth Moving	$106,000.00	$155,849.86
Section 31 23 16	Material Excavation & On-Site Staging	$20,700.00	$95,000.00
Section 31 23 33	Trenching and Backfilling	$66,000.00	$25,000.00
Section 31 25 00	Erosion and Sediment Control	$14,000.00	$52,000.00
Section 31 32 19.16	Geotextile Stabilization Fabric	$3,200.00	$6,500.00
Section 31 32 19.23	Geotextile Filter Fabric	$23,000.00	$16,200.00
Section 32 01 00	Restoration of Surfaces		
Section 32 13 13	Cement Concrete Paving	$16,000.00	$25,000.00
Section 32 16 13.13	Cast-In-Place Concrete Curb	$169,000.00	$95,000.00
Section 32 18 23.29	Infilled Synthetic Turf System	$690,000.00	$720,000.00
Section 32 31 00	Chain Link Fence and Athletic Ball Netting	$180,000.00	$150,000.00
Section 32 93 13	Topsoil and Seeding	$35,000.00	$5,000.00
Section 33 31 70	HDPE Piping	$98,000.00	$225,000.00
	BASE BID TOTAL	**$1,815,835.00**	**$2,004,599.86**
	DELTA	$0.00	$188,764.86
ALTERNATE NO. 1 - Infilled Synthetic Turf Containment System		$56,000.00	$68,689.60
ALTERNATE NO. 2 - Weighted Windscreen		$14,000.00	$15,174.50
ALTERNATE NO. 3 - Soil Disposal		$154,000.00	$94,092.00
	Base Bid + Alt 1	$1,871,835.00	$2,073,289.46
	Base Bid + Alt 1 + Alt 2	$1,885,835.00	$2,088,463.96
	Base Bid + Alt 1 + Alt 2 + Alt 3	$2,039,835.00	$2,182,555.96

Enhancement Program

On July 24 staff mailed approximately 150 letters requesting input on the implementation of certain potential enhancements as outlined in the City Council's May 1, 2024, resolution related to the construction of an artificial athletic turf field at Rye Nursery[5]. In addition to

[5] *More specifically, paragraph 8 of the Council resolution states, "The City Manager will work with citizens from the neighborhood surrounding Nursery Field to address concerns regarding neighborhood aesthetics, beyond those called for as part of the Project planning and LWRP process, e.g., the planting of additional trees and shrubbery, additional non-field design elements, and safety and noise mitigation, etc. To that end, the City will spend an amount to not exceed $250,000 on such additional enhancements. Please visit https://www.ryeny.gov/services/projects-and-information/nursery-field-project-information for a copy of the full City Council resolution and all Nursery Field-related documents.*

three telephone conversations with residents, the City received fourteen responses, which have been posted to the City website at www.ryeny.gov/services/projects-and-information/nursery-field-project-information.

After compiling neighbor feedback, a second letter was circulated on September 18 noting that the following enhancements would be implemented:

- Existing deadfall (i.e. dead trees and large dead plant material) within the wooded slope area on the eastern property line will be removed.

- Evergreen shrubs and trees will be installed near the base of the slope on the eastern property line to intercept neighbor views of the proposed field. The existing mature vegetation in this area consists almost exclusively of invasive Norway Maple and Black Locust trees, which provides very dense shade. Some trimming of existing trees may be required to provide sufficient sunlight for new plant material.

- A new crosswalk with pedestrian-activated beacons will be installed on Milton Road at the Nursery Field parking lot access. This would be consistent with similar crosswalk measures implemented throughout the City.

- Additional plant material will be provided to improve screening of the existing comfort station.

Council Action

If the City Council decides to advance the project it is recommended that they select the low bidder, ***DeRosa Sports Construction, Inc.***, in the amount of $2,039,835, which includes the base bid and all alternates. This amount does not include design and consultant costs, construction administration and inspection services and construction contingency.

x:\05-city owned property\nursery field 421 milton road\cc memo re nursery bid and testing results.docx

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September 12, 2024
File No. 12.0077665.01

Mr. Ryan X. Coyne
City of Rye
1051 Boston Post Road
Rye, New York 10580

RE: Waste Disposal Soil Characterization
Proposed Turf Field
421 Milton Road
Tax ID 146-19-5-7
Rye, Westchester County, New York

Dear Mr. Coyne:

This letter provides the results of the waste characterization sampling and environmental laboratory testing facilitated by GZA GeoEnvironmental, Inc. (GZA) on behalf of the City of Rye for the Nursery Fields proposed conversion of the current grass field to an artificial turf field as indicated to GZA by the City of Rye. Nursery Fields is located at 421 Milton Road, in Rye, Westchester County, New York (the "Site"). The waste characterization sampling was performed in general accordance with our Change Order email, dated August 7, 2024. The approximate location of the Site is shown on Figure 1, Regional Location Map. The waste soil characterization sample locations are shown on Figure 2, Waste Characterization Sample Locations. The findings of our study are subject to the Limitations presented in Appendix I.

Discussion

On August 7, 2024, UDig NY was called in for the Site. UDig NY responded on August 9, 2024 and indicated that no underground utilities are present. Following the UDig NY notification, on August 12, 2024, GZA collected samples of the in-situ soils from the proposed artificial turf field excavation areas. Subgrade elevation of the artificial turf field was reported by City of Rye representatives to be at approximately +12 feet above mean sea level and cut depths range from approximate 1-foot to 2.5 feet below the existing ground surface (bgs). GZA understands that soils within approximately 0-6" bgs consist primarily of loam and organic materials that will be disposed of offsite. Other cut soil materials within approximately 6" to 2.5 feet bgs will be reused onsite. A copy of a plan showing the current elevations is provided as Figure 2.

GZA advanced eleven hand auger soil borings and collected three five-point composite samples (WC-1 through WC-3) from these soil borings as shown on Figure 2. These soil samples were submitted for target compound list/target analyte list plus 30 tentatively identified compounds (TCL/TAL+30) and Toxic Characteristic Leachate Procedure (TCLP) metal analysis. Three discrete grab samples were also submitted for volatile organic compound (VOC) analysis. The hand augers were advanced to depths ranging from 0.5 to 2.5 feet below ground surface (bgs) using an AMS stainless steel hand auger. GZA collected one discrete VOC sample and one five-point composite soil sample (TCL/TAL+30 and TCLP metals) from each of the three waste characterization soil sets (WC-1A through WC-1E, WC-2A through WC-2E, and WC-3A through WC-3E) at the depth intervals of 0.0 to 0.5 feet, 0.5 to 1.5 feet and 1.5 to 2.5 feet bgs.

Three discrete VOC soil samples were collected as follows:

- WC-1 was collected of the topsoil material from soil boring WC-1D at a depth of 0.0 to 0.5 feet bgs and represents the soil to be disposed offsite;
- WC-2 was collected of the fill material from soil boring WC-2A at a depth of 0.5 to 1.0 feet bgs; and
- WC-3 was collected of the fill material from soil boring WC-3B at a depth of 1.5 to 2.0 feet bgs.

Three five-point composite samples were collected as follows:

- WC-1 Composite was collected of the topsoil material from soil borings WC-1A through WC-1E;
- WC-2 Composite was collected of the fill material between 0.5 and 1.5 feet bgs from soil borings WC-2A through WC-2E; and
- WC-3 Composite was collected of the fill material between 1.5 and 2.5 feet bgs from soil borings WC-3A through WC-3E.

Findings

The topsoil material encountered in the hand augers generally consisted of dark brown fine to coarse grained sands with varying amounts of gravel that contained concrete, brick and glass fragments that was underlain by fill material that generally consisted of gray-brown to dark brown fine to coarse grained sands with varying amounts of gravel that contained asphalt, concrete, brick and glass fragments. The soils encountered were screened in the field with a calibrated photo-ionization detector (PID). No elevated PID readings or other field evidence of contamination (odors/staining) were observed. A plan showing the approximate location of sample locations is shown on Figure 2, Waste Characterizations Sample Locations.

The soil samples were placed into laboratory prepared containers, immediately stored on ice, and transported under chain-of-custody to Pace/Alpha Analytical (New York Certification No. 11148) for TAL/TCL+30 and TCLP metals testing. The laboratory testing was performed within appropriate holding times and achieved method detection levels below regulatory levels.

The laboratory testing of soil samples reported the following:

- WC-1
  - Pesticides
    - 4,4'-DDE (0.0129 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033 mg/kg).
    - 4,4'-DDT (0.00499 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033 mg/kg).
- WC-2
  - Pesticides
    - 4,4'-DDD (0.00515 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033mg/kg).
    - 4,4'-DDE (0.0215 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033 mg/kg).
    - 4,4'-DDT (0.00614 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033 mg/kg).
  - Metals
    - Arsenic (26.8 mg/kg). Exceeds the NY Unrestricted Use Criteria (13 mg/kg), Restricted Commercial Use Criteria (16 mg/kg), Restricted Residential Use Criteria (16 mg/kg), and Restricted Groundwater Use Criteria (16 mg/kg).
    - Lead (276 mg/kg. Exceeds the NY Unrestricted Use Criteria (63 mg/kg).
    - Nickel (33.9 mg/kg). Exceeds the NY Unrestricted Use Criteria (30 mg/kg).

    - Zinc (133 mg/kg). Exceeds the NY Unrestricted Use Criteria (109 mg/kg).
- WC-3
    - Pesticides
        - 4,4'-DDD (0.00433 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033mg/kg).
        - 4,4'-DDE (0.0189 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033 mg/kg).
        - 4,4'-DDT (0.0079 mg/kg). Exceeds the NY Unrestricted Use Criteria (0.0033 mg/kg).
    - Metals
        - Lead (122 mg/kg). Exceeds the NY Unrestricted Use Criteria (63 mg/kg).

The soil samples were also submitted for TCLP metal analysis which is used to identify whether soil is a hazardous waste by characteristic. Based on the analysis, the soil on is considered non-hazardous.

The Pace Analytical Laboratory Summary Report is presented in Appendix II and the Pace Analytical Laboratory report in presented in Appendix III.

Conclusions and Recommendations

Laboratory results should be provided to the contractors, who will provide recommendations and costs for an appropriate disposal facility. GZA, to the extent possible, will assist with the completion of necessary paperwork for disposal acceptance.

We appreciate the opportunity to provide you with this information. Should you have any questions regarding the information herein, please contact Bob Jackson at Robert.Jackson@gza.com.

The following figures and appendices are attached and complete this letter:

Figure 1 – Regional Location Map
Figure 2 – Waste Characterization Sample Locations
Appendix I – Limitations
Appendix II – Alpha Analytical Laboratory Summary
Appendix III – Alpha Analytical Laboratory Report

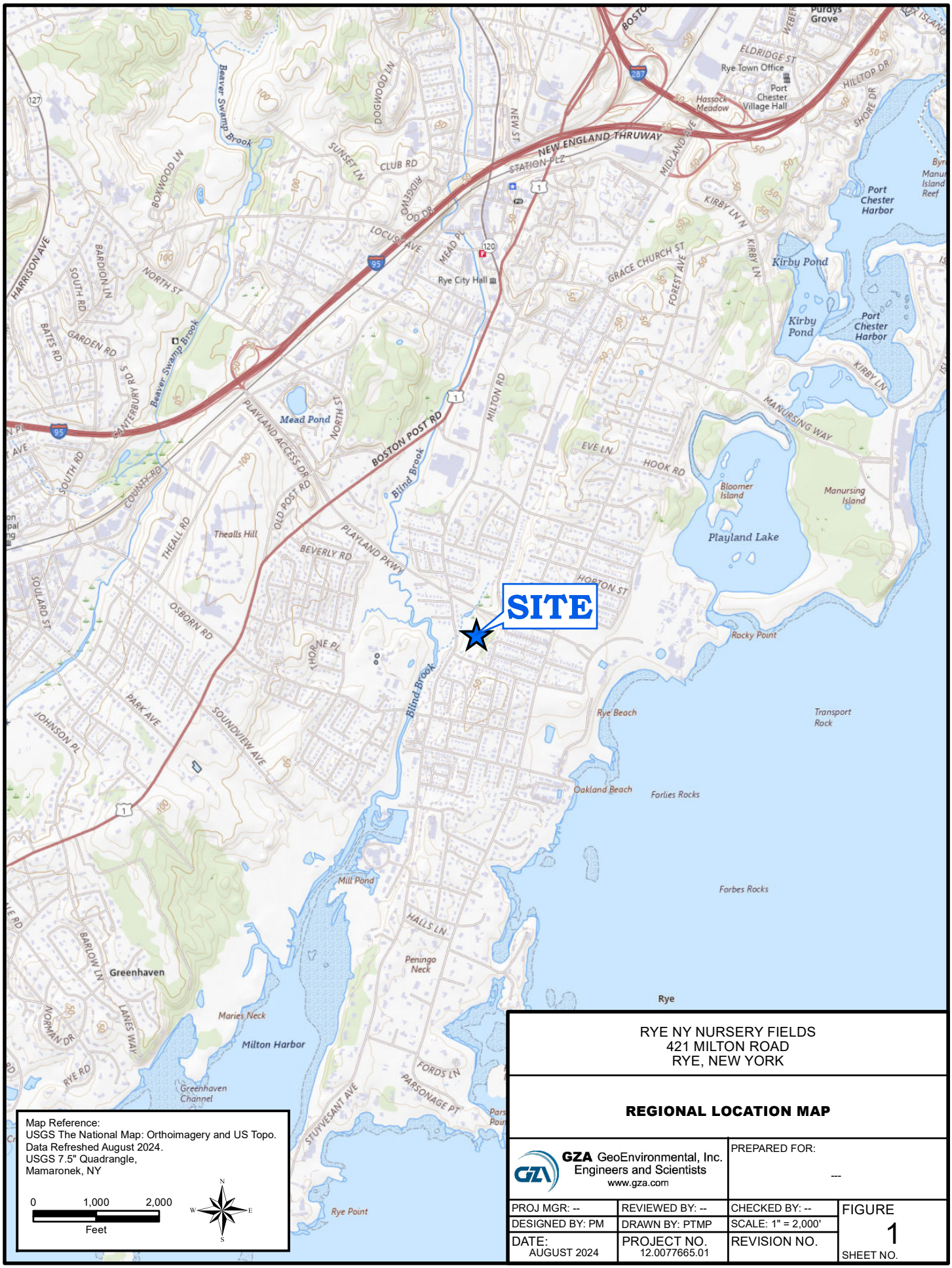
Very truly yours,
GZA GeoEnvironmental, Inc.

Benjamin Flizack
Project Manager

Michael Morris
Consultant Reviewer

Robert Jackson, PE
Associate Principal

FIGURES



RYE NY NURSERY FIELDS
421 MILTON ROAD
RYE, NEW YORK

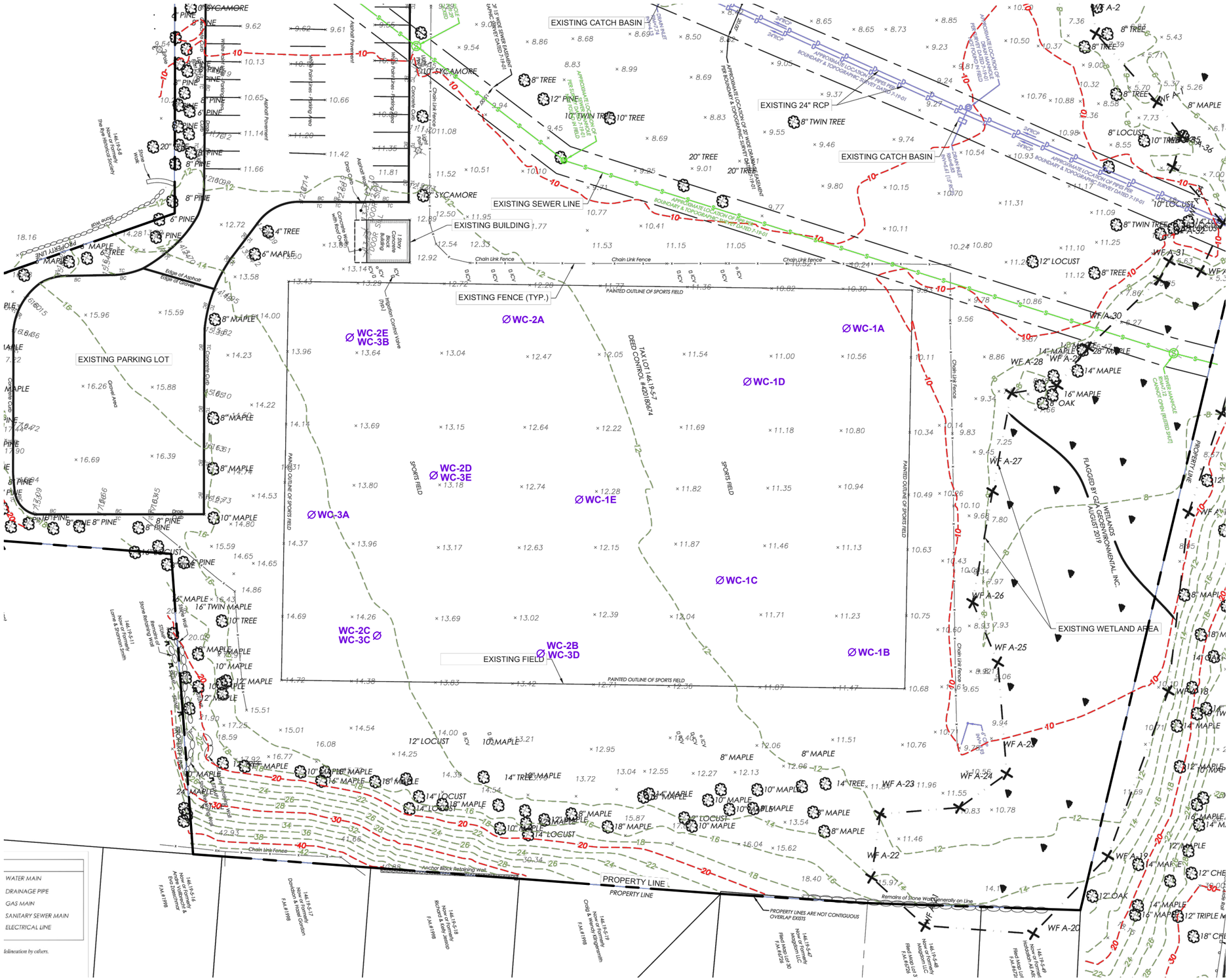
REGIONAL LOCATION MAP

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:

PROJ MGR: --	REVIEWED BY: --	CHECKED BY: --	FIGURE 1
DESIGNED BY: PM	DRAWN BY: PTMP	SCALE: 1" = 2,000'	
DATE: AUGUST 2024	PROJECT NO. 12.0077665.01	REVISION NO.	SHEET NO.

File: NF_RyeNY-F1_SLM.mxd Date: 8/14/2024



LEGEND

PROPERTY LINE

WC-1A ∅ DESIGNATION AND APPROXIMATE LOCATION OF WASTE CHARACTERIZATION SAMPLE

Notes

1) = Background Image Source: Ramboll Americas Engineering Solutions, Inc. Nursery Field Improvements. Sheet C-100. Existing Site Plan. Dated 9/21/2023.

N

W E

S

0 25' 50' 100'

SCALE IN FEET

RYE NY NURSERY FIELDS
421 MILTON ROAD
RYE, NEW YORK

WASTE CHARACTERIZATION SAMPLE LOCATIONS

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		--	
PROJ MGR: --	REVIEWED BY: --	CHECKED BY: --	FIGURE 2
DESIGNED BY: PM	DRAWN BY: PTMP	SCALE: 1" = 50'	SHEET NO.
DATE: AUGUST 2024	PROJECT NO. 12.0077665.01	REVISION NO.	

File: NF_RyeNY-F2_WasteCharachterization.dwg; Layout1 Date: 08/15/2024

TENEN ENVIRONMENTAL

121 West 27th Street, Suite 702
New York, NY 10001
(646) 606-2332

MEMORANDUM

DATE: October 4, 2024

TO: Kristen Wilson Corporation Counsel / City of Rye

FROM: Matthew M. Carroll, PE / Tenen Environmental

SUBJECT: Review of Soil Results
Proposed Nursery Field Improvements, Rye, NY

Tenen Environmental (Tenen) has reviewed the GZA Waste Disposal Soil Characterization, Proposed Turf Field report, dated September 12, 2024, as well as the bid package drawings for the Nursery Field Improvements, dated July 29, 2024.

The concentrations detected in the soil samples do not require reporting to any regulatory agency; however, the results have been compared to NYSDEC standards, criteria and guidance to ensure that the management of the material is appropriate. Based on a review of the NYSDEC Technical Support Document (TSD, September 2006), the existing conditions of the field ("active recreational uses, which are public uses with a reasonable potential for soil contact"), the appropriate soil cleanup objectives (SCOs) are the Restricted-Residential Use SCOs. The surface results, represented by sample, WC-1, were below these SCOs; therefore, the existing use is appropriate based on the testing. Tenen notes that if the proposed improvements are not implemented, the existing conditions should be further evaluated given the deeper soil concentrations.

A deeper sample, WC-2, collected from the 0.5 to 1.0 foot interval, contained arsenic above the Restricted-Residential SCOs. Typically, NYSDEC requires a two-foot soil cap or an engineered cap to prevent contact with underlying contaminated soil. Based on a review of the bid documents, specifically, Detail 1 on Drawing C-502, an eight-inch graded stone layer will be placed over geotextile fabric. This is appropriate to limit the potential for contact with the underlying soil.

Drawing C-301 shows that existing grade will be modified to create a flat playing surface. Up to two feet of soil is proposed for reuse in the lower areas of the field. Based on review of the NYSDEC Part 360 solid waste regulations, the grading is not considered to be generating waste. Specifically, Section 360.12 Beneficial use, subparagraph c(iv) states that "[t]he materials in this subparagraph cease to be waste when used for grade adjustment on the site of generation" and clarifies in part (*a*) that "[e]xcavated material used to backfill the same excavation or as grade adjustment in areas of similar physical characteristics on the site of generation. If the material exhibits visual or historical evidence of contamination (including odors) and will be used in an area with public access, the material must be covered with pavement, foundation, or with a minimum of 12 inches of soil or fill that meets the criteria to be used as Fill Type 1 and Fill Type 2 in section 360.13 of this Part." As noted previously, the eight-inch gravel layer and underlying geotextile fabric is an appropriate cap to prevent contact with the underlying soil.

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

September 26, 2024

Infill
Results

Ryan Coyne
City of Rye
1051 Boston Post Road
Rye, NY 10580

RE: Project: Rye Turf Project
Pace Project No.: 10703542

Dear Ryan Coyne:

Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2024. 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: Rye Turf Project
Pace Project No.: 10703542

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: Rye Turf Project
Pace Project No.: 10703542

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10703542001	**INFILL**	Solid	08/07/24 12:13	08/09/24 09:50

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

SAMPLE ANALYTE COUNT

Project: Rye Turf Project
Pace Project No.: 10703542

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10703542001	**INFILL**	EPA 1633 DRAFT	NBH	64	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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

SUMMARY OF DETECTION

Project: Rye Turf Project
Pace Project No.: 10703542

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
10703542001	**INFILL**					
EPA 1633 DRAFT	NFDHA	24.6	ug/kg	1.0	09/19/24 12:30	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Rye Turf Project
Pace Project No.: 10703542

Sample: INFILL **Lab ID: 10703542001** Collected: 08/07/24 12:13 Received: 08/09/24 09:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Soil	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Initial Volume/Weight: 1.961 g Final Volume/Weight: 5 mL Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	ND	ug/kg	2.0	0.57	1	09/17/24 08:40	09/19/24 12:30	763051-92-9	
3:3 FTCA	ND	ug/kg	2.5	0.86	1	09/17/24 08:40	09/19/24 12:30	356-02-5	
4:2 FTS	ND	ug/kg	2.0	0.45	1	09/17/24 08:40	09/19/24 12:30	757124-72-4	
5:3 FTCA	ND	ug/kg	12.7	2.4	1	09/17/24 08:40	09/19/24 12:30	914637-49-3	
6:2 FTS	ND	ug/kg	2.0	0.45	1	09/17/24 08:40	09/19/24 12:30	27619-97-2	
7:3 FTCA	ND	ug/kg	12.7	2.2	1	09/17/24 08:40	09/19/24 12:30	812-70-4	
8:2 FTS	ND	ug/kg	2.0	0.53	1	09/17/24 08:40	09/19/24 12:30	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	2.0	0.56	1	09/17/24 08:40	09/19/24 12:30	756426-58-1	
ADONA	ND	ug/kg	2.0	0.43	1	09/17/24 08:40	09/19/24 12:30	919005-14-4	
HFPO-DA	ND	ug/kg	2.0	0.58	1	09/17/24 08:40	09/19/24 12:30	13252-13-6	
NEtFOSAA	ND	ug/kg	0.51	0.13	1	09/17/24 08:40	09/19/24 12:30	2991-50-6	
NEtFOSA	ND	ug/kg	0.51	0.17	1	09/17/24 08:40	09/19/24 12:30	4151-50-2	
NEtFOSE	ND	ug/kg	5.1	1.5	1	09/17/24 08:40	09/19/24 12:30	1691-99-2	
NFDHA	**24.6**	ug/kg	1.0	0.28	1	09/17/24 08:40	09/19/24 12:30	151772-58-6	
NMeFOSAA	ND	ug/kg	0.51	0.20	1	09/17/24 08:40	09/19/24 12:30	2355-31-9	
NMeFOSA	ND	ug/kg	0.51	0.17	1	09/17/24 08:40	09/19/24 12:30	31506-32-8	
NMeFOSE	ND	ug/kg	5.1	1.9	1	09/17/24 08:40	09/19/24 12:30	24448-09-7	
PFBS	ND	ug/kg	0.51	0.12	1	09/17/24 08:40	09/19/24 12:30	375-73-5	
PFDA	ND	ug/kg	0.51	0.11	1	09/17/24 08:40	09/19/24 12:30	335-76-2	
PFHxA	ND	ug/kg	0.51	0.15	1	09/17/24 08:40	09/19/24 12:30	307-24-4	
PFBA	ND	ug/kg	2.0	0.58	1	09/17/24 08:40	09/19/24 12:30	375-22-4	
PFDS	ND	ug/kg	0.51	0.15	1	09/17/24 08:40	09/19/24 12:30	335-77-3	
PFDoS	ND	ug/kg	0.51	0.14	1	09/17/24 08:40	09/19/24 12:30	79780-39-5	
PFEESA	ND	ug/kg	1.0	0.21	1	09/17/24 08:40	09/19/24 12:30	113507-82-7	
PFHpS	ND	ug/kg	0.51	0.13	1	09/17/24 08:40	09/19/24 12:30	375-92-8	
PFMBA	ND	ug/kg	1.0	0.28	1	09/17/24 08:40	09/19/24 12:30	863090-89-5	
PFMPA	ND	ug/kg	1.0	0.33	1	09/17/24 08:40	09/19/24 12:30	377-73-1	
PFNS	ND	ug/kg	0.51	0.14	1	09/17/24 08:40	09/19/24 12:30	68259-12-1	
PFOSA	ND	ug/kg	0.51	0.11	1	09/17/24 08:40	09/19/24 12:30	754-91-6	
PFPeA	ND	ug/kg	1.0	0.27	1	09/17/24 08:40	09/19/24 12:30	2706-90-3	
PFPeS	ND	ug/kg	0.51	0.15	1	09/17/24 08:40	09/19/24 12:30	2706-91-4	
PFDoA	ND	ug/kg	0.51	0.13	1	09/17/24 08:40	09/19/24 12:30	307-55-1	
PFHpA	ND	ug/kg	0.51	0.15	1	09/17/24 08:40	09/19/24 12:30	375-85-9	
PFHxS	ND	ug/kg	0.51	0.13	1	09/17/24 08:40	09/19/24 12:30	355-46-4	
PFNA	ND	ug/kg	0.51	0.15	1	09/17/24 08:40	09/19/24 12:30	375-95-1	
PFOS	ND	ug/kg	0.51	0.13	1	09/17/24 08:40	09/19/24 12:30	1763-23-1	
PFOA	ND	ug/kg	0.51	0.18	1	09/17/24 08:40	09/19/24 12:30	335-67-1	
PFTeDA	ND	ug/kg	0.51	0.15	1	09/17/24 08:40	09/19/24 12:30	376-06-7	
PFTrDA	ND	ug/kg	0.51	0.12	1	09/17/24 08:40	09/19/24 12:30	72629-94-8	
PFUnA	ND	ug/kg	0.51	0.14	1	09/17/24 08:40	09/19/24 12:30	2058-94-8	
Surrogates									
13C2-PFDoA (S)	91	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C3HFPO-DA (S)	19	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		S0

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Rye Turf Project
Pace Project No.: 10703542

Sample: INFILL **Lab ID: 10703542001** Collected: 08/07/24 12:13 Received: 08/09/24 09:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Soil	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Initial Volume/Weight: 1.961 g Final Volume/Weight: 5 mL Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFBS (S)	26	%.	40-135		1	09/17/24 08:40	09/19/24 12:30		S0
13C3-PFHxS (S)	50	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C4-PFBA (S)	3	%.	8-130		1	09/17/24 08:40	09/19/24 12:30		S0
13C4-PFHpA (S)	29	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		S0
13C5-PFHxA (S)	22	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		S0
13C5-PFPeA (S)	9	%.	35-130		1	09/17/24 08:40	09/19/24 12:30		S0
13C6-PFDA (S)	58	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C8-PFOA (S)	40	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C8-PFOS (S)	71	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C8-PFOSA (S)	89	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C9-PFNA (S)	48	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
d3-MeFOSAA (S)	67	%.	40-135		1	09/17/24 08:40	09/19/24 12:30		
d3-NMeFOSA (S)	10	%.	10-130		1	09/17/24 08:40	09/19/24 12:30		
d5-EtFOSAA (S)	42	%.	40-150		1	09/17/24 08:40	09/19/24 12:30		
d5-NEtFOSA (S)	2	%.	10-130		1	09/17/24 08:40	09/19/24 12:30		S0
d7-NMeFOSE (S)	53	%.	20-130		1	09/17/24 08:40	09/19/24 12:30		
d9-NEtFOSE (S)	0	%.	15-130		1	09/17/24 08:40	09/19/24 12:30		S0
13C2-PFTA (S)	107	%.	20-130		1	09/17/24 08:40	09/19/24 12:30		
13C7-PFUdA (S)	90	%.	40-130		1	09/17/24 08:40	09/19/24 12:30		
13C24:2FTS (S)	24	%.	40-165		1	09/17/24 08:40	09/19/24 12:30		S0
13C26:2FTS (S)	72	%.	40-215		1	09/17/24 08:40	09/19/24 12:30		
13C28:2FTS (S)	137	%.	40-275		1	09/17/24 08:40	09/19/24 12:30		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Rye Turf Project
Pace Project No.: 10703542

QC Batch: 964554
QC Batch Method: EPA 1633 DRAFT
Analysis Method: EPA 1633 DRAFT
Analysis Description: 1633 SL
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10703542001

METHOD BLANK: 5040726 Matrix: Solid
Associated Lab Samples: 10703542001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/kg	ND	0.80	0.22	09/19/24 09:00	
3:3 FTCA	ug/kg	ND	1.0	0.34	09/19/24 09:00	
4:2 FTS	ug/kg	ND	0.80	0.18	09/19/24 09:00	
5:3 FTCA	ug/kg	ND	5.0	0.94	09/19/24 09:00	
6:2 FTS	ug/kg	ND	0.80	0.18	09/19/24 09:00	
7:3 FTCA	ug/kg	ND	5.0	0.87	09/19/24 09:00	
8:2 FTS	ug/kg	ND	0.80	0.21	09/19/24 09:00	
9Cl-PF3ONS	ug/kg	ND	0.80	0.22	09/19/24 09:00	
ADONA	ug/kg	ND	0.80	0.17	09/19/24 09:00	
HFPO-DA	ug/kg	ND	0.80	0.23	09/19/24 09:00	
NEtFOSA	ug/kg	ND	0.20	0.068	09/19/24 09:00	
NEtFOSAA	ug/kg	ND	0.20	0.052	09/19/24 09:00	
NEtFOSE	ug/kg	ND	2.0	0.58	09/19/24 09:00	
NFDHA	ug/kg	ND	0.40	0.11	09/19/24 09:00	
NMeFOSA	ug/kg	ND	0.20	0.065	09/19/24 09:00	
NMeFOSAA	ug/kg	ND	0.20	0.077	09/19/24 09:00	
NMeFOSE	ug/kg	ND	2.0	0.73	09/19/24 09:00	
PFBA	ug/kg	ND	0.80	0.23	09/19/24 09:00	
PFBS	ug/kg	ND	0.20	0.045	09/19/24 09:00	
PFDA	ug/kg	ND	0.20	0.045	09/19/24 09:00	
PFDoA	ug/kg	ND	0.20	0.050	09/19/24 09:00	
PFDoS	ug/kg	ND	0.20	0.054	09/19/24 09:00	
PFDS	ug/kg	ND	0.20	0.059	09/19/24 09:00	
PFEESA	ug/kg	ND	0.40	0.081	09/19/24 09:00	
PFHpA	ug/kg	ND	0.20	0.057	09/19/24 09:00	
PFHpS	ug/kg	ND	0.20	0.052	09/19/24 09:00	
PFHxA	ug/kg	ND	0.20	0.058	09/19/24 09:00	
PFHxS	ug/kg	ND	0.20	0.051	09/19/24 09:00	
PFMBA	ug/kg	ND	0.40	0.11	09/19/24 09:00	
PFMPA	ug/kg	ND	0.40	0.13	09/19/24 09:00	
PFNA	ug/kg	ND	0.20	0.060	09/19/24 09:00	
PFNS	ug/kg	ND	0.20	0.053	09/19/24 09:00	
PFOA	ug/kg	ND	0.20	0.071	09/19/24 09:00	
PFOS	ug/kg	ND	0.20	0.050	09/19/24 09:00	
PFOSA	ug/kg	ND	0.20	0.044	09/19/24 09:00	
PFPeA	ug/kg	ND	0.40	0.11	09/19/24 09:00	
PFPeS	ug/kg	ND	0.20	0.060	09/19/24 09:00	
PFTeDA	ug/kg	ND	0.20	0.060	09/19/24 09:00	
PFTrDA	ug/kg	ND	0.20	0.048	09/19/24 09:00	
PFUnA	ug/kg	ND	0.20	0.054	09/19/24 09:00	

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: Rye Turf Project
Pace Project No.: 10703542

METHOD BLANK: 5040726 Matrix: Solid
Associated Lab Samples: 10703542001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C2-PFDoA (S)	%.	83	40-130		09/19/24 09:00	
13C2-PFTA (S)	%.	81	20-130		09/19/24 09:00	
13C24:2FTS (S)	%.	108	40-165		09/19/24 09:00	
13C26:2FTS (S)	%.	103	40-215		09/19/24 09:00	
13C28:2FTS (S)	%.	104	40-275		09/19/24 09:00	
13C3-PFBS (S)	%.	103	40-135		09/19/24 09:00	
13C3-PFHxS (S)	%.	99	40-130		09/19/24 09:00	
13C3HFPO-DA (S)	%.	96	40-130		09/19/24 09:00	
13C4-PFBA (S)	%.	95	8-130		09/19/24 09:00	
13C4-PFHpA (S)	%.	96	40-130		09/19/24 09:00	
13C5-PFHxA (S)	%.	93	40-130		09/19/24 09:00	
13C5-PFPeA (S)	%.	97	35-130		09/19/24 09:00	
13C6-PFDA (S)	%.	92	40-130		09/19/24 09:00	
13C7-PFUdA (S)	%.	89	40-130		09/19/24 09:00	
13C8-PFOA (S)	%.	94	40-130		09/19/24 09:00	
13C8-PFOS (S)	%.	99	40-130		09/19/24 09:00	
13C8-PFOSA (S)	%.	87	40-130		09/19/24 09:00	
13C9-PFNA (S)	%.	94	40-130		09/19/24 09:00	
d3-MeFOSAA (S)	%.	88	40-135		09/19/24 09:00	
d3-NMeFOSA (S)	%.	68	10-130		09/19/24 09:00	
d5-EtFOSAA (S)	%.	89	40-150		09/19/24 09:00	
d5-NEtFOSA (S)	%.	68	10-130		09/19/24 09:00	
d7-NMeFOSE (S)	%.	70	20-130		09/19/24 09:00	
d9-NEtFOSE (S)	%.	71	15-130		09/19/24 09:00	

LABORATORY CONTROL SAMPLE & LCSD: 5040727 5040728

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11Cl-PF3OUdS	ug/kg	9.1	8.9	8.3	99	91	45-160	8	30	
3:3 FTCA	ug/kg	12	12.3	11.5	102	96	45-130	6	30	
4:2 FTS	ug/kg	9	9.0	9.3	100	104	60-150	3	30	
5:3 FTCA	ug/kg	60	57.9	54.8	97	91	60-130	6	30	
6:2 FTS	ug/kg	9.1	9.2	9.3	100	102	55-200	2	30	
7:3 FTCA	ug/kg	60	55.8	51.7	93	86	60-150	7	30	
8:2 FTS	ug/kg	9.2	9.9	9.7	108	105	70-150	2	30	
9Cl-PF3ONS	ug/kg	9	9.0	8.4	100	94	70-150	7	30	
ADONA	ug/kg	9.1	8.8	8.4	97	93	70-160	4	30	
HFPO-DA	ug/kg	9.6	9.3	9.0	96	94	70-145	3	30	
NEtFOSA	ug/kg	2.4	2.1	2.1	89	89	70-140	0	30	
NEtFOSAA	ug/kg	2.4	2.4	2.3	99	97	65-165	1	30	
NEtFOSE	ug/kg	24	23.3	23.6	97	98	70-135	1	30	
NFDHA	ug/kg	4.8	4.9	4.6	101	96	60-155	5	30	
NMeFOSA	ug/kg	2.4	2.1	2.3	89	96	70-155	7	30	
NMeFOSAA	ug/kg	2.4	2.2	2.1	93	89	65-155	4	30	

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: Rye Turf Project
Pace Project No.: 10703542

LABORATORY CONTROL SAMPLE & LCSD: 5040727 5040728

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
NMeFOSE	ug/kg	24	23.3	23.2	97	97	70-140	0	30	
PFBA	ug/kg	9.6	9.8	9.1	102	95	70-140	7	30	
PFBS	ug/kg	2.1	2.0	2.0	93	95	65-145	2	30	
PFDA	ug/kg	2.4	2.3	2.3	95	96	70-155	1	30	
PFDoA	ug/kg	2.4	2.4	2.3	98	97	70-150	1	30	
PFDoS	ug/kg	2.3	2.0	2.1	85	88	25-160	4	30	
PFDS	ug/kg	2.3	2.1	2.1	90	90	40-155	0	30	
PFEESA	ug/kg	4.3	4.3	4.0	100	93	70-140	7	30	
PFHpA	ug/kg	2.4	2.4	2.3	100	97	65-145	2	30	
PFHpS	ug/kg	2.3	2.1	2.2	90	95	65-155	5	30	
PFHxA	ug/kg	2.4	2.4	2.3	99	97	65-140	2	30	
PFHxS	ug/kg	2.2	2.1	2.1	97	96	60-150	1	30	
PFMBA	ug/kg	4.8	4.7	4.5	98	93	60-150	5	30	
PFMPA	ug/kg	4.8	4.7	4.4	97	92	30-140	5	30	
PFNA	ug/kg	2.4	2.4	2.4	99	99	70-155	1	30	
PFNS	ug/kg	2.3	2.1	2.1	90	90	55-140	0	30	
PFOA	ug/kg	2.4	2.4	2.3	99	97	70-150	2	30	
PFOS	ug/kg	2.2	2.0	2.0	92	90	65-160	2	30	
PFOSA	ug/kg	2.4	2.3	2.3	96	96	70-140	1	30	
PFPeA	ug/kg	4.8	4.7	4.6	98	95	60-150	3	30	
PFPeS	ug/kg	2.3	2.2	2.2	98	98	55-160	0	30	
PFTeDA	ug/kg	2.4	2.4	2.4	99	100	65-150	2	30	
PFTrDA	ug/kg	2.4	2.3	2.3	96	96	65-150	0	30	
PFUnA	ug/kg	2.4	2.3	2.3	95	96	70-155	1	30	
13C2-PFDoA (S)	%.				87	86	40-130			
13C2-PFTA (S)	%.				83	84	20-130			
13C24:2FTS (S)	%.				95	94	40-165			
13C26:2FTS (S)	%.				99	100	40-215			
13C28:2FTS (S)	%.				92	97	40-275			
13C3-PFBS (S)	%.				98	98	40-135			
13C3-PFHxS (S)	%.				95	97	40-130			
13C3HFPO-DA (S)	%.				93	94	40-130			
13C4-PFBA (S)	%.				89	94	8-130			
13C4-PFHpA (S)	%.				92	92	40-130			
13C5-PFHxA (S)	%.				89	92	40-130			
13C5-PFPeA (S)	%.				91	94	35-130			
13C6-PFDA (S)	%.				92	91	40-130			
13C7-PFUdA (S)	%.				91	89	40-130			
13C8-PFOA (S)	%.				93	95	40-130			
13C8-PFOS (S)	%.				101	93	40-130			
13C8-PFOSA (S)	%.				88	83	40-130			
13C9-PFNA (S)	%.				93	94	40-130			
d3-MeFOSAA (S)	%.				88	84	40-135			
d3-NMeFOSA (S)	%.				67	59	10-130			
d5-EtFOSAA (S)	%.				90	86	40-150			
d5-NEtFOSA (S)	%.				66	61	10-130			
d7-NMeFOSE (S)	%.				70	65	20-130			

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

QUALITY CONTROL DATA

Project: Rye Turf Project
Pace Project No.: 10703542

LABORATORY CONTROL SAMPLE & LCSD: 5040727 5040728

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
d9-NEtFOSE (S)	%.				70	66	15-130			

LABORATORY CONTROL SAMPLE: 5040729

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	0.76	.63J	84	45-160	
3:3 FTCA	ug/kg	1	1.0	101	45-130	
4:2 FTS	ug/kg	0.75	.66J	88	60-150	
5:3 FTCA	ug/kg	5	4.2J	85	60-130	
6:2 FTS	ug/kg	0.76	.73J	96	55-200	
7:3 FTCA	ug/kg	5	4J	80	60-150	
8:2 FTS	ug/kg	0.77	.78J	102	70-150	
9Cl-PF3ONS	ug/kg	0.75	.65J	87	70-150	
ADONA	ug/kg	0.76	.67J	89	70-160	
HFPO-DA	ug/kg	0.8	.79J	98	70-145	
NEtFOSA	ug/kg	0.2	.17J	86	70-140	
NEtFOSAA	ug/kg	0.2	0.20	102	65-165	
NEtFOSE	ug/kg	2	1.9J	95	70-135	
NFDHA	ug/kg	0.4	.35J	87	60-155	
NMeFOSA	ug/kg	0.2	.17J	87	70-155	
NMeFOSAA	ug/kg	0.2	0.22	112	65-155	
NMeFOSE	ug/kg	2	1.8J	92	70-140	
PFBA	ug/kg	0.8	0.83	103	70-140	
PFBS	ug/kg	0.18	.17J	95	65-145	
PFDA	ug/kg	0.2	.18J	89	70-155	
PFDoA	ug/kg	0.2	.17J	87	70-150	
PFDoS	ug/kg	0.19	.18J	91	25-160	
PFDS	ug/kg	0.19	.16J	85	40-155	
PFEESA	ug/kg	0.36	.32J	90	70-140	
PFHpA	ug/kg	0.2	.17J	87	65-145	
PFHpS	ug/kg	0.19	.18J	93	65-155	
PFHxA	ug/kg	0.2	.19J	93	65-140	
PFHxS	ug/kg	0.18	.16J	88	60-150	
PFMBA	ug/kg	0.4	.36J	90	60-150	
PFMPA	ug/kg	0.4	.37J	92	30-140	
PFNA	ug/kg	0.2	.19J	93	70-155	
PFNS	ug/kg	0.19	.18J	95	55-140	
PFOA	ug/kg	0.2	.19J	97	70-150	
PFOS	ug/kg	0.19	.18J	97	65-160	
PFOSA	ug/kg	0.2	.18J	91	70-140	
PFPeA	ug/kg	0.4	.37J	93	60-150	
PFPeS	ug/kg	0.19	.19J	100	55-160	
PFTeDA	ug/kg	0.2	.19J	94	65-150	
PFTrDA	ug/kg	0.2	.18J	88	65-150	
PFUnA	ug/kg	0.2	.18J	88	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: Rye Turf Project
Pace Project No.: 10703542

LABORATORY CONTROL SAMPLE: 5040729

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C2-PFDoA (S)	%.			87	40-130	
13C2-PFTA (S)	%.			83	20-130	
13C24:2FTS (S)	%.			107	40-165	
13C26:2FTS (S)	%.			108	40-215	
13C28:2FTS (S)	%.			103	40-275	
13C3-PFBS (S)	%.			100	40-135	
13C3-PFHxS (S)	%.			101	40-130	
13C3HFPO-DA (S)	%.			97	40-130	
13C4-PFBA (S)	%.			95	8-130	
13C4-PFHpA (S)	%.			95	40-130	
13C5-PFHxA (S)	%.			93	40-130	
13C5-PFPeA (S)	%.			95	35-130	
13C6-PFDA (S)	%.			94	40-130	
13C7-PFUdA (S)	%.			93	40-130	
13C8-PFOA (S)	%.			90	40-130	
13C8-PFOS (S)	%.			99	40-130	
13C8-PFOSA (S)	%.			86	40-130	
13C9-PFNA (S)	%.			93	40-130	
d3-MeFOSAA (S)	%.			87	40-135	
d3-NMeFOSA (S)	%.			63	10-130	
d5-EtFOSAA (S)	%.			90	40-150	
d5-NEtFOSA (S)	%.			63	10-130	
d7-NMeFOSE (S)	%.			66	20-130	
d9-NEtFOSE (S)	%.			67	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: Rye Turf Project
Pace Project No.: 10703542

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.

ANALYTE QUALIFIERS

S0	Surrogate recovery outside laboratory control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Rye Turf Project
Pace Project No.: 10703542

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10703542001	**INFILL**	EPA 1633 DRAFT	964554	EPA 1633 DRAFT	969124

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A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

September 24, 2024

Kirsten Hogberg
Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414

Project Location: Rye Turf Project
Client Job Number:
Project Number: 10703542
Laboratory Work Order Number: 24I2345

Enclosed are results of analyses for samples as received by the laboratory on September 17, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414
ATTN: Kirsten Hogberg

REPORT DATE: 9/24/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 10703542

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24I2345

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Rye Turf Project

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
INFILL	24I2345-01	Product/Solid		Total Fluorine by CIC	

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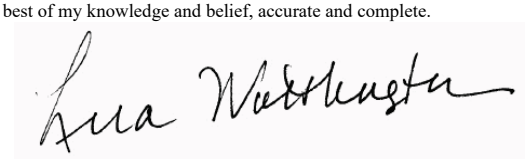
CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Rye Turf Project | Sample Description: | Work Order: 24I2345

Date Received: 9/17/2024 **Field**

Sample #: INFILL | Sampled: 8/7/2024 12:13

Sample ID: 24I2345-01

Sample Matrix: Product/Solid

Fluorine by Combustion Ion Chromatography (CIC)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Fluorine (TF)	5.7	4.0	mg/Kg	1		Total Fluorine by CIC	9/19/24	9/23/24 17:46	IS

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Sample Extraction Data

Prep Method:EPA 1621 **Analytical Method:Total Fluorine by CIC**

Lab Number [Field ID]	Batch	Initial [mg]	Final [Boat]	Date
24I2345-01 Infill	B386632	49.6	1.00	09/19/24

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QUALITY CONTROL

Fluorine by Combustion Ion Chromatography (CIC) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B386632 - EPA 1621										
Blank (B386632-BLK1)				Prepared: 09/19/24 Analyzed: 09/23/24						
Total Fluorine (TF)	ND	4.0	mg/Kg							
LCS (B386632-BS1)				Prepared: 09/19/24 Analyzed: 09/23/24						
Total Fluorine (TF)	18.0	4.0	mg/Kg	18.87		95.2	0-200			
LCS Dup (B386632-BSD1)				Prepared: 09/19/24 Analyzed: 09/23/24						
Total Fluorine (TF)	18.1	4.0	mg/Kg	18.79		96.2	0-200	0.702		

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires

BROCK
IMPROVING THE FIELD OF PLAY

3090 Sterling Circle, Suite 102
Boulder, Colorado 80301
BrockUSA.com / 303.544.5800

Regarding the PFAS detected on the BrockFILL, it is difficult to say where it may have originated. When we did our previous testing with Eurofins, this compound (NFDHA) was not part of the analysis. It was most likely picked up from the environment, as we do not intentionally add anything to the wood at any point during our manufacturing process. The attached diagram outlines the manufacturing process for BrockFILL. The only operations associated with the process are the chipping of whole pine logs, drying of fresh chips, conveying in-process material (by belt conveyor, drag chain, or pneumatic transfer lines), and performing mechanical size reduction and mechanical separations on the material to achieve the finished product. At no point in the process are any chemical compounds intentionally added to the wood. Based on the information I have found, NFDHA has been used in aqueous film-forming firefighting foams (AFFFs) – one reference pointed specifically to a formulation/product called "FN-3". Beyond that, it is difficult to find much information about the uses of this compound. Pine trees (and essentially any plants) can take up PFAS from the soil and the air, so it could have taken it up while growing if NFDHA was present in the local environment. There's also a chance that some piece of equipment used when felling the trees or transporting the logs had previously been on fire and was exposed to this compound. Additionally, there is always the possibility of contamination during sampling or transport. Regarding the report for total fluorine in Powerbase YSR, JSP (the company that molds the PBYSR panels) has told us that they do not use fluorinated polymer processing aids or fluorinated mold release agents (which would show up as organic fluorine). In talking with JSP about the possible sources of fluorine, these were the things they saw as a possibility (in order of increasing probability):

1. Water. Possibly from trace minerals, fluoride added to the water (assuming elemental Fluorine is detected), or other water treatment chemicals. Water is used when extruding the mini-pellets (prior to expanding into foam beads), when expanding the mini-pellets into foam beads, and is also used during molding (as steam – but I would not expect the steam to contain much, if any, fluoride).

2. Nucleation additive (the compound used does not intentionally contain fluorine, but it could have trace minerals present that contain fluorine).

3. Suspension Agent. The suspension agent they use contains mica, which may have traces of elemental Fluorine. Depending on the source of the mica, the chemical composition can range from $Al_2K_2O_6Si$ (mostly Potassium, Alumina/Aluminum Oxide, Silicon Dioxide and other Oxides) to $KAl_2(AlSi_3O_{10})(F,OH)_2$, or $(KF)_2(Al_2O_3)_3(SiO_2)_6(H_2O)$ depending on whether it is hydrated or not. So it is possible that the mica contains traces of elemental Fluorine.

Most of these would be expected to show up as inorganic fluorine – the report just says “Total Fluorine” (does not distinguish between organic and inorganic fluorine), so it’s possible that the values they saw for total fluorine are because of one or more of the reasons listed above.

We hope this letter meets your needs. Please let us know if we can be of further assistance.

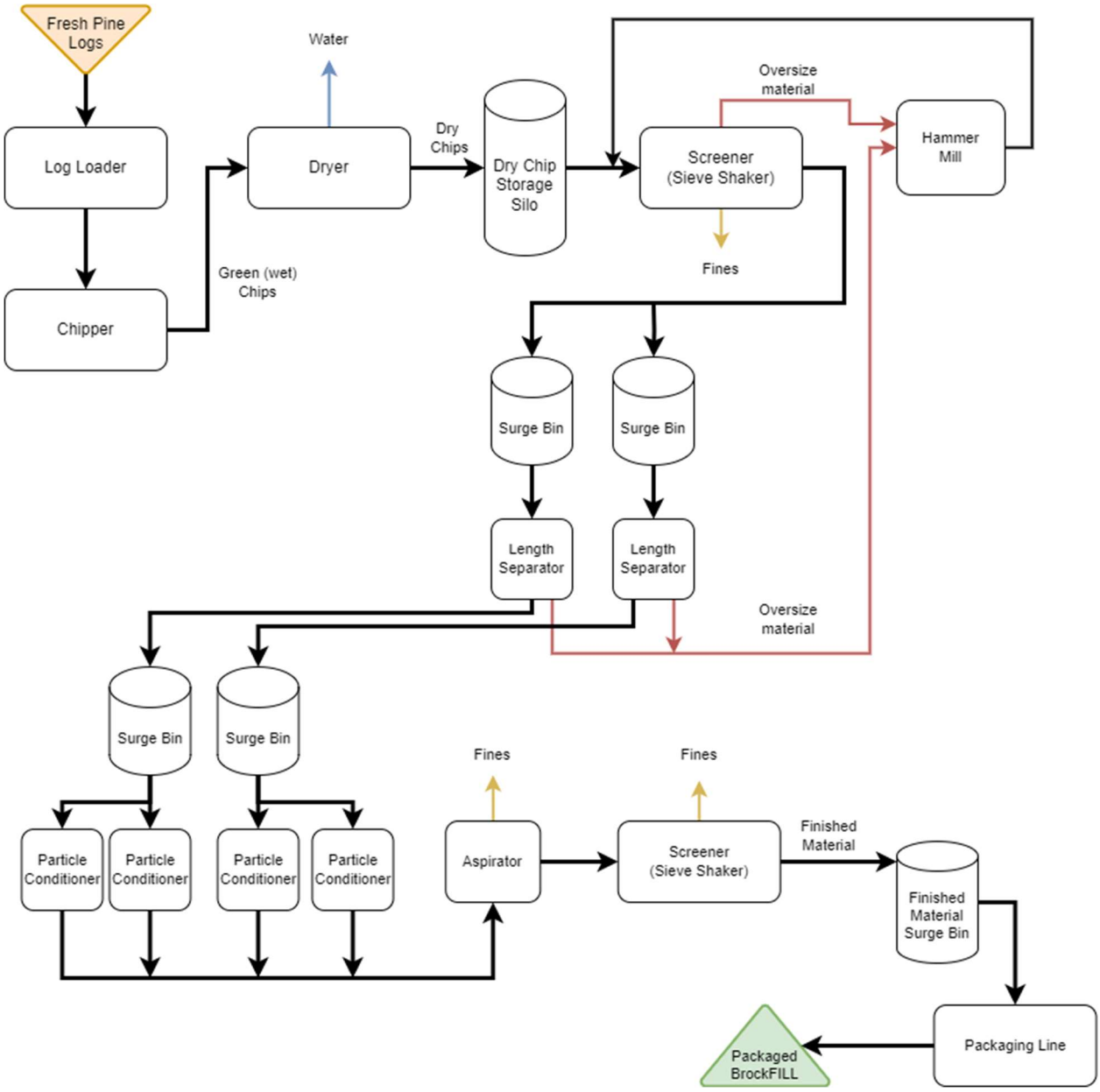
Best regards,

Tom Murphy, Ph.D.
Director of Engineering
Brock USA

ATTACHMENTS:

1. BrockFILL Process Diagram

1. BrockFILL Process Diagram



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

September 09, 2024

Shockpad Results

Ryan Coyne
City of Rye
1051 Boston Post Road
Rye, NY 10580

RE: Project: Rye Turf Project
Pace Project No.: 10703241

Dear Ryan Coyne:

Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2024. 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
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Project Manager

Enclosures

Pace Analytical Services, LLC
1700 Elm Street
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CERTIFICATIONS

Project: Rye Turf Project
Pace Project No.: 10703241

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

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SAMPLE SUMMARY

Project: Rye Turf Project
Pace Project No.: 10703241

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10703241001	**Shock Pad**	Solid	08/02/24 09:00	08/08/24 08:50

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SAMPLE ANALYTE COUNT

Project: Rye Turf Project
Pace Project No.: 10703241

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10703241001	**Shock Pad**	EPA 1633 DRAFT	MJL	64	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Rye Turf Project
Pace Project No.: 10703241

Sample: Shock Pad **Lab ID: 10703241001** Collected: 08/02/24 09:00 Received: 08/08/24 08:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Soil	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Initial Volume/Weight: 0.849 g Final Volume/Weight: 5 mL Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	ND	ug/kg	4.7	1.3	1	08/28/24 12:36	08/29/24 12:55	763051-92-9	
3:3 FTCA	ND	ug/kg	5.9	2.0	1	08/28/24 12:36	08/29/24 12:55	356-02-5	
4:2 FTS	ND	ug/kg	4.7	1.0	1	08/28/24 12:36	08/29/24 12:55	757124-72-4	
5:3 FTCA	ND	ug/kg	29.4	5.6	1	08/28/24 12:36	08/29/24 12:55	914637-49-3	
6:2 FTS	ND	ug/kg	4.7	1.0	1	08/28/24 12:36	08/29/24 12:55	27619-97-2	
7:3 FTCA	ND	ug/kg	29.4	5.1	1	08/28/24 12:36	08/29/24 12:55	812-70-4	
8:2 FTS	ND	ug/kg	4.7	1.2	1	08/28/24 12:36	08/29/24 12:55	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	4.7	1.3	1	08/28/24 12:36	08/29/24 12:55	756426-58-1	
ADONA	ND	ug/kg	4.7	0.99	1	08/28/24 12:36	08/29/24 12:55	919005-14-4	
HFPO-DA	ND	ug/kg	4.7	1.3	1	08/28/24 12:36	08/29/24 12:55	13252-13-6	
NEtFOSAA	ND	ug/kg	1.2	0.31	1	08/28/24 12:36	08/29/24 12:55	2991-50-6	
NEtFOSA	ND	ug/kg	1.2	0.40	1	08/28/24 12:36	08/29/24 12:55	4151-50-2	
NEtFOSE	ND	ug/kg	11.8	3.4	1	08/28/24 12:36	08/29/24 12:55	1691-99-2	
NFDHA	ND	ug/kg	2.4	0.65	1	08/28/24 12:36	08/29/24 12:55	151772-58-6	
NMeFOSAA	ND	ug/kg	1.2	0.46	1	08/28/24 12:36	08/29/24 12:55	2355-31-9	
NMeFOSA	ND	ug/kg	1.2	0.38	1	08/28/24 12:36	08/29/24 12:55	31506-32-8	
NMeFOSE	ND	ug/kg	11.8	4.3	1	08/28/24 12:36	08/29/24 12:55	24448-09-7	
PFBS	ND	ug/kg	1.2	0.27	1	08/28/24 12:36	08/29/24 12:55	375-73-5	
PFDA	ND	ug/kg	1.2	0.26	1	08/28/24 12:36	08/29/24 12:55	335-76-2	
PFHxA	ND	ug/kg	1.2	0.34	1	08/28/24 12:36	08/29/24 12:55	307-24-4	
PFBA	ND	ug/kg	4.7	1.3	1	08/28/24 12:36	08/29/24 12:55	375-22-4	
PFDS	ND	ug/kg	1.2	0.35	1	08/28/24 12:36	08/29/24 12:55	335-77-3	
PFDoS	ND	ug/kg	1.2	0.32	1	08/28/24 12:36	08/29/24 12:55	79780-39-5	
PFEESA	ND	ug/kg	2.4	0.48	1	08/28/24 12:36	08/29/24 12:55	113507-82-7	
PFHpS	ND	ug/kg	1.2	0.30	1	08/28/24 12:36	08/29/24 12:55	375-92-8	
PFMBA	ND	ug/kg	2.4	0.64	1	08/28/24 12:36	08/29/24 12:55	863090-89-5	
PFMPA	ND	ug/kg	2.4	0.77	1	08/28/24 12:36	08/29/24 12:55	377-73-1	
PFNS	ND	ug/kg	1.2	0.31	1	08/28/24 12:36	08/29/24 12:55	68259-12-1	
PFOSA	ND	ug/kg	1.2	0.26	1	08/28/24 12:36	08/29/24 12:55	754-91-6	
PFPeA	ND	ug/kg	2.4	0.63	1	08/28/24 12:36	08/29/24 12:55	2706-90-3	
PFPeS	ND	ug/kg	1.2	0.36	1	08/28/24 12:36	08/29/24 12:55	2706-91-4	
PFDoA	ND	ug/kg	1.2	0.29	1	08/28/24 12:36	08/29/24 12:55	307-55-1	
PFHpA	ND	ug/kg	1.2	0.34	1	08/28/24 12:36	08/29/24 12:55	375-85-9	
PFHxS	ND	ug/kg	1.2	0.30	1	08/28/24 12:36	08/29/24 12:55	355-46-4	
PFNA	ND	ug/kg	1.2	0.35	1	08/28/24 12:36	08/29/24 12:55	375-95-1	
PFOS	ND	ug/kg	1.2	0.29	1	08/28/24 12:36	08/29/24 12:55	1763-23-1	
PFOA	ND	ug/kg	1.2	0.42	1	08/28/24 12:36	08/29/24 12:55	335-67-1	
PFTeDA	ND	ug/kg	1.2	0.35	1	08/28/24 12:36	08/29/24 12:55	376-06-7	
PFTrDA	ND	ug/kg	1.2	0.28	1	08/28/24 12:36	08/29/24 12:55	72629-94-8	
PFUnA	ND	ug/kg	1.2	0.32	1	08/28/24 12:36	08/29/24 12:55	2058-94-8	
Surrogates									
13C2-PFDoA (S)	84	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C3HFPO-DA (S)	90	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
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ANALYTICAL RESULTS

Project: Rye Turf Project
Pace Project No.: 10703241

Sample: Shock Pad **Lab ID: 10703241001** Collected: 08/02/24 09:00 Received: 08/08/24 08:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Soil	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Initial Volume/Weight: 0.849 g Final Volume/Weight: 5 mL Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFBS (S)	94	%.	40-135		1	08/28/24 12:36	08/29/24 12:55		
13C3-PFHxS (S)	98	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C4-PFBA (S)	73	%.	8-130		1	08/28/24 12:36	08/29/24 12:55		
13C4-PFHpA (S)	92	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C5-PFHxA (S)	90	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C5-PFPeA (S)	87	%.	35-130		1	08/28/24 12:36	08/29/24 12:55		
13C6-PFDA (S)	94	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C8-PFOA (S)	90	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C8-PFOS (S)	88	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C8-PFOSA (S)	84	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C9-PFNA (S)	88	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
d3-MeFOSAA (S)	72	%.	40-135		1	08/28/24 12:36	08/29/24 12:55		
d3-NMeFOSA (S)	78	%.	10-130		1	08/28/24 12:36	08/29/24 12:55		
d5-EtFOSAA (S)	76	%.	40-150		1	08/28/24 12:36	08/29/24 12:55		
d5-NEtFOSA (S)	79	%.	10-130		1	08/28/24 12:36	08/29/24 12:55		
d7-NMeFOSE (S)	93	%.	20-130		1	08/28/24 12:36	08/29/24 12:55		
d9-NEtFOSE (S)	85	%.	15-130		1	08/28/24 12:36	08/29/24 12:55		
13C2-PFTA (S)	81	%.	20-130		1	08/28/24 12:36	08/29/24 12:55		
13C7-PFUdA (S)	90	%.	40-130		1	08/28/24 12:36	08/29/24 12:55		
13C24:2FTS (S)	93	%.	40-165		1	08/28/24 12:36	08/29/24 12:55		
13C26:2FTS (S)	116	%.	40-215		1	08/28/24 12:36	08/29/24 12:55		
13C28:2FTS (S)	86	%.	40-275		1	08/28/24 12:36	08/29/24 12:55		

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QUALITY CONTROL DATA

Project: Rye Turf Project
Pace Project No.: 10703241

QC Batch: 963415
QC Batch Method: EPA 1633 DRAFT
Analysis Method: EPA 1633 DRAFT
Analysis Description: 1633 SL
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10703241001

METHOD BLANK: 5035079 Matrix: Solid
Associated Lab Samples: 10703241001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/kg	ND	0.80	0.22	08/29/24 06:40	
3:3 FTCA	ug/kg	ND	1.0	0.34	08/29/24 06:40	
4:2 FTS	ug/kg	ND	0.80	0.18	08/29/24 06:40	
5:3 FTCA	ug/kg	ND	5.0	0.94	08/29/24 06:40	
6:2 FTS	ug/kg	ND	0.80	0.18	08/29/24 06:40	
7:3 FTCA	ug/kg	ND	5.0	0.87	08/29/24 06:40	
8:2 FTS	ug/kg	ND	0.80	0.21	08/29/24 06:40	
9Cl-PF3ONS	ug/kg	ND	0.80	0.22	08/29/24 06:40	
ADONA	ug/kg	ND	0.80	0.17	08/29/24 06:40	
HFPO-DA	ug/kg	ND	0.80	0.23	08/29/24 06:40	
NEtFOSA	ug/kg	ND	0.20	0.068	08/29/24 06:40	
NEtFOSAA	ug/kg	ND	0.20	0.052	08/29/24 06:40	
NEtFOSE	ug/kg	ND	2.0	0.58	08/29/24 06:40	
NFDHA	ug/kg	ND	0.40	0.11	08/29/24 06:40	
NMeFOSA	ug/kg	ND	0.20	0.065	08/29/24 06:40	
NMeFOSAA	ug/kg	ND	0.20	0.077	08/29/24 06:40	
NMeFOSE	ug/kg	ND	2.0	0.73	08/29/24 06:40	
PFBA	ug/kg	ND	0.80	0.23	08/29/24 06:40	
PFBS	ug/kg	ND	0.20	0.045	08/29/24 06:40	
PFDA	ug/kg	ND	0.20	0.045	08/29/24 06:40	
PFDoA	ug/kg	ND	0.20	0.050	08/29/24 06:40	
PFDoS	ug/kg	ND	0.20	0.054	08/29/24 06:40	
PFDS	ug/kg	ND	0.20	0.059	08/29/24 06:40	
PFEESA	ug/kg	ND	0.40	0.081	08/29/24 06:40	
PFHpA	ug/kg	ND	0.20	0.057	08/29/24 06:40	
PFHpS	ug/kg	ND	0.20	0.052	08/29/24 06:40	
PFHxA	ug/kg	ND	0.20	0.058	08/29/24 06:40	
PFHxS	ug/kg	ND	0.20	0.051	08/29/24 06:40	
PFMBA	ug/kg	ND	0.40	0.11	08/29/24 06:40	
PFMPA	ug/kg	ND	0.40	0.13	08/29/24 06:40	
PFNA	ug/kg	ND	0.20	0.060	08/29/24 06:40	
PFNS	ug/kg	ND	0.20	0.053	08/29/24 06:40	
PFOA	ug/kg	ND	0.20	0.071	08/29/24 06:40	
PFOS	ug/kg	ND	0.20	0.050	08/29/24 06:40	
PFOSA	ug/kg	ND	0.20	0.044	08/29/24 06:40	
PFPeA	ug/kg	ND	0.40	0.11	08/29/24 06:40	
PFPeS	ug/kg	ND	0.20	0.060	08/29/24 06:40	
PFTeDA	ug/kg	ND	0.20	0.060	08/29/24 06:40	
PFTrDA	ug/kg	ND	0.20	0.048	08/29/24 06:40	
PFUnA	ug/kg	ND	0.20	0.054	08/29/24 06:40	

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
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QUALITY CONTROL DATA

Project: Rye Turf Project
Pace Project No.: 10703241

METHOD BLANK: 5035079 Matrix: Solid
Associated Lab Samples: 10703241001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C2-PFDoA (S)	%.	78	40-130		08/29/24 06:40	
13C2-PFTA (S)	%.	72	20-130		08/29/24 06:40	
13C24:2FTS (S)	%.	92	40-165		08/29/24 06:40	
13C26:2FTS (S)	%.	123	40-215		08/29/24 06:40	
13C28:2FTS (S)	%.	71	40-275		08/29/24 06:40	
13C3-PFBS (S)	%.	102	40-135		08/29/24 06:40	
13C3-PFHxS (S)	%.	103	40-130		08/29/24 06:40	
13C3HFPO-DA (S)	%.	101	40-130		08/29/24 06:40	
13C4-PFBA (S)	%.	105	8-130		08/29/24 06:40	
13C4-PFHpA (S)	%.	99	40-130		08/29/24 06:40	
13C5-PFHxA (S)	%.	97	40-130		08/29/24 06:40	
13C5-PFPeA (S)	%.	98	35-130		08/29/24 06:40	
13C6-PFDA (S)	%.	93	40-130		08/29/24 06:40	
13C7-PFUdA (S)	%.	89	40-130		08/29/24 06:40	
13C8-PFOA (S)	%.	98	40-130		08/29/24 06:40	
13C8-PFOS (S)	%.	92	40-130		08/29/24 06:40	
13C8-PFOSA (S)	%.	78	40-130		08/29/24 06:40	
13C9-PFNA (S)	%.	94	40-130		08/29/24 06:40	
d3-MeFOSAA (S)	%.	77	40-135		08/29/24 06:40	
d3-NMeFOSA (S)	%.	55	10-130		08/29/24 06:40	
d5-EtFOSAA (S)	%.	78	40-150		08/29/24 06:40	
d5-NEtFOSA (S)	%.	52	10-130		08/29/24 06:40	
d7-NMeFOSE (S)	%.	58	20-130		08/29/24 06:40	
d9-NEtFOSE (S)	%.	61	15-130		08/29/24 06:40	

LABORATORY CONTROL SAMPLE & LCSD: 5035080 5035081

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11Cl-PF3OUdS	ug/kg	9.1	7.6	8.9	84	98	45-160	15	30	
3:3 FTCA	ug/kg	12	11.8	11.5	99	96	45-130	3	30	
4:2 FTS	ug/kg	9	9.3	9.3	104	103	60-150	0	30	
5:3 FTCA	ug/kg	60	63.2	60.1	105	100	60-130	5	30	
6:2 FTS	ug/kg	9.1	10	9.9	109	108	55-200	1	30	
7:3 FTCA	ug/kg	60	59.6	58.7	99	98	60-150	1	30	
8:2 FTS	ug/kg	9.2	10.3	9.7	111	105	70-150	5	30	
9Cl-PF3ONS	ug/kg	9	9.0	9.5	100	106	70-150	5	30	
ADONA	ug/kg	9.1	9.2	9.2	101	101	70-160	0	30	
HFPO-DA	ug/kg	9.6	10.3	10.1	107	106	70-145	1	30	
NEtFOSA	ug/kg	2.4	2.3	2.3	98	96	70-140	2	30	
NEtFOSAA	ug/kg	2.4	2.4	2.4	100	99	65-165	1	30	
NEtFOSE	ug/kg	24	25.0	24.3	104	101	70-135	3	30	
NFDHA	ug/kg	4.8	5.2	5.0	109	104	60-155	5	30	
NMeFOSA	ug/kg	2.4	2.4	2.5	98	102	70-155	4	30	
NMeFOSAA	ug/kg	2.4	2.5	2.4	106	100	65-155	6	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Rye Turf Project
Pace Project No.: 10703241

LABORATORY CONTROL SAMPLE & LCSD: 5035080 5035081

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
NMeFOSE	ug/kg	24	24.7	24.4	103	102	70-140	1	30	
PFBA	ug/kg	9.6	9.5	10.2	99	106	70-140	7	30	
PFBS	ug/kg	2.1	2.2	2.2	105	104	65-145	0	30	
PFDA	ug/kg	2.4	2.6	2.5	108	104	70-155	3	30	
PFDoA	ug/kg	2.4	2.5	2.5	105	106	70-150	1	30	
PFDoS	ug/kg	2.3	1.7	2.0	74	87	25-160	16	30	
PFDS	ug/kg	2.3	1.9	2.2	84	94	40-155	12	30	
PFEESA	ug/kg	4.3	4.5	4.5	106	105	70-140	1	30	
PFHpA	ug/kg	2.4	2.6	2.5	109	106	65-145	3	30	
PFHpS	ug/kg	2.3	2.4	2.3	104	102	65-155	2	30	
PFHxA	ug/kg	2.4	2.5	2.5	105	104	65-140	1	30	
PFHxS	ug/kg	2.2	2.2	2.3	101	106	60-150	4	30	
PFMBA	ug/kg	4.8	5.0	4.9	103	102	60-150	1	30	
PFMPA	ug/kg	4.8	4.9	4.8	103	100	30-140	3	30	
PFNA	ug/kg	2.4	2.5	2.5	106	104	70-155	1	30	
PFNS	ug/kg	2.3	2.1	2.4	93	104	55-140	11	30	
PFOA	ug/kg	2.4	2.5	2.5	103	106	70-150	3	30	
PFOS	ug/kg	2.2	2.2	2.3	100	102	65-160	3	30	
PFOSA	ug/kg	2.4	2.6	2.5	106	105	70-140	1	30	
PFPeA	ug/kg	4.8	5.0	5.0	105	105	60-150	0	30	
PFPeS	ug/kg	2.3	2.2	2.2	100	100	55-160	0	30	
PFTeDA	ug/kg	2.4	2.5	2.5	104	103	65-150	1	30	
PFTrDA	ug/kg	2.4	2.4	2.3	99	96	65-150	2	30	
PFUnA	ug/kg	2.4	2.5	2.6	104	106	70-155	2	30	
13C2-PFDoA (S)	%.				81	88	40-130			
13C2-PFTA (S)	%.				77	78	20-130			
13C24:2FTS (S)	%.				94	86	40-165			
13C26:2FTS (S)	%.				118	112	40-215			
13C28:2FTS (S)	%.				73	75	40-275			
13C3-PFBS (S)	%.				106	99	40-135			
13C3-PFHxS (S)	%.				112	102	40-130			
13C3HFPO-DA (S)	%.				109	103	40-130			
13C4-PFBA (S)	%.				112	102	8-130			
13C4-PFHpA (S)	%.				104	102	40-130			
13C5-PFHxA (S)	%.				103	99	40-130			
13C5-PFPeA (S)	%.				105	100	35-130			
13C6-PFDA (S)	%.				100	100	40-130			
13C7-PFUdA (S)	%.				91	93	40-130			
13C8-PFOA (S)	%.				102	99	40-130			
13C8-PFOS (S)	%.				111	102	40-130			
13C8-PFOSA (S)	%.				90	91	40-130			
13C9-PFNA (S)	%.				97	95	40-130			
d3-MeFOSAA (S)	%.				84	86	40-135			
d3-NMeFOSA (S)	%.				68	65	10-130			
d5-EtFOSAA (S)	%.				82	88	40-150			
d5-NEtFOSA (S)	%.				64	64	10-130			
d7-NMeFOSE (S)	%.				69	69	20-130			

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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: Rye Turf Project
Pace Project No.: 10703241

LABORATORY CONTROL SAMPLE & LCSD: 5035080 5035081

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
d9-NEtFOSE (S)	%.				68	71	15-130			

LABORATORY CONTROL SAMPLE: 5035082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	0.76	.65J	86	45-160	
3:3 FTCA	ug/kg	1	.85J	85	45-130	
4:2 FTS	ug/kg	0.75	.7J	93	60-150	
5:3 FTCA	ug/kg	5	4.5J	89	60-130	
6:2 FTS	ug/kg	0.76	.79J	105	55-200	
7:3 FTCA	ug/kg	5	4.6J	91	60-150	
8:2 FTS	ug/kg	0.77	.74J	96	70-150	
9Cl-PF3ONS	ug/kg	0.75	.69J	92	70-150	
ADONA	ug/kg	0.76	.74J	99	70-160	
HFPO-DA	ug/kg	0.8	.76J	95	70-145	
NEtFOSA	ug/kg	0.2	ND	98	70-140	
NEtFOSAA	ug/kg	0.2	0.21	105	65-165	
NEtFOSE	ug/kg	2	ND	99	70-135	
NFDHA	ug/kg	0.4	0.41	101	60-155	
NMeFOSA	ug/kg	0.2	.19J	94	70-155	
NMeFOSAA	ug/kg	0.2	0.25	126	65-155	
NMeFOSE	ug/kg	2	ND	99	70-140	
PFBA	ug/kg	0.8	0.82	102	70-140	
PFBS	ug/kg	0.18	.19J	105	65-145	
PFDA	ug/kg	0.2	0.20	102	70-155	
PFDoA	ug/kg	0.2	.19J	94	70-150	
PFDoS	ug/kg	0.19	.18J	93	25-160	
PFDS	ug/kg	0.19	.19J	100	40-155	
PFEESA	ug/kg	0.36	.34J	97	70-140	
PFHpA	ug/kg	0.2	ND	98	65-145	
PFHpS	ug/kg	0.19	ND	104	65-155	
PFHxA	ug/kg	0.2	ND	98	65-140	
PFHxS	ug/kg	0.18	.18J	96	60-150	
PFMBA	ug/kg	0.4	.39J	97	60-150	
PFMPA	ug/kg	0.4	.39J	97	30-140	
PFNA	ug/kg	0.2	0.20	101	70-155	
PFNS	ug/kg	0.19	.18J	95	55-140	
PFOA	ug/kg	0.2	ND	99	70-150	
PFOS	ug/kg	0.19	.19J	104	65-160	
PFOSA	ug/kg	0.2	0.20	102	70-140	
PFPeA	ug/kg	0.4	.39J	97	60-150	
PFPeS	ug/kg	0.19	.19J	100	55-160	
PFTeDA	ug/kg	0.2	0.21	106	65-150	
PFTrDA	ug/kg	0.2	.18J	92	65-150	
PFUnA	ug/kg	0.2	0.20	100	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: Rye Turf Project
Pace Project No.: 10703241

LABORATORY CONTROL SAMPLE: 5035082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C2-PFDoA (S)	%.			86	40-130	
13C2-PFTA (S)	%.			74	20-130	
13C24:2FTS (S)	%.			97	40-165	
13C26:2FTS (S)	%.			125	40-215	
13C28:2FTS (S)	%.			83	40-275	
13C3-PFBS (S)	%.			105	40-135	
13C3-PFHxS (S)	%.			111	40-130	
13C3HFPO-DA (S)	%.			108	40-130	
13C4-PFBA (S)	%.			103	8-130	
13C4-PFHpA (S)	%.			104	40-130	
13C5-PFHxA (S)	%.			104	40-130	
13C5-PFPeA (S)	%.			103	35-130	
13C6-PFDA (S)	%.			99	40-130	
13C7-PFUdA (S)	%.			96	40-130	
13C8-PFOA (S)	%.			105	40-130	
13C8-PFOS (S)	%.			109	40-130	
13C8-PFOSA (S)	%.			92	40-130	
13C9-PFNA (S)	%.			102	40-130	
d3-MeFOSAA (S)	%.			89	40-135	
d3-NMeFOSA (S)	%.			65	10-130	
d5-EtFOSAA (S)	%.			91	40-150	
d5-NEtFOSA (S)	%.			61	10-130	
d7-NMeFOSE (S)	%.			70	20-130	
d9-NEtFOSE (S)	%.			71	15-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035083 5035084

Parameter	Units	10702794001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
11Cl-PF3OUdS	ug/kg	ND	21.9	22.7	22.4	21.8	102	96	40-150	3	30	
3:3 FTCA	ug/kg	ND	29	30.1	26.9	26.5	93	88	40-150	1	30	
4:2 FTS	ug/kg	ND	21.8	22.6	22.7	22.4	104	99	40-150	1	30	
5:3 FTCA	ug/kg	ND	145	151	140	149	96	99	40-150	6	30	
6:2 FTS	ug/kg	ND	22.1	22.9	23.7	24.2	108	106	40-150	2	30	
7:3 FTCA	ug/kg	ND	145	151	140	145	97	97	40-150	4	30	
8:2 FTS	ug/kg	ND	22.4	23.2	22.1	22.6	99	97	40-150	2	30	
9Cl-PF3ONS	ug/kg	ND	21.8	22.6	22.6	22.8	104	101	40-150	1	30	
ADONA	ug/kg	ND	21.9	22.7	21.2	21.8	97	96	40-150	3	30	
HFPO-DA	ug/kg	ND	23.2	24.1	22.7	24.3	98	101	40-150	7	30	
NEtFOSA	ug/kg	ND	5.8	6	5.8	5.7	99	95	40-150	0	30	
NEtFOSAA	ug/kg	ND	5.8	6	5.5	5.8	94	96	40-150	6	30	
NEtFOSE	ug/kg	ND	58.1	60.2	58.5	60.2	101	100	40-150	3	30	
NFDHA	ug/kg	ND	11.6	12	12.5	12.7	108	105	40-150	1	30	
NMeFOSA	ug/kg	ND	5.8	6	5.8	5.7	100	94	40-150	2	30	
NMeFOSAA	ug/kg	ND	5.8	6	5.7	6.0	98	99	40-150	5	30	

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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: Rye Turf Project
Pace Project No.: 10703241

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035083 5035084

Parameter	Units	10702794001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
NMeFOSE	ug/kg	ND	58.1	60.2	61.0	59.5	105	99	40-150	2	30	
PFBA	ug/kg	ND	23.2	24.1	24.9	24.0	106	99	40-150	4	30	
PFBS	ug/kg	ND	5.2	5.3	5.6	5.3	108	100	40-150	4	30	
PFDA	ug/kg	ND	5.8	6	6.1	6.3	104	103	40-150	3	30	
PFDoA	ug/kg	ND	5.8	6	6.3	6.2	109	103	40-150	2	30	
PFDoS	ug/kg	ND	5.6	5.8	5.3	5.4	94	92	40-150	1	30	
PFDS	ug/kg	ND	5.6	5.8	5.6	5.3	100	91	40-150	6	30	
PFEESA	ug/kg	ND	10.3	10.7	11.0	11.7	107	109	40-150	6	30	
PFHpA	ug/kg	ND	5.8	6	6.1	6.4	104	106	40-150	6	30	
PFHpS	ug/kg	ND	5.5	5.7	5.4	5.6	98	98	40-150	4	30	
PFHxA	ug/kg	ND	5.8	6	6.0	6.1	101	100	40-150	2	30	
PFHxS	ug/kg	ND	5.3	5.5	5.5	5.3	103	97	40-150	2	30	
PFMBA	ug/kg	ND	11.6	12	11.9	12.7	103	105	40-150	6	30	
PFMPA	ug/kg	ND	11.6	12	11.9	12.4	102	103	40-150	5	30	
PFNA	ug/kg	ND	5.8	6	5.9	6.1	99	99	40-150	3	30	
PFNS	ug/kg	ND	5.6	5.8	5.4	5.6	97	97	40-150	4	30	
PFOA	ug/kg	ND	5.8	6	6.4	6.5	107	104	40-150	0	30	
PFOS	ug/kg	ND	5.4	5.6	5.5	5.8	98	99	40-150	5	30	
PFOSA	ug/kg	ND	5.8	6	6.1	6.1	104	102	40-150	1	30	
PFPeA	ug/kg	ND	11.6	12	11.9	12.1	102	100	40-150	2	30	
PFPeS	ug/kg	ND	5.5	5.7	5.6	5.5	102	98	40-150	1	30	
PFTeDA	ug/kg	ND	5.8	6	5.8	6.1	99	101	40-150	6	30	
PFTrDA	ug/kg	ND	5.8	6	5.7	6.0	97	99	40-150	5	30	
PFUnA	ug/kg	ND	5.8	6	6.0	6.4	104	106	40-150	6	30	
13C2-PFDoA (S)	%.						52	87	40-130			
13C2-PFTA (S)	%.						48	83	20-130			
13C24:2FTS (S)	%.						46	79	40-165			
13C26:2FTS (S)	%.						58	98	40-215			
13C28:2FTS (S)	%.						41	78	40-275			
13C3-PFBS (S)	%.						52	98	40-135			
13C3-PFHxS (S)	%.						55	105	40-130			
13C3HFPO-DA (S)	%.						55	100	40-130			
13C4-PFBA (S)	%.						53	97	8-130			
13C4-PFHpA (S)	%.						53	96	40-130			
13C5-PFHxA (S)	%.						52	94	40-130			
13C5-PFPeA (S)	%.						53	96	35-130			
13C6-PFDA (S)	%.						55	95	40-130			
13C7-PFUdA (S)	%.						54	90	40-130			
13C8-PFOA (S)	%.						51	95	40-130			
13C8-PFOS (S)	%.						61	95	40-130			
13C8-PFOSA (S)	%.						55	86	40-130			
13C9-PFNA (S)	%.						53	96	40-130			
d3-MeFOSAA (S)	%.						48	72	40-135			
d3-NMeFOSA (S)	%.						45	74	10-130			
d5-EtFOSAA (S)	%.						50	73	40-150			
d5-NEtFOSA (S)	%.						42	68	10-130			

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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: Rye Turf Project
Pace Project No.: 10703241

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035083 5035084

Parameter	Units	10702794001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
d7-NMeFOSE (S)	%.						48	78	20-130			
d9-NEtFOSE (S)	%.						50	77	15-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035085 5035086

Parameter	Units	10702794006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
11Cl-PF3OUdS	ug/kg	ND	40.2	35.8	16.9	24.2	42	68	40-150	36	30	R1
3:3 FTCA	ug/kg	ND	53.3	47.4	24.6	45.3	46	96	40-150	59	30	R1
4:2 FTS	ug/kg	ND	40	35.5	20.4	37.5	51	106	40-150	59	30	R1
5:3 FTCA	ug/kg	ND	266	237	139	249	52	105	40-150	57	30	R1
6:2 FTS	ug/kg	ND	40.5	36	21.3	39.6	53	110	40-150	60	30	R1
7:3 FTCA	ug/kg	ND	266	237	140	262	53	111	40-150	61	30	R1
8:2 FTS	ug/kg	ND	41	36.5	20.7	40.7	50	112	40-150	65	30	R1
9Cl-PF3ONS	ug/kg	ND	40	35.5	20.8	34.9	52	98	40-150	51	30	R1
ADONA	ug/kg	ND	40.2	35.8	20.2	35.9	50	100	40-150	56	30	R1
HFPO-DA	ug/kg	ND	42.6	37.9	21.2	38.5	50	102	40-150	58	30	R1
NEtFOSA	ug/kg	ND	10.7	9.5	5.0	9.5	47	100	40-150	62	30	R1
NEtFOSAA	ug/kg	ND	10.7	9.5	5.0	9.6	47	101	40-150	63	30	R1
NEtFOSE	ug/kg	ND	107	94.7	53.6	96.8	50	102	40-150	58	30	R1
NFDHA	ug/kg	ND	21.3	18.9	10.7	19.5	50	103	40-150	59	30	R1
NMeFOSA	ug/kg	ND	10.7	9.5	5.2	9.7	49	102	40-150	61	30	R1
NMeFOSAA	ug/kg	ND	10.7	9.5	5.2	10.4	49	110	40-150	66	30	R1
NMeFOSE	ug/kg	ND	107	94.7	52.9	99.0	50	104	40-150	61	30	R1
PFBA	ug/kg	ND	42.6	37.9	22.5	39.7	52	104	40-150	55	30	R1
PFBS	ug/kg	ND	9.5	8.4	4.7	9.0	50	107	40-150	62	30	R1
PFDA	ug/kg	ND	10.7	9.5	5.5	10.0	51	106	40-150	59	30	R1
PFDoA	ug/kg	ND	10.7	9.5	5.2	10.2	49	107	40-150	64	30	R1
PFDoS	ug/kg	ND	10.3	9.2	2.5	3.9	24	42	40-150	42	30	M1,R1
PFDS	ug/kg	ND	10.3	9.1	4.7	7.2	46	78	40-150	42	30	R1
PFEESA	ug/kg	ND	19	16.9	9.8	17.6	52	104	40-150	57	30	R1
PFHpA	ug/kg	ND	10.7	9.5	5.4	10.3	50	109	40-150	63	30	R1
PFHpS	ug/kg	ND	10.2	9	5.1	9.1	51	101	40-150	55	30	R1
PFHxA	ug/kg	ND	10.7	9.5	5.4	10.0	50	106	40-150	61	30	R1
PFHxS	ug/kg	ND	9.8	8.7	4.8	9.0	50	104	40-150	60	30	R1
PFMBA	ug/kg	ND	21.3	18.9	10.8	19.4	51	102	40-150	57	30	R1
PFMPA	ug/kg	ND	21.3	18.9	10.7	19.1	50	101	40-150	56	30	R1
PFNA	ug/kg	ND	10.7	9.5	5.3	9.8	49	103	40-150	60	30	R1
PFNS	ug/kg	ND	10.3	9.1	5.2	8.8	50	97	40-150	52	30	R1
PFOA	ug/kg	ND	10.7	9.5	5.5	10.0	51	106	40-150	59	30	R1
PFOS	ug/kg	ND	9.9	8.8	5.1	9.0	49	100	40-150	56	30	R1
PFOSA	ug/kg	ND	10.7	9.5	5.4	10.1	51	106	40-150	61	30	R1
PFPeA	ug/kg	ND	21.3	18.9	10.7	19.8	50	105	40-150	60	30	R1
PFPeS	ug/kg	ND	10	8.9	4.8	8.9	48	100	40-150	59	30	R1

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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: Rye Turf Project
Pace Project No.: 10703241

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035085 5035086

Parameter	Units	10702794006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PFTeDA	ug/kg	ND	10.7	9.5	5.5	9.7	51	103	40-150	56	30	R1
PFTrDA	ug/kg	ND	10.7	9.5	3.7	7.4	34	78	40-150	67	30	M1,R1
PFUnA	ug/kg	ND	10.7	9.5	5.2	9.8	49	103	40-150	60	30	R1
13C2-PFDoA (S)	%.						77	60	40-130			
13C2-PFTA (S)	%.						34	32	20-130			
13C24:2FTS (S)	%.						99	102	40-165			
13C26:2FTS (S)	%.						123	128	40-215			
13C28:2FTS (S)	%.						82	83	40-275			
13C3-PFBS (S)	%.						96	93	40-135			
13C3-PFHxS (S)	%.						101	100	40-130			
13C3HFPO-DA (S)	%.						97	94	40-130			
13C4-PFBA (S)	%.						93	95	8-130			
13C4-PFHpA (S)	%.						99	93	40-130			
13C5-PFHxA (S)	%.						96	93	40-130			
13C5-PFPeA (S)	%.						96	92	35-130			
13C6-PFDA (S)	%.						90	89	40-130			
13C7-PFUdA (S)	%.						86	76	40-130			
13C8-PFOA (S)	%.						95	87	40-130			
13C8-PFOS (S)	%.						94	94	40-130			
13C8-PFOSA (S)	%.						93	91	40-130			
13C9-PFNA (S)	%.						89	90	40-130			
d3-MeFOSAA (S)	%.						80	75	40-135			
d3-NMeFOSA (S)	%.						78	70	10-130			
d5-EtFOSAA (S)	%.						84	75	40-150			
d5-NEtFOSA (S)	%.						70	58	10-130			
d7-NMeFOSE (S)	%.						92	88	20-130			
d9-NEtFOSE (S)	%.						93	84	15-130			

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Rye Turf Project
Pace Project No.: 10703241

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.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Rye Turf Project
Pace Project No.: 10703241

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10703241001	**Shock Pad**	EPA 1633 DRAFT	963415	EPA 1633 DRAFT	965545

con-test®
A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

September 5, 2024

Kirsten Hogberg
Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414

Project Location: Rye Turf Project
Client Job Number:
Project Number: 10703241
Laboratory Work Order Number: 24H4312

Enclosed are results of analyses for samples as received by the laboratory on August 30, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414
ATTN: Kirsten Hogberg

REPORT DATE: 9/5/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 10703241

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24H4312

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Rye Turf Project

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Shock Pad	24H4312-01	Product/Solid		Total Fluorine by CIC	

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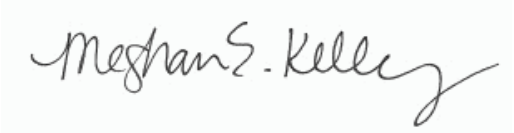
CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Rye Turf Project | Sample Description: | Work Order: 24H4312

Date Received: 8/30/2024 **Field Sample #: Shock Pad**

Sampled: 8/2/2024 09:00

Sample ID: 24H4312-01

Sample Matrix: Product/Solid

Fluorine by Combustion Ion Chromatography (CIC)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Fluorine (TF)	38	4.2	mg/Kg	1		Total Fluorine by CIC	9/4/24	9/4/24 13:36	IS

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Sample Extraction Data

Prep Method:EPA 1621 **Analytical Method:Total Fluorine by CIC**

Lab Number [Field ID]	Batch	Initial [mg]	Final [Boat]	Date
24H4312-01 [Shock Pad]	B384908	47.9	1.00	09/04/24

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QUALITY CONTROL

Fluorine by Combustion Ion Chromatography (CIC) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B384908 - EPA 1621										
Blank (B384908-BLK1)				Prepared & Analyzed: 09/04/24						
Total Fluorine (TF)	ND	4.0	mg/Kg							
LCS (B384908-BS1)				Prepared & Analyzed: 09/04/24						
Total Fluorine (TF)	18.8	4.1	mg/Kg	19.0		99.0	0-200			
LCS Dup (B384908-BSD1)				Prepared & Analyzed: 09/04/24						
Total Fluorine (TF)	19.4	4.1	mg/Kg	19.4		100	0-200	3.08		

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires

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

September 09, 2024

Turf
Results

Ryan Coyne
City of Rye
1051 Boston Post Road
Rye, NY 10580

RE: Project: Rye Turf Project
Pace Project No.: 10702741

Dear Ryan Coyne:

Enclosed are the analytical results for sample(s) received by the laboratory on August 05, 2024. 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: Rye Turf Project
Pace Project No.: 10702741

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: Rye Turf Project
Pace Project No.: 10702741

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10702741001	**Turf**	Solid	08/02/24 12:41	08/05/24 09:45

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

SAMPLE ANALYTE COUNT

Project: Rye Turf Project
Pace Project No.: 10702741

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10702741001	**Turf**	EPA 1633 DRAFT	MJL	64	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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

ANALYTICAL RESULTS

Project: Rye Turf Project
Pace Project No.: 10702741

Sample: Turf **Lab ID: 10702741001** Collected: 08/02/24 12:41 Received: 08/05/24 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Soil	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Initial Volume/Weight: 1.018 g Final Volume/Weight: 5 mL Pace Analytical Services - Minneapolis								
11Cl-PF3OUdS	ND	ug/kg	3.9	1.1	1	08/28/24 12:36	08/29/24 12:39	763051-92-9	
3:3 FTCA	ND	ug/kg	4.9	1.7	1	08/28/24 12:36	08/29/24 12:39	356-02-5	
4:2 FTS	ND	ug/kg	3.9	0.86	1	08/28/24 12:36	08/29/24 12:39	757124-72-4	
5:3 FTCA	ND	ug/kg	24.6	4.6	1	08/28/24 12:36	08/29/24 12:39	914637-49-3	
6:2 FTS	ND	ug/kg	3.9	0.87	1	08/28/24 12:36	08/29/24 12:39	27619-97-2	
7:3 FTCA	ND	ug/kg	24.6	4.3	1	08/28/24 12:36	08/29/24 12:39	812-70-4	
8:2 FTS	ND	ug/kg	3.9	1.0	1	08/28/24 12:36	08/29/24 12:39	39108-34-4	
9Cl-PF3ONS	ND	ug/kg	3.9	1.1	1	08/28/24 12:36	08/29/24 12:39	756426-58-1	
ADONA	ND	ug/kg	3.9	0.83	1	08/28/24 12:36	08/29/24 12:39	919005-14-4	
HFPO-DA	ND	ug/kg	3.9	1.1	1	08/28/24 12:36	08/29/24 12:39	13252-13-6	
NEtFOSAA	ND	ug/kg	0.98	0.26	1	08/28/24 12:36	08/29/24 12:39	2991-50-6	
NEtFOSA	ND	ug/kg	0.98	0.33	1	08/28/24 12:36	08/29/24 12:39	4151-50-2	
NEtFOSE	ND	ug/kg	9.8	2.9	1	08/28/24 12:36	08/29/24 12:39	1691-99-2	
NFDHA	ND	ug/kg	2.0	0.54	1	08/28/24 12:36	08/29/24 12:39	151772-58-6	
NMeFOSAA	ND	ug/kg	0.98	0.38	1	08/28/24 12:36	08/29/24 12:39	2355-31-9	
NMeFOSA	ND	ug/kg	0.98	0.32	1	08/28/24 12:36	08/29/24 12:39	31506-32-8	
NMeFOSE	ND	ug/kg	9.8	3.6	1	08/28/24 12:36	08/29/24 12:39	24448-09-7	
PFBS	ND	ug/kg	0.98	0.22	1	08/28/24 12:36	08/29/24 12:39	375-73-5	
PFDA	ND	ug/kg	0.98	0.22	1	08/28/24 12:36	08/29/24 12:39	335-76-2	
PFHxA	ND	ug/kg	0.98	0.29	1	08/28/24 12:36	08/29/24 12:39	307-24-4	
PFBA	ND	ug/kg	3.9	1.1	1	08/28/24 12:36	08/29/24 12:39	375-22-4	
PFDS	ND	ug/kg	0.98	0.29	1	08/28/24 12:36	08/29/24 12:39	335-77-3	
PFDoS	ND	ug/kg	0.98	0.27	1	08/28/24 12:36	08/29/24 12:39	79780-39-5	
PFEESA	ND	ug/kg	2.0	0.40	1	08/28/24 12:36	08/29/24 12:39	113507-82-7	
PFHpS	ND	ug/kg	0.98	0.25	1	08/28/24 12:36	08/29/24 12:39	375-92-8	
PFMBA	ND	ug/kg	2.0	0.53	1	08/28/24 12:36	08/29/24 12:39	863090-89-5	
PFMPA	ND	ug/kg	2.0	0.64	1	08/28/24 12:36	08/29/24 12:39	377-73-1	
PFNS	ND	ug/kg	0.98	0.26	1	08/28/24 12:36	08/29/24 12:39	68259-12-1	
PFOSA	ND	ug/kg	0.98	0.22	1	08/28/24 12:36	08/29/24 12:39	754-91-6	
PFPeA	ND	ug/kg	2.0	0.53	1	08/28/24 12:36	08/29/24 12:39	2706-90-3	
PFPeS	ND	ug/kg	0.98	0.30	1	08/28/24 12:36	08/29/24 12:39	2706-91-4	
PFDoA	ND	ug/kg	0.98	0.24	1	08/28/24 12:36	08/29/24 12:39	307-55-1	
PFHpA	ND	ug/kg	0.98	0.28	1	08/28/24 12:36	08/29/24 12:39	375-85-9	
PFHxS	ND	ug/kg	0.98	0.25	1	08/28/24 12:36	08/29/24 12:39	355-46-4	
PFNA	ND	ug/kg	0.98	0.30	1	08/28/24 12:36	08/29/24 12:39	375-95-1	
PFOS	ND	ug/kg	0.98	0.24	1	08/28/24 12:36	08/29/24 12:39	1763-23-1	
PFOA	ND	ug/kg	0.98	0.35	1	08/28/24 12:36	08/29/24 12:39	335-67-1	
PFTeDA	ND	ug/kg	0.98	0.29	1	08/28/24 12:36	08/29/24 12:39	376-06-7	
PFTrDA	ND	ug/kg	0.98	0.23	1	08/28/24 12:36	08/29/24 12:39	72629-94-8	
PFUnA	ND	ug/kg	0.98	0.26	1	08/28/24 12:36	08/29/24 12:39	2058-94-8	
Surrogates									
13C2-PFDoA (S)	84	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C3HFPO-DA (S)	98	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Rye Turf Project
Pace Project No.: 10702741

Sample: Turf **Lab ID: 10702741001** Collected: 08/02/24 12:41 Received: 08/05/24 09:45 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
EPA 1633 DRAFT Soil	Analytical Method: EPA 1633 DRAFT Preparation Method: EPA 1633 DRAFT Initial Volume/Weight: 1.018 g Final Volume/Weight: 5 mL Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFBS (S)	98	%.	40-135		1	08/28/24 12:36	08/29/24 12:39		
13C3-PFHxS (S)	103	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C4-PFBA (S)	103	%.	8-130		1	08/28/24 12:36	08/29/24 12:39		
13C4-PFHpA (S)	103	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C5-PFHxA (S)	97	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C5-PFPeA (S)	98	%.	35-130		1	08/28/24 12:36	08/29/24 12:39		
13C6-PFDA (S)	100	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C8-PFOA (S)	101	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C8-PFOS (S)	97	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C8-PFOSA (S)	72	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C9-PFNA (S)	95	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
d3-MeFOSAA (S)	71	%.	40-135		1	08/28/24 12:36	08/29/24 12:39		
d3-NMeFOSA (S)	84	%.	10-130		1	08/28/24 12:36	08/29/24 12:39		
d5-EtFOSAA (S)	75	%.	40-150		1	08/28/24 12:36	08/29/24 12:39		
d5-NEtFOSA (S)	76	%.	10-130		1	08/28/24 12:36	08/29/24 12:39		
d7-NMeFOSE (S)	109	%.	20-130		1	08/28/24 12:36	08/29/24 12:39		
d9-NEtFOSE (S)	96	%.	15-130		1	08/28/24 12:36	08/29/24 12:39		
13C2-PFTA (S)	82	%.	20-130		1	08/28/24 12:36	08/29/24 12:39		
13C7-PFUdA (S)	90	%.	40-130		1	08/28/24 12:36	08/29/24 12:39		
13C24:2FTS (S)	93	%.	40-165		1	08/28/24 12:36	08/29/24 12:39		
13C26:2FTS (S)	165	%.	40-215		1	08/28/24 12:36	08/29/24 12:39		
13C28:2FTS (S)	90	%.	40-275		1	08/28/24 12:36	08/29/24 12:39		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Rye Turf Project
Pace Project No.: 10702741

QC Batch: 963415
QC Batch Method: EPA 1633 DRAFT
Analysis Method: EPA 1633 DRAFT
Analysis Description: 1633 SL
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10702741001

METHOD BLANK: 5035079 Matrix: Solid
Associated Lab Samples: 10702741001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11Cl-PF3OUdS	ug/kg	ND	0.80	0.22	08/29/24 06:40	
3:3 FTCA	ug/kg	ND	1.0	0.34	08/29/24 06:40	
4:2 FTS	ug/kg	ND	0.80	0.18	08/29/24 06:40	
5:3 FTCA	ug/kg	ND	5.0	0.94	08/29/24 06:40	
6:2 FTS	ug/kg	ND	0.80	0.18	08/29/24 06:40	
7:3 FTCA	ug/kg	ND	5.0	0.87	08/29/24 06:40	
8:2 FTS	ug/kg	ND	0.80	0.21	08/29/24 06:40	
9Cl-PF3ONS	ug/kg	ND	0.80	0.22	08/29/24 06:40	
ADONA	ug/kg	ND	0.80	0.17	08/29/24 06:40	
HFPO-DA	ug/kg	ND	0.80	0.23	08/29/24 06:40	
NEtFOSA	ug/kg	ND	0.20	0.068	08/29/24 06:40	
NEtFOSAA	ug/kg	ND	0.20	0.052	08/29/24 06:40	
NEtFOSE	ug/kg	ND	2.0	0.58	08/29/24 06:40	
NFDHA	ug/kg	ND	0.40	0.11	08/29/24 06:40	
NMeFOSA	ug/kg	ND	0.20	0.065	08/29/24 06:40	
NMeFOSAA	ug/kg	ND	0.20	0.077	08/29/24 06:40	
NMeFOSE	ug/kg	ND	2.0	0.73	08/29/24 06:40	
PFBA	ug/kg	ND	0.80	0.23	08/29/24 06:40	
PFBS	ug/kg	ND	0.20	0.045	08/29/24 06:40	
PFDA	ug/kg	ND	0.20	0.045	08/29/24 06:40	
PFDoA	ug/kg	ND	0.20	0.050	08/29/24 06:40	
PFDoS	ug/kg	ND	0.20	0.054	08/29/24 06:40	
PFDS	ug/kg	ND	0.20	0.059	08/29/24 06:40	
PFEESA	ug/kg	ND	0.40	0.081	08/29/24 06:40	
PFHpA	ug/kg	ND	0.20	0.057	08/29/24 06:40	
PFHpS	ug/kg	ND	0.20	0.052	08/29/24 06:40	
PFHxA	ug/kg	ND	0.20	0.058	08/29/24 06:40	
PFHxS	ug/kg	ND	0.20	0.051	08/29/24 06:40	
PFMBA	ug/kg	ND	0.40	0.11	08/29/24 06:40	
PFMPA	ug/kg	ND	0.40	0.13	08/29/24 06:40	
PFNA	ug/kg	ND	0.20	0.060	08/29/24 06:40	
PFNS	ug/kg	ND	0.20	0.053	08/29/24 06:40	
PFOA	ug/kg	ND	0.20	0.071	08/29/24 06:40	
PFOS	ug/kg	ND	0.20	0.050	08/29/24 06:40	
PFOSA	ug/kg	ND	0.20	0.044	08/29/24 06:40	
PFPeA	ug/kg	ND	0.40	0.11	08/29/24 06:40	
PFPeS	ug/kg	ND	0.20	0.060	08/29/24 06:40	
PFTeDA	ug/kg	ND	0.20	0.060	08/29/24 06:40	
PFTrDA	ug/kg	ND	0.20	0.048	08/29/24 06:40	
PFUnA	ug/kg	ND	0.20	0.054	08/29/24 06:40	

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: Rye Turf Project
Pace Project No.: 10702741

METHOD BLANK: 5035079 Matrix: Solid
Associated Lab Samples: 10702741001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C2-PFDoA (S)	%.	78	40-130		08/29/24 06:40	
13C2-PFTA (S)	%.	72	20-130		08/29/24 06:40	
13C24:2FTS (S)	%.	92	40-165		08/29/24 06:40	
13C26:2FTS (S)	%.	123	40-215		08/29/24 06:40	
13C28:2FTS (S)	%.	71	40-275		08/29/24 06:40	
13C3-PFBS (S)	%.	102	40-135		08/29/24 06:40	
13C3-PFHxS (S)	%.	103	40-130		08/29/24 06:40	
13C3HFPO-DA (S)	%.	101	40-130		08/29/24 06:40	
13C4-PFBA (S)	%.	105	8-130		08/29/24 06:40	
13C4-PFHpA (S)	%.	99	40-130		08/29/24 06:40	
13C5-PFHxA (S)	%.	97	40-130		08/29/24 06:40	
13C5-PFPeA (S)	%.	98	35-130		08/29/24 06:40	
13C6-PFDA (S)	%.	93	40-130		08/29/24 06:40	
13C7-PFUdA (S)	%.	89	40-130		08/29/24 06:40	
13C8-PFOA (S)	%.	98	40-130		08/29/24 06:40	
13C8-PFOS (S)	%.	92	40-130		08/29/24 06:40	
13C8-PFOSA (S)	%.	78	40-130		08/29/24 06:40	
13C9-PFNA (S)	%.	94	40-130		08/29/24 06:40	
d3-MeFOSAA (S)	%.	77	40-135		08/29/24 06:40	
d3-NMeFOSA (S)	%.	55	10-130		08/29/24 06:40	
d5-EtFOSAA (S)	%.	78	40-150		08/29/24 06:40	
d5-NEtFOSA (S)	%.	52	10-130		08/29/24 06:40	
d7-NMeFOSE (S)	%.	58	20-130		08/29/24 06:40	
d9-NEtFOSE (S)	%.	61	15-130		08/29/24 06:40	

LABORATORY CONTROL SAMPLE & LCSD: 5035080 5035081

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
11Cl-PF3OUdS	ug/kg	9.1	7.6	8.9	84	98	45-160	15	30	
3:3 FTCA	ug/kg	12	11.8	11.5	99	96	45-130	3	30	
4:2 FTS	ug/kg	9	9.3	9.3	104	103	60-150	0	30	
5:3 FTCA	ug/kg	60	63.2	60.1	105	100	60-130	5	30	
6:2 FTS	ug/kg	9.1	10	9.9	109	108	55-200	1	30	
7:3 FTCA	ug/kg	60	59.6	58.7	99	98	60-150	1	30	
8:2 FTS	ug/kg	9.2	10.3	9.7	111	105	70-150	5	30	
9Cl-PF3ONS	ug/kg	9	9.0	9.5	100	106	70-150	5	30	
ADONA	ug/kg	9.1	9.2	9.2	101	101	70-160	0	30	
HFPO-DA	ug/kg	9.6	10.3	10.1	107	106	70-145	1	30	
NEtFOSA	ug/kg	2.4	2.3	2.3	98	96	70-140	2	30	
NEtFOSAA	ug/kg	2.4	2.4	2.4	100	99	65-165	1	30	
NEtFOSE	ug/kg	24	25.0	24.3	104	101	70-135	3	30	
NFDHA	ug/kg	4.8	5.2	5.0	109	104	60-155	5	30	
NMeFOSA	ug/kg	2.4	2.4	2.5	98	102	70-155	4	30	
NMeFOSAA	ug/kg	2.4	2.5	2.4	106	100	65-155	6	30	

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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: Rye Turf Project
Pace Project No.: 10702741

LABORATORY CONTROL SAMPLE & LCSD: 5035080 5035081

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
NMeFOSE	ug/kg	24	24.7	24.4	103	102	70-140	1	30	
PFBA	ug/kg	9.6	9.5	10.2	99	106	70-140	7	30	
PFBS	ug/kg	2.1	2.2	2.2	105	104	65-145	0	30	
PFDA	ug/kg	2.4	2.6	2.5	108	104	70-155	3	30	
PFDoA	ug/kg	2.4	2.5	2.5	105	106	70-150	1	30	
PFDoS	ug/kg	2.3	1.7	2.0	74	87	25-160	16	30	
PFDS	ug/kg	2.3	1.9	2.2	84	94	40-155	12	30	
PFEESA	ug/kg	4.3	4.5	4.5	106	105	70-140	1	30	
PFHpA	ug/kg	2.4	2.6	2.5	109	106	65-145	3	30	
PFHpS	ug/kg	2.3	2.4	2.3	104	102	65-155	2	30	
PFHxA	ug/kg	2.4	2.5	2.5	105	104	65-140	1	30	
PFHxS	ug/kg	2.2	2.2	2.3	101	106	60-150	4	30	
PFMBA	ug/kg	4.8	5.0	4.9	103	102	60-150	1	30	
PFMPA	ug/kg	4.8	4.9	4.8	103	100	30-140	3	30	
PFNA	ug/kg	2.4	2.5	2.5	106	104	70-155	1	30	
PFNS	ug/kg	2.3	2.1	2.4	93	104	55-140	11	30	
PFOA	ug/kg	2.4	2.5	2.5	103	106	70-150	3	30	
PFOS	ug/kg	2.2	2.2	2.3	100	102	65-160	3	30	
PFOSA	ug/kg	2.4	2.6	2.5	106	105	70-140	1	30	
PFPeA	ug/kg	4.8	5.0	5.0	105	105	60-150	0	30	
PFPeS	ug/kg	2.3	2.2	2.2	100	100	55-160	0	30	
PFTeDA	ug/kg	2.4	2.5	2.5	104	103	65-150	1	30	
PFTrDA	ug/kg	2.4	2.4	2.3	99	96	65-150	2	30	
PFUnA	ug/kg	2.4	2.5	2.6	104	106	70-155	2	30	
13C2-PFDoA (S)	%.				81	88	40-130			
13C2-PFTA (S)	%.				77	78	20-130			
13C24:2FTS (S)	%.				94	86	40-165			
13C26:2FTS (S)	%.				118	112	40-215			
13C28:2FTS (S)	%.				73	75	40-275			
13C3-PFBS (S)	%.				106	99	40-135			
13C3-PFHxS (S)	%.				112	102	40-130			
13C3HFPO-DA (S)	%.				109	103	40-130			
13C4-PFBA (S)	%.				112	102	8-130			
13C4-PFHpA (S)	%.				104	102	40-130			
13C5-PFHxA (S)	%.				103	99	40-130			
13C5-PFPeA (S)	%.				105	100	35-130			
13C6-PFDA (S)	%.				100	100	40-130			
13C7-PFUdA (S)	%.				91	93	40-130			
13C8-PFOA (S)	%.				102	99	40-130			
13C8-PFOS (S)	%.				111	102	40-130			
13C8-PFOSA (S)	%.				90	91	40-130			
13C9-PFNA (S)	%.				97	95	40-130			
d3-MeFOSAA (S)	%.				84	86	40-135			
d3-NMeFOSA (S)	%.				68	65	10-130			
d5-EtFOSAA (S)	%.				82	88	40-150			
d5-NEtFOSA (S)	%.				64	64	10-130			
d7-NMeFOSE (S)	%.				69	69	20-130			

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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: Rye Turf Project
Pace Project No.: 10702741

LABORATORY CONTROL SAMPLE & LCSD: 5035080 5035081

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
d9-NEtFOSE (S)	%.				68	71	15-130			

LABORATORY CONTROL SAMPLE: 5035082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ug/kg	0.76	.65J	86	45-160	
3:3 FTCA	ug/kg	1	.85J	85	45-130	
4:2 FTS	ug/kg	0.75	.7J	93	60-150	
5:3 FTCA	ug/kg	5	4.5J	89	60-130	
6:2 FTS	ug/kg	0.76	.79J	105	55-200	
7:3 FTCA	ug/kg	5	4.6J	91	60-150	
8:2 FTS	ug/kg	0.77	.74J	96	70-150	
9Cl-PF3ONS	ug/kg	0.75	.69J	92	70-150	
ADONA	ug/kg	0.76	.74J	99	70-160	
HFPO-DA	ug/kg	0.8	.76J	95	70-145	
NEtFOSA	ug/kg	0.2	ND	98	70-140	
NEtFOSAA	ug/kg	0.2	0.21	105	65-165	
NEtFOSE	ug/kg	2	ND	99	70-135	
NFDHA	ug/kg	0.4	0.41	101	60-155	
NMeFOSA	ug/kg	0.2	.19J	94	70-155	
NMeFOSAA	ug/kg	0.2	0.25	126	65-155	
NMeFOSE	ug/kg	2	ND	99	70-140	
PFBA	ug/kg	0.8	0.82	102	70-140	
PFBS	ug/kg	0.18	.19J	105	65-145	
PFDA	ug/kg	0.2	0.20	102	70-155	
PFDoA	ug/kg	0.2	.19J	94	70-150	
PFDoS	ug/kg	0.19	.18J	93	25-160	
PFDS	ug/kg	0.19	.19J	100	40-155	
PFEESA	ug/kg	0.36	.34J	97	70-140	
PFHpA	ug/kg	0.2	ND	98	65-145	
PFHpS	ug/kg	0.19	ND	104	65-155	
PFHxA	ug/kg	0.2	ND	98	65-140	
PFHxS	ug/kg	0.18	.18J	96	60-150	
PFMBA	ug/kg	0.4	.39J	97	60-150	
PFMPA	ug/kg	0.4	.39J	97	30-140	
PFNA	ug/kg	0.2	0.20	101	70-155	
PFNS	ug/kg	0.19	.18J	95	55-140	
PFOA	ug/kg	0.2	ND	99	70-150	
PFOS	ug/kg	0.19	.19J	104	65-160	
PFOSA	ug/kg	0.2	0.20	102	70-140	
PFPeA	ug/kg	0.4	.39J	97	60-150	
PFPeS	ug/kg	0.19	.19J	100	55-160	
PFTeDA	ug/kg	0.2	0.21	106	65-150	
PFTrDA	ug/kg	0.2	.18J	92	65-150	
PFUnA	ug/kg	0.2	0.20	100	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: Rye Turf Project
Pace Project No.: 10702741

LABORATORY CONTROL SAMPLE: 5035082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C2-PFDoA (S)	%.			86	40-130	
13C2-PFTA (S)	%.			74	20-130	
13C24:2FTS (S)	%.			97	40-165	
13C26:2FTS (S)	%.			125	40-215	
13C28:2FTS (S)	%.			83	40-275	
13C3-PFBS (S)	%.			105	40-135	
13C3-PFHxS (S)	%.			111	40-130	
13C3HFPO-DA (S)	%.			108	40-130	
13C4-PFBA (S)	%.			103	8-130	
13C4-PFHpA (S)	%.			104	40-130	
13C5-PFHxA (S)	%.			104	40-130	
13C5-PFPeA (S)	%.			103	35-130	
13C6-PFDA (S)	%.			99	40-130	
13C7-PFUdA (S)	%.			96	40-130	
13C8-PFOA (S)	%.			105	40-130	
13C8-PFOS (S)	%.			109	40-130	
13C8-PFOSA (S)	%.			92	40-130	
13C9-PFNA (S)	%.			102	40-130	
d3-MeFOSAA (S)	%.			89	40-135	
d3-NMeFOSA (S)	%.			65	10-130	
d5-EtFOSAA (S)	%.			91	40-150	
d5-NEtFOSA (S)	%.			61	10-130	
d7-NMeFOSE (S)	%.			70	20-130	
d9-NEtFOSE (S)	%.			71	15-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035083 5035084

Parameter	Units	10702794001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
11Cl-PF3OUdS	ug/kg	ND	21.9	22.7	22.4	21.8	102	96	40-150	3	30	
3:3 FTCA	ug/kg	ND	29	30.1	26.9	26.5	93	88	40-150	1	30	
4:2 FTS	ug/kg	ND	21.8	22.6	22.7	22.4	104	99	40-150	1	30	
5:3 FTCA	ug/kg	ND	145	151	140	149	96	99	40-150	6	30	
6:2 FTS	ug/kg	ND	22.1	22.9	23.7	24.2	108	106	40-150	2	30	
7:3 FTCA	ug/kg	ND	145	151	140	145	97	97	40-150	4	30	
8:2 FTS	ug/kg	ND	22.4	23.2	22.1	22.6	99	97	40-150	2	30	
9Cl-PF3ONS	ug/kg	ND	21.8	22.6	22.6	22.8	104	101	40-150	1	30	
ADONA	ug/kg	ND	21.9	22.7	21.2	21.8	97	96	40-150	3	30	
HFPO-DA	ug/kg	ND	23.2	24.1	22.7	24.3	98	101	40-150	7	30	
NEtFOSA	ug/kg	ND	5.8	6	5.8	5.7	99	95	40-150	0	30	
NEtFOSAA	ug/kg	ND	5.8	6	5.5	5.8	94	96	40-150	6	30	
NEtFOSE	ug/kg	ND	58.1	60.2	58.5	60.2	101	100	40-150	3	30	
NFDHA	ug/kg	ND	11.6	12	12.5	12.7	108	105	40-150	1	30	
NMeFOSA	ug/kg	ND	5.8	6	5.8	5.7	100	94	40-150	2	30	
NMeFOSAA	ug/kg	ND	5.8	6	5.7	6.0	98	99	40-150	5	30	

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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: Rye Turf Project
Pace Project No.: 10702741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035083 5035084

Parameter	Units	10702794001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
NMeFOSE	ug/kg	ND	58.1	60.2	61.0	59.5	105	99	40-150	2	30	
PFBA	ug/kg	ND	23.2	24.1	24.9	24.0	106	99	40-150	4	30	
PFBS	ug/kg	ND	5.2	5.3	5.6	5.3	108	100	40-150	4	30	
PFDA	ug/kg	ND	5.8	6	6.1	6.3	104	103	40-150	3	30	
PFDoA	ug/kg	ND	5.8	6	6.3	6.2	109	103	40-150	2	30	
PFDoS	ug/kg	ND	5.6	5.8	5.3	5.4	94	92	40-150	1	30	
PFDS	ug/kg	ND	5.6	5.8	5.6	5.3	100	91	40-150	6	30	
PFEESA	ug/kg	ND	10.3	10.7	11.0	11.7	107	109	40-150	6	30	
PFHpA	ug/kg	ND	5.8	6	6.1	6.4	104	106	40-150	6	30	
PFHpS	ug/kg	ND	5.5	5.7	5.4	5.6	98	98	40-150	4	30	
PFHxA	ug/kg	ND	5.8	6	6.0	6.1	101	100	40-150	2	30	
PFHxS	ug/kg	ND	5.3	5.5	5.5	5.3	103	97	40-150	2	30	
PFMBA	ug/kg	ND	11.6	12	11.9	12.7	103	105	40-150	6	30	
PFMPA	ug/kg	ND	11.6	12	11.9	12.4	102	103	40-150	5	30	
PFNA	ug/kg	ND	5.8	6	5.9	6.1	99	99	40-150	3	30	
PFNS	ug/kg	ND	5.6	5.8	5.4	5.6	97	97	40-150	4	30	
PFOA	ug/kg	ND	5.8	6	6.4	6.5	107	104	40-150	0	30	
PFOS	ug/kg	ND	5.4	5.6	5.5	5.8	98	99	40-150	5	30	
PFOSA	ug/kg	ND	5.8	6	6.1	6.1	104	102	40-150	1	30	
PFPeA	ug/kg	ND	11.6	12	11.9	12.1	102	100	40-150	2	30	
PFPeS	ug/kg	ND	5.5	5.7	5.6	5.5	102	98	40-150	1	30	
PFTeDA	ug/kg	ND	5.8	6	5.8	6.1	99	101	40-150	6	30	
PFTrDA	ug/kg	ND	5.8	6	5.7	6.0	97	99	40-150	5	30	
PFUnA	ug/kg	ND	5.8	6	6.0	6.4	104	106	40-150	6	30	
13C2-PFDoA (S)	%.						52	87	40-130			
13C2-PFTA (S)	%.						48	83	20-130			
13C24:2FTS (S)	%.						46	79	40-165			
13C26:2FTS (S)	%.						58	98	40-215			
13C28:2FTS (S)	%.						41	78	40-275			
13C3-PFBS (S)	%.						52	98	40-135			
13C3-PFHxS (S)	%.						55	105	40-130			
13C3HFPO-DA (S)	%.						55	100	40-130			
13C4-PFBA (S)	%.						53	97	8-130			
13C4-PFHpA (S)	%.						53	96	40-130			
13C5-PFHxA (S)	%.						52	94	40-130			
13C5-PFPeA (S)	%.						53	96	35-130			
13C6-PFDA (S)	%.						55	95	40-130			
13C7-PFUdA (S)	%.						54	90	40-130			
13C8-PFOA (S)	%.						51	95	40-130			
13C8-PFOS (S)	%.						61	95	40-130			
13C8-PFOSA (S)	%.						55	86	40-130			
13C9-PFNA (S)	%.						53	96	40-130			
d3-MeFOSAA (S)	%.						48	72	40-135			
d3-NMeFOSA (S)	%.						45	74	10-130			
d5-EtFOSAA (S)	%.						50	73	40-150			
d5-NEtFOSA (S)	%.						42	68	10-130			

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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: Rye Turf Project
Pace Project No.: 10702741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035083 5035084

Parameter	Units	10702794001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
d7-NMeFOSE (S)	%.						48	78	20-130			
d9-NEtFOSE (S)	%.						50	77	15-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035085 5035086

Parameter	Units	10702794006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
11Cl-PF3OUdS	ug/kg	ND	40.2	35.8	16.9	24.2	42	68	40-150	36	30	R1
3:3 FTCA	ug/kg	ND	53.3	47.4	24.6	45.3	46	96	40-150	59	30	R1
4:2 FTS	ug/kg	ND	40	35.5	20.4	37.5	51	106	40-150	59	30	R1
5:3 FTCA	ug/kg	ND	266	237	139	249	52	105	40-150	57	30	R1
6:2 FTS	ug/kg	ND	40.5	36	21.3	39.6	53	110	40-150	60	30	R1
7:3 FTCA	ug/kg	ND	266	237	140	262	53	111	40-150	61	30	R1
8:2 FTS	ug/kg	ND	41	36.5	20.7	40.7	50	112	40-150	65	30	R1
9Cl-PF3ONS	ug/kg	ND	40	35.5	20.8	34.9	52	98	40-150	51	30	R1
ADONA	ug/kg	ND	40.2	35.8	20.2	35.9	50	100	40-150	56	30	R1
HFPO-DA	ug/kg	ND	42.6	37.9	21.2	38.5	50	102	40-150	58	30	R1
NEtFOSA	ug/kg	ND	10.7	9.5	5.0	9.5	47	100	40-150	62	30	R1
NEtFOSAA	ug/kg	ND	10.7	9.5	5.0	9.6	47	101	40-150	63	30	R1
NEtFOSE	ug/kg	ND	107	94.7	53.6	96.8	50	102	40-150	58	30	R1
NFDHA	ug/kg	ND	21.3	18.9	10.7	19.5	50	103	40-150	59	30	R1
NMeFOSA	ug/kg	ND	10.7	9.5	5.2	9.7	49	102	40-150	61	30	R1
NMeFOSAA	ug/kg	ND	10.7	9.5	5.2	10.4	49	110	40-150	66	30	R1
NMeFOSE	ug/kg	ND	107	94.7	52.9	99.0	50	104	40-150	61	30	R1
PFBA	ug/kg	ND	42.6	37.9	22.5	39.7	52	104	40-150	55	30	R1
PFBS	ug/kg	ND	9.5	8.4	4.7	9.0	50	107	40-150	62	30	R1
PFDA	ug/kg	ND	10.7	9.5	5.5	10.0	51	106	40-150	59	30	R1
PFDoA	ug/kg	ND	10.7	9.5	5.2	10.2	49	107	40-150	64	30	R1
PFDoS	ug/kg	ND	10.3	9.2	2.5	3.9	24	42	40-150	42	30	M1,R1
PFDS	ug/kg	ND	10.3	9.1	4.7	7.2	46	78	40-150	42	30	R1
PFEESA	ug/kg	ND	19	16.9	9.8	17.6	52	104	40-150	57	30	R1
PFHpA	ug/kg	ND	10.7	9.5	5.4	10.3	50	109	40-150	63	30	R1
PFHpS	ug/kg	ND	10.2	9	5.1	9.1	51	101	40-150	55	30	R1
PFHxA	ug/kg	ND	10.7	9.5	5.4	10.0	50	106	40-150	61	30	R1
PFHxS	ug/kg	ND	9.8	8.7	4.8	9.0	50	104	40-150	60	30	R1
PFMBA	ug/kg	ND	21.3	18.9	10.8	19.4	51	102	40-150	57	30	R1
PFMPA	ug/kg	ND	21.3	18.9	10.7	19.1	50	101	40-150	56	30	R1
PFNA	ug/kg	ND	10.7	9.5	5.3	9.8	49	103	40-150	60	30	R1
PFNS	ug/kg	ND	10.3	9.1	5.2	8.8	50	97	40-150	52	30	R1
PFOA	ug/kg	ND	10.7	9.5	5.5	10.0	51	106	40-150	59	30	R1
PFOS	ug/kg	ND	9.9	8.8	5.1	9.0	49	100	40-150	56	30	R1
PFOSA	ug/kg	ND	10.7	9.5	5.4	10.1	51	106	40-150	61	30	R1
PFPeA	ug/kg	ND	21.3	18.9	10.7	19.8	50	105	40-150	60	30	R1
PFPeS	ug/kg	ND	10	8.9	4.8	8.9	48	100	40-150	59	30	R1

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: Rye Turf Project
Pace Project No.: 10702741

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5035085 5035086

Parameter	Units	10702794006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PFTeDA	ug/kg	ND	10.7	9.5	5.5	9.7	51	103	40-150	56	30	R1
PFTrDA	ug/kg	ND	10.7	9.5	3.7	7.4	34	78	40-150	67	30	M1,R1
PFUnA	ug/kg	ND	10.7	9.5	5.2	9.8	49	103	40-150	60	30	R1
13C2-PFDoA (S)	%.						77	60	40-130			
13C2-PFTA (S)	%.						34	32	20-130			
13C24:2FTS (S)	%.						99	102	40-165			
13C26:2FTS (S)	%.						123	128	40-215			
13C28:2FTS (S)	%.						82	83	40-275			
13C3-PFBS (S)	%.						96	93	40-135			
13C3-PFHxS (S)	%.						101	100	40-130			
13C3HFPO-DA (S)	%.						97	94	40-130			
13C4-PFBA (S)	%.						93	95	8-130			
13C4-PFHpA (S)	%.						99	93	40-130			
13C5-PFHxA (S)	%.						96	93	40-130			
13C5-PFPeA (S)	%.						96	92	35-130			
13C6-PFDA (S)	%.						90	89	40-130			
13C7-PFUdA (S)	%.						86	76	40-130			
13C8-PFOA (S)	%.						95	87	40-130			
13C8-PFOS (S)	%.						94	94	40-130			
13C8-PFOSA (S)	%.						93	91	40-130			
13C9-PFNA (S)	%.						89	90	40-130			
d3-MeFOSAA (S)	%.						80	75	40-135			
d3-NMeFOSA (S)	%.						78	70	10-130			
d5-EtFOSAA (S)	%.						84	75	40-150			
d5-NEtFOSA (S)	%.						70	58	10-130			
d7-NMeFOSE (S)	%.						92	88	20-130			
d9-NEtFOSE (S)	%.						93	84	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: Rye Turf Project
Pace Project No.: 10702741

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.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Rye Turf Project
Pace Project No.: 10702741

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10702741001	**Turf**	EPA 1633 DRAFT	963415	EPA 1633 DRAFT	965545

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A Pace Analytical® Laboratory

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

September 9, 2024

Kirsten Hogberg
Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414

Project Location: Rye Turf Project
Client Job Number:
Project Number: 10702741
Laboratory Work Order Number: 24H4314

Enclosed are results of analyses for samples as received by the laboratory on August 29, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rebecca Faust
Project Manager

Table of Contents

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Pace Analytical Laboratory - MN
1700 Elm Street
Minneapolis, MN 55414
ATTN: Kirsten Hogberg

REPORT DATE: 9/9/2024

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 10702741

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24H4314

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Rye Turf Project

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Turf	24H4314-01	Product/Solid		Total Fluorine by CIC	

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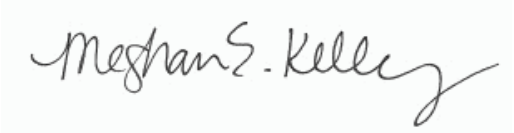
CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Rye Turf Project | Sample Description: | Work Order: 24H4314

Date Received: 8/29/2024 **Field**

Sample #: Turf | Sampled: 8/2/2024 12:41

Sample ID: 24H4314-01 Sample

Matrix: Product/Solid

Fluorine by Combustion Ion Chromatography (CIC)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Fluorine (TF)	230	26	mg/Kg	1		Total Fluorine by CIC	9/9/24	9/9/24 10:36	IS

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Sample Extraction Data

Prep Method:EPA 1621 **Analytical Method:Total Fluorine by CIC**

Lab Number [Field ID]	Batch	Initial [mg]	Final [Boat]	Date
24H4314-01 [Turf]	B384914	7.80	1.00	09/09/24

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QUALITY CONTROL

Fluorine by Combustion Ion Chromatography (CIC) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B384914 - EPA 1621										
Blank (B384914-BLK1)				Prepared & Analyzed: 09/09/24						
Total Fluorine (TF)	ND	4.0	mg/Kg							
LCS (B384914-BS1)				Prepared & Analyzed: 09/09/24						
Total Fluorine (TF)	13.5	4.0	mg/Kg	18.9		71.3	0-200			
LCS Dup (B384914-BSD1)				Prepared & Analyzed: 09/09/24						
Total Fluorine (TF)	18.8	4.0	mg/Kg	18.8		99.7	0-200	33.0		

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications

No certified Analyses included in this Report

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires

NURSERY FIELD - SYNTHETIC TURF CONSTRUCTION BUDGET

SOFT COSTS	
Total spent prior to 2024	$ 259,030
2024 Design	$ 88,200
Lab Costs ($1,012X6)	$ 6,072
GZA Soil (Estimated)	$ 15,000
Tenen	$ 2,500
CONSTRUCTION	
Derosa	$ 2,039,835
Wetland Buffer Enhancements	$ 30,000
CONSTRUCTION ADMINISTRATION	
Vision CA	$ 41,000
Ramboll CA	$ 45,100
CONTINGENCY	
Contingency (15% of Construction and CA)	$ 323,263
EQUIPMENT	
Maintenance	$ 50,000
TOTAL	**$ 2,900,000**

GRANT AGREEMENT

GRANTEE:	City of Rye, New York
AMOUNT OF GRANT:	$2,900,000.00
GRANT TERM:	12 months, beginning October 23, 2024

The Rye Youth Athletic Foundation d/b/a Let the Kids Play (the "Foundation") has awarded a grant to the City of Rye ("Grantee") to fund the bidding process, design and construction of a synthetic turf field at Rye Nursery located at 421 Milton Avenue (the "Nursery Field Project"), consistent with the Resolution of the Rye City Council Accepting Grant from the Rye Youth Athletic Foundation, duly passed on October 23, 2024 (the "Resolution").

By signing this Agreement, the Grantee agrees to the following:

1. The Foundation shall transfer Two Million Eight Hundred Thousand ($2,800,000.00) (the "Grant Funds") within five (5) business days of the City Council's adoption of the Resolution. The Foundation previously transferred $100,000 to the City of Rye.

2. Report Schedule: The Grantee agrees to submit reports on the following dates:

Report Name	Report Due Date(s):
Interim Report 1	60 days after the City Manager is authorized to sign the bid documents (the "First Benchmark Event")
Interim Report 2	30 days after installation of the Synthetic Turf System (the "Second Benchmark Event")
Final Report	30 days post-completion of project

The report shall be a brief description of the project steps and the funds expended as of the First and Second Benchmark Events, respectively.

3. The Grantee shall inform the Foundation if the completion date is going to be delayed past the Grant Term. In the event that the completion date will be past the Grant Term, the Foundation may, at its discretion, direct the Grantee to remit to the Foundation any portion of the Grant Funds unexpended as of the termination date, along with a complete and accurate accounting of the receipt and disbursement of revenues and expenditures relating to the Grant,

and the Grantee shall comply with any such direction, and after which time the Foundation shall have no further obligations with respect to the grant.

4. The Grantee agrees to indemnify, defend, and hold harmless the Foundation, its directors, and representatives (collectively, the "Indemnified Parties") from and against any and all claims, liabilities, losses, damages, costs, and expenses (including reasonable attorneys' fees) arising out of or related to any injury, death, or damage to property that occurs in connection with the Project. This indemnification includes, but is not limited to, claims arising from (i) any decisions made by the Grantee, including without limitation official acts of the Rye City Council, related to the Nursery Field Project; (ii) the selection, hiring and supervision of any contractors, subcontractors, or any other third party involved in the Nursery Field Project; (iii) construction or related activities undertaken in connection with the Nursery Field Project, (iii) the use, occupancy, or operation of the completed Nursery Field Project, and (iv) any negligence, misconduct, or violation of law by the Grantee, its contractors, subcontractors, or any other third party involved in the Nursery Field Project.

5. The Grantee shall use the Grant Funds solely in a manner consistent with the Resolution. Any Grant Funds used for purposes other than those consistent with the Resolution must be accounted for and returned to the Foundation within 60 days.

6. This Agreement contains the entire understanding between the parties and supersedes all prior agreements, whether oral or in writing, concerning its subject matter. Any amendment must be in writing and signed by both parties.

We are pleased to support you in this important work.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK;
SIGNATURES FOLLOW ON THE NEXT PAGE]

Rye Youth Athletic Foundation

By: _____ Date: _____

Read and agreed to by the City of Rye

By: _____ Date: _____

Printed Name: _____

Title: _____

CITY OF RYE

RESOLUTION OF THE RYE CITY COUNCIL ACCEPTING GRANT FROM RYE YOUTH ATHLETIC FOUNDATION AND TO AUTHORIZE THE CITY MANAGER TO EXECUTE THE NECESSARY AGREEMENTS TO AWARD THE CONSTRUCTION OF A SYNTHETIC TURF FIELD AT NURSERY FIELD TO THE LOWEST RESPONSIBLE BIDDER MEETING THE REQUIREMENTS OF THE CITY COUNCIL'S MAY 1, 2024 RESOLUTION

WHEREAS, on May 1, 2024, the City Council adopted a resolution (the "May 1, 2024 Resolution") in which it outlined certain requirements for the Rye Youth Athletic Foundation, a nonprofit d/b/a Let the Kids Play ("LTKP" or the "Donor Group") to meet in order for the City to move forward with the bidding process for the construction of the synthetic turf field at Nursery Field (the "Nursery Field Project"); and

WHEREAS, the Donor Group previously offered a grant of $100,000 for Bid Soft Costs (the "Bid Soft Cost Grant") and the City accepted same and subsequently engaged consultants to prepare the necessary construction bid documents; and

WHEREAS, as required by the May 1, 2024 Resolution, the Donor Group successfully raised an additional $2,900,000 and provided proof that such funds were deposited into a third-party account; and

WHEREAS, the City solicited bids from companies to build the Nursery Field Project; and

WHEREAS, in accordance with the May 1, 2024 Resolution, the City retained an independent third-party lab and required all the bidders' components of the field (grass blades, shock pad, and infill) tested to identify the total fluorine content and to perform targeted testing for PFAS/PFOA to verify that such components require no warning labels under California Proposition 65 Standards; and

WHEREAS, the City received multiple bids that met the requirements of the May 1, 2024 Resolution; and

WHEREAS, the City Manager, in consultation with City staff, reached out to the property owners within 750 feet of Nursery Field to address concerns regarding non-field aesthetics and safety pursuant to the May 1, 2024 Resolution; and

WHEREAS, staff has reviewed the comments received and will be incorporating enhancements consistent with the neighborhood comments; and

WHEREAS, the non-field enhancement costs will be borne by the City and not the Donor Group; and

WHEREAS, the lowest bid that also meets the criteria set forth in the May 1, 2024 Resolution is DeRosa Sports Construction, Inc.; and
WHEREAS, the City included three bid alternates related to an infill synthetic turf containment system, a weighted windscreen, and soil disposal (required); and

WHEREAS, the City Council has determined it would like to move forward with all three bid alternates; and

WHEREAS, none of the selected bidders are "related" to any of the officers, directors or key persons of the Donor Group, as defined by the New York Not-for-Profit Corporation Law;

WHEREAS, the bid price including the three alternates is $ 2,039,835 (Two Million Thirty-Nine Thousand Eight Hundred and Thirty-Five Dollars) (the "Bid Award"); and

WHEREAS, in addition to the Bid Award, the City anticipates that the total Nursery Field Project cost, which is comprised of (i) amounts expended prior to 2024 ($259,030), (ii) 2024 design costs ($88,200), (iii) lab testing costs ($6,072), (iv) GZA soil costs (estimate of $15,000), (v) Tenen costs ($2,500), (vi) wetlands buffer enhancements (estimate of $30,000), (vii) construction administration by Vision CA ($41,000), (viii) construction administration by Ramboll CA ($45,100), (ix) an approximately 15% contingency amount with respect to the construction costs covered by the Bid Award, the wetland enhancements and the construction administration ($323,263) and (x) new specialized equipment for the maintenance of the synthetic turf field (estimate of $50,000) , will be approximately $ 2,900,000 (Two Million Nine Hundred Thousand Dollars) (the "Final Estimate"); and

WHEREAS, the Donor Group has agreed to provide the City with additional funds to cover the Final Estimate in the form of a grant (the "Final Estimate Grant")[1] and the City will return any unused portion of the Final Estimate Grant to the Donor Group within 60 (sixty) days of the Nursery Field Project being complete as determined by the City Engineer; and

WHEREAS, the Donor Group and the City need to execute an agreement outlining the terms and conditions of using the Final Estimate Grant monies (the "Grant Agreement").

NOW, THEREFORE, BE IT RESOLVED, as follows:

[1] The Final Estimate Grant is the Final Estimate less the $100,000 previously provided to the City and is $2,800,000.

1. The City Council has reviewed the Grant Agreement, attached hereto as Exhibit 1, and directs the City Manager to execute the Grant Agreement with the Donor Group.
2. The City Council hereby accepts the Final Estimate Grant from the Donor Group in the amount of Two Million Eight Hundred Thousand Dollars.
3. Any portion of the Final Estimate Grant that is not used for the construction, installation or project management of the synthetic turf field with respect to the Nursery Field Project shall be returned to the Donor Group within 60 days of project completion.
4. The City Council hereby finds that DeRosa Sports Construction, Inc. was the lowest responsive bidder and that its turf products comply with the requirements of the May 1, 2024 Council Resolution.
5. The City Council hereby directs the City Manager to execute the necessary documents awarding the bid to DeRosa Sports and to retain other professionals to complete the Nursery Field Project upon the Final Estimate Grant money being deposited into the City of Rye's account.
6. The City Council further directs the City Manager to transfer the necessary funds (not to exceed $250,000) from General Fund Contingency Account to construct the non-field aesthetic and safety enhancements.

This Resolution shall take effect immediately.

Motion made by:
Seconded by:
Vote:
Dated: Rye, New York
_____ __, 2024

CITY COUNCIL AGENDA

DEPT.: Department of Public Works

CONTACT: Ryan Coyne, City Engineer

AGENDA ITEM: Award bid for Theodore Fremd wall project (Contract # 2024-03)

FOR THE MEETING OF:

October 23, 2024

RECOMMENDATION: That the Council consider awarding the bid to the recommended bidder.

IMPACT: ☐ Environmental ☒ Fiscal ☐ Neighborhood ☐ Other:

BACKGROUND: See attached memo, bid documents and resolution.

Ryan Coyne, P.E.
City Engineer
1051 Boston Post Road
Rye, New York 10580

Tel: (914) 967-7464
E-mail: rcoyne@ryeny.gov
http://www.ryeny.gov

CITY OF RYE
DEPARTMENT OF PUBLIC WORKS

To: Greg Usry, City Manager

From: Ryan Coyne, City Engineer

Date: October 17, 2024

Re: Contract 2024-03 PIN 8701.43 – Replacement of the Theodore Fremd Avenue Retaining Wall Along the Blind Brook

---

The City's engineering consultant, WSP, has reviewed and tabulated the bids received on October 3 for the above referenced project. A copy of the bid tabulation is attached. Eight bids were submitted ranging from approximately $3.2M to $5.8M.

I recommend the bid be awarded to the low bidder, ELQ Industries, Inc. in the amount of $3,212,873.60 subject to review and approval of the Bid Award Package by the NYSDOT.

Additionally, as this project is subject to NYSDOT Local Projects Review, construction administration services are required in the amount of $600,000 bringing the total cost of the project to approximately $3.8M.

The NYSDOT is to reimburse the City $777,891.19 leaving the City's portion of the project to be just over $3M.

The existing sources of funds for this project are $2,228,995.83 through previously authorized use of bond proceeds and capex reserve funds. It is recommended that $800,000 of additional capex reserve funds be used to fund this project.

It is possible that portions of this work can be reimbursed through state aid sources such as State Touring Route funding and we will continue to pursue reimbursement as the project progresses, which could limit the use of the above-mentioned capex reserve funds.

PROJECT: PIN 8701.43 - Replacement of the Theodore Fremd Avenue Retaining Wall Along the Blind Brook

SUBJECT: BID ANALYSIS

COMPLETED BY: JD

				ENG EST	ENG EST			BIDDER 1: ELQ Industries, Inc.					BIDDER 2: Northbrook Contracting Corp.					BIDDER 3: Villa Construction, Inc.			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL	AVG UNIT PRICE	AVG Total	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE	% OF TOTAL BID	UNIT PRICE	TOTAL price	% DIFFERENCE between engineer's estimate and bid total price	AMT DIFFERENCE between engineer's estimate and bid total price	% OF item total to the TOTAL BID price	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE
201.06	CLEARING AND GRUBBING	LS	1	$ 10,000.00	$ 10,000.00	$106,166.72	$106,166.72	$7,900.00	$7,900.00	-21.0%	-$2,100.00	0.2%	$37,694.75	$37,694.75	276.9%	$27,694.75	1.0%	$25,000.00	$25,000.00	150%	$15,000.00
203.02	UNCLASSIFIED EXCAVATION	CY	589	$ 100.00	$ 58,900.00	$164.38	$96,816.88	$130.00	$76,570.00	30.0%	$17,670.00	2.4%	$190.00	$111,910.00	90.0%	$53,010.00	3.0%	$250.00	$147,250.00	150%	$88,350.00
203.03	EMBANKMENT IN PLACE	CY	180	$ 30.00	$ 5,400.00	$147.50	$26,550.00	$78.00	$14,040.00	160.0%	$8,640.00	0.4%	$177.00	$31,860.00	490.0%	$26,460.00	0.9%	$60.00	$10,800.00	100%	$5,400.00
206.01	STRUCTURE EXCAVATION	CY	350	$ 55.00	$ 19,250.00	$138.13	$48,343.75	$142.00	$49,700.00	158.2%	$30,450.00	1.5%	$150.00	$52,500.00	172.7%	$33,250.00	1.4%	$250.00	$87,500.00	355%	$68,250.00
206.05	TEST PIT EXCAVATION	EA	6	$ 1,000.00	$ 6,000.00	$4,341.88	$26,051.25	$2,900.00	$17,400.00	190.0%	$11,400.00	0.5%	$2,500.00	$15,000.00	150.0%	$9,000.00	0.4%	$2,500.00	$15,000.00	150%	$9,000.00
207.22	GEOTEXTILE DRAINAGE	SY	150	$ 8.00	$ 1,200.00	$19.75	$2,962.50	$8.00	$1,200.00	0.0%	$0.00	0.0%	$14.00	$2,100.00	75.0%	$900.00	0.1%	$20.00	$3,000.00	150%	$1,800.00
304.11000008	SUBBASE COURSE (MODIFIED)	CY	230	$ 120.00	$ 27,600.00	$131.88	$30,331.25	$100.00	$23,000.00	-16.7%	-$4,600.00	0.7%	$120.00	$27,600.00	0.0%	$0.00	0.8%	$90.00	$20,700.00	-25%	-$6,900.00
404.0981	9.5 F1 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	114	$ 135.00	$ 15,390.00	$319.63	$36,437.25	$172.00	$19,608.00	27.4%	$4,218.00	0.6%	$490.00	$55,860.00	263.0%	$40,470.00	1.5%	$225.00	$25,650.00	67%	$10,260.00
404.1989	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	TON	190	$ 135.00	$ 25,650.00	$279.38	$53,081.25	$155.00	$29,450.00	14.8%	$3,800.00	0.9%	$370.00	$70,300.00	174.1%	$44,650.00	1.9%	$225.00	$42,750.00	67%	$17,100.00
404.3789	37.5 F9 BASE COURSE ASPHALT, 80 SERIES COMPACTION	TON	10	$ 120.00	$ 1,200.00	$431.63	$4,316.25	$600.00	$6,000.00	400.0%	$4,800.00	0.2%	$383.00	$3,830.00	219.2%	$2,630.00	0.1%	$400.00	$4,000.00	233%	$2,800.00
407.0103	STRAIGHT TACK COAT	GAL	134	$ 23.00	$ 3,082.00	$30.50	$4,087.00	$21.00	$2,814.00	-8.7%	-$268.00	0.1%	$13.00	$1,742.00	-43.5%	-$1,340.00	0.0%	$10.00	$1,340.00	-57%	-$1,742.00
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	537	$ 10.00	$ 5,370.00	$44.38	$23,829.38	$33.00	$17,721.00	230.0%	$12,351.00	0.6%	$51.00	$27,387.00	410.0%	$22,017.00	0.7%	$25.00	$13,425.00	150%	$8,055.00
520.09000010	SAWCUTTING ASPHALT CONCRETE	LF	320	$ 6.00	$ 1,920.00	$6.88	$2,200.00	$4.00	$1,280.00	-33.3%	-$640.00	0.0%	$7.00	$2,240.00	16.7%	$320.00	0.1%	$2.00	$640.00	-67%	-$1,280.00
552.2001	HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL	LF	630	$ 370.00	$ 233,100.00	$535.38	$337,286.25	$565.00	$355,950.00	52.7%	$122,850.00	11.1%	$298.00	$187,740.00	-19.5%	-$45,360.00	5.1%	$500.00	$315,000.00	35%	$81,900.00
552.2002	HOLES IN EARTH FOR SOLDIER PILE AND LAGGING WALL	LF	242	$ 370.00	$ 89,540.00	$510.38	$123,510.75	$567.00	$137,214.00	53.2%	$47,674.00	4.3%	$298.00	$72,116.00	-19.5%	-$17,424.00	2.0%	$500.00	$121,000.00	35%	$31,460.00
552.2101	ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL	LF	260	$ 575.00	$ 149,500.00	$1,461.25	$379,925.00	$1,410.00	$366,600.00	145.2%	$217,100.00	11.4%	$1,600.00	$416,000.00	178.3%	$266,500.00	11.3%	$1,200.00	$312,000.00	109%	$162,500.00
552.2102	ROCK SOCKETS FOR SOLDIER PILE AND LAGGING WALL	LF	110	$ 575.00	$ 63,250.00	$1,488.25	$163,707.50	$1,420.00	$156,200.00	147.0%	$92,950.00	4.9%	$1,600.00	$176,000.00	178.3%	$112,750.00	4.8%	$1,200.00	$132,000.00	109%	$68,750.00
552.2201	SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL	LF	890	$ 250.00	$ 222,500.00	$536.88	$477,818.75	$495.00	$440,550.00	98.0%	$218,050.00	13.7%	$530.00	$471,700.00	112.0%	$249,200.00	12.8%	$450.00	$400,500.00	80%	$178,000.00
552.2202	SOLDIER PILES FOR SOLDIER PILE AND LAGGING WALL	LF	352	$ 190.00	$ 66,880.00	$543.13	$191,180.00	$500.00	$176,000.00	163.2%	$109,120.00	5.5%	$555.00	$195,360.00	192.1%	$128,480.00	5.3%	$450.00	$158,400.00	137%	$91,520.00
552.230201	UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	1304	$ 22.00	$ 28,688.00	$47.13	$61,451.00	$31.00	$40,424.00	40.9%	$11,736.00	1.3%	$38.00	$49,552.00	72.7%	$20,864.00	1.3%	$60.00	$78,240.00	173%	$49,552.00
552.230202	UNTREATED WOOD LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	907	$ 22.00	$ 19,954.00	$38.38	$34,806.13	$31.00	$28,117.00	40.9%	$8,163.00	0.9%	$23.00	$20,861.00	4.5%	$907.00	0.6%	$20.00	$18,140.00	-9%	-$1,814.00
552.230301	PRECAST CONCRETE PANEL LAGGING FOR SOLDIER PILE AND LAGGING WALL	SF	1304	$ 95.00	$ 123,880.00	$164.00	$213,856.00	$66.00	$86,064.00	-30.5%	-$37,816.00	2.7%	$95.00	$123,880.00	0.0%	$0.00	3.4%	$350.00	$456,400.00	268%	$332,520.00
553.020001	COFFERDAM (TYPE 2)	EA	1	$ 100,000.00	$ 100,000.00	$336,437.50	$336,437.50	$192,000.00	$192,000.00	92.0%	$92,000.00	6.0%	$150,000.00	$150,000.00	50.0%	$50,000.00	4.1%	$150,000.00	$150,000.00	50%	$50,000.00
554.41	FILL TYPE RETAINING WALL (6'-12')	SF	230	$ 115.00	$ 26,450.00	$250.38	$57,586.25	$170.00	$39,100.00	47.8%	$12,650.00	1.2%	$300.00	$69,000.00	160.9%	$42,550.00	1.9%	$200.00	$46,000.00	74%	$19,550.00
554.42	FILL TYPE RETAINING WALL (12'-18')	SF	280	$ 125.00	$ 35,000.00	$260.63	$72,975.00	$170.00	$47,600.00	36.0%	$12,600.00	1.5%	$330.00	$92,400.00	164.0%	$57,400.00	2.5%	$250.00	$70,000.00	100%	$35,000.00
555.0021	CONCRETE FOR STRUCTURES, PERFORMANCE	CY	70	$ 650.00	$ 45,500.00	$1,061.88	$74,331.25	$1,300.00	$91,000.00	100.0%	$45,500.00	2.8%	$800.00	$56,000.00	23.1%	$10,500.00	1.5%	$900.00	$63,000.00	38%	$17,500.00
556.0202	EPOXY COATED BAR REINFORCEMENT FOR STRUCTURES	LB	6942	$ 2.50	$ 17,355.00	$5.38	$37,313.25	$3.00	$20,826.00	20.0%	$3,471.00	0.6%	$6.00	$41,652.00	140.0%	$24,297.00	1.1%	$15.00	$104,130.00	500%	$86,775.00
564.20010008	HOT-DIP GALVANIZING OF STRUCTURAL STEEL	LB	133310	$ 1.00	$ 133,310.00	$0.25	$33,827.41	$0.32	$42,659.20	-68.0%	-$90,650.80	1.3%	$0.30	$39,993.00	-70.0%	-$93,317.00	1.1%	$0.10	$13,331.00	-90%	-$119,979.00
564.510001	STRUCTURAL STEEL	LB	80	$ 25.00	$ 2,000.00	$37.38	$2,990.00	$14.00	$1,120.00	-44.0%	-$880.00	0.0%	$30.00	$2,400.00	20.0%	$400.00	0.1%	$30.00	$2,400.00	20%	$400.00
568.51	STEEL BRIDGE RAILING (FOUR-RAIL)	LF	115	$ 210.00	$ 24,150.00	$493.13	$56,709.38	$580.00	$66,700.00	176.2%	$42,550.00	2.1%	$600.00	$69,000.00	185.7%	$44,850.00	1.9%	$400.00	$46,000.00	90%	$21,850.00
568.70	TRANSITION BRIDGE RAILING	LF	54	$ 150.00	$ 8,100.00	$346.88	$18,731.25	$415.00	$22,410.00	176.7%	$14,310.00	0.7%	$350.00	$18,900.00	133.3%	$10,800.00	0.5%	$350.00	$18,900.00	133%	$10,800.00
586.0301	DRILLING AND GROUTING BOLTS OR REINFORCING BARS WITH PULLOUT TESTS	EA	15	$ 85.00	$ 1,275.00	$265.63	$3,984.38	$70.00	$1,050.00	-17.6%	-$225.00	0.0%	$800.00	$12,000.00	841.2%	$10,725.00	0.3%	$100.00	$1,500.00	18%	$225.00
603.6002	REINFORCED CONCRETE PIPE CLASS III, 15 INCH DIAMETER	LF	15	$ 80.00	$ 1,200.00	$228.50	$3,427.50	$180.00	$2,700.00	125.0%	$1,500.00	0.1%	$300.00	$4,500.00	275.0%	$3,300.00	0.1%	$300.00	$4,500.00	275%	$3,300.00
604.302192	RECTANGULAR DRAINAGE STRUCTURE TYPE U FOR PARALLEL BAR #12 PCB FRAME	LF	4	$ 500.00	$ 2,000.00	$1,500.00	$6,000.00	$1,200.00	$4,800.00	140.0%	$2,800.00	0.1%	$1,500.00	$6,000.00	200.0%	$4,000.00	0.2%	$3,000.00	$12,000.00	500%	$10,000.00
604.070801	ALTERING DRAINAGE STRUCTURES, LEACHING BASINS, AND MANHOLES	EA	2	$ 900.00	$ 1,800.00	$1,445.38	$2,890.75	$620.00	$1,240.00	-31.1%	-$560.00	0.0%	$1,800.00	$3,600.00	100.0%	$1,800.00	0.1%	$1,000.00	$2,000.00	11%	$200.00
606.1001	BOX BEAM GUIDE RAILING WITH EXTRA LONG POSTS	LF	37	$ 35.00	$ 1,295.00	$111.00	$4,107.00	$107.00	$3,959.00	205.7%	$2,664.00	0.1%	$120.00	$4,440.00	242.9%	$3,145.00	0.1%	$130.00	$4,810.00	271%	$3,515.00
606.120101	BOX BEAM END PIECE	EA	2	$ 500.00	$ 1,000.00	$1,218.13	$2,436.25	$1,000.00	$2,000.00	100.0%	$1,000.00	0.1%	$1,600.00	$3,200.00	220.0%	$2,200.00	0.1%	$1,100.00	$2,200.00	120%	$1,200.00
606.51	RESETTING CORRUGATED BEAM GUIDERAIL	LF	24	$ 45.00	$ 1,080.00	$54.00	$1,296.00	$20.00	$480.00	-55.6%	-$600.00	0.0%	$65.00	$1,560.00	44.4%	$480.00	0.0%	$100.00	$2,400.00	122%	$1,320.00
606.73	REMOVING AND DISPOSING BOX BEAM GUIDE RAILING	LF	120	$ 8.00	$ 960.00	$27.00	$3,240.00	$17.00	$2,040.00	112.5%	$1,080.00	0.1%	$30.00	$3,600.00	275.0%	$2,640.00	0.1%	$60.00	$7,200.00	650%	$6,240.00
608.01050109	CURB RAMPS TYPE 1	EA	2	$ 7,000.00	$ 14,000.00	$1,520.13	$3,040.25	$2,150.00	$4,300.00	-69.3%	-$9,700.00	0.1%	$2,000.00	$4,000.00	-71.4%	-$10,000.00	0.1%	$1,000.00	$2,000.00	-86%	-$12,000.00
608.01050209	CURB RAMPS TYPE 2	EA	1	$ 7,000.00	$ 7,000.00	$8,571.88	$8,571.88	$4,700.00	$4,700.00	-32.9%	-$2,300.00	0.1%	$7,000.00	$7,000.00	0.0%	$0.00	0.2%	$6,000.00	$6,000.00	-14%	-$1,000.00
608.01050909	CURB RAMPS TYPE 9	EA	1	$ 7,000.00	$ 7,000.00	$2,559.50	$2,559.50	$5,000.00	$5,000.00	-28.6%	-$2,000.00	0.2%	$2,600.00	$2,600.00	-62.9%	-$4,400.00	0.1%	$1,000.00	$1,000.00	-86%	-$6,000.00
608.02010015	UNCLASSIFIED EXCAVATION AND DISPOSAL UNDER CURB RAMPS	CY	28	$ 250.00	$ 7,000.00	$176.00	$4,928.00	$277.00	$7,756.00	10.8%	$756.00	0.2%	$230.00	$6,440.00	-8.0%	-$560.00	0.2%	$20.00	$560.00	-92%	-$6,440.00
608.02020015	OPTIONAL TYPE SUBBASE COURSE UNDER CURB RAMPS	CY	13	$ 250.00	$ 3,250.00	$131.38	$1,707.88	$305.00	$3,965.00	22.0%	$715.00	0.1%	$200.00	$2,600.00	-20.0%	-$650.00	0.1%	$50.00	$650.00	-80%	-$2,600.00
608.21	EMBEDDED DETECTABLE WARNING UNITS	SY	4	$ 400.00	$ 1,600.00	$519.38	$2,077.50	$240.00	$960.00	-40.0%	-$640.00	0.0%	$975.00	$3,900.00	143.8%	$2,300.00	0.1%	$270.00	$1,080.00	-33%	-$520.00
609.0350	STONE BRIDGE CURB (AS DETAILED)	LF	127	$ 75.00	$ 9,525.00	$85.00	$10,795.00	$75.00	$9,525.00	0.0%	$0.00	0.3%	$90.00	$11,430.00	20.0%	$1,905.00	0.3%	$100.00	$12,700.00	33%	$3,175.00
614.060202	TREE REMOVAL OVER 6 INCHES TO 12 INCHES DIAMETER BREAST HEIGHT - STUMPS CUT FLUSH	EA	1	$ 1,000.00	$ 1,000.00	$1,678.75	$1,678.75	$2,100.00	$2,100.00	110.0%	$1,100.00	0.1%	$700.00	$700.00	-30.0%	-$300.00	0.0%	$1,000.00	$1,000.00	0%	$0.00
614.060402	TREE REMOVAL OVER 18 INCHES TO 24 INCHES DIAMETER BREASTHEIGHT - STUMPS CUT FLUSH	EA	2	$ 1,200.00	$ 2,400.00	$2,556.25	$5,112.50	$3,500.00	$7,000.00	191.7%	$4,600.00	0.2%	$3,200.00	$6,400.00	166.7%	$4,000.00	0.2%	$1,500.00	$3,000.00	25%	$600.00
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	1	$ 60,000.00	$ 60,000.00	$332,302.86	$332,302.86	$106,000.00	$106,000.00	76.7%	$46,000.00	3.3%	$42,695.00	$42,695.00	-28.8%	-$17,305.00	1.2%	$200,000.00	$200,000.00	233%	$140,000.00
619.080102	REMOVE EXISTING PAVEMENT MARKING STRIPES, EPOXY PAINT	LF	2025	$ 0.65	$ 1,316.25	$2.38	$4,809.38	$2.00	$4,050.00	207.7%	$2,733.75	0.1%	$3.00	$6,075.00	361.5%	$4,758.75	0.2%	$2.00	$4,050.00	208%	$2,733.75
619.100102	INTERIM PAVEMENT MARKING STRIPES, EPOXY PAINT	LF	1674	$ 0.50	$ 837.00	$2.33	$3,892.05	$1.85	$3,096.90	270.0%	$2,259.90	0.1%	$3.00	$5,022.00	500.0%	$4,185.00	0.1%	$2.00	$3,348.00	300%	$2,511.00
619.1712	TEMPORARY POSITIVE BARRIER - CATEGORY 2 (PINNING PERMITTED)	LF	250	$ 35.00	$ 8,750.00	$72.75	$18,187.50	$40.00	$10,000.00	14.3%	$1,250.00	0.3%	$75.00	$18,750.00	114.3%	$10,000.00	0.5%	$60.00	$15,000.00	71%	$6,250.00
619.1719	WARNING LIGHTS ON TEMPORARY POSITIVE BARRIERS	EA	250	$ 10.00	$ 2,500.00	$44.00	$11,000.00	$135.00	$33,750.00	1250.0%	$31,250.00	1.1%	$25.00	$6,250.00	150.0%	$3,750.00	0.2%	$1.00	$250.00	-90%	-$2,250.00
620.04	STONE FILLING (MEDIUM)	CY	33	$ 110.00	$ 3,630.00	$364.75	$12,036.75	$188.00	$6,204.00	70.9%	$2,574.00	0.2%	$1,500.00	$49,500.00	1263.6%	$45,870.00	1.3%	$180.00	$5,940.00	64%	$2,310.00
620.0801	BEDDING MATERIAL, TYPE 1	CY	11	$ 85.00	$ 935.00	$240.00	$2,640.00	$200.00	$2,200.00	135.3%	$1,265.00	0.1%	$325.00	$3,575.00	282.4%	$2,640.00	0.1%	$200.00	$2,200.00	135%	$1,265.00
623.12	CRUSHED STONE (IN-PLACE MEASURE)	CY	31	$ 75.00	$ 2,325.00	$196.88	$6,103.13	$255.00	$7,905.00	240.0%	$5,580.00	0.2%	$435.00	$13,485.00	480.0%	$11,160.00	0.4%	$180.00	$5,580.00	140%	$3,255.00
625.01	SURVEY OPERATIONS	LS	1	$ 13,000.00	$ 13,000.00	$94,861.88	$94,861.88	$33,000.00	$33,000.00	153.8%	$20,000.00	1.0%	$62,695.00	$62,695.00	382.3%	$49,695.00	1.7%	$70,000.00	$70,000.00	438%	$57,000.00
625.09010015	SUBSURFACE SURVEY	LS	1	$ 10,000.00	$ 10,000.00	$20,509.38	$20,509.38	$5,000.00	$5,000.00	-50.0%	-$5,000.00	0.2%	$5,000.00	$5,000.00	-50.0%	-$5,000.00	0.1%	$5,000.00	$5,000.00	-50%	-$5,000.00
634.99020017	VIBRATION MONITORING (NON-BLASTING)	LS	1	$ 18,000.00	$ 18,000.00	$35,375.00	$35,375.00	$35,000.00	$35,000.00	94.4%	$17,000.00	1.1%	$30,000.00	$30,000.00	66.7%	$12,000.00	0.8%	$20,000.00	$20,000.00	11%	$2,000.00
635.0103	CLEANING AND PREPARATION OF PAVEMENT SURFACES - LINES	LF	450	$ 1.00	$ 450.00	$2.50	$1,125.00	$2.00	$900.00	100.0%	$450.00	0.0%	$4.00	$1,800.00	300.0%	$1,350.00	0.0%	$2.00	$900.00	100%	$450.00
637.11	ENGINEER'S FIELD OFFICE - TYPE 1	MNTH	8	$ 1,800.00	$ 14,400.00	$4,378.13	$35,025.00	$4,200.00	$33,600.00	133.3%	$19,200.00	1.0%	$2,300.00	$18,400.00	27.8%	$4,000.00	0.5%	$7,000.00	$56,000.00	289%	$41,600.00
637.34	OFFICE TECHNOLOGY AND SUPPLIES	DC	2500	$ 1.00	$ 2,500.00	$1.00	$2,500.00	$1.00	$2,500.00	0.0%	$0.00	0.1%	$1.00	$2,500.00	0.0%	$0.00	0.1%	$1.00	$2,500.00	0%	$0.00
645.5101	GROUND MOUNTED SIGN PANELS WITHOUT Z-BARS	SF	15	$ 35.00	$ 525.00	$93.38	$1,400.63	$70.00	$1,050.00	100.0%	$525.00	0.0%	$190.00	$2,850.00	442.9%	$2,325.00	0.1%	$100.00	$1,500.00	186%	$975.00
645.5102	GROUND MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 32 SF WITH Z-BARS	SF	18.75	$ 40.00	$ 750.00	$95.50	$1,790.63	$76.00	$1,425.00	90.0%	$675.00	0.0%	$115.00	$2,156.25	187.5%	$1,406.25	0.1%	$200.00	$3,750.00	400%	$3,000.00
645.81	TYPE A SIGN POST	EA	6	$ 175.00	$ 1,050.00	$472.13	$2,832.75	$400.00	$2,400.00	128.6%	$1,350.00	0.1%	$400.00	$2,400.00	128.6%	$1,350.00	0.1%	$900.00	$5,400.00	414%	$4,350.00
655.05010008	STANDARD SANITARY MANHOLE FRAMES AND COVERS (CASTINGS)	EA	1	$ 1,200.00	$ 1,200.00	$1,771.88	$1,771.88	$1,300.00	$1,300.00	8.3%	$100.00	0.0%	$1,800.00	$1,800.00	50.0%	$600.00	0.0%	$1,500.00	$1,500.00	25%	$300.00
655.0901	PARALLEL BAR FRAME 10 PCB & PARALLEL BAR GRATE 10 PCB	EA	1	$ 1,100.00	$ 1,100.00	$1,863.50	$1,863.50	$1,500.00	$1,500.00	36.4%	$400.00	0.0%	$2,000.00	$2,000.00	81.8%	$900.00	0.1%	$2,500.00	$2,500.00	127%	$1,400.00
655.0903	PARALLEL BAR FRAME 12 PCB & PARALLEL BAR GRATE 12 PCB	EA	1	$ 1,100.00	$ 1,100.00	$2,200.00	$2,200.00	$2,000.00	$2,000.00	81.8%	$900.00	0.1%	$2,500.00	$2,500.00	127.3%	$1,400.00	0.1%	$2,500.00	$2,500.00	127%	$1,400.00
660.65000101	ALTERING UTILITY MANHOLES AND VAULTS	EA	1	$ 1,000.00	$ 1,000.00	$1,423.13	$1,423.13	$600.00	$600.00	-40.0%	-$400.00	0.0%	$1,500.00	$1,500.00	50.0%	$500.00	0.0%	$2,500.00	$2,500.00	150%	$1,500.00
662.60020008	ADJUST VALVE BOXES FOR RESURFACING WORK (GAS)	EA	8	$ 450.00	$ 3,600.00	$322.50	$2,580.00	$80.00	$640.00	-82.2%	-$2,960.00	0.0%	$500.00	$4,000.00	11.1%	$400.00	0.1%	$500.00	$4,000.00	11%	$400.00
663.33	ADJUST EXISTING VALVE BOX ELEVATION	EA	2	$ 450.00	$ 900.00	$441.25	$882.50	$80.00	$160.00	-82.2%	-$740.00	0.0%	$500.00	$1,000.00	11.1%	$100.00	0.0%	$500.00	$1,000.00	11%	$100.00
680.5001	POLE EXCAVATION AND CONCRETE FOUNDATION	CY	2	$ 2,000.00	$ 4,000.00	$2,320.63	$4,641.25	$2,300.00	$4,600.00	15.0%	$600.00	0.1%	$2,000.00	$4,000.00	0.0%	$0.00	0.1%	$2,000.00	$4,000.00	0%	$0.00
680.6808	TRAFFIC SIGNAL POLE-BRACKET MOUNT 8 FEET MOUNTING HEIGHT	EA	1	$ 1,500.00	$ 1,500.00	$3,681.25	$3,681.25	$2,700.00	$2,700.00	80.0%	$1,200.00	0.1%	$8,000.00	$8,000.00	433.3%	$6,500.00	0.2%	$1,500.00	$1,500.00	0%	$0.00
680.81	SOLAR POWER SYSTEM	EA	2	$ 1,500.00	$ 3,000.00	$4,550.63	$9,101.25	$1,100.00	$2,200.00	-26.7%	-$800.00	0.1%	$5,000.00	$10,000.00	233.3%	$7,000.00	0.3%	$2,500.00	$5,000.00	67%	$2,000.00
680.8220	FLASHING BEACON SIGN ASSEMBLY	EA	2	$ 7,500.00	$ 15,000.00	$8,131.25	$16,262.50	$7,450.00	$14,900.00	-0.7%	-$100.00	0.5%	$6,000.00	$12,000.00	-20.0%	-$3,000.00	0.3%	$2,500.00	$5,000.00	-67%	-$10,000.00
680.8223	BREAKAWAY TRANSFORMER BASE	EA	2	$ 850.00	$ 1,700.00	$1,200.00	$2,400.00	$700.00	$1,400.00	-17.6%	-$300.00	0.0%	$1,200.00	$2,400.00	41.2%	$700.00	0.1%	$2,500.00	$5,000.00	194%	$3,300.00
685.0101	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 15 MILS	LF	1190	$ 1.00	$ 1,190.00	$2.22	$2,640.31	$1.90	$2,261.00	90.0%	$1,071.00	0.1%	$3.00	$3,570.00	200.0%	$2,380.00	0.1%	$1.00	$1,190.00	0%	$0.00
685.0201	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 15 MILS	LF	1193	$ 1.00	$ 1,193.00	$1.88	$2,236.88	$1.50	$1,789.50	50.0%	$596.50	0.1%	$3.00	$3,579.00	200.0%	$2,386.00	0.1%	$1.00	$1,193.00	0%	$0.00
697.03	FIELD CHANGE PAYMENT	DC	127000	$ 1.00	$ 127,000.00	$1.00	$127,000.00	$1.00	$127,000.00	0.0%	$0.00	4.0%	$1.00	$127,000.00	0.0%	$0.00	3.5%	$1.00	$127,000.00	0%	$0.00
698.04	ASPHALT PRICE ADJUSTMENT	DC	600	$ 1.00	$ 600.00	$1.00	$600.00	$1.00	$600.00	0.0%	$0.00	0.0%	$1.00	$600.00	0.0%	$0.00	0.0%	$1.00	$600.00	0%	$0.00
698.05	FUEL PRICE ADJUSTMENT	DC	250	$ 1.00	$ 250.00	$1.00	$250.00	$1.00	$250.00	0.0%	$0.00	0.0%	$1.00	$250.00	0.0%	$0.00	0.0%	$1.00	$250.00	0%	$0.00
698.06	STEEL / IRON PRICE ADJUSTMENT	DC	100	$ 1.00	$ 100.00	$1.00	$100.00	$1.00	$100.00	0.0%	$0.00	0.0%	$1.00	$100.00	0.0%	$0.00	0.0%	$1.00	$100.00	0%	$0.00
699.040001	MOBILIZATION (4%)	LS	1	$ 73,000.00	$ 73,000.00	$154,450.38	$154,450.38	$120,000.00	$120,000.00	64.4%	$47,000.00	3.7%	$129,000.00	$129,000.00	76.7%	$56,000.00	3.5%	$139,653.00	$139,653.00	91%	$66,653.00
				BASE BID TOTAL	$ 2,011,905.25		$4,123,945.97	BASE BID TOTAL	$3,212,873.60				BASE BID TOTAL	$3,363,000.00				BASE BID TOTAL	$3,673,000.00		

	BIDDER 4: McNameee Construction Corp.					BIDDER 5: Scape-Tech Landscape Technology, Inc.					BIDDER 6: Harrison & Burrowes Bridge Constructors, Inc.					BIDDER 7: Inter Contracting Corp.					BIDDER 8: Transit-Halmar J/V			
% OF TOTAL BID	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE	% OF TOTAL BID	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE	% OF TOTAL BID	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE	% OF TOTAL BID	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE	% OF TOTAL BID	UNIT PRICE	TOTAL	% DIFFERENCE	AMT DIFFERENCE
0.6%	$105,000.00	$105,000.00	950.0%	$95,000.00	1.8%	$22,950.00	$22,950.00	129.5%	$12,950.00	#REF!	$120,000.00	$120,000.00	1100.0%	$110,000.00	3.6%	$30,789.00	$30,789.00	208%	$20,789.00	0.8%	$500,000.00	$500,000.00	4900%	$490,000.00
3.8%	$175.00	$103,075.00	75.0%	$44,175.00	1.8%	$125.00	$73,625.00	25.0%	$14,725.00	#REF!	$70.00	$41,230.00	-30.0%	-$17,670.00	1.2%	$275.00	$161,975.00	175%	$103,075.00	4.1%	$100.00	$58,900.00	0%	$0.00
0.3%	$125.00	$22,500.00	316.7%	$17,100.00	0.4%	$230.00	$41,400.00	666.7%	$36,000.00	#REF!	$110.00	$19,800.00	266.7%	$14,400.00	0.6%	$300.00	$54,000.00	900%	$48,600.00	1.4%	$100.00	$18,000.00	233%	$12,600.00
2.2%	$175.00	$61,250.00	218.2%	$42,000.00	1.0%	$93.00	$32,550.00	69.1%	$13,300.00	#REF!	$70.00	$24,500.00	27.3%	$5,250.00	0.7%	$175.00	$61,250.00	218%	$42,000.00	1.6%	$50.00	$17,500.00	-9%	-$1,750.00
0.4%	$8,000.00	$48,000.00	700.0%	$42,000.00	0.8%	$2,335.00	$14,010.00	133.5%	$8,010.00	#REF!	$10,000.00	$60,000.00	900.0%	$54,000.00	1.8%	$3,500.00	$21,000.00	250%	$15,000.00	0.5%	$3,000.00	$18,000.00	200%	$12,000.00
0.1%	$37.00	$5,550.00	362.5%	$4,350.00	0.1%	$10.00	$1,500.00	25.0%	$300.00	#REF!	$7.00	$1,050.00	-12.5%	-$150.00	0.0%	$60.00	$9,000.00	650%	$7,800.00	0.2%	$2.00	$300.00	-75%	-$900.00
0.5%	$125.00	$28,750.00	4.2%	$1,150.00	0.5%	$142.00	$32,660.00	18.3%	$5,060.00	#REF!	$118.00	$27,140.00	-1.7%	-$460.00	0.8%	$250.00	$57,500.00	108%	$29,900.00	1.5%	$110.00	$25,300.00	-8%	-$2,300.00
0.7%	$300.00	$34,200.00	122.2%	$18,810.00	0.6%	$390.00	$44,460.00	188.9%	$29,070.00	#REF!	$385.00	$43,890.00	185.2%	$28,500.00	1.3%	$375.00	$42,750.00	178%	$27,360.00	1.1%	$220.00	$25,080.00	63%	$9,690.00
1.1%	$275.00	$52,250.00	103.7%	$26,600.00	0.9%	$280.00	$53,200.00	107.4%	$27,550.00	#REF!	$330.00	$62,700.00	144.4%	$37,050.00	1.9%	$400.00	$76,000.00	196%	$50,350.00	1.9%	$200.00	$38,000.00	48%	$12,350.00
0.1%	$275.00	$2,750.00	129.2%	$1,550.00	0.0%	$570.00	$5,700.00	375.0%	$4,500.00	#REF!	$500.00	$5,000.00	316.7%	$3,800.00	0.1%	$425.00	$4,250.00	254%	$3,050.00	0.1%	$300.00	$3,000.00	150%	$1,800.00
0.0%	$30.00	$4,020.00	30.4%	$938.00	0.1%	$40.00	$5,360.00	73.9%	$2,278.00	#REF!	$40.00	$5,360.00	73.9%	$2,278.00	0.2%	$45.00	$6,030.00	96%	$2,948.00	0.2%	$45.00	$6,030.00	96%	$2,948.00
0.3%	$30.00	$16,110.00	200.0%	$10,740.00	0.3%	$58.00	$31,146.00	480.0%	$25,776.00	#REF!	$60.00	$32,220.00	500.0%	$26,850.00	1.0%	$40.00	$21,480.00	300%	$16,110.00	0.6%	$58.00	$31,146.00	480%	$25,776.00
0.0%	$10.00	$3,200.00	66.7%	$1,280.00	0.1%	$4.00	$1,280.00	-33.3%	-$640.00	#REF!	$6.00	$1,920.00	0.0%	$0.00	0.1%	$12.00	$3,840.00	100%	$1,920.00	0.1%	$10.00	$3,200.00	67%	$1,280.00
8.1%	$400.00	$252,000.00	8.1%	$18,900.00	4.3%	$960.00	$604,800.00	159.5%	$371,700.00	#REF!	$600.00	$378,000.00	62.2%	$144,900.00	11.2%	$395.00	$248,850.00	7%	$15,750.00	6.4%	$565.00	$355,950.00	53%	$122,850.00
3.1%	$400.00	$96,800.00	8.1%	$7,260.00	1.7%	$758.00	$183,436.00	104.9%	$93,896.00	#REF!	$600.00	$145,200.00	62.2%	$55,660.00	4.3%	$395.00	$95,590.00	7%	$6,050.00	2.4%	$565.00	$136,730.00	53%	$47,190.00
8.0%	$850.00	$221,000.00	47.8%	$71,500.00	3.8%	$1,880.00	$488,800.00	227.0%	$339,300.00	#REF!	$1,100.00	$286,000.00	91.3%	$136,500.00	8.5%	$2,500.00	$650,000.00	335%	$500,500.00	16.6%	$1,150.00	$299,000.00	100%	$149,500.00
3.4%	$850.00	$93,500.00	47.8%	$30,250.00	1.6%	$2,000.00	$220,000.00	247.8%	$156,750.00	#REF!	$1,100.00	$121,000.00	91.3%	$57,750.00	3.6%	$2,586.00	$284,460.00	350%	$221,210.00	7.3%	$1,150.00	$126,500.00	100%	$63,250.00
10.3%	$440.00	$391,600.00	76.0%	$169,100.00	6.7%	$480.00	$427,200.00	92.0%	$204,700.00	#REF!	$650.00	$578,500.00	160.0%	$356,000.00	17.2%	$750.00	$667,500.00	200%	$445,000.00	17.1%	$500.00	$445,000.00	100%	$222,500.00
4.1%	$440.00	$154,880.00	131.6%	$88,000.00	2.7%	$500.00	$176,000.00	163.2%	$109,120.00	#REF!	$650.00	$228,800.00	242.1%	$161,920.00	6.8%	$750.00	$264,000.00	295%	$197,120.00	6.8%	$500.00	$176,000.00	163%	$109,120.00
2.0%	$52.00	$67,808.00	136.4%	$39,120.00	1.2%	$66.00	$86,064.00	200.0%	$57,376.00	#REF!	$60.00	$78,240.00	172.7%	$49,552.00	2.3%	$35.00	$45,640.00	59%	$16,952.00	1.2%	$35.00	$45,640.00	59%	$16,952.00
0.5%	$52.00	$47,164.00	136.4%	$27,210.00	0.8%	$66.00	$59,862.00	200.0%	$39,908.00	#REF!	$40.00	$36,280.00	81.8%	$16,326.00	1.1%	$35.00	$31,745.00	59%	$11,791.00	0.8%	$40.00	$36,280.00	82%	$16,326.00
11.7%	$300.00	$391,200.00	215.8%	$267,320.00	6.7%	$116.00	$151,264.00	22.1%	$27,384.00	#REF!	$150.00	$195,600.00	57.9%	$71,720.00	5.8%	$180.00	$234,720.00	89%	$110,840.00	6.0%	$55.00	$71,720.00	-42%	-$52,160.00
3.8%	$415,000.00	$415,000.00	315.0%	$315,000.00	7.1%	$232,500.00	$232,500.00	132.5%	$132,500.00	#REF!	$200,000.00	$200,000.00	100.0%	$100,000.00	5.9%	$219,000.00	$219,000.00	119%	$119,000.00	5.6%	$1,133,000.00	$1,133,000.00	1033%	$1,033,000.00
1.2%	$290.00	$66,700.00	152.2%	$40,250.00	1.1%	$158.00	$36,340.00	37.4%	$9,890.00	#REF!	$185.00	$42,550.00	60.9%	$16,100.00	1.3%	$300.00	$69,000.00	161%	$42,550.00	1.8%	$400.00	$92,000.00	248%	$65,550.00
1.8%	$290.00	$81,200.00	132.0%	$46,200.00	1.4%	$160.00	$44,800.00	28.0%	$9,800.00	#REF!	$185.00	$51,800.00	48.0%	$16,800.00	1.5%	$300.00	$84,000.00	140%	$49,000.00	2.2%	$400.00	$112,000.00	220%	$77,000.00
1.6%	$700.00	$49,000.00	7.7%	$3,500.00	0.8%	$695.00	$48,650.00	6.9%	$3,150.00	#REF!	$950.00	$66,500.00	46.2%	$21,000.00	2.0%	$2,500.00	$175,000.00	285%	$129,500.00	4.5%	$650.00	$45,500.00	0%	$0.00
2.7%	$4.00	$27,768.00	60.0%	$10,413.00	0.5%	$3.00	$20,826.00	20.0%	$3,471.00	#REF!	$4.00	$27,768.00	60.0%	$10,413.00	0.8%	$4.00	$27,768.00	60%	$10,413.00	0.7%	$4.00	$27,768.00	60%	$10,413.00
0.3%	$0.30	$39,993.00	-70.0%	-$93,317.00	0.7%	$0.40	$53,324.00	-60.0%	-$79,986.00	#REF!	$0.01	$1,333.10	-99.0%	-$131,976.90	0.0%	$0.50	$66,655.00	-50%	-$66,655.00	1.7%	$0.10	$13,331.00	-90%	-$119,979.00
0.1%	$40.00	$3,200.00	60.0%	$1,200.00	0.1%	$45.00	$3,600.00	80.0%	$1,600.00	#REF!	$25.00	$2,000.00	0.0%	$0.00	0.1%	$75.00	$6,000.00	200%	$4,000.00	0.2%	$40.00	$3,200.00	60%	$1,200.00
1.2%	$500.00	$57,500.00	138.1%	$33,350.00	1.0%	$45.00	$5,175.00	-78.6%	-$18,975.00	#REF!	$550.00	$63,250.00	161.9%	$39,100.00	1.9%	$800.00	$92,000.00	281%	$67,850.00	2.4%	$470.00	$54,050.00	124%	$29,900.00
0.5%	$275.00	$14,850.00	83.3%	$6,750.00	0.3%	$280.00	$15,120.00	86.7%	$7,020.00	#REF!	$300.00	$16,200.00	100.0%	$8,100.00	0.5%	$550.00	$29,700.00	267%	$21,600.00	0.8%	$255.00	$13,770.00	70%	$5,670.00
0.0%	$300.00	$4,500.00	252.9%	$3,225.00	0.1%	$85.00	$1,275.00	0.0%	$0.00	#REF!	$375.00	$5,625.00	341.2%	$4,350.00	0.2%	$325.00	$4,875.00	282%	$3,600.00	0.1%	$70.00	$1,050.00	-18%	-$225.00
0.1%	$75.00	$1,125.00	-6.3%	-$75.00	0.0%	$288.00	$4,320.00	260.0%	$3,120.00	#REF!	$265.00	$3,975.00	231.3%	$2,775.00	0.1%	$155.00	$2,325.00	94%	$1,125.00	0.1%	$265.00	$3,975.00	231%	$2,775.00
0.3%	$500.00	$2,000.00	0.0%	$0.00	0.0%	$1,100.00	$4,400.00	120.0%	$2,400.00	#REF!	$1,100.00	$4,400.00	120.0%	$2,400.00	0.1%	$2,400.00	$9,600.00	380%	$7,600.00	0.2%	$1,200.00	$4,800.00	140%	$2,800.00
0.1%	$800.00	$1,600.00	-11.1%	-$200.00	0.0%	$1,508.00	$3,016.00	67.6%	$1,216.00	#REF!	$500.00	$1,000.00	-44.4%	-$800.00	0.0%	$3,300.00	$6,600.00	267%	$4,800.00	0.2%	$2,035.00	$4,070.00	126%	$2,270.00
0.1%	$100.00	$3,700.00	185.7%	$2,405.00	0.1%	$100.00	$3,700.00	185.7%	$2,405.00	#REF!	$95.00	$3,515.00	171.4%	$2,220.00	0.1%	$145.00	$5,365.00	314%	$4,070.00	0.1%	$91.00	$3,367.00	160%	$2,072.00
0.1%	$1,200.00	$2,400.00	140.0%	$1,400.00	0.0%	$1,230.00	$2,460.00	146.0%	$1,460.00	#REF!	$1,200.00	$2,400.00	140.0%	$1,400.00	0.1%	$1,300.00	$2,600.00	160%	$1,600.00	0.1%	$1,115.00	$2,230.00	123%	$1,230.00
0.1%	$50.00	$1,200.00	11.1%	$120.00	0.0%	$55.00	$1,320.00	22.2%	$240.00	#REF!	$65.00	$1,560.00	44.4%	$480.00	0.0%	$27.00	$648.00	-40%	-$432.00	0.0%	$50.00	$1,200.00	11%	$120.00
0.2%	$25.00	$3,000.00	212.5%	$2,040.00	0.1%	$18.00	$2,160.00	125.0%	$1,200.00	#REF!	$10.00	$1,200.00	25.0%	$240.00	0.0%	$24.00	$2,880.00	200%	$1,920.00	0.1%	$32.00	$3,840.00	300%	$2,880.00
0.1%	$2,000.00	$4,000.00	-71.4%	-$10,000.00	0.1%	$1,925.00	$3,850.00	-72.5%	-$10,150.00	#REF!	$1.00	$2.00	-100.0%	-$13,998.00	0.0%	$360.00	$720.00	-95%	-$13,280.00	0.0%	$2,725.00	$5,450.00	-61%	-$8,550.00
0.2%	$2,000.00	$2,000.00	-71.4%	-$5,000.00	0.0%	$3,675.00	$3,675.00	-47.5%	-$3,325.00	#REF!	$11,500.00	$11,500.00	64.3%	$4,500.00	0.3%	$28,000.00	$28,000.00	300%	$21,000.00	0.7%	$5,700.00	$5,700.00	-19%	-$1,300.00
0.0%	$2,000.00	$2,000.00	-71.4%	-$5,000.00	0.0%	$3,675.00	$3,675.00	-47.5%	-$3,325.00	#REF!	$1.00	$1.00	-100.0%	-$6,999.00	0.0%	$500.00	$500.00	-93%	-$6,500.00	0.0%	$5,700.00	$5,700.00	-19%	-$1,300.00
0.0%	$100.00	$2,800.00	-60.0%	-$4,200.00	0.0%	$126.00	$3,528.00	-49.6%	-$3,472.00	#REF!	$85.00	$2,380.00	-66.0%	-$4,620.00	0.1%	$500.00	$14,000.00	100%	$7,000.00	0.4%	$70.00	$1,960.00	-72%	-$5,040.00
0.0%	$100.00	$1,300.00	-60.0%	-$1,950.00	0.0%	$126.00	$1,638.00	-49.6%	-$1,612.00	#REF!	$125.00	$1,625.00	-50.0%	-$1,625.00	0.0%	$50.00	$650.00	-80%	-$2,600.00	0.0%	$95.00	$1,235.00	-62%	-$2,015.00
0.0%	$1,000.00	$4,000.00	150.0%	$2,400.00	0.1%	$550.00	$2,200.00	37.5%	$600.00	#REF!	$300.00	$1,200.00	-25.0%	-$400.00	0.0%	$350.00	$1,400.00	-13%	-$200.00	0.0%	$470.00	$1,880.00	18%	$280.00
0.3%	$140.00	$17,780.00	86.7%	$8,255.00	0.3%	$60.00	$7,620.00	-20.0%	-$1,905.00	#REF!	$60.00	$7,620.00	-20.0%	-$1,905.00	0.2%	$75.00	$9,525.00	0%	$0.00	0.2%	$80.00	$10,160.00	7%	$635.00
0.0%	$1,500.00	$1,500.00	50.0%	$500.00	0.0%	$880.00	$880.00	-12.0%	-$120.00	#REF!	$750.00	$750.00	-25.0%	-$250.00	0.0%	$3,500.00	$3,500.00	250%	$2,500.00	0.1%	$3,000.00	$3,000.00	200%	$2,000.00
0.1%	$2,500.00	$5,000.00	108.3%	$2,600.00	0.1%	$1,650.00	$3,300.00	37.5%	$900.00	#REF!	$1,600.00	$3,200.00	33.3%	$800.00	0.1%	$3,500.00	$7,000.00	192%	$4,600.00	0.2%	$3,000.00	$6,000.00	150%	$3,600.00
5.1%	$370,168.50	$370,168.50	516.9%	$310,168.50	6.3%	$148,000.00	$148,000.00	146.7%	$88,000.00	#REF!	$646,559.34	$646,559.34	977.6%	$586,559.34	19.2%	$395,000.00	$395,000.00	558%	$335,000.00	10.1%	$750,000.00	$750,000.00	1150%	$690,000.00
0.1%	$3.00	$6,075.00	361.5%	$4,758.75	0.1%	$2.00	$4,050.00	207.7%	$2,733.75	#REF!	$2.00	$4,050.00	207.7%	$2,733.75	0.1%	$3.00	$6,075.00	362%	$4,758.75	0.2%	$2.00	$4,050.00	208%	$2,733.75
0.1%	$3.00	$5,022.00	500.0%	$4,185.00	0.1%	$2.00	$3,348.00	300.0%	$2,511.00	#REF!	$2.00	$3,348.00	300.0%	$2,511.00	0.1%	$3.00	$5,022.00	500%	$4,185.00	0.1%	$1.75	$2,929.50	250%	$2,092.50
0.4%	$75.00	$18,750.00	114.3%	$10,000.00	0.3%	$132.00	$33,000.00	277.1%	$24,250.00	#REF!	$35.00	$8,750.00	0.0%	$0.00	0.3%	$60.00	$15,000.00	71%	$6,250.00	0.4%	$105.00	$26,250.00	200%	$17,500.00
0.0%	$10.00	$2,500.00	0.0%	$0.00	0.0%	$5.00	$1,250.00	-50.0%	-$1,250.00	#REF!	$1.00	$250.00	-90.0%	-$2,250.00	0.0%	$80.00	$20,000.00	700%	$17,500.00	0.5%	$95.00	$23,750.00	850%	$21,250.00
0.2%	$150.00	$4,950.00	36.4%	$1,320.00	0.1%	$260.00	$8,580.00	136.4%	$4,950.00	#REF!	$200.00	$6,600.00	81.8%	$2,970.00	0.2%	$125.00	$4,125.00	14%	$495.00	0.1%	$315.00	$10,395.00	186%	$6,765.00
0.1%	$150.00	$1,650.00	76.5%	$715.00	0.0%	$160.00	$1,760.00	88.2%	$825.00	#REF!	$175.00	$1,925.00	105.9%	$990.00	0.1%	$600.00	$6,600.00	606%	$5,665.00	0.2%	$110.00	$1,210.00	29%	$275.00
0.1%	$150.00	$4,650.00	100.0%	$2,325.00	0.1%	$160.00	$4,960.00	113.3%	$2,635.00	#REF!	$200.00	$6,200.00	166.7%	$3,875.00	0.2%	$100.00	$3,100.00	33%	$775.00	0.1%	$95.00	$2,945.00	27%	$620.00
1.8%	$30,000.00	$30,000.00	130.8%	$17,000.00	0.5%	$68,200.00	$68,200.00	424.6%	$55,200.00	#REF!	$55,000.00	$55,000.00	323.1%	$42,000.00	1.6%	$40,000.00	$40,000.00	208%	$27,000.00	1.0%	$400,000.00	$400,000.00	2977%	$387,000.00
0.1%	$5,000.00	$5,000.00	-50.0%	-$5,000.00	0.1%	$2,575.00	$2,575.00	-74.3%	-$7,425.00	#REF!	$1,500.00	$1,500.00	-85.0%	-$8,500.00	0.0%	$40,000.00	$40,000.00	300%	$30,000.00	1.0%	$100,000.00	$100,000.00	900%	$90,000.00
0.5%	$17,000.00	$17,000.00	-5.6%	-$1,000.00	0.3%	$16,000.00	$16,000.00	-11.1%	-$2,000.00	#REF!	$60,000.00	$60,000.00	233.3%	$42,000.00	1.8%	$55,000.00	$55,000.00	206%	$37,000.00	1.4%	$50,000.00	$50,000.00	178%	$32,000.00
0.0%	$3.00	$1,350.00	200.0%	$900.00	0.0%	$2.00	$900.00	100.0%	$450.00	#REF!	$2.00	$900.00	100.0%	$450.00	0.0%	$3.00	$1,350.00	200%	$900.00	0.0%	$2.00	$900.00	100%	$450.00
1.4%	$5,500.00	$44,000.00	205.6%	$29,600.00	0.8%	$3,300.00	$26,400.00	83.3%	$12,000.00	#REF!	$3,500.00	$28,000.00	94.4%	$13,600.00	0.8%	$3,000.00	$24,000.00	67%	$9,600.00	0.6%	$6,225.00	$49,800.00	246%	$35,400.00
0.1%	$1.00	$2,500.00	0.0%	$0.00	0.0%	$1.00	$2,500.00	0.0%	$0.00	#REF!	$1.00	$2,500.00	0.0%	$0.00	0.1%	$1.00	$2,500.00	0%	$0.00	0.1%	$1.00	$2,500.00	0%	$0.00
0.0%	$70.00	$1,050.00	100.0%	$525.00	0.0%	$77.00	$1,155.00	120.0%	$630.00	#REF!	$80.00	$1,200.00	128.6%	$675.00	0.0%	$90.00	$1,350.00	157%	$825.00	0.0%	$70.00	$1,050.00	100%	$525.00
0.1%	$70.00	$1,312.50	75.0%	$562.50	0.0%	$70.00	$1,312.50	75.0%	$562.50	#REF!	$70.00	$1,312.50	75.0%	$562.50	0.0%	$100.00	$1,875.00	150%	$1,125.00	0.0%	$63.00	$1,181.25	58%	$431.25
0.1%	$400.00	$2,400.00	128.6%	$1,350.00	0.0%	$407.00	$2,442.00	132.6%	$1,392.00	#REF!	$400.00	$2,400.00	128.6%	$1,350.00	0.1%	$500.00	$3,000.00	186%	$1,950.00	0.1%	$370.00	$2,220.00	111%	$1,170.00
0.0%	$2,000.00	$2,000.00	66.7%	$800.00	0.0%	$1,375.00	$1,375.00	14.6%	$175.00	#REF!	$1,400.00	$1,400.00	16.7%	$200.00	0.0%	$2,200.00	$2,200.00	83%	$1,000.00	0.1%	$2,600.00	$2,600.00	117%	$1,400.00
0.1%	$2,000.00	$2,000.00	81.8%	$900.00	0.0%	$1,158.00	$1,158.00	5.3%	$58.00	#REF!	$1,650.00	$1,650.00	50.0%	$550.00	0.0%	$1,300.00	$1,300.00	18%	$200.00	0.0%	$2,800.00	$2,800.00	155%	$1,700.00
0.1%	$2,000.00	$2,000.00	81.8%	$900.00	0.0%	$1,230.00	$1,230.00	11.8%	$130.00	#REF!	$2,250.00	$2,250.00	104.5%	$1,150.00	0.1%	$1,900.00	$1,900.00	73%	$800.00	0.0%	$3,220.00	$3,220.00	193%	$2,120.00
0.1%	$800.00	$800.00	-20.0%	-$200.00	0.0%	$1,315.00	$1,315.00	31.5%	$315.00	#REF!	$1,000.00	$1,000.00	0.0%	$0.00	0.0%	$450.00	$450.00	-55%	-$550.00	0.0%	$3,220.00	$3,220.00	222%	$2,220.00
0.1%	$500.00	$4,000.00	11.1%	$400.00	0.1%	$110.00	$880.00	-75.6%	-$2,720.00	#REF!	$250.00	$2,000.00	-44.4%	-$1,600.00	0.1%	$450.00	$3,600.00	0%	$0.00	0.1%	$190.00	$1,520.00	-58%	-$2,080.00
0.0%	$500.00	$1,000.00	11.1%	$100.00	0.0%	$110.00	$220.00	-75.6%	-$680.00	#REF!	$250.00	$500.00	-44.4%	-$400.00	0.0%	$1,400.00	$2,800.00	211%	$1,900.00	0.1%	$190.00	$380.00	-58%	-$520.00
0.1%	$1,500.00	$3,000.00	-25.0%	-$1,000.00	0.1%	$1,915.00	$3,830.00	-4.3%	-$170.00	#REF!	$4,000.00	$8,000.00	100.0%	$4,000.00	0.2%	$1,350.00	$2,700.00	-33%	-$1,300.00	0.1%	$3,500.00	$7,000.00	75%	$3,000.00
0.0%	$3,000.00	$3,000.00	100.0%	$1,500.00	0.1%	$2,750.00	$2,750.00	83.3%	$1,250.00	#REF!	$4,000.00	$4,000.00	166.7%	$2,500.00	0.1%	$4,000.00	$4,000.00	167%	$2,500.00	0.1%	$3,500.00	$3,500.00	133%	$2,000.00
0.1%	$5,000.00	$10,000.00	233.3%	$7,000.00	0.2%	$2,805.00	$5,610.00	87.0%	$2,610.00	#REF!	$6,000.00	$12,000.00	300.0%	$9,000.00	0.4%	$9,000.00	$18,000.00	500%	$15,000.00	0.5%	$5,000.00	$10,000.00	233%	$7,000.00
0.1%	$11,000.00	$22,000.00	46.7%	$7,000.00	0.4%	$13,400.00	$26,800.00	78.7%	$11,800.00	#REF!	$13,000.00	$26,000.00	73.3%	$11,000.00	0.8%	$700.00	$1,400.00	-91%	-$13,600.00	0.0%	$11,000.00	$22,000.00	47%	$7,000.00
0.1%	$1,500.00	$3,000.00	76.5%	$1,300.00	0.1%	$800.00	$1,600.00	-5.9%	-$100.00	#REF!	$1,200.00	$2,400.00	41.2%	$700.00	0.1%	$700.00	$1,400.00	-18%	-$300.00	0.0%	$1,000.00	$2,000.00	18%	$300.00
0.0%	$3.00	$3,570.00	200.0%	$2,380.00	0.1%	$2.00	$2,380.00	100.0%	$1,190.00	#REF!	$1.85	$2,201.50	85.0%	$1,011.50	0.1%	$3.00	$3,570.00	200%	$2,380.00	0.1%	$2.00	$2,380.00	100%	$1,190.00
0.0%	$3.00	$3,579.00	200.0%	$2,386.00	0.1%	$2.00	$2,386.00	100.0%	$1,193.00	#REF!	$1.50	$1,789.50	50.0%	$596.50	0.1%	$2.00	$2,386.00	100%	$1,193.00	0.1%	$1.00	$1,193.00	0%	$0.00
3.3%	$1.00	$127,000.00	0.0%	$0.00	2.2%	$1.00	$127,000.00	0.0%	$0.00	#REF!	$1.00	$127,000.00	0.0%	$0.00	3.8%	$1.00	$127,000.00	0%	$0.00	3.3%	$1.00	$127,000.00	0%	$0.00
0.0%	$1.00	$600.00	0.0%	$0.00	0.0%	$1.00	$600.00	0.0%	$0.00	#REF!	$1.00	$600.00	0.0%	$0.00	0.0%	$1.00	$600.00	0%	$0.00	0.0%	$1.00	$600.00	0%	$0.00
0.0%	$1.00	$250.00	0.0%	$0.00	0.0%	$1.00	$250.00	0.0%	$0.00	#REF!	$1.00	$250.00	0.0%	$0.00	0.0%	$1.00	$250.00	0%	$0.00	0.0%	$1.00	$250.00	0%	$0.00
0.0%	$1.00	$100.00	0.0%	$0.00	0.0%	$1.00	$100.00	0.0%	$0.00	#REF!	$1.00	$100.00	0.0%	$0.00	0.0%	$1.00	$100.00	0%	$0.00	0.0%	$1.00	$100.00	0%	$0.00
3.6%	$150,000.00	$150,000.00	105.5%	$77,000.00	2.6%	$127,950.00	$127,950.00	75.3%	$54,950.00	#REF!	$160,000.00	$160,000.00	119.2%	$87,000.00	4.8%	$185,000.00	$185,000.00	153%	$112,000.00	4.7%	$224,000.00	$224,000.00	207%	$151,000.00
	BASE BID TOTAL	$3,874,000.00				BASE BID TOTAL	$3,904,485.50				BASE BID TOTAL	$4,199,419.94				BASE BID TOTAL	$4,924,333.00				BASE BID TOTAL	$5,840,455.75		

CITY OF RYE

RESOLUTION AWARDING CONTRACT 2024-03 PIN 8701.43 - REPLACEMENT OF THE THEODORE FREMD AVENUE RETAINING WALL – TO ELQ INDUSTRIES, INC.

WHEREAS, a Project for the Replacement of the Theodore Fremd Avenue Retaining Wall along the Blind Brook (the "Project") was put out to bid; and

WHEREAS, City's engineering consultant, WSP, has reviewed and tabulated the bids received on October 3rd, 2024 for the above referenced project; and

WHEREAS, ELQ Industries, Inc. provided the lowest bid in the amount of $3,212,873.60; and

WHEREAS, including $600,000.00 for Construction Inspection & Support Services, the total project cost is estimated to be $3,812,873.60; and

WHEREAS, the City Engineer has recommended that the bid be awarded to the lowest bidder, ELQ Industries, Inc. subject to review and approval of the Bid Award Package by the NYSDOT; and

NOW, THEREFORE, the Rye City Council, duly convened does hereby

RESOLVE, that the Rye City Council hereby awards Contract 2024-03 PIN 8701.43 – Replacement of the Theodore Fremd Avenue Retaining Wall Along the Blind Brook to ELQ Industries, Inc. in the amount of Three Million Two Hundred Twelve Thousand Eight Hundred Seventy Three Dollars and Sixty Cents ($3,212,873.60)

BE IT FURTHER RESOLVED, that the City anticipates that it will be reimbursed for these costs partially by NYSDOT and the remaining costs can be covered through bond proceeds, capex reserve funds, or other sources of revenue such as State Touring Route funding and other state aid sources.

RESOLVED, this Resolution shall take effect immediately.

Motion made by:

Seconded by:

Vote:

Dated: Rye, New York

_____ __, 2024

CITY COUNCIL AGENDA

DEPT.: City Planner

CONTACT: Christian Miller, City Planner

AGENDA ITEM: Presentation to the City Council on the comprehensive plan process.

FOR THE MEETING OF:

October 23, 2024

RECOMMENDATION: That the Council hear the presentation.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND:

The City Planner will present an overview of the comprehensive planning process and procedural options for the City Council's consideration to advance the preparation of a comprehensive plan for the City.

CITY COUNCIL AGENDA

DEPT.: City Manager
CONTACT: Greg Usry, City Manager

AGENDA ITEM: Statement by the Rye City Council on gun safety in cooperation with the Rye School District.

FOR THE MEETING OF:

October 23, 2024

RECOMMENDATION: That the Council consider the joint statement.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND: See attached statement.

Joint Statement by
The Rye City School District Board of Education and The Rye City Council

All students and members of our communities deserve to feel safe, welcomed, and included. It is on all of us to work together to prevent firearm violence and to avoid the harm and tragedy that shootings of any kind can cause in the spaces in which we live, learn, work, and play.

Safe firearm storage is one of many preventative actions that you can take in keeping our school community and school buildings and grounds safe. When firearms are stored safely, it can help prevent them from getting into the hands of children and teens, who may use them to, intentionally or unintentionally, harm themselves or others. Safe storage can go a long way in preventing lives from being lost or permanently altered. If you have firearms in your home or if your child spends time in a space where firearms are present, there are important steps that can be taken to keep firearms secured and out of reach of unintended users. It is important to note that **secure storage**[1] is the law in New York. New York Penal Law § 265.45; New York Gen. Bus. Law § 396-ee; N.Y. Comp. Codes R. & Regs. tit. 9, § 471.1 et seq.

Firearm-Related Injuries and Deaths: A Problem We Must Solve Together Firearm-related injuries and deaths are a public health crisis that communities across the nation face every day:

- Since 2018, there have been more than 100 school shooting incidents per year in our country and those numbers have steadily increased.[2]
- Approximately three-quarters of perpetrators in school-based active shooter situations acquired their firearm from the home of a parent or close relative.[3] This illustrates the close connection between your role as families, caregivers, and guardians and the role of the Rye City School District in keeping students safe while on school grounds.
- However, this issue goes beyond school-based active shooter situations and includes a variety of firearm injury types, including interpersonal violence, suicide, and unintentional fatal and nonfatal firearm injuries.[4]
- More than 4 million children live in a household with at least one unlocked and loaded firearm.[5] Studies have found that households with both locked firearms and locked ammunition have significantly lower risks of self-inflicted firearm injuries and even lower risks of unintentional firearm injuries among children and teens compared to households that did not safely store firearms.[6]

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[1] *See also* https://gunsafety.ny.gov/safe-storage-and-gun-safety; New York Gen. Bus. Law § 396-ee; N.Y. Comp. Codes R. & Regs. tit. 9, § 471.1 et seq.
[2] Riedman, D. (2023). K-12 School Shooting Database. https://k12ssdb.org/all-shootings
[3] National Threat Assessment Center. (2019). *Protecting America's Schools: A U.S. Secret Service Analysis of Targeted School Violence*. U.S. Secret Service, Department of Homeland Security. http://bit.ly/3SfmSgw
[4] National Center for Injury Prevention and Control, Division of Violence Prevention. (September 19, 2023). Fast Facts: Firearm Violence and Injury Prevention. Centers for Disease Control and Prevention. https://www.cdc.gov/violenceprevention/firearms/fastfact.html
[5] Miller, M., & Azrael, D. (2022). Firearm Storage in U.S. Households With Children: Findings From the 2021 National Firearm Survey, *JAMA Network Open, 5*(2): e2148823.
[6] Grossman, D.C., Mueller, B.A., Riedy, C., Dowd, M.D., Villaveces, A., Prodzinski, J., Nakagawara, J., Howard, J., Thiersch, N., & Harruff, R. (2005). *Gun Storage Practices and Risk of Youth Suicide and Unintentional Firearm Injuries*. https://jamanetwork.com/journals/jama/fullarticle/200330.

Safe Firearm Storage: Actions to Take to Keep Our Communities Safe
Safe firearm storage can help prevent and minimize the risk of firearm-related deaths and injuries. Everyone, both firearm owners and non-owners, has a role to play in building awareness of safe, responsible firearm storage. Below are simple, highly effective practices that can help to reduce firearm-related incidents in our community and help protect our kids. In addition to these practices, it is important to also engage children and adolescents in conversations about the dangers associated with using firearms and what to do and not do in the event they access a firearm, to prevent fatal or non-fatal injuries.

- **Safely Store Firearms:** Store firearms—always unloaded—in a tamper proof locked cabinet, box, safe, firearm vault, or storage case that children or other unauthorized adults cannot access. The Rye City Police Department will provide you with a gun lock if you need one. They are available for pickup at the police station Monday through Friday between 8:00 a.m. and 4:00 p.m. or by calling 914-967-1234 to arrange a time.
- **Safely Store Ammunition:** Store ammunition in a separate, tamper-proof locked cabinet, safe, firearm vault, or storage case that children or other unauthorized adults cannot access.
- **Secure Firearms:** Use trigger locks or cable locks to prevent a firearm from firing. (More information can be found on the **Safe Firearm Storage Fact Sheet**, developed by the U.S. Department of Justice.)
    - Trigger locks use a mechanism that clamps down around the trigger or trigger housing to prevent it from being pressed (*Note: trigger locks should not be installed on loaded firearms*).
    - In a cable lock, a cable is threaded through the barrel or action of a firearm to prevent it from firing.

The Rye City School District and the City of Rye remain committed to helping ensure the safety of our students and community. We can all work together to promote awareness about how we can protect our children and our whole school communities by safely storing firearms and prevent tragedies from ever occurring. Thank you for being a partner in these efforts, and for helping reduce firearm-related injury and deaths in our community.[7]

[7] Portions of and information contained in this letter were derived from *Be Smart for Kids* (**https://besmartforkids.org/**), the US Department of Education and their consultants.

CITY COUNCIL AGENDA

DEPT.: City Manager

CONTACT: Greg Usry, City Manager

AGENDA ITEM: Resolution designating the days and times of regular meetings of the City Council for 2025 setting January 8, 2025, as the first regular meeting.

FOR THE MEETING OF:

October 23, 2024

RECOMMENDATION: That the Council approve the resolution.

RESOLVED the City Council approved the attached City Council meeting schedule for 2025 with the first regular meeting scheduled for January 8, 2025.

IMPACT: ☐ Environmental ☐ Fiscal ☐ Neighborhood ☒ Other:

BACKGROUND: The Rye City Charter stipulates that the City Council meet within the first two weeks of January in each year and shall hold stated meetings at least twice a month, except for the months of June through September when only one stated meeting per month need be held.

See attached calendar

CITY COUNCIL SCHEDULE 2025

COUNCIL MEETING DATES

BUDGET WORKSHOPS

JOINT CITY/SCHOOL BOARD MEETING

COUNCIL INAUGURATION

CITY HOLIDAY

SCHOOL BREAK

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH

S	M	T	W	T	F	S
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

*The Joint City Council/School Board meeting date is tentative and may be rescheduled.