



Victoria F. Sheehan
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.
Assistant Commissioner

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Right-of-Way
June 7, 2021

REQUESTED ACTION

Pursuant to RSA 4:39-c and 228:31, authorize the New Hampshire Department of Transportation (Department) to sell 5.6 ± acres of State-owned land located on the westerly side of Stickney Avenue in the City of Concord, also known as the former State Highway Garage. The sale would be to Brady Sullivan Properties, LLC (the "Grantee") for \$1,000,000.00, effective upon Governor and Executive Council Approval.

The Department further requests authorization to compensate NAI Norwood Group from the proceeds of the subject sale in the amount of \$50,000 (5% of the sale price) for real estate services, effective upon Governor and Executive Council approval.

The Department's Bureau of Finance and Contracts determined that the combined property parcels were purchased between 1925 and 1935 with 100% Highway Funds.

04-096-096-960015-0000-UUU-409279
Sale of Parcel
(95% of \$1,000,000.00)

FY 2021
\$950,000.00

EXPLANATION

This conveyance concerns a subject parcel of 5.6 ± acres of land, which is a portion of a larger combined parcel consisting of 7.1 ± acres. Upon determination that the subject parcel was surplus to the Department's needs, the parcel was listed by a qualified real estate professional, and the Department received an offer for purchase from the Grantee.

By way of further background, on June 22, 2020 (LRCP 20-20-33), and later amended (LRCP 20-046) on October 7, 2020, the Long Range Capital Planning and Utilization Committee approved the Department's request to dispose of the 5.6 ± acres of State owned land, with improvements, by entering into a listing agreement with NAI Norwood Group for a term of ninety days to list the property at \$709,500.00 with a 5% real estate commission from the sale, and accepting offers within 10% of the appraised value of \$645,000.00, subject to the conditions as specified in the request dated June 5, 2020.

The subject parcel, the former State Highway Department Complex, is improved with five buildings which were constructed in 1926 and *circa* 1950, for the maintenance and storage of state vehicles and equipment. The buildings occupy a level piece of land west of Stickney Avenue and to the east of the Boston & Maine Railroad tracks. Bridge Street marks the southern boundary of the property, and the Concord Coach Lines bus company overflow parking lot marks the northern boundary.

The subject parcel will be conveyed with the following conditions:

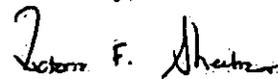
- The Stickney Avenue Highway Garage is eligible for listing on the National Register of Historic Places. Historic Covenants will be placed on the large building that is located on the property. The draft Restrictions and Character Defining Features Report are enclosed.
- The Grantee is required, at their expense, to hire a licensed land surveyor to subdivide and survey this parcel from the larger State owned parcel. This survey will be used to prepare the final deed description.
- Included within the bounds of the subject parcel is the underlying fee of the former Stickney Avenue. The State will discontinue this portion of the former Stickney Avenue.
- Subsurface: The site is currently listed as New Hampshire Department of Environmental Services (NHDES) Site No. 199004021, LUST Project No. 1921 and HazWaste Project No. 6249. Historical site documents can be found on NHDES' One Stop database. The site is currently managed under New Hampshire Department of Environmental Services Groundwater Management Permit No. GWP-199004021-C-004. As a condition of the sale, an Application for Transfer of Groundwater Management or Release Detection Permit form shall be completed by the Grantee and submitted to New Hampshire Department of Environmental Services - Waste Management Division.
- Above ground: A partial exploratory asbestos-containing material/other hazardous material survey was conducted in February 2019. All State and Federal regulations pertaining to these identified materials shall be followed.
- Documentation will be signed as part of the sale in which the Grantee will become responsible for all environmental liability for this property after the sale is complete.
- The Buyer shall submit a deposit in the amount of \$100,000.00 upon execution of a Purchase and Sale Agreement. The deposit shall be applicable to the purchase price and shall become nonrefundable upon expiration/satisfaction of the thirty-day due diligence period as described in Section 1.17.2 of the Agreement.
- The Buyer shall have the right to conduct such studies and investigations as it deems necessary with respect to the environmental condition of the property and any environmental contamination or hazardous material related thereto. Said studies and investigations shall be completed within thirty days of the execution of the Purchase and Sale Agreement.

- The Buyer shall acquire the property for the sum of \$1,000,000.00 at closing with no finance contingencies.
- Closing shall occur within ninety (90) days after final approval of the sale by the Governor and Executive Council, unless otherwise mutually agreed by the Parties.

In accordance with RSA 4:39-c, the City of Concord was notified of the intended sale on June 30, 2020, and was given the opportunity to purchase the parcel at the initial value that was determined by the appraisal. The City of Concord declined to purchase at that time and asked to reserve their right of refusal should a bona fide offer be received by the Department. The City of Concord was again contacted, on October 21, 2020 when the Department received an offer from the Grantee. The City of Concord again expressed interest in the subject parcel and authorized the City Manager to negotiate a purchase and sales agreement. However, after several months of negotiation it has become apparent that the City was unable to match the favorable terms of the Grantee's offer in terms of time and conditions.

The Department respectfully requests authorization to sell the subject parcel to the Grantee.

Sincerely,



Victoria F. Sheehan
Commissioner, NHDOT

VFS/SGL/lmw
Attachments:

PURCHASE AND SALES AGREEMENT

This PURCHASE AND SALES AGREEMENT ("Agreement") is made as of the 7 day of June, 2021 by and between the State of New Hampshire, Department of Transportation having a principal place of business at 7 Hazen Drive, Concord, New Hampshire 03301 (referred to as the "Department" or the "Seller") and Brady Sullivan Properties, LLC, or its nominee at closing (under common control), with a principal place of business at 670 N. Commercial Street, Manchester, New Hampshire 03101 (referred to as "Brady Sullivan" or the "Buyer") (referred to individually as a "Party" and collectively as the "Parties").

RECITALS

This Agreement relates to the sale of real estate located at 11 Stickney Avenue, Concord, New Hampshire (the "Property"), more particularly described as:

- Buyer Tax Map-Block-Lot 46/A2/1
- Merrimack County Registry of Deeds Book 540, Page 341 dated October 7, 1935;
- Merrimack County Registry of Deeds Book 479, Page 646 dated March 31, 1935;
- Merrimack County Registry of Deeds Book 479 Page 315 dated December 4, 1925,

This Agreement is entered into upon the basis of the following facts and intentions of the Parties:

- I. The Seller owns certain real estate located at 11 Stickney Avenue, Concord, New Hampshire, consisting of 7.1 ± acres of land (combined), improved with 5 buildings consisting of office space, maintenance garages, storage and shed buildings, as further described herein;
- II. The Seller is divesting of a portion the Property totaling approximately 5.57 ± acres, as it has been determined that this parcel is surplus to the Seller's needs.
- III. The Buyer is afforded the ability to acquire the Property in accordance with RSA 4:39-c.
- IV. The Buyer, subject to the contingencies set forth within this Agreement, desires to acquire the Property from the Seller for the purposes of future redevelopment.
- V. This Agreement is a binding contract which shall become effective upon approval of the Governor and Executive Council, pursuant to RSA 4:39-c.
- VI. All Parties signatory to this Agreement are willing to proceed upon the terms and conditions of this Agreement.

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NOW, THEREFORE, the Parties hereby agree as follows:

1. DESCRIPTION OF PROPERTY AND REAL ESTATE TRANSACTION:

- 1.1. **General:** Pending the results of the Buyer's due diligence and the other conditions in this Agreement, the Seller intends to sell to the Buyer, and the Buyer intends to acquire from the Seller, the Property, consisting of three lots of record totaling approximately 5.57 +/- acres of land, featuring 5 buildings, as shown on the Aerial Plan of Stickney Avenue and Existing Buildings, titled ***Exhibit 1***.
- 1.2. **Purchase Price:** The Buyer shall acquire the Property for the sum of **ONE MILLION DOLLARS (\$1,000,000)** at Closing.
- 1.3. **Deposit:** The Buyer shall submit a deposit in the amount of One Hundred Thousand Dollars (\$100,000) upon execution of this Agreement. The deposit shall be applicable to the purchase price and shall become nonrefundable upon expiration/satisfaction of the thirty (30) day due diligence period, as described in Section 1.17.2.
- 1.4. **Payment of Purchase Price:** The Purchase Price shall be paid in full by the Buyer by certified check, bank check, or Federal wire transfer to the Seller at Closing and conveyance of the Property to the Buyer.
- 1.5. **Conditions of sale:** The subject property at 11 Stickney Avenue is being sold "as is where is" with the sale conditions approved by the Long Range Capitol Planning and Utilization Committee, LRCP 20-033 on June 22, 2020, and as amended, LRCP 20-046 on October 7, 2020. The following sale conditions must be satisfied prior to closing:
 - 1.5.1 The Stickney Avenue Highway Garage is eligible for listing on the National Register of Historic Places. Historic Covenants will be placed on the large brick building ("H" shaped building) that is located on the property. Instruments detailing the Historic Covenants will be recorded in the Merrimack County Registry of Deeds at the time the Property is conveyed. The Character Defining Features Report and draft Declaration of Historic Preservation Easement are attached to this agreement as ***Exhibit 5 and Exhibit 6***.
 - 1.5.2 The Buyer is required, at their sole expense, to hire a licensed land surveyor to complete a recordable plan that depicts the Property within thirty (30) of signing this agreement. To the extent subdivision plans or subdivision approvals are required, the Buyer shall retain the necessary counsel and obtain the necessary approvals to effectuate the subdivision within sixty (60) days of signing this agreement. Such survey(s) must be completed at least thirty (30) days prior to the

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Closing date, and will be used as the reference for the deed description.

- 1.5.3 Subsurface: The site is currently listed as New Hampshire Department of Environmental Services (NHDES) Site No. 199004021, LUST Project No. 1921, OPUF Project #10374 and HazWaste Project No. 6249. Historical site documents can be found on NHDES' OneStop database. The site is currently managed under NHDES Groundwater Management Permit No. GWP-199004021-C-005. This permit is enclosed and attached to this agreement as **Exhibit 7**. As part of the sale, an Application for Transfer of Groundwater Management or Release Detection Permit form, shall be completed by the Buyer and submitted to the Project Manager, Tom Fargo (603-271-7389) at the NHDES - Waste Management Division within thirty (30) days of signing this agreement.
- 1.5.4 Above Ground: A partial exploratory asbestos-containing material/other hazardous material survey was conducted in February 2019. This report is enclosed and attached to this agreement as **Exhibit 3**. The Buyer bears the responsibility to comply with all State and Federal regulations pertaining to these identified materials.
- 1.5.5 As part of the Closing, the Buyer will sign documentation to evidence that the Buyer is responsible for all environmental liabilities and/or compliance matters.
- 1.5.6 Kevin Nyhan, Administrator, NHDOT Bureau of Environment, (603) 271-3226 or Bureau16@dot.nh.gov, is the appropriate contact for inquiries related to site contamination and/or historic restrictions.
- 1.6. **Access to Property**: The Department hereby grants authorization to the Buyer, its employees, representatives, consultants, and agents to enter the Property for the purpose of completing due diligence and for all other purposes necessary to carry out the terms of this Agreement. All times and dates for such access shall require the prior approval by the Department and such approval will not be unreasonably withheld.

The Department and the Buyer shall coordinate all access to the Property by third parties working on behalf of the Buyer as part of the Buyer's due diligence.

The Buyer shall indemnify, defend, and hold harmless the Department from and against any and all claims, actions, damages or losses arising out of the Buyer's activities pursuant to this paragraph during its inspection and subsequent tasks related thereto which are caused solely by the Buyer's negligence. The Buyer shall require any and all contractors who

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are retained for the purpose of completing due diligence or for any other purpose necessary to carry out the terms of this Agreement, and who will need to access the Property, to obtain a certificate of insurance in the amount of \$2 million aggregate, \$1 million per occurrence naming the Department as an additional insured. The Buyer shall also require any such contractors to execute the Buyer's standard indemnification form naming both the Buyer and the Department as indemnified parties. The standard indemnification form shall be as follows, unless written approval of a requested change is granted by both the Department and Buyer:

"The contractor agrees to indemnify, defend and save harmless the Buyer and State of New Hampshire Department of Transportation, their officials, officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers and any other person, firm, or corporation furnishing or supplying work, services, materials or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm or corporation which may be injured or damaged by the contractor in the performance of this contract. In any case, the foregoing provisions concerning indemnification shall not be construed to indemnify the Buyer or State of New Hampshire Department of Transportation for damage arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the Buyer, State of New Hampshire Department of Transportation, or their employees. This indemnification shall survive the expiration or early termination of this contract."

- 1.7. **Closing:** The Parties agree that Closing shall occur within ninety (90) days after final approval of the sale by the Governor and Executive Council, unless otherwise mutually agreed by the Parties.
- 1.8. **Title and Deed Restrictions:** In addition to the terms and conditions set forth within this Agreement, the conveyance of the Property by the Department to the Buyer shall be of good and marketable title thereto by Quitclaim Deed and insurable, upon application by the Buyer, for the benefit of the Buyer, by a title insurer licensed in the State of New Hampshire and acceptable to the Buyer pursuant to an ALTA standard form title insurance policy in an amount equal to the Purchase Price, insuring that the Buyer holds marketable fee simple title to the Property subject to:

- a) Easements, liens, restrictions, and/or encumbrances of record or any other matters of record in existence at the time of the Closing accepted and approved by the Buyer; and
 - b) Provisions of building and zoning laws in effect at the time of the Closing.
- 1.9. **Seller's Affidavits and Certificates:** If requested to do so by the Buyer, the Department, at the Closing, shall deliver such affidavits (in customary form) as may be required by the Buyer or the Buyer's title insurance company with respect to: (1) parties in possession of the Property, (2) rights of third parties and title claims in or to the Property, and (3) mechanic's and materialmen's liens affecting the Property.
- 1.10. **Deed Preparation; Recording Fees:** The Department shall convey the Property by Quitclaim Deed. The Department shall prepare all deeds (including all other applicable recording instruments, if any) at its expense.
- 1.11. **Transfer Taxes and Recording Fees:** In accordance with New Hampshire State Law RSA 78-B:2, both the Department and the Buyer are exempt from the Real Estate Transfer Tax.
- 1.12. **Discharge of Liens:** The Department shall, at its expense, pay or discharge all liens, mechanics liens, encumbrances, and attachments, if any, which may exist on the Property through the date of closing or filed after recording of the deed transferring the Property to the Buyer due to an action by the Department prior to recording of the transfer deed. To enable the Department to make conveyance as herein provided, the Department may, at the time of delivery of the deed, use the Purchase Price or any portion thereof to clear the title or any or all encumbrances or interests, provided that all instruments so procured are recorded simultaneously with the delivery of said deed. The Department shall also be entitled to use the proceeds to pay off any mortgagee, pursuant to standard customary practices for real estate transactions and conveyances, and receive therefrom a discharge(s) to be recorded in the ordinary course of business.
- 1.13. **Prorating of Utility Costs:** The Department shall be required to pay all utilities (as applicable) for the Property through the date of Closing. The Parties shall be reimbursed for all utilities based on a proration at the time of Closing.
- 1.14. **Delivery of Property, Removal of Tenants, Property to be Retained by Department:** The Department shall deliver possession of the Property to the Buyer in substantially the same condition as the date of execution of this Agreement free and clear of all tenants and third parties, and personal property belonging to the Department or tenants.

- 1.15. **Title Insurance:** If applicable, the Department shall execute all customary documents required by the Buyer's Title Insurance Company.
- 1.16. **Real Estate Broker's Fees & Commissions:** The Department shall compensate NAI Norwood Group (NAI) a 5% real estate commission upon the Closing of the Property. The Parties agree that the acting Party shall be responsible for any commission or compensation related to this transaction due to action by that Party.
- 1.17. **Environmental Contamination, Due Diligence, and Indemnification:**

- 1.17.1. **Environmental Reports Commissioned by the Department:** The Department shall provide the Buyer with copies of any and all environmental studies, assessments, or reports which it has commissioned for the Property, or may otherwise have in its possession.

The Parties also acknowledge that the Department has provided the Buyer with a copy of environmental site assessments and other related reports and data previously completed by the Department for the Property. The following documents are enclosed and attached to this agreement:

- a. Hazardous Material Inspection Report, prepared by ATC Services LLC., February 28, 2019-**Exhibit 2**
- b. Periodic Summary Report, prepared by DES Waste Management Division, January 4, 2019-**Exhibit 3**
- c. Supplemental Site Investigation Report, prepared by DES Petroleum Remediation Section, February 27, 2020-**Exhibit 4**
- d. Character Defining Features Document, prepared by the Department of Natural and Cultural Resources, Division of Historical Resources, January 31, 2020-**Exhibit 5**
- e. Declaration of Historic Preservation Easement, prepared by the Department of Natural and Cultural Resources, Division of Historical Resources-**Exhibit 6**
- f. NHDES Groundwater Management Permit No. GWP-199004021-C-005-**Exhibit 7**

The Buyer acknowledges and agrees that it may not rely upon the representations, certifications, and statements contained therein without the express written consent of the Parties which authored such reports or generated said data. Further, the Buyer acknowledges that the provision of such materials by the Department does not constitute any

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representation or warranty by the Department related to environmental conditions or potential presence of hazardous materials at the Property.

- 1.17.2. **Due Diligence Period:** The Buyer shall have the right to conduct such studies and investigations it deems necessary with respect to the environmental condition of the Property and any environmental contamination or hazardous material related thereto. Said studies and investigations shall be completed within thirty (30) days of the execution of this Agreement.

The Department shall provide the Buyer (or its agents, employees, consultants, contractors, and representatives) reasonable access to the Property for the purpose of carrying out any environmental investigations or other due diligence required by the Buyer. In order to complete such examinations or investigations, the Buyer may undertake soil borings, test pits, or installation of groundwater monitoring wells. The Buyer may also perform a "hazardous building materials" survey of the Property to identify lead paint, asbestos, PCB, or mercury containing materials. The Buyer shall perform these tasks at its own risk and at its own expense. The Buyer accepts full responsibility for the use of the Property during its inspections and due diligence. Once completed, the Buyer shall restore any areas disturbed by soil boring, test pits and ground water monitoring wells to preexisting condition.

In the event that the Buyer is dissatisfied with the results of its investigations, Buyer shall have the right to terminate this Agreement by written notice to the Seller within thirty (30) days of the execution of this Agreement and receive a refund of the Deposit.

- 1.17.3. **Completion of Transaction and Environmental Conditions:** If the Buyer proceeds to Closing, regardless if it has performed environmental due diligence, tests, studies, or investigations, completed by the Buyer or previously by the Department, the Buyer shall accept full responsibility for the Property in its "where is as is" environmental condition with respect to the potential presence of hazardous waste or other buried materials regardless whether such waste or other materials were identified by said due diligence, tests, studies, or investigations.

- 1.17.4. **Acknowledgement of Environmental Conditions:** If requested to do so by the Department, the Buyer, at the Closing, shall sign any documents acknowledging understanding and acceptance of the environmental conditions of the Property.

- 1.18. **Department's Disclosures:** The Department makes no warranties or representations regarding environmental contamination or sub-surface conditions at the Property.
- 1.19. **Casualty and Condemnation:** In the event that the Property, prior to closing, are damaged by fire, flood, collapse, or other casualty, the Department or the Buyer, at any time after the occurrence of such damage or casualty, may elect to terminate this Agreement by written notice, in which event all other obligations of the Parties hereunder shall cease and this Agreement shall thereupon be void and of no further force or effect. In the event of casualty, the Department and the Buyer agree to hold each other harmless from any claim for any costs, damages, liabilities, or financial losses it may incur.
2. **Buyer's Contingencies:** The Buyer's obligation to Close on acquisition of the Property shall be subject to the following contingencies, the failure to satisfy any one of which shall give the Buyer any of the options set forth below and, in addition, the right to withdraw from this Agreement, after which the Buyer shall have no further obligation to the Department.
- 2.1. **Title: Time being of the essence,** upon execution of this Agreement by the Parties, the Buyer may perform a title examination of the Property within fifteen (15) days, in order to be reasonably satisfied that title to the Property is marketable and insurable. If upon examination of the title it is found not marketable or insurable, after identifying to the Department in writing any apparent title defects and providing the Department reasonable opportunity to cure them, this agreement may be rescinded at the option of the Buyer and all deposits shall be refunded to the Buyer, provided that written notice is delivered within said time frame, **time being of the essence**. If no notice is given within said time frame, then any objections to title are waived.

REPRESENTATIONS AND WARRANTIES

- 2.2. **Representations and Warranties of the Buyer.** The Buyer hereby represents and warrants that:
- 2.2.1. The execution and delivery of this Agreement and the performance of the Buyer's obligations hereunder have been duly authorized by such action as necessary, and this Agreement constitutes the legal, valid and binding agreement of the Buyer, enforceable against the Buyer in accordance with its terms subject only to the conditions set out in this Agreement.
- 2.2.2. Subject to the conditions set out in this Agreement, neither the execution or delivery by the Buyer of this Agreement, the performance by the Buyer of its obligations in connection with the

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transactions contemplated hereby, nor the fulfillment by the Buyer of the terms or conditions hereof conflicts with, violates or results in a breach of any constitution, law, charter, ordinance or governmental regulation applicable to the Buyer, or conflicts with, violates or results in a breach of any term or condition of any judgment or decree, or any agreement or instrument, to which the Buyer is a party or by which the Buyer or any of its properties or assets are bound, or constitutes a default there under.

2.2.3. Except as set forth in this Agreement, no approval, authorization, order or consent of, or declaration, registration or filing with, any Governmental Authority is required for the valid execution and delivery of this Agreement by the Buyer, except such as have been duly obtained or made or disclosed in this Agreement.

2.2.4. There is no action, suit or proceeding, at law or in equity, or official investigation before or by any court or Governmental Authority, pending or threatened against the Buyer, wherein an unfavorable decision, ruling or finding would materially adversely affect the performance by the Buyer of its obligations hereunder or the performance by the Buyer of its obligations under the transactions contemplated hereby, or which, in any way, questions or may adversely materially affect the validity or enforceability of this Agreement, or any other agreement or instrument entered into by the Buyer in connection with the transactions contemplated hereby.

2.3. **Representations and Warranties of the Department:** The Department hereby represents and warrants to the best of its knowledge and belief that:

2.3.1. The Department has the power and authority to execute, deliver and carry out the terms and provisions of this Agreement and all necessary action has been taken to authorize the execution, delivery and performance by it of this Agreement subject to the Department seeking and obtaining final approval by Governor and Executive Council pursuant to RSA 4:39-c. This Agreement will, upon execution and delivery thereof by the Department and upon approval by Governor and Executive Council, constitute valid, legal and binding obligations of the Department enforceable against the Department in accordance with the respective terms thereof.

2.3.2. Neither the execution or delivery by the Department of this Agreement, the performance by the Department of their obligations in connection with the transactions contemplated hereby, nor the fulfillment by the Department of the terms or conditions hereof conflicts with, violates or results in a breach of any constitution, law or governmental regulation applicable to the Department, or

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conflicts with, violates or results in a breach of any term or condition of any judgment or decree, or any agreement or instrument, to which the Seller are a party or by which the Department or any of its properties or assets are bound, or constitutes a default there under.

- 2.3.3. Except as set forth in this Agreement, no approval, authorization, order or consent of, or declaration, registration or filing with, any Governmental Authority is required for the valid execution and delivery of this Agreement by the Department, except such as have been duly obtained or made.
- 2.3.4. There is no action, suit or proceeding, at law or in equity, or official investigation before or by any court or Governmental Authority, pending or threatened against the Department, its principal(s), affiliate(s), or entities controlled by its principal(s), wherein an unfavorable decision, ruling or finding would materially adversely affect the performance by the Department of their obligations hereunder or the performance by the Department of its obligations under the transactions contemplated hereby, or which, in any way, questions or may adversely materially affect the validity or enforceability of this Agreement or any other agreement or instrument entered into by the Department in connection with the transactions contemplated hereby.

3. GENERAL PROVISIONS

- 3.1. **Cooperation**: The Buyer and the Department agree to cooperate with each other in order to achieve the purposes of this Agreement and, in connection therewith, to take such further actions and to execute such further documents as may reasonably be requested by the Department, the Buyer, or their representatives, agents, and consultants.
- 3.2. **Entire Agreement; Amendments**: This Agreement embodies the entire agreement and understanding between the Parties hereto relating to the subject matter herein and supersedes all prior agreements and understandings between the Parties. This Agreement may not be changed, modified, waived, discharged or terminated orally, but only by an instrument in writing signed by each of the Parties hereto or by the Party against which enforcement is sought. Any change, modification or amendment, which requires the consent or approval of a Governmental Authority, shall be effective only upon receipt of such approval.
- 3.3. **Binding Effect; Successors and Assignors**. The terms and provisions of this Agreement and the respective rights and obligations of the Parties

hereunder shall be binding upon, and inure to the benefit of, their respective heirs, successors, assigns, and nominees.

- 3.4. **Headings.** The headings to the sections and subsections of this Agreement have been inserted for convenience of reference only and shall not modify, define, limit or expand the express provisions of this Agreement.
- 3.5. **Exhibits.** All exhibits referred to in this Agreement are hereby incorporated by reference and expressly made a part hereof.
- 3.6. **Governing Law.** This Agreement shall in all respects be governed by, and construed and enforced in accordance with, the laws of the State of New Hampshire.
- 3.7. **Enforceability.** Any provision of this Agreement that is determined to be illegal or unenforceable by a court of competent jurisdiction, shall be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof.
- 3.8. **Consent to Jurisdiction and Venue.** The Department and the Buyer submit to the jurisdiction of the courts of the State of New Hampshire and the courts from which an appeal from such trial venue may be taken or other relief may be sought for purposes of any action or proceeding arising out of this Agreement or any related agreement. All legal actions taken by the Parties shall be commenced in Merrimack County New Hampshire Superior Court. Both Parties hereby waive their right to a jury trial.
- 3.9. **Independent Parties.** The Department and the Buyer are independent parties under this Agreement, and nothing in this Agreement shall be deemed or construed for any purpose to establish between any of them or among them a relationship of principal and agent, employment, partnership, joint venture, or any other relationship other than independent parties.
- 3.10. **Survival of Agreement.** The agreements, covenants, indemnities, representations and warranties contained herein shall survive the execution and delivery of this Agreement.
- 3.11. **Waivers.** Failure on the part of any Party to complain of any action or non-action on the part of the other Party, no matter how long the same may continue, shall not be deemed to be a waiver of any such Party's rights hereunder. No waiver at any time of any provision hereof by any Party shall be construed as a waiver of any other provision hereof or a waiver at any subsequent time of the same provision.

- 3.12. **No Rights Conferred Upon Others.** Except as expressly set out herein, nothing in this Agreement shall be construed as giving any individual, corporation, limited liability company, partnership, joint venture, association, joint stock company, trust, unincorporated organization or government, other than the Parties hereto, their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof.
- 3.13. **Preservation of Rights.** Nothing herein or in any related Agreement shall limit or be construed to limit in any way rights or remedies the Buyer may have for the collection of real property taxes under law, unless expressly set forth herein.
- 3.14. **Time of the Essence.** The Parties agree that time is of the essence in performance of their respective obligations under this Agreement
- 3.15. **Good Faith and Fair Dealing.** Unless expressly stated otherwise in this Agreement, whenever a party's consent or approval is required under this Agreement, or whenever a party shall have the right to give an instruction or request another party to act or to refrain from acting under this Agreement, or whenever a party must act or perform before another party may act or perform under this Agreement, such consent, approval, or instruction, request, act or performance shall be reasonably made or done, or shall not be unreasonably withheld, delayed, or conditioned, as the case may be.
- 3.16. **Municipal Approvals.** The execution of this Agreement does not preempt or supersede the review process or powers of any Buyer or other governmental Board, Committee, Commission, or Department, or excuse the parties from the requirement to apply for and receive all necessary permits and approvals from all applicable Buyer or other governmental Boards, Committees, Commissions, or Departments, including but not limited to the requirement that the agreement be approved by the Governor and Executive Council pursuant to RSA 4:39-c prior to the Seller being required and/or authorized to convey the property to the Buyer.
- 3.17. **Warranties and Representations:** The Department and the Buyer each acknowledge that they have not been influenced to enter into this transaction or relied upon any warranties or representations not specifically set forth or incorporated into this Agreement.
- 3.18. **Saving Clause:** In the event that any of the terms or provisions of this Agreement are declared invalid or unenforceable by any Court of competent jurisdiction or any Federal or State Government Agency having jurisdiction over the subject matter of this Agreement, the remaining terms

and provisions that are not effected thereby shall remain in full force and effect.

- 3.19. **Buyer's Materials:** In the event this agreement is terminated prior to the closing, all plans, maps, plats, surveys, engineering and architectural drawings and renderings, applications submitted to and permits, and approvals or notices received from any governmental body or agent, studies and reports (collectively, "Buyer's Materials"). Within five (5) Business Days following the termination of this Agreement for any reason, Buyer shall deliver to Sellers a written assignment of Buyer's right, title and interest in and to the Buyer's Materials together with all originals thereof and computer files (including CAD files) constituting any of Buyer's Materials.

LIST OF EXHIBITS

- Exhibit 1 Aerial Plan of Stickney Avenue and Existing Buildings
- Exhibit 2 Hazardous Material Inspection Report, prepared by ATC Services LLC., February 28, 2019
- Exhibit 3 Periodic Summary Report, prepared by DES Waste Management Division, January 4, 2019
- Exhibit 4 Supplemental Site Investigation Report, prepared by DES Petroleum Remediation Section, February 27, 2020
- Exhibit 5 Character Defining Features Document, prepared by the Department of Natural and Cultural Resources, Division of Historical Resources, January 31, 2020.
- Exhibit 6 Declaration of Historic Preservation Easement, prepared by the Department of Natural and Cultural Resources, Division of Historical Resources.
- Exhibit 7 NHDES Groundwater Management Permit No. GWP-199004021-C-005

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Initial SDB

Executed as a sealed instrument this 7 day of June, 2021.

BUYER:

By: [Signature] Date: June 7, 2021
Printed: Shane D. Brady, Manager
Brady Sullivan Properties, LLC.
Duly Authorized

STATE OF NEW HAMPSHIRE
COUNTY OF HILLSBOROUGH

In Manchester, on the 7th day of June, 2021, before me, personally appeared Shane D. Brady, Manager of Brady Sullivan Properties, known to me or proved to be the person named in and who executed the foregoing instrument, and being first duly sworn, such person acknowledged that he executed said instrument for the purposes therein contained as his free and voluntary act and deed.



[Signature]
Marc A. Pinard, Justice of the Peace
My Commission Expires: 12/06/22

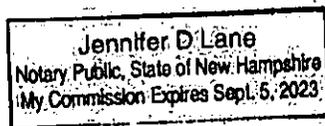
SELLER

STATE OF NEW HAMPSHIRE

By: [Signature] Date: 6/7/21
Printed: VICTORIA SHEEHAN
Duly Authorized

STATE OF NEW HAMPSHIRE
COUNTY OF MERRIMACK

In Concord NH, on the 7th day of June, 2021, before me, personally appeared Victoria Sheehan, Commissioner of the New Hampshire Department of Transportation, known to me or proved to be the person named in and who executed the foregoing instrument, and being first duly sworn, such person acknowledged that he executed said instrument for the purposes therein contained as his free and voluntary act and deed.



[Signature]
Justice of the Peace / Notary Public

Initial SDB



CITY OF CONCORD

New Hampshire's Main Street™
City Manager's Office

Thomas J. Aspell, Jr.
City Manager

July 14, 2020

Mr. Stephen G. LaBonte
Administrator, Bureau of Right of Way
NH Department of Transportation
P.O. Box 483
Concord, NH 03302-0483

Dear Mr. LaBonte:

Per your correspondence of June 30, 2020, the City of Concord understands that the NHDOT will be marketing the sale of the 5.6 acre parcel of State owned land on the westerly side of Stickney Avenue, also known as 11 Stickney Avenue. The City is further aware that the property will be marketed with significant encumbrances including—but not limited to—historical preservation deed restrictions, on-going environmental liabilities, and requirements for survey and subdivision.

Pursuant to NHRSA 4:39-c: 1, the City reserves its ability to consider the purchase of this property until such time as the NHDOT receives a bonafide offer for purchase from the private sector. In that instance, the City requests that NHDOT advise it of the pending offer so that the City can review the matter and determine if it wishes to take any action to exercise its right under the aforementioned statute.

Finally, per our discussions to date, the City expects that if a buyer is not found for this property with the encumbrances cited above, the property will be razed by the State in the fall of this year.

Thank you for your continued collaboration on this matter.

Sincerely,

Thomas J. Aspell, Jr.
City Manager

Untitled Map

Write a description for your map.

Legend



Google Earth

500 ft



**ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING**

HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
BOW-CONCORD, 13742A
BUILDINGS
HIGHWAY GARAGE 12
11 STICKNEY AVENUE
CONCORD, NEW HAMPSHIRE 03301

PREPARED FOR:

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
BUREAU OF ENVIRONMENT
JOHN O. MORTON BUILDING
7 HAZEN DRIVE
CONCORD, NEW HAMPSHIRE 03302

PREPARED BY:

ATC GROUP SERVICES LLC
150 ZACHARY ROAD
MANCHESTER, NEW HAMPSHIRE 03109

ATC PROJECT 59DOT00087

FEBRUARY 28, 2019

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FIGURES

Figure 1	Site Plan
Figure 2	ACM Roof Sample Locations

APPENDICES

Appendix A	Photo Log
Appendix B	Asbestos Bulk Sample Analysis Results By PLM
Appendix C-1	Hazardous Building Materials Inventory
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1.0 EXECUTIVE SUMMARY

ATC Group Services LLC (ATC) was retained by The New Hampshire Department of Transportation (NHDOT) to perform a hazardous building materials survey of five buildings (Building A, Building B, Building C, Main Building [identified as Sections D through H], and Building I) associated with the Department Highway Garage 12 site located at 11 Stickney Avenue in Concord, New Hampshire. ATC understands that the Buildings are being considered for demolition. The survey was performed in accordance with ATC Proposal 59-2018-0069, dated January 2, 2019.

ATC's scope of work included a survey for asbestos containing materials (ACM) and a visual inspection for PCB-containing electrical equipment, light ballasts and other hazardous materials (OHM). Per NHDOT request, ATC did not perform exploratory demolition to identify the presence of hidden ACM due to the presence of building tenants. ATC was not able to access locked portions of the property buildings including a room on the second floor of the Main Building, a closet in Building H, a shed located along the northern side of Building H, and the southern bay of Building B. Due to safety concerns, ATC did not sample flashing around the chimney of Building A.

The following summarizes the scope of work for this project:

- ATC prepared a health and safety plan to be used by ATC personnel during the survey activities.
- ATC performed a visual inspection and survey of interior, exterior, and roof areas of the building to determine the location and estimated quantity of accessible ACM present in the survey areas. Our survey included both friable and non-friable materials. Please note, exploratory demolition was not be conducted.
- ATC evaluated the potential presence of "hidden areas" where asbestos may be uncovered during future demolition activities. Our personnel attempted to identify possible locations where ACM may be present in "hidden areas", including pipe chases, perimeter shell walls, and plenums or above suspended ceilings. Please note, this does not include exploratory demolition.
- The scope of work for this survey included sampling of suspect roofing materials. The sampling of roofing materials was based on sampling areas that are easily accessible via a stairwell, roof hatch, or ladder. Roof sampling was conducted with the assistance of Aulson Roofing, who patched sample locations after sample collection.
- Collect up to 325 samples for asbestos analysis. Analysis of asbestos samples were analyzed by Polarized Light Microscopy (PLM).
- Perform a hazardous materials inspection on the interior and exterior portions of the buildings. The surveys focused on the following: 1) inventory accessible suspect polychlorinated biphenyl (PCB) light ballasts and mercury (including switches, thermostats, bulbs), if present; and 2) miscellaneous survey to determine the presence of drums and containers that may contain waste material (i.e., paint cans, solvents, oils, etc.). ATC's scope of work did not include the assessment of underground structures.
- Conduct a visual assessment of the location and condition of painted building materials. This assessment was conducted in conjunction with the hazardous materials inspection. Based upon the age of the structures, painted surfaces were assumed to contain lead and sampling was not conducted.
- Upon completion of the inspection and receipt of the asbestos laboratory analytical report, ATC prepared this letter report summarizing the findings of the surveys. The report includes:

- A listing of the material sampled for asbestos and location;
- The estimated quantity of asbestos;
- An assessment of whether further actions are required;
- A cost estimate for asbestos abatement;
- A listing of the identified hazardous materials and locations; and,
- A cost estimate for the disposal of the identified hazardous materials.

ATC's Scope of Work did not include the following:

- Exploratory demolition activities;
- Inspection of the building foundation or other subsurface features including utility lines; and,
- Repair of sampling locations, other than roof sampling locations.

Please note, ATC recommends conducting an asbestos exploratory demolition survey prior to building demolition. Suspect building materials may be present in "hidden areas" of the property buildings, which include, but may not be limited to, pipe chases, perimeter shell walls, plenums, above suspended ceilings, and on below grade exterior foundation walls and utility conduits. ACM identified in hidden portions of the building(s) could significantly increase the total cost of asbestos abatement and could cause a delay of work if identified during the demolition activities.

1.1 Asbestos

The asbestos survey was performed by Asbestos Inspectors, Mr. Logan Fitzgerald and Sam Sanders, between January 16 and January 25, 2019. A total of three-hundred and twenty-four (324) samples of suspect ACM were collected of which two-hundred and eighty-nine (289) were analyzed to determine asbestos content. As indicated in the EPA and NHDES regulations, when a material is determined to contain asbestos via laboratory analysis, additional analysis of the material cannot overturn the positive result. Therefore, in a cost saving effort, ATC elected to stop analysis after the 1st sample of a homogenous material that is determined to contain asbestos. The ATC inspectors performed both the visual inspection and bulk sampling in the buildings according to methods outlined in the U.S. Environmental Protection Agency (EPA) guidance document titled, "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Document No. 560/5-85/024). Please find the Asbestos Identification Laboratory Polarized Light Microscopy (PLM) bulk sample results included as Appendix A.

The estimated cost to remove all identified ACM is approximately **\$275,964**, which includes a 20% contingency. Note that the cost estimate does not include the cost of third party asbestos project monitoring services, which typically add approximately 10% to 15% to the cost of abatement.

1.2 Lead-Containing Paint

ATC performed a visual assessment of the location and condition of painted building materials in accessible portions of the property buildings. Painted surfaces were observed on the exterior of Buildings A, B, C and I, and on select interior surfaces in Buildings D, E, G and H. Based upon the age of the structures, painted surfaces were assumed to contain lead and sampling was not conducted.

Paint coated building components will need to be handled and disposed of according to applicable Federal, State and local regulations prior to or in conjunction with renovation or demolition activities. Based on the observed building materials and paint coated surfaces, ATC does not anticipate that demolition debris would require disposal as hazardous. However, should selected building materials be segregated and tested specifically, there may be a waste stream category that becomes classified as hazardous. Note that contractors performing work at the building where the painted surfaces will be disturbed must comply with

the Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62, Lead in Construction. Additional waste disposal requirements may apply in accordance with EPA and NHDES regulations.

The cost for renovation/demolition of building components coated with lead paint is approximately **10-15%** above the cost for general demolition. This cost includes contractor record-keeping requirements, personal protection of workers, and possible isolation of the work area to comply with the OSHA Lead Standard. ATC also recommends that a contingency be allotted to account for some hazardous lead waste disposal.

1.3 PCB, Mercury and Other Hazardous Materials Survey (OHM)

ATC performed a representative visual hazardous materials survey within the Buildings. The Buildings were partially vacant when the survey was performed. The survey was performed by Mr. James Carr, ATC Inspector, on January 16 and 23, 2019. The objective of the hazardous materials survey was to evaluate for the presence of polychlorinated biphenyl (PCB)-containing ballasts and electrical equipment, mercury-containing electrical and building components, and other potentially hazardous materials that will require disposal as part of the proposed demolition. The scope of work for this project did not include inspection of the Site for the presence of underground storage tanks (USTs) or other underground structures that may contain hazardous materials, soil or groundwater testing. ATC inspected all accessible areas of the building for potentially hazardous materials.

Various confirmed and potential hazardous material-containing building components and items were observed within the surveyed areas. It is assumed that tenant owned items and equipment observed will be removed prior to building demolition. Therefore, their disposal cost is not included. The inspection and results are discussed in Section 3.0. The estimated cost to dispose of other hazardous materials (OHM) identified during the survey is approximately **\$49,000** which includes a 20% contingency/mobilization fee. This estimated cost does not include costs associated with underground structures, and soil or groundwater, if present.

Limitations

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the field of environmental science and engineering. This statement is in lieu of other statements either expressed or implied. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

Environmental evaluations are limited in the sense that conclusions and recommendations are developed and information obtained from limited research and secondary sources. Except as set forth in this report, ATC has made no independent investigations as to the accuracy or completeness of the information derived from the secondary sources and personal interviews and has presumed that such information was accurate and complete.

This report is intended for the sole use of NHDOT. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations, is at risk of said user.

CERTIFICATION OF RESULTS

This report has been prepared for the exclusive use of NHDOT. Photocopying of this document by parties other than those designated by the Client, or use of this document for purposes other than it is intended, is prohibited.

Respectfully submitted 27th day of February, 2019

ATC Group Services, LLC



Logan Fitzgerald
Project Manager, Senior Asbestos Inspector



Kristin E. Zeman, P.G., C.P.G.
Senior Project Manager, Environmental Services



Bryan Thompson
Division Manager, Building Sciences

2.0 ASBESTOS CONTAINING MATERIALS SURVEY

2.1 Sampling Methodology

The survey was performed by EPA-accredited Asbestos Inspectors between the dates of January 16 and January 25, 2019. Bulk samples, representing individual homogenous areas of suspect materials, were collected in a randomly distributed manner, in accordance with the methods outlined below.

Suspect building materials exist in the form of thermal systems insulation (TSI), surfacing materials, and miscellaneous materials.

The following generally illustrates the sampling strategy employed by ATC where feasible:

- (a) Surfacing materials - In a randomly distributed manner, collect bulk samples of surfacing materials, representative of each homogeneous area, and not assumed to be ACM.
 - (1) Collect at least three bulk samples from each homogeneous area that is less than or equal to 1,000 ft².
 - (2) Collect at least five bulk samples from each homogeneous area that is greater than 1,000 ft², but less than or equal to 5,000 ft².
 - (3) Collect at least seven bulk samples from each homogeneous area that is greater than 5,000 ft².

- (b) Thermal systems insulation.
 - (1) In a randomly distributed manner, collect at a minimum, three (3) bulk samples of thermal systems insulation material, representative of each homogeneous area, and not assumed to be ACM.
 - (2) Collect, at a minimum, one (1) bulk sample of patched thermal systems insulation, representative of each homogenous area, and not assumed to be ACM, providing the section of patch was less than 6 linear or square feet.
 - (3) Collect, at a minimum, three (3) representative bulk samples of each insulated mechanical system not assumed to be ACM, including, but not limited to cementitious material used on pipe fittings such as tees, elbows, or valves. Representative sampling was conducted in a manner sufficient as to identify whether each homogenous area is either asbestos or non-asbestos containing.
 - (4) Bulk samples are not required to be collected from any homogeneous area where the accredited asbestos inspector has determined that the thermal systems insulation is a non-suspect material (i.e., fiberglass, foam glass, rubber, or any other non-ACM).

- (c) Miscellaneous materials - Collect, at a minimum, two (2) representative bulk sample of each miscellaneous material not assumed to be ACM, including, but not limited to ceiling tiles, floor tiles, associated floor tile mastic, roofing materials, waterproofing, etc. Representative sampling was conducted in a manner sufficient as to identify whether each homogenous area is either asbestos or non-asbestos containing.

2.2 Asbestos-Containing Materials

ATC performed the asbestos survey in representative interior, exterior and roof areas throughout Buildings, located at the Highway Garage 12 Facility located at 11 Stickney Avenue in Concord, New Hampshire. At the request of NHDOT, ATC did not perform limited exploratory demolition in representative interior and exterior locations to identify the presence of hidden ACM. Appropriate efforts were made in representative areas of the buildings, to identify multiple layers of flooring systems, as well as any suspect materials located above suspended ceiling systems that could be temporarily moved and replaced. Note that ATC did not inspect foundation walls below grade or disassemble mechanical equipment or electrical gear that may have suspect ACM internal components.

The following table presents a list of the identified, confirmed ACMs in the buildings. No ACM was identified in Buildings B and I. Note that an ACM is defined by the NHDES as any material or product containing one (1) percent or greater asbestos by weight.

**Table 1: Summary of Identified Asbestos-Containing Materials
 Buildings A, C, D, E, F, G, and H
 11 Stickney Avenue
 Concord, New Hampshire**

Location	Material	Estimated Quantity	Results
Building A			
Main Storage Room Near Furnace	Cement Wallboard	75 sq ft	10% Chrysotile
Rear Storage Room		250 sq ft	
Main Storage Area	White Duct Cloth Insulation Associated with Furnace	5 sq ft	80% Chrysotile
Roof	Black Asphaltic Roof Shingles	14,000 sq ft	2% Chrysotile
Building C			
Rear Exterior of Building	White Insulation	10 ln ft	70% Chrysotile
Main Building (Buildings D through H)			
Building D			
Perimeter Windows	Exterior Window Frame Caulk	42 Window Units	3% Chrysotile
	Interior Window Frame Caulk		3% Chrysotile
	Window Glazing Compound		3% Chrysotile
Perimeter Doors	Door Frame Caulk	2 Doors	No Asbestos Detected ¹
Overhead Garage Doors	Overhead Door Frame Caulk	3 Doors	5% Chrysotile
Roof	Black Flashing Mastic	500 sq ft	20% Chrysotile
Building E			
Perimeter Windows	Exterior Window Frame Caulk	41 Window Units	2% Chrysotile
	Interior Window Frame Caulk		3% Chrysotile
	Window Glazing Compound		No Asbestos Detected ¹
Roof	Black Flashing Mastic	300 sq ft	20% Chrysotile
Adjacent Southeast Structure	Built-Up Roofing Material	125 sq ft	10% Chrysotile
	Black Mastic Associated with Roof Hatch	30 sq ft	5% Chrysotile

Location	Material	Estimated Quantity	Results
Building F			
Roof	Black Flashing Mastic	450 sq ft	20% Chrysotile
	Silver Reflective Coating on HVAC Unit	50 sq ft	2% Chrysotile
	Silver Reflective Coating on Roof Vent	30 sq ft	2% Chrysotile
Perimeter Columns	Black Mastic on Perimeter Concrete Columns	125 sq ft	15% Chrysotile
	Black Caulk on Concrete Column Joint	90 ln ft	10% Chrysotile
Building G			
Exterior Windows	Exterior Window Frame Caulk	45 Window Units	2% Chrysotile
	Interior Window Frame Caulk		3% Chrysotile
	Window Glazing Compound		2% Chrysotile
Perimeter Doors	Door Frame Caulk	2 Doors	2% Chrysotile
Overhead Garage Doors	Overhead Door Frame Caulk	2 Doors	No Asbestos Detected ¹
Roof	Black Flashing Mastic	450 sq ft	15% Chrysotile
Perimeter Columns	Black Mastic on Perimeter Concrete Columns	125 sq ft	15% Chrysotile
	Black Caulk on Concrete Column Joint	90 ln ft	10% Chrysotile
Building H			
Exterior Windows	Exterior Window Frame Caulk	48 Window Units	2% Chrysotile
	Interior Window Frame Caulk		3% Chrysotile
	Window Glazing Compound		2% Chrysotile
Perimeter Doors	Door Frame Caulk	2 Doors	No Asbestos Detected ¹
Overhead Garage Doors	Overhead Door Frame Caulk	3 Doors	3% Chrysotile
Boiler Room	Door Frame Caulk	1 Door	5% Chrysotile
Roof	Black Flashing Mastic	500 sq ft	15% Chrysotile
	Black Turbine Vent Caulk	20 ln ft	20% Chrysotile
	Black Light Pole Roof Mount Caulk	15 ln ft	20% Chrysotile
	Gray Caulk on Concrete Overhang at Rear of Building	200 ln ft	20% Chrysotile
Lower West Roof	Black Tar Paper Below Flashing	75 sq ft	30% Chrysotile
	Black Caulk on Brick Above White Flashing	25 ln ft	20% Chrysotile
Main Building (Two-Floor section located between Buildings F and G)			
2 nd Floor	9" x 9" Brown Floor Tile	9,000 sq ft	3% Chrysotile
1 st Floor Entry Foyer		250 sq ft	3% Chrysotile
2 nd Floor Roof Access Door	Door Frame Caulk	1 Door	3% Chrysotile
Roof	Black Flashing Mastic	450 sq ft	20% Chrysotile

Location	Material	Estimated Quantity	Results
Perimeter Columns	Black Mastic on Perimeter Concrete Columns	140 sq ft	15% Chrysotile
	Black Caulk on Concrete Column Joint	100 ln ft	10% Chrysotile

Notes:

¹ Although PLM bulk sample results indicated that this material was found to not contain asbestos, other similar materials, determined to be homogeneous by ATC inspectors, were found to contain asbestos. Therefore, ATC recommends that this material be considered ACM

The following table presents ATC's cost estimates for removal and disposal of the identified ACMs:

**Table 2: Cost Estimate for Abatement of Identified ACMs
 Buildings A, C, D, E, F, G, and H
 11 Stickney Avenue
 Concord, New Hampshire**

Material	Estimated Quantity	Unit Cost	Total Estimated Cost
Building A			
Cement Wallboard	325 sq ft	\$15.00/sq ft	\$4,875.00
White Duct Cloth Insulation Associated with Furnace	5 sq ft	\$20.00/sq ft	\$100.00
Black Asphaltic Roof Shingle	14,000 sq ft	\$6.00/sq ft	\$84,000.00
Estimated Cost for Removal of All Identified ACM in Building A:			\$88,975.00
Building C			
White Insulation	10 ln ft	\$20.00/sq ft	\$200.00
Estimated Cost for Removal of All Identified ACM in Building C:			\$200.00
Main Building (Buildings D through H)			
Building D			
Exterior Window Frame Caulk	42 Window Unit	\$250.00/ea	\$10,500.00
Interior Window Frame Caulk			
Window Glazing Compound			
Door Frame Caulk	2 Doors	\$250.00/ea	\$500.00
Overhead Door Frame Caulk	3 Doors	\$250.00/ea	\$750.00
Black Flashing Mastic	500 sq ft	\$6.00/sq ft	\$3,000.00
Estimated Cost for Removal of All Identified ACM in Building D:			\$14,750.00
Building E			
Exterior Window Frame Caulk	41 Window Units	\$250.00/ea	\$10,250.00
Interior Window Frame Caulk			
Window Glazing Compound			
Black Flashing Mastic	300 sq ft	\$6.00/sq ft	\$1,800.00
Built-Up Roofing Material	125 sq ft	\$6.00/sq ft	\$750.00
Black Mastic Associated with Roof Hatch	30 sq ft	\$6.00/sq ft	\$180.00
Estimated Cost for Removal of All Identified ACM in Building E:			\$12,980.00
Building F			
Black Roofing Mastic	450 sq ft	\$6.00/sq ft	\$2,700.00

Material	Estimated Quantity	Unit Cost	Total Estimated Cost
Silver Reflective Coating on HVAC Unit	50 sq ft	\$6.00/sq ft	\$300.00
Silver Reflective Coating on Roof Vent	30 sq ft	\$6.00/sq ft	\$180.00
Black Mastic on Perimeter Concrete Columns	125 sq ft	\$6.00/sq ft	\$750.00
Black Caulk on Concrete Column Joint	90 ln ft	\$12.00/ln ft	\$1,080.00
Estimated Cost for Removal of All Identified ACM in Building F:			\$5,010.00
Building G			
Exterior Window Frame Caulk	45 Window Units	\$250.00/ea	\$11,250.00
Interior Window Frame Caulk			
Window Glazing Compound			
Door Frame Caulk	2 Doors	\$250.00/ea	\$500.00
Overhead Door Frame Caulk	2 Doors	\$250.00/ea	\$500.00
Black Flashing Mastic	450 sq ft	\$6.00/ea	\$2,700.00
Black Mastic on Perimeter Concrete Columns	125 sq ft	\$6.00/sq ft	\$750.00
Black Caulk on Concrete Column Joint	90 ln ft	\$12.00/ln ft	\$1,080.00
Estimated Cost for Removal of All Identified ACM in Building G:			\$16,780.00
Building H			
Exterior Window Frame Caulk	48 Window Units	\$250.00/ea	\$12,000.00
Interior Window Frame Caulk			
Window Glazing Compound			
Door Frame Caulk	2 Doors	\$250.00/ea	\$500.00
Overhead Door Frame Caulk	3 Doors	\$250.00/ea	\$750.00
Boiler Room Door Frame Caulk	1 Door	\$250.00/ea	\$250.00
Black Flashing Mastic	500 sq ft	\$6.00/sq ft	\$3,000.00
Black Turbine Vent Caulk	20 ln ft	\$6.00/ln ft	\$120.00
Black Light Pole Roof Mount Caulk	15 ln ft	\$6.00/ln ft	\$90.00
Gray Caulk on Concrete Overhang at Rear of Building	200 ln ft	\$20.00/ln ft	\$4,000.00
Black Tar Paper Below Flashing on Lower West Roof	75 sq ft	\$6.00/sq ft	\$450.00
Black Caulk on Brick Above White Flashing on Lower West Roof	25 ln ft	\$6.00/ln ft	\$150.00
Estimated Cost for Removal of All Identified ACM in Building H:			\$21,310.00
Main Building			
(Two-Floor section located between Buildings F and G)			
9" x 9" Brown Floor Tile	9,250 sq ft	\$7.00/sq ft	\$64,750.00
Door Frame Caulk	1 Door	\$250.00/ea	\$250.00
Black Flashing Mastic	450 sq ft	\$6.00/sq ft	\$2,700.00
Black Mastic on Perimeter Concrete Columns	140 sq ft	\$6.00/sq ft	\$840.00
Black Caulk on Concrete Column Joint	100 ln ft	\$12.00/ln ft	\$1,200.00
Estimated Cost for Removal of All Identified ACM in the Main Building:			\$69,740.00
Estimated Cost for Removal of All Identified ACM:			\$229,745.00

Material	Estimated Quantity	Unit Cost	Total Estimated Cost
20% Contingency :			\$45,949.00
Total Estimated Cost for Removal of All Identified ACM:			\$275,694.00

The estimated cost to remove and dispose of all identified ACM is \$275,694.00.

ATC's cost estimate for asbestos removal does not include the cost of onsite project monitoring and project management services during abatement activities, which typically add approximately 10% to 15% to the cost of abatement.

The following table lists the suspect materials identified that were sampled and determined to be non-ACM.

**Table 3: Summary of Non-ACM
 Buildings A, B, C, D, E, F, G, H, and I
 11 Stickney Avenue
 Concord, New Hampshire**

Material	Location(s)
Exterior Window Glazing	Building A
Brown Cloth at Wood Column & Concrete Base	Building B
Joint Compound	Building C
Sheetrock	Building C
Yellow Duct Sealant at Chimney Penetration	Building C
Black Levelling Compound	Building C
Red Floor Levelling Compound	Building C
Window Glazing	Building C
Brown Exterior Caulk at Bottom Wood Facade	Building C
White Caulk at Exterior Metal Panel and Wood Panel	Building C
Joint Compound in Break Room	Building D (Section D)
Sheetrock in Break room	Building D
Yellow Carpet Mastic in Break Room	Building D
Yellow Cove Base Mastic in Break Room	Building D
White Pipe Elbow Insulation	Building D
Gray Caulk on Blower Fan	Building D - Break Room
Black Asphalt Caulk Below Carpet	Building D Break Room
Plaster Coat Over Brick	Building E (Section E)
Gray Plaster Skim Coat	Building F (Section F)
Yellow Carpet Mastic	Building F
Yellow Cove Base Mastic	Building F
12x12 Tan Floor Tile	Building F
Yellow Mastic Associated with 12x12 Tan Floor Tile	Building F
Yellow Caulk on Ceiling	Building F - Explosion Room
Black Insulation on Walls	Building F - Explosion Room
2x4 Ceiling Tiles	Building F

Material	Location(s)
Black Water Proofing Mastic on Interior Perimeter Brick	Building F
Gray Plaster Base Coat	Building G (Section G)
Gray Plaster Skim Coat	Building G
Black Water Proofing Mastic on Interior Perimeter Brick	Building G
12x12 Tan Floor Tile	Building H – Office
Yellow Mastic Associated with 12x12 Tan Floor Tile	Building H – Office
Joint Compound	Main Building-2 nd Floor
Sheetrock	Main Building-2 nd Floor
Gray Plaster Base Coat	Main Building-2 nd Floor
Gray Plaster Skim Coat	Main Building-2 nd Floor
Black Mastic Associated with 9x9 Floor Tile	Main Building-2 nd Floor
1x1 Acoustic Tiles	Main Building-2 nd Floor
Brown Glue Daubs Associated with 1x1 Acoustic Tile	Main Building-2 nd Floor
Brown Mastic Associated with Rubber Membrane Roof	Building C Roof
Black Rubber Membrane Seam Sealant	Building C Roof
Brown Fiberboard	Building C Roof
Built Up Roof Material	Building C Roof
Black Caulk at Chimney Flashing	Building C Roof (lower roof)
Black Caulk at Roof Flashing/Brick	Building C Roof (lower roof)
Black Sealant at Vent Stack Flashing	Building C Roof (lower roof)
Asphalt Roofing Shingle	Building C Roof (South Lower Pitched Roof)
Black Mastic Associated with Asphalt Roofing Shingle	Building C Roof (South Lower Pitched Roof)
Black Mesh Membrane	Building C Roof (Upper Roof, North Flashing)
Black Mastic Associated with Black Mesh Membrane	Building C Roof (Upper Roof, North Flashing)
Black Sealant at Vent Stack Flashing	Building C Roof (Upper Roof)
Black Sealant at Roof Top HVAC Unit Base	Building C Roof (Upper Roof)
Gray Caulk, Roof Top HVAC Unit Metal Panel Seam	Building C Roof (Upper Roof)
Built-Up Roofing Material	Building D Roof
Fiberboard	Building D Roof
Black Mesh Membrane at Flashing ¹	Building D Roof
Built-Up Roofing Material	Building E Roof
Fiberboard	Building E Roof
Black Mesh Membrane at Flashing ¹	Building E Roof
Asphalt Roofing Shingle	Building E Roof (Lower Roof at Overhead Door)
Built-Up Roofing Material	Building F Roof
Soft Concrete on Deck	Building F Roof
Asphalt Roofing Shingle	Building F Roof
Black Mastic Associated with Asphalt Roofing Shingle	Building F Roof

Material	Location(s)
Black Mesh Membrane at Flashing ¹	Building F Roof
Black Coating on HVAC Fan Duct	Building F Roof
Black/Tan Mesh on HVAC Fan Duct	Building F Roof
Black Mastic Associated with Black/Tan Mesh on HVAC Fan Duct	Building F Roof
White Caulk of HVAC Fan Duct Interior	Building F Roof
Black Sealant on HVAC Fan Duct Ring Clamp	Building F Roof
Black Sealant Patch Associated with HVAC Fan Duct Flashing	Building F Roof
Black Sealant at Electrical Penetration (HVAC Fan Units)	Building F Roof
Black HVAC Fan Dust Seam Sealant	Building F Roof
Black Sealant at Rubber Cover/Flashing (HVAC Fan Units)	Building F Roof
Black Caulk at Roof Top HVAC Unit Metal Panel Seam	Building F Roof
Gray Caulk Roof Top HVAC Unit Duck Stack	Building F Roof
Asphalt Roofing Shingle	Building F Roof (Lower Roof Over Entry Door)
Built-Up Roofing Material	Building G Roof
Soft Concrete on Deck	Building G Roof
Brown Mesh Membrane	Building G Roof
Tan Caulk at Concrete Column Joint – at Flashing ¹	Building G Roof
White Caulk at Flashing/Brick Seam – at Flashing ¹	Building G Roof
Built-Up Roof Material	Building H Roof
Fiberboard	Building H Roof
Brown/Black Mesh Membrane at Flashing ¹	Building H Roof
Black Sealant at Exhaust Fan Metal Base	Building H Roof
Black Sealant at Exhaust Fan Metal Base/Flashing Joint	Building H Roof
Brown Mastic Associated with Rubber Membrane Roof	Building H Roof (Lower East Roof)
Black Rubber Membrane Roof Seam Sealant	Building H Roof (Lower East Roof)
Gray Paper Backing Associated with Iso-board	Building H Roof (Lower East Roof)
Built-Up Roofing Material	Building H Roof (Lower East Roof)
Asphalt Roofing Shingle	Building H Roof (Lower Southwest Roof)
Gray Paper Backing Associated with Iso-board	Building H Roof (Lower Southwest Roof)
Black Mastic Associated with Asphalt Roofing Shingle	Building H Roof (Lower Southwest Roof)
Black Caulk at Shingle-Brick Joint	Building H Roof (Lower Southwest Roof)
White Caulk – Flashing Seam at Brick ¹	Building H Roof (Lower West Roof)
White Caulk on Concrete Overhang ¹	Building H Roof (Perimeter)
Built-Up Roofing Material	Main Building – (Upper Roof)
Soft Concrete on Deck	Main Building – (Upper Roof)
Brown/Black Mesh at Flashing ¹	Main Building – (Upper Roof)
Asphalt Roof Shingle	Building I Roof
Tar Paper (Under Shingle)	Building I Roof

Material	Location(s)
White Interior Window Glazing Compound	Building C
Gray Duct Seam Sealant	Building C
Off-White Interior Door Frame Caulk	Building C
White Exterior Door Frame Caulk	Building C
Dark Brown Exterior Window Frame Caulk	Main Building – 2 nd Floor
Gray Exterior Window Sill Caulk	Main Building – 2 nd Floor
White Exterior Window Glazing Compound	Building I

Notes:

¹Material is contaminated with ACM and will have to be disposed of as ACM waste.

2.3 Analytical Method

Samples were placed in labeled containers, which were sealed and submitted to the laboratory for analysis. Bulk samples of suspect materials were analyzed by Asbestos Identification Laboratory (AIL) of Woburn, Massachusetts, by means of the EPA-approved polarized light microscopy with dispersion staining (PLM/DS) method using the visual estimation technique for asbestos quantification. AIL is fully accredited for bulk sample analysis under the National Voluntary Laboratory Accreditation Program (NVLAP), administered by the National Institute of Standards and Technology. Bulk samples were analyzed for asbestos content using EPA Method 600/R-93/116. The visual estimation technique was used to quantify asbestos concentrations. The PLM/DS analytical method is modeled after 40 CFR Part 763, Subpart F, Appendix A: "Interim Method for the Determination of Asbestos in Bulk Insulation Samples." If a material contains greater than 1% asbestos, it is considered to be asbestos-containing material. As indicated in the EPA and NHDES regulations, when a material is determined to contain asbestos via laboratory analysis, additional analysis of the material cannot overturn the positive result. Therefore, in a cost saving effort, ATC elected to stop analysis after the 1st sample of a homogenous material that is determined to contain asbestos.

2.4 Consideration for Hidden Materials

Appropriate efforts were made in representative areas of each Building, to identify multiple layers of flooring systems, as well as any suspect materials located above suspended ceiling systems that could be temporarily moved and replaced. At the request of NHDOT, ATC did not perform exploratory demolition to identify the presence of hidden ACMs. ATC was not able to access locked portions of the property buildings including a room on the second floor of the Main Building, a closet in Building H, a red shed located north of Building H, and the southern bay of Building B. ATC performed an ACM inspection of the various roof areas of each building; however, flashing around the chimney on Building A could not be sampled due to safety concerns. Note that ATC did not inspect foundation walls below grade or disassemble mechanical equipment or electrical gear that may have suspect ACM internal components.

ATC recommends that exploratory demolition be performed in representative interior and exterior locations of the buildings before demolition activities occur. ATC also recommends that if a suspect material has not been positively identified, but is similar in mode of occurrence or physical properties as other identified ACM, it should be considered asbestos containing. Only through further sampling and analysis should a suspect material be identified as non-asbestos.

2.5 Recommendations

ATC understands that demolition activities are being considered for the buildings. All identified ACM that will be impacted by any potential demolition project should be properly removed and disposed by a licensed Asbestos Contractor prior to disturbance.

ATC recommends that precautions be taken to prevent unauthorized disturbance of ACM identified in this report.

ATC also recommends the following as part of the abatement process:

- Although the asbestos contractor is required to follow the requirements outlined in Federal, State, and local regulations regarding asbestos during any abatement project, ATC recommends the development of a project specification and the use of project oversight to ensure compliance with all applicable regulations as well as protect the interest of the client for all abatement work performed at the Site. The project specification shall reference the regulations pertinent to each project, including those work procedures that shall be followed by asbestos abatement personnel.
- As part of each abatement contractor bidding process, a unit price schedule for the abatement of asbestos-containing materials should be established. The unit price schedule should include costs for those materials identified within this report, as well as those materials that may potentially be uncovered during renovation/demolition activities. Included should be unit prices for the removal of asbestos-containing materials (e.g., floor tile, floor tile mastic, gray duct sealant), as well as those non-asbestos-containing materials, which may be asbestos contaminated (i.e. carpeting, plywood, etc.).
- Project oversight by an independent third party project monitor/industrial hygienist will provide NHDOT with on-site technical expertise during all phases of the abatement work. Project oversight provides a constant management of the abatement project to ensure that all identified asbestos-containing materials are removed in accordance with all applicable regulations and to prevent an asbestos fiber release. Tasks performed during project oversight should include periodic work inspections to ensure that all procedures employed by the abatement contractor are acceptable, and air monitoring around each work area to detect elevated asbestos fiber levels.

In accordance with the New Hampshire Code of Administrative Rules Env-A 1805.09, the owner/operator shall obtain the services of an independent industrial hygienist to conduct clearance air sampling prior to dismantling any containment or decontamination system following the completion of abatement work for which it was required.

3.0 LEAD-CONTAINING PAINT

On January 16 and 23, 2019, ATC performed a visual inspection of painted surfaces at the site. ATC was not able to access locked portions of the property buildings including a room on the second floor of the Main Building, a closet in Building H, a red shed located north of Building H, and the southern bay of Building B. Exterior painted surfaces were observed on Buildings A, B, C and I. The exterior painted surfaces were observed to be in fair to poor condition with several areas of peeling and flaking paint. Interior painted surfaces included:

- Main building – Entrance hall walls (poor condition);
- Second floor of Main Building – Select interior walls painted (good condition);
- Building D – Sheetrock walls in breakroom and painted brick (both generally good condition);
- Section E – painted brick/block walls (generally good condition);
- Building G – Ceiling (poor condition);
- Building H – Block and sheetrock walls (good condition) and areas of painted brick walls, (generally good condition, some minor peeling)

Based upon the age of the structures, painted surfaces were assumed to contain lead and sampling was not conducted.

3.1 Regulatory Implications and Regulations

The implications of lead paint existing in a non-residential building are related to the future use of the facility and the need to impact these painted surfaces during the renovation and demolition process.

The Occupational Safety and Health Administrative (OSHA) does not acknowledge any quantitative threshold for a lead-based paint. Paint with a detectable amount of lead, regardless of the level, is recognized as a lead-containing paint. The possible exposure hazard to workers impacting these coated surfaces should be assessed and contractors and their employees must adhere to the OSHA Lead in Construction standard found at 29 CFR 1926.62. OSHA requires that personal exposure monitoring be conducted, when appropriate, to determine lead exposure, even for zero results as determined by any method. To fully comply with EPA regulations, sampling of demolition debris waste streams may be required, depending on the requirements of the receiving facility.

OSHA recognizes that construction type work on surfaces coated with lead-containing paint has a potential to expose workers to hazardous levels of lead and requires that appropriate safety and health measures be followed as stated in 29 CFR 1926.62. OSHA states that until the employer performs an exposure assessment and documents that employees are not exposed above the permissible exposure limit (PEL) of greater than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air, the employer must treat employees as if they were exposed above the PEL for the following operations:

- Manual renovation and demolition of structures, manual scraping, manual sanding, and use of heat gun where lead-containing coatings or paints are present;
- Abrasive blasting;
- Power tool cleaning;
- Lead burning;
- Using lead-containing mortar or spray painting with lead-containing paint;
- Abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;
- Cleanup activities where dry expendable abrasives are used; and
- Any other task the employer believes may cause exposure in excess of the PEL.

Work precautions include providing respiratory protection, protective work clothing and equipment, change areas, hand washing facilities, biological monitoring, and training until an exposure assessment has determined that the work activity will result in an exposure below the PEL. Additional requirements under this standard include a written compliance program as well as record keeping.

To fully comply with EPA regulations, sampling of demolition debris waste streams may be required, depending on the requirements of the receiving facility.

3.2 Cost Estimates

The estimated costs for the removal of lead containing painted components prior to the demolition of each Building is approximately **10 - 15%** above the cost for general demolition. This cost includes contractor record-keeping requirements, personal protection of workers, and possible isolation of the work area to comply with the OSHA Lead Standard (29 CFR 1926.62). Additional costs may include disposal of some of the debris as hazardous waste depending on the results of the Toxicity Characteristic Leaching Procedure (TCLP) testing.

4.0 PCB, MERCURY AND OTHER HAZARDOUS MATERIALS (OHM) SURVEY

On January 16 and January 23, 2019, Mr. James Carr performed a hazardous materials survey within accessible areas of the Site. ATC was not able to access locked portions of the property buildings including a room on the second floor of the Main Building, a closet in Building H, a red shed located north of Building H, and the southern bay of Building B. This survey included all aboveground areas and did not include hazardous materials associated with underground structures, underground tanks, or sub-surface conditions.

4.1 Objective

The objective of this survey was to evaluate the presence of polychlorinated biphenyl (PCB)-containing ballasts and electrical equipment, mercury-containing electrical and building components, and other potential hazardous materials including chemicals, refrigerants, aboveground storage tanks (ASTs), or unlabeled containers that will require proper disposal or recycling as part of the demolition project. The spaces occupied by the Department of Health and Human Services (Section D) and the Liquor Commission (Section E) contained many stored materials including containers of cleaning chemicals, paints and lubricants. It is ATC's understanding that these materials will be removed from the building by the respective tenants. As such, the materials stored and used by the tenants were not cataloged.

4.2 Scope of Work

The survey was an evaluation of the aboveground portions of the Site buildings and is based on visual assessment. During the survey, each accessible area was visually inspected for the presence of hazardous materials that will require proper removal and disposal prior to demolition activities. ATC inspected interior and exterior building locations that could be accessed safely. The results of the survey are noted below.

The scope of work for this project did not include inspection of the Site for the presence of underground tanks (USTs) or other underground structures and piping that may contain hazardous materials. In addition, potential soil or groundwater contamination and remediation of PCBs in sealants, paints or adjacent building materials was not addressed in this survey.

4.3 Summary of Findings

A summary of potentially hazardous materials or items suspected to contain hazardous materials, as observed during the survey is presented in the sections that follow. A list of potentially hazardous materials or items suspected to contain hazardous materials, as observed during the survey, is included in Appendices C-1 and C-2.

The identified wastes were segregated into the following groups:

- Group I – Household Chemicals or Consumer Products
- Group II – Universal Wastes
- Group III – Hazardous Wastes
- Group IV – Unknown or Unidentified Materials
- Group V – Other Materials

4.3.1 Group I – Household Chemical or Consumer Products

Group I materials includes household chemicals or consumer items and products such as paints and cleaners. Group I materials were identified, as summarized in Appendix C-1.

4.3.2 Group II – Universal Wastes

Group II materials require disposal through licensed vendors or recycling firms and may include fluorescent bulbs, batteries, and used oils. Group II materials were identified, as summarized in Appendix C-1.

4.3.3 Group III – Hazardous Wastes

Group III materials require handling and disposal as a hazardous waste through a licensed hazardous waste hauler. Group III materials were not identified during the inspection.

4.3.4 Group IV – Unknown or Unidentified Materials

Group IV materials included unknown or unidentified materials. The materials must be characterized and the laboratory analytical results must be provided to a licensed waste hauler for proper handling and disposal. Group IV materials identified included a drum of unknown material located near Building A. Group IV materials were identified, as summarized in Appendix C-2.

4.3.5 Group V – Other Materials

Group V materials are materials that may require disposal through licensed vendors or recycling firms and do not fit into Groups I through IV. Group V materials were identified, as summarized in Appendix C-2.

4.4 Conclusions

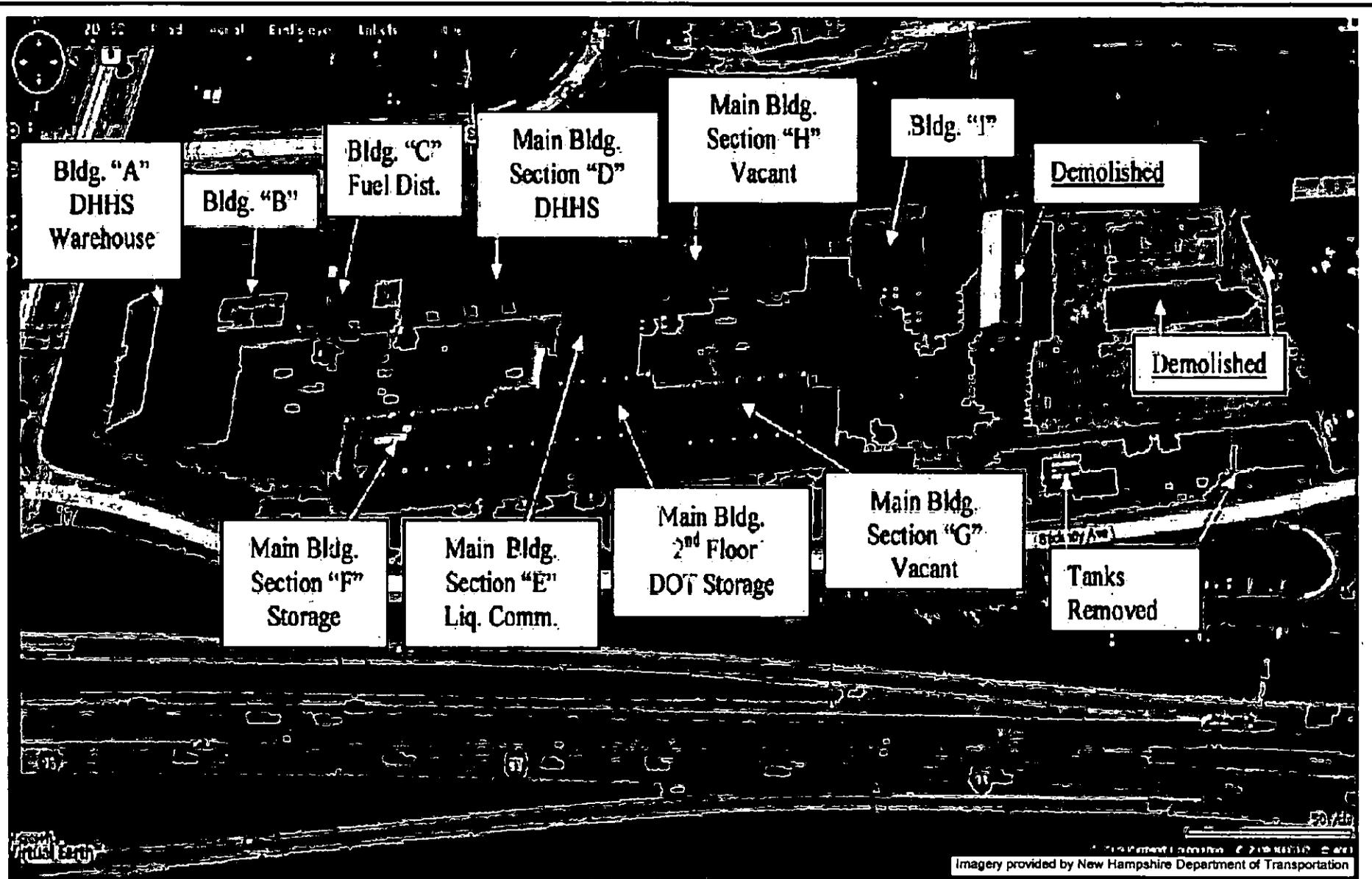
Various light ballasts, light bulbs, potential PCB-containing equipment, potential mercury-containing equipment and miscellaneous items were observed by ATC within the surveyed areas. Care should be taken when handling the inventoried materials and the materials should be disposed according to applicable local, state, and federal regulations.

The estimated cost to dispose of identified OHM is approximately **\$49,000**, which includes a 20% contingency/mobilization fee. This cost estimate was developed with the assumptions noted throughout this report and the following assumptions:

- Only hazardous materials visually observed during the survey are included;
- No significant hidden hazardous materials are discovered at a later time;
- Some of the items, such as the replacement light fixtures and unopened maintenance products are included;
- Costs for disposal of electrical transformers are not included. Any transformers are assumed to be owned by and will be removed by the electric company; and
- The estimated cost does not include costs for assessment and/or remediation associated with any subsurface soil or groundwater contamination, and/or remediation.

The scope of work for this project did not include inspection for the presence of USTs or other underground structures that may contain hazardous materials.

FIGURES



ATC
 150 Zephyrus Road
 Manchester, New Hampshire 01801
 (603) 647-7077
 (603) 647-6347 FAX

NAME/ADDRESS: HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
 BOW-CONCORD 13742A
 HIGHWAY GARAGE 12
 11 STICKNEY AVENUE
 CONCORD, NEW HAMPSHIRE 03301

DRAWING TITLE: SITE PLAN

Not to scale

PROJECT #: 59DOT00087
 CHECKED BY: KZ
 DRAWN BY: BAM
 FIGURE NO. 1

Building A - Asphaltic Roofing Shingle
ACM, 2% Chrysotile

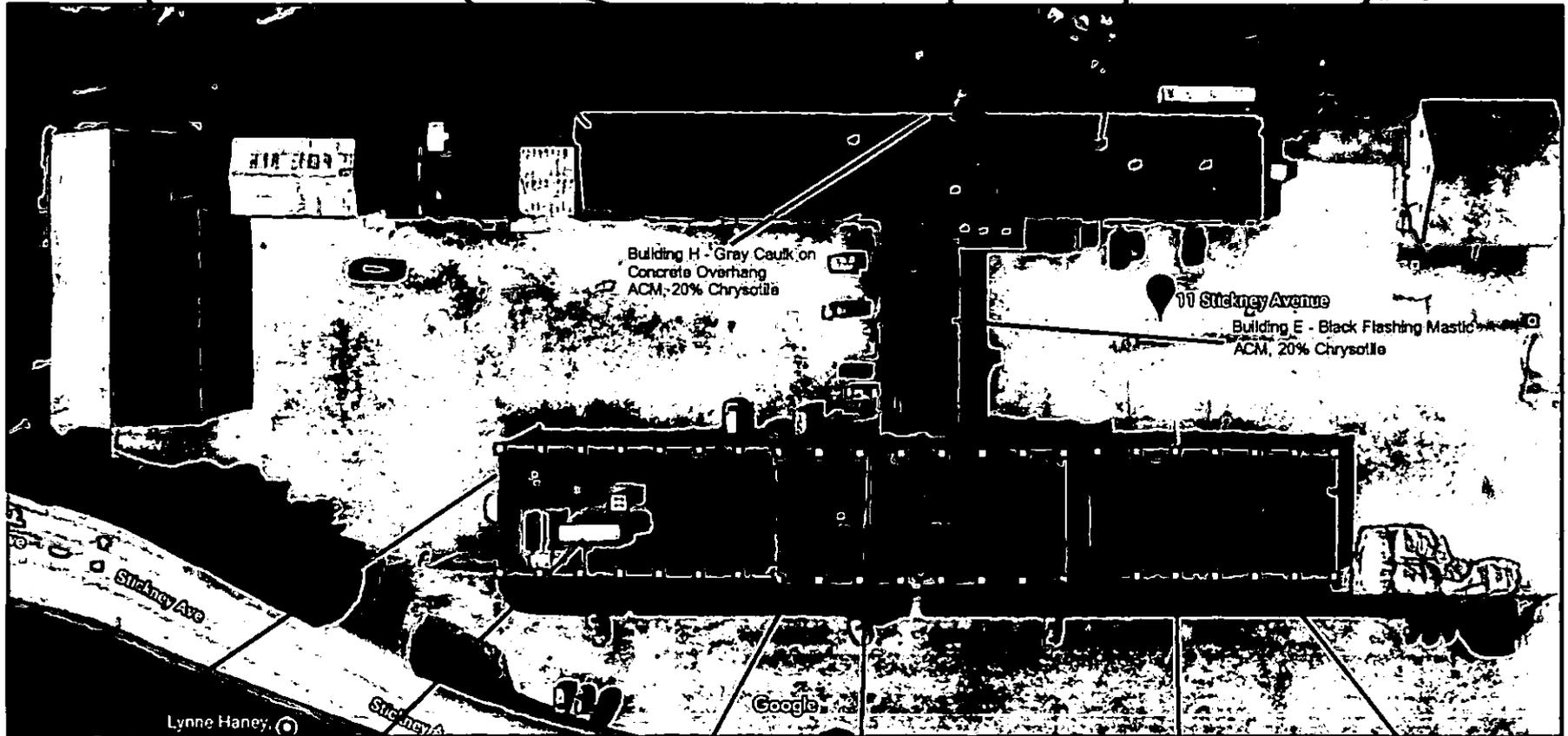
Building D - Black Flashing Mastic
ACM, 20% Chrysotile

Building H Lower Roof - Black Sealant on Brick
above White Flashing Mastic ACM, 20% Chrysotile

Building H - Lower Roof - Black Tar Paper
ACM, 30% Chrysotile

Building H - Black Sealant on Vent Turbine
ACM, 20% Chrysotile

Building H - Black Flashing Mastic
- Black Sealant on Light Pole
ACM, 20% Chrysotile



Building H - Gray Caulk on
Concrete Overhang
ACM, 20% Chrysotile

11 Stickney Avenue

Building E - Black Flashing Mastic
ACM, 20% Chrysotile

Building F - Black Flashing Mastic
ACM, 20% Chrysotile

Building F - Silver Reflective Coating on HVAC Unit
ACM, 2% Chrysotile

Building E Southeast Structure -
Built up Roofing Material ACM, 10% Chrysotile
Black Hatch Flashing Mastic ACM, 5% Chrysotile

Building G - Black Flashing Mastic
ACM, 15% Chrysotile

Main Building Upper Roof
-Black Flashing Mastic
ACM, 20% Chrysotile

Building G - Black Caulk at Concrete Columns
ACM, 10-15% Chrysotile

Imagery provided by Google Map data 2019



190 Zachary Road
Manchester, New Hampshire 01801
(603) 647-7077
(603) 647-5347 FAX

NAME/ADDRESS:

HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
BOW-CONCORD 13742A
HIGHWAY GARAGE 12
11 STICKNEY AVENUE
CONCORD, NEW HAMPSHIRE 03301

DRAWING TITLE:

ACM ROOF SAMPLE LOCATIONS

Not to scale

PROJECT #: 59DOT00087

CHECKED BY: KZ

DRAWN BY: BAM

FIGURE NO.

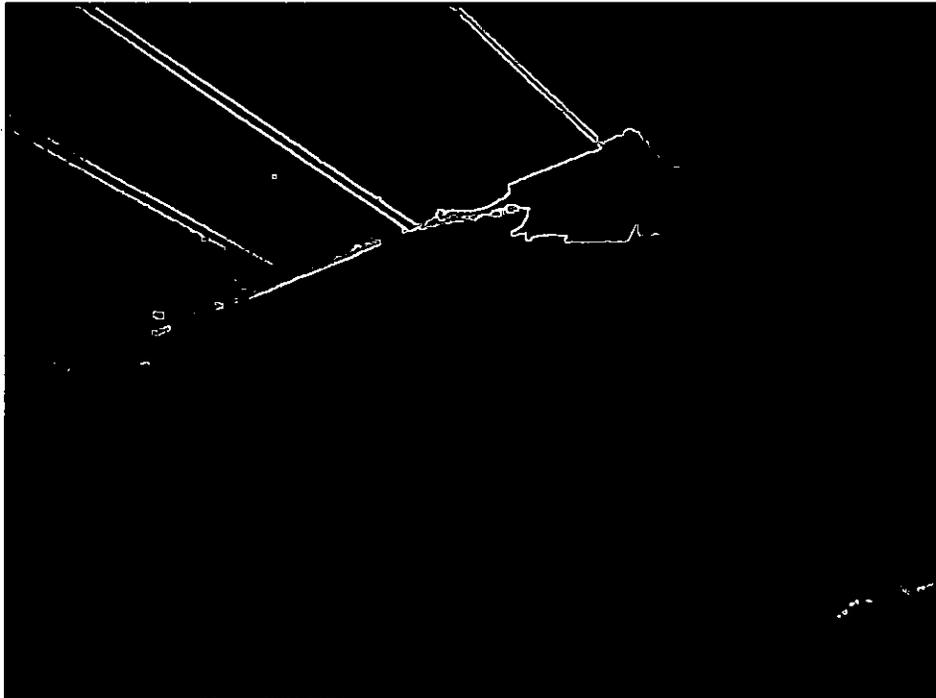
2

APPENDIX A

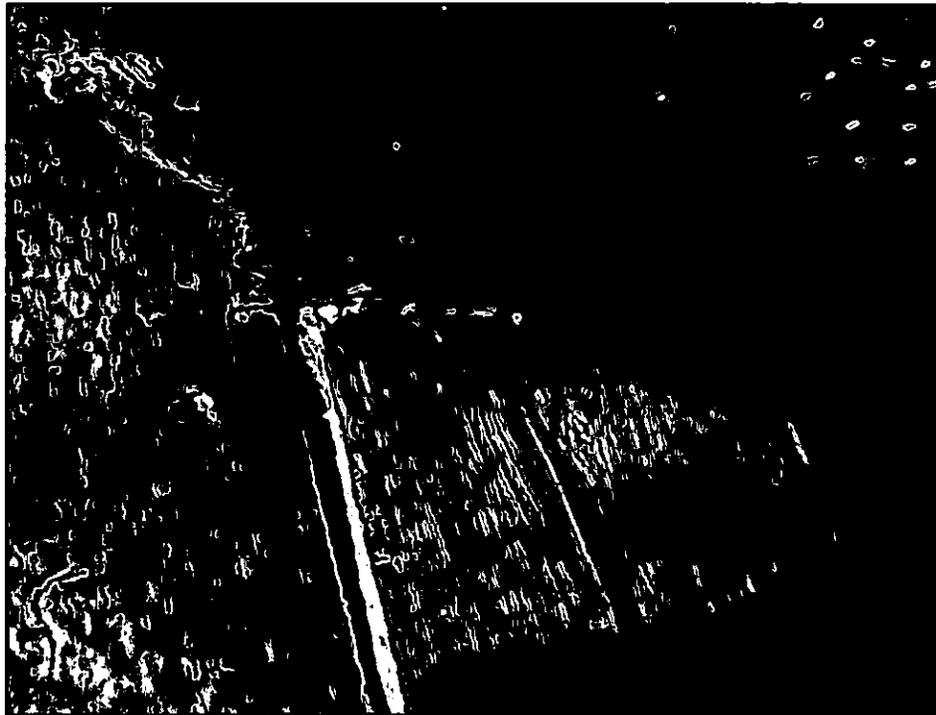
PHOTO LOG

HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 1: Building A – Gray Tansite Cement Panels (ACM 10% Chrysotile)



Photograph 2: Building A – White Furnace Duct Cloth Insulation (ACM, 80% Chrysotile)



HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 3: Building C – Rear of Building.
White Insulation (ACM, 70% Chrysotile)



Photograph 4: Building D Exterior.
Window Frame Caulk (ACM, 3% Chrysotile)



HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 5: Building D Interior
Window Glazing Compound (ACM, 2% Chrysotile)



Photograph 6: Building D
Overhead Door Frame Caulk (ACM, 5% Chrysotile)

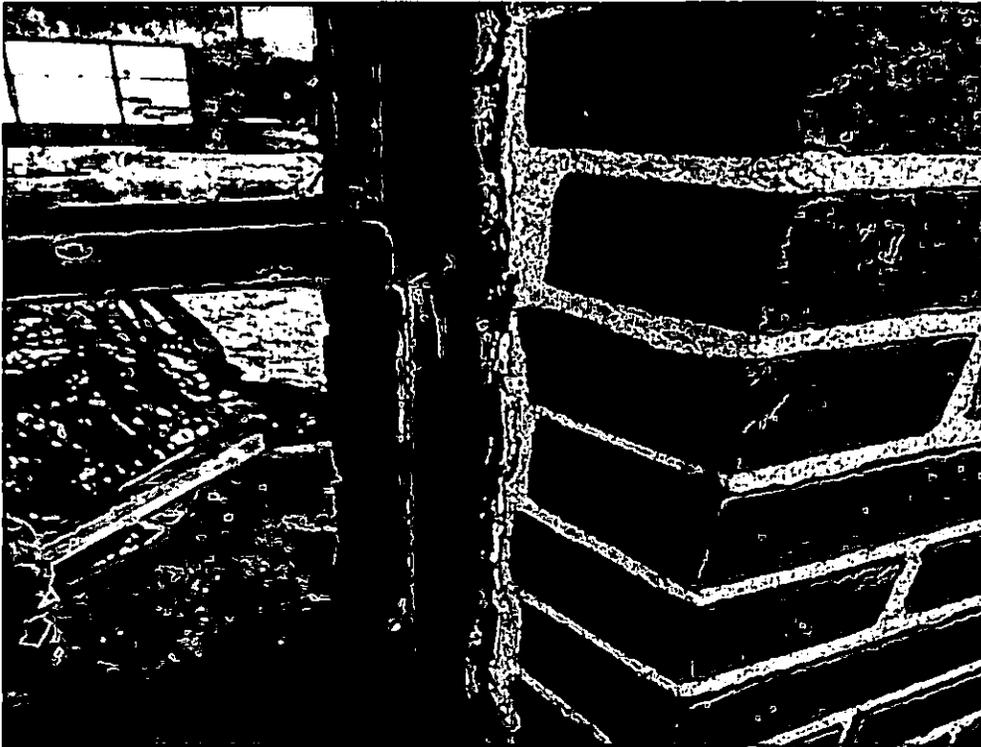


HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 7: Building E
Window Frame Caulk (ACM, 3% Chrysotile)



Photograph 8: Building G
Window Frame Caulk (ACM, 3% Chrysotile)



HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 9: Building G
Door Frame Caulk (ACM, 2% Chrysotile)

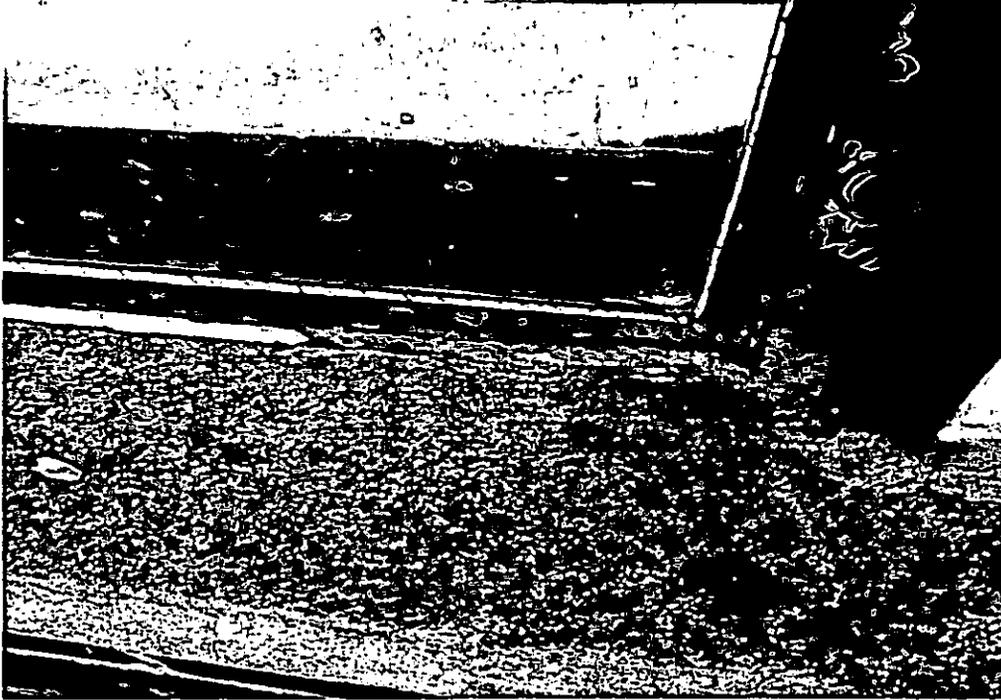


Photograph 10: Building G
Window Glazing Compound (ACM, 2% Chrysotile)

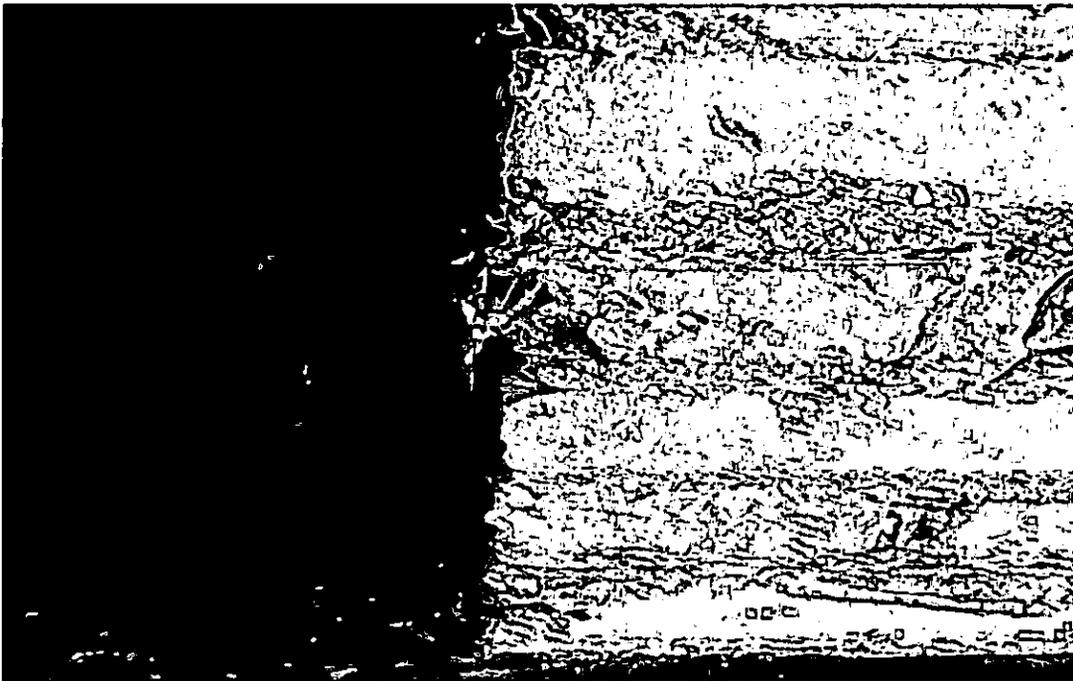


HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 11: Building H
Window Frame Caulk (ACM, 3% Chrysotile)



Photograph 12: Building H
Door Frame Caulk (ACM, 3% Chrysotile)



HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

Photograph 13: Building H
Overhead Door Frame Caulk (ACM, 3% Chrysotile)



Photograph 14: Building H
Window Glazing Compound (ACM, 2% Chrysotile)

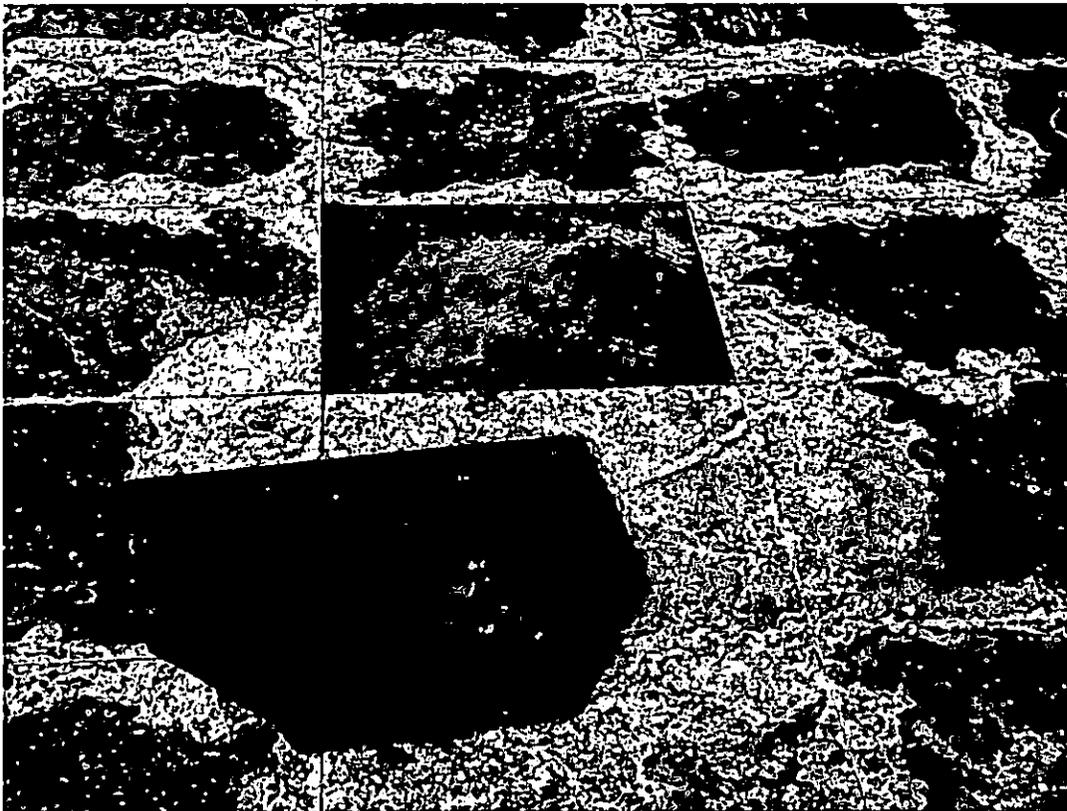


HAZARDOUS BUILDING MATERIALS INSPECTION REPORT
Bow-Concord, Highway Garage 12
11 Stickney Road
Concord, New Hampshire

**Photograph 15: Building H
Boiler Room Door Frame Caulk (ACM, 5% Chrysotile)**



**Photograph 16: Main Building 2nd Floor
9"x9" Brown Floor Tile (ACM, 3% Chrysotile)**



APPENDIX B

ASBESTOS BULK SAMPLE ANALYSIS RESULTS BY PLM



Asbestos Identification Laboratory

165 New Boston St., Ste 227
Woburn, MA 01801
781-932-9600

Web: www.asbestosidentificationlab.com
Email: mikemanning@asbestosidentificationlab.com

Batch: 39134

NVLAP[®]

Lab Code: 200919-0

January 22, 2019

Bryan Thompson
ATC Group Services, Woburn
10 State Street
Suite 100
Woburn, MA 01801

Project Number:

Project Name: NHDOT Highway Garage 12- 11 Stickney
Ave, Concord, NH

Date Sampled: 2019-01-16

Work Received: 2019-01-21

Work Analyzed: 2019-01-22

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Bryan Thompson,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project .

The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Bryan Thompson for your business.

Michael Manning
Owner/Director

January 22, 2019

Bryan Thompson
 ATC Group Services, Woburn
 10 State Street
 Suite 100
 Woburn, MA 01801

Project Number:

Project Name: NHDOT Highway Garage 12- 11 Stickney Ave, Concord, NH

Date Sampled: 2019-01-16

Work Received: 2019-01-21

Work Analyzed: 2019-01-22

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
01A	Exterior Window Glazing	Building A	multi	Non-Fibrous 100	None Detected
432096					
01B	Exterior Window Glazing	Building A	multi	Non-Fibrous 100	None Detected
432097					
02A	Cement Wallboard (Transite) Near Furnace	Building A	gray	Non-Fibrous 90	Detected Chrysotile 10
432098					
02B	Cement Wallboard (Transite) Near Furnace	Building A			Not Analyzed
432099					
02C	Cement Wallboard (Transite) Near Furnace	Building A			Not Analyzed
432100					
03A	White Furnace Duct Cloth Insulation	Building A	black	Non-Fibrous 20	Detected Chrysotile 80
432101					
03B	White Furnace Duct Cloth Insulation	Building A			Not Analyzed
432102					
03C	White Furnace Duct Cloth Insulation	Building A			Not Analyzed
432103					
04A	Brown Cloth at Wood Column and Concrete Base	Building B	brown	Cellulose 80 Non-Fibrous 20	None Detected
432104					
04B	Brown Cloth at Wood Column and Concrete Base	Building B	brown	Cellulose 80 Non-Fibrous 20	None Detected
432105					
04C	Brown Cloth at Wood Column and Concrete Base	Building B	brown	Cellulose 95 Non-Fibrous 5	None Detected
432106					
05A	Joint Compound	Building C- Rear Corner Office	white	Non-Fibrous 100	None Detected
432107					
05B	Joint Compound	Building C- Rear Corner Office	white	Non-Fibrous 100	None Detected
432108					
05C	Joint Compound	Building C- Rear Corner Office	white	Non-Fibrous 100	None Detected
432109					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
06A	Sheetrock	Building C- Rear Corner Office	multi	Cellulose 10	None Detected
432110				Non-Fibrous 90	
06B	Sheetrock	Building C- Rear Corner Office	multi	Cellulose 10	None Detected
432111				Non-Fibrous 90	
06C	Sheetrock	Building C- Rear Corner Office	multi	Cellulose 10	None Detected
432112				Non-Fibrous 90	
07A	Yellow Duct Sealant at Chimney Penetration	Building C- Rear Mech Room	tan	Non-Fibrous 100	None Detected
432113					
07B	Yellow Duct Sealant at Chimney Penetration	Building C- Rear Mech Room	tan	Non-Fibrous 100	None Detected
432114					
07C	Yellow Duct Sealant at Chimney Penetration	Building C- Rear Mech Room	tan	Non-Fibrous 100	None Detected
432115					
08A	White Insulation at Rear Exterior	Building C	multi	Non-Fibrous 30	Detected Chrysotile 70
432116					
08B	White Insulation at Rear Exterior	Building C			Not Analyzed
432117					
08C	White Insulation at Rear Exterior	Building C			Not Analyzed
432118					
09A	Black Leveling Compound	Building C	gray	Non-Fibrous 100	None Detected
432119					
09B	Black Leveling Compound	Building C	gray	Non-Fibrous 100	None Detected
432120					
10A	Red Floor Leveling Compound	Building C	red	Non-Fibrous 100	None Detected
432121					
10B	Red Floor Leveling Compound	Building C	red	Non-Fibrous 100	None Detected
432122					
11A	Window Glazing	Building C	multi	Non-Fibrous 100	None Detected
432123					
11B	Window Glazing	Building C	multi	Non-Fibrous 100	None Detected
432124					
12A	Brown Exterior Caulk at Bottom of Wood Facade	Building C	brown	Non-Fibrous 100	None Detected
432125					
12B	Brown Exterior Caulk at Bottom of Wood Facade	Building C	brown	Non-Fibrous 100	None Detected
432126					
13A	White Caulk at Exterior at metal Panel and Wood Panel	Building C	multi	Non-Fibrous 100	None Detected
432127					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
13B	White Caulk at Exterior at metal Panel and Wood Panel	Building C	multi	Non-Fibrous 100	None Detected
432128					
14A	Joint Compound in Break Room	Building D	white	Non-Fibrous 100	None Detected
432129					
14B	Joint Compound in Break Room	Building D	white	Non-Fibrous 100	None Detected
432130					
14C	Joint Compound in Break Room	Building D	white	Non-Fibrous 100	None Detected
432131					
15A	Sheetrock in Break Room	Building D	multi	Cellulose 10	None Detected
432132				Non-Fibrous 90	
15B	Sheetrock in Break Room	Building D	multi	Cellulose 10	None Detected
432133				Non-Fibrous 90	
15C	Sheetrock in Break Room	Building D	multi	Cellulose 10	None Detected
432134				Non-Fibrous 90	
16A	Yellow Carpet Mastic in Break Room	Building D	yellow	Non-Fibrous 100	None Detected
432135					
16B	Yellow Carpet Mastic in Break Room	Building D	yellow	Non-Fibrous 100	None Detected
432136					
17A	Yellow Cove Base Mastic in Break Room	Building D	tan	Non-Fibrous 100	None Detected
432137					
17B	Yellow Cove Base Mastic in Break Room	Building D	tan	Non-Fibrous 100	None Detected
432138					
18A	White Pipe Elbow Insulation	Building D	gray	Non-Fibrous 100	None Detected
432139					
18B	White Pipe Elbow Insulation	Building D	gray	Non-Fibrous 100	None Detected
432140					
18C	White Pipe Elbow Insulation	Building D	gray	Non-Fibrous 100	None Detected
432141					
19A	Gray Caulk on Blower Fan	Building D- Break Room	gray	Non-Fibrous 100	None Detected
432142					
19B	Gray Caulk on Blower Fan	Building D- Break Room	gray	Non-Fibrous 100	None Detected
432143					
20A	Black Asphalt Caulk Below Carpet	Building D- Break Room	black	Non-Fibrous 100	None Detected
432144					
20B	Black Asphalt Caulk Below Carpet	Building D- Break Room	black	Non-Fibrous 100	None Detected
432145					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
21A	Exterior Window Frame Caulking	Building D	gray	Non-Fibrous 97	Detected Chrysotile 3
432146					
21B	Exterior Window Frame Caulking	Building D			Not Analyzed
432147					
22A	Interior Window Frame Caulking	Building D	multi	Non-Fibrous 97	Detected Chrysotile 3
432148					
22B	Interior Window Frame Caulking	Building D			Not Analyzed
432149					
23A	Window Glazing Compound	Building D	multi	Non-Fibrous 98	Detected Chrysotile 2
432150					
23B	Window Glazing Compound	Building D			Not Analyzed
432151					
24A	Overhead Door Frame Caulking	Building D	gray	Non-Fibrous 95	Detected Chrysotile 5
432152					
24B	Overhead Door Frame Caulking	Building D			Not Analyzed
432153					
25A	Door Frame Caulk	Building D	multi	Non-Fibrous 100	None Detected
432154					
25B	Door Frame Caulk	Building D	multi	Non-Fibrous 100	None Detected
432155					
26A	Plaster Coat Over Brick	Building E	gray	Non-Fibrous 100	None Detected
432156					
26B	Plaster Coat Over Brick	Building E	gray	Non-Fibrous 100	None Detected
432157					
26C	Plaster Coat Over Brick	Building E	gray	Non-Fibrous 100	None Detected
432158					
27A	Interior Window Frame Caulk	Building E	multi	Non-Fibrous 98	Detected Chrysotile 2
432159					
27B	Interior Window Frame Caulk	Building E			Not Analyzed
432160					
28A	Exterior Window Frame Caulking	Building E	gray	Non-Fibrous 97	Detected Chrysotile 3
432161					
28B	Exterior Window Frame Caulking	Building E			Not Analyzed
432162					
29A	Window Glazing Compound	Building E	multi	Non-Fibrous 100	None Detected
432163					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
29B	Window Glazing Compound	Building E	multi	Non-Fibrous 100	None Detected
432164					
30A	Gray Plaster Base Coat	Building F	gray	Non-Fibrous 100	None Detected
432165					
30B	Gray Plaster Base Coat	Building F	gray	Non-Fibrous 100	None Detected
432166					
30C	Gray Plaster Base Coat	Building F	gray	Non-Fibrous 100	None Detected
432167					
31A	Gray Plaster Skim Coat	Building F	gray	Non-Fibrous 100	None Detected
432168					
31B	Gray Plaster Skim Coat	Building F	gray	Non-Fibrous 100	None Detected
432169					
31C	Gray Plaster Skim Coat	Building F	gray	Non-Fibrous 100	None Detected
432170					
32A	Yellow Carpet Mastic	Building F	yellow	Non-Fibrous 100	None Detected
432171					
32B	Yellow Carpet Mastic	Building F	yellow	Non-Fibrous 100	None Detected
432172					
33A	Yellow Cove Base Mastic	Building F	tan	Non-Fibrous 100	None Detected
432173					
33B	Yellow Cove Base Mastic	Building F	tan	Non-Fibrous 100	None Detected
432174					
34A	12x12 Tan Floor Tile	Building F	gray	Non-Fibrous 100	None Detected
432175					
34B	12x12 Tan Floor Tile	Building F	gray	Non-Fibrous 100	None Detected
432176					
35A	Yellow Mastic Assoc w/ 12x12 Tan Floor Tile	Building F	yellow	Non-Fibrous 100	None Detected
432177					
35B	Yellow Mastic Assoc w/ 12x12 Tan Floor Tile	Building F	yellow	Non-Fibrous 100	None Detected
432178					
36A	Yellow Caulk on Ceiling	Building F- Explosion Room	white	Non-Fibrous 100	None Detected
432179					
36B	Yellow Caulk on Ceiling	Building F- Explosion Room	white	Non-Fibrous 100	None Detected
432180					
37A	Black Insulation in Walls	Building F- Explosion Room	black	Mineral Wool 90	None Detected
432181				Non-Fibrous 10	

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
37B	Black Insulation in Walls	Building F- Explosion Room	black	Mineral Wool 90	None Detected
432182				Non-Fibrous 10	
38A	2x4 Ceiling Tiles	Building F	gray	Mineral Wool 40	None Detected
432183				Cellulose 40 Non-Fibrous 20	
38B	2x4 Ceiling Tiles	Building F	gray	Mineral Wool 40	None Detected
432184				Cellulose 40 Non-Fibrous 20	
39A	Door Frame Caulk	Building F	white	Non-Fibrous 100	None Detected
432185					
39B	Door Frame Caulk	Building F	white	Non-Fibrous 100	None Detected
432186					
40A	Black Water Proofing on Perimeter Brick	Building F	black	Non-Fibrous 100	None Detected
432187					
40B	Black Water Proofing on Perimeter Brick	Building F	black	Non-Fibrous 100	None Detected
432188					
41A	Gray Plaster Base Coat	Building G	gray	Non-Fibrous 100	None Detected
432189					
41B	Gray Plaster Base Coat	Building G	gray	Non-Fibrous 100	None Detected
432190					
41C	Gray Plaster Base Coat	Building G	gray	Non-Fibrous 100	None Detected
432191					
42A	Gray Plaster Skim Coat	Building G	gray	Non-Fibrous 100	None Detected
432192					
42B	Gray Plaster Skim Coat	Building G	gray	Non-Fibrous 100	None Detected
432193					
42C	Gray Plaster Skim Coat	Building G	gray	Non-Fibrous 100	None Detected
432194					
43A	Interior Window Frame Caulk	Building G	gray	Non-Fibrous 97	Detected Chrysotile 3
432195					
43B	Interior Window Frame Caulk	Building G			Not Analyzed
432196					
44A	Exterior Window Frame Caulk	Building G	multi	Non-Fibrous 98	Detected Chrysotile 2
432197					
44B	Exterior Window Frame Caulk	Building G			Not Analyzed
432198					
45A	Door Frame Caulking	Building G	multi	Non-Fibrous 98	Detected Chrysotile 2
432199					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
45B	Door Frame Caulking	Building G			Not Analyzed
432200					
46A	Overhead Door Frame Caulking	Building G	gray	Non-Fibrous 100	None Detected
432201					
46B	Overhead Door Frame Caulking	Building G	gray	Non-Fibrous 100	None Detected
432202					
47A	Window Glazing Compound	Building G	gray	Other 2 Non-Fibrous 98	None Detected
432203					
47B	Window Glazing Compound	Building G	gray	Non-Fibrous 98	Detected Chrysotile 2
432204					
48A	Black Water Proofing Mastic on Interior Brick	Building G	black	Non-Fibrous 100	None Detected
432205					
48B	Black Water Proofing Mastic on Interior Brick	Building G	black	Non-Fibrous 100	None Detected
432206					
49A	Interior Window Frame Caulk	Building H	gray	Non-Fibrous 97	Detected Chrysotile 3
432207					
49B	Interior Window Frame Caulk	Building H	gray		Not Analyzed
432208					
50A	Exterior Window Frame Caulk	Building H	gray	Non-Fibrous 98	Detected Chrysotile 2
432209					
50B	Exterior Window Frame Caulk	Building H	multi		Not Analyzed
432210					
51A	Exterior Door Frame Caulking	Building H	multi	Non-Fibrous 97	Detected Chrysotile 3
432211					
51B	Exterior Door Frame Caulking	Building H	multi		Not Analyzed
432212					
52A	Overhead Door Frame Caulk	Building H	multi	Non-Fibrous 97	Detected Chrysotile 3
432213					
52B	Overhead Door Frame Caulk	Building H			Not Analyzed
432214					
53A	Window Glazing Compound	Building H	multi	Non-Fibrous 98	Detected Chrysotile 2
432215					
53B	Window Glazing Compound	Building H			Not Analyzed
432216					
54A	Boiler Room Door Frame Caulk	Building H	multi	Non-Fibrous 95	Detected Chrysotile 5
432217					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
54B	Boiler Room Door Frame Caulk	Building H			Not Analyzed
432218					
55A	12x12 Tan Floor Tile	Building H- Office	white	Non-Fibrous 100	None Detected
432219					
55B	12x12 Tan Floor Tile	Building H- Office	white	Non-Fibrous 100	None Detected
432220					
56A	Yellow Mastic Assoc w/ 12x12 Tan Floor Tile	Building H- Office	yellow	Non-Fibrous 100	None Detected
432221					
56B	Yellow Mastic Assoc w/ 12x12 Tan Floor Tile	Building H- Office	yellow	Non-Fibrous 100	None Detected
432222					
57A	Joint Compound	Main Building- 2nd Floor	white	Non-Fibrous 100	None Detected
432223					
57B	Joint Compound	Main Building- 2nd Floor	white	Non-Fibrous 100	None Detected
432224					
57C	Joint Compound	Main Building- 2nd Floor	white	Non-Fibrous 100	None Detected
432225					
58A	Sheetrock	Main Building- 2nd Floor	multi	Cellulose 10 Non-Fibrous 90	None Detected
432226					
58B	Sheetrock	Main Building- 2nd Floor	multi	Cellulose 10 Non-Fibrous 90	None Detected
432227					
58C	Sheetrock	Main Building- 2nd Floor	multi	Cellulose 10 Non-Fibrous 90	None Detected
432228					
59A	Gray Plaster Base Coat	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
432229					
59B	Gray Plaster Base Coat	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
432230					
59C	Gray Plaster Base Coat	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
432231					
60A	Gray Plaster Skim Coat	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
432232					
60B	Gray Plaster Skim Coat	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
432233					
60C	Gray Plaster Skim Coat	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
432234					
61A	9x9 Brown Floor Tile	Main Building- 2nd Floor	brown	Non-Fibrous 97	Detected Chrysotile 3
432235					

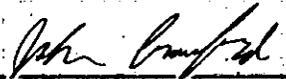
FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
61B	9x9 Brown Floor Tile	Main Building- 2nd Floor			Not Analyzed
432236					
62A	Black Mastic Assoc w/ 9x9 Brown Floor Tile	Main Building- 2nd Floor	black	Non-Fibrous 100	None Detected
432237					
62B	Black Mastic Assoc w/ 9x9 Brown Floor Tile	Main Building- 2nd Floor	black	Non-Fibrous 100	None Detected
432238					
63A	1x1 Acoustic Tiles	Main Building- 2nd Floor	brown	Cellulose 100	None Detected
432239					
63B	1x1 Acoustic Tiles	Main Building- 2nd Floor	brown	Cellulose 100	None Detected
432240					
64A	Brown Glue Daubs Assoc w/ 1x1 Acoustic Tiles	Main Building- 2nd Floor	brown	Non-Fibrous 100	None Detected
432241					
64B	Brown Glue Daubs Assoc w/ 1x1 Acoustic Tiles	Main Building- 2nd Floor	brown	Non-Fibrous 100	None Detected
432242					

Tuesday 22 January

End of Report

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Analyzed by:



Batch: 39134



Asbestos Identification Laboratory

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Batch: 39523

NVLAP[®]

Lab Code: 200919-0

February 05, 2019

Kristin Zeman
ATC Group Services, Woburn
10 State Street
Suite 100
Woburn, MA 01801

Project Number:

Project Name: NH Dot Highway Garage 12, 11 Stickney
Ave, Concord, NH

Date Sampled: 2019-01-23

Work Received: 2019-02-01

Work Analyzed: 2019-02-04

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Kristin Zeman,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project.

The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations, Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Kristin Zeman for your business.

Michael Manning
Owner/Director

February 05, 2019

Kristin Zeman
 ATC Group Services, Woburn
 10 State Street
 Suite 100
 Woburn, MA 01801

Project Number:

Project Name: NH Dot Highway Garage 12, 11 Stickney Ave, Concord, NH

Date Sampled: 2019-01-23

Work Received: 2019-02-01

Work Analyzed: 2019-02-04

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
65A	Asphalt Roofing Shingle	Building A Roof	black	Cellulose 20	None Detected
436915				Non-Fibrous 80	
65B	Asphalt Roofing Shingle	Building A Roof	black	Cellulose 35	None Detected
436916				Non-Fibrous 65	
66A	Asphalt Roofing Shingle	Building A Roof	black	Cellulose 38	Detected Chrysotile 2
436917				Non-Fibrous 60	
66B	Asphalt Roofing Shingle	Building A Roof			Not Analyzed
436918					
67A	Brown Mastic Associated with Rubber Membrane Roof	Building C Roof	brown	Non-Fibrous 100	None Detected
436919					
67B	Brown Mastic Associated with Rubber Membrane Roof	Building C Roof	brown	Non-Fibrous 100	None Detected
436920					
68A	Black Rubber Membrane Seam Sealant	Building C Roof	black	Non-Fibrous 100	None Detected
436921					
68B	Black Rubber Membrane Seam Sealant	Building C Roof	black	Non-Fibrous 100	None Detected
436922					
69A	Brown Fiberboard	Building C Roof	brown	Cellulose 98	None Detected
436923				Non-Fibrous 2	
69B	Brown Fiberboard	Building C Roof	brown	Cellulose 98	None Detected
436924				Non-Fibrous 2	
70A	Built-Up Roofing Material	Building C Roof	black	Cellulose 45	None Detected
436925				Non-Fibrous 55	
70B	Built-Up Roofing Material	Building C Roof	black	Cellulose 50	None Detected
436926				Non-Fibrous 50	
71A	Black Caulk at Chimney Flashing	Building C Roof (Lower Roof)	black	Non-Fibrous 100	None Detected
436927					
71B	Black Caulk at Chimney Flashing	Building C Roof (Lower Roof)	black	Non-Fibrous 100	None Detected
436928					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
72A	Black Caulk at Roof Flashing/Brick	Building C Roof (Lower Roof)	black	Non-Fibrous 100	None Detected
436929					
72B	Black Caulk at Roof Flashing/Brick	Building C Roof (Lower Roof)	black	Non-Fibrous 100	None Detected
436930					
73A	Black Sealant at Vent Stack Flashing	Building C Roof (Lower Roof)	black	Cellulose 30	None Detected
436931				Non-Fibrous 70	
73B	Black Sealant at Vent Stack Flashing	Building C Roof (Lower Roof)	black	Cellulose 35	None Detected
436932				Non-Fibrous 65	
74A	Asphalt Roofing Shingle	Building C Roof (South Lower Pitched Roof)	black	Cellulose 45	None Detected
436933				Non-Fibrous 55	
74B	Asphalt Roofing Shingle	Building C Roof (South Lower Pitched Roof)	black	Cellulose 50	None Detected
436934				Non-Fibrous 50	
75A	Black Mastic Associated with Asphalt Roofing Shingle	Building C Roof (South Lower Pitched Roof)	black	Non-Fibrous 100	None Detected
436935					
75B	Black Mastic Associated with Asphalt Roofing Shingle	Building C Roof (South Lower Pitched Roof)	black	Non-Fibrous 100	None Detected
436936					
76A	Black Mesh Membrane	Building C Roof (Upper Roof, North Flashing)	black	Synthetic 30	None Detected
436937				Non-Fibrous 70	
76B	Black Mesh Membrane	Building C Roof (Upper Roof, North Flashing)	black	Synthetic 35	None Detected
436938				Non-Fibrous 65	
77A	Black Mastic Associated with Black Mesh Membrane	Building C Roof (Upper Roof, North Flashing)	black	Non-Fibrous 100	None Detected
436939					
77B	Black Mastic Associated with Black Mesh Membrane	Building C Roof (Upper Roof, North Flashing)	black	Non-Fibrous 100	None Detected
436940					
78A	Black Sealant at Vent Stack Flashing	Building C Roof (Upper Roof)	black	Cellulose 25	None Detected
436941				Non-Fibrous 75	
78B	Black Sealant at Vent Stack Flashing	Building C Roof (Upper Roof)	black	Cellulose 15	None Detected
436942				Non-Fibrous 85	
79A	Black Sealant at Roof Top HVAC Unit Base	Building C Roof (Upper Roof)	black	Cellulose 30	None Detected
436943				Non-Fibrous 70	
79B	Black Sealant at Roof Top HVAC Unit Base	Building C Roof (Upper Roof)	black	Cellulose 40	None Detected
436944				Non-Fibrous 60	
80A	Gray Caulk, Roof Top HVAC Unit Metal Panel Seam	Building C Roof (Upper Roof)	gray	Non-Fibrous 100	None Detected
436945					
80B	Gray Caulk, Roof Top HVAC Unit Metal Panel Seam	Building C Roof (Upper Roof)	gray	Non-Fibrous 100	None Detected
436946					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
81A	Built-Up Roofing Material	Building D Roof	black	Cellulose 50	None Detected
436947				Non-Fibrous 50	
81B	Built-Up Roofing Material	Building D Roof	black	Cellulose 45	None Detected
436948				Non-Fibrous 55	
82A	Fiberboard	Building D Roof	brown	Cellulose 98	None Detected
436949				Non-Fibrous 2	
82B	Fiberboard	Building D Roof	brown	Cellulose 98	None Detected
436950				Non-Fibrous 2	
83A	Black Mesh Membrane at Flashing	Building D Roof	black	Fiberglass 80	None Detected
436951				Non-Fibrous 20	
83B	Black Mesh Membrane at Flashing	Building D Roof (Flashing)	black	Fiberglass 80	None Detected
436952				Non-Fibrous 20	
84A	Black Mastic Associated with Black Mesh Membrane at Flashing	Building D Roof	black	Non-Fibrous 80	Detected Chrysotile 20
436953					
84B	Black Mastic Associated with Black Mesh Membrane at Flashing	Building D Roof (Flashing)			Not Analyzed
436954					
85A	Built-Up Roofing Material	Building E Roof	black	Fiberglass 20	None Detected
436955				Cellulose 30 Non-Fibrous 50	
85B	Built-Up Roofing Material	Building E Roof	black	Fiberglass 30	None Detected
436956				Cellulose 20 Non-Fibrous 50	
86A	Fiberboard	Building E Roof	brown	Cellulose 95	None Detected
436957				Non-Fibrous 5	
86B	Fiberboard	Building E Roof	brown	Cellulose 98	None Detected
436958				Non-Fibrous 2	
87A	Black Mesh Membrane at Flashing	Building E Roof	black	Fiberglass 90	None Detected
436959				Non-Fibrous 10	
87B	Black Mesh Membrane at Flashing	Building E Roof	black	Fiberglass 85	None Detected
436960				Non-Fibrous 15	
88A	Black Mastic Associated w/ Black Mesh Membrane at Flashing	Building E Roof	black	Non-Fibrous 80	Detected Chrysotile 20
436961					
88B	Black Mastic Associated w/ Black Mesh Membrane at Flashing	Building E Roof	black		Not Analyzed
436962					
89A	Built-Up Material	Building E Roof (Adjacent Southeast Structure)		Cellulose 20	Detected Chrysotile 10
436963				Non-Fibrous 70	
89B	Built-Up Material	Building E Roof (Adjacent Southeast Structure)	black		Not Analyzed
436964					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
90A	Black Hatch Flashing Mastic	Building E Roof (Adjacent Southeast Structure)		Non-Fibrous 95	Detected Chrysotile 5
436965					
90B	Black Hatch Flashing Mastic	Building E Roof (Adjacent Southeast Structure)	black		Not Analyzed
436966					
91A	Asphalt Roofing Shingle	Building E Roof (Lower Roof at Overhead Door)	black	Fiberglass 30	None Detected
436967				Non-Fibrous 70	
91B	Asphalt Roofing Shingle	Building E Roof (Lower Roof at Overhead Door)	black	Fiberglass 25	None Detected
436968				Non-Fibrous 75	
92A	Built-Up Roofing Material	Building F Roof	black	Cellulose 40	None Detected
436969				Non-Fibrous 60	
92B	Built-Up Roofing Material	Building F Roof	black	Cellulose 40	None Detected
436970				Non-Fibrous 60	
93A	Soft Concrete on Deck	Building F Roof	gray	Non-Fibrous 100	None Detected
436971					
93B	Soft Concrete on Deck	Building F Roof	gray	Non-Fibrous 100	None Detected
436972					
94A	Asphalt Roofing Shingle	Building F Roof	black	Fiberglass 10	None Detected
436973				Synthetic 30	
94B	Asphalt Roofing Shingle	Building F Roof	black	Fiberglass 20	None Detected
436974				Synthetic 20	
95A	Black Mastic Associated with Asphalt Roofing Shingle	Building F Roof	black	Non-Fibrous 100	None Detected
436975					
95B	Black Mastic Associated with Asphalt Roofing Shingle	Building F Roof	black	Non-Fibrous 100	None Detected
436976					
96A	Black Mesh Membrane at Flashing	Building F Roof	black	Fiberglass 95	None Detected
436977				Non-Fibrous 5	
96B	Black Mesh Membrane at Flashing	Building F Roof	black	Fiberglass 90	None Detected
436978				Non-Fibrous 10	
97A	Black Mastic Associated w/ Black Mesh Membrane at Flashing	Building F Roof	black	Non-Fibrous 80	Detected Chrysotile 20
436979					
97B	Black Mastic Associated w/ Black Mesh Membrane at Flashing	Building F Roof			Not Analyzed
436980					
98A	Black Coating on HVAC Fan Duct	Building F Roof	black	Non-Fibrous 100	None Detected
436981					
98B	Black Coating on HVAC Fan Duct	Building F Roof	black	Non-Fibrous 100	None Detected
436982					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
99A	Black/Tan Mesh on HVAC Fan Duct	Building F Roof	black	Synthetic 95	None Detected
436983				Non-Fibrous 5	
99B	Black/Tan Mesh on HVAC Fan Duct	Building F Roof	black	Synthetic 95	None Detected
436984				Non-Fibrous 5	
100A	Black Mastic Associated with Black/Tan Mesh on HVAC Fan Duct	Building F Roof	black	Non-Fibrous 100	None Detected
436985					
100B	Black Mastic Associated with Black/Tan Mesh on HVAC Fan Duct	Building F Roof	black	Non-Fibrous 100	None Detected
436986					
101A	White Caulk on HVAC Fan Duct Interior	Building F Roof	white	Non-Fibrous 100	None Detected
436987					
101B	White Caulk on HVAC Fan Duct Interior	Building F Roof	white	Non-Fibrous 100	None Detected
436988					
102A	Black Sealant on HVAC Fan Duct Ring Clamp	Building F Roof	black	Non-Fibrous 100	None Detected
436989					
102B	Black Sealant on HVAC Fan Duct Ring Clamp	Building F Roof	black	Non-Fibrous 100	None Detected
436990					
103A	Black Sealant Patch Associated with HVAC Fan Duct Flashing	Building F Roof	black	Non-Fibrous 100	None Detected
436991					
103B	Black Sealant Patch Associated with HVAC Fan Duct Flashing	Building F Roof	black	Non-Fibrous 100	None Detected
436992					
104A	Black Sealant at Electrical Penetration (HVAC Fan Units)	Building F Roof	black	Non-Fibrous 100	None Detected
436993					
104B	Black Sealant at Electrical Penetration (HVAC Fan Units)	Building F Roof	black	Non-Fibrous 100	None Detected
436994					
105A	Black Sealant at Electrical Box (HVAC Fan Units)	Building F Roof	black	Cellulose 20	None Detected
436995				Non-Fibrous 80	
105B	Black Sealant at Electrical Box (HVAC Fan Units)	Building F Roof	black	Cellulose 15	None Detected
436996				Non-Fibrous 85	
106A	Black HVAC Fan Duct Seam Sealant	Building F Roof	black	Non-Fibrous 100	None Detected
436997					
106B	Black HVAC Fan Duct Seam Sealant	Building F Roof	black	Non-Fibrous 100	None Detected
436998					
107A	Black Sealant at Rubber Cover/Flashing (HVAC Fan Units)	Building F Roof	black	Non-Fibrous 100	None Detected
436999					
107B	Black Sealant at Rubber Cover/Flashing (HVAC Fan Units)	Building F Roof	clear	Non-Fibrous 100	None Detected
437000					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
108A	Black Caulk at Roof Top HVAC Unit Metal Panel Seam	Building F Roof	black	Non-Fibrous 100	None Detected
437001					
108B	Black Caulk at Roof Top HVAC Unit Metal Panel Seam	Building F Roof	black	Non-Fibrous 100	None Detected
437002					
109A	Gray Caulk Roof Top HVAC unit Duct Stack	Building F Roof	gray	Non-Fibrous 100	None Detected
437003					
109B	Gray Caulk Roof Top HVAC unit Duct Stack	Building F Roof	gray	Non-Fibrous 100	None Detected
437004					
110A	Silver Reflective Coating on Roof Top HVAC Unit Rubber Base	Building F Roof	silver	Non-Fibrous 98	Detected Chrysotile 2
437005					
110B	Silver Reflective Coating on Roof Top HVAC Unit Rubber Base	Building F Roof			Not Analyzed
437006					
111A	Silver Reflective Coating on Roof Vent	Building F Roof	silver	Non-Fibrous 98	Detected Chrysotile 2
437007					
111B	Silver Reflective Coating on Roof Vent	Building F Roof			Not Analyzed
437008					
112A	Asphalt Roofing Shingle	Building F Roof (Lower Roof Over Entry Door)	black	Fiberglass 30	None Detected
437009				Non-Fibrous 70	
112B	Asphalt Roofing Shingle	Building F Roof (Lower Roof Over Entry Door)	black	Fiberglass 25	None Detected
437010				Non-Fibrous 75	
113A	Built-Up Roofing Material	Building G Roof	black	Fiberglass 20	None Detected
437011				Cellulose 20 Non-Fibrous 60	
113B	Built-Up Roofing Material	Building G Roof	black	Fiberglass 20	None Detected
437012				Cellulose 20 Non-Fibrous 60	
114A	Soft Concrete on Deck	Building G Roof	tan	Non-Fibrous 100	None Detected
437013					
114B	Soft Concrete on Deck	Building G Roof	tan	Non-Fibrous 100	None Detected
437014					
115A	Black Coating on Flashing	Building G Roof (Flashing)	black	Non-Fibrous 85	Detected Chrysotile 15
437015					
115B	Black Coating on Flashing	Building G Roof (Flashing)			Not Analyzed
437016					
116A	Brown Mech Membrane	Building G Roof (Flashing)	brown	Fiberglass 90	None Detected
437017				Non-Fibrous 10	
116B	Brown Mech Membrane	Building G Roof (Flashing)	brown	Fiberglass 90	None Detected
437018				Non-Fibrous 10	

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
117A	Black Mastic Associated with Mesh Membrane	Building G Roof (Flashing)	black	Non-Fibrous 90	Detected Chrysotile 10
437019					
117B	Black Mastic Associated with Mesh Membrane	Building G Roof (Flashing)			Not Analyzed
437020					
118A	Black Coating on Concrete Column	Building G Roof (Flashing)	black	Non-Fibrous 85	Detected Chrysotile 15
437021					
118B	Black Coating on Concrete Column	Building G Roof (Flashing)			Not Analyzed
437022					
119A	Black Caulk at Concrete Column Joint	Building G Roof	black	Non-Fibrous 90	Detected Chrysotile 10
437023					
119B	Black Caulk at Concrete Column Joint	Building G Roof			Not Analyzed
437024					
120A	Tan Caulk at Concrete Column Joint- at Flashing	Building G Roof	tan	Non-Fibrous 100	None Detected
437025					
120B	Tan Caulk at Concrete Column Joint- at Flashing	Building G Roof	tan	Non-Fibrous 100	None Detected
437026					
121A	White Caulk at Flashing/Brick Seam- at Flashing	Building G Roof	white	Non-Fibrous 100	None Detected
437027					
121B	White Caulk at Flashing/Brick Seam- at Flashing	Building G Roof	white	Non-Fibrous 100	None Detected
437028					
122A	Built-Up Roofing Material	Building H Roof	black	Fiberglass 5	None Detected
437029				Cellulose 20	
122B	Built-Up Roofing Material	Building H Roof	black	Fiberglass 5	None Detected
437030				Cellulose 20	
123A	Fiberboard	Building H Roof	brown	Cellulose 100	None Detected
437031					
123B	Fiberboard	Building H Roof	brown	Cellulose 100	None Detected
437032					
124A	Brown/Black Mesh Membrane at Flashing	Building H Roof	black	Fiberglass 100	None Detected
437033					
124B	Brown/Black Mesh Membrane at Flashing	Building H Roof	black	Fiberglass 100	None Detected
437034					
125A	Black Mastic Associated with Mesh Membrane at Flashing	Building H Roof	black	Non-Fibrous 80	Detected Chrysotile 20
437035					
125B	Black Mastic Associated with Mesh Membrane at Flashing	Building H Roof			Not Analyzed
437036					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
126A	Black Sealant at Exhaust Fan Metal Base	Building H Roof	black	Non-Fibrous 100	None Detected
437037					
126B	Black Sealant at Exhaust Fan Metal Base	Building H Roof	black	Non-Fibrous 100	None Detected
437038					
127A	Black Sealant at Exhaust Metal Base/Flashing Joint	Building H Roof	white	Non-Fibrous 100	None Detected
437039					
127B	Black Sealant at Exhaust Metal Base/Flashing Joint	Building H Roof	white	Non-Fibrous 100	None Detected
437040					
128A	Black Sealant- Turbine Vent Flashing	Building H Roof	black	Non-Fibrous 80	Detected Chrysotile 20
437041					
128B	Black Sealant- Turbine Vent Flashing	Building H Roof			Not Analyzed
437042					
129A	Black Sealant at Light Pole Roof Mount	Building H Roof	black	Non-Fibrous 80	Detected Chrysotile 20
437043					
129B	Black Sealant at Light Pole Roof Mount	Building H Roof			Not Analyzed
437044					
130A	Brown Mastic Associated with Rubber Membrane Roof	Building H Roof (Lower East Roof)	brown	Non-Fibrous 100	None Detected
437045					
130B	Brown Mastic Associated with Rubber Membrane Roof	Building H Roof (Lower East Roof)	brown	Non-Fibrous 100	None Detected
437046					
131A	Black Rubber Membrane Roof Seam Sealant	Building H Roof (Lower East Roof)	black	Non-Fibrous 100	None Detected
437047					
131B	Black Rubber Membrane Roof Seam Sealant	Building H Roof (Lower East Roof)	black	Non-Fibrous 100	None Detected
437048					
132A	Gray Paper Backing Associated with Isoboard	Building H Roof (Lower East Roof)	gray	Fiberglass 30 Non-Fibrous 70	None Detected
437049					
132B	Gray Paper Backing Associated with Isoboard	Building H Roof (Lower East Roof)	gray	Fiberglass 30 Non-Fibrous 70	None Detected
437050					
133A	Built-Up Roofing Material	Building H Roof (Lower East Roof)	black	Cellulose 60 Non-Fibrous 40	None Detected
437051					
133B	Built-Up Roofing Material	Building H Roof (Lower East Roof)	black	Cellulose 60 Non-Fibrous 40	None Detected
437052					
134A	Asphalt Roofing Shingle	Building H Roof (Lower Southwest Roof)	black	Cellulose 20 Non-Fibrous 80	None Detected
437053					
134B	Gray Paper Backing Associated with Isoboard	Building H Roof (Lower Southwest Roof)	black	Cellulose 20 Non-Fibrous 80	None Detected
437054					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
135A	Black Mastic Associated with Asphalt Roofing Shingle	Building H Roof (Lower Southwest Roof)	black	Non-Fibrous 100	None Detected
437055					
135B	Black Mastic Associated with Asphalt Roofing Shingle	Building H Roof (Lower Southwest Roof)	black	Non-Fibrous 100	None Detected
437056					
136A	Black Caulk at Shingle-Brick Joint	Building H Roof (Lower Southwest Roof)	black	Non-Fibrous 100	None Detected
437057					
136B	Black Caulk at Shingle-Brick Joint	Building H Roof (Lower Southwest Roof)	black	Non-Fibrous 100	None Detected
437058					
137A	Black Tar Paper Below Flashing	Building H Roof (Lower West Roof)	black	Non-Fibrous 70	Detected Chrysotile 30
437059					
137B	Black Tar Paper Below Flashing	Building H Roof (Lower West Roof)			Not Analyzed
437060					
138A	White Caulk- Flashing Seam at Brick	Building H Roof (Lower West Roof)	white	Non-Fibrous 100	None Detected
437061					
138B	White Caulk- Flashing Seam at Brick	Building H Roof (Lower West Roof)	white	Non-Fibrous 100	None Detected
437062					
139A	Black Sealant on Brick-Above White Flashing Caulk	Building H Roof (Lower West Roof)	black	Non-Fibrous 80	Detected Chrysotile 20
437063					
139B	Black Sealant on Brick-Above White Flashing Caulk	Building H Roof (Lower West Roof)			Not Analyzed
437064					
141A	Gray Coating on Concrete Overhang	Building H Roof (Perimeter)	black	Cellulose 20 Non-Fibrous 60	Detected Chrysotile 20
437065					
141B	Gray Coating on Concrete Overhang	Building H Roof (Perimeter)			Not Analyzed
437066					
142A	White Caulk on Concrete Overhang	Building H Roof (Perimeter)	gray	Non-Fibrous 100	None Detected
437067					
142B	White Caulk on Concrete Overhang	Building H Roof (Perimeter)	gray	Non-Fibrous 100	None Detected
437068					
143A	Built-Up Roofing Material	Main Building (Upper Roof)	black	Non-Fibrous 100	None Detected
437069					
143B	Built-Up Roofing Material	Main Building (Upper Roof)	black	Non-Fibrous 100	None Detected
437070					
144A	Soft Concrete on Deck	Main Building (Upper Roof)	gray	Non-Fibrous 100	None Detected
437071					
144B	Soft Concrete on Deck	Main Building (Upper Roof)	gray	Non-Fibrous 100	None Detected
437072					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
145A	Brown/Black Mesh Membrane at Flashing	Main Building (Upper Roof)	gray	Fiberglass 100	None Detected
437073					
145B	Brown/Black Mesh Membrane at Flashing	Main Building (Upper Roof)	gray	Fiberglass 100	None Detected
437074					
146A	Black Mastic Associated with Mesh Membrane at Flashing	Main Building (Upper Roof)	black	Non-Fibrous 80	Detected Chrysotile 20
437075					
146B	Black Mastic Associated with Mesh Membrane at Flashing	Main Building (Upper Roof)			Not Analyzed
437076					
147A	Asphalt Roof Shingle	Building I Roof	black	Cellulose 20 Non-Fibrous 80	None Detected
437077					
147B	Asphalt Roof Shingle	Building I Roof	black	Cellulose 20 Non-Fibrous 80	None Detected
437078					
148A	Tar Paper (Under Shingle)	Building I Roof	black	Cellulose 40 Non-Fibrous 60	None Detected
437079					
148B	Tar Paper (Under Shingle)	Building I Roof	black	Cellulose 40 Non-Fibrous 60	None Detected
437080					
149A	White Interior Window Glazing Compound	Building C	gray	Non-Fibrous 100	None Detected
437081					
149B	White Interior Window Glazing Compound	Building C	gray	Non-Fibrous 100	None Detected
437082					
150A	Gray Duct Seam Sealant	Building C	gray	Non-Fibrous 100	None Detected
437083					
150B	Gray Duct Seam Sealant	Building C	gray	Non-Fibrous 100	None Detected
437084					
151A	Off-White Interior Door Frame Caulk	Building C	tan	Non-Fibrous 100	None Detected
437085					
151B	Off-White Interior Door Frame Caulk	Building C	tan	Non-Fibrous 100	None Detected
437086					
152A	White Exterior Door Frame Caulk	Building C	white	Non-Fibrous 100	None Detected
437087					
152B	White Exterior Door Frame Caulk	Building C	white	Non-Fibrous 100	None Detected
437088					
153A	Off-White Interior Window Glazing Compound	Building E	multi	Non-Fibrous 100	None Detected
437089					
153B	Off-White Interior Window Glazing Compound	Building E	multi	Non-Fibrous 100	None Detected
437090					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
154A	Gray Exterior Door Frame Caulk	Main Building- 2nd Floor	gray	Non-Fibrous 97	Detected Chrysotile 3
437091					
154B	Gray Exterior Door Frame Caulk	Main Building- 2nd Floor			Not Analyzed
437092					
155A	Dark Brown Exterior Window Frame Caulk	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
437093					
155B	Dark Brown Exterior Window Frame Caulk	Main Building- 2nd Floor	gray	Non-Fibrous 100	None Detected
437094					
156A	Gray Exterior Window Sill Caulk	Main Building- 2nd Floor	tan	Non-Fibrous 100	None Detected
437095					
156B	Gray Exterior Window Sill Caulk	Main Building- 2nd Floor	tan	Non-Fibrous 100	None Detected
437096					
157A	White Exterior Window Glazing Compound	Building I	tan	Non-Fibrous 100	None Detected
437097					
157B	White Exterior Window Glazing Compound	Building I	tan	Non-Fibrous 100	None Detected
437098					

Tuesday 05 February

Michael Thamy

End of Report

Page 11 of 11

Analyzed by:

Batch: 39523

APPENDIX C-1

HAZARDOUS BUILDING MATERIALS INVENTORY

Appendix C-1
 Hazardous Building Materials Inventory
 Bow-Concord 13742A
 Highway Garage 12
 11 Slickney Avenue
 Concord, New Hampshire 03301

Group	Group II															Group I		
	Fluorescent bulbs	Fluorescent/LED light fixture ballasts (Unshielded, unarmored PC Bi-concaving)	High intensity light bulbs (general mercury-containing)	Mercury/Phosphor (including all)	Mercury/Fluor/Lead Devices	Fire Retardant (ABC, BC, B)	Small hydro-cyanoacrylate with fill/composites	North-south indicator (primarily in control battery packs for emergency light systems)	Mercury/mercury	Refrigerators, A/C units, water purification, coolers, dehumidifiers (refrigerant)	Condenser units (roof and pad mounted) (refrigerant not all)	Nitrogen or other in bladders	TV monitor	Computer printers/scanners/flatbed	Drinking/Maintenances Printers/Palm (single car/battery)	Printing/Maintenances Printers/Palm (1-palms)	Printing/Maintenances Printers/Palm (3-palms)	Misc. Items (see Table 2)
Building A																		
Ground Floor	42	21	16	3	14	4	1	1	1	-	-	-	11	21	24	33	-	-
Mezzanine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building B																		
Ground Floor	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building C																		
Ground Floor	100	50	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Building D																		
Ground Floor	120	60	9	12	-	4	-	-	8	3	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building E (over)																		
Ground Floor	12	6	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building E (space conditioning)																		
Ground Floor	222	112	-	3	-	4	-	-	1	2	-	1	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Building E (main)																		
Ground Floor	85	41	-	-	2	1	-	2	2	1	-	-	1	2	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building F (file storage)																		
Ground Floor	116	58	-	2	6	-	-	4	4	1	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building F (main)																		
Ground Floor	158	80	-	5	14	3	-	12	5	1	-	-	-	-	120	12	-	-
Exterior	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-
Building G																		
Ground Floor	322	161	-	26	8	1	-	8	5	2	-	4	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building H																		
Ground Floor	24	13	29	27	24	-	-	1	7	1	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main Building																		
Ground Floor	13	8	-	4	-	1	-	-	1	-	-	-	-	-	12	1	3	-
Second Floor	262	270	-	19	19	-	-	4	2	15	-	-	26	26	10	1	4	-
Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Building I																		
Ground Floor	-	-	4	-	6	1	-	-	-	-	-	-	-	-	-	-	-	-
Exterior	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Courtyard																		
Exterior	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																	Estimated Subtotal	\$40,796
																	28% Contingency	\$8,159
																	Estimated Total Cost**	\$48,955
Estimated Total Units: 1,781 882 69 103 96 19 2 30 36 27 6 5 38 49 166 47 7 Estimated Disposal Cost per Unit: \$1.00 \$10 \$5 \$50 \$10 \$25 \$500 \$10 \$30 \$100 \$500 \$30 \$30 \$40 \$10 \$20 \$75 See Table 2 Estimated Total Cost: \$1,781 \$8,820 \$345 \$5,150 \$960 \$475 \$1,000 \$300 \$1,030 \$2,700 \$3,000 \$150 \$1,140 \$1,470 \$1,860 \$940 \$525 \$9,300																		

Notes:
 * Miscellaneous items listed in Table 2.
 **Estimated Total Cost rounded to nearest \$100.

APPENDIX C-2

MISCELLANEOUS ITEMS AND UNKNOWN MATERIALS INVENTORY

**Appendix C-2
Miscellaneous Items and Unknown Materials Inventory
Bow-Concord 13742A
Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire 03301**

Building	Level	Item Description	Total Units	Est. Disposal Cost (Unit)	Total Item Cost
Group IV					
A	Exterior	55-gallon drum (unknown contents)	1	1,500*	\$1,500
Group V					
A	Ground Floor	125-lb compressed air cylinder (SCBA)	16	\$100	\$1,600
B	Exterior	Tires	25	\$15	\$375
C	Exterior	Gasoline dispenser pumps	10	\$50	\$500
		Empty drums	11	\$25	\$275
H	Exterior	8,000-Gallon AST**	1	\$5,000	\$5,000
G	Ground Floor	Oil burner	1	\$50	\$50
Miscellaneous Items Total Cost					\$9,300

* Estimated disposal cost conservatively assumes one sample of the contents, if present, is collect and submitted to an accredited laboratory for full-suite pre-disposal characterization analyses and the material is required to be transported off-site as hazardous material.

** Above ground storage tank (AST) is assumed to be empty and cleaned, based upon information provided by NHDOT.

Kristin
E
Zema
n

Digitally signed by
Kristin E Zeman
DN: C=US, O="ATC
Group Services, LLC",
CN=Kristin-E-Zeman,
E=kristin.zeman@atcg
s.com
Reason: I am the
author of this
document
Location:
Date: 2019-01-05 11:
54:28
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Version: 9.1.0

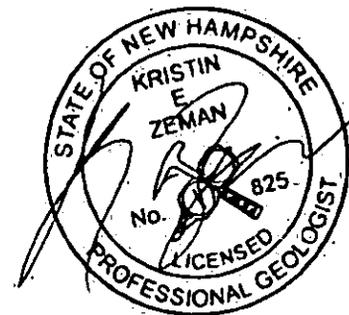
**DES Waste Management Division
29 Hazen Drive; PO Box 95
Concord, NH 03302-0095**

**2019 Periodic Summary Report and
November 2018 Data Transmittal
NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire**

**NHDES Site #: 199004021
Project Type: LUST #1921
HAZWASTE Project #: 6249**

Prepared For:
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January 4, 2019

Groundwater Monitoring Report Cover Sheet

Site Name: NHDOT Highway Garage 12

Town: Concord

Permit #: 199004021

Type of Submittal (Check all that apply)

- Periodic Summary Report: January 2019
Data Submittal (month per Condition #7 of Permit):
-

Check each box where the answer to any of the following questions is "YES"

Sampling Results

- During the most recent monitoring event, were any new compounds detected at any sampling point?
Well/Compound: PFAS (initial round)
ATC-1 through ACT-3, and GT-4: Each of the compounds included in the NHDES nine-analyte PFAS list were detected.
JB-7/MW (downgradient well): Only perfluorooctane sulfonic acid (PFOS) was detected.
- Are there any detections of contamination in drinking water that is untreated prior to use?
Well/Compound:
 Do compounds detected exceed AGQS?
- Was free product detected for the first time in any monitoring point?
 Surface Water (visible sheen)
 Groundwater (1/8" or greater thickness)
Location/Thickness:

Contaminant Trends

- Do sampling results show an increasing concentration trend in any source area monitoring well?
Well/Compound:
- Do sampling results indicate an AGQS violation in any of the GMZ boundary wells?
Well/Compound:

Recommendations

Does the report include any recommendations requiring DES action? (Do not check this box if the only recommendation is to continue with existing permit conditions.) – Additional sampling to monitor PFAS concentrations.



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January 4, 2019

Mr. Eric D. Johnson
Petroleum Remediation Section
Oil Remediation & Compliance Bureau
New Hampshire Department of Environmental Services
29 Hazen Drive
P.O. Box 95
Concord, New Hampshire 03302-0095

**Subject: 2019 Periodic Summary Report and November 2018 Data Transmittal
NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire
NHDES Site #199004021
LUST Project #1921 and HAZWASTE Project #6249**

Dear Mr. Johnson:

On behalf of the New Hampshire Department of Transportation (herein referred to as the "NHDOT"), ATC Group Services, LLC (herein referred to as "ATC") is providing the New Hampshire Department of Environmental Services (herein referred to as "NHDES") with this 2019 Periodic Summary Report summarizing the groundwater quality monitoring activities performed at the NHDOT Highway Garage 12 (herein referred to as "the Site") located at 11 Stickney Avenue in Concord, New Hampshire (see Figure 1). The groundwater quality monitoring activities were performed at the Site in accordance with Groundwater Management Permit Number GWP-199004021-C-004 (herein referred to as "the Permit") dated November 18, 2015, and revised on February 6, 2018. A copy of the Permit is provided in Appendix A.

BACKGROUND

The Site is owned by NHDOT, and since the 1930's, was historically used for vehicle maintenance, sign painting, and materials research. In 2006, NHDOT ceased operations at the Site; however, portions of the Site building are leased to various commercial tenants. In 2015, the northern portion of the Site was redeveloped for a commuter parking lot. Groundwater monitoring well JB-2/MW was decommissioned as part of Site redevelopment activities in 2015.

The Site is listed under NHDES Site No. 199004021, Leaking Underground Storage (LUST) Project No. 1921, and Hazardous Waste Project (HAZWASTE) No. 6249. Groundwater sampling activities at the Site are on-going and are conducted in accordance with NHDES Groundwater Management Permit (GMP) No. GWP 199004021-C-004. Based upon groundwater analytical data provided in the *November 2016 Data Transmittal* (prepared by Sanborn, Head, & Associates, Inc., dated December 16, 2016), NHDES issued a letter, dated May 1, 2017, requesting the installation of three groundwater monitoring wells to further define the extent of the dissolved contaminant plume, to provide additional data point to monitor groundwater flow, and to replace former groundwater monitoring well JB-2/MW. JB-2/MW was an upgradient well that was decommissioned as part of Site redevelopment activities in 2015.

In August 2017, three additional groundwater monitoring wells (ATC-1, ATC-2 and ATC-3) were installed at the Site. The monitoring well installation and sampling activities were summarized in the *Limited Subsurface Investigation Report* (ATC, dated October 5, 2017) that was previously submitted to NHDES. Low concentrations of several volatile organics and petroleum hydrocarbons were detected the soil sample collected from soil boring ATC-2; however, the detected concentrations did not exceed the NHDES Soil

Remediation Standards. ATC-2 was installed in the vicinity of the former underground storage tanks (USTs) (historical source area).

PERMIT REQUIREMENTS

The Permit includes the sampling of groundwater monitoring wells JB-2/MW (decommissioned in 2015) and GT-4 in November of each year. In September 2016, NHDES requested that existing groundwater monitoring well JB-7/MW be added during the November 2016 sampling round. Based upon the findings of the August 2017 limited subsurface investigation and to provide a more robust data set for the newly installed monitoring wells, groundwater samples were collected from monitoring wells ATC-1, ATC-2, and ATC-3, in addition to wells JB-7/MW and GT-4, during the November 2017 event. All groundwater samples were analyzed for NHDES Waste Management Division Full List of Analytes for Volatile Organics (NHDES Full List) and static water levels.

In February 2018, NHDES revised the Permit to require groundwater monitoring to include wells ATC-1, ATC-2, ATC-3, GT-4 and JB-7/MW based on review of the September 2017 and November 2017 sampling results.

In addition to Permit requirements, groundwater samples from each monitoring well were collected for per- and polyfluoroalkyl substances (PFAS) analysis during the November 2018 sampling event. Samples were analyzed for both linear and branched PFAS isomers using a modified U.S. Environmental Protection Agency (USEPA) Method 537 with isotope dilution for NHDES' nine-analyte list by SGS North America, Inc.

GROUNDWATER MONITORING ACTIVITIES

On November 7, 2018, ATC collected water quality samples from monitoring wells GT-4, JB-7/MW, ATC-1, ATC-2 and ATC-3. As specified in the Permit, the water quality samples were analyzed for NHDES Full List by USEPA Method 8260. Prior to sample collection, the monitoring wells were gauged for water level elevation and the presence of non-aqueous phase liquid (NAPL). The groundwater samples were collected in accordance with the low-flow purging and sampling procedure detailed in United States Environmental Protection Agency (USEPA) Region 1 Low Stress (Low Flow) document entitled "Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (SOP #GW0001, Rev. No. 2, July 30, 1996) revised January 19, 2010." The groundwater sample was collected once stabilization of pH, dissolved oxygen, temperature, oxidation-reduction potential (ORP) and specific conductance occurred.

Pursuant to NHDES's May 17, 2017 guidance documents and discussions with NHDES and NHDOT, PFAS samples were also collected from each of the five groundwater monitoring wells (GT-4, JB-7/MW, ATC-1, ATC-2 and ATC-3) during the GMP-required sampling event. Particular care was taken during the collection of PFAS samples to avoid cross-contamination with commonly encountered consumer goods known or suspected to contain PFAS. Materials treated to provide water resistance were avoided; these included but were not limited to waterproof field books, adhesive labels, water and resistant clothing in accordance with NHDES *Perfluorinated Compound (PFC) Sample Collection Guidance* (November 2016). The PFAS samples were collected at each location using a new pair of nitrile gloves to handle the sample containers to minimize the potential for cross-contamination. The PFAS samples were collected first and transferred into a laboratory provided 250-milliliter (ml) high density polyethylene (HDPE) containers, which were placed directly into zip-lock bags and kept separate from other sample containers.

Groundwater Gauging

The groundwater monitoring wells were gauged to determine the depth to groundwater at each well (see Table 1) to determine the direction of groundwater flow. Water level measurements were obtained using an electronic oil/water interface probe capable of measuring separate phase petroleum at thicknesses of 1 millimeter or greater. The water levels were measured to the nearest 0.01 feet from the top of the PVC riser pipe. Non-aqueous phase liquid (NAPL) was not observed in the gauged groundwater monitoring wells at the Site. On November 7, 2018, the depth to groundwater ranged from 4.76 (ATC-3) feet to 10.51 (JB-7/MW) feet below grade.

The groundwater data from the November 7, 2018 event was used to develop the Groundwater Contour Plan, which is included as Figure 3. Based on the groundwater measurements, groundwater flow is to the east-southeast, consistent with previous gauging events.

Field Chemistry

A summary of the field chemistry parameters measured during each of the sampling events are presented in Table 2. A summary of the measured values during the November 7, 2018, sampling event are provided below:

• Temperature (°C)	13.86 – 17.45
• Specific Conductivity (umhos/cm)	309 – 1,541
• Dissolved oxygen (mg/L)	0.31 – 8.09
• pH (standard units)	6.03 – 6.36
• ORP (millivolts)	-67.1 – 108.2
• Turbidity (NTU)	2.56 – 21.4

Water Quality Analytical Results

The groundwater concentrations were compared to the following water quality criteria or standards:

Groundwater Criteria:

- New Hampshire Administrative Rules, Chapter Env-Or 600 Contaminated Site Management: New Hampshire Ambient Groundwater Quality Standards (AGQS) Table 600-1, effective on June 1, 2015.
- Vapor Intrusion Screening Levels Groundwater to Indoor Air Screening Levels GW-2 Revised February 2013.

The water quality analytical results for sampling events since November 2015 are presented in Table 3. The PFAS analytical results are presented in Table 4. The analytical laboratory reports for the November 2018 sampling event are provided in Appendix C.

A summary of the groundwater analytical results for November 2018 sampling event is provided below:

November 7, 2018 Sampling Event

- Monitoring Well GT-4 (Downgradient of source area)
 - The detected methyl-tert-butyl ether (MTBE) concentration exceeded the AGQS. However, the detected concentration did not exceed the Groundwater to Indoor Air Screening Levels GW-2.
 - Benzene, trichloroethene (TCE), 1,2-dichloroethane and cis-1,2-dichloroethene were also detected in the groundwater at GT-4. However, the detected concentrations did not exceed the AGQS or the Groundwater to Indoor Air Screening Levels GW-2.
 - Perfluorooctanoic (PFOA) and perfluorooctane sulfonic acid (PFOS) were detected in the groundwater at GT-4 at concentrations of 8.68 and 158 nanograms per liter (ng/l), respectively. The detected concentration of PFOS and the total concentrations of PFOA/PFOS exceed the AGQS.
- Monitoring Well JB-7/MW (Downgradient GMZ boundary well)
 - No VOCs were detected above the laboratory method reporting limits.

- PFOS was detected in the groundwater at JB-7/MW; however, the detected concentration did not exceed the AGQS. No other PFAS compounds were detected above laboratory method reporting limits.
- Monitoring Well ATC-1 (Cross gradient well - north of source area)
 - Concentrations of MTBE, TCE and tetrachloroethene were detected in groundwater. However, the detected concentrations did not exceed the AGQS or the Groundwater to Indoor Air Screening Levels GW-2.
 - No other VOCs were detected above the laboratory method reporting limits.
 - Concentrations of PFAS were detected in groundwater at ATC-1. However, the detected concentrations of PFOA and PFOS, individually or combined, did not exceed the AGQS.
- Monitoring Well ATC-2 (Source area well)
 - Benzene was detected in groundwater at ATC-2 at a concentration that exceeded the AGQS. The detected concentrations did not exceed the Groundwater to Indoor Air Screening Level GW-2.
 - Several other petroleum related VOCs were detected in groundwater at ATC-2; however, the detected concentrations did not exceed the AGQS or the Groundwater to Indoor Air Screening Levels GW-2.
 - Concentrations of PFAS were detected in groundwater at ATC-2; however, the detected concentrations of PFOA and PFOS, individually or combined, did not exceed the AGQS.
- Monitoring Well ATC-3 (Upgradient of source area)
 - MTBE was detected in groundwater at ATC-3. The detected concentration did not exceed the AGQS or the Groundwater to Indoor Air Screening Levels GW-2.
 - No other VOCs were detected above the laboratory method reporting limits.
 - Concentrations of PFAS were detected in groundwater at ATC-2; however, the detected concentrations of PFOA and PFOS, individually or combined, did not exceed the AGQS.

In general, the VOC contaminant concentrations detected are consistent with previous sampling events.

Contaminant Trends - VOCs

Concentrations of MTBE continue to exceed AGQS at monitoring well GT-4. The MTBE concentrations are consistent with historical data and continue to fluctuate over time. A significant increase in MBTE concentrations (i.e., exceeding the AGQS) was first observed in monitoring well GT-4 in July 2007, with the highest detected concentration observed in July 2008. This correlates with a similar increase in the MBTE concentrations detected in former upgradient monitoring well JB-2/MW in July 2008 and July 2009, and supports the opinion that the MBTE is at least partially related to an upgradient source.

The benzene concentration exceeded the AGQS at ATC-2. Monitoring well ATC-2 was installed at the Site in August 2017. The concentrations of benzene indicate some fluctuation over time. MTBE concentrations continued to decline and the detected concentration in November 2018 was below the AGQS. More data is needed to identify contaminant trends in the groundwater at this location.

The contaminant concentrations over time for monitoring wells sampled as part of the November sampling event are included as Appendix C.

Potential Receptors - PFAS

PFAS were detected at the Site, including an AGQS exceedance at monitoring well GT-4, and representing a NHDES reporting condition. ATC, on behalf of NHDOT, provided written notification of the condition via an email addressed to Mr. Eric Johnson, dated December 20, 2018.

ATC performed a receptor survey of potential receptors within a 1,000 foot radius. The Site is located in a developed area of the City of Concord with municipal water available. 1,000-Foot Radius Maps showing wells registered with the New Hampshire Drinking Water Bureau are included as Figures 5A and 5B. No private or public supply wells were identified within the search radius. The nearest residentially zoned properties are located approximately 900 feet upgradient of the Site.

The Merrimack River, located approximately 870 feet to the east of the Site, is a potential sensitive receptor. However, based on the distance and low concentrations detected in the downgradient Site well (JM-7/MW) during the November 2018 sampling event, it is unlikely the Merrimack River is currently, or will be, impacted by residual dissolved phase PFAS present at the Site.

Since the contaminant levels are low with detected concentrations above AGQS limited to a monitoring well located on the Site property, and municipal water and sewer are provided to the Site and surrounding area, no other potential sensitive receptors were identified.

Updated Conceptual Site Model

Dissolved-phase PFAS have been detected in groundwater at the Site, with the highest concentrations (exceeding the AGQS) detected at GT-4, located downgradient of the former USTs (historical source area). Moderate levels of total PFAS (44.70 to 56.31 parts per trillion [ppt]) were detected in cross gradient well (ATC-1) >50% AGQS for PFOS and total PFOS/PFOA and in the upgradient well (ATC-3) >50% AGQS for total PFOA/PFOS. Low level total PFAS (i.e., <50% of AGQS) were detected UST source area well ATC-2 (24.25 ppt) and at downgradient well JB-7/MW (3.21 ppt).

The source of the dissolved-phase PFAS is unknown. Based upon the detected concentrations observed in upgradient well ATC-3 with PFAS results for total PFOA/PFOS >50% AGQS, at least a component of the on-site PFAS impacts are likely attributed to an upgradient source and/or regional atmospheric deposition.

The results from the PFAS sampling did not result in other changes to the existing conceptual site model.

CONCLUSIONS

Based on the monitoring program the following conclusions are provided:

- A release of petroleum occurred at the Site in the vicinity of the former USTs (vicinity of monitoring well ATC-2).
- The groundwater quality on-site has been impacted by the release.
- The detected MTBE concentrations at GT-4 exceeded the AGQS. The benzene concentration also exceeded AGQS at monitoring well ATC-2. This data is consistent with previous events and correlates with known historical petroleum release that occurred in the vicinity of the former USTs.
- The detected VOC concentrations do not exceed the GW-2 Residential Groundwater to Indoor Air Screening Levels.
- In general, the detected contaminant concentrations are consistent with previous sampling events.
- The highest levels of dissolved-phase VOCs were observed in the vicinity of the historical source area (ATC-2) and areas immediately downgradient (GT-4).

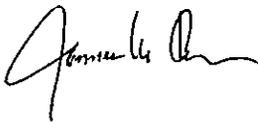
- The Permit monitoring program has effectively identified and monitored the VOC water quality conditions at the Site.
- PFAS was detected in the groundwater at all site monitoring wells. The highest concentrations were detected in monitoring well GT-4, which exceeded the AGQS and represented a NHDES notification condition. The source of the dissolved-phase PFAS is unknown.

RECOMMENDATIONS AND SCHEDULE

The next GMP-required monitoring event is scheduled for November 2019. It is ATC's recommendation to continue groundwater sampling and gauging under the permit (modified to include monitoring well JB-7/MW, ATC-1, ATC-2 and ATC-3 per NHDES correspondence dated September 26, 2016 and February 9, 2018). ATC also recommends including another round of PFAS sampling/analysis. Based upon the low levels of PFAS detected in the downgradient well and the lack of potential receptors, ATCs recommends that the additional sampling be conducted concurrently with the November 2019 GMP-required sampling event.

If you have any questions, comments or require any additional information, please contact the undersigned.

Sincerely,



James m. Carr
Senior Project Scientist
Direct Line 603-391-0062
Email: jim.carr@atcgs.com

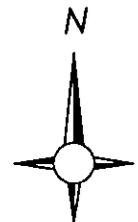


Kristin E. Zeman, P.G., C.P.G.
Senior Project Manager
Direct Line 781-640-1126
Email: kristin.zeman@atcgs.com

Enc: Figure 1 – Site Locus
Figure 2 – Site Plan
Figure 3 – Groundwater Contour Map (November 7, 2018)
Figure 4 – Primary Contaminates of Concern Concentrations
Figure 5A – NHDES Water Supply Map
Figure 5B – NHDES Water Supply Map (with distances)
Table 1 – Summary of Groundwater Gauging and Elevation Data
Table 2 – Summary of Field Chemistry Parameters
Table 3 – Summary of Groundwater Analytical Results
Table 4 – Summary of PFAS (Short List) Detected in Groundwater
Appendix A – Groundwater Management Permit (GWP-199004021-C-004)
Appendix B – Groundwater Analytical Results
Appendix C – Contaminant Concentration Trend Graphs

Cc: Stephanie Monette, NHDOT Bureau of Environment

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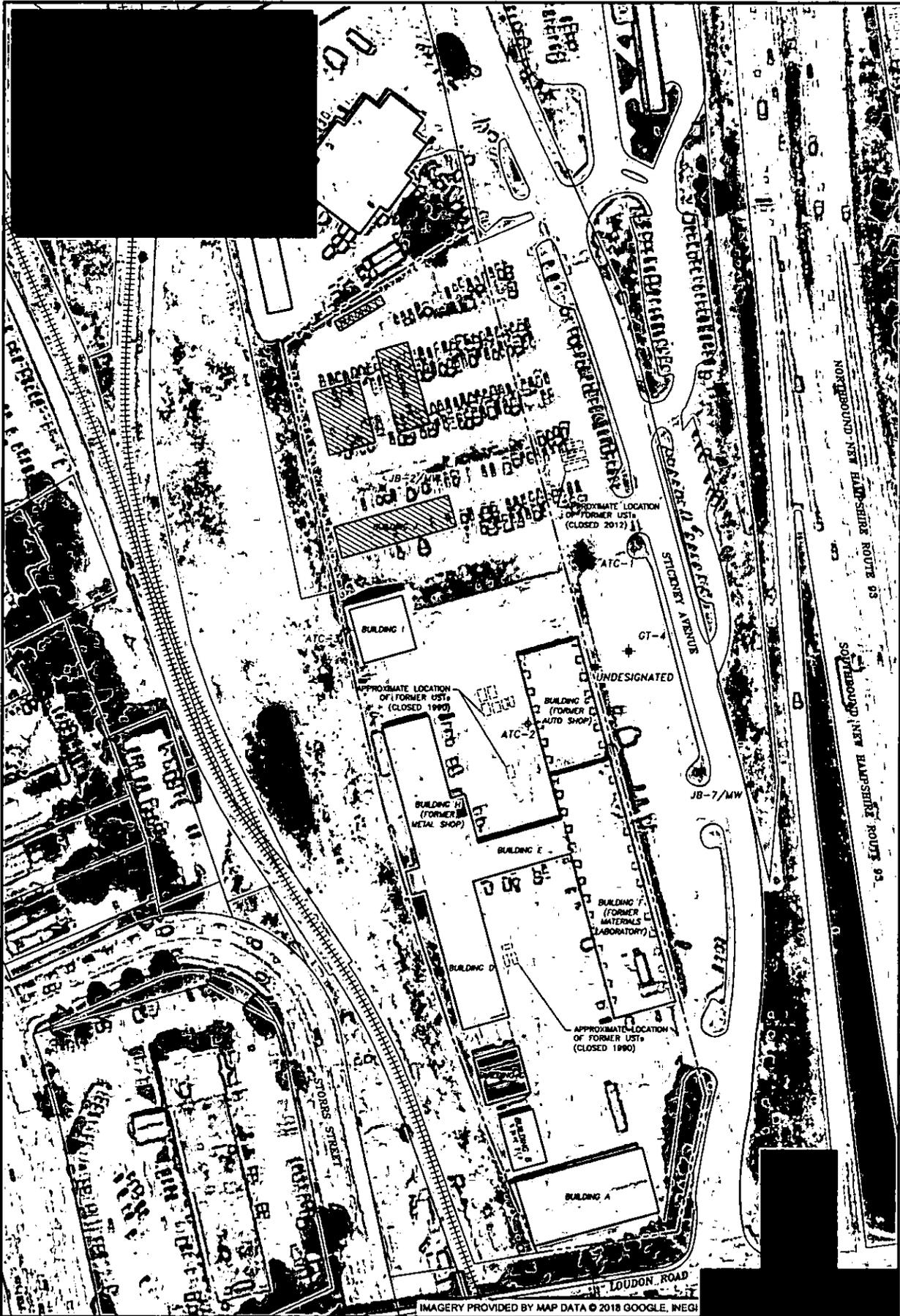


SOURCE:
Eart U.S.A. TOPOGRAPHIC MAPS

SITE LOCUS

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
HIGHWAY GARAGE 12
11 STICKNEY AVENUE
CONCORD, NEW HAMPSHIRE

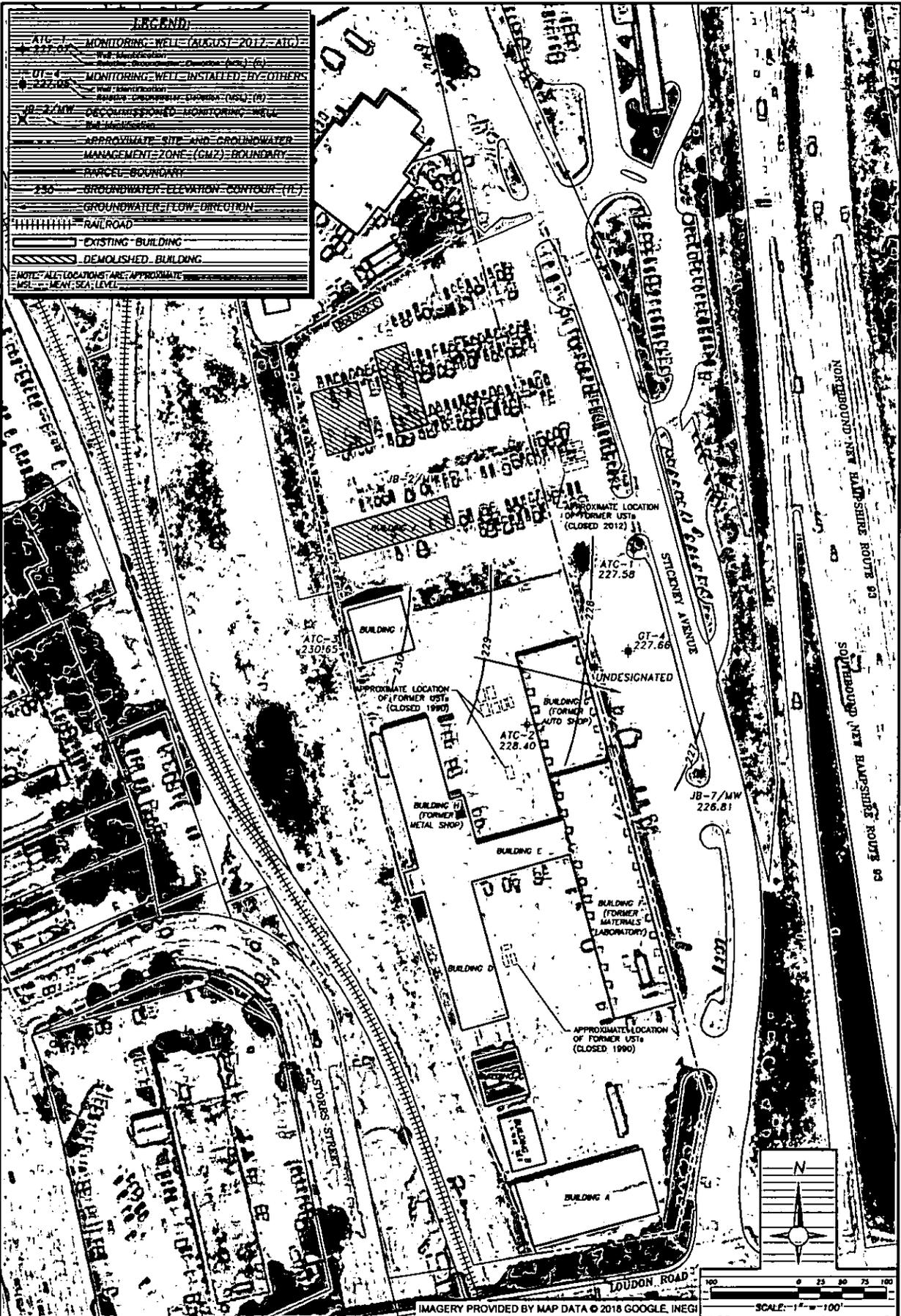
Project Number: 59DOT00070		Drn. By: PH
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ATC		Figure: 1



IMAGERY PROVIDED BY MAP DATA © 2018 GOOGLE, INEGI

<p>2</p>	<p>SITE PLAN</p>
	<p>NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION HIGHWAY GARAGE 12 11 STICKNEY AVENUE CONCORD, NEW HAMPSHIRE</p>
	<p>DATE: 12/18</p>
	<p>DESIGNED BY: [Redacted]</p>

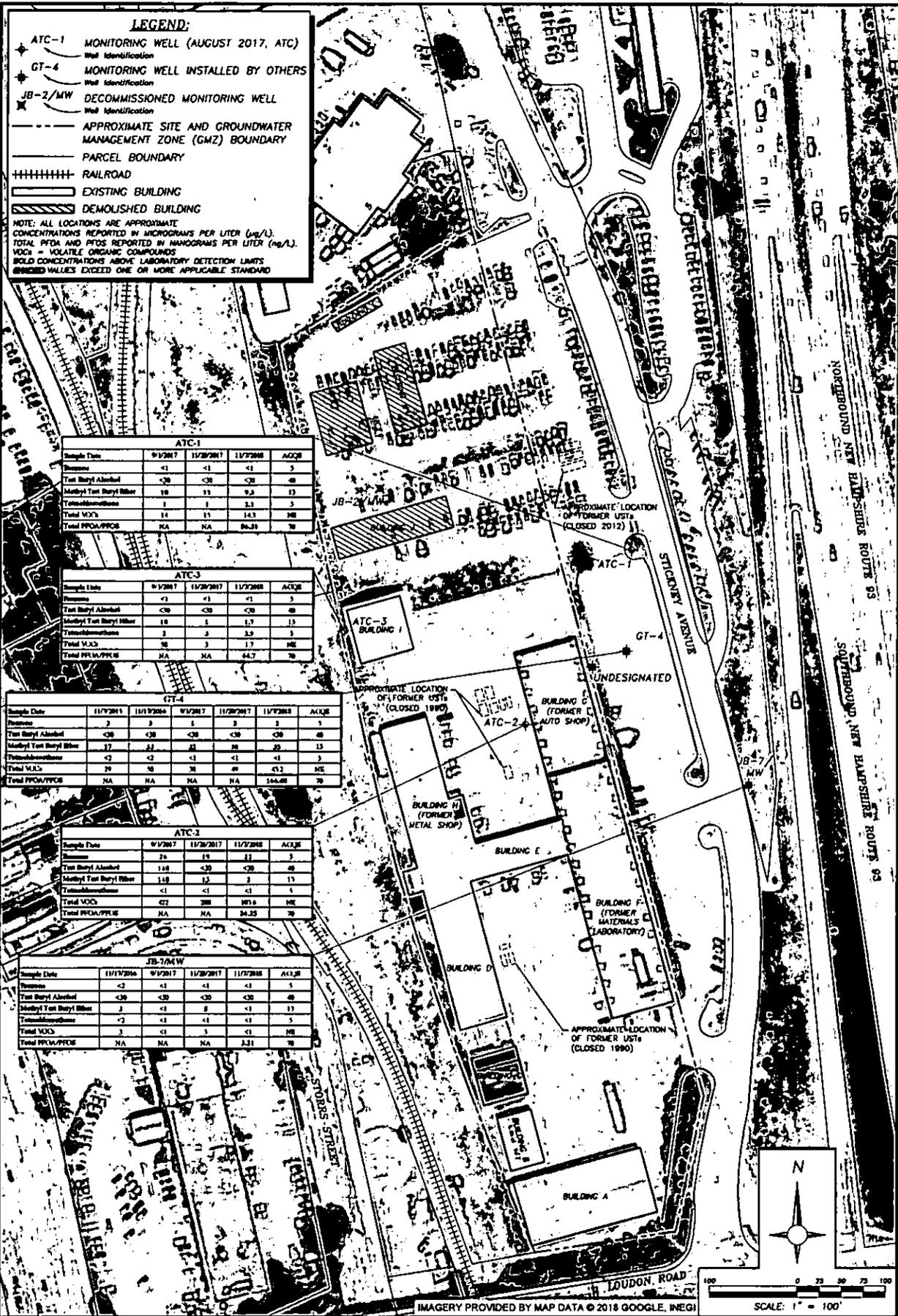
<p>Project Number: 5800T00084</p>	<p>Drn. By: DH</p>
<p>Drawing File: SEE LOWER LEFT</p>	<p>Chk. By: KZ</p>
<p>ATC</p>	
<p>App'd. By:</p>	<p>Chk. Date:</p>



GROUNDWATER CONTOUR MAP - NOVEMBER 7, 2018

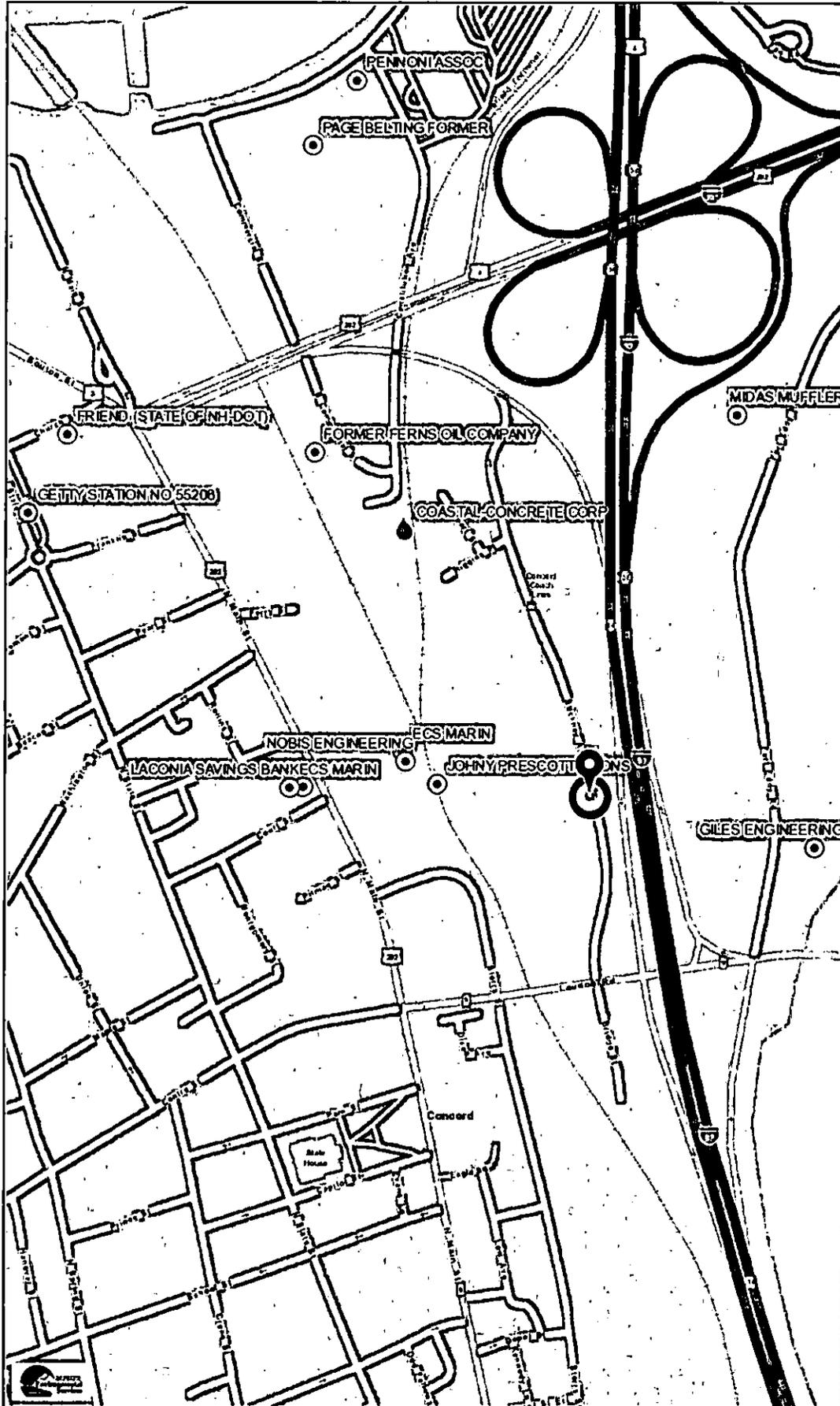
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
 HIGHWAY GARAGE 12
 11 STICKNEY AVENUE
 CONCORD, NEW HAMPSHIRE

Project Number: 5000700084	Drawn By: DH
Drawing File: SEE LOWER LEFT	Checked By: KZ
ATC	
Approved By:	Checked/Date:



PROJECT NO: 5800T00084 DATE: 11/28/18	PRIMARY CONTAMINANTS OF CONCERN CONCENTRATIONS		Project Number:	5800T00084	Drw. By:	DH	
	NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION HIGHWAY GARAGE 12 11 STICKNEY AVENUE CONCORD, NEW HAMPSHIRE		Drawing File:	SEE LOWER LEFT	Chk. By:	KZ	
			App'g. By:	ATC		Chk. Date:	

Water Supply Map



Legend

- Public Water Supply Wells
- Registered Water Users
- Water Well Inventory

Notes

11 Stickney Ave., Concord, NH

Map Scale

1: 6,494

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Map Generated: 12/20/2018



PROJECT NO.:

59DOT00084

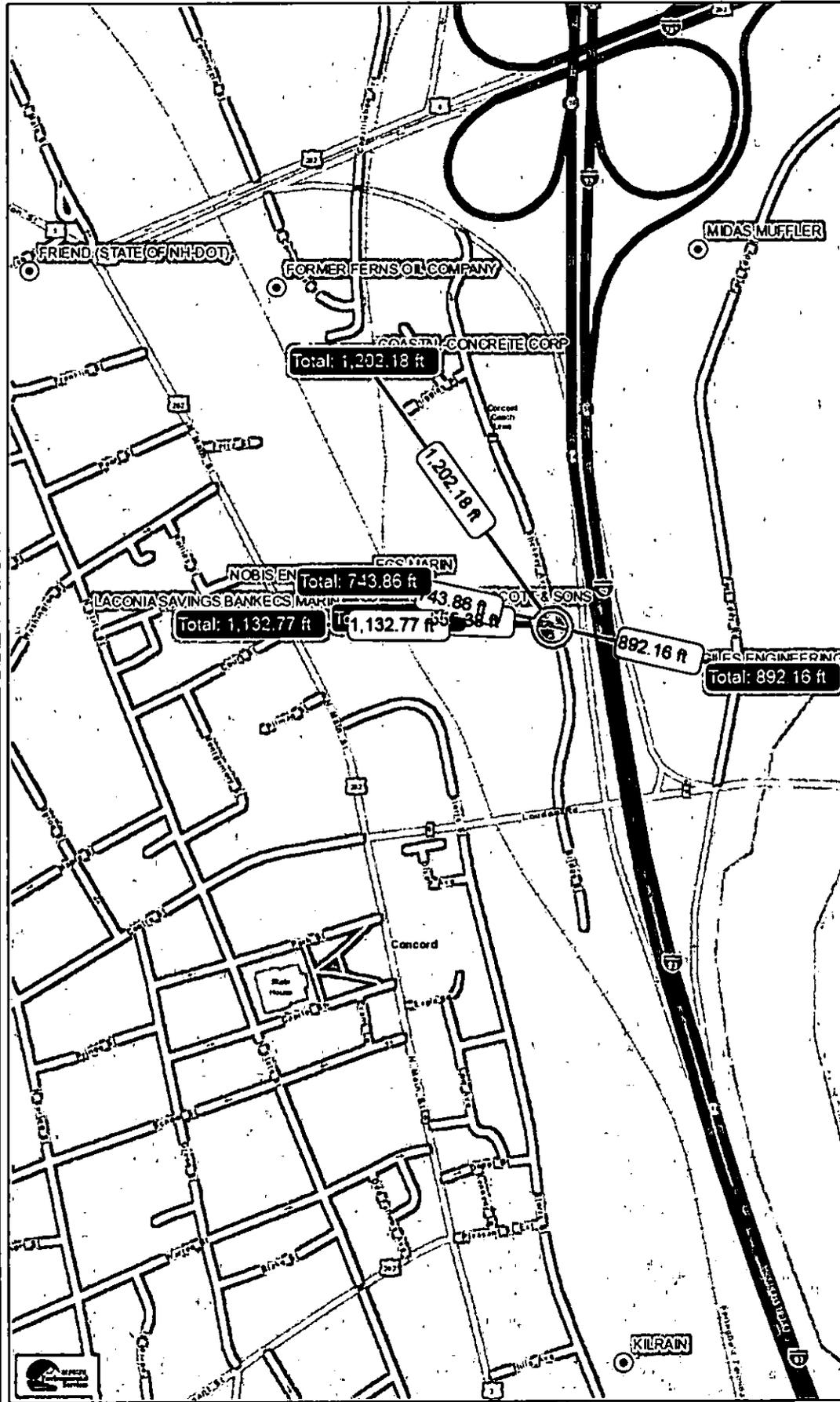
FIGURE:

5A

ATC

150 Zachary Road
 Manchester, NH 03109
 (603) 647-7077
 (603) 647-5347 FAX

Water Supply Map



Legend

- Public Water Supply Wells
- Registered Water Users
- Water Well Inventory

Notes

11 Stickney Ave., Concord, NH

Map Scale
1: 6,494



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PROJECT NO.:
59DOT00084

FIGURE:
5B



150 Zachary Road
Manchester, NH 03109
(603) 647-7077
(603) 647-5347 FAX

Table 1
Summary of Groundwater Gauging and Elevation Data
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire

Monitoring Well	Reference Point Elevation (feet, MSL)	Date	Depth to Water (feet)	Elevation (feet, MSL)
JB-7/MW	237.32	11/17/2016	11.45	*
		9/1/2017	10.94	226.38
		11/28/2017	10.94	226.38
		11/7/2018	10.51	226.81
GT-4	235.26	11/3/2015	8.55	*
		11/17/2016	8.65	*
		9/1/2017	8.22	227.04
		11/28/2017	8.21	227.05
		11/7/2018	7.60	227.66
ATC-1	234.32	9/1/2017	7.31	227.01
		11/28/2017	7.25	227.07
		11/7/2018	6.74	227.58
ATC-2	235.08	9/1/2017	7.46	227.62
		11/28/2017	7.33	227.75
		11/7/2018	6.68	228.4
ATC-3	235.41	9/1/2017	6.41	229.00
		11/28/2017	6.08	229.33
		11/7/2018	4.76	230.65
Notes: MSL = Mean Sea Level Reference Point: Top of PVC casing Casing elevation determined by NHDOT field survey on August 22, 2017. * Sampled prior to August 22, 2017 elevation survey conducted by NHDOT				

Table 2
Summary of Field Chemistry Parameters
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire

Monitoring Well ID	Date	Temperature (°C)	Specific Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	pH (Standard Units)	ORP (mV)	Turbidity (NTU)
JB-7/MW	11/17/16	17.40	2,238	0.34	5.90	49.0	NM
	09/01/17	18.39	1,992	1.84	6.22	107.2	NM
	11/28/17	14.80	1,768	1.87	6.09	55.3	1.23
	11/07/18	17.09	1,120	8.09	6.20	108.2	8.00
GT-4	11/03/15	16.80	1,319	0.10	6.00	-59.0	NM
	11/17/16	14.90	1,220	0.44	6.30	-83.0	NM
	09/01/17	15.72	1,120	0.45	6.24	-35.2	18.86
	11/28/17	13.17	1,126	0.06	6.34	-4.3	38.14
	11/07/18	16.67	1,051	1.24	6.27	-34.6	21.4
ATC-1	09/01/17	19.08	1,467	0.41	6.11	31.1	4.59
	11/28/17	13.51	2,416	0.72	6.37	-38.5	16.7
	11/07/18	17.45	1,541	0.31	6.36	-9.5	10.98
ATC-2	09/01/17	18.41	943	0.92	6.24	-78.1	NM
	11/28/17	13.47	523	1.47	6.21	-13.2	1.08
	11/07/18	15.04	309	1.67	6.29	-67.1	2.56
ATC-3	09/01/17	13.00	486	0.79	6.04	24.0	17.56
	11/28/17	12.16	828	0.68	5.94	139.7	1.54
	11/07/18	13.86	1,140	0.51	6.03	64.1	5.79

Notes:

mg/l = Milligrams per liter.

mV = Millivolts.

NM = Not measured

umhos/cm = micromhos per centimeter

°C = Degrees Celsius.

NTU = Nephelometric turbidity unit.

Table 3
 Summary of Groundwater Analytical Results
 New Hampshire Department of Transportation
 NHDES Site #199004021 NHDOT Highway Garage 12
 11 Stickney Avenue
 Concord, New Hampshire

Parameter	Date	Benzene	Toluene	Ethyl benzene	Xylenes (total)	Iso-propyl benzene	n-propyl benzene	1,3,5-Trimethyl benzene	1,2,4-Trimethyl benzene	sec-Butyl benzene	n-Butyl benzene	Naphthalene	Tert Butyl Alcohol	Methyl Tert Butyl Ether	Tert-amyl methyl ether	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene	Tetrachloroethene	Total VOCs
NHDES AGQS		5	1,000	700	10,000	800	260	330	330	260	260	100	40	13	140	70	5	5	5	NE
NHDES GW-2		2,900	50,000	1,500	17,000	NE	NE	NE	1,300	NE	NE	1,700	NE	2,600	NE	NE	50	20	240	NE
ATC-1	09/01/17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	10	<5	<1	<1	2	1	14
	11/28/17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	11	<5	<1	<1	3	1	15
	11/07/18	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	9.3	<5	<1	<1	2.9	2.1	14.3
ATC-2	09/01/17	26	2	22	16	12	22	4	3	2	3	22	140	140	9	<1	<1	<1	<1	422
	11/28/17	19	2	62	25	17	37	7	26	3	5	22	<30	13	<5	<1	<1	<1	<1	228
	11/07/18	22	1.6	13	6.8	12	25	<1	1.6	1.9	2.8	16	<30	2	<5	<1	<1	<1	<1	103.6
ATC-3	09/01/17	<1	<1	5	9	4	4	<1	12	2	2	10	<30	10	<5	<1	<1	<1	<1	58
	11/28/17	<1	<1	<1	<1	1	1	<1	<1	<1	<1	<5	<30	1	<5	<1	<1	<1	<1	3
	11/07/18	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	1.7	<5	<1	<1	<1	<1	1.7
JB-7/MW	11/17/16	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<5	<30	3	<2	<2	<2	<2	<2	3
	09/01/17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	<1	<5	<1	<1	<1	<1	<1
	11/28/17	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	6	<5	<1	<1	<1	<1	5
	11/07/18	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	<1	<5	<1	<1	<1	<1	<1
GT-4	11/03/15	3	<2	<2	<2	<2	<2	<2	<2	<2	<2	<5	<30	17	<2	2	3	4	<2	29
	11/17/16	3	<2	<2	<2	<2	<2	<2	<2	<2	<2	<5	<30	33	<2	3	4	7	<2	50
	09/01/17	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	32	<5	2	2	1	<1	38
	11/28/17	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	38	<5	3	3	3	<1	49
	11/07/18	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<30	35	<5	2.3	2.1	1.8	<1	43.2

Notes:

All constituent concentrations are reported in micrograms per liter.

NHDES AGQS = New Hampshire Department of Environmental Services Ambient Groundwater Quality Standards taken from Table 600-1, adopted on June 1, 2015, revised September 2018.

NHDES GW-2 = New Hampshire Department of Environmental Services Vapor Intrusion Screening Levels (groundwater to Indoor Air) revised February 7, 2013.

< = Less than the laboratory's reporting limits. The values presented are the reporting limits. NE = Standard not established.

Bold = Concentration above laboratory detection limit.

Shaded values exceed one or more applicable standard.

Table 4
 Summary of PFAS (Short List) Detected in Groundwater
 New Hampshire Department of Transportation
 Highway Garage 12
 11 Stickney Avenue, Concord, New Hampshire
 NHDES Site No. 199004021

Sample ID	Sample Date	US EPA Method 537										
		Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluoronanoic acid (PFNA)	Perfluorohexane sulfonic acid (PFHxS)	Perfluoroheptanoic acid (PFHpA)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	TOTAL PFOA AND PFOS	
AGQS (ng/L)		70	70	NE	NE	NE	NE	NE	NE	NE	NE	70
JB-7/MW	11/07/18	<4.0	3.21 J	<4.0	<4.0	<4.0	<4.0	<8.0	<4.0	<4.0		3.21
GT-4	11/07/18	8.68	158	3.16 J	79.4	4.30	9.72	5.35 J	19.9	13.3		166.68
ATC-1	11/07/18	9.81	46.5	4.89	14.8	4.80	4.99	5.16 J	13.0	9.40		56.31
ATC-2	11/07/18	4.75	19.5	2.05 J	8.42	2.33 J	2.03 J	3.96 J	8.45	4.28		24.25
ATC-3	11/07/18	16.1	28.6	6.20	19.2	11.5	7.18	13.7	32.6	16.8		44.7

Notes:

NE- AGQS not established.

NA = Not Analyzed.

The groundwater quality data were compared to the Ambient Groundwater Quality Standards (AGQS) listed in Env-Or 600, Contaminated Site Management.

< = Less than laboratory reportable detection limits (RDL). The values presented are the RDLs.

All concentrations are expressed in nanograms per liter, which is equivalent to parts per trillion (ppt).

All samples analyzed by SGS Accutest.

Bold = Concentration above laboratory detection limit.

Shaded values are ≥ 50% applicable standard.

Shaded values exceed one or more applicable standard.

J = Indicates an estimated value.



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner



EMAIL ONLY

November 18, 2015

Dale O'Connell, P.G.
NH Department of Transportation
Bureau of Environment
7 Hazen Drive, PO Box 483
Concord, NH 03302

Subject Site: Concord – NH DOT Highway Garage 12, 11 Stickney Avenue
DES Site #199004021, LUST Project #1921 and HAZWASTE
Project #6249

2013-2014 Summary Report and GMP Renewal Application, prepared
by Sanborn, Head & Associates, Inc., dated June 9, 2015 (Activity
#223486)

Dear Mr. O'Connell:

Please find enclosed Groundwater Management Permit Number GWP-199004021-C-004, approved by the Department of Environmental Services (Department). This permit is issued for a period of 5 years to monitor the effects of past discharges of petroleum and is effective immediately.

The Department understands the monitoring well JB-2/MW may have been decommissioned and/or destroyed during site redevelopment activities. Due to the proximity of active up-gradient Leaking Underground Storage Tank (LUST) sites and the site's history including vehicle repair facilities, the Department requires the replacement of JB-2/MW. Please submit a plan showing the proposed post-construction location for the replacement well to the Department prior to installation. Please note, costs to install the replacement well are not eligible for reimbursement since the original well was destroyed during site redevelopment activities.

A periodic summary report is due January of 2018. The summary report must provide all information required by NH Code of Administrative Rules Env-Or 607.04(a)(1 – 5). Results from the November 2017 sampling event shall be included in the summary reports; therefore, a separate data submittal is not required. Standard groundwater data submittals are due within forty-five days of completing the remaining sampling rounds. These submittals must include a tabulated summary of analytical results, a revised site plan, groundwater elevation data, and lab data sheets.

The summary report and all data transmittals shall be submitted to the undersigned at the address below. All correspondence must contain a cover letter that clearly shows the Department identification numbers for the site (DES Site #199004021, Project #1921).

Dale O'Connell
DES #199004021
November 18, 2015
Page 2 of 2

To receive reimbursement from the New Hampshire Petroleum Reimbursement Fund Program, all work must be pre-approved and conducted in accordance with the Oil Fund Disbursement Board Guidance Manual: Policies, Procedures & Rules for Reimbursement. Please direct your consultant to submit a site-specific work scope and budget for annual monitoring and reporting costs.

Please do not hesitate to contact me if you have any questions regarding the permit.

Sincerely,



Emily Nichols

Oil Remediation and Compliance Bureau

Tel: (603) 271-7380

Fax: (603) 271-2181

Enclosures: Permit GWP-199004021-C-004

ec: Dawna Tousignant, P.E., Sanborn, Head & Associates, Inc.
Concord Health Officer
Paul Rydel, P.G., HWRB

Route/ec: Margaret Bastien, P.E., ORCB
Joyce Bledsoe, P.G., ORCB



The
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
hereby issues
GROUNDWATER MANAGEMENT PERMIT NO. GWP-199004021-C-004
to the permittee
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
to monitor the past discharge of
Petroleum Hydrocarbons and Chlorinated Solvents
at
NHDOT HIGHWAY GARAGE 12
(11 Stickney Road)
in CONCORD, N.H.
via the groundwater monitoring system comprised of
2 monitoring wells
as depicted on the Site Plan entitled
Figure 2: Exploration Location Plan
dated June 2015, prepared by Sanborn, Head & Associates, Inc.

TO: DALE O'CONNELL, P.G.
NH DEPARTMENT OF TRANSPORTATION
7 HAZEN DRIVE, PO BOX 483
CONCORD, NH 03302

Date of Issuance: November 18, 2015
Date of Expiration: November 17, 2020

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (Department), hereby grants this permit to monitor past discharges to the groundwater at the above described location for five years subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by the Department (N.H. Admin. Rules Env-Or 600) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the site plan entitled "Figure 3: Site Vicinity Plan", prepared by Sanborn, Head & Associates, Inc., dated June 2015.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Ws 1700) in any surface water body.
3. The permittee shall allow any authorized staff of the Department, or its agent, to enter the property covered by this permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this permit.
4. The permittee shall apply for the renewal of this permit prior to its expiration date but no more than 90 days prior to expiration.
5. This permit is transferable only upon written request to, and approval of, the Department. Compliance with the existing Permit shall be established prior to permit transfer. Transfer requests shall include the name and address of the person to whom the permit transfer is requested, signature of the current and future permittee, and a summary of all monitoring results to date.
6. The Department reserves the right, under N.H. Admin. Rules Env-Or 600, to require additional hydrogeologic studies and/or remedial measures if the Department receives information indicating the need for such work.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to the Department's Waste Management Division no later than 45 days after sampling. Samples shall be taken from on-site monitoring wells as shown and labeled on the referenced site plan and listed on the following table in accordance with the schedule outlined herein:

<u>Monitoring Locations</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
JB-2/MW (Replacement Well) & GT-4	November of each year	DES Waste Management Division Full List of Analytes for Volatile Organics & Static Water Level

Sampling shall be performed in accordance with the documents listed in Env-Or 610.02(e). Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency or the New Hampshire Department of Environmental Services

A summary of water quality shall be submitted to the Department's Waste Management Division, in January of 2018, using a format acceptable to the Department. The Summary Report shall include the information listed in Env-Or 607.04(a), as applicable.

The Periodic Summary Report shall be prepared and stamped by a professional engineer or professional geologist licensed in the State of New Hampshire.

8. Issuance of this permit is based on Application For Renewal Of Groundwater Management Permit dated June 9, 2015 and the historical documents found in the Department file DES #199004021. The Department may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.
9. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or beyond the Groundwater Management Zone boundary, the permittee shall notify the Department in writing. Within 60 days of discovery, the permittee shall submit recommendations to correct the violation. The Department shall approve the recommendations if the Department determines that they will correct the violation.
10. All monitoring wells at the site shall be properly maintained and secured from unauthorized access or surface water infiltration.

SPECIAL CONDITIONS FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lot as listed and described in the following table:

Tax Map/Block/Lot #	Property Address	Owner Name and Address	Deed Reference (Book/Page)
46A/2/1	11 Stickney Avenue Concord, NH	State of New Hampshire C/O Secretary of State 107 North Main Street Concord, NH 03301	479/315 & 540/341

12. The permittee shall update ownership information required by Env-Or 607.03(a)(20) for all properties within the Groundwater Management Zone prior to renewal of the permit or upon a recommendation for site closure.



Sarah Yuhas Kirn, P.G., Administrator
Oil Remediation and Compliance Bureau
Waste Management Division

Any person aggrieved by this decision may appeal to the N.H. Waste Management Council ("Council") by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WMC 200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at <http://nhec.nh.gov/> (or more directly at <http://nhec.nh.gov/waste/index.htm>). Copies of the rules also are available from the DES Public Information Center at (603) 271-2975.



Eastern Analytical, Inc.

professional laboratory and drilling services

Kristin Zeman
ATC Group Services LLC (NH)
150 Zachary Road
Manchester, NH 03109



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 188803
Client Identification: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084
Date Received: 11/7/2018

Dear Ms. Zeman :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

- Solid samples are reported on a dry weight basis, unless otherwise noted
- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

11.16.18
Date

10
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Temperature upon receipt (°C): 3.1

Received on Ice or cold packs (Yes/No): Y

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
188803.01	ATC 1	11/7/18	11/7/18	aqueous		Adheres to Sample Acceptance Policy
188803.02	ATC 2	11/7/18	11/7/18	aqueous		Adheres to Sample Acceptance Policy
188803.03	ATC 3	11/7/18	11/7/18	aqueous		Adheres to Sample Acceptance Policy
188803.04	GT 4	11/7/18	11/7/18	aqueous		Adheres to Sample Acceptance Policy
188803.05	JB7 / MW	11/7/18	11/7/18	aqueous		Adheres to Sample Acceptance Policy
188803.06	Trip Blank	11/7/18	10/22/18	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 4th edition, 1992



LABORATORY REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Sample ID:	ATC 1	ATC 2	ATC 3	GT 4	JB7 / MW	Trip Blank
Lab Sample ID:	188803.01	188803.02	188803.03	188803.04	188803.05	188803.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	10/22/18
Date Received:	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/7/18	11/13/18	11/8/18	11/7/18	11/8/18	11/8/18
Analyst:	BAM	BAM	BAM	BAM	VG	VG
Method:	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5	< 5	< 5	< 5
Diethyl Ether	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	< 10	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30	< 30	< 30	< 30	< 30
Methylene chloride	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 2	< 2	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	9.3	2	1.7	35	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	2.3	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	< 1	22	< 1	2	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	2.1	< 1	< 1
Trichloroethene	2.9	< 1	< 1	1.8	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	1.5	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	2.1	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 2	< 2	< 2	< 2	< 2	< 2
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	< 1	13	< 1	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Sample ID:	ATC 1	ATC 2	ATC 3	GT 4	JB7 / MW	Trip Blank
Lab Sample ID:	188803.01	188803.02	188803.03	188803.04	188803.05	188803.06
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	10/22/18
Date Received:	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	11/7/18	11/13/18	11/8/18	11/7/18	11/8/18	11/8/18
Analyst:	BAM	BAM	BAM	BAM	VG	VG
Method:	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1	1
mp-Xylene	<1	5.8	<1	<1	<1	<1
o-Xylene	<1	<1	<1	<1	<1	<1
Styrene	<1	<1	<1	<1	<1	<1
Bromoform	<2	<2	<2	<2	<2	<2
IsoPropylbenzene	<1	12	<1	<1	<1	<1
Bromobenzene	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	<1	25	<1	<1	<1	<1
2-Chlorotoluene	<1	<1	<1	<1	<1	<1
4-Chlorotoluene	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	<1	<1	<1	<1	<1	<1
tert-Butylbenzene	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	<1	1.6	<1	<1	<1	<1
sec-Butylbenzene	<1	1.9	<1	<1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1
n-Butylbenzene	<1	2.8	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<2	<2	<2	<2	<2	<2
1,3,5-Trichlorobenzene	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	<5	16	<5	<5	<5	<5
1,2,3-Trichlorobenzene	<1	<1	<1	<1	<1	<1
4-Bromofluorobenzene (surr)	98 %R	101 %R	98 %R	99 %R	96 %R	99 %R
1,2-Dichlorobenzene-d4 (surr)	103 %R	100 %R	104 %R	103 %R	105 %R	107 %R
Toluene-d8 (surr)	92 %R	101 %R	93 %R	93 %R	90 %R	91 %R
1,2-Dichloroethane-d4 (surr)	100 %R	98 %R	101 %R	99 %R	107 %R	110 %R



QC REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	22 (109 %R)	21 (104 %R) (5 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
Chloromethane	< 2	16 (78 %R)	15 (75 %R) (4 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
Vinyl chloride	< 2	21 (104 %R)	20 (99 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Bromomethane	< 2	* 7 (35 %R)	* 7.4 (37 %R) (5 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
Chloroethane	< 5	24 (119 %R)	23 (114 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 5	21 (106 %R)	21 (104 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Diethyl Ether	< 5	22 (109 %R)	21 (107 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Acetone	< 10	19 (95 %R)	18 (92 %R) (3 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 1	21 (104 %R)	21 (103 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
tert-Butyl Alcohol (TBA)	< 30	96 (96 %R)	110 (106 %R) (10 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Methylene chloride	< 5	20 (98 %R)	19 (96 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	22 (110 %R)	22 (108 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	21 (104 %R)	21 (105 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 5	21 (104 %R)	20 (101 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 5	20 (98 %R)	19 (96 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 5	21 (107 %R)	21 (107 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	22 (109 %R)	21 (104 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	21 (105 %R)	21 (103 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	23 (117 %R)	23 (114 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	21 (107 %R)	22 (108 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	18 (92 %R)	19 (93 %R) (1 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	21 (105 %R)	21 (103 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	21 (106 %R)	21 (105 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Chloroform	< 1	22 (112 %R)	21 (107 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	23 (115 %R)	22 (110 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	25 (123 %R)	24 (120 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,1-Dichloropropene	< 1	22 (112 %R)	21 (106 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Benzene	< 1	22 (111 %R)	21 (106 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	21 (107 %R)	21 (105 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	22 (112 %R)	22 (110 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	22 (108 %R)	21 (106 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	23 (114 %R)	22 (110 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 0.5	26 (130 %R)	25 (124 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,4-Dioxane	< 50	< 50 (128 %R)	< 50 (135 %R) (6 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	21 (105 %R)	21 (107 %R) (2 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	24 (122 %R)	24 (121 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Toluene	< 1	20 (102 %R)	20 (102 %R) (0 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	21 (106 %R)	21 (105 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	19 (97 %R)	20 (99 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	18 (89 %R)	18 (92 %R) (4 RPD)	11/7/2018	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	21 (105 %R)	21 (103 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	20 (98 %R)	19 (97 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	22 (111 %R)	22 (109 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 2	20 (99 %R)	19 (96 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	21 (103 %R)	20 (101 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	22 (111 %R)	22 (112 %R) (0 RPD)	11/7/2018	ug/L	70 - 130	20	8260C



QC REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	22 (108 %R)	21 (106 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	41 (103 %R)	41 (103 %R) (0 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
o-Xylene	< 1	21 (104 %R)	21 (104 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Styrene	< 1	21 (107 %R)	20 (102 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Bromoforn	< 2	19 (95 %R)	19 (96 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
IsoPropylbenzene	< 1	22 (112 %R)	22 (110 %R) (2 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	20 (99 %R)	19 (94 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	19 (93 %R)	17 (86 %R) (7 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	18 (90 %R)	17 (86 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	21 (104 %R)	20 (100 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	19 (94 %R)	19 (93 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	20 (101 %R)	18 (91 %R) (10 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	20 (98 %R)	19 (96 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	23 (113 %R)	19 (95 %R) (17 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	19 (95 %R)	19 (95 %R) (0 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	21 (105 %R)	20 (100 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	20 (102 %R)	19 (97 %R) (5 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	21 (106 %R)	21 (103 %R) (3 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	20 (101 %R)	18 (97 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	20 (98 %R)	20 (98 %R) (0 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	20 (99 %R)	20 (100 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 2	19 (95 %R)	19 (95 %R) (1 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 1	17 (84 %R)	19 (94 %R) (12 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	17 (83 %R)	19 (95 %R) (13 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 0.5	18 (92 %R)	18 (88 %R) (4 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
Naphthalene	< 5	17 (86 %R)	21 (107 %R) (22 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 1	17 (84 %R)	20 (98 %R) (16 RPD)	11/7/2018	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	95 %R	103 %R	106 %R	11/7/2018	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	103 %R	104 %R	99 %R	11/7/2018	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	91 %R	92 %R	93 %R	11/7/2018	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	93 %R	96 %R	99 %R	11/7/2018	% Rec	70 - 130	20	8260C

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*| Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.

Analytes that exceed limits high but are not detected in the field samples do not impact the data. For analytes that show low recovery and are not detected in the field samples, a low point calibration standard has been analyzed to support the reporting limit.



QC REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	22 (108 %R)	22 (112 %R) (4 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
Chloromethane	< 2	15 (77 %R)	16 (79 %R) (3 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
Vinyl chloride	< 2	21 (104 %R)	21 (107 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Bromomethane	< 2	* 6.8 (34 %R)	* 7.2 (36 %R) (5 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
Chloroethane	< 5	24 (120 %R)	25 (125 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 5	20 (98 %R)	24 (118 %R) (19 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Diethyl Ether	< 5	22 (111 %R)	24 (118 %R) (6 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Acetone	< 10	21 (107 %R)	22 (108 %R) (1 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 1	21 (106 %R)	22 (109 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
tert-Butyl Alcohol (TBA)	< 30	99 (99 %R)	110 (106 %R) (7 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Methylene chloride	< 5	20 (100 %R)	21 (104 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	23 (113 %R)	24 (118 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	21 (105 %R)	22 (111 %R) (6 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 5	21 (103 %R)	22 (108 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 5	20 (99 %R)	21 (104 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 5	21 (107 %R)	22 (111 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	22 (110 %R)	23 (116 %R) (6 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	22 (108 %R)	22 (112 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	17 (87 %R)	18 (89 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	21 (107 %R)	23 (115 %R) (7 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	19 (94 %R)	20 (98 %R) (4 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	21 (106 %R)	22 (108 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	21 (104 %R)	22 (109 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Chloroform	< 1	23 (113 %R)	23 (117 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	23 (115 %R)	24 (121 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	25 (124 %R)	* 26 (132 %R) (6 RPD)	11/8/2018	ug/L	70 - 130	20	8280C
1,1-Dichloropropene	< 1	22 (111 %R)	23 (116 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Benzene	< 1	22 (111 %R)	23 (116 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	21 (107 %R)	22 (112 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	23 (114 %R)	23 (117 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	22 (108 %R)	23 (113 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	23 (114 %R)	24 (118 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 0.5	26 (130 %R)	* 27 (134 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,4-Dioxane	< 50	< 50 (141 %R)	< 50 (138 %R) (2 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	19 (96 %R)	21 (104 %R) (8 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	23 (117 %R)	25 (123 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Toluene	< 1	20 (102 %R)	21 (104 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	20 (101 %R)	21 (104 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	20 (99 %R)	20 (100 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	18 (89 %R)	18 (91 %R) (1 RPD)	11/8/2018	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	21 (104 %R)	21 (106 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	20 (99 %R)	20 (100 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	23 (113 %R)	23 (115 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 2	20 (99 %R)	20 (101 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	21 (105 %R)	21 (105 %R) (0 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	23 (113 %R)	23 (114 %R) (0 RPD)	11/8/2018	ug/L	70 - 130	20	8260C



QC REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	22 (109 %R)	22 (110 %R) (0 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	42 (104 %R)	42 (106 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
o-Xylene	< 1	21 (103 %R)	21 (106 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Styrene	< 1	22 (108 %R)	21 (107 %R) (0 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Bromoforn	< 2	19 (96 %R)	20 (98 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
IsoPropylbenzene	< 1	22 (112 %R)	23 (113 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	19 (96 %R)	20 (99 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	18 (89 %R)	19 (93 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	18 (88 %R)	18 (90 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	20 (101 %R)	21 (104 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	18 (88 %R)	19 (94 %R) (7 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	18 (91 %R)	20 (100 %R) (9 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	20 (99 %R)	20 (101 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	20 (102 %R)	20 (102 %R) (0 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	20 (100 %R)	19 (97 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	20 (100 %R)	21 (104 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	20 (100 %R)	20 (102 %R) (2 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	21 (103 %R)	21 (104 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	20 (100 %R)	20 (101 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	20 (98 %R)	20 (99 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	19 (97 %R)	20 (98 %R) (1 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 2	18 (90 %R)	19 (95 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 1	19 (93 %R)	18 (90 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	19 (96 %R)	18 (92 %R) (4 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 0.5	16 (78 %R)	16 (81 %R) (3 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
Naphthalene	< 5	21 (105 %R)	20 (100 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 1	20 (100 %R)	19 (96 %R) (5 RPD)	11/8/2018	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	96 %R	105 %R	104 %R	11/8/2018	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	102 %R	96 %R	98 %R	11/8/2018	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	94 %R	91 %R	93 %R	11/8/2018	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	99 %R	102 %R	100 %R	11/8/2018	% Rec	70 - 130	20	8260C

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*// Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.

Analytes that exceed limits high but are not detected in the field samples do not impact the data. For analytes that show low recovery and are not detected in the field samples, a low point calibration standard has been analyzed to support the reporting limit.



QC REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	9 (45 %R)	9.2 (46 %R) (2 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
Chloromethane	< 2	14 (68 %R)	14 (71 %R) (4 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
Vinyl chloride	< 2	14 (69 %R)	14 (72 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Bromomethane	< 2	12 (62 %R)	12 (59 %R) (5 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
Chloroethane	< 5	16 (81 %R)	18 (88 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 5	15 (77 %R)	16 (81 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Diethyl Ether	< 5	17 (87 %R)	18 (92 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Acetone	< 10	14 (72 %R)	14 (70 %R) (3 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 1	14 (70 %R)	15 (77 %R) (10 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
tert-Butyl Alcohol (TBA)	< 30	78 (78 %R)	85 (85 %R) (9 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Methylene chloride	< 5	15 (77 %R)	18 (88 %R) (13 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	15 (75 %R)	17 (84 %R) (11 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	17 (84 %R)	18 (89 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 5	17 (87 %R)	18 (91 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 5	19 (93 %R)	20 (100 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 5	18 (88 %R)	18 (92 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	17 (85 %R)	18 (92 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	18 (89 %R)	19 (96 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	17 (86 %R)	18 (90 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	19 (95 %R)	20 (100 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	16 (79 %R)	17 (85 %R) (7 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	17 (85 %R)	18 (88 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	18 (90 %R)	20 (98 %R) (9 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Chloroform	< 1	17 (87 %R)	19 (94 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	17 (85 %R)	18 (91 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	16 (81 %R)	17 (86 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,1-Dichloropropene	< 1	17 (87 %R)	19 (95 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Benzene	< 1	18 (88 %R)	19 (94 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	18 (89 %R)	19 (95 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	18 (89 %R)	19 (95 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	17 (86 %R)	18 (91 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	18 (90 %R)	19 (96 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 0.5	19 (97 %R)	20 (102 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,4-Dioxane	< 50	< 50 (104 %R)	< 50 (99 %R) (4 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	17 (83 %R)	18 (88 %R) (6 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	18 (88 %R)	19 (94 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Toluene	< 1	17 (87 %R)	19 (95 %R) (9 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	17 (83 %R)	18 (91 %R) (9 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	17 (87 %R)	18 (92 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	16 (80 %R)	18 (89 %R) (11 RPD)	11/13/2018	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	16 (81 %R)	18 (89 %R) (10 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	17 (86 %R)	18 (92 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	17 (85 %R)	18 (92 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 2	18 (88 %R)	18 (91 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	17 (85 %R)	18 (92 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	16 (82 %R)	18 (90 %R) (10 RPD)	11/13/2018	ug/L	70 - 130	20	8260C



QC REPORT

EAI ID#: 188803

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT 11 Stickney Ave, Concord, NH | 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	17 (87 %R)	19 (95 %R) (9 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	34 (85 %R)	37 (92 %R) (9 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
o-Xylene	< 1	17 (86 %R)	18 (92 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Styrene	< 1	17 (84 %R)	18 (91 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Bromoform	< 2	16 (82 %R)	18 (88 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
IsoPropylbenzene	< 1	18 (88 %R)	19 (94 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	17 (84 %R)	18 (89 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	18 (88 %R)	18 (92 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	17 (84 %R)	19 (93 %R) (11 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	19 (93 %R)	20 (98 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	17 (86 %R)	18 (91 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	18 (90 %R)	19 (95 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	18 (89 %R)	19 (94 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	18 (89 %R)	18 (92 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	18 (91 %R)	19 (97 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	18 (89 %R)	19 (95 %R) (7 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	17 (86 %R)	18 (90 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	18 (91 %R)	19 (95 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	17 (85 %R)	18 (89 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	17 (85 %R)	18 (89 %R) (4 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	19 (93 %R)	19 (97 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 2	15 (77 %R)	17 (83 %R) (8 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 1	17 (83 %R)	18 (88 %R) (5 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	16 (80 %R)	17 (86 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 0.5	15 (77 %R)	15 (77 %R) (1 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
Naphthalene	< 5	18 (88 %R)	19 (93 %R) (6 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 1	17 (84 %R)	17 (86 %R) (3 RPD)	11/13/2018	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	102 %R	103 %R	103 %R	11/13/2018	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	102 %R	101 %R	101 %R	11/13/2018	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	100 %R	97 %R	101 %R	11/13/2018	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	102 %R	102 %R	102 %R	11/13/2018	% Rec	70 - 130	20	8260C

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

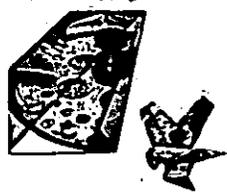
There were no exceptions in the analyses, unless noted.

*// Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.

Analytes that exceed limits high but are not detected in the field samples do not impact the data. For analytes that show low recovery and are not detected in the field samples, a low point calibration standard has been analyzed to support the reporting limit.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

ATC Group Services LLC

NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH

59DOT00084

SGS Job Number: FA59211

Sampling Date: 11/07/18

Report to:

**ATC Group Services LLC
150 Zachary Rd Unit 1
Manchester, NH 03109
kristin.zeman@atcassociates.com**

ATTN: Kristin Zeman

Total number of pages in report: 19



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

**Caitlin Brice, M.S.
General Manager**

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001)
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),

AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Test results relate only to samples analyzed.

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Sample Summary

ATC Group Services LLC

Job No: FA59211

NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH
Project No: 59DOT00084

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA59211-1	11/07/18	10:50	JCOL	11/09/18	AQ Ground Water	ATC 1
FA59211-2	11/07/18	09:00	JCOL	11/09/18	AQ Ground Water	ATC 2
FA59211-3	11/07/18	09:15	JCOL	11/09/18	AQ Ground Water	ATC 3
FA59211-4	11/07/18	11:40	JCOL	11/09/18	AQ Ground Water	GT 4
FA59211-5	11/07/18	10:25	JCOL	11/09/18	AQ Ground Water	JB7/MW

Summary of Hits

Job Number: FA59211
Account: ATC Group Services LLC
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH
Collected: 11/07/18

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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FA59211-1 ATC 1

Perfluorobutanoic acid	0.00516 J	0.0080	0.0020	ug/l	EPA 537M BY ID
Perfluoropentanoic acid	0.0130	0.0040	0.0015	ug/l	EPA 537M BY ID
Perfluorohexanoic acid	0.00940	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.00480	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.00981	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorononanoic acid	0.00489	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.00499	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.0148	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0465	0.0040	0.0015	ug/l	EPA 537M BY ID

FA59211-2 ATC 2

Perfluorobutanoic acid	0.00396 J	0.0083	0.0021	ug/l	EPA 537M BY ID
Perfluoropentanoic acid	0.00845	0.0042	0.0016	ug/l	EPA 537M BY ID
Perfluorohexanoic acid	0.00428	0.0042	0.0010	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.00233 J	0.0042	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.00475	0.0042	0.0010	ug/l	EPA 537M BY ID
Perfluorononanoic acid	0.00205 J	0.0042	0.0010	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.00203 J	0.0042	0.0010	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.00842	0.0042	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0195	0.0042	0.0016	ug/l	EPA 537M BY ID

FA59211-3 ATC 3

Perfluorobutanoic acid	0.0137	0.0080	0.0020	ug/l	EPA 537M BY ID
Perfluoropentanoic acid	0.0326	0.0040	0.0015	ug/l	EPA 537M BY ID
Perfluorohexanoic acid	0.0168	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.0115	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.0161	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorononanoic acid	0.00620	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.00718	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorohexanesulfonic acid	0.0192	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid	0.0286	0.0040	0.0015	ug/l	EPA 537M BY ID

FA59211-4 GT 4

Perfluorobutanoic acid	0.00535 J	0.0080	0.0020	ug/l	EPA 537M BY ID
Perfluoropentanoic acid	0.0199	0.0040	0.0015	ug/l	EPA 537M BY ID
Perfluorohexanoic acid	0.0133	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluoroheptanoic acid	0.00430	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanoic acid	0.00868	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorononanoic acid	0.00316 J	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorobutanesulfonic acid	0.00972	0.0040	0.0010	ug/l	EPA 537M BY ID

Summary of Hits

Job Number: FA59211
Account: ATC Group Services LLC
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH
Collected: 11/07/18

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Perfluorohexanesulfonic acid		0.0794	0.0040	0.0010	ug/l	EPA 537M BY ID
Perfluorooctanesulfonic acid		0.158	0.0040	0.0015	ug/l	EPA 537M BY ID
FA59211-5	JB7/MW					
Perfluorooctanesulfonic acid		0.00321	0.0040	0.0015	ug/l	EPA 537M BY ID

Sample Results

Report of Analysis

Report of Analysis

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3

Client Sample ID: ATC 1	
Lab Sample ID: FA59211-1	Date Sampled: 11/07/18
Matrix: AQ - Ground Water	Date Received: 11/09/18
Method: EPA 537M BY ID EPA 537 MOD	Percent Solids: n/a
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q24093.D	1	11/27/18 12:11	NAF	11/21/18 08:00	OP72726	S2Q375
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.00516	0.0080	0.0020	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0130	0.0040	0.0015	ug/l	
307-24-4	Perfluorohexanoic acid	0.00940	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00480	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	0.00981	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	0.00489	0.0040	0.0010	ug/l	

PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	0.00499	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0148	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0465	0.0040	0.0015	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	102%		30-140%
	13C5-PFPeA	108%		40-140%
	13C5-PFHxA	112%		50-150%
	13C4-PFHpA	116%		50-150%
	13C8-PFOA	127%		50-150%
	13C9-PFNA	125%		50-150%
	13C3-PFBS	105%		50-150%
	13C3-PFHxS	109%		50-150%
	13C8-PFOS	109%		50-150%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

3.2
3

Client Sample ID: ATC 2		
Lab Sample ID: FA59211-2		Date Sampled: 11/07/18
Matrix: AQ - Ground Water		Date Received: 11/09/18
Method: EPA 537M BY ID EPA 537 MOD		Percent Solids: n/a
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q24094.D	1	11/27/18 12:26	NAF	11/21/18 08:00	OP72726	S2Q375
Run #2							

Run #	Initial Volume	Final Volume
Run #1	240 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.00396	0.0083	0.0021	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.00845	0.0042	0.0016	ug/l	
307-24-4	Perfluorohexanoic acid	0.00428	0.0042	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00233	0.0042	0.0010	ug/l	J
335-67-1	Perfluorooctanoic acid	0.00475	0.0042	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	0.00205	0.0042	0.0010	ug/l	J

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	0.00203	0.0042	0.0010	ug/l	J
355-46-4	Perfluorohexanesulfonic acid	0.00842	0.0042	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0195	0.0042	0.0016	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	87%		30-140%
	13C5-PFPeA	90%		40-140%
	13C5-PFHxA	93%		50-150%
	13C4-PFHpA	100%		50-150%
	13C8-PFOA	111%		50-150%
	13C9-PFNA	118%		50-150%
	13C3-PFBS	87%		50-150%
	13C3-PFHxS	89%		50-150%
	13C8-PFOS	95%		50-150%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

3.3
3

Client Sample ID: ATC 3		
Lab Sample ID: FA59211-3		Date Sampled: 11/07/18
Matrix: AQ - Ground Water		Date Received: 11/09/18
Method: EPA 537M BY ID EPA 537 MOD		Percent Solids: n/a
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q24095.D	1	11/27/18 12:42	NAF	11/21/18 08:00	OP72726	S2Q375
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.0137	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	0.0326	0.0040	0.0015	ug/l	
307-24-4	Perfluorohexanoic acid	0.0168	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	0.0115	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	0.0161	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	0.00620	0.0040	0.0010	ug/l	

PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	0.00718	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0192	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.0286	0.0040	0.0015	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	95%		30-140%
	13C5-PFPeA	99%		40-140%
	13C5-PFHxA	102%		50-150%
	13C4-PFHpA	103%		50-150%
	13C8-PFOA	112%		50-150%
	13C9-PFNA	105%		50-150%
	13C3-PFBS	98%		50-150%
	13C3-PFHxS	94%		50-150%
	13C8-PFOS	73%		50-150%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

3.4
3

Client Sample ID: GT 4		
Lab Sample ID: FA59211-4		Date Sampled: 11/07/18
Matrix: AQ - Ground Water		Date Received: 11/09/18
Method: EPA 537M BY ID EPA 537 MOD		Percent Solids: n/a
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q24099.D	1	11/27/18 13:45	NAF	11/21/18 08:00	OP72726	S2Q375
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	0.00535	0.0080	0.0020	ug/l	J
2706-90-3	Perfluoropentanoic acid	0.0199	0.0040	0.0015	ug/l	
307-24-4	Perfluorohexanoic acid	0.0133	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	0.00430	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	0.00868	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	0.00316	0.0040	0.0010	ug/l	J

PERFLUOROALKYLSULFONATES						
CAS No.	Compound	Result	RL	MDL	Units	Q
375-73-5	Perfluorobutanesulfonic acid	0.00972	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	0.0794	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.158	0.0040	0.0015	ug/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	97%		30-140%
	13C5-PFPeA	101%		40-140%
	13C5-PFHxA	100%		50-150%
	13C4-PFHpA	105%		50-150%
	13C8-PFOA	108%		50-150%
	13C9-PFNA	106%		50-150%
	13C3-PFBS	98%		50-150%
	13C3-PFHxS	96%		50-150%
	13C8-PFOS	87%		50-150%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

3.5
3

Client Sample ID: JB7/MW		
Lab Sample ID: FA59211-5		Date Sampled: 11/07/18
Matrix: AQ - Ground Water		Date Received: 11/09/18
Method: EPA 537M BY ID EPA 537 MOD		Percent Solids: n/a
Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q24100.D	1	11/27/18 14:01	NAF	11/21/18 08:00	OP72726	S2Q375
Run #2							

Run #	Initial Volume	Final Volume
Run #1	250 ml	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	RL	MDL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS						
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0015	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	

PERFLUOROALKYLSULFONATES						
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	0.00321	0.0040	0.0015	ug/l	J

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	82%		30-140%
	13C5-PFPeA	90%		40-140%
	13C5-PFHxA	100%		50-150%
	13C4-PFHpA	109%		50-150%
	13C8-PFOA	122%		50-150%
	13C9-PFNA	121%		50-150%
	13C3-PFBS	88%		50-150%
	13C3-PFHxS	102%		50-150%
	13C8-PFOS	103%		50-150%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms**Custody Documents and Other Forms**

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2255 Route 130, Dayton, NJ 08810
TEL 732-329-0200 FAX 732-329-3499
www.sgs.com/nausa

PREM

PAGE 1 OF 1

FA9211

Project Name: NHDOT Highway Construction

Client: ATC Group Services LLC

Address: 150 Zackway Rd, Manchester, NH 03109

Project Contact: Kristin Zeman

Phone: 603-647-7077

SGS Order Number: 10005

Lab Use Only:

- DW - Drinking Water
- GW - Ground Water
- WW - Water
- BW - Surface Water
- SO - Soil
- SL - Sludge
- SD - Sediment
- CI - Oil
- LIQ - Other Liquid
- AIR - Air
- SOL - Other Solid
- WIP - Waste
- PS - Field Blank
- ES - Equipment Blank
- FB - Filter Blank
- TS - Trip Blank

Vertical handwritten notes: 10005 (S/N) SVZ

Lab Sample #	Field ID / Point of Collection	METHOD	Date	Time	Sampled by	Matrix	# of bottles	GC	MS	IC	TOC	PH	TEMP	OTHER
1	ATL 1		11/7/18	10:50	JAC	GW	2							
2	ATL 2		11/7/18	9:00	GS	GW	2							
3	ATL 3		11/7/18	9:15	JAC	GW	2							
4	GT 4		11/7/18	11:40	CC	GW	2							
5	JBT/mw		11/7/18	10:25	CC	GW	2							

Approved by (SGS Project Manager):

Emergency & Rush TAT data available via LabLink

Sample Custody must be documented below each time samples change possession, including carrier delivery.

Signature: [Handwritten Signature]

Date: 11/16/18

Time: 17:30

Signature: [Handwritten Signature]

Date: 11/16/18

Time: 12:00

Form: SMOES-03C (revised 2/12/18)

http://www.sgs.com/en/terms-and-conditions

4.1 4



SGS Sample Receipt Summary

Job Number: FA59211

Client: ATC

Project: NHDOT HIGHWAY

Date / Time Received: 11/9/2018 9:00:00 AM

Delivery Method: FX

Airbill #s: 1001910581210003281100440174913758

Therm ID: <u>IR 1;</u>	Therm CF: <u>-0.2;</u>	# of Coolers: <u>1</u>
Cooler Temps (Raw Measured) °C: Cooler 1: <u>(2.8);</u>		
Cooler Temps (Corrected) °C: Cooler 1: <u>(2.8);</u>		

<u>Cooler Information</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>Sample Information</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Custody Seals Present	<input checked="" type="checkbox"/>		<input type="checkbox"/>	1. Sample labels present on bottles	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Custody Seals Intact	<input checked="" type="checkbox"/>		<input type="checkbox"/>	2. Samples preserved properly	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
3. Temp criteria achieved	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. Sufficient volume/containers recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Cooler temp verification	<u>IR Gun</u>			4. Condition of sample	<u>Intact</u>			
5. Cooler media	<u>Ice (Bag)</u>			5. Sample recvd within HT	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
				6. Dates/Times/IDs on COC match Sample Label	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
				7. VOCs have headspace	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
				8. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
				9. Compositing instructions clear	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
				10. Voa Soil Kits/Jars received past 48hrs?	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
				11. % Solids Jar received?	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
				12. Residual Chlorine Present?	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Misc. Information</u>			
Number of Encores: 25-Gram _____	5-Gram _____	Number of 5035 Field Kits: _____	Number of Lab Filtered Metals: _____
Test Strip Lot #s: pH 0-3 _____	230315 _____	pH 10-12 _____	219813A _____
Residual Chlorine Test Strip Lot #: _____			

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH

Date: 11/9/2018 9:00:00 AM

Reviewer: _____

Date: _____

FA59211: Chain of Custody
Page 2 of 2

4.1
4

MS Semi-volatiles**5****QC Data Summaries**

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA59211
 Account: ATCNH ATC Group Services LLC
 Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72726-MB	2Q24087.D	1	11/27/18	NAF	11/21/18	OP72726	S2Q375

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA59211-1, FA59211-2, FA59211-3, FA59211-4, FA59211-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0015	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.0015	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	117% 30-140%
	13C5-PFPeA	120% 40-140%
	13C5-PFHxA	119% 50-150%
	13C4-PFHpA	118% 50-150%
	13C8-PFOA	149% 50-150%
	13C9-PFNA	136% 50-150%
	13C3-PFBS	120% 50-150%
	13C3-PFHxS	116% 50-150%
	13C8-PFOS	109% 50-150%

5.1.1
5

Instrument Blank

Job Number: FA59211
 Account: ATCNH ATC Group Services LLC
 Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q375-IBLK	2Q24085.D	1	11/27/18	NAF	n/a	n/a	S2Q375

The QC reported here applies to the following samples:

Method: EPA 537M QSM5.1 B-15

FA59211-1, FA59211-2, FA59211-3, FA59211-4, FA59211-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0020	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0015	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.0010	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.0010	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.0010	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.0010	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.0010	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0080	0.0020	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C5-PFHxA	101% 50-150%
	13C4-PFHpA	103% 50-150%
	13C8-PFOA	104% 50-150%
	13C9-PFNA	104% 50-150%
	13C6-PFDA	119% 50-150%
	13C7-PFUnDA	107% 50-150%
	13C2-PFDoDA	99% 50-150%
	13C2-PFTeDA	104% 50-150%
	13C3-PFBS	106% 50-150%
	13C3-PFHxS	103% 50-150%
	13C8-PFOS	108% 50-150%
	d3-MeFOSAA	103% 50-150%

5.12
5

Blank Spike Summary

Job Number: FA59211
 Account: ATCNH ATC Group Services LLC
 Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72726-BS	2Q24086.D	1	11/27/18	NAF	11/21/18	OP72726	S2Q375

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

FA59211-1, FA59211-2, FA59211-3, FA59211-4, FA59211-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.08	0.0801	100	70-130
2706-90-3	Perfluoropentanoic acid	0.08	0.0829	104	70-130
307-24-4	Perfluorohexanoic acid	0.08	0.0742	93	70-130
375-85-9	Perfluoroheptanoic acid	0.08	0.0815	102	71-130
335-67-1	Perfluorooctanoic acid	0.08	0.0804	101	74-130
375-95-1	Perfluorononanoic acid	0.08	0.0765	96	76-130
375-73-5	Perfluorobutanesulfonic acid	0.0708	0.0694	98	73-130
355-46-4	Perfluorohexanesulfonic acid	0.0728	0.0689	95	74-130
1763-23-1	Perfluorooctanesulfonic acid	0.074	0.0806	109	70-130

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	101%	30-140%
	13C5-PFPeA	103%	40-140%
	13C5-PFHxA	105%	50-150%
	13C4-PFHpA	103%	50-150%
	13C8-PFOA	119%	50-150%
	13C9-PFNA	110%	50-150%
	13C3-PFBS	107%	50-150%
	13C3-PFHxS	103%	50-150%
	13C8-PFOS	75%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA59211
 Account: ATCNH ATC Group Services LLC
 Project: NHDOT Hwy Garage 12; 111 Stickney Ave, Concord, NH

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP72726-MS	2Q24103.D	1	11/27/18	NAF	11/21/18	OP72726	S2Q375
OP72726-MSD	2Q24104.D	1	11/27/18	NAF	11/21/18	OP72726	S2Q375
JC77988-1	2Q24102.D	1	11/27/18	NAF	11/21/18	OP72726	S2Q375

The QC reported here applies to the following samples:

Method: EPA 537M BY ID

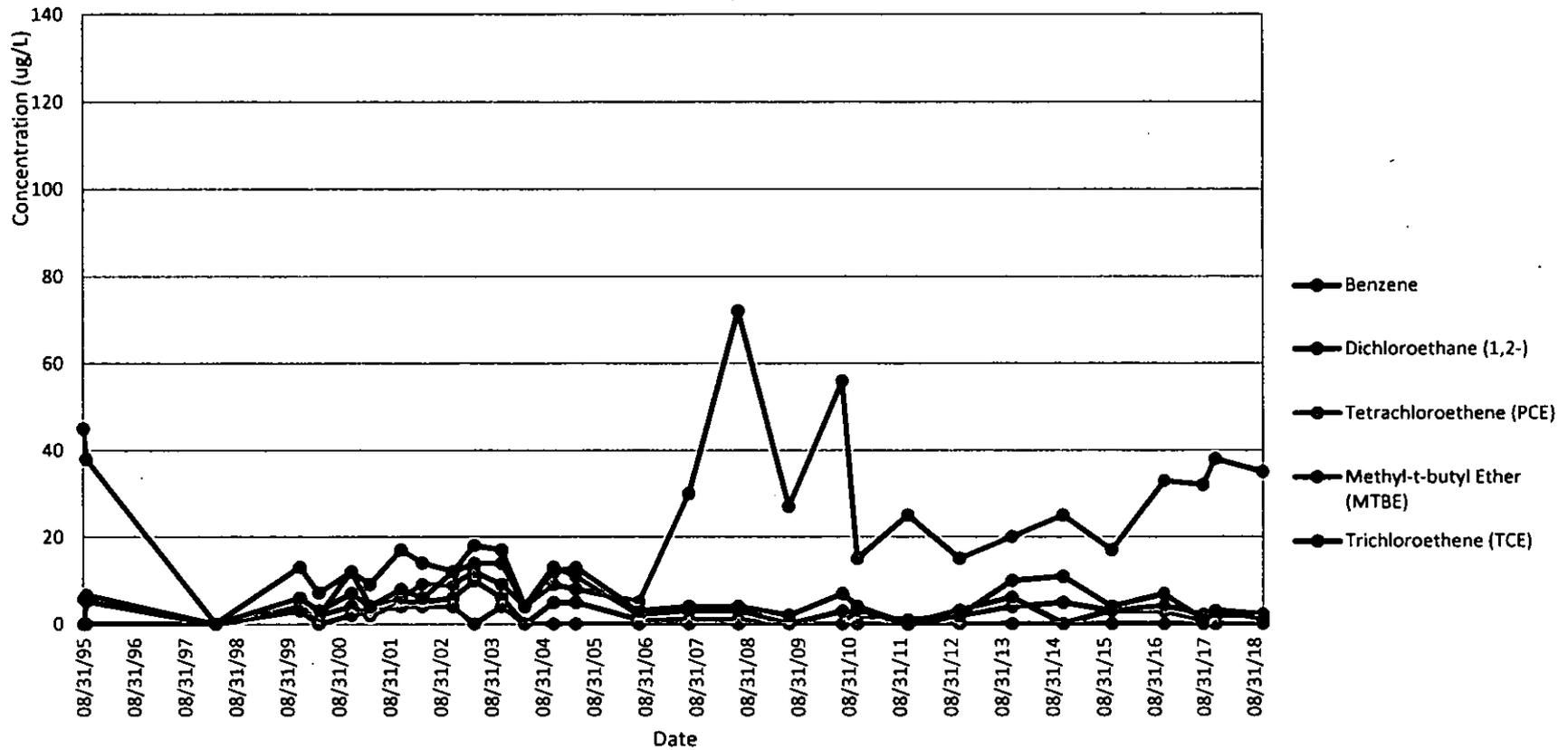
FA59211-1, FA59211-2, FA59211-3, FA59211-4, FA59211-5

CAS No.	Compound	JC77988-1 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	0.00805	0.08	0.0833	94	0.08	0.0837	95	0	70-130/30
2706-90-3	Perfluoropentanoic acid	0.00412	0.08	0.0809	96	0.08	0.0817	97	1	70-130/30
307-24-4	Perfluorohexanoic acid	0.00231	J	0.0728	88	0.08	0.0728	88	0	70-130/30
375-85-9	Perfluoroheptanoic acid	0.00253	0.08	0.0773	93	0.08	0.0778	94	1	71-130/30
335-67-1	Perfluorooctanoic acid	0.0151	0.08	0.0898	93	0.08	0.0923	97	3	74-130/30
375-95-1	Perfluorononanoic acid	0.00131	J	0.0748	92	0.08	0.0727	89	3	76-130/30
375-73-5	Perfluorobutanesulfonic acid	0.00539	0.0708	0.0693	90	0.0708	0.0700	91	1	73-130/30
355-46-4	Perfluorohexanesulfonic acid	0.00345	0.0728	0.0698	91	0.0728	0.0696	91	0	74-130/30
1763-23-1	Perfluorooctanesulfonic acid	0.0147	0.074	0.0871	98	0.074	0.0877	99	1	70-130/30

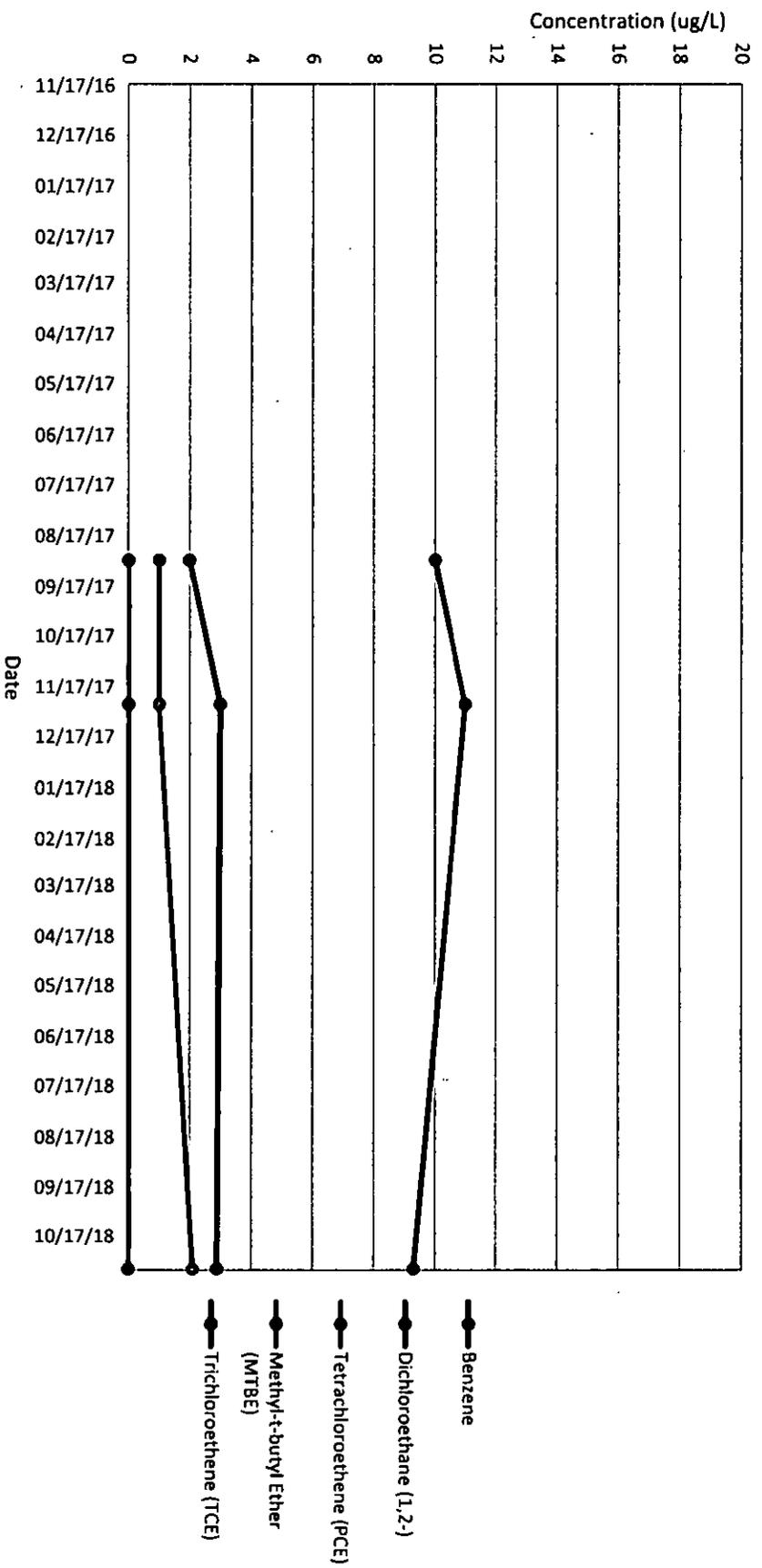
CAS No.	ID Standard Recoveries	MS	MSD	JC77988-1	Limits
	13C4-PFBA	105%	96%	94%	30-140%
	13C5-PFPeA	113%	103%	102%	40-140%
	13C5-PFHxA	119%	108%	106%	50-150%
	13C4-PFHpA	124%	110%	108%	50-150%
	13C8-PFOA	131%	124%	128%	50-150%
	13C9-PFNA	131%	121%	123%	50-150%
	13C6-PFDA			124%	50-150%
	13C7-PFUnDA			120%	50-150%
	13C2-PFDoDA			104%	50-150%
	13C2-PFTeDA			93%	40-150%
	13C3-PFBS	111%	101%	99%	50-150%
	13C3-PFHxS	113%	103%	100%	50-150%
	13C8-PFOS	114%	100%	94%	50-150%
	13C8-FOSA			63%	30-140%
	d3-MeFOSAA			96%	50-150%
	13C2-6:2FTS			128%	50-150%
	13C2-8:2FTS			114%	50-150%

* = Outside of Control Limits.

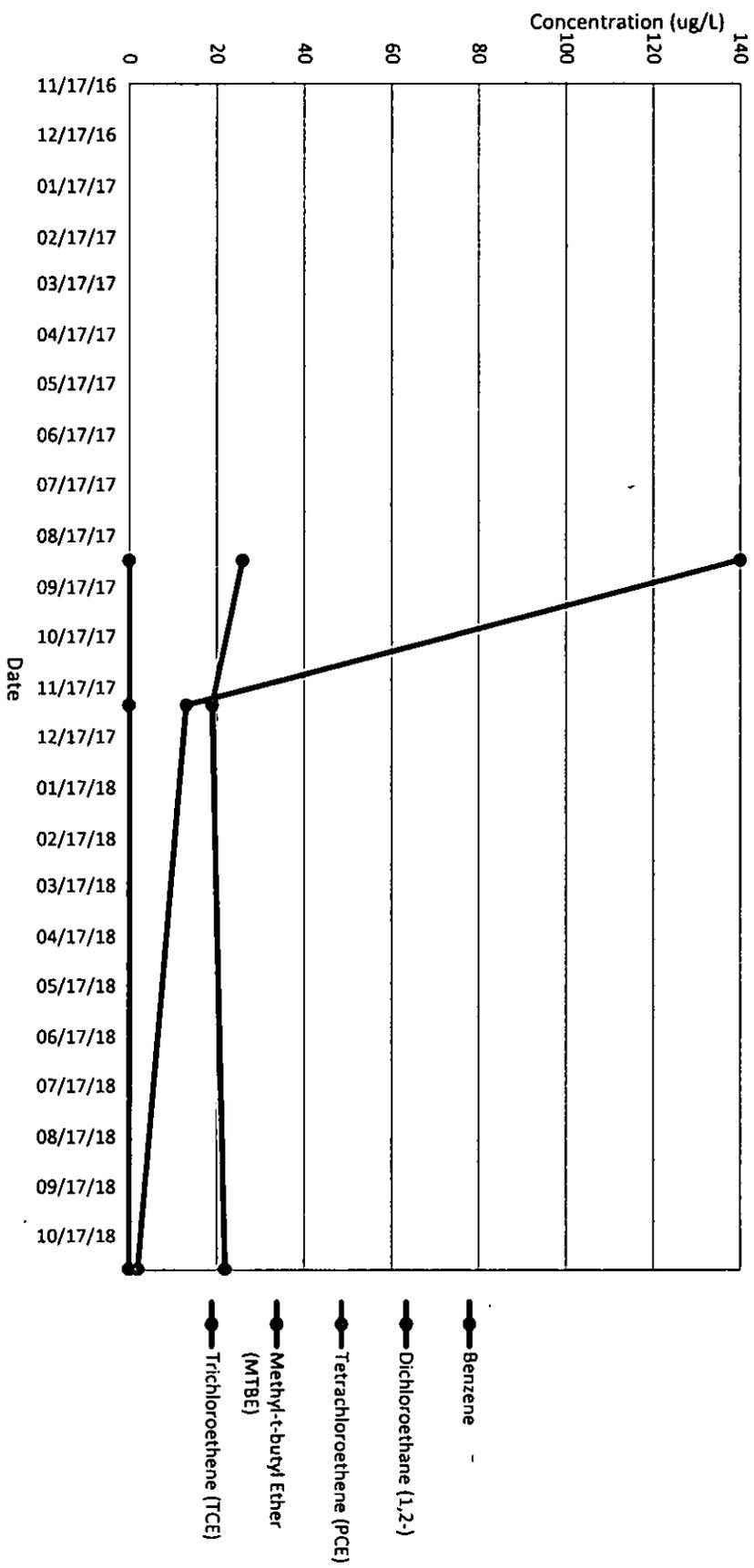
GT-4
Contaminant Concentrations versus Time
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire



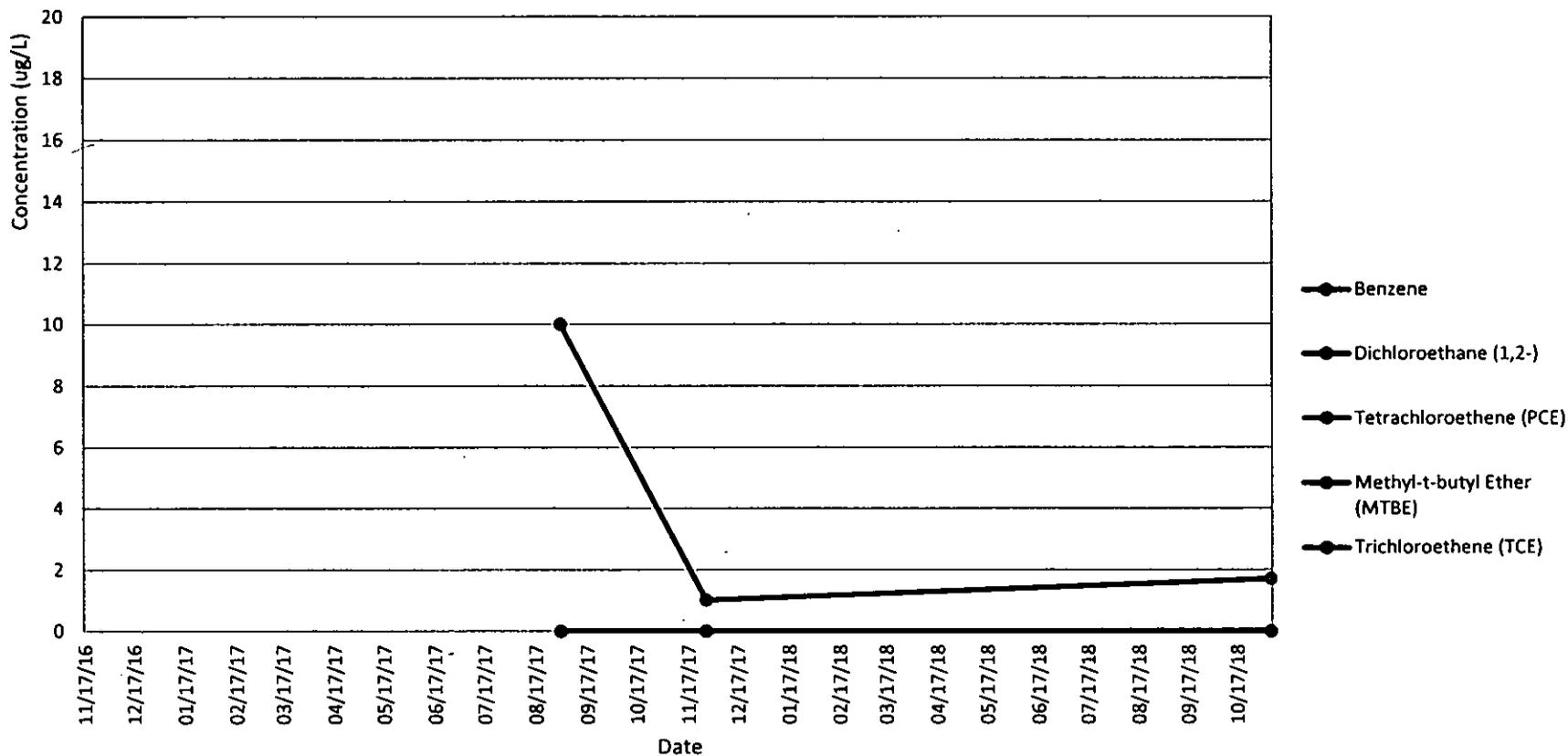
ATC-1
Contaminant Concentrations versus Time
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire



ATC-2
Contaminant Concentrations versus Time
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire



ATC-3
Contaminant Concentrations versus Time
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire



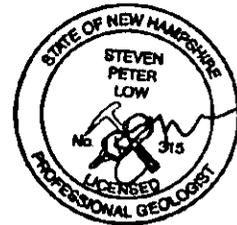
**DES Petroleum Remediation Section
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**Supplemental Site Investigation
NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire**

**NHDES Site #: 199004021
Project #: 0001921**

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February 2020

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**SUPPLEMENTAL SITE INVESTIGATION REPORT
NHDOT HIGHWAY GARAGE 12
11 STICKNEY AVENUE
NHDES SITE# 199004021
CONCORD, NEW HAMPSHIRE**

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Executive Summary

ATC Group Services, LLC (ATC) was retained by the New Hampshire Department of Transportation (NHDOT) to perform a Supplemental Site Investigation (SSI) at the NHDOT Highway Garage 12 property located at 11 Stickney Avenue in Concord, New Hampshire (hereinafter referred to as "the Site"). The activities outlined in this report were conducted to meet the requirements outlined in the Revised Work Scope Authorization approved by the New Hampshire Department of Environmental Services (DES) on December 23, 2019. ATC completed the field investigation activities at the Site between January and February 2020.

The following summarizes the findings of the SSI:

- Seven soil borings, each completed as a groundwater monitoring well, were installed as part of this SSI. The wells were installed in the vicinity of two former underground storage tank (UST) graves depicted on Figure 2.
- Nine soil samples were collected for laboratory analysis of volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH).
- Groundwater was encountered in on-site wells at depths ranging between approximately four feet and eight feet below grade and the groundwater was determined to flow in a south-easterly direction. This data is consistent with historical data obtained during groundwater sampling conducted under Groundwater Management Permit (GMP) GWP-199004021-C-004.
- Eleven groundwater samples were collected for laboratory analysis of VOCs.
- One Ambient Groundwater Quality Standard (AGQS) exceedance of benzene was identified in monitoring well ATC-2, which is consistent with historic Site data.
- AGQS exceedances of tert-butyl-alcohol (TBA) and methyl-t-butyl-ether (MTBE) were identified in newly installed monitoring wells ATC-4 and ATC-5.
- No groundwater monitoring wells are present downgradient of monitoring well ATC-5, and as such, the extent of TBA and MTBE impacts have not been fully delineated.
- None of the detected VOC concentrations exceeded the NHDES GW-2, *Vapor Intrusion Screening Levels, Groundwater to Indoor Air*.
- Soil Remediation Standards (SRS) exceedances were identified in an August 29, 2007 report by Jacques Whitford Company, Inc. entitled *AST Fill Pipe and Catch Basin Investigation Summary* in the vicinity of the former AST fill pipe. ATC did not observe the surface staining on the paved area identified in this report. However, these impacts were not fully delineated, vertically or horizontally, at the time of the 2007 fill pipe investigation.
- The boiler room sump, which houses a boiler that has been converted to natural gas, continues to discharge to the catch basin located west of Building H, which appears to be a drywell.

Based on the results of the Supplemental Site Investigation presented herein, ATC recommends:

- Advancing additional soil borings and installing groundwater monitoring wells, and collecting additional soil and groundwater samples, to delineate the impacts identified in ATC-4, ATC-5, and the former AST fill pipe area.
- Further assessment of the sump discharge and leaching catch basin (dry well) to the west of Building H.

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1 INTRODUCTION

On behalf of the New Hampshire Department of Transportation (hereafter referred to as "NHDOT"), ATC Group Services (ATC) is pleased to provide this report summarizing the Supplemental Site Investigation (SSI) activities performed at the NHDOT Highway Garage 12 located at 11 Stickney Avenue in Concord, New Hampshire (hereinafter referred to as the "Site"). The SSI activities were performed in accordance with ATC's Work Scope Authorization (WSA) approved by the New Hampshire Department of Environmental Services (hereinafter referred to as "DES") on December 23, 2019.

1.1 PURPOSE

The purpose of the investigation was to advance seven soil borings and install seven permanent groundwater monitoring wells to further assess the extent of petroleum impacted soil and groundwater at the site and to assess the need for additional soil quality evaluation in the area of AST fill pipe and catch basin as described in an August 29, 2007 report by Jacques Whitford Company, Inc. (Jacques Whitford) entitled *AST Fill Pipe and Catch Basin Investigation Summary*.

1.2 BACKGROUND

The Site is located on the west side of Stickney Avenue, adjacent to Interstate 93 southbound in Concord, New Hampshire. Historically, the Site had ten underground storage tanks (USTs) that were removed in 1990. Since 1990, several investigations and on-going groundwater monitoring activities have been performed at the Site.

The Site is listed under NHDES Site No. 199004021, Leaking Underground Storage (LUST) Project No. 1921, and Hazardous Waste Project (HAZWASTE) No. 6249. Groundwater sampling activities at the Site are on-going and are conducted in accordance with NHDES Groundwater Management Permit (GMP) No. GWP 199004021-C-004.

The following summarizes the results of relevant investigation and remedial activities performed at the Site. Detailed reports for these investigations and remedial activities were previously submitted to the DES.

The Site has been owned by NHDOT and since the 1930's was historically used for vehicle maintenance, sign painting, and materials research. In 2006, NHDOT ceased operations at the Site; however, portions of the Site building were leased to various commercial tenants for a period of time. In 2015, the northern portion of the Site was redeveloped for a commuter parking lot.

On May 1, 2017, NHDES issued a letter requesting the installation of three groundwater monitoring wells to further define the extent of the historic dissolved-phase petroleum constituent plume in the vicinity of Building G, to provide additional data points to monitor groundwater flow, and to replace former groundwater monitoring well JB-2/MW, which was destroyed during construction of the parking lot.

In August 2017, three additional groundwater monitoring wells (ATC-1, ATC-2 and ATC-3) were installed at the Site. The monitoring well installation and sampling activities were summarized in the October 5, 2017 *Limited Subsurface Investigation Report* produced by ATC and previously submitted to NHDES. Low concentrations of several volatile organic compounds (VOCs) and petroleum hydrocarbons were detected one soil sample collected from soil boring ATC-2; however, the detected concentrations did not exceed the NHDES Soil Remediation Standards. ATC-2 was installed in a historical source area associated with former USTs.

2 FIELD ACTIVITIES

2.1 PRELIMINARY SITE ACTIVITIES

2.1.1 Site-Specific Health and Safety Plan

Prior to initiation of field investigation activities, ATC revised the site-specific Health and Safety Plan (HASP) to ensure the safety of ATC employees working at the Site. The HASP was revised in accordance with the requirements set forth in 29 Code of Federal Regulations (CFR) 1910.120, Hazardous Waste Operations and Emergency Response, and addressed potential site hazards, task-specific personal protective equipment, decontamination procedures, and contingencies for emergencies. The HASP was revised prior to performing any work utilizing information obtained from previous Site investigations and remedial activities. The completed HASP was supplied to project personnel and subcontractors.

2.1.2 Site Visit and Utility Clearance

On January 6, 2020, DIGSAFE and the appropriate local authorities were notified to locate and mark out known utilities in the vicinity of the Site and at the proposed soil boring and groundwater monitoring well locations. In addition, ATC conducted site reconnaissance to visually confirm the location/orientation of underground utilities observed in the field. The local water and sewer authority also marked out underground water lines and storm drains present at the Site.

2.2 FIELD INVESTIGATION ACTIVITIES

The purpose of the investigation activities was to delineate the extent of soil and groundwater impacts due to a historic release of petroleum at the Site associated with former USTs, and to assess the need for additional soil quality evaluation in the area of AST fill pipe on the east side of Building D, and catch basin to the west of Building H.

2.2.1 Soil Boring Advancement and Sampling

On January 20, 2020 seven soil borings were advanced at the Site for the purposes of installing permanent groundwater monitoring wells. The soil borings were advanced utilizing a track-mounted direct-push drill rig. The drilling activities were performed by New England Boring (NEB) of Derry, New Hampshire under the supervision of an ATC field geologist.

Soil samples were collected continuously during borehole advancement. The soil borings were advanced to a depth of approximately 15 feet below ground surface (bgs). Geologic descriptions were made in the field in accordance with the modified Burmeister Soil Classification System and a detailed geologic boring log was prepared for each boring (see Appendix A). All soil samples were field screened in accordance with the soil jar headspace field screening method using a Photoionization Detector (PID) to identify intervals that may contain VOCs. The PID was calibrated with a 100 parts per million by volume (ppmv) concentration of isobutylene. In addition, the physical characteristics of soil including grain size, moisture content, color, and odors were noted and recorded on the soil boring logs.

Field screening at 1-foot intervals was generally not feasible due to the volume of soil recovered with the direct-push method. As such, screening intervals were selected based on visual and olfactory observations and changes in stratigraphy. The field screening results are provided on the boring logs in Appendix A. Headspace readings ranged from not detected above instrument detection limits (<1.0 ppmv) to 94.6 ppmv.

Soil samples were collected from each boring from the depth with the highest PID reading, or from the top of the groundwater table if no elevated PID readings were observed. In accordance with the NHDES WSA, additional samples were collected from borings ATC-4 and ATC-5 due to elevated PID readings in order to vertically delineate soil impacts. All soil samples were stored on ice and shipped under a chain of custody to Eastern Analytical, Inc. (Eastern) of Concord, New Hampshire via courier for analysis of volatile organic compounds (VOCs) and total

petroleum hydrocarbons (TPH). A summary of the soil analytical results is provided in Table 1 and laboratory reports are provided in Appendix B.

2.2.2 Groundwater Monitoring Well Installation

During the drilling program, groundwater was encountered in all soil borings at depths ranging between approximately 5 feet and 10 feet below grade. To assess the groundwater quality, seven groundwater monitoring wells were distributed across the Site in order to assess potential source areas and areas immediately downgradient thereof (see Figure 2). The monitoring wells were constructed of 2-inch inside diameter (ID) Schedule 40, flush threaded, polyvinyl chloride (PVC) riser pipe with an end plug. The well screen was 2-inch ID Schedule 40, flush threaded, 0.010-inch slotted PVC. The well screens were placed within the fill and disturbed native material just above a clay layer identified in previous investigations. The screen length in all newly installed groundwater monitoring wells was 10 feet.

With the well screen in place, clean filter sand was installed from the bottom of the boring to approximately 1 to 2 feet above the top of the well screen. A bentonite chip seal was placed above the sand pack. The monitoring wells were completed with flush-mount steel protective road boxes. A monitoring well completion diagram is included on the boring log in Appendix A.

2.2.3 Monitoring Well Development

On January 21, 2020 the monitoring wells were purged to remove cuttings, clean the well screens, and improve the hydraulic connection between the well screen and formation material. The monitoring wells were developed using bailing techniques until the water attained visual clarity, or until dry.

2.2.4 Groundwater Sampling

On February 5, 2020, groundwater samples were collected from newly installed groundwater monitoring wells ATC-4 through ATC-10 and existing monitoring wells ATC-2, ATC-3, JB-7/MW, and GT-4. Monitoring well ATC-1 was not sampled as it was obstructed by a large frozen snowbank. Groundwater samples were collected from each monitoring well after three to five well volumes of groundwater were purged utilizing dedicated polyethylene bailers. The groundwater samples were analyzed for DES Waste Management Division Full List of Analytes for Volatile Organics (NHDES Full List) by Eastern.

2.2.5 Site Geology

Information on the Site geology was obtained from the soil borings advanced during this investigation and from previous investigation and remedial activities conducted at the Site. The stratigraphy encountered during this investigation was consistent with information obtained during previous investigation and remedial activities performed at the Site. Soil boring logs are provided in Appendix A.

2.2.6 Site Hydrogeology

A well elevation survey was conducted by ATC on February 5, 2020 to determine the relative elevation of the groundwater monitoring wells, and to tie the newly installed groundwater monitoring wells into the existing monitoring well network. The existing monitoring wells had previously been surveyed by NHDOT to the top of casing relative to mean sea level and monitoring wells ATC-4 through ATC-10 were tied into the existing well network.

At each monitoring well location, the depth to groundwater was measured in order to determine the direction of groundwater flow. Water level measurements were obtained using an electronic oil/water interface probe capable of measuring separate phase petroleum at thicknesses of 0.01 feet or greater. The water levels were measured to the nearest 0.01 feet from the top of the PVC riser pipe. Non-aqueous phase liquid (NAPL) was not observed in the gauged groundwater monitoring wells at the Site.

The groundwater gauging and elevation data is summarized in Table 2. Groundwater level measurements were measured on February 5, 2020 and were used to evaluate the groundwater flow direction at the Site. The depth

to groundwater ranged from 4.88 feet (monitoring well ATC-6) to 10.80 feet (monitoring well JB-7/MW). Based on the groundwater measurements, groundwater flow is to the east-southeast (see Figure 3).

2.2.7 Analytical Results

Soil Analytical Results

The soil analytical results are presented in Table 1 and summarized below. The complete laboratory report is provided in Appendix B.

- TPH was detected at 5,900 milligrams per kilogram (mg/kg) in soil boring ATC-4 at a depth of 5-7' below grade. This is below the NHDES SRS of 10,000 mg/kg. TPH was not detected in any other samples.
- VOCs were detected above the laboratory's reporting limits in soil in borings ATC-4 and ATC-5. All detected compounds were below SRS, with the exception of naphthalene at a concentration of 8.3 mg/kg in sample ATC-4 (5-7').

Groundwater Analytical Results

The groundwater analytical results are presented in Table 3 and summarized below. The complete laboratory report is provided in Appendix C.

- No VOCs were detected above the laboratory reporting limits in groundwater in monitoring well JB-7/MW.
- The concentration of benzene detected in groundwater (37 micrograms per liter [ug/L]) at monitoring well ATC-2 exceeded the New Hampshire Administrative Rules, Chapter Env-Or 600 Contaminated Site Management: New Hampshire Ambient Groundwater Quality Standards (AGQS).
- Concentrations of tert-butyl alcohol (TBA) and methyl-t-butyl-ether (MTBE) detected in groundwater in monitoring wells ATC-4 and ATC-5 exceeded their respective AGQS.
- All other laboratory detections were reported in one or more groundwater samples below their respective AGQS.
- None of the detected VOC concentrations exceed the *GW-2, Vapor Intrusion Screening Levels, Groundwater to Indoor Air*.

2.2.8 AST Fill Pipe and Catch Basin

ATC conducted a visual inspection of the former AST Fill Pipe area on the east side of Building D and the Catch Basin Area on the west side of Building H, as depicted on Figure 2.

The August 29, 2007 report by Jacques Whitford entitled *AST Fill Pipe and Catch Basin Investigation Summary* recommended that impacted soil identified in three shallow soil samples in the vicinity of the former AST fill pipe, collected from 0-6 inches below the pavement, be excavated and disposed of off-site. ATC did not observe surface staining on the pavement in the former fill pipe area, as depicted in the 2007 Jacques Whitford report. However, the SRS exceedances of various PAHs identified by Jacques Whitford were not fully delineated, vertically or horizontally, at the time of the 2007 investigation.

According to the 2007 investigation report, approximately three 55-gallon drums were filled with soil removed from the catch basin. The catch basin was then cleaned with a pressure washer and inspected for inlet or outlet pipes. No inlet or outlet pipes were observed, therefore the catch basin was assumed to be operating as a drywell. The catch basin was observed to be constructed of brick and mortar walls and a concrete or cement bottom. The brick and mortar was observed to be somewhat worn. The catch basin sediment was sampled for disposal purposes and SRS exceedances of naphthalene and TPH diesel range organics (DRO) were identified. Additional assessment in the vicinity of the catch basin was not conducted at the time of the investigation.

On February 5, 2020, ATC conducted a visual inspection of the Catch Basin Area to the west of Building H. The catch basin inlet is partially overgrown, however still appears to be capturing water discharged from the boiler room sump in Building H. The boiler room sump discharges to a concrete-paved area adjacent to Building H and appears to flow approximately 20 feet north along the ground surface toward the leaching catch basin. Based on

the condition of the concrete and surrounding area, some discharge may infiltrate the ground prior to reaching the leaching catch basin.

According to NHDOT personnel, the boiler sump continues to operate and discharge water to the catch basin, which does not have an outlet. It should be noted that the boilers were converted to natural gas between 1997 and 2000, and fuel oil for the boiler is no longer stored on site.

3 CONCLUSIONS AND RECOMMENDATIONS

Based on the site investigation activities, and soil and groundwater sample results, ATC concludes:

- The soil and groundwater impacts identified on the northern portion of the Site have been adequately delineated by soil boring and monitoring well ATC-8.
- Soil and groundwater impacts exist in the vicinity of the former USTs adjacent to Building D, on the southern portion of the Site, as shown by the exceedances in ATC-4.
- Groundwater impacts in the vicinity of Building D extend downgradient of the former UST area to monitoring well ATC-5. The AGQS exceedances in ATC-5 indicate that the impacts to groundwater on the southern portion of the Site have not been fully delineated, but are lower relative to the groundwater concentrations detected at ATC-4.
- SRS exceedances in the vicinity of the former AST fill pipe on the east side of Building D were not fully delineated, vertically or horizontally, at the time of the 2007 fill pipe investigation.
- The boiler in Building H has been converted to natural gas and fuel oil is no longer stored on site. However, the boiler room sump continues to discharge to the catch basin located west of Building H, which appears to be an approximately 4-foot deep drywell.

ATC recommends the following:

- Advance and install additional soil borings and groundwater monitoring wells to the southeast of ATC-5, and collect additional VOC samples, to delineate the extent of groundwater impacts identified in ATC-4 and ATC-5.
- Advance additional soil borings in the vicinity of the former AST fill pipe to delineate the vertical and horizontal extent of source-areas impacts, including at least one groundwater monitoring well to assess the potential impact to groundwater.
- Advance additional soil borings and install additional monitoring wells to further assess the leaching catch basin as a potential source area.
- Determine if compliance with Groundwater Discharge Permit and Underground Injection Control regulations Env-Wq 402 and Env-Wq 404 is possible. If so, assess the possibility of obtaining a Groundwater Discharge Permit, or closing the catch basin and connecting the sump discharge to municipal sewer.

Tables

Table 1
 Summary of Soil Data
 New Hampshire Department of Transportation
 NHDES Site #199004021 NHDOT Highway Garage 12
 11 Stickney Avenue
 Concord, New Hampshire

Soil Boring ID	ATC-4	ATC-4	ATC-5	ATC-5	ATC-6	ATC-7	ATC-8	ATC-9	ATC-10	
	5'-7'	10'-13'	7'-10'	10'-12'	5'-10'	8'-10'	8'-10'	8'-10'	8'-10'	
Sample Depth (feet)	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	
Method / Analyte	NM SRS S-1									
PID Reading (ppmv)	NE	94.6	10.1	73.2	<1	<1	16.4	<1	1.4	<1
Total Petroleum Hydrocarbons (TPH) (mg/kg) EPA Method 8100										
TPH	10,000	5,900	<100	<100	<100	<100	<100	<100	<100	<100
Volatile Organic Compounds (mg/kg) EPA Method 8260C										
Dichlorodifluoromethane	1,000	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	3	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	1.0	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	0.3	< 2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chloroethane	NE	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	1,000	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	3,900	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	75	< 20	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethene	14	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	2.0	< 20	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methylene chloride	0.1	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	460	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether (MTBE)	0.2	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether (ETBE)	0.7	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Isopropyl ether (DIPE)	10	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether (TAME)	3.0	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	9.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	3.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	2.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone (MEK)	51	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrahydrofuran (THF)	NE	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	3.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	78	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	12	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	0.3	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	0.1	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	0.8	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	0.1	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	1.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	0.1	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dioxane	5.0	< 9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone (MIBK)	29	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	100	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	0.1	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Hexanone	NE	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	2.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichloropropane	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	1.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane (EDB)	0.1	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

Table 1
 Summary of Soil Data
 New Hampshire Department of Transportation
 NHDES Site #199004021 NHDOT Highway Garage 12
 11 Stickney Avenue
 Concord, New Hampshire

Soil Boring ID Sample Depth (feet)	ATC-4	ATC-4	ATC-5	ATC-5	ATC-6	ATC-7	ATC-8	ATC-9	ATC-10
	5'-7'	10'-13'	7'-10'	10'-12'	5'-10'	8'-10'	8'-10'	8'-10'	8'-10'
	Sample Date	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020	1/20/2020
Chlorobenzene	6.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	0.8	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	120	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
mp-Xylene	500	2.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	500	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	17	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.1	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	330	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	0.8	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	0.1	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
n-Propylbenzene	85	0.58	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	15	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	680	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	96	4.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	100	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	130	2.8	< 0.05	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	130	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	150	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	NE	0.61	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	7.0	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	88	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
n-Butylbenzene	110	< 0.5	< 0.05	0.054	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	0.1	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3,5-Trichlorobenzene	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	19	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	17	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	5.0	8.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	NE	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Notes:
 PID readings measured in parts per million by volume (ppmv) using a photolionization detector equipped with 10.6 eV lamp
 mg/kg = milligrams per kilogram
 NH S-1 = Soil Remediation Standards (SRS) as defined in Env-Or 600 Contaminated Site Management
 NE= SRS not established
 < = Less than the laboratory reportable detection limit (RDL) which is presented.
 Sample depth measured in feet below ground surface
 Bold Concentration - Concentration detected above laboratory detection limit
 Shaded Concentration - Concentration detected above NH S-1 SRS

Table 2
Summary of Groundwater Gauging and Elevation Data
New Hampshire Department of Transportation
NHDES Site #199004021 NHDOT Highway Garage 12
11 Stickney Avenue
Concord, New Hampshire

Monitoring Well ID	Reference Point Elevation (feet, MSL)	Date	Depth to Water (feet)	Groundwater Elevation (feet, MSL)
JB-7/MW	237.32	2/5/2020	10.80	226.52
GT-4	235.26	2/5/2020	8.00	227.26
ATC-1	234.32	2/5/2020	--	--
ATC-2	235.08	2/5/2020	7.10	227.98
ATC-3	235.41	2/5/2020	5.60	229.81
ATC-4	235.37	2/5/2020	7.08	228.29
ATC-5	235.17	2/5/2020	7.13	228.04
ATC-6	234.26	2/5/2020	4.88	229.38
ATC-7	235.82	2/5/2020	8.07	227.75
ATC-8	235.26	2/5/2020	8.09	227.17
ATC-9	233.95	2/5/2020	5.97	227.98
ATC-10	235.08	2/5/2020	7.33	227.75

Notes:

MSL = Mean Sea Level

Reference Point: Top of PVC casing

-- = Not Gauged

Table 3
 Summary of Groundwater Analytical Results
 New Hampshire Department of Transportation
 NHDES Site #199004021 NHDOT Highway Garage 12
 11 Stickney Avenue
 Concord, New Hampshire

Parameter	Date	tert-Butyl Alcohol (TBA)	Methyl-t-butyl ether (MTBE)	Benzene	Trichloro-ethene	Toluene	Tetrachloro-ethene	Ethyl-benzene	Xylenes (total)	IsoPropyl-benzene	n-Propyl-benzene	1,3,5-Trimethyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	Naphthalene
NHDES AGQS		40	13	5	5	1,000	5	700	10,000	800	260	330	330	260	100
NHDES GW-2		NE	2,600	2,900	20	1,500	240	1,500	17,000	NE	NE	NE	1,300	NE	1,700
ATC-1	02/05/20	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ATC-2	02/05/20	< 30	3.2	37	< 1	2.4	< 1	20	14	23	46	2.9	< 1	3.6	34
ATC-3	02/05/20	< 30	1.7	< 1	< 1	< 1	1.5	< 1	< 1	< 1	< 1	< 1	< 1	1.3	< 5
ATC-4	02/05/20	170	23	< 1	< 1	< 1	< 1	1.3	12	5.8	4.7	3.8	20	2.5	24
ATC-5	02/05/20	56	19	< 1	< 1	< 1	< 1	1.2	14.2	4.4	4.2	4.5	46	2.1	33
ATC-6	02/05/20	< 30	5.8	< 1	1.3	< 1	< 1	2.7	< 1	5.8	2.4	< 1	< 1	3.1	< 5
ATC-7	02/05/20	34	10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
ATC-8	02/05/20	< 30	2.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
ATC-9	02/05/20	30	10	2.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
ATC-10	02/05/20	< 30	4.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5.9
GT-4	02/05/20	< 30	9.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5
JB-7/MW	02/05/20	< 30	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5

Notes:

All constituent concentrations are reported in micrograms per liter.

NHDES AGQS = New Hampshire Department of Environmental Services Ambient Groundwater Quality Standards taken from Table 600-1, adopted on June 1, 2015, revised September 2019.

NHDES GW-2 = New Hampshire Department of Environmental Services Vapor Intrusion Screening Levels (groundwater to Indoor Air) revised February 7, 2013.

< = Less than the laboratory's reporting limits. The values presented are the reporting limits. NE = Standard not established.

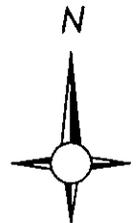
NS = Groundwater monitoring well not sampled.

Bold = Concentration above laboratory detection limit.

Shaded values exceed one or more applicable standard.

Figures

H:\2017\OTHER OFFICES\NEW HAMPSHIRE\DO\NH\DOT-HWY GARAGE 11 STICKNEY AVENUE\59DOT00061-VC.DWG, VC

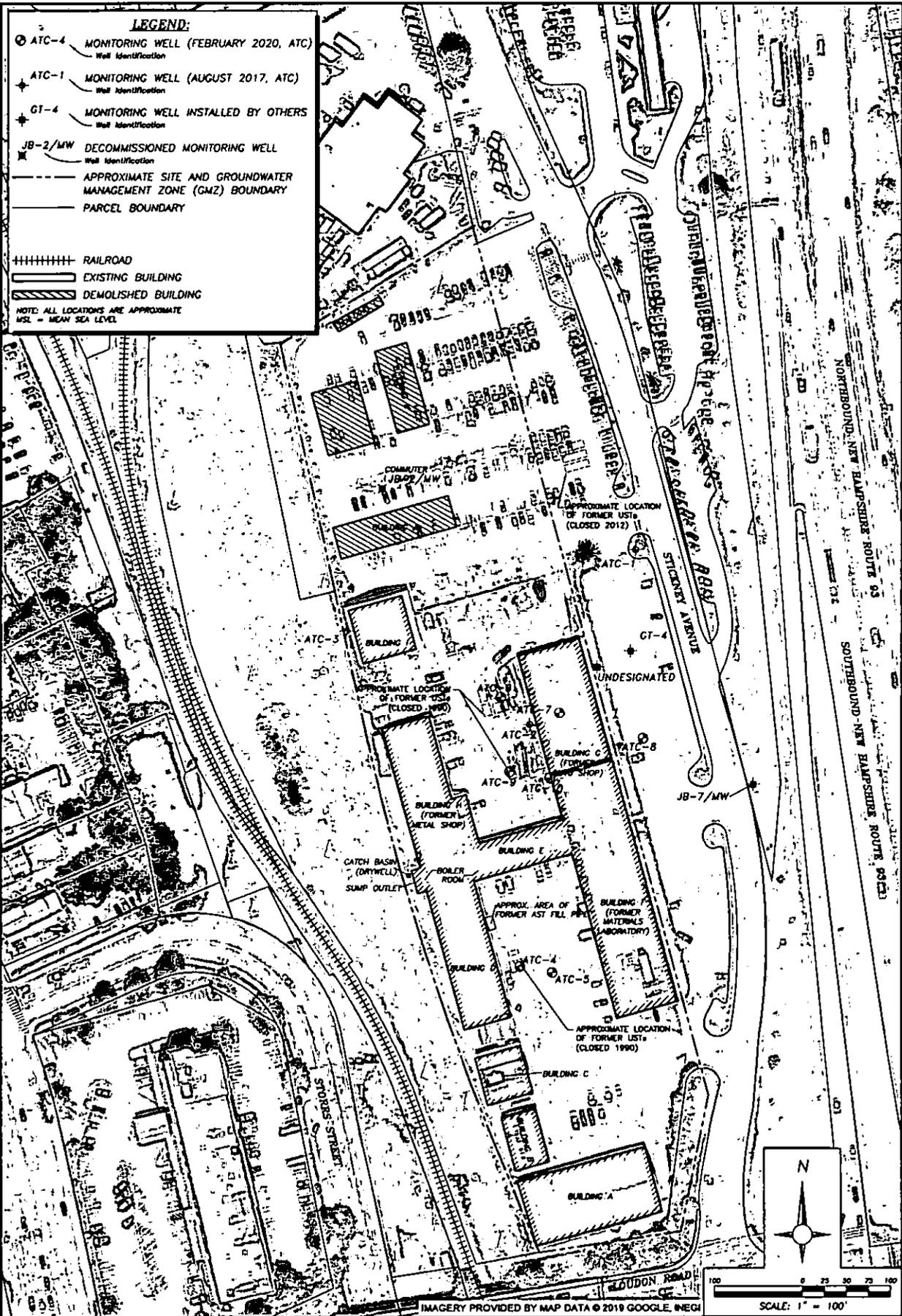


SOURCE:
Enr U.S.A. TOPOGRAPHIC MAPS

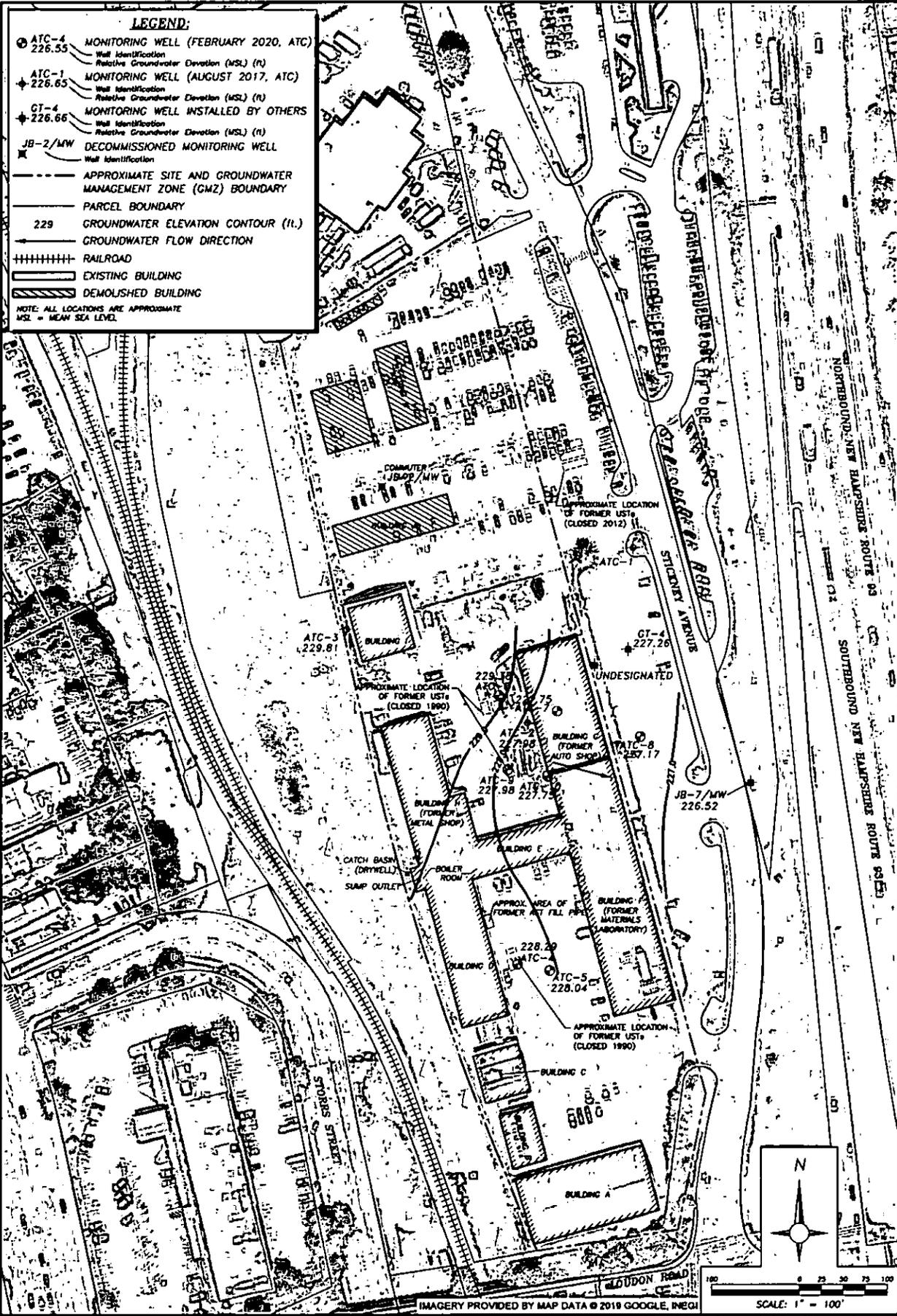
SITE LOCUS

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
HIGHWAY GARAGE 12
11 STICKNEY AVENUE
CONCORD, NEW HAMPSHIRE

Project Number: 59DOT00070		Dwn. By: PH
Drawing File: SEE LOWER LEFT		Ckd. By: CO
Date: 9/17	Scale: 1"=2,000'	App'd By:
ATC		Figure: 1



2	SITE PLAN		Project Number:	5800700100	Drn. By:	DN/DP
	NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION HIGHWAY GARAGE 12 11 STICKNEY AVENUE CONCORD, NEW HAMPSHIRE		Drawing Title:	SEE LOWER LEFT	Chk. By:	GP
			ATC		App'd. By:	
			Scale:	1" = 100'	Chk. Date:	



3	GROUNDWATER CONTOUR MAP - FEBRUARY 5, 2020	
	NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION HIGHWAY GARAGE 12 11 STICKNEY AVENUE CONCORD, NEW HAMPSHIRE	
	Project Number: 5800T00100	Dwn. By: DH/CP
	Drawing File: SEE LOWER LEFT	Cht. By: CP
ATC		
		App'd By: Cht. Date:

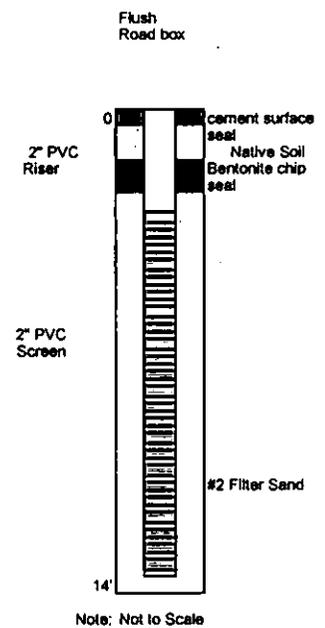
Appendix A

SOIL BORING AND WELL CONSTRUCTION LOG

 <p>ATC ENVIRONMENTAL - GEOTECHNICAL BUILDING SCIENCES - MATERIALS TESTING ATC Group Services LLC 150 Zachary Road, Unit 1 Manchester, NH 03109 Phone: (603) 647-7077 Fax: (603) 647-5347</p>	SITE: 11 Stickney Avenue, Concord, New Hampshire DATE: 1/20/2020 CLIENT: New Hampshire Department of Transportation DRILLING CO.: New England Boring DRILLING METHOD: GeoProbe - Direct push SAMPLER METHOD: 5 ft. macro barrel sampler CASING DIAMETER: 3"	WELL/BORING NO.: ATC-4 WEATHER: Sunny 15°F ATC INSPECTOR: J. Carr SURFACE ELEVATION: 235.37 DEPTH TO WATER: 7 ft. ATC Project Number: 59DOT00103 Task Number: 2
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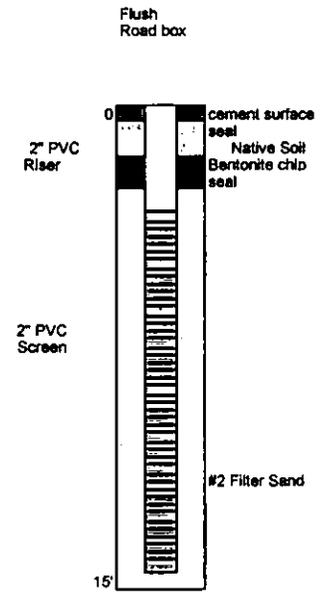
Sample No.	Recovery/ Penetration (in/in)	Blow Counts (per 6")	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction
1 (0-5')	43/60		7	1 2 3 4 5	Asphalt		
2 (5-10')	29/60		94.6	6 7 8 9 10	Dark brown SILT with Fine to Medium Sand, some Gravel, dry		
				11 12 13	Brown to gray Medium to Coarse SAND, wet at 7 ft.		
3 (10-15')	48/60		10.1	14 15	Brown to Medium to Coarse SAND, wet		
			2.8	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Gray, SILT and CLAY, wet		
					END BORING at 15' Refusal not encountered		

- CEMENT SEAL: 0-0.5'
- NATURAL FILL: 0.5'-2'
- BENTONITE SEAL: 2'-3'
- FILTER SAND: 3'-14'
- SOLID PVC RISER: 0.5' - 4'
- PVC SCREEN: 4'-14'



COMMENTS: Sample collected at 5 to 7 feet bgs and 10 to 13 feet bgs, analyzed for VOCs and TPH.	GRANULAR SOILS COHESIVELESS DENSITY 0-4 Very Loose 5-9 Loose 10-29 Medium Dense 30-49 Dense 50+ Very Dense	PLASTIC SOILS COHESIVE DENSITY 0-2 Very Soft 3-4 Soft 5-8 Medium Stiff 9-15 Stiff 16-30 Very Stiff 31+ Hard
	PROPORTIONS USED Trace 0-10% Little 10-20% Some 20-35% And 35-50%	LEGEND: ND = Not Detected NA = Not Applicable GS = Ground Surface

SOIL BORING AND WELL CONSTRUCTION LOG

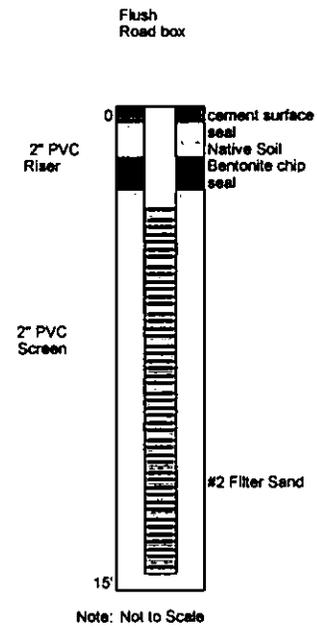
 ATC Group Services LLC 150 Zachary Road, Unit 1 Manchester, NH 03109 Phone: (603) 647-7077 Fax: (803) 647-5347						SITE: 11 Stickney Avenue, Concord, New Hampshire DATE: 1/20/2020 CLIENT: New Hampshire Department of Transportation DRILLING CO.: New England Boring DRILLING METHOD: GeoProbe direct push SAMPLER METHOD: 5 ft. macro barrel sampler CASING DIAMETER: 3"		WELL/BORING NO.: ATC-5 WEATHER: Sunny 15°F ATC INSPECTOR: J. Carr SURFACE ELEVATION: 235.17 DEPTH TO WATER: 7 ft. ATC Project Number: 59DOT00103 Task Number: 2	
Sample No.	Recovery/ Penetration (in/ft)	Blow Counts (per 6")	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction		
1 (3')		Pre-clear air knife and vacuum to 5 feet	<1	1 2 3 4 5 6		Asphalt Light Brown, Fine to Coarse SAND and Gravel	CEMENT SEAL: 0-0.5' NATURAL FILL: 0.5'-3' BENTONITE SEAL: 3'-4' FILTER SAND: 4'-15' SOLID PVC RISER: 0.5' - 5' PVC SCREEN: 5'-15' Flush Road box		
2 (5-10')	29/60		73.2	7 8 9 10 11 12		Brown Medium to Coarse SAND, little Fine Sand, trace Gravel, wet at 7 ft.			
3 (10-15')	50/60		<1	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30		Gray SILT and CLAY, wet END BORING at 15' Refusal not encountered			
COMMENTS: Samples collected at 7 to 10 feet and 10-12 feet bas. analyzed for VOCs and TPH.						GRANULAR SOILS COHESIVELESS DENSITY 0-4 Very Loose 5-9 Loose 10-29 Medium Dense 30-49 Dense 50+ Very Dense PROPORTIONS USED Trace 0-10% Little 10-20% Some 20-35% And 35-50%		PLASTIC SOILS COHESIVE DENSITY 0-2 Very Soft 3-4 Soft 5-8 Medium Stiff 9-15 Stiff 16-30 Very Stiff 31+ Hard LEGEND: ND = Not Detected NA = Not Applicable GS = Ground Surface	

SOIL BORING AND WELL CONSTRUCTION LOG

 <p>ATC ENVIRONMENTAL - GEOTECHNICAL BUILDING SCIENCES - MATERIALS TESTING ATC Group Services LLC 150 Zachary Road, Unit 1 Manchester, NH 03109 Phone: (603) 647-7077 Fax: (603) 647-5347</p>	SITE: 11 Stickney Avenue, Concord, New Hampshire DATE: 1/20/2020 CLIENT: New Hampshire Department of Transportation DRILLING CO.: New England Boring DRILLING METHOD: GeoProbe direct push SAMPLER METHOD: 5 ft. macro barrel sampler CASING DIAMETER: 3"	WELL/BORING NO.: ATC-6 WEATHER: Sunny 15°F ATC INSPECTOR: J. Carr SURFACE ELEVATION: 234.26 DEPTH TO WATER: 6 ft. ATC Project Number: 59DOT00103 Task Number: 2
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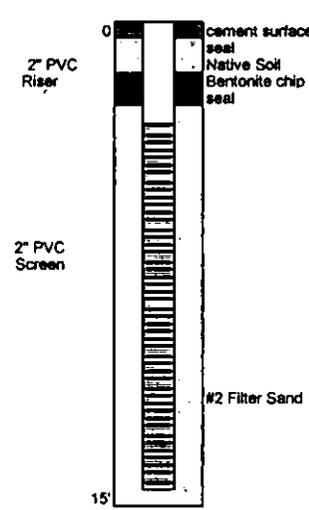
Sample No.	Recovery/ Penetration (in/ft)	Blow Counts (per 6")	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction
1 (0-5')	34/60	Pre-clear air knife and vacuum to 5 feet	<1	1 2 3 4 5	Asphalt		
2 (5-10')	27/60		<1	6 7 8 9 10 11 12	Light Brown Fine to Medium SAND, little Gravel, dry (fill)		
4 (10-15')	60/60		<1	13 14 15	Brown Fine to Coarse SAND (6 inches) / Dark Brown SILT and Fine SAND, wet (9 inches) / Gray Medium to Coarse SAND, wet (12 inches)		
				16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Gray SILT with Clay, some Fine Sand, wet		
					END BORING at 15' Refusal not encountered		

- CEMENT SEAL: 0-0.5'
- NATURAL FILL: 0.5'-3'
- BENTONITE SEAL: 3'-4'
- FILTER SAND: 4'-15'
- SOLID PVC RISER: 0.5' - 5'
- PVC SCREEN: 5'-15'



<p>COMMENTS: Sample collected at 5 to 10 feet bgs, analyzed for VOCs and TPH.</p>	<p>GRANULAR SOILS COHESIVELESS DENSITY</p> <p>0-4 Very Loose 5-9 Loose 10-29 Medium Dense 30-49 Dense 50+ Very Dense</p> <p>PROPORTIONS USED</p> <p>Trace 0-10% Little 10-20% Some 20-35% And 35-50%</p>	<p>PLASTIC SOILS COHESIVE DENSITY</p> <p>0-2 Very Soft 3-4 Soft 5-8 Medium Stiff 9-15 Stiff 16-30 Very Stiff 31+ Hard</p> <p>LEGEND:</p> <p>ND = Not Detected NA = Not Applicable GS = Ground Surface</p>
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SOIL BORING AND WELL CONSTRUCTION LOG

 ATC Group Services LLC 150 Zachary Road, Unit 1 Manchester, NH 03109 Phone: (603) 647-7077 Fax: (603) 647-5347						SITE: 11 Stickney Avenue, Concord, New Hampshire DATE: 1/20/2020 CLIENT: New Hampshire Department of Transportation DRILLING CO.: New England Boring DRILLING METHOD: GeoProbe direct push SAMPLER METHOD: 5 ft. macro barrel sampler CASING DIAMETER: 3"		WELL/BORING NO.: ATC-7 WEATHER: Sunny 15°F ATC INSPECTOR: J. Carr SURFACE ELEVATION: 235.82 DEPTH TO WATER: 8 ft. ATC Project Number: 59DOT00103 Task Number: 2	
Sample No.	Recovery/ Penetration (in/in)	Blow Counts (per ft)	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction		
1 (0-5')	24/60		1.8	1 2 3 4 5 6	Concrete (11 inches)		CEMENT SEAL: 0-0.5'		
2 (5-10')	37/60		16.4	7 8 9 10 11 12	Brown Fine to Coarse SAND with Asphalt, dry (6 inches) Olive gray Fine SAND, some Silt		NATURAL FILL 0.5'-3'		
3 (10-15')	60/60		<1 <1	13 14 15	Brown Fine to Medium SAND, dry Gray Fine to Coarse SAND, wet Gray Fine to Coarse SAND, wet Gray SILT with Clay, some Fine Sand, wet		BENTONITE SEAL 3'-4'		
				16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	END BORING at 15' Refusal not encountered		FILTER SAND 4'-15'		
							SOLID PVC RISER 0.5' - 5'		
							PVC SCREEN 5'-15'		
							Flush Road box		
									
COMMENTS: Sample collected at 8 to 10 feet bgs, analyzed for VOCs and TPH.						GRANULAR SOILS COHESIVELESS DENSITY 0-4 Very Loose 5-9 Loose 10-29 Medium Dense 30-49 Dense 50+ Very Dense		PLASTIC SOILS COHESIVE DENSITY 0-2 Very Soft 3-4 Soft 5-8 Medium Stiff 9-15 Stiff 16-30 Very Stiff 31+ Hard	
PROPORTIONS USED Trace 0-10% Little 10-20% Some 20-35% And 35-50%						LEGEND: ND = Not Detected NA = Not Applicable GS = Ground Surface			

SOIL BORING AND WELL CONSTRUCTION LOG



ATC Group Services LLC
150 Zachary Road, Unit 1
Manchester, NH 03109

Phone: (603) 647-7077 Fax: (603) 647-5347

SITE: 11 Stickney Avenue, Concord, New Hampshire
DATE: 1/20/2020
CLIENT: New Hampshire Department of Transportation
DRILLING CO.: New England Boring
DRILLING METHOD: GeoProbe direct push
SAMPLER METHOD: 5 ft macro barrel sampler
CASING DIAMETER: 3"

WELL/BORING NO.: ATC-8
WEATHER: Sunny 15°F
ATC INSPECTOR: J. Carr
SURFACE ELEVATION: 235.26
DEPTH TO WATER: 8 ft.
ATC Project Number: 59DOT00103
Task Number: 2

Sample No.	Recovery/ Penetration (in/ft)	Blow Counts (per ft)	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction
1 (3')		Preclear air knife and vacuum to 5 feet	<1	1 2 3 4 5 6	Asphalt		CEMENT SEAL: 0-0.5'
2 (5-10')	30/60		<1	7 8 9 10 11 12	Light Brown Medium to Coarse SAND and GRAVEL, wet at 8 ft.		NATURAL FILL: 0.5'-3'
3 (10-15')	33/60		<1	13 14 15	Gray Coarse to Fine SAND, trace Gravel, wet		BENTONITE SEAL: 3'-4'
				16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	END BORING at 15' Refusal not encountered		FILTER SAND: 4'-15'
							SOLID PVC RISER: 0.5' - 5'
							PVC SCREEN: 5'-15'
							Flush Road box
							2" PVC Riser
							2" PVC Screen
							15'
							Legend for well construction diagram: cement surface seal Native Soil Bentonite chip seal #2 Filter Sand
							Note: Not to Scale

COMMENTS:
Sample collected at 8 to 10 feet bgs, analyzed for VOCs and TPH.

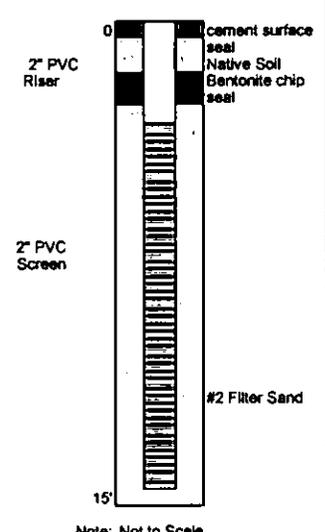
GRANULAR SOILS COHESIVELESS DENSITY
0-4 Very Loose
5-9 Loose
10-29 Medium Dense
30-49 Dense
50+ Very Dense

PROPORTIONS USED
Trace 0-10%
Little 10-20%
Some 20-35%
And 35-50%

PLASTIC SOILS COHESIVE DENSITY
0-2 Very Soft
3-4 Soft
5-8 Medium Stiff
9-15 Stiff
16-30 Very Stiff
31+ Hard

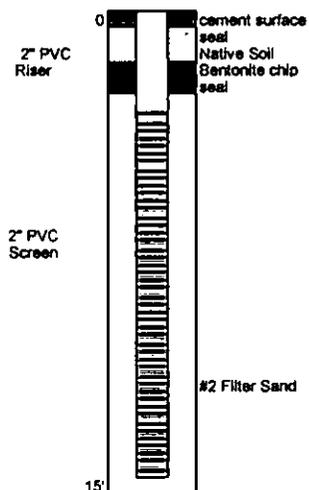
LEGEND:
ND = Not Detected
NA = Not Applicable
GS = Ground Surface

SOIL BORING AND WELL CONSTRUCTION LOG

 ATC Group Services LLC 150 Zachary Road, Unit 1 Manchester, NH 03109 Phone: (603) 647-7077 Fax: (603) 647-5347						SITE: 11 Stickney Avenue, Concord, New Hampshire DATE: 1/20/2020 CLIENT: New Hampshire Department of Transportation DRILLING CO.: New England Boring DRILLING METHOD: GeoProbe direct push SAMPLER METHOD: 5 ft. macro barrel sampler CASING DIAMETER: 3"		WELL/BORING NO.: ATC-9 WEATHER: Sunny 15°F ATC INSPECTOR: J. Carr SURFACE ELEVATION: 233.95 DEPTH TO WATER: 7 ft. ATC Project Number: 59DOT00103 Task Number: 2	
Sample No.	Recovery/ Penetration (in/ft)	Blow Counts (per 6")	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction		
1 (3')		Preclear air knife and vacuum to 5 feet	<1	1 2 3 4 5 6	Asphalt		CEMENT SEAL: 0-0.5'		
2 (5-10')	31/60		1.4	7 8 9 10 11 12	Brown Fine to Coarse SAND and GRAVEL, dry		NATURAL FILL 0.5'-3'		
3 (10-15')	53/60		<1	13 14 15	Brown Fine to Coarse SAND, little Gravel, wet at 8 ft.		BENTONITE SEAL 3'-4'		
				16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Gray SILT and CLAY, little Fine Sand, wet		FILTER SAND 4'-15'		
					END BORING at 15' Refusal not encountered		SOLID PVC RISER 0.5' - 5'		
							PVC SCREEN 5'-15'		
COMMENTS: Sample collected at 8 to 10 feet bgs, analyzed for VOCs and TPH.						Flush Road box 			
GRANULAR SOILS COHESIVELESS DENSITY 0-4 Very Loose 5-9 Loose 10-29 Medium Dense 30-49 Dense 50+ Very Dense						PLASTIC SOILS COHESIVE DENSITY 0-2 Very Soft 3-4 Soft 5-8 Medium Stiff 9-15 Stiff 16-30 Very Stiff 31+ Hard			
PROPORTIONS USED Trace 0-10% Little 10-20% Some 20-35% And 35-50%						LEGEND: ND = Not Detected NA = Not Applicable GS = Ground Surface			

SOIL BORING AND WELL CONSTRUCTION LOG

 <p>ATC ENVIRONMENTAL - GEOTECHNICAL BUILDING SCIENCES - MATERIALS TESTING ATC Group Services LLC 150 Zachary Road, Unit 1 Manchester, NH 03109 Phone: (603) 647-7077 Fax: (603) 647-5347</p>	SITE: 11 Stickney Avenue, Concord, New Hampshire DATE: 1/20/2020 CLIENT: New Hampshire Department of Transportation DRILLING CO.: New England Boring DRILLING METHOD: GeoProbe direct push SAMPLER METHOD: 5 ft macro barrel sampler CASING DIAMETER: 3"	WELL/BORING NO.: ATC-10 WEATHER: Sunny 15°F ATC INSPECTOR: J. Carr SURFACE ELEVATION: 235.08 DEPTH TO WATER: 8 ft. ATC Project Number: 59DOT00103 Task Number: 2
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Sample No.	Recovery/ Penetration (in/ft)	Blow Counts (per 6")	Headspace (ppm)	Depth (feet)	Soil Log	Materials Description (color, density, size, major and minor constituents, moisture)	Well Construction
1 (3')		Pre-clear air knife and vacuum to 5 feet	<1	1 2 3 4 5 6	Asphalt		<p>CEMENT SEAL: 0-0.5'</p> <p>NATURAL FILL 0.5'-3'</p> <p>BENTONITE SEAL 3'-4'</p> <p>FILTER SAND 4'-15'</p> <p>SOLID PVC RISER 0.5' - 5'</p> <p>PVC SCREEN 5'-15'</p> <p>Flush Road box</p>  <p>Note: Not to Scale</p>
2 (5-10')	40/60		<1	7 8 9 10	Brown Fine to Coarse SAND and GRAVEL, dry		
3 (10-15')	45/60		<1	11 12	Brown Fine to Medium SAND, little Silt and Gravel, dry Gray Fine to Coarse SAND, wet		
			<1	13 14 15	Gray Fine to Coarse SAND, wet Gray SILT with Clay, some Fine Sand, wet		
			<1	16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	END BORING at 15' Refusal not encountered		

COMMENTS: Sample collected at 8 to 10 feet bgs, analyzed for VOCs and TPH.	GRANULAR SOILS COHESIVELESS DENSITY 0-4 Very Loose 5-9 Loose 10-29 Medium Dense 30-49 Dense 50+ Very Dense PROPORTIONS USED Trace 0-10% Little 10-20% Some 20-35% And 35-50%	PLASTIC SOILS COHESIVE DENSITY 0-2 Very Soft 3-4 Soft 5-8 Medium Stiff 9-15 Stiff 16-30 Very Stiff 31+ Hard LEGEND: ND = Not Detected NA = Not Applicable GS = Ground Surface
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Appendix B

Greg Parrish
ATC Group Services LLC (NH)
150 Zachary Road
Manchester, NH 03109



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 205914
Client Identification: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH
Date Received: 1/21/2020

Dear Mr. Parrish :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

- Solid samples are reported on a dry weight basis, unless otherwise noted
- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

1-31-20
Date

11
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Temperature upon receipt (°C): 0

Received on ice or cold packs (Yes/No): Y

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
205914.01	ATC 4 5-7'	1/21/20	1/20/20	soil	88.1	Adheres to Sample Acceptance Policy
205914.02	ATC 4 10-13'	1/21/20	1/20/20	soil	88.8	Adheres to Sample Acceptance Policy
205914.03	ATC 5 7-10'	1/21/20	1/20/20	soil	84.9	Adheres to Sample Acceptance Policy
205914.04	ATC 5 10-12'	1/21/20	1/20/20	soil	77.3	Adheres to Sample Acceptance Policy
205914.05	ATC 6 5-10'	1/21/20	1/20/20	soil	84.6	Adheres to Sample Acceptance Policy
205914.06	ATC 7 8-10'	1/21/20	1/20/20	soil	87.1	Adheres to Sample Acceptance Policy
205914.07	ATC 8 8-10'	1/21/20	1/20/20	soil	87.0	Adheres to Sample Acceptance Policy
205914.08	ATC 9 8-10'	1/21/20	1/20/20	soil	89.3	Adheres to Sample Acceptance Policy
205914.09	ATC 10 8-10'	1/21/20	1/20/20	soil	85.1	Adheres to Sample Acceptance Policy
205914.1	Trip Blank	1/21/20	1/20/20	soil	100.0	Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis. Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 4th edition, 1992



LABORATORY REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Sample ID:	ATC 4 5-7'	ATC 4 10-13'	ATC 5 7-10'	ATC 5 10-12'	ATC 6 5-10'	ATC 7 8-10'	ATC 8 8-10'
Lab Sample ID:	205914.01	205914.02	205914.03	205914.04	205914.05	205914.06	205914.07
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20
Date Received:	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	1/23/20	1/23/20	1/23/20	1/23/20	1/23/20	1/23/20	1/23/20
Analyst:	JAK	JAK	JAK	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	9	1	1	1	1	1	1
Dichlorodifluoromethane	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	< 2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chloroethane	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	< 20	< 2	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 20	< 2	< 2	< 2	< 2	< 2	< 2
Methylene chloride	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dioxane	< 9	< 1	< 1	< 1	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.9	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichloropropane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



LABORATORY REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Sample ID:	ATC 4 5-7'	ATC 4 10-13'	ATC 5 7-10'	ATC 5 10-12'	ATC 6 5-10'	ATC 7 8-10'	ATC 8 8-10'
Lab Sample ID:	205914.01	205914.02	205914.03	205914.04	205914.05	205914.06	205914.07
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20
Date Received:	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	1/23/20	1/23/20	1/23/20	1/23/20	1/23/20	1/23/20	1/23/20
Analyst:	JAK	JAK	JAK	JAK	JAK	JAK	JAK
Method:	8260C	8260C	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	9	1	1	1	1	1	1
mp-Xylene	2.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
n-Propylbenzene	0.58	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	4.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	28	< 0.05	0.27	< 0.05	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	0.61	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.5	< 0.05	0.054	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3,5-Trichlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	8.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	125 %R	103 %R	108 %R	104 %R	97 %R	97 %R	95 %R
1,2-Dichlorobenzene-d4 (surr)	107 %R	100 %R	101 %R	103 %R	103 %R	108 %R	104 %R
Toluene-d8 (surr)	95 %R	95 %R	95 %R	98 %R	94 %R	96 %R	96 %R
1,2-Dichloroethane-d4 (surr)	88 %R	84 %R	85 %R	85 %R	84 %R	86 %R	82 %R

ATC 4 5-7': The value(s) for n-Butylbenzene may be elevated due to non-target interference.



LABORATORY REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Sample ID:	ATC 9 8-10'	ATC 10 8-10'	Trip Blank
Lab Sample ID:	205914.08	205914.09	205914.1
Matrix:	soil	soil	soil
Date Sampled:	1/20/20	1/20/20	1/20/20
Date Received:	1/21/20	1/21/20	1/21/20
Units:	mg/kg	mg/kg	mg/kg
Date of Analysis:	1/23/20	1/24/20	1/24/20
Analyst:	JAK	JAK	JAK
Method:	8260C	8260C	8260C
Dilution Factor:	1	1	1
Dichlorodifluoromethane	< 0.1	< 0.1	< 0.1
Chloromethane	< 0.1	< 0.1	< 0.1
Vinyl chloride	< 0.02	< 0.02	< 0.02
Bromomethane	< 0.2	< 0.2	< 0.2
Chloroethane	< 0.1	< 0.1	< 0.1
Trichlorofluoromethane	< 0.1	< 0.1	< 0.1
Diethyl Ether	< 0.05	< 0.05	< 0.05
Acetone	< 2	< 2	< 2
1,1-Dichloroethene	< 0.05	< 0.05	< 0.05
tert-Butyl Alcohol (TBA)	< 2	< 2	< 2
Methylene chloride	< 0.1	< 0.1	< 0.1
Carbon disulfide	< 0.1	< 0.1	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.1
Ethyl-t-butyl ether(ETBE)	< 0.1	< 0.1	< 0.1
Isopropyl ether(DIPE)	< 0.1	< 0.1	< 0.1
tert-amyl methyl ether(TAME)	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	< 0.05	< 0.05	< 0.05
2,2-Dichloropropane	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	< 0.05	< 0.05	< 0.05
2-Butanone(MEK)	< 0.5	< 0.5	< 0.5
Bromochloromethane	< 0.05	< 0.05	< 0.05
Tetrahydrofuran(THF)	< 0.5	< 0.5	< 0.5
Chloroform	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	< 0.05	< 0.05	< 0.05
1,1-Dichloropropene	< 0.05	< 0.05	< 0.05
Benzene	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.05
Trichloroethene	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	< 0.05	< 0.05	< 0.05
Dibromomethane	< 0.05	< 0.05	< 0.05
Bromodichloromethane	< 0.05	< 0.05	< 0.05
1,4-Dioxane	< 1	< 1	< 1
4-Methyl-2-pentanone(MIBK)	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05
Toluene	< 0.05	< 0.05	< 0.05
trans-1,3-Dichloropropene	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	< 0.05	< 0.05	< 0.05
2-Hexanone	< 0.1	< 0.1	< 0.1
Tetrachloroethene	< 0.05	< 0.05	< 0.05
1,3-Dichloropropane	< 0.05	< 0.05	< 0.05
Dibromochloromethane	< 0.05	< 0.05	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.02
Chlorobenzene	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05
Ethylbenzene	< 0.05	< 0.05	< 0.05



LABORATORY REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Sample ID:	ATC 9 8-10'	ATC 10 8-10'	Trip Blank
Lab Sample ID:	205914.08	205914.09	205914.1
Matrix:	soil	soil	soil
Date Sampled:	1/20/20	1/20/20	1/20/20
Date Received:	1/21/20	1/21/20	1/21/20
Units:	mg/kg	mg/kg	mg/kg
Date of Analysis:	1/23/20	1/24/20	1/24/20
Analyst:	JAK	JAK	JAK
Method:	8260C	8260C	8260C
Dilution Factor:	1	1	1
mp-Xylene	< 0.05	< 0.05	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.05
Styrene	< 0.05	< 0.05	< 0.05
Bromoform	< 0.05	< 0.05	< 0.05
IsoPropylbenzene	< 0.05	< 0.05	< 0.05
Bromobenzene	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	< 0.05	< 0.05	< 0.05
1,2,3-Trichloropropane	< 0.02	< 0.02	< 0.02
n-Propylbenzene	< 0.05	< 0.05	< 0.05
2-Chlorotoluene	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	< 0.05	< 0.05	< 0.05
1,3,5-Trimethylbenzene	< 0.05	< 0.05	< 0.05
tert-Butylbenzene	< 0.05	< 0.05	< 0.05
1,2,4-Trimethylbenzene	< 0.05	< 0.05	< 0.05
sec-Butylbenzene	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	< 0.05	< 0.05	< 0.05
p-Isopropyltoluene	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	< 0.05	< 0.05	< 0.05
n-Butylbenzene	< 0.05	< 0.05	< 0.05
1,2-Dibromo-3-chloropropane	< 0.02	< 0.02	< 0.02
1,3,5-Trichlorobenzene	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorobenzene	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	< 0.05	< 0.05	< 0.05
Naphthalene	< 0.1	< 0.1	< 0.1
1,2,3-Trichlorobenzene	< 0.05	< 0.05	< 0.05
4-Bromofluorobenzene (surr)	95 %R	94 %R	90 %R
1,2-Dichlorobenzene-d4 (surr)	103 %R	105 %R	102 %R
Toluene-d8 (surr)	95 %R	101 %R	100 %R
1,2-Dichloroethane-d4 (surr)	83 %R	88 %R	84 %R



QC REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Batch ID: 637158-18591/S012220VNH821

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 0.1			1/22/2020	mg/kg	40 - 160	20	8260C
Chloromethane	< 0.1			1/22/2020	mg/kg	40 - 160	20	8260C
Vinyl chloride	< 0.02			1/22/2020	mg/kg	70 - 130	20	8260C
Bromomethane	< 0.2			1/22/2020	mg/kg	40 - 160	20	8260C
Chloroethane	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
Trichlorofluoromethane	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
Diethyl Ether	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Acetone	< 2			1/22/2020	mg/kg	40 - 160	20	8260C
1,1-Dichloroethene	< 0.05	0.79 (79 %R)	0.79 (79 %R) (1 RPD)	1/22/2020	mg/kg	59 - 172	20	8260C
tert-Butyl Alcohol (TBA)	< 2			1/22/2020	mg/kg	40 - 160	20	8260C
Methylene chloride	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
Carbon disulfide	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,1-Dichloroethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
2,2-Dichloropropane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
2-Butanone(MEK)	< 0.5			1/22/2020	mg/kg	40 - 160	20	8260C
Bromochloromethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 0.5			1/22/2020	mg/kg	70 - 130	20	8260C
Chloroform	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,1,1-Trichloroethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Carbon tetrachloride	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,1-Dichloropropene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Benzene	< 0.05	0.99 (99 %R)	1.0 (104 %R) (5 RPD)	1/22/2020	mg/kg	66 - 142	20	8260C
1,2-Dichloroethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Trichloroethene	< 0.05	0.96 (96 %R)	0.98 (98 %R) (2 RPD)	1/22/2020	mg/kg	62 - 137	20	8260C
1,2-Dichloropropane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Dibromomethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Bromodichloromethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,4-Dioxane	< 1			1/22/2020	mg/kg	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 0.5			1/22/2020	mg/kg	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Toluene	< 0.05	1.0 (100 %R)	1.1 (109 %R) (9 RPD)	1/22/2020	mg/kg	59 - 139	20	8260C
trans-1,3-Dichloropropene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,1,2-Trichloroethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
2-Hexanone	< 0.1			1/22/2020	mg/kg	40 - 160	20	8260C
Tetrachloroethene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,3-Dichloropropane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Dibromochloromethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 0.02			1/22/2020	mg/kg	70 - 130	20	8260C
Chlorobenzene	< 0.05	0.99 (99 %R)	1.0 (104 %R) (4 RPD)	1/22/2020	mg/kg	60 - 133	20	8260C
1,1,1,2-Tetrachloroethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C



QC REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Batch ID: 637158-18591/S012220VNH821

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
mp-Xylene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
o-Xylene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Styrene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Bromoform	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
IsoPropylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Bromobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.02			1/22/2020	mg/kg	70 - 130	20	8260C
n-Propylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
2-Chlorotoluene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
4-Chlorotoluene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
tert-Butylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
sec-Butylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,3-Dichlorobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
p-Isopropyltoluene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,4-Dichlorobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,2-Dichlorobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
n-Butylbenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 0.02			1/22/2020	mg/kg	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Hexachlorobutadiene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
Naphthalene	< 0.1			1/22/2020	mg/kg	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 0.05			1/22/2020	mg/kg	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	91 %R	96 %R	102 %R	1/22/2020	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	105 %R	103 %R	105 %R	1/22/2020	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	96 %R	97 %R	101 %R	1/22/2020	% Rec	70 - 130	20	8260C

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

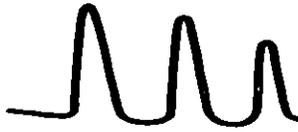
The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*//Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.



LABORATORY REPORT

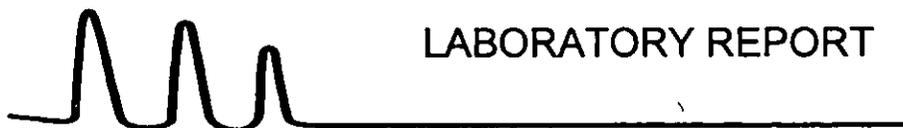
EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Sample ID:	ATC 4 5-7'	ATC 4 10-13'	ATC 5 7-10'	ATC 5 10-12'	ATC 6 5-10'	ATC 7 8-10'	ATC 8 8-10'
Lab Sample ID:	205914.01	205914.02	205914.03	205914.04	205914.05	205914.06	205914.07
Matrix:	soil	soil	soil	soil	soil	soil	soil
Date Sampled:	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20	1/20/20
Date Received:	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20	1/21/20
Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date of Extraction/Prep:	1/22/20	1/22/20	1/22/20	1/22/20	1/22/20	1/22/20	1/22/20
Date of Analysis:	1/22/20	1/22/20	1/22/20	1/22/20	1/22/20	1/22/20	1/22/20
Analyst:	JMR	JMR	JMR	JMR	JMR	JMR	JMR
Method:	8100mod	8100mod	8100mod	8100mod	8100mod	8100mod	8100mod
Dilution Factor:	5	5	5	6	6	5	5
TPH (C9-C40)	5900	< 100	< 100	< 100	< 100	< 100	< 100
p-Terphenyl-D14 (sum)	98 %R	78 %R	70 %R	72 %R	73 %R	71 %R	80 %R

Detection limits elevated due to sample matrix.



LABORATORY REPORT

EAI ID#: 205914

Client: **ATC Group Services LLC (NH)**

Client Designation: **NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH**

Sample ID: ATC 9 8-10' ATC 10 8-10'

Lab Sample ID:	205914.08	205914.09
Matrix:	soil	soil
Date Sampled:	1/20/20	1/20/20
Date Received:	1/21/20	1/21/20
Units:	mg/kg	mg/kg
Date of Extraction/Prep:	1/22/20	1/22/20
Date of Analysis:	1/22/20	1/22/20
Analyst:	JMR	JMR
Method:	8100mod	8100mod
Dilution Factor:	5	6
TPH (C9-C40)	< 100	< 100
p-Terphenyl-D14 (surr)	71 %R	73 %R

Detection limits elevated due to sample matrix.



QC REPORT

EAI ID#: 205914

Client: ATC Group Services LLC (NH)

Batch ID: 637152-75154/S012220TPH1

Client Designation: NHDOT Hwy Garage 12 | 11 Stickney Ave, Concord, NH

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
TPH (C9-C40)	< 20	65 (81 %R)	65 (82 %R) (1 RPD)	1/22/2020	mg/kg	30 - 160	30	8100mod
p-Terphenyl-D14 (sur)	82 %R	92 %R	92 %R	1/22/2020	% Rec	30 - 130		8100mod

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*// Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.

CHAIN-OF-CUSTODY-RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

205914

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/# COMPOSITE	VOC										SVOC										TCLP METALS										INORGANICS										MICRO										OTHER										NOTES MeOH Vol #																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				5242	5243	5244	5245	5246	5247	5248	5249	5250	5251	5252	5253	5254	5255	5256	5257	5258	5259	5260	5261	5262	5263	5264	5265	5266	5267	5268	5269	5270	5271	5272	5273	5274	5275	5276	5277	5278	5279	5280	5281	5282	5283	5284	5285	5286	5287	5288	5289	5290	5291	5292	5293	5294	5295	5296	5297	5298	5299	5300	5301		5302	5303	5304	5305	5306	5307	5308	5309	5310	5311	5312	5313	5314	5315	5316	5317	5318	5319	5320	5321	5322	5323	5324	5325	5326	5327	5328	5329	5330	5331	5332	5333	5334	5335	5336	5337	5338	5339	5340	5341	5342	5343	5344	5345	5346	5347	5348	5349	5350	5351	5352	5353	5354	5355	5356	5357	5358	5359	5360	5361	5362	5363	5364	5365	5366	5367	5368	5369	5370	5371	5372	5373	5374	5375	5376	5377	5378	5379	5380	5381	5382	5383	5384	5385	5386	5387	5388	5389	5390	5391	5392	5393	5394	5395	5396	5397	5398	5399	5400	5401	5402	5403	5404	5405	5406	5407	5408	5409	5410	5411	5412	5413	5414	5415	5416	5417	5418	5419	5420	5421	5422	5423	5424	5425	5426	5427	5428	5429	5430	5431	5432	5433	5434	5435	5436	5437	5438	5439	5440	5441	5442	5443	5444	5445	5446	5447	5448	5449	5450	5451	5452	5453	5454	5455	5456	5457	5458	5459	5460	5461	5462	5463	5464	5465	5466	5467	5468	5469	5470	5471	5472	5473	5474	5475	5476	5477	5478	5479	5480	5481	5482	5483	5484	5485	5486	5487	5488	5489	5490	5491	5492	5493	5494	5495	5496	5497	5498	5499	5500	5501	5502	5503	5504	5505	5506	5507	5508	5509	5510	5511	5512	5513	5514	5515	5516	5517	5518	5519	5520	5521	5522	5523	5524	5525	5526	5527	5528	5529	5530	5531	5532	5533	5534	5535	5536	5537	5538	5539	5540	5541	5542	5543	5544	5545	5546	5547	5548	5549	5550	5551	5552	5553	5554	5555	5556	5557	5558	5559	5560	5561	5562	5563	5564	5565	5566	5567	5568	5569	5570	5571	5572	5573	5574	5575	5576	5577	5578	5579	5580	5581	5582	5583	5584	5585	5586	5587	5588	5589	5590	5591	5592	5593	5594	5595	5596	5597	5598	5599	5600	5601	5602	5603	5604	5605	5606	5607	5608	5609	5610	5611	5612	5613	5614	5615	5616	5617	5618	5619	5620	5621	5622	5623	5624	5625	5626	5627	5628	5629	5630	5631	5632	5633	5634	5635	5636	5637	5638	5639	5640	5641	5642	5643	5644	5645	5646	5647	5648	5649	5650	5651	5652	5653	5654	5655	5656	5657	5658	5659	5660	5661	5662	5663	5664	5665	5666	5667	5668	5669	5670	5671	5672	5673	5674	5675	5676	5677	5678	5679	5680	5681	5682	5683	5684	5685	5686	5687	5688	5689	5690	5691	5692	5693	5694	5695	5696	5697	5698	5699	5700	5701	5702	5703	5704	5705	5706	5707	5708	5709	5710	5711	5712	5713	5714	5715	5716	5717	5718	5719	5720	5721	5722	5723	5724	5725	5726	5727	5728	5729	5730	5731	5732	5733	5734	5735	5736	5737	5738	5739	5740	5741	5742	5743	5744	5745	5746	5747	5748	5749	5750	5751	5752	5753	5754	5755	5756	5757	5758	5759	5760	5761	5762	5763	5764	5765	5766	5767	5768	5769	5770	5771	5772	5773	5774	5775	5776	5777	5778	5779	5780	5781	5782	5783	5784	5785	5786	5787	5788	5789	5790	5791	5792	5793	5794	5795	5796	5797	5798	5799	5800	5801	5802	5803	5804	5805	5806	5807	5808	5809	5810	5811	5812	5813	5814	5815	5816	5817	5818	5819	5820	5821	5822	5823	5824	5825	5826	5827	5828	5829	5830	5831	5832	5833	5834	5835	5836	5837	5838	5839	5840	5841	5842	5843	5844	5845	5846	5847	5848	5849	5850	5851	5852	5853	5854	5855	5856	5857	5858	5859	5860	5861	5862	5863	5864	5865	5866	5867	5868	5869	5870	5871	5872	5873	5874	5875	5876	5877	5878	5879	5880	5881	5882	5883	5884	5885	5886	5887	5888	5889	5890	5891	5892	5893	5894	5895	5896	5897	5898	5899	5900	5901	5902	5903	5904	5905	5906	5907	5908	5909	5910	5911	5912	5913	5914	5915	5916	5917	5918	5919	5920	5921	5922	5923	5924	5925	5926	5927	5928	5929	5930	5931	5932	5933	5934	5935	5936	5937	5938	5939	5940	5941	5942	5943	5944	5945	5946	5947	5948	5949	5950	5951	5952	5953	5954	5955	5956	5957	5958	5959	5960	5961	5962	5963	5964	5965	5966	5967	5968	5969	5970	5971	5972	5973	5974	5975	5976	5977	5978	5979	5980	5981	5982	5983	5984	5985	5986	5987	5988	5989	5990	5991	5992	5993	5994	5995	5996	5997	5998	5999	6000	6001	6002	6003	6004	6005	6006	6007	6008	6009	6010	6011	6012	6013	6014	6015	6016	6017	6018	6019	6020	6021	6022	6023	6024	6025	6026	6027	6028	6029	6030	6031	6032	6033	6034	6035	6036	6037	6038	6039	6040	6041	6042	6043	6044	6045	6046	6047	6048	6049	6050	6051	6052	6053	6054	6055	6056	6057	6058	6059	6060	6061	6062	6063	6064	6065	6066	6067	6068	6069	6070	6071	6072	6073	6074	6075	6076	6077	6078	6079	6080	6081	6082	6083	6084	6085	6086	6087	6088	6089	6090	6091	6092	6093	6094	6095	6096	6097	6098	6099	6100	6101	6102	6103	6104	6105	6106	6107	6108	6109	6110	6111	6112	6113	6114	6115	6116	6117	6118	6119	6120	6121	6122	6123	6124	6125	6126	6127	6128	6129	6130	6131	6132	6133	6134	6135	6136	6137	6138	6139	6140	6141	6142	6143	6144	6145	6146	6147	6148	6149	6150	6151	6152	6153	6154	6155	6156	6157	6158	6159	6160	6161	6162	6163	6164	6165	6166	6167	6168	6169	6170	6171	6172	6173	6174	6175	6176	6177	6178	6179	6180	6181	6182	6183	6184	6185	6186	6187	6188	6189	6190	6191	6192	6193	6194	6195	6196	6197	6198	6199	6200	6201	6202	6203	6204	6205	6206	6207	6208	6209	6210	6211	6212	6213	6214	6215	6216	6217	6218	6219	6220	6221	6222	6223	6224	6225	6226	6227	6228	6229	6230	6231	6232	6233	6234	6235	6236	6237	6238	6239	6240	6241	6242	6243	6244	6245	6246	6247	6248	6249	6250	6251	6252	6253	6254	6255	6256	6257	6258	6259	6260	6261	6262	6263	6264	6265	6266	6267	6268	6269	6270	6271	6272	6273	6274	6275	6276	6277	6278	6279	6280	6281	6282	6283	6284	6285	6286	6287	6288	6289	6290	6291	6292	6293	6294	6295	6296	6297	6298	6299	6300	6301	6302	6303	6304	6305	6306	6307	6308	6309	6310	6311	6312	6313	6314	6315	6316	6317	6318	6319	6320	6321	6322	6323	6324	6325	6326	6327	6328	6329	6330	6331	6332	6333	6334	6335	6336	6337	6338	6339	6340	6341	6342	6343	6344	6345	6346	6347	6348	6349	6350	6351	6352	6353	6354	6355	6356	6357	6358	6359	6360	6361	6362	6363	6364	6365	6366	6367	6368	6369	6370	6371	6372	6373	6374	6375	6376	6377	6378	6379	6380	6381	6382	6383	6384	6385	6386	6387	6388	6389	6390	6391	6392	6393	6394	6395	6396	6397	6398	6399	6400	6401	6402	6403	6404	6405	6406	6407	6408	6409	6410	6411	6412	6413	6414	6415	6416	6417	6418	6419	6420	6421	6422	6423	6424	6425	6426	6427	6428	6429	6430	6431	6432	6433	6434	6435	6436	6437	6438	6439	6440	6441	6442	6443	6444	6445	6446	6447	6448	6449	6450	6451	6452	6453	6454	6455	6456	6457	6458	6459	6460	6461	6462	6463	6464	6465	6466	6467	6468	6469	6470	6471	6472	6473	6474	6475	6476	6477	6478	6479	6480	6481	6482	6483	6484	6485	6486	6487	6488	6489	6490	6491	6492	6493	6494	6495	6496	6497	6498	6499	6500	6501	6502	6503	6504	6505	6506	6507	6508	6509	6510	6511	6512	6513	6514	6515	6516	6517	6518	6519	6520	6521	6522	6523	6524	6525	6526	6527	6528	6529	6530	6531	6532	6533	6534	6535	6536	6537	6538	6539	6540	6541	6542	6543	6544	6545	6546	6547	6548	6549	6550	6551	6552	6553	6554	6555	6556	6557	6558	6559	6560	6561	6562	6563	6564	6565	6566	6567	6568

Appendix C



Eastern Analytical, Inc.

professional laboratory and drilling services

Greg Parrish
ATC Group Services LLC (NH)
150 Zachary Road
Manchester, NH 03109



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 206465
Client Identification: NHDOT Stickney Ave / 59DOT00084
Date Received: 2/5/2020

Dear Mr. Parrish:

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.easternanalytical.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

- Solid samples are reported on a dry weight basis, unless otherwise noted
- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012) and New York (12072).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample (s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director

2.12.20

Date

9

of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Temperature upon receipt (°C): 2.7

Received on ice or cold packs (Yes/No): Y

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
206465.01	ATC-2	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.02	ATC-3	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.03	ATC-4	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.04	ATC-5	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.05	ATC-6	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.06	ATC-7	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.07	ATC-8	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.08	ATC-9	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.09	ATC-10	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.1	GT-4	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.11	JB-7/MW	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy
206465.12	Trip Blank	2/5/20	2/5/20	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitability, Paint Filter, Comosivity, Conductivity and Specific Gravity are reported on an "as received" basis.

Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd Edition or noted Revision year.
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 4th edition, 1992



LABORATORY REPORT

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Sample ID:	ATC-2	ATC-3	ATC-4	ATC-5	ATC-6	ATC-7	ATC-8
Lab Sample ID:	206465.01	206465.02	206465.03	206465.04	206465.05	206465.06	206465.07
Matrix:	aqueous						
Date Sampled:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Date Received:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Units:	ug/L						
Date of Analysis:	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20
Analyst:	DGM						
Method:	8260C						
Dilution Factor:	1	1	1	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Diethyl Ether	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acetone	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	< 30	< 30	170	56	< 30	34	< 30
Methylene chloride	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	3.2	1.7	23	19	5.8	10	2.4
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Benzene	37	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1	1.3	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	2.4	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	1.5	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	20	< 1	1.3	1.2	2.7	< 1	< 1



LABORATORY REPORT

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Sample ID:	ATC-2	ATC-3	ATC-4	ATC-5	ATC-6	ATC-7	ATC-8
Lab Sample ID:	206465.01	206465.02	206465.03	206465.04	206465.05	206465.06	206465.07
Matrix:	aqueous						
Date Sampled:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Date Received:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Units:	ug/L						
Date of Analysis:	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20
Analyst:	DGM						
Method:	8260C						
Dilution Factor:	1	1	1	1	1	1	1
mp-Xylene	14	<1	12	13	<1	<1	<1
o-Xylene	<1	<1	<1	1.2	<1	<1	<1
Styrene	<1	<1	<1	<1	<1	<1	<1
Bromofom	<2	<2	<2	<2	<2	<2	<2
IsoPropylbenzene	23	<1	5.6	4.4	5.6	<1	<1
Bromobenzene	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-Tetrachloroethane	<1	<1	<1	<1	<1	<1	<1
1,2,3-Trichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
n-Propylbenzene	46	<1	4.7	4.2	2.4	<1	<1
2-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1
4-Chlorotoluene	<1	<1	<1	<1	<1	<1	<1
1,3,5-Trimethylbenzene	2.9	<1	3.8	4.5	<1	<1	<1
tert-Butylbenzene	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trimethylbenzene	<1	<1	20	46	<1	<1	<1
sec-Butylbenzene	3.6	1.3	2.5	2.1	3.1	<1	<1
1,3-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
p-Isopropyltoluene	<1	<1	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	<1	<1	<1	<1	<1	<1	<1
n-Butylbenzene	<1	<1	<1	<1	<1	<1	<1
1,2-Dibromo-3-chloropropane	<2	<2	<2	<2	<2	<2	<2
1,3,5-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1
Hexachlorobutadiene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	34	<5	24	33	<5	<5	<5
1,2,3-Trichlorobenzene	<1	<1	<1	<1	<1	<1	<1
4-Bromofluorobenzene (surr)	98 %R	97 %R	99 %R	100 %R	101 %R	97 %R	95 %R
1,2-Dichlorobenzene-d4 (surr)	109 %R	116 %R	109 %R	112 %R	110 %R	112 %R	114 %R
Toluene-d8 (surr)	103 %R	102 %R	106 %R	104 %R	105 %R	105 %R	102 %R
1,2-Dichloroethane-d4 (surr)	100 %R	109 %R	100 %R	102 %R	98 %R	105 %R	108 %R



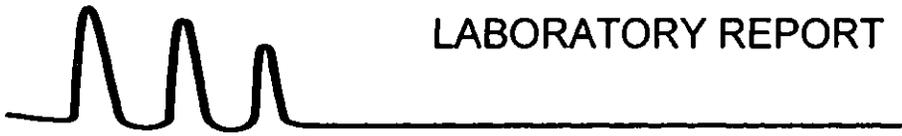
LABORATORY REPORT

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Sample ID:	ATC-9	ATC-10	GT-4	JB-7/MW	Trip Blank
Lab Sample ID:	206465.08	206465.09	206465.1	206465.11	206465.12
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Date Received:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20
Analyst:	DGM	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1
Dichlorodifluoromethane	< 5	< 5	< 5	< 5	< 5
Chloromethane	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2
Bromomethane	< 2	< 2	< 2	< 2	< 2
Chloroethane	< 5	< 5	< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5	< 5	< 5	< 5
Diethyl Ether	< 5	< 5	< 5	< 5	< 5
Acetone	< 10	< 10	< 10	< 10	< 10
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1
tert-Butyl Alcohol (TBA)	30	< 30	< 30	< 30	< 30
Methylene chloride	< 5	< 5	< 5	< 5	< 5
Carbon disulfide	< 2	< 2	< 2	< 2	< 2
Methyl-t-butyl ether(MTBE)	10	4.2	9.9	< 1	< 1
Ethyl-t-butyl ether(ETBE)	< 5	< 5	< 5	< 5	< 5
Isopropyl ether(DIPE)	< 5	< 5	< 5	< 5	< 5
tert-amyl methyl ether(TAME)	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1
2,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1
2-Butanone(MEK)	< 10	< 10	< 10	< 10	< 10
Bromochloromethane	< 1	< 1	< 1	< 1	< 1
Tetrahydrofuran(THF)	< 10	< 10	< 10	< 10	< 10
Chloroform	< 1	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride	< 1	< 1	< 1	< 1	< 1
1,1-Dichloropropene	< 1	< 1	< 1	< 1	< 1
Benzene	2.2	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1
Dibromomethane	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50	< 50	< 50	< 50
4-Methyl-2-pentanone(MIBK)	< 10	< 10	< 10	< 10	< 10
cis-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1	< 1
2-Hexanone	< 10	< 10	< 10	< 10	< 10
Tetrachloroethene	< 1	< 1	< 1	< 1	< 1
1,3-Dichloropropane	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1	< 1	< 1
1,2-Dibromoethane(EDB)	< 2	< 2	< 2	< 2	< 2
Chlorobenzene	< 1	< 1	< 1	< 1	< 1
1,1,1,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1	< 1	< 1



LABORATORY REPORT

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Sample ID:	ATC-9	ATC-10	GT-4	JB-7/MW	Trip Blank
Lab Sample ID:	206465.08	206465.09	206465.1	206465.11	206465.12
Matrix:	aqueous	aqueous	aqueous	aqueous	aqueous
Date Sampled:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Date Received:	2/5/20	2/5/20	2/5/20	2/5/20	2/5/20
Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	2/6/20	2/6/20	2/6/20	2/6/20	2/6/20
Analyst:	DGM	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	1	1	1
mp-Xylene	< 1	< 1	< 1	< 1	< 1
o-Xylene	< 1	< 1	< 1	< 1	< 1
Styrene	< 1	< 1	< 1	< 1	< 1
Bromoform	< 2	< 2	< 2	< 2	< 2
IsoPropylbenzene	< 1	< 1	< 1	< 1	< 1
Bromobenzene	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1
1,2,3-Trichloropropane	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
n-Propylbenzene	< 1	< 1	< 1	< 1	< 1
2-Chlorotoluene	< 1	< 1	< 1	< 1	< 1
4-Chlorotoluene	< 1	< 1	< 1	< 1	< 1
1,3,5-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1
tert-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trimethylbenzene	< 1	< 1	< 1	< 1	< 1
sec-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
p-Isopropyltoluene	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
n-Butylbenzene	< 1	< 1	< 1	< 1	< 1
1,2-Dibromo-3-chloropropane	< 2	< 2	< 2	< 2	< 2
1,3,5-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
Hexachlorobutadiene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	< 5	5.9	< 5	< 5	< 5
1,2,3-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1
4-Bromofluorobenzene (surr)	95 %R	94 %R	95 %R	93 %R	91 %R
1,2-Dichlorobenzene-d4 (surr)	115 %R	114 %R	113 %R	115 %R	119 %R
Toluene-d8 (surr)	104 %R	102 %R	104 %R	99 %R	100 %R
1,2-Dichloroethane-d4 (surr)	105 %R	107 %R	105 %R	109 %R	115 %R



QC REPORT

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 5	32 (158 %R)	* 33 (167 %R) (6 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
Chloromethane	< 2	31 (156 %R)	* 32 (161 %R) (3 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
Vinyl chloride	< 2	25 (125 %R)	* 27 (133 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Bromomethane	< 2	27 (137 %R)	29 (145 %R) (6 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
Chloroethane	< 5	25 (126 %R)	* 26 (132 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Trichlorofluoromethane	< 5	22 (111 %R)	23 (116 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Diethyl Ether	< 5	21 (105 %R)	22 (108 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Acetone	< 10	23 (116 %R)	23 (117 %R) (1 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
1,1-Dichloroethene	< 1	21 (107 %R)	22 (111 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
tert-Butyl Alcohol (TBA)	< 30	100 (103 %R)	100 (104 %R) (1 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Methylene chloride	< 5	21 (103 %R)	21 (105 %R) (2 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Carbon disulfide	< 2	18 (89 %R)	19 (93 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 1	19 (95 %R)	19 (97 %R) (2 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Ethyl-t-butyl ether(ETBE)	< 5	18 (90 %R)	18 (92 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Isopropyl ether(DIPE)	< 5	19 (93 %R)	19 (96 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
tert-amyl methyl ether(TAME)	< 5	19 (95 %R)	19 (97 %R) (2 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 1	19 (97 %R)	20 (102 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,1-Dichloroethane	< 1	19 (97 %R)	20 (101 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
2,2-Dichloropropane	< 1	20 (101 %R)	21 (103 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 1	21 (104 %R)	22 (109 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
2-Butanone(MEK)	< 10	19 (96 %R)	20 (98 %R) (1 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
Bromochloromethane	< 1	21 (106 %R)	22 (109 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 10	20 (98 %R)	19 (97 %R) (1 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Chloroform	< 1	20 (98 %R)	20 (102 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,1,1-Trichloroethane	< 1	20 (98 %R)	21 (103 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Carbon tetrachloride	< 1	20 (102 %R)	21 (106 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,1-Dichloropropene	< 1	19 (97 %R)	20 (102 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Benzene	< 1	19 (95 %R)	20 (99 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	19 (95 %R)	19 (97 %R) (2 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Trichloroethene	< 1	19 (96 %R)	20 (101 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2-Dichloropropane	< 1	19 (97 %R)	20 (100 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Dibromomethane	< 1	19 (96 %R)	20 (98 %R) (2 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Bromodichloromethane	< 0.5	21 (105 %R)	21 (107 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,4-Dioxane	< 50	< 50 (115 %R)	< 50 (118 %R) (3 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
4-Methyl-2-pentanone(MIBK)	< 10	19 (94 %R)	19 (96 %R) (2 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.5	20 (99 %R)	21 (103 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Toluene	< 1	20 (99 %R)	21 (104 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
trans-1,3-Dichloropropene	< 0.5	19 (97 %R)	20 (101 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,1,2-Trichloroethane	< 1	20 (98 %R)	20 (101 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
2-Hexanone	< 10	19 (95 %R)	20 (98 %R) (3 RPD)	2/6/2020	ug/L	40 - 160	20	8260C
Tetrachloroethene	< 1	21 (103 %R)	22 (108 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,3-Dichloropropane	< 1	19 (96 %R)	20 (100 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Dibromochloromethane	< 1	20 (102 %R)	21 (105 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 2	19 (95 %R)	19 (95 %R) (1 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Chlorobenzene	< 1	19 (97 %R)	20 (102 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,1,1,2-Tetrachloroethane	< 1	20 (100 %R)	21 (104 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C



QC REPORT

EAI ID#: 206465

Client: ATC Group Services LLC (NH)

Client Designation: NHDOT Stickney Ave / 59DOT00084

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Ethylbenzene	< 1	20 (100 %R)	21 (106 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	40 (100 %R)	42 (106 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
o-Xylene	< 1	20 (99 %R)	21 (104 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Styrene	< 1	19 (93 %R)	20 (98 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Bromoform	< 2	21 (104 %R)	21 (107 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
IsoPropylbenzene	< 1	20 (100 %R)	21 (106 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Bromobenzene	< 1	20 (102 %R)	22 (109 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 1	20 (102 %R)	21 (107 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.5	20 (100 %R)	21 (103 %R) (3 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
n-Propylbenzene	< 1	21 (103 %R)	22 (110 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
2-Chlorotoluene	< 1	21 (106 %R)	23 (113 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
4-Chlorotoluene	< 1	19 (97 %R)	20 (101 %R) (4 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	20 (102 %R)	22 (109 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
tert-Butylbenzene	< 1	19 (96 %R)	21 (103 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	22 (109 %R)	23 (116 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
sec-Butylbenzene	< 1	21 (104 %R)	22 (112 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,3-Dichlorobenzene	< 1	20 (100 %R)	21 (107 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
p-Isopropyltoluene	< 1	22 (108 %R)	23 (116 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,4-Dichlorobenzene	< 1	20 (98 %R)	21 (105 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2-Dichlorobenzene	< 1	20 (99 %R)	21 (105 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
n-Butylbenzene	< 1	21 (103 %R)	22 (111 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 2	20 (98 %R)	21 (103 %R) (5 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,3,5-Trichlorobenzene	< 1	20 (100 %R)	21 (107 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 1	19 (93 %R)	20 (100 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Hexachlorobutadiene	< 0.5	18 (92 %R)	20 (98 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
Naphthalene	< 5	19 (97 %R)	21 (103 %R) (6 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 1	19 (97 %R)	21 (104 %R) (7 RPD)	2/6/2020	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	91 %R	99 %R	99 %R	2/6/2020	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	116 %R	106 %R	107 %R	2/6/2020	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	100 %R	101 %R	101 %R	2/6/2020	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	112 %R	103 %R	102 %R	2/6/2020	% Rec	70 - 130	20	8260C

Samples were extracted and analyzed within holding time limits.

Instrumentation was calibrated in accordance with the method requirements.

The method blanks were free of contamination at the reporting limits.

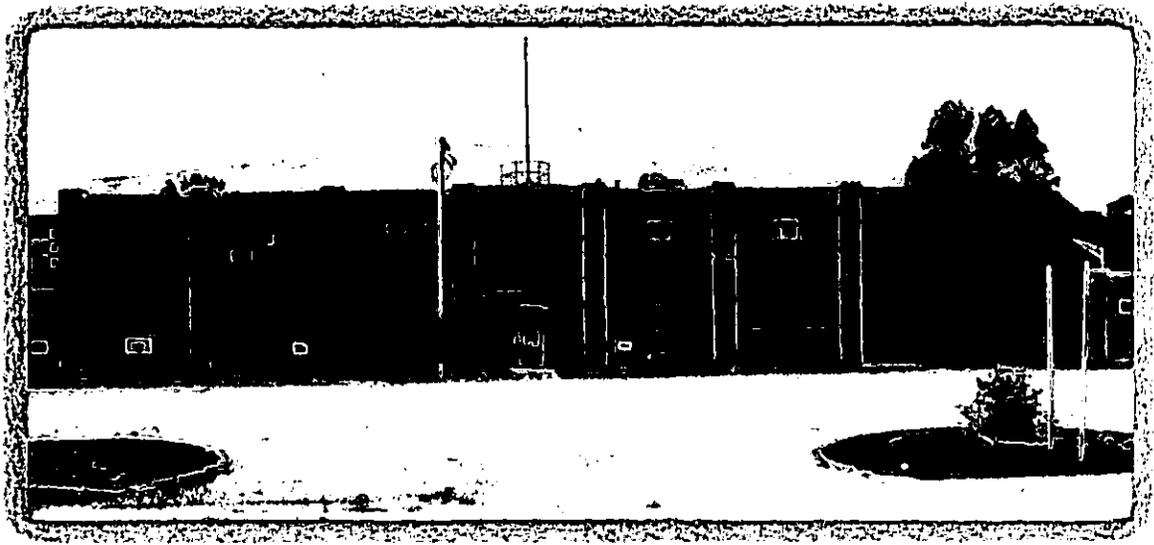
Sample surrogate recoveries met the above stated criteria.

The associated matrix spikes and/or Laboratory Control Samples met acceptance criteria.

There were no exceptions in the analyses, unless noted.

*1/ Flagged analyte recoveries deviated from the QA/QC limits. Unless noted below, flagged analytes that exceed acceptance limits in the Quality Control sample were not detected in the field samples.

Analytes that exceed limits high but are not detected in the field samples do not impact the data. For analytes that show low recovery and are not detected in the field samples, a low point calibration standard has been analyzed to support the reporting limit.



New Hampshire Highway Garage Complex Stickney Avenue, Concord, New Hampshire

Character Defining Features **January 31, 2020**

The New Hampshire Highway Garage Complex located on Stickney Avenue in Concord, New Hampshire, eventually consisted of nine buildings constructed by the State of New Hampshire between 1926 and c.1950. One building was removed prior to 2014. Three buildings were demolished in 2015 and there are currently five buildings left on site. For the purposes of building count, buildings 1 and 2 noted on a 2014 site plan is considered here one building, the original 1926 core and its large 1948 addition. The complex is located on the west side of Stickney Avenue northeast of Concord's downtown and the State House. The parcel is bound to the west by the Boston & Maine Railroad tracks. Interstate 93 is located immediately east of Stickney Avenue. Loudon Road/Bridge Street marks the southern boundary of the property. Commercial and transportation related properties characterize the area to the north.

The New Hampshire Highway Garage Complex contains a 1926/1948 highway garage building that housed a testing laboratory, offices, vehicle repair/storage and shop space. In addition, a supply storehouse, lumber storage building, stock room/maintenance garage, and storage building are located on the property. The primary building on the property is the 1926/1948 main building that is oriented toward Stickney Avenue. Three buildings are located to its south and one building to its north (see site plan, page 3).

The New Hampshire Highway Garage Complex is eligible for listing in the National Register of Historic Places for its historical associations and architectural significance under National Register Criteria A and C.

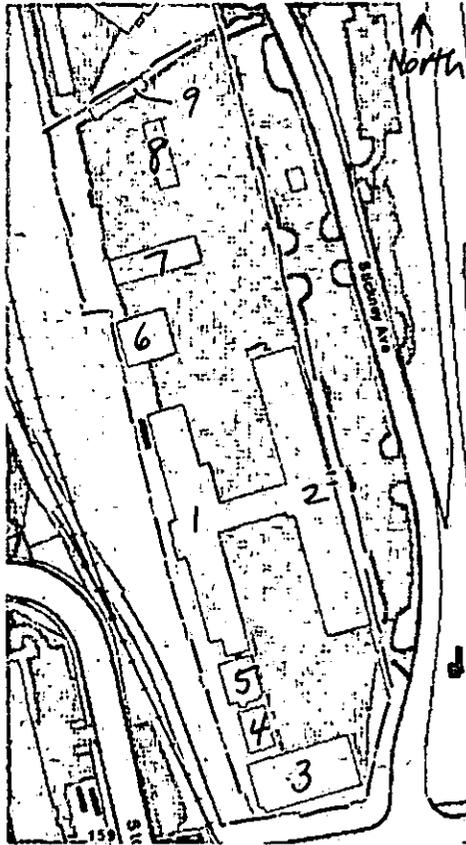
The New Hampshire Highway Garage complex on Stickney Avenue is significant under Criterion A for its associations with the growth and development of the State's Highway Department. The Highway Department was established in 1915 and a State Laboratory was organized the following year, initially operating in space behind the Eagle Hotel on North Main Street. The construction of a new purpose-built complex on Stickney Avenue beginning in 1926 reflects the increasing demands accompanying the rise of the automobile as well as the growing responsibility of state government to provide services for its citizens. At the time of its completion, the garage was described as "the most modern and convenient motor vehicle building in the state". All road equipment used by the Highway Department in the construction and maintenance of highways was stored and maintained in this facility. It also provided services to any State department requiring advice or service for equipment used for the State. This complex was also home to the State Highway Laboratory until 1996.

The property as a whole is also significant under Criterion C for architecture. While the buildings on the complex are not architecturally striking, they do represent a significant and distinguishable entity whose components may lack individual distinction and therefore are significant as a district. The complex is a good example of twentieth-century industrial design, and features a variety of distinctive architectural elements reflective of its use and time period.

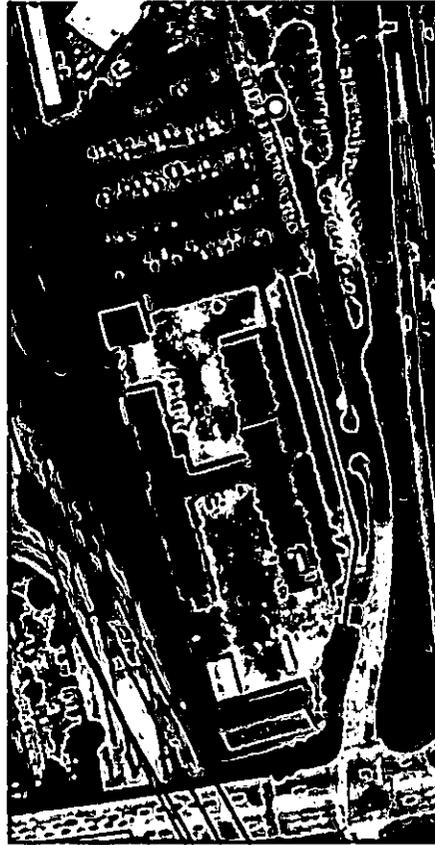
The period of significance for the property extends from 1926 to 1964 (50-year cut-off).

The Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings and their Related Guidelines define rehabilitation as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. The standards and guidelines recognize that while a property may have original features throughout that are all "character defining" we can categorize these as primary and secondary spaces and features. Primary spaces and features are those that should not be changed or removed unless they are deteriorated beyond repair and should then be replaced in kind. Secondary spaces and features are those that can accommodate needed compatible change when necessary to allow new and continued use of the property.

This report on character defining features roughly follows the format given in *National Register Preservation Brief 17, Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. The standards and briefs mentioned above are available online. A list of web links to these documents is provided at the end of this report. The report focuses on the character of the property as it relates to its overall setting.



New Hampshire Highway Garage Complex Site Plan (2014)



New Hampshire Highway Garage Complex Site Plan (2019)

Buildings 7, 8, and 9 were demolished in 2015 for parking expansion.

Field work for this report was completed by Laura Black, Nadine Miller and Benjamin Wilson of the New Hampshire Division of Historical Resources, and Jill Edelmann of the New Hampshire Department of Transportation on November 12, 2019.

The Individual Inventory Form for this property completed by Architectural Historian Lisa Mausolf in April 2014 and New Hampshire Historic Property Documentation completed in 2015 provide further guidance on the important architectural and special elements that gives the property its historic character. This report includes additional information to help differentiate between primary and secondary character defining spaces and features.

Each section below begins with an overview of architectural features and concludes with a list of primary, secondary, and non-historic spaces and features.

This report was prepared in order to assist potential purchasers/developers of the New Hampshire Highway Garage Complex more easily formulate re-use options for the property, while preserving its most significant historical features.

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Methodology

This report begins by characterizing the setting and landscape features that contribute to the property. It then characterizes the main building (Building 1, 1926 and Building 2, 1948) as one unit. For the purposes of this report, the following terms are utilized to describe the H-shaped building: 1926 core, 1948 center block, 1948 wings or 1948 addition, and hyphen. Because the remaining buildings are vernacular in design and have few architectural details, buildings were described holistically and character-defining features are defined only when significant features are present. Photographs are credited to NHDOT or Charley Freiberg.

Setting

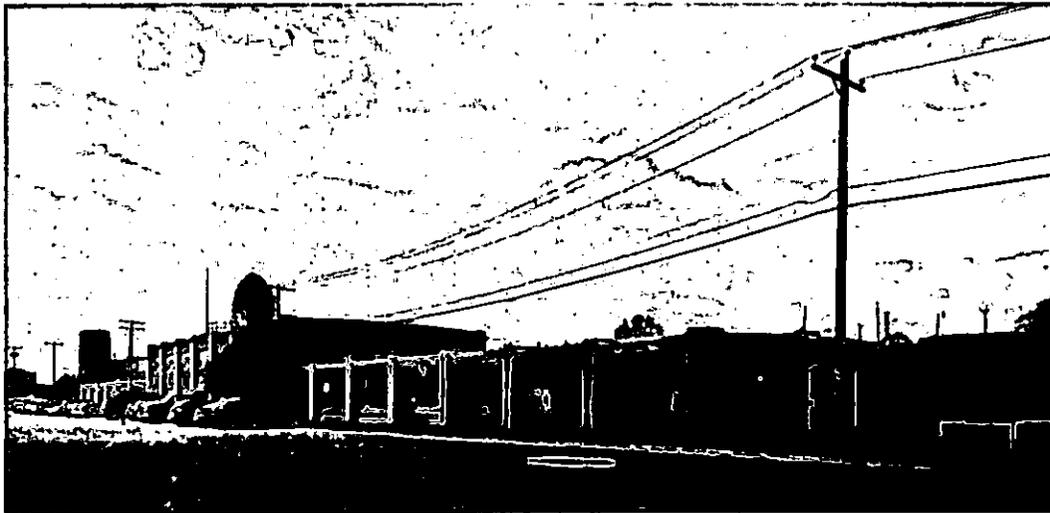
The setting of the New Hampshire Highway Garage Complex has been altered through time, particularly along Stickney Avenue where the main elevation sits. Shortly after the original 1926 core was added onto in 1948, a round-a-bout was constructed immediately south of the site. Route 93 was later constructed over the round-a-bout. Today, a modern parking area sits in front of the main building with a small strip of grass accessed from Stickney Avenue. The site was reduced in size when three buildings were demolished in 2015 to make way for expanded parking north of the main building. Other than the relationship of the remaining buildings on the property to each other within an established complex, there are no significant character defining features associated with the setting of the property.



Source: NH Highways, January 1950

Buildings 1 and 2. Original Highway Department Garage, 1926 and addition, 1948

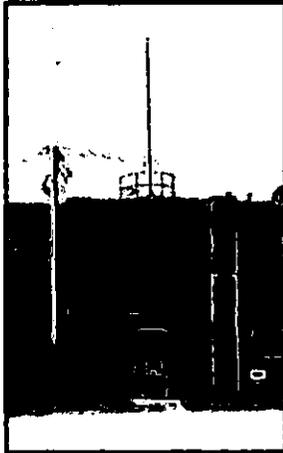
Shape: The original 1926 one story, brick core was built in a T shape. An addition in 1948 converted the building into an H-shape. The 1926 core is now located behind the 1948 addition, which acts as the primary façade along Stickney Ave. The 1948 center block is seven bays wide and two stories in height. The flanking single-story wings to the north and south are each seven bays wide. The connecting one-story hyphen consists of an original 1926 section that was added to in 1948. Both the 1926 core and the 1948 addition exhibit symmetry in shape and design elements.



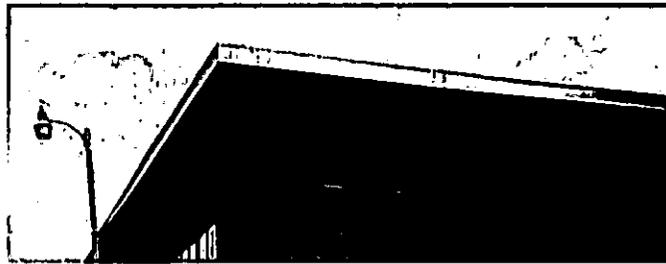
Highway Department Building (1948 addition)
Source: NHDOT, 2019

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>H-shape massing</i> <i>One-story 1926 core</i> <i>Two-story 1948 center block with one-story wings</i> <i>Symmetry</i>		

Roof & Roof Features: The 1926 roof features a very low-pitched gable that was sheathed in tar and gravel. It is capped by a concrete cyma recta cornice under aluminum flashing. The 1948 addition features a flat roof with a slight bow. A distinctive three-part concrete cornice spans between each pair of pilasters. A slightly curved band added to the three-part cornice highlights the center entry bay, below a central flagpole.



Flagpole
Source: Charley Freiberg, 2015



1926 Cyma recta cornice
Source: NHDOT, 2019



Three-part concrete cornice on 1948 addition
Source: NHDOT, 2019

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Low-pitched gable roof</i> <i>Cyma recta cornices</i> <i>Flat roof with bow</i> <i>Concrete cornices</i> <i>Aluminum flashing</i> <i>Flagpole</i>		<i>Tar and gravel roofing materials</i>

Openings/Façade Fenestration: The overall character of the building features symmetrical repetitive large horizontal openings of multi-pane sash over concrete sills set between pilasters. Similar repetition characterizes both the 1926 core and the 1948 addition with slight differences in original materials and some modern replacement materials set in original bays. Most of the window openings in the 1926 core contain large multi-paned steel windows and concrete sills. The garage bays are fitted with modern overhead garage doors; many of the door openings were widened when the 1948 addition was constructed and this building was renovated. Two garage doors on the southern half of the 1926 core were again enlarged in 1987, as seen in the engraving that is welded on to one of the steel

headers. Two historic garage door bays, now enclosed are located on either side of the hyphen. A ramp on the north side features concrete demarcations. In the 1948 addition, most of the original steel windows in the center block and south wing of the building were replaced c.1970 by hopper windows topped by translucent Kalwall panels. The north wing of the addition, as well as the hyphen, retains steel multi-pane windows with pivot sash and concrete sills.



Multi-pane windows
Source: NHDOT, 2019



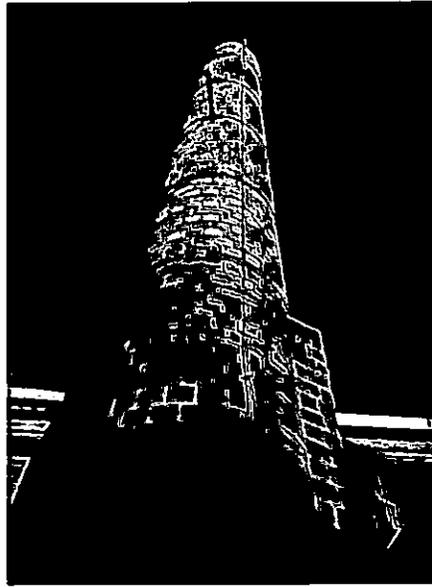
Hopper windows
Source: NHDOT, 2019

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Multi-pane steel windows</i> <i>Large horizontal openings</i> <i>Concrete sills</i> <i>Symmetry of fenestration</i>		<i>Front door facing Stickney Avenue, capped with c. 1980s gable hood</i> <i>c. 1970s hopper windows with Kalwall panels</i> <i>Modern garage doors</i>

Projections: To the rear of the 1926 core is a round brick chimney that is attached to an enclosed access to a coal chute into a boiler room. A c. 2000 detached shed that houses an 8,000-gallon propane tank is located adjacent to the boiler room. On the southern end of the 1926 core is an open carport supported on steel beams with a metal roof. Likely built in 1948 as part of the remodel, a small addition is tucked into the 1926 core and hyphen to house bathrooms and generators.



Entrance to boiler room
Source: NHDOT, 2019



Smokestack
Source: NHDOT, 2019

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Chimney</i> <i>Coal chute enclosure with wood door</i> <i>Bathroom/generator addition</i>	<i>Metal roof carport</i>	

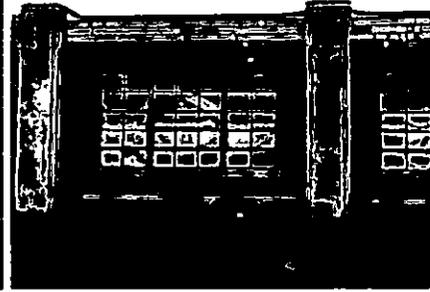
Exterior Trim: On the 1926 core, brick pilasters articulate the regular bays and the building is capped by a concrete cyma recta cornice under aluminum flashing. The 1948 addition has fluted concrete pilasters flanking each window, reflecting the influence of the Art Moderne and Starved Classical modes. A distinctive three-part concrete cornice spans between each pair of pilasters. A slightly curved band added to the three-part cornice highlights the center entry bay, below a central flagpole. Above the center entrance there are inscribed stones reading “New Hampshire Highway Department”.



Main Entrance 1948 Addition
Source: NHDOT, 2019



Brick pilaster
Source: NHDOT, 2019



Concrete pilasters
Source: NHDOT, 2019

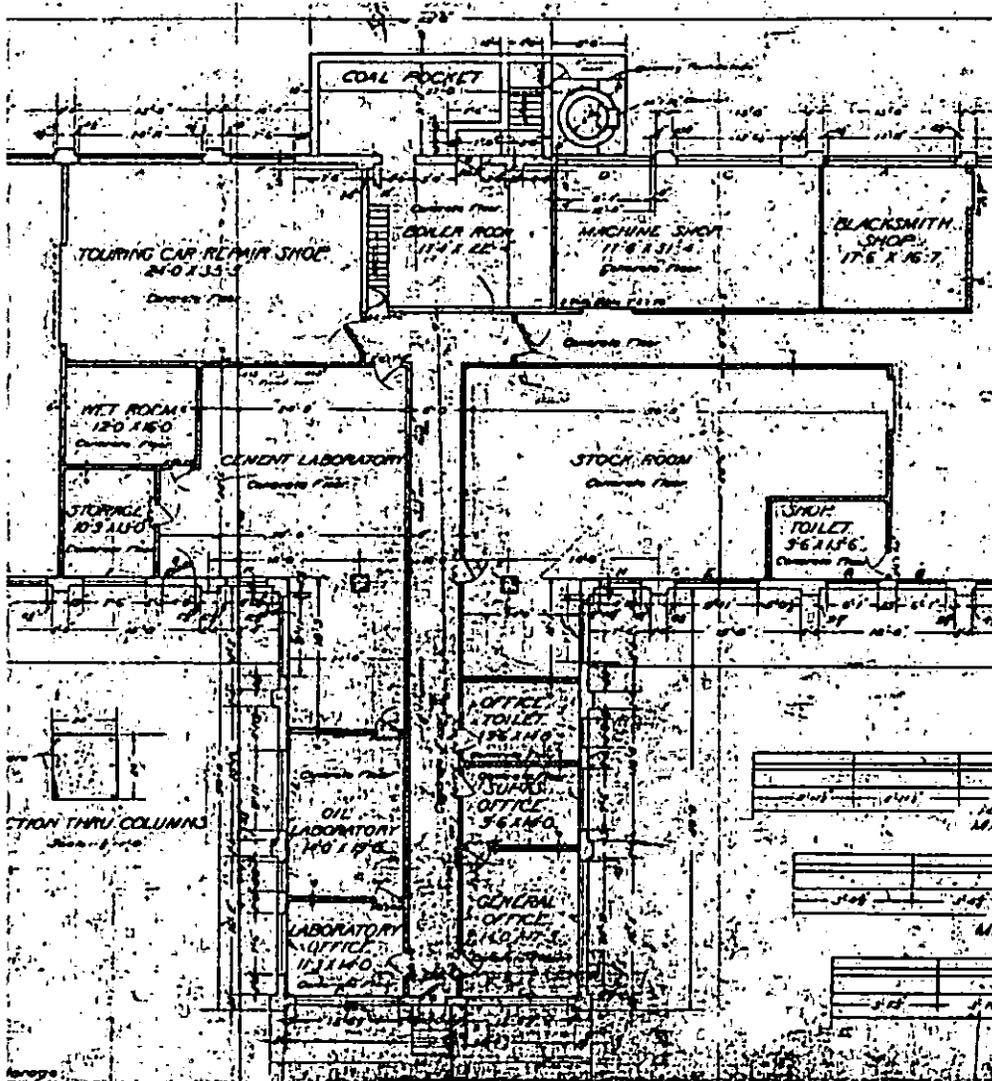
<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Brick pilasters (1926)</i> <i>Fluted concrete pilasters (1948)</i> <i>Concrete cyma recta cornice (1926)</i> <i>3-part concrete cornice with a slightly curved extra band over the center entry bay (1948)</i> <i>New Hampshire Highway Department stone sign</i>		

Exterior Materials: The exterior of both the 1926 and 1948 sections of the building are clad in red brick. The 1926 core displays brick pilasters and decorative coursing in the brick patterning. Concrete pilasters and trim adorn the 1948 addition. A concrete foundation is visible on the 1948 portion of the building.

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Red brick</i> <i>Concrete pilasters</i> <i>Brick pilasters</i> <i>Concrete foundation</i>	<i>Header brick courses</i>	<i>Heating/cooling elements</i>

Individual Spaces: The interior of the 1926 core was originally designed with two large open-space garages flanking a partitioned area in the center and in the T section (later to be expanded into the “hyphen”). Open space was expanded throughout the majority of the 1926 core in 1948 when most of the partitions were removed. All office space is now

located on the second floor of the 1948 addition. The southern end of the 1948 south wing was remediated for lead paint and asbestos and turned into office/storage space during the modern period.

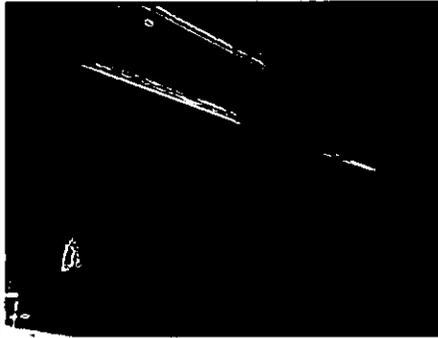


Detail of 1926 Plans

Above plans show only a portion of the interior. Partitions were removed during the 1948 remodel.
Source: NHDOT.



Interior open space
Source: NHDOT, 2019



Detail of roof structure
Source: NHDOT, 2019



Original doorknob
Source: NHDOT, 2019

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Reinforced concrete and steel beams</i>	<i>Original brass hardware</i> <i>Scoring on ceiling</i>	<i>Lighting</i>

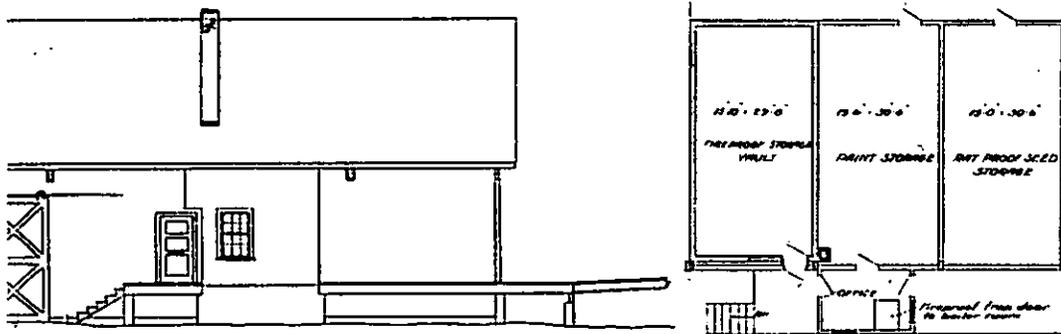
Building 3. Supply Storehouse, 1941

The supply storehouse is a one-and-one-half-story structure measuring approximately 73' x 152'. The asphalt-shingled gable roof has overhanging eaves that are supported by wooden Fink trusses on the north and south walls with exposed beams visible on the east and west gable ends. The building is sheathed in vertical wood boards and rests on a high poured concrete foundation. Both the north and south elevations have two regularly-spaced, large sliding door openings. On each wall, the westernmost door has been retrofitted to contain a modern overhead garage door. Some door hardware has been retained, though not all. Light enters the building through small multi-pane windows set into arched frames and located high on the 16' high walls.

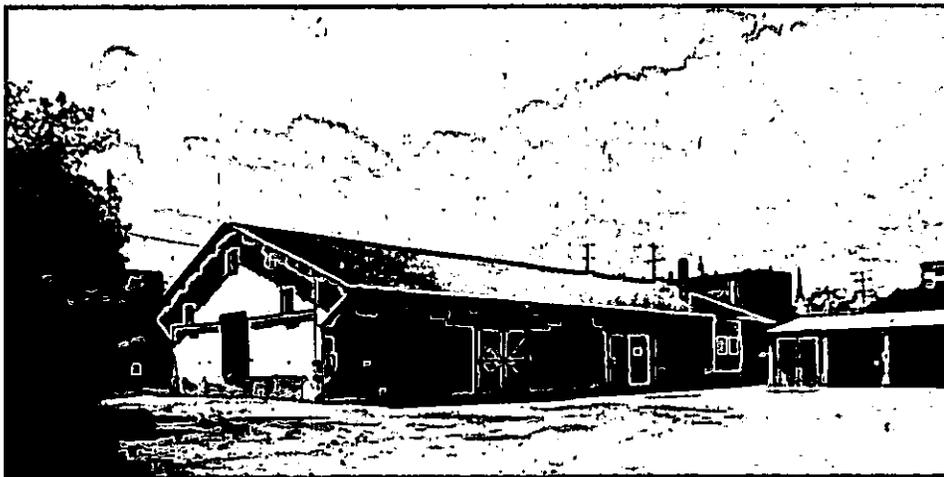
A freight platform extends off the rear (west) end of the building. A brick chimney rises from the northwest corner of the building, located in what was the paint storage area. An office is located under the main roof overhang, however configurations have changed since the original plans were drawn. The office now encloses the vault door. The office is now lit by modern wood windows. The sliding barn doors that hide modern garage doors have X cross bracing on the north wall. The plans show the X detail on the sliding doors. The east façade has a modern garage door, however plans show that sliding doors were also in this location.

The interior contains a large open storage area with loft storage above. The plans included an office, a vault room, a paint storage room, and rat proof seed storage. Within the office is a fireproof trap door to a boiler room, concealed by wood floor boards. The fireproof vault remains intact with brick wall and concrete ceiling and floor. The vault retains its filing system racks. The designed office, as seen on the plans, only had access to the paint storage area, however the current office configuration has access to the paint storage and vault area as well. The large storage room with loft space above retains the storehouse feeling associated with the building. Access from the paint storage room to the larger

storehouse storage area is through a Coburn-manufactured fireproof sliding door, imprinted with a Coburn handle with the date 1824.



Plans
Source: NHDOT

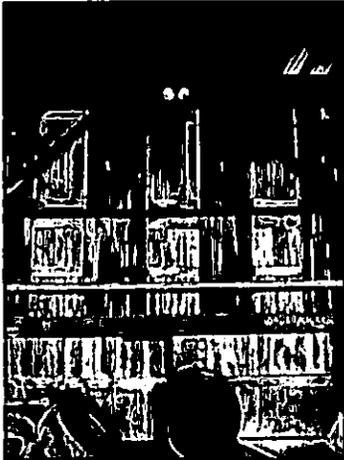


1941 Supply Warehouse
Source: Charley Freiberg, 2015

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Rectangular shape</i> <i>Gable roof</i> <i>Exposed Fink truss structure</i> <i>Sliding barn doors</i> <i>Multi-pane windows set into arched frames</i> <i>X detail on sliding barn doors</i> <i>Interior spaces</i> <i>Coburn fireproof sliding door</i>	<i>Sliding barn door hardware</i> <i>Levered handled doors to office</i> <i>Freight platform (has been rebuilt)</i> <i>Brick chimney</i>	<i>Modern garage overhead doors</i>

Building 4. Lumber Storage Building, 1940

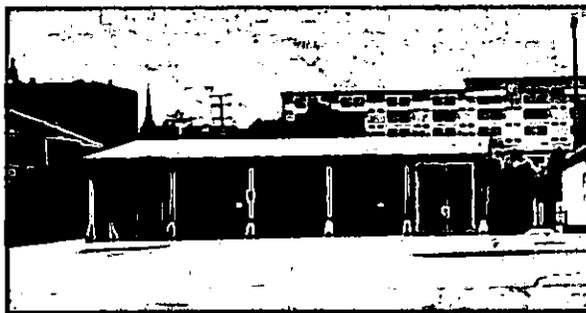
According to the 1949 Sanborn map this small building was used to store lumber. The single-story building is sheathed in vertical wood boards and capped by a side-gable sheet metal roof. It consists of five evenly-sized bays facing eastward, defined by wood posts resting on poured concrete piers. The north and south bays are enclosed by double doors constructed of vertical boards. There are no openings on the side elevations. The rear features simply-hinged wood shutters that appear to have opened for increased air circulation.



Hinged wood shutters
Source: NHDOT, 2019



Rear of building
Source: NHDOT, 2019



Lumber Storage Building
Source: Charley Freiberg, 2015

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>5 bays</i>	<i>Wooden double doors</i>	
<i>Hinged shutters</i>		
<i>Sheet metal side-gable roof</i>		

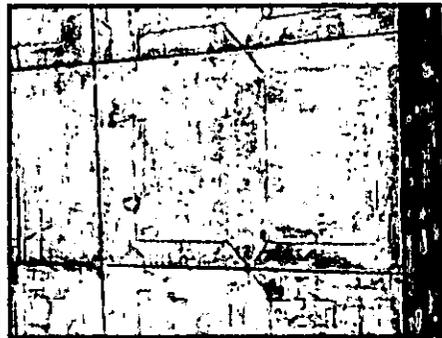
Building 5. Stockroom/Maintenance Garage, 1930

This building is located to the south of the main Highway Department building. It rests on a reinforced concrete foundation and is clad in sheet metal siding stamped in a rectangular

pattern. The building consists of three equally-sized sections arranged from north to south; the center section is two stories in height in comparison to the single-story bays on either side. The center roof has a very shallow gable, while the very shallow shed roofs of the side sections pitch downward from the center. A brick chimney rises from the southwest corner of the southern section. A large circular exhaust fan rises from the center section. Inside this section a large metal enclosure is installed to contain paint and other chemical fumes. This enclosure is likely a replacement. On the east facade, each section has a modern overhead garage door. Above the central door there is a fixed multi-pane steel window with similar windows on the north and south upper walls. A canopy extends from the south wall of the building with a plywood enclosure at the southwest corner. On the back (west) wall there are five additional multi-pane steel windows. Two other window openings have been retrofitted to contain modern 1/1 wooden double-hung units.



Stockroom/Maintenance Garage, 1930
Source: Charley Freiberg, 2015



Detail of patterned metal siding
Source: NHDOT, 2019



Southeast elevation
Source: Charley Freiberg, 2015

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>3 bays with stepped roof in center</i>	<i>Chimney</i>	<i>Mechanicals</i>
<i>Multi-pane steel windows</i>	<i>Exhaust fans</i>	<i>Modern garage doors</i>
<i>Stamped sheet metal siding</i>	<i>Metal enclosure (interior)</i>	<i>1/1 double hung windows</i>

Building 6. Storage Garage, c.1941

Located to the north of the main Highway Department building, this storage building is single-story in height and measures 64' x 73'. It is similar in construction to the larger storage building at the south end of the complex (Building 3), sheathed in vertical wooden boards and capped by an asphalt-shingled gable roof with truss-supported overhangs on the east and west sides and exposed beams on the north and south gable ends.

Both the north and south elevations have a large modern garage door. Historically these would have been sliding door openings. There is a modern pedestrian door to the left of the overhead garage door on the northern façade. A modern pedestrian door is located on the north side as well. Light enters the building through multi-pane windows, most set into arched frames. On the south wall, there are three multi-pane windows set in wooden frames without arches. The interior is entirely open space.



Storage Garage, c.1941
Source: Charley Freiberg, 2015

<i>Primary Features</i>	<i>Secondary Features</i>	<i>Non-Historic Features</i>
<i>Rectangular</i>		<i>Modern garage doors</i>
<i>Gable roof</i>		<i>Modern entry door</i>
<i>Exposed Fink truss structure</i>		
<i>Multi-pane windows</i>		

Useful Links:

The Secretary's Standards for the Rehabilitation of Historic Buildings and their Related Guidelines: <http://www.nps.gov/tps/standards/rehabilitation.htm>

National Register Preservation Brief 17, Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character: <http://www.nps.gov/tps/how-to-preserve/briefs/17-architectural-character.htm>

New Hampshire Division of Historical Resources:
<https://www.nh.gov/nhdhr/emmit/index.htm>

Return to:

State of New Hampshire
Division of Historical Resources
19 Pillsbury Street
Concord, NH 03301

DECLARATION OF HISTORIC PRESERVATION EASEMENT

The **STATE OF NEW HAMPSHIRE** (the "State"), acting by and through its Department of Natural and Cultural Resources, Division of Historical Resources, having a mailing address of 19 Pillsbury Street, Concord, New Hampshire 03301 (together with its successor agencies, "DHR"), and by and through its Department of Transportation (DOT) having a mailing address of New Hampshire Department of Transportation, 7 Hazen Drive, Concord, NH 03302-0483, as authorized by the Governor and Executive Council on _____ (Meeting Agenda Item # _____), **does hereby memorialize its intention to reserve unto itself a term historic preservation easement** as a valid and enforceable preservation restriction within the meaning of New Hampshire RSA 477:45-47 with respect to the land and buildings (1926 Highway Department Garage and 1948 addition; 1941 Supply Storehouse, 1940 Lumber Storage Building, 1930 Stockroom/Maintenance Garage, and c. 1941 Storage Garage) located at Stickney Ave., City of Concord, County of Merrimack, State of New Hampshire, as more particularly described on Schedule A attached hereto (the "Premises"), in the event of the anticipated transfer of the Premises to a future Grantee (City of Concord), upon the terms and conditions set forth herein. Said future Grantee (City of Concord), its heirs, administrators, successors, transferees, and assigns, including any subsequent owner of the Premises, shall collectively be referenced hereinafter as the "Grantor" with respect to the easement contemplated hereby.

The Grantor shall covenant and agree that the Premises are conveyed and shall be held subject to the following preservation restrictions (the "Restrictions") and to do or refrain from doing on or to said Premises all acts required or prohibited by the Restrictions, respectively.

1. Applicability: The Restrictions specified herein shall apply to the Premises unless and until DHR provides the Grantor with a written waiver regarding any specific act in contravention thereof.
 - A. Only the 1926 Highway Department Garage and 1948 addition and land is subject to this easement.

2. Term: The burden of these Restrictions shall run with the land and building(s) comprising the Premises for 50 years following the date upon which the Premises are first transferred by DOT to the Grantor and shall be binding upon the Grantor and all subsequent owners of the Premises or any interest therein. The right of enforcement of these Restrictions by DHR shall be as provided in New Hampshire RSA 477:45-47, as such statutes may be amended. The benefit of the Restrictions and the right to enforce them shall be assignable by DHR to any governmental body or any entity whose purposes include preservation of structures or sites of historical significance; and if DHR ceases to exist without having so assigned the benefit and right to enforce the Restrictions, then a qualified successor to DHR may be named by a New Hampshire court of competent jurisdiction.

3. General Intent: In the event the Grantor and DHR have a difference of opinion about the meaning of a specific term used or condition stated herein, their interpretation shall be guided by the following statements of general intent:

A. An addition to the buildings situated on the Premises will be allowed if said addition is in keeping with the Standards for Alterations set forth in Section 12 hereof.

B. Auxiliary buildings will be allowed on the Premises, but only as incidental to the existing buildings and in keeping with the Standards for Alterations set forth in Section 12 hereof.

C. Upon request, DHR shall provide advice to Grantor pertaining to the maintenance, repair, restoration, or rehabilitation of the exterior of the buildings situated on the Premises, the treatment of the site where the building is located, all or any of which must be done in a manner that preserves the exterior character defining historic features of the building as identified in certain baseline documentation prepared by Lisa Mausolf entitled "Individual Inventory Form – DHR Inventory# CON-NHHG" dated March-April 2014 with supplemental character-defining features analysis by DOT and DHR dated January 31, 2020 (together defined as "Baseline Documentation").

D. Review and prior written consent by the DHR must be received for any alterations to the exterior of the buildings or land set forth in Section 9 hereof. Upon request, DHR shall provide advice to Grantor pertaining to the maintenance, repair, restoration, or rehabilitation of the interior of the buildings situated on the Premises so that such work is done in a manner that preserves the interior character defining historic features of the building, although written consent is not required.

4. Dispute Resolution: In the event of a dispute between Grantor and DHR as to the interpretation or application of any of these Restrictions, either party may request that the matter be submitted to binding arbitration, or in the event that either party does not wish to submit to binding arbitration, either party may petition the Merrimack County Superior Court for relief.

5. Insurance: The Grantor shall carry fire insurance, with extended coverage, on the historic building situated on the Premises in an amount not less than the aggregate actual cash value (defined herein as replacement value less depreciation) of said historic building, and shall keep DHR informed as to the amount of coverage. In the event that the said building suffers fire damage or destruction in an amount not greater than thirty-five percent (35%) of the corresponding actual cash value, the proceeds of said fire insurance shall be used to repair or rebuild the damaged or destroyed portion of the building in a functionally equivalent manner and otherwise in accordance with these Restrictions.

6. Maintenance and Administration: The Grantor shall be responsible for all costs of continued maintenance, repair, and administration of the Premises in a manner consistent with the Restrictions that will preserve the architectural and historical integrity of the exterior features identified in the Baseline Documentation which make the buildings situated on the Premises eligible for listing on the National Register of Historic Places. The Grantor shall maintain said buildings at all times and shall keep said buildings in a state of good repair, and shall not allow the appearance of said buildings to deteriorate in any material way. Nothing herein shall prohibit the Grantor from seeking financial assistance from any sources available to the Grantor.

7. Obligations of the State: Except as provided herein, the State retains no obligation whatsoever to maintain, repair, or administer the Premises.

8. Inspection and Compliance: DHR shall be permitted upon ten (10) days advance written notice to the Grantor to inspect the exterior of the building situated on the Premises in order to monitor compliance with these Restrictions. Such inspections shall be conducted during normal business hours and without undue disturbance of any occupants of the Premises. In the event that a violation of the Restrictions is found, DHR shall provide to the Grantor written notice of such violation, said notice to include a reasonable deadline for the correction of such violation. In the event that such violation is not corrected by said deadline, DHR, or its employees, agents, contractors, or subcontractors, shall have the right to enter the Premises for the purpose of making such restorations and/or repairs as may be necessary to

correct such violation and, if necessary, to place a lien on the Premises as security for the repayment of all costs so incurred. Grantor agrees to submit to DHR, an annual monitoring report for the Property detailing all physical work, if any, undertaken on the Property's exterior over the course of the previous year, as well as any physical work, if any, proposed for the future year.

9. Alterations: Absent prior written consent from DHR, the Grantor shall make no exterior alterations to, relocate, or demolish the buildings on the Premises and shall place or erect no structure on the Premises. Notwithstanding the foregoing, the following alterations are expressly permitted without prior written consent from DHR:

- A. Ordinary repair and maintenance to conserve architectural, historical, cultural, and engineering values; and
- B. Actions required to mitigate a casualty or other emergency, which shall be promptly reported to DHR; and
- C. Interior alterations that do not make any visual change to the exterior; and

10. Notification and Approval of Alterations: At least sixty (60) days in advance of the commencement of any work on the Premises, the Grantor shall submit to DHR via certified letter a written proposal to make any alteration for which prior written consent is required by Section 9 hereof. Such proposal must include sufficient detail for DHR to make a reasoned judgment as to the appropriateness of the proposed alteration. DHR shall review the proposal and shall approve, approve with modifications, disapprove the proposed alteration, or request additional information required for review of the proposal in a written response via certified letter to be issued to the Grantor within thirty (30) days of receipt of the Grantor's proposal. Any failure of DHR to provide such a written response to Grantor within thirty (30) days shall be deemed to constitute approval of the proposed alteration and shall satisfy the requirement for "prior written consent from DHR" set forth in Section 9 hereof. Only work that has been described in a written proposal submitted by the Grantor to DHR and approved as set forth in this section may be commenced. The Grantor shall permit DHR to enter the Premises while any approved alterations are underway to ensure proper performance.

11. Subdivision or Transfer: The Grantor shall neither subdivide the Premises nor grant, sell, or transfer any easement thereon or any other partial interest therein without the prior written consent of DHR. In the event that such a subdivision or transfer is proposed, the Grantor shall notify DHR in writing at least forty-five (45) days before a subdivision application is filed with the City of Concord or before such transfer is to occur, respectively. Such notice shall include, as applicable: a detailed plan or drawing of the proposed subdivision, a description of the specific interest in the Premises to be transferred, the name and mailing address of the proposed transferee, and the agreed price. DHR shall review the proposed subdivision or transfer and shall approve, approve with modifications, or disapprove said proposal in a written response to be issued to the Grantor within thirty (30) days of receipt of the Grantor's proposal. Any failure of DHR to provide such a written response to Grantor within thirty (30) days shall be deemed to constitute approval of the proposed subdivision or transfer and shall satisfy the requirement for "prior written consent of DHR" set forth in this section. Nothing contained in this section shall be construed as requiring any consent of DHR to the Grantor's exercise of its right to grant a mortgage on the Premises as security for a loan, to license or lease any portion or all of the Premises to a tenant pursuant to a written license or lease agreement, or to transfer intact to a third party all of the Grantor's right, title, and interest in and to the Premises; provided, however, that the Grantor shall notify DHR in writing of such mortgage, license, lease, or transfer at least forty-five (45) days before such mortgage, license, or lease is granted or such transfer is to occur, such notice to include the name and mailing address of the mortgagee, licensee, lessee, or transferee.

12. Standards for Alterations: DHR shall consider the following materials when exercising any authority created by these Restrictions to inspect the Premises or to review and approve any proposed

construction, alteration, rehabilitation, relocation, demolition, subdivision, or transfer of any partial interest in the Premises:

A. Any historical documentation of the Premises or any portion thereof on file with DHR, including, without limitation, the Baseline Documentation prepared with regard to the building situated thereon, set forth in Section 3.C thereof.

B. *The Secretary of the Interior's Standards for Rehabilitation of Historic Buildings* propounded by the United States Secretary of the Interior, as amended. A complete copy of said Standards is on file with DHR. The Grantor shall abide by said Standards in performing any construction, alteration, rehabilitation, relocation, demolition, subdivision, or transfer of any partial interest in the Premises.

13. Public Purpose: The Grantor shall comply with these Restrictions in the spirit of contributing to the public purpose of protecting and preserving the documented historical resource situated on the Premises for the public benefit.

14. Enforcement: The rights and obligations created by the Restrictions herein shall run with the land and building for 50 years and shall be binding upon the Grantor and all subsequent owners of the Premises or any interest therein. Said Restrictions shall be real covenants and equitable servitudes to be inserted verbatim or incorporated by reference in any deed or other instrument by which the Grantor may transfer ownership of the Premises during said Term. These Restrictions shall be fully enforceable by DHR in the courts of the State of New Hampshire. DHR shall have the right in any enforcement action to pursue any and all available legal and equitable remedies. By taking ownership of the Premises expressly subject to these Restrictions the Grantor constructively acknowledges and agrees that in the event that it becomes necessary for DHR, in its sole discretion, to pursue any action to enforce these Restrictions, the full cost of enforcement (including reasonable attorney fees) shall be borne by the Grantor.

15. Damage or Destruction: In the event that the building situated on the Premises is damaged or destroyed through the willful action or negligence of the Grantor, DHR shall initiate such administrative or judicial actions as may be legally available and appropriate.

16. Liability of the State: The Grantor shall defend, indemnify, save, and hold harmless the State of New Hampshire, its agencies, officers, employees, and agents from and against any and all losses suffered by the State of New Hampshire, its agencies, officers, employees, or agents and any and all claims, liabilities, or penalties asserted against the State of New Hampshire, its agencies, officers, employees, or agents on account of, based on, resulting from, or arising out of (or which may be claimed to arise out of) or in connection with the acts or omissions of the Grantor or its officer, principal, employee, agent, tenant, contractor, or invitee in connection with these Restrictions. Nothing contained herein shall be construed as a waiver of the sovereign immunity of the State of New Hampshire, which immunity is hereby expressly reserved. The foregoing covenants shall continue beyond the Term specified herein and shall survive any other lapse of effectiveness of the Restrictions.

17. Failure to Enforce: DHR shall not be liable to any party for any failure to enforce these Restrictions, but will use its best efforts to fulfill the obligations herein described. The Grantor shall have no standing or authority to waive any obligation of DHR set forth in these Restrictions.

18. Exercise of Rights and Remedies: Any failure of DHR to exercise any right or remedy reserved hereunder shall not have the effect of waiving or limiting the exercise by DHR of any other right or remedy, or the invocation of such right or remedy, at any other time.

Dated this _____ day of _____ 2021.

STATE OF NEW HAMPSHIRE
By and through its
Department of Transportation

By: _____
Commissioner Victoria Sheehan

STATE OF NEW HAMPSHIRE
COUNTY OF _____

On this _____ day of _____ 2021, personally appeared the above-named Victoria Sheehan as, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument, and acknowledged that she is the duly authorized Commissioner of the New Hampshire Department of Transportation and that she executed the foregoing instrument for the purposes therein contained.

Notary Public / Justice of the Peace
My Commission Expires: _____
(SEAL)

Accepted by:

STATE OF NEW HAMPSHIRE
By and through its
DEPARTMENT OF NATURAL AND CULTURAL
RESOURCES, DIVISION OF HISTORICAL
RESOURCES

By: _____

_____ (Print Name)

_____ (Title)

STATE OF NEW HAMPSHIRE
COUNTY OF _____

On this _____ day of _____ 2021, personally appeared the above-named _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument, and acknowledged that s/he is the duly authorized _____ of the New Hampshire Department of Natural and Cultural Resources, Division of Historical Resources and that s/he executed the foregoing instrument for the purposes therein contained.

Notary Public / Justice of the Peace
My Commission Expires: _____

(SEAL)

Schedule A

The former State Highway Department Complex consists of five buildings which were constructed between 1926 and 1950 for the maintenance and storage of state vehicles and equipment. The buildings occupy a level piece of land west of Stickney Avenue and to the east of the Boston & Maine Railroad tracks. Bridge Street marks the southern boundary of the property, and the Concord Trailways overflow parking lot marks the northern boundary. The buildings presently located on the foregoing parcel are a 1926 Highway Department Garage and 1948 addition, 1941 Supply Storehouse, 1940 Lumber Storage Building, 1930 Stockroom/Maintenance Garage, and c. 1941 Storage Garage. Only the 1926 Highway Department Garage and 1948 addition and land is subject to this easement. The parcel of land is 5.6 +/- acres and excludes the adjacent Park and Ride.



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

E-MAIL ONLY

February 8, 2021

Kevin T. Nyhan (Kevin.T.Nyhan@dot.nh.gov)
NH Department of Transportation
Bureau of Environment
7 Hazen Drive, PO Box 483
Concord, NH 03302

Subject Site: Concord – NH DOT Highway Garage, 11 Stickney Avenue
DES Site #199004021, LUST Project #1921, OPUF
Project #10347 and HAZWASTE Project #6249

- **Application for Renewal of Groundwater Management Permit**, dated November 17, 2020; and
- **November 2020 Groundwater Data Transmittal**, dated January 13, 2021;
both prepared by ATC Group Services LLC (Activity #286132)

Dear Mr. Nyhan:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the subject reports and other information in our files regarding the gasoline discharge discovered on May 4, 1990 at the referenced site. The reports meet the requirements of Groundwater Management Permit (GMP) GWP-199004021-C-004 revised on February 6, 2018. Note that the November 2020 monitoring revealed and confirmed the presence of per- and polyfluoroalkyl substances (PFAS) exceeding ambient groundwater quality standards (AGQS) in samples collected from all thirteen monitoring wells at the site. Based on our review of the existing information, NHDES has the following comments:

Non-Permit PFAS Monitoring Required:

(Tasks not reimbursable under the NH Petroleum Reimbursement Fund)

While not included in the GMP at this time, NHDES requires that sampling of representative wells for selected PFAS compounds be conducted to continue to evaluate the concentration trends onsite. Please note that the current AGQS for four regulated PFAS compounds, as signed into law on July 23, 2020, include: 12 parts per trillion (ppt, or nanograms per liter [ng/L]) for perfluorooctanoic acid (PFOA), 15 ppt for perfluorooctane sulfonic acid (PFOS), 18 ppt for perfluorohexane sulfonic acid (PFHxS), and 11 ppt for perfluorononanoic acid (PFNA).

Consistent with NHDES guidance, the groundwater samples collected for PFAS analysis should be analyzed by LC/MS/MS using isotope-dilution following methodologies based on U.S. Environmental Protection Agency (USEPA) Methods 533 or 537.1, or following the protocols of the U.S. Department of Defense (USDOD) Quality Systems Manual 5.2 (or later version) Table B-15. NHDES recommends that samples be submitted for a broad PFAS analysis to evaluate the potential source, fate, and transport of PFAS impacts at your site. Quantification of linear and branched isomers should be completed as required by the referenced USEPA Methods.

www.des.nh.gov

PO Box 95, 29 Hazen Drive, Concord, NH 03302-0095

Telephone: (603) 271-3899 Fax: (603) 271-2181 TDD Access: Relay NH 1-800-735-2964

The laboratory should report acid forms, accounting for the mass of the counterion as described in the referenced USEPA Methods. NHDES recommends that analytical data summary tables (and laboratory reports) include both CAS Nos. and analyte names. Current laboratory testing guidelines for PFAS can be found at:

https://www4.des.state.nh.us/nh-pfas-investigation/wp-content/uploads/2019/05/201905_Lab-Guidance-1.pdf

NHDES requests that along with routine submittal of documents through the NHDES OneStop website, all PFAS analytical results be uploaded to the Environmental Monitoring Database (EMD). Guidance for the EMD upload process can be found at:

<https://www4.des.state.nh.us/nh-pfas-investigation/wp-content/uploads/pfas-emd-guidance.pdf>

NHDES is requiring NHDOT, as a potentially responsible party, to evaluate the potential on-site source(s) of PFAS contamination in groundwater. As a first step to evaluate the potential source(s) of contamination, NHDES suggests that you compile information of interest including basic history of site operations, and historical and current storage and use of any PFAS-containing materials. We request that you update the conceptual site model for the site and include this information in the next routine summary report.

Groundwater Management Permit Monitoring:

(Tasks are reimbursable under the NH Petroleum Reimbursement Fund)

Please find enclosed Groundwater Management Permit Number GWP-199004021-C-005 approved by NHDES. This Permit is renewed for a period of five years to monitor the effects of past discharges of petroleum hydrocarbons and chlorinated solvents and will take effect upon issuance.

Please note that periodic summary reports are due in January of 2023 and 2025. Each summary report must provide all information required by N.H. Code of Administrative Rules Env-Or 607.04(a)(1 – 5). Results from the of November 2022 and November 2024 monitoring events shall be included in the summary reports; therefore, separate data submittals are not required. Standard groundwater quality data submittals are due within 45 days of completing the remaining monitoring events. These submittals must include a tabulated summary of analytical results, an updated site plan, groundwater elevation data, and laboratory analytical report.

All summary reports and data transmittals shall be submitted to NHDES at the address below. All correspondence must contain a cover letter that clearly shows the NHDES identification numbers for the site (NHDES Site #199004021, Projects #1921 and 10347).

The Application for Renewal of Groundwater Management Permit identified the presence of a domestic water supply well located on a vacant lot (9 South Commercial Street (Map 55/Block 6/Lot 2) approximately 200+ feet to the northwest, up-gradient of the site. Given the setting of the site and vicinity, the availability and usage of a municipal water system appears to be well established by the documentation presented to date. Exposure to dissolved contaminants through ingestion of groundwater is, therefore, unlikely under normal and foreseeable conditions. Based on this, NHDES will not require that the updated site conceptual model included in the periodic summary reports include the water supply well information required

under Env-Or 606.07(d)(5). Please note that the other potential receptor information detailed under Env-Or 606.07(d) is required and shall include confirmation of the availability and usage of a municipal water supply. NHDES may revisit this conclusion if changes to groundwater quality conditions such as violations of New Hampshire Ambient Groundwater Quality Standards beyond the limits of the Groundwater Management Zone, or contaminant concentrations exceeding NHDES GW-2 Groundwater to Indoor Air Screening Levels, are documented.

NHDES and Merrimack County records indicate that Notice of Groundwater Management Permit was recorded in the chain of title for the property that comprises the Groundwater Management Zone (GMZ) established by the Permit. The Notice was recorded on November 8, 2000 in Registry of Deeds Book 2230 on Page 1107. No additional recordation or notification is required at this time.

A review of NHDES files indicates that the New Hampshire Department of Transportation is eligible to be reimbursed by the New Hampshire Petroleum Reimbursement Fund Program (Fund) for costs to implement NHDES-required investigation and remediation related to the petroleum discharge discovered on May 4, 1990.

To receive reimbursement from the Fund, all work must be pre-approved and conducted in accordance with New Hampshire Code of Administrative Rules Odb-400. Please direct your consultant to submit a detailed site specific work scope and budget for groundwater monitoring and reporting for the five-year Permit to NHDES for approval. The budget must be prepared using the Unit Based Rates and Service Providers, Contracts & Markup tables as updated February 2020. The work scope and budget is due within 30 days of receipt of this letter. For additional assistance on the Fund reimbursement process and compliance status of your facility, please contact Jennifer Marts, P.G., Petroleum Fund Management Section Supervisor, at (603) 271-2570 or by e-mail at Jennifer.Marts@des.nh.gov.

Please do not hesitate to contact me if you have any questions regarding the Permit.

Sincerely,



Thomas R. Fargo, P.G.
Oil Remediation and Compliance Bureau
Tel: (603) 271-7389
E-mail: Thomas.R.Fargo@des.nh.gov

Michele
Regan

Digitally signed by Michele Regan
DN: cn=Michele Regan, o=Waste
Management, ou=Waste
Management,
email=michele.regan@des.nh.gov,
c=US
Date: 2021.02.09 10:16:14 -0500

Enclosure: Groundwater Management Permit GWP-199004021-C-005

ec: Margaret Bastien, P.E., ORCB
Steven P. Low, P.G., ATC Group Services LLC (steven.low@atcgs.com)
Concord Health Officer

Route/ec: Stanley Bonis, P.G., Permits Coordinator ORCB
Todd Piskovitz, P.G., Investigation Section Supervisor. ORCB
Amy Doherty, P.G., HWRB



The
NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES
hereby issues
GROUNDWATER MANAGEMENT PERMIT NO. GWP-199004021-C-005
to the permittee
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
to monitor the past discharges of
Petroleum Hydrocarbons and Chlorinated Solvents
at
NHDOT HIGHWAY GARAGE 12
(11 Stickney Avenue)
in CONCORD, N.H.
via the groundwater monitoring system comprised of
nine monitoring wells
as depicted on the Site Plan entitled
Figure 2, Groundwater Contour Map – February 5, 2020
dated February 2020, prepared by ATC Group Services LLC

TO: KEVIN T. NYHAN
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
7 HAZEN DRIVE, P.O. BOX 483
CONCORD, NH 03302

Date of Issuance: February 8, 2021
Date of Expiration: February 7, 2026

Pursuant to authority in N.H. RSA 485-C:6-a, the New Hampshire Department of Environmental Services (NHDES), hereby grants this permit to monitor past discharges to the groundwater at the above described location for five years subject to the following conditions:

(continued)

STANDARD MANAGEMENT PERMIT CONDITIONS

1. The permittee shall not violate Ambient Groundwater Quality Standards adopted by NHDES (N.H. Admin. Rules Env-Or 600) in groundwater outside the boundaries of the Groundwater Management Zone, as shown on the site plan entitled "Figure 3, GMZ Map with Potential Receptors", prepared by ATC Group Services LLC, dated October 2020.
2. The permittee shall not cause groundwater degradation that results in a violation of surface water quality standards (N.H. Admin. Rules Env-Ws 1700) in any surface water body.
3. The permittee shall allow any authorized staff of NHDES, or its agent, to enter the property covered by this permit for the purpose of collecting information, examining records, collecting samples, or undertaking other action associated with this permit.
4. The permittee shall apply for the renewal of this permit prior to its expiration date but no more than 90 days prior to expiration.
5. This permit is transferable only upon written request to, and approval of, NHDES. Compliance with the existing Permit shall be established prior to permit transfer. Transfer requests shall include the name and address of the person to whom the permit transfer is requested, signature of the current and future permittee, and a summary of all monitoring results to date.
6. NHDES reserves the right, under N.H. Admin. Rules Env-Or 600, to require additional hydrogeologic studies and/or remedial measures if NHDES receives information indicating the need for such work.
7. The permittee shall maintain a water quality monitoring program and submit monitoring results to NHDES' Waste Management Division no later than 45 days after the samples are collected. Samples shall be collected from monitoring wells as shown and labeled on the referenced site plan and as listed on the following table in accordance with the schedule outlined herein:

<u>Monitoring Locations</u>	<u>Monitoring Frequency</u>	<u>Parameters</u>
GT-4, JB-7/MW, ATC-2, ATC-3, ATC-4, ATC-5, ATC-6, ATC-7 and ATC-9	May and November of each year	NHDES Waste Management Division Full List of Analytes for Volatile Organics and static water level

Sample collection shall be performed in accordance with the documents listed in Env-Or 610.02(e). Samples shall be analyzed by a laboratory certified by the U.S. Environmental Protection Agency or the New Hampshire Department of Environmental Services.

Summaries of water quality shall be submitted in January 2023 and 2025 to the NHDES' Waste Management Division using a format acceptable to NHDES. The Summary Report shall include the information listed in Env-Or 607.04(a), as applicable.

The Periodic Summary Reports shall be prepared and stamped by a professional engineer or professional geologist licensed in the State of New Hampshire.

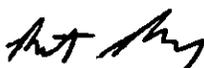
8. Issuance of this permit is based on the Application for Renewal of Groundwater Management Permit dated November 16, 2020 and the historical documents found in NHDES file DES #199004021. NHDES may require additional hydrogeologic studies and/or remedial measures if invalid or inaccurate data are submitted.
9. Within 30 days of discovery of a violation of an ambient groundwater quality standard at or beyond the Groundwater Management Zone boundary, the permittee shall notify NHDES in writing. Within 60 days of discovery, the permittee shall submit recommendations to correct the violation. NHDES shall approve the recommendations if NHDES determines that they will correct the violation.
10. All monitoring wells at the site shall be properly maintained and secured from unauthorized access or surface water infiltration.

SPECIAL CONDITIONS FOR THIS PERMIT

11. Recorded property within the Groundwater Management Zone shall include the lot as listed and described in the following table:

Tax Map/ Lot #	Property Address	Owner Name and Address	Deed Reference (Book/Page)
Map 46 / Block A2 / Lot 1	11 Stickney Avenue Concord, NH	State of New Hampshire C/O Secretary of State 107 North Main Street Concord, NH 03301	479/315 & 540/341

12. The permittee shall update ownership information required by Env-Or 607.03(a)(20) for all properties within the Groundwater Management Zone prior to renewal of the permit or upon a recommendation for site closure.



Robert Bishop, Administrator
Oil Remediation and Compliance Bureau
Waste Management Division

Any person aggrieved by this decision may appeal to the N.H. Waste Management Council ("Council") by filing an appeal that meets the requirements specified in RSA 21-O:14 and the rules adopted by the Council, Env-WMC 200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council.

Information about the Council, including a link to the Council's rules, is available at <http://nhec.nh.gov/> (or more directly at <http://nhec.nh.gov/waste/index.htm>). Copies of the rules also are available from the NHDES Public Information Center at (603) 271-2975.



Victoria F. Sheehan
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.
Assistant Commissioner

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Right-of-Way
June 7, 2021

REQUESTED ACTION

Pursuant to RSA 4:39-c and 228:31, authorize the New Hampshire Department of Transportation (Department) to sell 5.6 ± acres of State-owned land located on the westerly side of Stickney Avenue in the City of Concord, also known as the former State Highway Garage. The sale would be to Brady Sullivan Properties, LLC (the "Grantee") for \$1,000,000.00, effective upon Governor and Executive Council Approval.

The Department further requests authorization to compensate NAI Norwood Group from the proceeds of the subject sale in the amount of \$50,000 (5% of the sale price) for real estate services, effective upon Governor and Executive Council approval.

The Department's Bureau of Finance and Contracts determined that the combined property parcels were purchased between 1925 and 1935 with 100% Highway Funds.

04-096-096-960015-0000-UUU-409279
Sale of Parcel
(95% of \$1,000,000.00)

FY 2021
\$950,000.00

EXPLANATION

This conveyance concerns a subject parcel of 5.6 ± acres of land, which is a portion of a larger combined parcel consisting of 7.1 ± acres. Upon determination that the subject parcel was surplus to the Department's needs, the parcel was listed by a qualified real estate professional, and the Department received an offer for purchase from the Grantee.

By way of further background, on June 22, 2020 (LRCP 20-20-33), and later amended (LRCP 20-046) on October 7, 2020, the Long Range Capital Planning and Utilization Committee approved the Department's request to dispose of the 5.6 ± acres of State owned land, with improvements, by entering into a listing agreement with NAI Norwood Group for a term of ninety days to list the property at \$709,500.00 with a 5% real estate commission from the sale, and accepting offers within 10% of the appraised value of \$645,000.00, subject to the conditions as specified in the request dated June 5, 2020.

The subject parcel, the former State Highway Department Complex, is improved with five buildings which were constructed in 1926 and *circa* 1950, for the maintenance and storage of state vehicles and equipment. The buildings occupy a level piece of land west of Stickney Avenue and to the east of the Boston & Maine Railroad tracks. Bridge Street marks the southern boundary of the property, and the Concord Coach Lines bus company overflow parking lot marks the northern boundary.

The subject parcel will be conveyed with the following conditions:

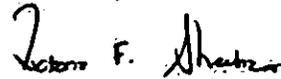
- The Stickney Avenue Highway Garage is eligible for listing on the National Register of Historic Places. Historic Covenants will be placed on the large building that is located on the property. The draft Restrictions and Character Defining Features Report are enclosed.
- The Grantee is required, at their expense, to hire a licensed land surveyor to subdivide and survey this parcel from the larger State owned parcel. This survey will be used to prepare the final deed description.
- Included within the bounds of the subject parcel is the underlying fee of the former Stickney Avenue. The State will discontinue this portion of the former Stickney Avenue.
- Subsurface: The site is currently listed as New Hampshire Department of Environmental Services (NHDES) Site No. 199004021, LUST Project No. 1921 and HazWaste Project No. 6249. Historical site documents can be found on NHDES' One Stop database. The site is currently managed under New Hampshire Department of Environmental Services Groundwater Management Permit No. GWP-199004021-C-004. As a condition of the sale, an Application for Transfer of Groundwater Management or Release Detection Permit form shall be completed by the Grantee and submitted to New Hampshire Department of Environmental Services - Waste Management Division.
- Above ground: A partial exploratory asbestos-containing material/other hazardous material survey was conducted in February 2019. All State and Federal regulations pertaining to these identified materials shall be followed.
- Documentation will be signed as part of the sale in which the Grantee will become responsible for all environmental liability for this property after the sale is complete.
- The Buyer shall submit a deposit in the amount of \$100,000.00 upon execution of a Purchase and Sale Agreement. The deposit shall be applicable to the purchase price and shall become nonrefundable upon expiration/satisfaction of the thirty-day due diligence period as described in Section 1.17.2 of the Agreement.
- The Buyer shall have the right to conduct such studies and investigations as it deems necessary with respect to the environmental condition of the property and any environmental contamination or hazardous material related thereto. Said studies and investigations shall be completed within thirty days of the execution of the Purchase and Sale Agreement.

- The Buyer shall acquire the property for the sum of \$1,000,000.00 at closing with no finance contingencies.
- Closing shall occur within ninety (90) days after final approval of the sale by the Governor and Executive Council, unless otherwise mutually agreed by the Parties.

In accordance with RSA 4:39-c, the City of Concord was notified of the intended sale on June 30, 2020, and was given the opportunity to purchase the parcel at the initial value that was determined by the appraisal. The City of Concord declined to purchase at that time and asked to reserve their right of refusal should a bona fide offer be received by the Department. The City of Concord was again contacted, on October 21, 2020 when the Department received an offer from the Grantee. The City of Concord again expressed interest in the subject parcel and authorized the City Manager to negotiate a purchase and sales agreement. However, after several months of negotiation it has become apparent that the City was unable to match the favorable terms of the Grantee's offer in terms of time and conditions.

The Department respectfully requests authorization to sell the subject parcel to the Grantee.

Sincerely,



Victoria F. Sheehan
Commissioner, NHDOT

VFS/SGL/lmw
Attachments:



MICHAEL W. KANE, MPA
Legislative Budget Assistant
(603) 271-3161

State of New Hampshire

OFFICE OF LEGISLATIVE BUDGET ASSISTANT
State House, Room 102
Concord, New Hampshire 03301

CHRISTOPHER M. SHEA, MPA
Deputy Legislative Budget Assistant
(603) 271-3161

STEPHEN C. SMITH, CPA
Director, Audit Division
(603) 271-2785

June 23, 2020

Stephen G. LaBonte, Administrator
Department of Transportation
Bureau of Right-of-Way
John O. Morton Building
Concord, New Hampshire 03301

Dear Mr. LaBonte,

The Long Range Capital Planning and Utilization Committee, pursuant to the provisions of RSA 4:39-c, on June 22, 2020, approved the request of the Department of Transportation, Bureau of Right-of-Way, to dispose of 5.6 +/- acres of State owned land, with improvements located at 11 Stickney Avenue in the City of Concord, by entering into a listing agreement with NAI Norwood Group (NAI) for a term of ninety (90) days to list the property at \$709,500 with a 6% real estate commission from the sale, assessing a \$1,100 Administrative Fee, and accepting offers within 10% of the appraised value of \$645,000, subject to the conditions as specified in the request dated June 5, 2020.

Sincerely,

/s/ Michael W. Kane

Michael W. Kane
Legislative Budget Assistant

MWK/pe
Attachment

Cc: Adam Smith, Assistant Administrator
Bureau of Right-of-Way

STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION

LRCP 20-033

FROM: Stephen G. LaBonte
Administrator



DATE: June 5, 2020

AT: Dept. of Transportation
Bureau of Right-of-Way

SUBJECT: Sale of State Owned Land in Concord, NH
RSA 4:39-c

TO: Representative John Cloutier, Chairman
Long Range Capital Planning and Utilization Committee

REQUESTED ACTION

Pursuant to RSA 4:39-c, the Department of Transportation requests authorization to dispose of 5.6+/- acres of State owned land, with improvements located at 11 Stickney Avenue in the City of Concord. The Department will enter into a listing agreement with NAI Norwood Group (NAI) for a term of ninety (90) days to list the property at \$709,500. NAI would receive a 6% real estate commission from the sale, the Buyer will be responsible to pay the administrative fee of \$1,100 and the Department would accept offers within 10% of the appraised value of \$645,000.

EXPLANATION

The property is the former State Highway Department Complex consisting of five buildings, which were constructed in 1926 and 1950, for the maintenance and storage of state vehicles and equipment. The buildings occupy a level piece of land west of Stickney Avenue and to the east of the Boston & Maine Railroad corridor. Bridge Street marks the southern boundary of the property, and the Concord Trailways overflow parking lot marks the northern boundary.

This request has been reviewed by this Department and it has been determined that this parcel is surplus to our operational needs and interests.

An appraiser from the Department completed a market value appraisal for the subject property. The appraiser used an income capitalization approach based upon the present use as a mechanical garage/storage facility assuming leasing to the general public. This valuation is based upon the hypothetical conditions the property is encumbered with historic covenants on the main building and free of contamination. As of March 6, 2020 the value was \$645,000.00

In accordance with Tra 1000, "Process for Marketing and Sale of State Owned Property Utilizing Real Estate Professionals," and Tra 1003.03 (Selection Process), all pre-qualified Realtors in Region 3 (Belknap, Hillsborough and Merrimack Counties) were sent a request to submit a market analysis for the subject property at a real estate commission of 6%. Based on this request, the Department received responses from three (3) firms. Data from each market analysis is listed below as follows:

NAI Norwood Group 116 South River Road Bedford, NH 03110	\$375,000-\$750,000
KW Commercial 750 Lafayette Road, Suite 201 Portsmouth, NH 03801	\$225,000-\$375,000
Coldwell Banker 4 Nashua Road (Rte. 102) Derry, NH 03038	\$1,100,000-\$1,999,999
State Appraisal	\$645,000

In accordance with Tra 1003.03, the Pre-Qualification Committee reviewed the above information and felt that a value of seven hundred nine thousand five hundred (\$709,500.00) dollars was an appropriate value to list this property and selected NAI Norwood Group to market the property for the Department.

Prior to the sale, the Department will offer the property to the City of Concord pursuant to RSA 4:39-C, and the New Hampshire Housing Finance Authority pursuant to RSA 204-D:2.

It will also be specified in the listing agreement that the selected real estate firm will not collect a commission for sales to any of the above-listed entities, or any State agency that may express interest in the property. This property will be conveyed with the following conditions:

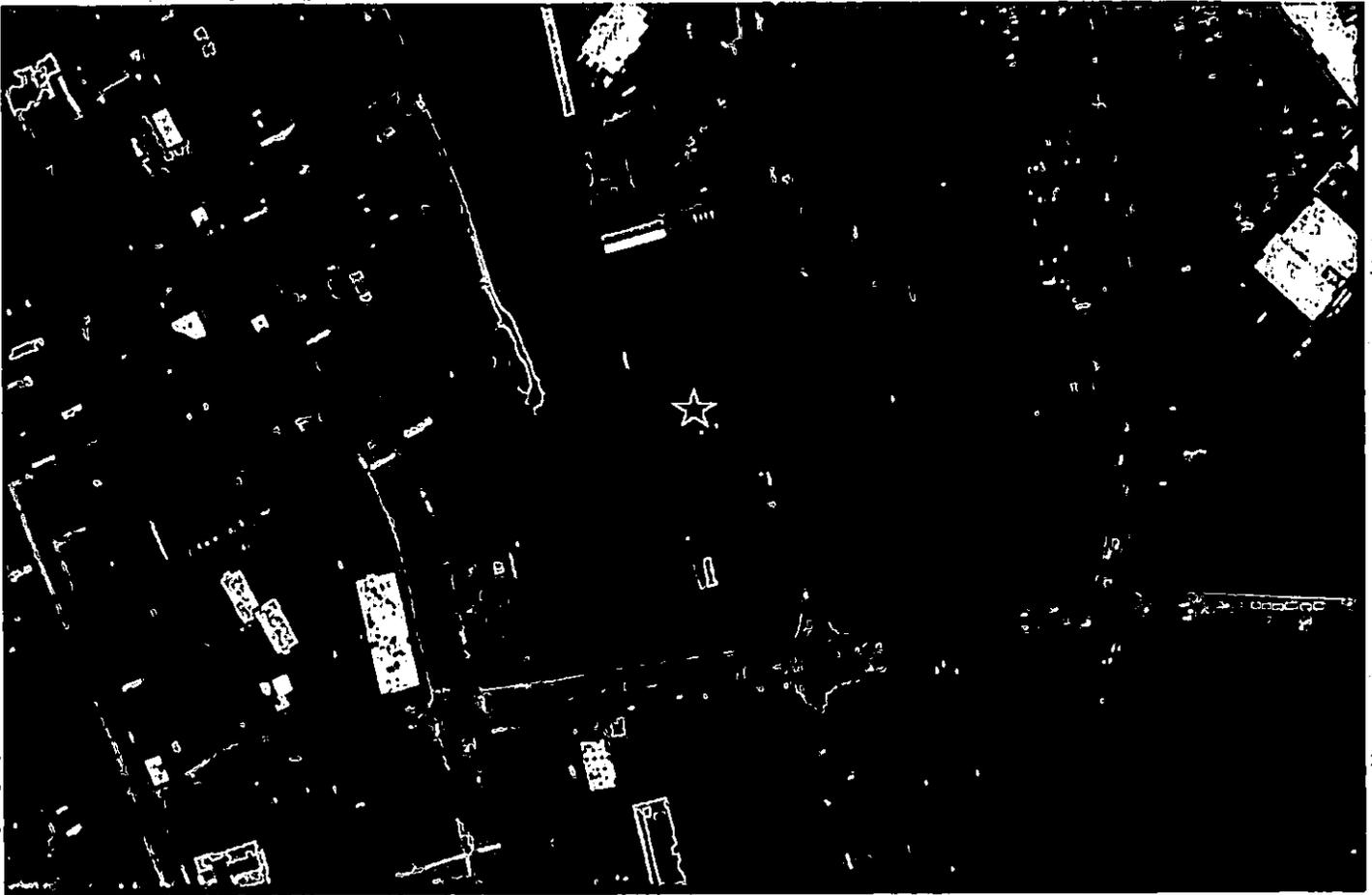
- The Stickney Avenue Highway Garage is eligible for listing on the National Register of Historic Places. Historic Covenants will be placed on the large building that is located on the property. The draft Restrictions and Character Defining Features Report are enclosed.
- The buyer would be required at their expense to hire a licensed land surveyor to subdivide and survey this parcel from the larger State owned parcel. This survey would be used to prepare the final deed description.
- Included in the parcel to be sold is the underlying fee of the former Stickney Avenue. The State will discontinue this portion of the former Stickney Avenue.
- Subsurface: The site is currently listed as New Hampshire Department of Environmental Services (NHDES) Site No. 199004021, LUST Project No. 1921 and HazWaste Project No. 6249. Historical site documents can be found on NHDES' One Stop database. The site is currently managed under New Hampshire Department of Environmental Services Groundwater Management Permit No. GWP-199004021-C-004. As part of the sale, an Application for Transfer of Groundwater Management or Release Detection Permit form shall be completed by the new owner and submitted to New Hampshire Department of Environmental Services - Waste Management Division.
- Above Ground: A partial exploratory asbestos-containing material/other hazardous material survey was conducted in February 2019. All State and Federal regulations pertaining to these identified materials shall be followed.
- Documentation will be signed as part of the sale in which the buyer will become responsible for all environmental liability for this property after the sale is complete.
- A potential buyer may contact Kevin Nyhan, Bureau of Environment Administrator, at (603) 271-3226 or Bureau16@dot.nh.gov to inquire about site contamination or the historic restrictions.

The Department requests authorization to sell the subject parcel as outlined above.

SGL/LMW/
Attachments

Marketing Proposal

**11 Stickney Avenue
Concord NH**



Prepared for: Dept. of Transportation

Judy Niles-Simmons
judy@nainorwoodgroup.com

Chris Norwood
cnorwood@nainorwoodgroup.com

NAINorwood Group

116 South River Road
Bedford NH 03110
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nainorwoodgroup.com

Table of Contents

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- ⇒ COMPARABLES REPORTS
- ⇒ ADVISOR PROFILES
- ⇒ COMPANY PROFILE

Property Overview

Property Description

1003.03b1

The subject property, **11 Stickney Avenue, Concord, New Hampshire**, known as the former New Hampshire Department of Transportation Highway Garage, is sited on the westerly side of Stickney Avenue, abutting the Park and Ride lot. The property is comprised of 5.6+/- acres which is currently a portion of a larger lot and is identified in the City of Concord's Tax Records as Tax Map 46A, Block 2, Lot 1 and includes a portion of land where the former Stickney Avenue was located. The complex includes an "H" shaped building and four (4) ancillary buildings for a total of five (5) buildings collectively known as the **Stickney Avenue Highway Garage**. The property is service by municipal water and sewer and is located in the Opportunity Corridor Performance District (OCP) Zone which allows for retail, restaurants, service and office, etc. Buildings designed in this zone will not be allowed to obstruct views of the State House Dome.

Building Information taken from Tax Assessment Card:

Building # 1: Built 1942; 36,920+/- SF

Building# 2: Built 1942; 8,336+/- SF

Building # 3: Built 1928; 3,070+/- SF;

Building # 4: Built 1942; 3,648+/- SF

Building # 5: Built 1929; 24,024+/- SF

While this totals a collective 75,998+/- SF it should be noted that some of these structures lack any heat and cooling. Additionally they are of the age where they may need to be removed as a result of general depreciation or functionality of the site.

It should be noted that our reference to the H Shaped building is collectively the Building 1 and Building 5 on the tax card notation above.

The collective property has several positive features such as the location and its relationship to downtown Concord. In our opinion, it is probably the most desirable, "eye of the City" access to downtown and the State Capitol with excellent visibility from I-93. Another positive of the site is that it is level and would not require a lot of costly site work, once the buildings have been removed. Having access to municipal water/sewer and other utilities are pluses.

Property Overview

However, the property has several negatives which will determine not only the property's value but desirability to potential Buyers. After reading some of the environmental reports, there are a few items that will definitely have negative effects on the value. In our opinion, trying to sell the property with a Declaration of Historic Preservation Easement will certainly be a deterrent to Buyers because of the renovation expenses, including the abatement estimates and restoration of windows, etc. will more than likely make it too expensive to renovate. The H shaped building is also not located ideally on the site, for traffic flow and parking. Also, attempting to sell the property with a condition that a Buyer take on all the liability of an Application for Transfer of Groundwater Management or Release Detection Permit is a negative. In our reading of some of the reports, there were "hot" words such as "PFAS" that may make Buyers somewhat skittish.

Finally, the access is somewhat an issue because of its location to the lighted intersection that allows both east and west turns into an already congested area, with only one access and egress. Basically, it can be both a positive and a negative to the site.

According to the City of Concord assessment records, the collective properties are assessed for **\$3,368,900**; (Buildings \$1,987,800 and land \$1,381,100) with acreage being shown as 6.52+/- acres. The tax rate for 2019 is \$27.78/\$1,000 and the 2019 tax ratio is 96.5%. Using the tax ratio, the equalized value for the property would be approximately \$3,491,088 and the estimated 2019 real estate taxes would be \$93,588. Note that this assessment would be inclusive of the land to the North that is not to be conveyed.

Comparables

Sale Comparables

1003.03b2

We reviewed the market for properties that were sold as either redevelopments or low bay industrial.

The first three comps are industrial in nature.

48 Dearborn Street Belmont – This 43,000sf low bay industrial building sold for \$13.81psf. The location of the comp is inferior to the subject property, however the condition of the property (potential remediation and repair) were superior to the subject.

814 Route 3A Bow – This 44,000sf industrial building was sold for around \$33psf. This building was built over time and lacked a cohesive clear span and ability to divide. The comp is in an inferior location to the subject property however the condition of the comp (potential remediation and repair) were superior to the subject.

141 Hayward Street Bow – This 20,000sf single story industrial building sold for \$50psf. This building is in an inferior location than the subject and the condition of the comp (potential remediation and repair) were superior to the subject.

These next two comps are renovation of former institutional assets.

4 Elm Street Manchester – This 17,000sf former school sold in downtown Manchester for \$34psf. The building was in an inferior location compared to the subject. While it did have some challenges as far as the condition goes, the comp is superior to the subject as far as condition goes.

30 High Street Pembroke – This 28,000sf former school sold for less than \$6.00psf. The end goal for this project was to redevelop for housing. Like the subject it was a sprawling campus of buildings lacking one singular structure. The location is inferior and the condition is similar.

Comparables

Market Comparables

1003.03b3

We have selected properties that are currently on the market in Concord that we feel represent market comparable. (For more information on the properties, please see attached information).

32-34 So. Main St., Concord, NH - Property consists of a 22,780+/- SF office building sited on 0.74+/- acre lot. A prior buyer wished to demolish the existing building and use the land for redevelopment. Property was under contract but fell apart because of a large delta for development. Currently on the market for **\$1,600,000/ \$70.24 PSF**.

Langdon Avenue, Concord, NH - Site is approximately 34.44 acres with two shell buildings on it. Property is zoned OCP and abuts the "B&M" Railroad line. Serviced by water/sewer, natural gas and electric. Located between Exits 12 and 12 off I-93. Location not as good as Stickney Avenue. **Asking price \$2,000,000/\$58,072 per acre.**

3 Intervale Road, Concord, NH - This 4.89+/- acre parcel is located at a lighted intersection off I-393 in a high traffic area. Good highway access with good visibility. Property is zoned GWP. **Asking price \$1,500,000/\$306,748.47 per acre or can be leased at \$7.04 PSF.**

Opinion of Value

Opinion of Value

1003.03b4

Because of the uniqueness of this collective property, our approach is two pronged in determining the value with the existing buildings and land only. It is our understanding that the historic easement would be prescribed solely to the H shaped building and not the other outparcels.

It is our opinion that the "H" shaped building has the most re-positioning potential, although somewhat limited because of its shape. A buyer may purchase the property and renovate it into either flex type space and or retail, depending on where the market ends up after the Covid 19 pandemic. Renovation costs will have to include abatement costs for lead, asbestos and other contaminates hazard materials.

Also, the historic preservation easement will have a negative effect because it may be difficult to meet current building codes such as heat, cooling, life safety etc.

If we look at the sold comparables, it is hard to find a comp that sold in a better location. The subject is a true gateway property. To sell the property with the buildings in place may yield a price as industrial buildings in the range of \$40 to \$50 per square foot, or between \$3,000,000 and \$3,750,000 in total. From this we would need to deduct the cost of remediation and renovation.

For the remediation it appears that some rough estimates in the range of \$275,964 plus an additional 10-15% for third party monitoring/management have been done for the removal of Asbestos (ACM). No written estimates for the lead paint removal but possibly another 15-20 % plus an additional \$49,000 for the removal of (OHM) other hazardous materials. It is our understanding that the estimates included all the existing buildings. Clearly the remediation alone could be approaching \$400,000 to \$500,000.

The renovation costs are a bit harder to ascertain and depend upon a developer's goal. But in the end the costs may be another \$50 to \$100 per square foot depending on if the final use is more industrial or retail in nature. On the low end of the renovation for industrial this would yield another \$3,750,000 of cost.

We also estimate another \$250,000 of soft costs such as design and engineering.

If we assume the total costs of remediation and renovation to be \$4,500,000 and deduct this from the prescribed values above. The property value as is has a negative value using this approach.

Opinion of Value

Additionally we could use the value for a redevelopment project such as the second two sold comps would suggest. The Elm Street former school was a smaller project and thus the per square foot number is higher. We feel that this project may sell in the range of the second project adjusted for location with the outstanding concerns on renovation, this may be between \$5.00 and \$10.00 psf or between \$375,000 and \$750,000 total (rounded).

Clearly the above analysis to preserve the building has many assumptions. Furthermore the renovation is likely not the highest and best use for the subject site. The subject site is far superior to others that we have identified suggesting that the land may have more value than the property with the building and historic easement.

Should the State decide to remove the buildings at its sole cost, the land value will probably be in the \$250,000 - \$300,000 per acre range or \$1,400,000 - \$1,680,000 range. We would suggest setting the price in the \$1.9 - \$2.2 range and it would hopefully sell within a 10% margin of the price.

The potential concerns that Buyers may have are the environmental issues and the Historic Easement. Maybe the State can work with EPA to get a no further action letter from them for the property or negotiate an arrangement with a Buyer based on the current test results at time of sale.

In summary, if the State were to sell the property with the buildings in place and a historic easement we would recommend a valuation of no higher than \$750,000. Should the buildings be removed and the remediation taken place, the value we feel could be the \$2,000,000 range.

Finally it should be worth noting that we are unsure at this time what diligence the Seller will afford a buyer by way of terms of sale. This may include diligence time for studies, investigations and permits. The allotment of time afforded to the buyer will have an impact on value.

Fee, Experience, & Licensure

FEE

1003.03b5

NAI Norwood Group's fee shall be 6% of the first \$500,000; 5% from \$500,001 to \$1,000,000; 4% from \$1,000,001 - \$2,000,000

Experience

1003.03b6

(See attached professional resumes)

Licensures

1003.03b7

The Norwood Group D.B.A. NAI Norwood Group – 055594

Judy Niles-Simmons - 013023 – Expires 2/27/22

Chris Norwood – 053237 – Expires 7/28/20

Marketing

Marketing Strategy

1003.03b8

NAI Norwood Group uses a blend of traditional and internet based advertising methods. Due to the compressed timeline for selection of offers, we would expect utilizing a "call for offers" method. This would involve us preloading all known information and other due diligence items for prospective buyers. They would have a set schedule for tours, review of diligence and submission of offers. All buyers would be aware of the conditions of the sale. The Seller would be under no obligation to accept any or all offers.

We feel this call for offers creates the most sense of urgency but also provides the Seller the knowledge that all prospective buyers had the same opportunities to purchase. Once we had agreed upon a strategy be it a call for offers or a standard sales process, below is how we would carry out our means to attracting the buyers.

Traditional:

NAI Norwood Group will approach abutters first, if appropriate.

We will produce all in-house marketing flyers and packages to be distributed to interested parties and the Brokerage community through our various networks. We will use these for good old fashioned hand shaking and discussion with potential buyers, developers and brokers.

Web Based:

The property will listed on NAI Norwood Group web page, LoopNet, New Hampshire Commercial Property Exchange (NHCPE), Northern New England Real Estate Network (NNERN), Craig's List and Co-Star. From these sites the property will be distributed to over three dozen other sites including: WMUR, Union Leader, Trulia, BestBuy, Sell. Etc. We will also employ the use of virtual tours this "google maps" like walk through feature will allow us to film the building(s) and send the link to prospective buyers. It will promote social distancing but also allow buyers to go back to the property virtually and also bring additional members of their potential design team through the site without disturbing the Seller and any potential tenants that may be there.

Social Media outlets such as LinkedIn and Facebook will have the property distributed.

NAI Norwood Group will send out a broadcast email to our active group of over 250 commercial real estate brokers in the area to inform them that the property is available.

Marketing

Marketing Term

1003.03b9

As mentioned above we would suggest that the property be brought to market as a call for offers because of the proposed 90 day marketing period. The State may set a price and any offer below that number will not be considered. Also the State can reserve the right to accept or reject any and all offers of its choosing. We may or may not elect to prescribe an asking price in the marketing.

It is expected that any offers collected in this manor may have due diligence, permitting and financing periods that will extend well beyond the 90 days of marketing term.

Additional Questions & Concerns

Additional Questions and Considerations

We understand that we must meet the prescribed format as outlined in 1003.03. We had some questions that we prescribed but wish to put these in writing, not as a pre-condition to our acceptance of the contract but rather as a consideration for discussion should we earn the assignment.

We feel that the conditions outlined in the broker offering do create some challenges, in particular the following 1) the short marketing time frame 2) the fact that the highest and best use in our opinion has the buildings razed 3) a number of outstanding rights of first offer still remain.

In consideration of the above we would like to formerly discuss with the Seller the following.

Would a brokerage fee be earned if the 90 days of work proved to not have any Buyers or Buyers elected to purchase but the Seller declined those offers?

Should the Seller receive no offers acceptable within the 90 days, would a selected broker be able to earn the contract to sell the land unencumbered by the buildings (in a potential second round)?

Again we offer these up not as any preconditions of our acceptance, but rather something for discussion to the extent the Seller has the authority to discuss these items upon awarding a contract.

Comparables Reports

Prepared by Chris Rowwood, NAI Norwood Group
May 12, 2020 on NCCPE

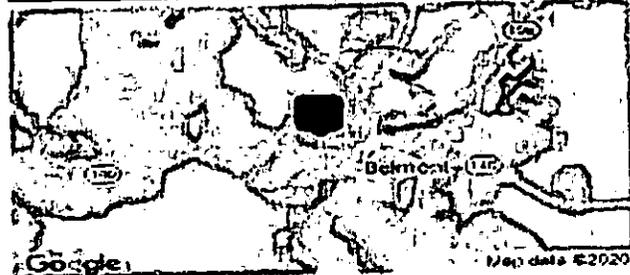
603.462.7000 (0) cmrowwood@norwoodgroup.com
New Hampshire Real Estate License 0552217

Comps Concord Development

48 Dearborn St
48 Dearborn St, Belmont, NH 03220

WEEKS
COMMERCIAL

Transaction ID:	2326279
Property Type:	Industrial - SOLD
Industrial Type:	Light Industrial, Manufacturing
Gross Land Area:	11.50 Acres
Acquired Date:	3/18/2020
Closing Date:	3/18/2020
Asking Sale Price:	\$630,000
Asking Unit Price:	\$14.96 PSF
Final Sale Price:	\$500,000
Final Unit Price:	\$13.81 PSF
Zoning:	INDUSTRIAL
Days on Market:	92
Nearest MSA:	Lacrosse
County:	Dorchester
Loading:	1 Dock
Clearing:	12 ft. Clear
Tax ID/APN:	L23-028-000-000
Property Use Type:	Investment, Vacant/Owner-Used
Property Status:	Existing
Building/Unit Size (RSF):	43,463 SF
Highway Access:	Less than 5 miles to I-93, Exit 20, Tilton
Year Built:	1978
Construction/Siding:	Concrete
Parking type:	Surface



Overview/Comments

Quality heavily powered manufacturing space available in Belmont. Access to loading dock as well as a drive-in overhead door. Approximately 5 miles to I-93, Exit 20, in Tilton and less than a mile to the intersection of Routes 106 and 140.
Also available for lease 5,000 - 30,000 SF for \$3.50 - \$4.00/SF/ANN

Property Contacts



Listing Broker
Steve Weeks, Jr.
Weeks Commercial, Lacrosse, NH
603.783.5811 (M)
603.528.2388 (O)
cmrowwood@norwoodgroup.com

Listing Broker
Gary Anderson
Keller Williams Coastal

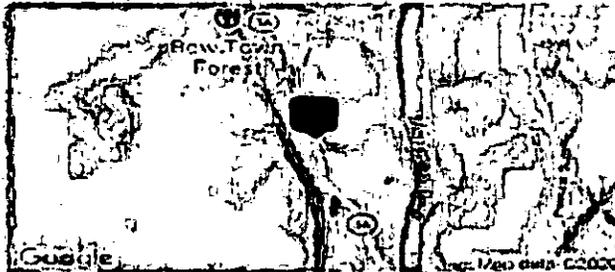
Comparables Reports

Prepared by Chris Raymond, NAI Norwood Group
May 12, 2020 on NECTM

603-688-7000 (C) www.nai.com
New Hampshire Real Estate License #552213

814 Route 3-A 814 Route 3-A, Bow, NH 03304

Transaction ID:	2306251
Property Type:	Industrial - BOLD
Industrial Type:	Cold Storage, Flex Space
Gross Land Area:	4.23 Acres
Acquired Date:	3/17/2020
Closing Date:	3/17/2020
Asking Sale Price:	\$1,400,000
Asking Unit Price:	\$33.33 PSF
Final Sale Price:	\$1,400,000
Final Unit Price:	\$33.33 PSF
Zoning:	C - COMMERCIAL
Days on Market:	209
Nearest WPA:	Canaan
County:	Merrimack
Location:	7 Decks
Ceiling:	24' R. Clear
Office Sfs:	6,500 SF
Tax ID/APNs:	217 SF 5577
Property Use Type:	Investment, Vacant/Owner-Occ
Property Status:	Existing
Gross Building Area:	44,676 SF
Building/Unit Size (RSF):	42,000 SF
Highway Access:	Airport Immediately off of Interstate 93 and Interstate 89 at the Concord/Bow line. Located on Rt...
Terrace:	Multiple Terraces
Year Built:	1968
Construction/Finishing:	Metal Siding
Parking Type:	Structure, Surface



Overview/Comments

GREAT INVESTMENT and hard to find in the Concord area high bay warehouse and manufacturing space. 44,676 +/- Square foot industrial building is located just over the Concord line in Bow, NH. This building is for sale with one Tenant in place leasing 21,344 +/- SF under a zero 5 year lease commencing June 1, 2015 with an option to renew. 16,700 SF of high bay warehouse or manufacturing space with 7 loading dock height overhead doors is currently vacant plus adjacent approximately 800 SF of office space at entrance to premises. Column spacing varies by bay. The total of 17,500 SF is on the market for lease at \$5.75 PSF NNN. NNN expenses based 42,000 rentable square feet. Previous tenant left trucking in place which can be removed. Potential to add overhead doors/clears. This ...

Property Contacts



Listing Broker
Wendy E. Koster
Concord, NH, 03301, Merrimack, NH
603-436-2819 (M)
603-277-0231 (C)
wendy221@psn.com



Selling Broker
Douglas Martin
Colliers International | New Hampshire, Manchester, NH
603-493-8784 (M)
603-226-1918 (C)
doug.martin@colliers.com

Comparables Reports

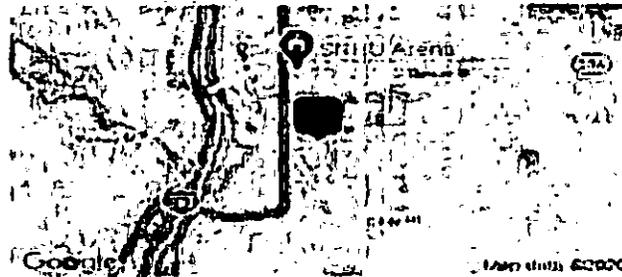
Prepared by Chris Norwood, NAI Norwood Group
May 12, 2020 as RECPE

603-666-7200 (Toll Free) cnorwood@naenorwood.com
New Hampshire Real Estate License: 250217

140 Hayward St 140 Hayward St, Manchester, NH 03103



Transaction ID:	2319293
Property Type:	Industrial - SOLD
Industrial Type:	Warehouse/Distribution
Acquired Date:	12/20/2019
Closing Date:	12/19/2019
Asking Sale Price:	\$1,650,000
Asking Unit Price:	\$50.63 PSF
Final Sale Price:	\$1,650,000
Final Unit Price:	\$50.63 PSF
Zoning:	RDV
Days on Market:	0
Nearest MSA:	Manchester-Nashua
County:	Hillsborough
Loading:	4 Docks
Ceilings:	14 ft. Clear
Jan (D/W/S):	112-6
Property Use Type:	Vacant/Owner-Use
Property Status:	Existing
Building/Unit Size (RSF):	20,740 SF
Tenancy:	Single Tenant
Year Built:	1998



Overview/Comments

We are pleased to present this 20,740 SF centrally located warehouse/distribution building in Manchester's RDV zone. 140 Hayward Street is only minutes from major highways, I-293, I-93, and the Everett Turnpike, as well as many neighboring industrial users. This property is fully sprinklered and is equipped with multiple loading docks, a fully wired office with TI capability, large conference/training room, and full kitchen with stove. Other property highlights include a secure yard, HVAC in office, outdoor storage, a security system, and ample on-site parking.

Property Contacts



Listing Broker
Douglas Morris
Colliers International New Hampshire, Manchester, NH
603-493-6784 (M)
603-266-9622 (F)
dougl.morris@colliers.com

Comparables Reports

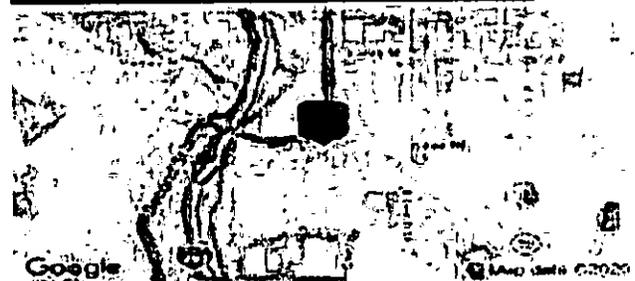
Prepared by Chris Pascoed, NAI Norwood Group
May 12, 2020 as RECPI

603-496-7800 (O) cpascoed@naipros.com
New Hampshire Real Estate License: 263217

4 Elm St 4 Elm St, Manchester, NH 03103



Transaction ID:	2317861
Property Type:	Special Purpose - SOLD
Social Purpose Type:	Assembly/Meeting Place, Health, Care/Medical
Gross Land Area:	25,849 SF
Archived Date:	12/6/2019
Closing Date:	12/4/2019
Asking Sale Price:	\$599,000
Asking Unit Price:	\$34.77 PSF
Final Sale Price:	\$599,000
Final Unit Price:	\$34.77 PSF
Zoning:	R-3
Days on Market:	33
Nearest MSA:	Manchester, Nashua
County:	Hillsborough
Tax ID/APN:	0462-0001A
Property Use Type:	Vacant/Owner-Used
Property Status:	Existing
Gross Building Area:	17,226 SF
Building/Unit Size (GSA):	17,226 SF
Property Visibility:	Full
Highway Access:	RT 253 exit 4
Year Built:	1930
Construction/Siding:	Brick, Concrete
Parking Type:	Surface



Overview/Comments

Built in 1930 as a school. Since 1993 (94) building has been owned and occupied by the American/Canadian Genealogical Society. Over 17,000 sq ft of space and 3 stories, asking only \$599,000. Adjacent to, and originally owned by The Occase of Manchester. Great opportunity for the right user. New windows, New roof in 1996, exterior resurfaced in 2013. Please call for more information.

Property Contacts



Listing Broker
Chris Pascoed
C/N The Masello Group, Bedford, NH
603-496-8960 (H)
603-746-6479 (O)
Chris_pascoed@naipros.com



Listing Broker
Fred Richards
S/N The Masello Group, Bedford, NH
603-715-6426 (H)
603-715-6426 (O)
fred_richards@naipros.com

Comparables Reports

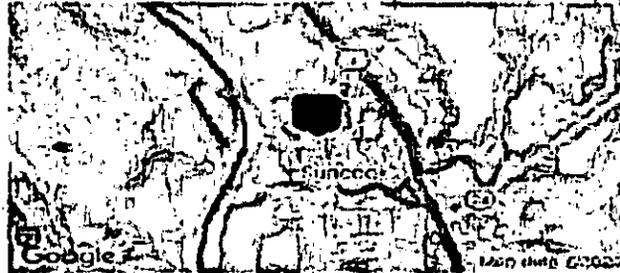
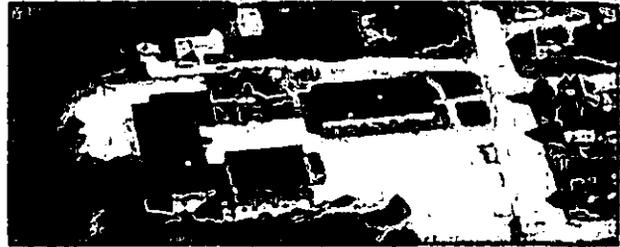
Prepared by Chris Norwood, NAI Norwood Group
May 12, 2020 as of NECP

603-666-7000 (C) chrisnorwood@naenorwoodgroup.com
New Hampshire Real Estate License: 653277

30 High Street 30 High Street, Pembroke, NH 03275



Transaction ID:	2312437
Property Type:	Special Purpose - SOLD
Special Purpose Type:	Assembly/Meeting Place, Service Housing
Acquired Date:	9/20/2019
Closing Date:	9/20/2019
Asking Sale Price:	\$150,000
Asking Unit Price:	\$5.36 PSF
Final Sale Price:	\$151,000
Final Unit Price:	\$5.40 PSF
Zoning:	R-1A
Days on Market:	57
Nearest MSA:	Concord
County:	Merrimack
Tax ID/APN:	VM187
Property Use Type:	Vacant/Owner-Used
Property Status:	Existing
Building/Unit Size (RSF):	27,965 SF



Overview/Comments

BID PERIOD SHORTENED, NOW CLOSING AUGUST 30 2019, 28,000 SF Former School with 10 Acres. For SALE - \$150,000.00, 30 High Street, Pembroke NH. Former Pembroke Village School. Soliciting all bids to be received by August 30, 2019 (Sun) for the purchase of the property consisting and 10.12 Acres) at 30 High Street Pembroke, NH. This is a single 15.12 Acre parcel with the former school building. The parcel is located within a well developed residential neighborhood and abuts the Pembroke town recreational facility which sits in a scenic location along the suncook river. Conceptual review proposed up to 10 residential lots in addition to a single lot with the school building. R-1A, Medium Density Residential. Aggfor Conservation Overlay District (AC). Uses Allowed by Right ..

Property Contacts



Listing Broker
Brenda Litchfield, CCIM
Concord Commercial Consulting LLC, Concord, NH
603-721-5000 (M)
603-225-1203 (C)
brenda@concordcommercialllc.com

Listing Broker
Jeff Knicker
Senior Family REALTOR, Pembroke, NH
603-380-1010 (M)
603-225-3353 (C)
jeff.knicker@realestatefamily.com

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Comparables Reports

Prepared by Jeffy Niles-Simmons, NAI Norwood Group
May 20, 2020 on RECPE

HIGH TRAFFIC DEVELOPMENT SITE 3 Intervale Rd, Concord, NH 03301

Listing ID:	30498347
Status:	Active
Property Type:	Retail - Commercial For Sale
Retail/Commercial Type:	Mixed Use, Retail Pad
Gross Land Area:	4.89 Acres
Sale Price:	\$1,500,000
Unit Price:	\$7.04 PSF
Sale Terms:	Cash to Seller
Nearest MSA:	Concord
County:	Merrimack
Tax ID/APN:	CHCO 000066A 000001 000014
Zoning:	GMF
Property Use Type:	Vacant/Owner-User
Building/Unit Size (RSF):	213,000 SF
Road Type:	Paved, Highway
Property Visibility:	Excellent
Highway Access:	Has easy access to Interstate 393 at a lighted intersection

Overview/Comments

This 4.89 acre site is available as a land lease which offers a high traffic count along with great accessibility. Located at a lighted intersection off Interstate 393. This is also the only large site left for any major development on Ft. Hardy Rd with excellent access and with high visibility.



Property Contacts



David Grappone
RE Commercial RE
978-761-2057 (01)
dgrappone@na.com

Comparables Reports

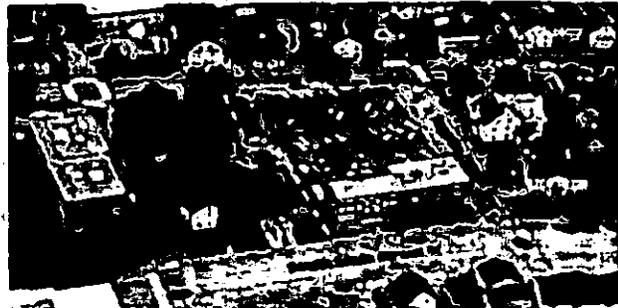
Prepared by Judy Miles-Simmons, NAI Norwood Group
May 20, 2020 on RECPL

Development Opportunity in Downtown Concord



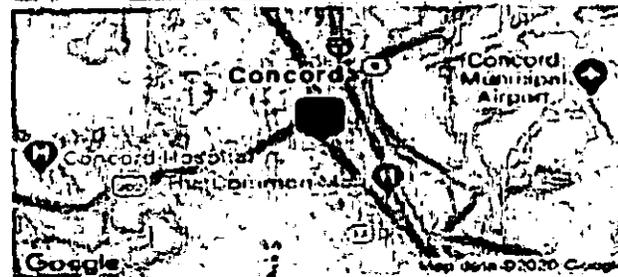
32-34 South Main Street, Concord, NH 03301

Listing ID:	29848300
Status:	Active
Property Type:	Vacant Land For Sale
Possible Uses:	Multi-Family, Office
Gross Land Area:	0.74 Acres
Sale Price:	\$1,600,000
List Price:	\$2,162,162 Per Acre
Sale Terms:	Cash To Seller
Nearest MSA:	Concord
County:	Merrimack
Tax ID/APN:	0100.000034.000003.000003
Zoning:	CBP
Road Type:	Paved
Property Visibility:	Excellent
Highway Access:	Interstates - 93, 283 and 89.



Overview/Comments

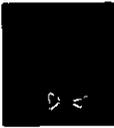
REDEVELOPMENT OPPORTUNITY - This property consists of a 0.74 +/- acre lot featuring a 22,780 +/- SF office building constructed in 1927/1938 and a 75 space parking lot. The site is comprised of 2 lots of record. The City desires to sell the property for redevelopment. It would be the City's preference to have the existing building demolished and replaced with a new mixed use building featuring ground floor retail, restaurant, and service uses with market rate housing on the upper floors. The property is in the heart of the City's downtown central business district within walking distance to the State House Capital Center for the Arts, Red River Theaters, a 516 space public parking garage, a grocery store, and dozens of restaurants and niche retail shops. The property is also situated with a Tax Incremental Finance ("TIF") District and New Markets Tax Credit eligible Census Tract. The City is prepared to re-zone to CBP - Central Business Performance to facilitate redevelopment of the property into its highest and best use. Note: The property is being offered as raw land for redevelopment as it is the City's desire to have the property achieve its highest and best use. The existing building does not achieve the highest and best use of the property.



Property Contacts



Judy Miles-Simmons
NAI Norwood Group
603 648-7608 (O)
jms@naenorwoodgroup.com



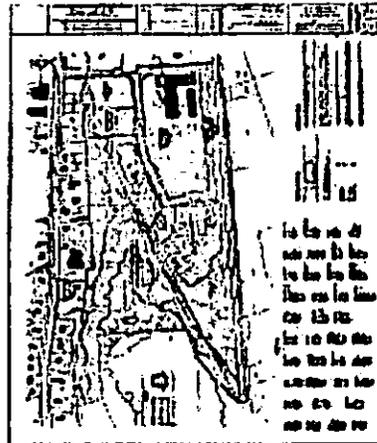
Clark Norwood
NAI Norwood Group
603 648-7608 (O)
cnorwood@naenorwoodgroup.com

Comparables Reports

Prepared by Judy Niles-Simmons, NAI Norwood Group
 May 23, 2020 or NEUPC

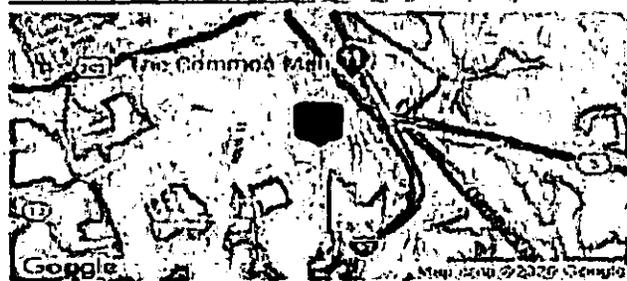
Langdon Ave, Concord, NH Off S. Main St. & Langdon Ave., Concord, NH 03301

Listing ID:	29735430
Status:	Active
Property Type:	Vacant Land for Sale
Possible Uses:	Hospitality, Industrial
Gross Land Area:	34.44 Acres
Sale Price:	\$2,000,000
Unit Price:	\$58,072 Per Acre
Sale Terms:	Cash to Sell
Nearest MSA:	Concord
County:	Merrimack
Tax ID/APN:	00000000
Zoning:	OC*



Overview/Comments

Tax Map 25, Block D-1, Lot 1. Zoned OCP - Opportunity Corridor Performance. Adjoins the "B&M" Railroad line. Utilities include Municipal Water & Sewer, Natural Gas and Electric. Includes 2 "shel" buildings. Located between Exits 12 and 12 off I-93



Property Contacts



William Horton
 Horton Asset Management Inc
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wh@hortonasset.com

Page 2

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Judy Niles-Simmons Senior Advisor

Scope of Service

Judy Niles-Simmons began her real estate career more than 20 years ago while working for a large residential developer. She has leasing managerial experience as she worked for large industrial facilities and was a principal in a commercial real estate brokerage firm.

Educational Background & Experience

Judy joined NAI Norwood Group in 1995. She has extensive experience in the development of land and in selling commercial/industrial investment properties. She also has experience in marketing multi-family residential projects in New Hampshire and Massachusetts.

Judy was presented the 2011 Community Service Award by NHCIBOR Cares. She was instrumental in the founding of this non-profit arm for NHCIBOR and served as the first President and as a Director.

Judy continues to volunteer at Care-Givers and New Horizon Soup Kitchen.

Professional Affiliations & Designations

Licensed Broker in NH and MA.
Member of the NHCIBOR
Member of GRI

Significant Transactions

- > J Jill Group: Listing/selling agent, 91,920+/- SF
- > FCI : Selling agent for 49,000+/- SF/101 E. Industrial Park Drive, Manchester, NH
- > Southern NH University: Listing agent for 405 +/- acres/mixed development
- > SMC Mgmt: Listing/selling Agent for 3 multi-family complexes
- > Home Depot: Joint ventured sale of a 200+/- acre development
- > Dajo Realty, LLC: Selling/leasing agent for sale of 21,726+/- SF/111 Zachary Rd, Manchester, NH
- > State of NH DOT: Listing/selling agent for sale of 11+/- acres/41 Range Road, Windham, NH
- > State of NH DOT: Listing/selling agent for sale of .99+ acres/247 Pleasant Street, Concord, NH



Contact Information

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Bedford NH 03110
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nainorwoodgroup.com

NAI Norwood Group

Chris Norwood President

Scope of Service

Chris Norwood's primary focus is the sale and leasing of real estate space in the Southern New Hampshire market. He focuses exclusively on commercial property. Chris is also very involved with the overall strategic growth of the firm.

Educational Background & Experience

Graduated from Babson College with a Bachelor of Science in Business Management in 2003. Chris Norwood began his real estate brokerage career in 2000 when he became a licensed salesperson in the state of New Hampshire. Since that time he has assisted in closing tens of millions of dollars worth of sale and lease transactions over hundreds of thousands of square feet, as well as aided in consulting and valuation work.

Professional Affiliations & Designations

Member of the ICSC
Member of the NHCIBOR, 2012 President
Member of CCIM, 2008-09 Chapter President
Realtor of The Year, 2007 NH CIBOR
Past Member of NAI Global Leadership Counsel
Member of GMCC, Government Affairs
Member NHAR, Public Policy



Significant Transactions

- Tenant Representation for 80,000+/- sf of office space for DYN Inc in Manchester, NH
- Tenant Representation for 50,000+/- sf flex space for Resonetic's in Nashua, NH
- Landlord Representation and consultation of sales/leasing/condo conversion of industrial space in Bow, NH.
- Redevelopment and Seller Representation of a 300,000+/- sf mill in Ashland, NH

Volunteer Work

- Member of the Manchester Community College Advisory Counsel
- Board Member of Boy Scouts of America Daniel Webster and Eagle Scout

Contact Information

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NAI Norwood Group

Company Profile

NAI Norwood Group offers a range of services to clients that include landlord representation, tenant/buyer representation, consulting, and development. NAI Norwood Group's affiliation with NAI Global enhances the services by spanning resources on a worldwide level.

NAI Norwood Group is an affiliate of NAI Global, the world's leading managed network of independently owned commercial real estate brokerage firms. Through this network of 355+ offices in 55 countries, NAI Norwood Group is able to leverage their strong local experience around the world. Whether your commercial real estate needs require local expertise, or you need brokerage consulting around the world, the firm is here to help. With our extensive background and strong local contacts, we are able to assist individual corporations in negotiating leases, sales, business brokerage, investments, relocation, site selection and development.

Founded in 1968 by Karl Norwood, The Norwood Group became one of the largest real estate firms in the State of New Hampshire. The company expanded into residential land development and home construction in the seventies and formed Norwood Group International, focusing on attracting foreign investors to form joint ventures in commercial real estate, primarily in the New England marketplace. In 2008 NAI Norwood Group opened a second location in Portsmouth, NH vastly widening services into the seacoast area. NAI Norwood Group has remained a viable leader in the commercial real estate field and has continued to hone its skills in this evolving world of sophisticated clients who demand services in dealing with the complexity of the current global market.

NAI Norwood Group is actively involved in the New Hampshire Association of REALTORS and company members have held numerous leadership positions within the organization. They are Charter Members of NH CIBOR (Commercial Investment Division of the New Hampshire Association of REALTORS), hold membership in CCIM (Certified Commercial Investment Member), SIOR (Society of Industrial and Office REALTORS), NEBBA (New England Business Brokers Association), and CRE (Counselors of Real Estate). In addition, the group subscribes to industry specific trade organizations such as the ICSC (International Council of Shopping Centers).

Since 2000, NAI Norwood Group has sold 1,500+ acres of land totaling more than \$58 million. In addition, we've assisted clients in the acquisition and disposition of 3.5+ million square feet valued at \$250 million, in addition to over 1 million square feet of self-storage space valued at more than \$70 million.

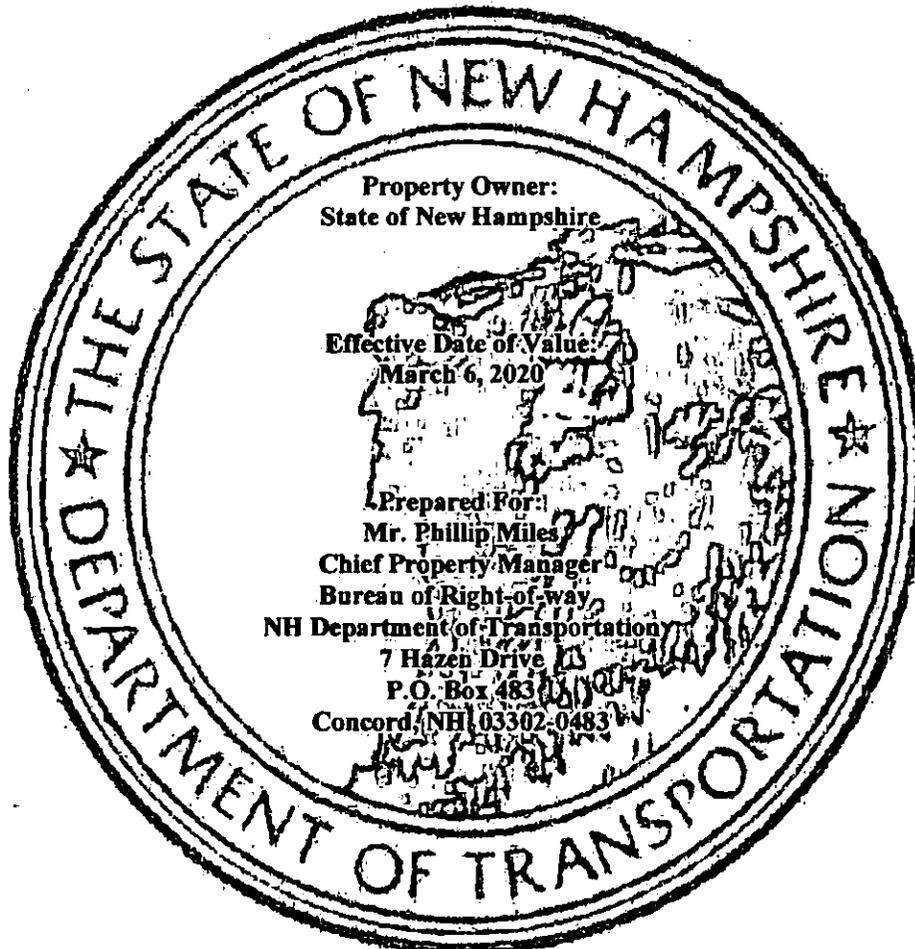
It is the goal of our firm to service the requirements of a wide spectrum of the community in which we operate. This is why members of our firm routinely serve on boards and local civic organizations, from Chambers to Non-profits to real estate specific boards. Having been a trademark in the community for 45+ years, the team looks forward to an extraordinary future.

NAI Norwood Group

Appraisal Report

of

**A 5.57± Acre Parcel Known as
Stickney Avenue Highway Garage Improved with
Office, Maintenance Garage, Storage & Sheds
Buildings Located at 11 Stickney Avenue in
Concord, NH**



**Prepared By:
Harry C. Hadaway, NHCG - 176
NH Department of Transportation
7 Hazen Drive
PO Box 483
Concord, NH 03302-0483**

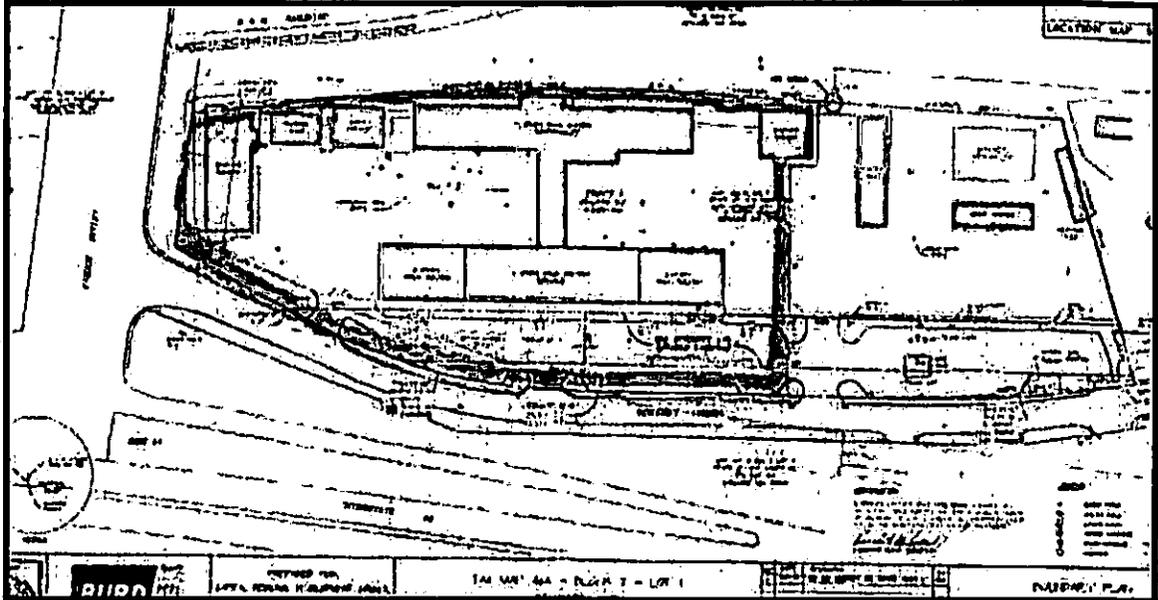
FROM:	Harry Hadaway, NHCG #176 Staff Appraiser	DATE:	April 3, 2020
TO:	Mr. Phillip Miles Chief of Property Management	AT:	NHDOT - Bureau of Right- of- Way, Concord Office
THROUGH:	Laura Davies, Chief Appraiser Supervisor		
SUBJECT:	A 5.57± Acre Parcel Known as Stickney Avenue Highway Garage Improved with Office, Maintenance Garage, Storage & Shed Buildings Located at 11 Stickney Avenue in Concord, NH		
	Property Owner: The State of New Hampshire		
ESTIMATED MARKET VALUE:	\$645,000		
VALUATION DATE :	March 6, 2020		

Appraisal Problem: This report constitutes an appraisal of the estimated market value of the fee simple interest in the 5.57± acres of state owned land located a 11 Stickney Road, Concord, NH. The intended recipients and those requesting this report are officials, employees and agents of the Department of Transportation, Bureau of Right of Way and members of the Long Range Capital Planning and Utilization Committee.

The purpose of this appraisal is to estimate the market value of 5.57± Acre of state owned surplus property. As instructed by the client, this estimate of market value is based on the State of New Hampshire having clear ownership of the entire property in fee simple, as shown on plans provided by the client.

The subject property consists of 5.57± acres improved with 5 buildings. The lot is nearly level and at the grade of Stickney Avenue, with curbed openings for two driveway access points. Frontage on Bridge Street is significantly below road grade without access. Shape of the lot is somewhat rectangular with an average depth of about 340± feet. There is about 761± feet of ROW frontage on Stickney Avenue and 152.62± feet of frontage on Bridge Street. The rear property line fronts on the B & M railroad land measuring about 759± feet. Utilities available include municipal water, sewer, gas, electricity and telephone. Site improvements include 6± foot chain link fencing top with barbed wire. This fence secures the entire property with exception of paved parking in front of Building F & G. Virtually the entire property is paved with the exception of a small area to the rear of Buildings A, B, C & D. There is paved parking for approximately 80 cars in front of Buildings F & G.

Subject Survey Plan



The parcel is being valued to assist the client, Department of Transportation, Bureau of Right of Way, and members of the Long Range Capital Planning and Utilization Committee, in providing a supportable market value estimate of real estate for possible sale.

The attached report summarizes the basis of the value conclusions and provides definitions to specific terms. Based on the data collected and analyzed, in my opinion the value of the subject land as of March 6, 2020 is:

\$ 645,000

Description of Buildings:

Building E & D, Service Garage, built circa 1926, 24,068 ± sq. ft. GFA. The 1926 garage roof features a very low-pitched gable that was sheathed in tar and gravel. Most of the window openings contain large multi-paned steel windows with 4 x 2-light pivot sash and concrete sills. To the rear of the garage is a tall, round brick chimney that is attached to the boiler room/coal room. Adjacent to the boiler room is an addition that houses an 8,000-gallon propane tank which is not in use. Brick piers articulate the regular bays and the building is capped by a concrete cyma recta cornice under aluminum flashing. The exterior is brick clad. The interior is broken into two large open-space work bays at either end of the building. The interior of the garage has steel supports that have been reinforced in concrete. These steel supports eliminate any interior support posts, which allows for large truck movement within the interior. The ceiling has scoring detail in the concrete. Flooring is poured concrete. There is a floor drain and several window exhaust fans. The north wing has three overhead 1 ton cranes and three 2

ton overhead cranes. Three overhead doors with auto door openers allow truck access to the wing. Restroom consists of 8 sinks, 1 urinal & 1 toilet. The south wing has a 2-ton overhead crane that traverses the entire length of the wing. Three overhead doors with auto door openers allow truck access to the wing. Lighting is fluorescent for the entire building. Heating is a combination of gas fired suspended Modine units and radiant tube. The easterly ell, Building E, contains a service garage with one truck access overhead door, several small offices and a hallway connecting the front building with the rear building. Heating is by gas fired suspended Modine units. Poured concrete flooring and fluorescent lighting.

Building F & G, Service Garage, built circa 1948, 27,300 ± sq. ft. GFA 1st floor. 9,100 ± sq. ft. 2nd floor. Total area 36,400 ± sq. ft. The garage has a flat roof with a slight bow. The original windows were replaced in 1970 by steel hopper windows topped by translucent Kalwall panels. The north portion of the building as well as the connector retains steel multi-pane windows with pivot sash and concrete sills. There are fluted concrete piers flanking each window bay. A three-part concrete cornice also spans between each pair of piers with four bands, slightly curved highlighting the section below the central flagpole. Above the center entrance there are inscribed stones reading "New Hampshire Highway Department". The exterior is brick clad. The interior of the garage has steel supports that have been reinforced in concrete. These steel supports eliminate any interior support posts, which allows for large truck movement within the interior. The ceiling has scoring detail in the concrete. Heating is a combination of gas fired suspended Modine units and radiant tube. Men's restroom contains 4 toilets, 3 urinals, 4 sinks, and a tub sink. Two overhead automated garage doors allow access to Building G, and two also to building F. Approximately 5,000 sq. ft. of 1st floor of Building F was recently renovated into office space and remediated for lead paint and asbestos. This included an HVAC system, wall to wall carpeting, partitions, fluorescent lighting, kitchen cabinets and sink. Men's room with toilet, urinal and sink. Ladies room with toilet and sink. Office space is located on the 2nd floor of the garage. There are about 15 partitioned offices, with asbestos tile flooring, hung ceiling and fluorescent lighting. Men's room contains 4 toilets, 3 urinals and 2 sinks. Ladies room contains 4 toilets and 2 sinks. Heating is radiant flooring.

Building A, Supply Storehouse, built circa 1941, 8,438 ± sq. ft. The asphalt-shingled gable roof has overhanging eaves that are supported by wooden fink trusses on the north and south walls with exposed beams visible on the east and west gable ends. The truss structure extends beyond the bottom chord to create the roof overhang. Both the north and south elevations have two regularly-spaced, large sliding door openings. On each wall, the westernmost door has been retrofitted to contain a modern overhead garage. Light enters the building through small 3 x 2-light windows set into arched frames and located high on the 16' high walls. There are three 3 x 2-light windows located on the west façade that also have arched frames. There are three 3 x 2-light windows located on the east façade that do not have arched frames. There is a freight platform with roof overhang that extends off the rear (west) end of the building. There is a brick chimney that rises from the northwest corner of the building. There are two sliding barn doors that hide the modern garage doors have X cross bracing on the north wall. Another overhead door is located at the east end of the building. First floor is loading dock height. There are stairs to 2nd floor storage at the west end of the building. A bricked storage vault is located at the northwest corner of the building. There is an additional storage room with wooden bins in

this area. There is a FHA oil fired heating system. The condition of this heating system is unknown since it has not been used for many years.

Building B, Storage Building, built circa 1940, 2,257 ± sq. ft. GFA. Single story rectangular building with five bays. The north and south bays are enclosed with tall wooden double doors. The middle three bays are open and separated by wooden posts supported on pyramidal, poured concrete footings. The building has a low-pitched gable roof with sheet metal covering. It is evident this structure was made with recycled elements, as seen in the roof structure showing different sized, stained and painted wooden planks. The north and south bays are enclosed by double wooden doors. The center three bays are open to the elements. The bay openings are supported by wooden posts resting on concrete footings. Along the western wall, within in bay are three hinged shutters. These would likely be opened in the summer to allow better air flow. The gable trusses are exposed, resting over the wooden posts supporting the structure. The wooden garage swing doors are surrounded by wooden uprights.

Building C, Paint Shop/Maintenance Garage, built circa 1930, 2,940 ± sq. ft. GFA. The building consists of three equal sized sections arranged from north to south; the center section is two stories in height in comparison to the single-story bays on either side. The building framing consists of I-beams that have been riveted and bolted in place. Each section is capped by a nearly flat roof and a large circular exhaust fan rises from the center section. On the east façade, each section has an overhead garage door with automated door openers. Above the central door there is a fixed 3 x 3-light steel window with similar windows on the north and south upper walls above. A canopy fronts the south wall of the building and there is a plywood enclosure at the southwest corner. On the back (west) wall there are five additional 3 x 3-light steel windows. Two other window openings have been retrofitted to contain modern 1/1 wooden double-hung units. On the south façade there is a door that leads to a storage room that juts slightly away from the building. Near the storage room, the chimney projects at the southern end of the building, centered on the south wall. Also on the south wall is a washing/draining area that has a large grate over it. The structure rests on a reinforced concrete foundation and is clad in sheet metal siding stamped in a rectangular pattern. The interior middle bay retains a large metal, drive-in box that was most recently used for vehicle painting. The northern bay is wide open, with a trap door located at the base of the door on the north wall. The southern end of the building has office and utility space in the rear half of the bay. Heating is a by gas fired suspended Modine units. Lighting is fluorescent.

Building H, Storage Garage, built circa 1941, 3,741 ± sq. ft. GFA. The asphalt-shingled gable roof has overhanging eaves that are supported by wooden fink trusses on the north and south walls with exposed beams visible on the east and west gable ends. The truss structure extends beyond the bottom chord to create the roof overhang. Painted verticle pine board siding. Both the north and south elevations have two regularly-spaced, 14' wide overhead garage doors. Light enters the building through small 3 x 2-light windows set into arched frames and located in the middle bays, high on the 16' high walls. On the south wall, there are three 3 x 2-light windows set in wooden frames (no arches). On the north wall, there are three similar windows set in arched wooden frames.

Photographs

Taken by Harry Hadaway on March 6, 2020



Facing NWly Toward Subject Property from Stickney Ave.



Facing Wly Toward Subject Main Entrance From Stickney Ave.

Photographs
Taken by Harry Hadaway on March 6, 2020



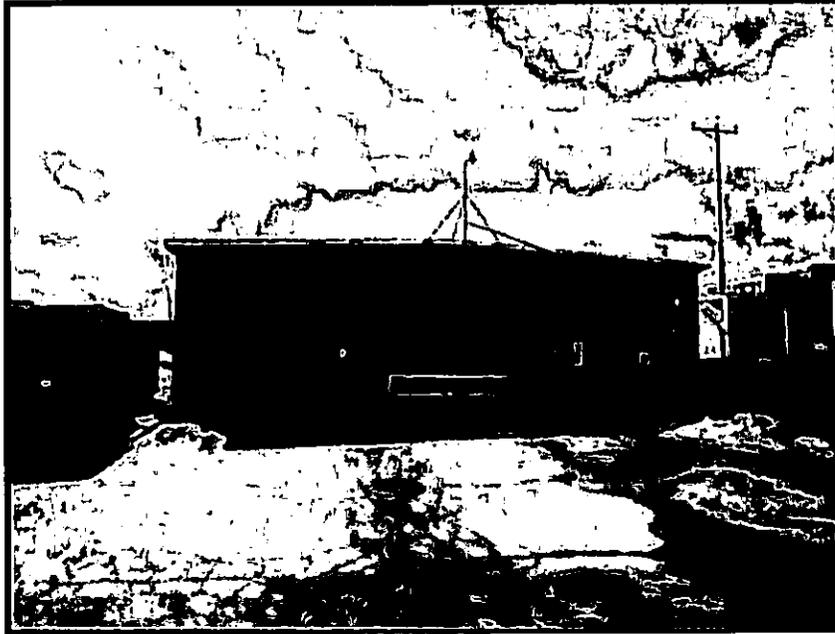
Facing SWly Toward Subject From Stickney Ave.



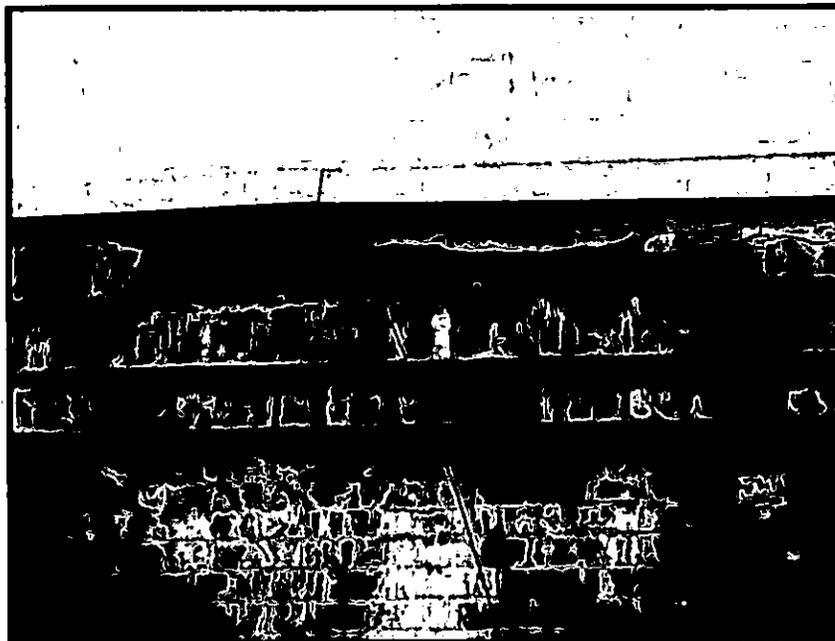
Facing SEly Toward Building F

Photographs

Taken by Harry Hadaway on March 6, 2020



Facing Sly Toward Building G



Concrete Deterioration Building G

Photographs

Taken by Harry Hadaway on March 6, 2020



Interior of Building G



Men's Restroom Building F & G

Photographs

Taken by Harry Hadaway on March 6, 2020



Facing Nly Toward Building F



Facing Ely Toward Building F

Photographs

Taken by Harry Hadaway on March 6, 2020



Interior Picture of Service Garage Building F



Interior Picture of Service Garage Building F

Photographs

Taken by Harry Hadaway on March 6, 2020



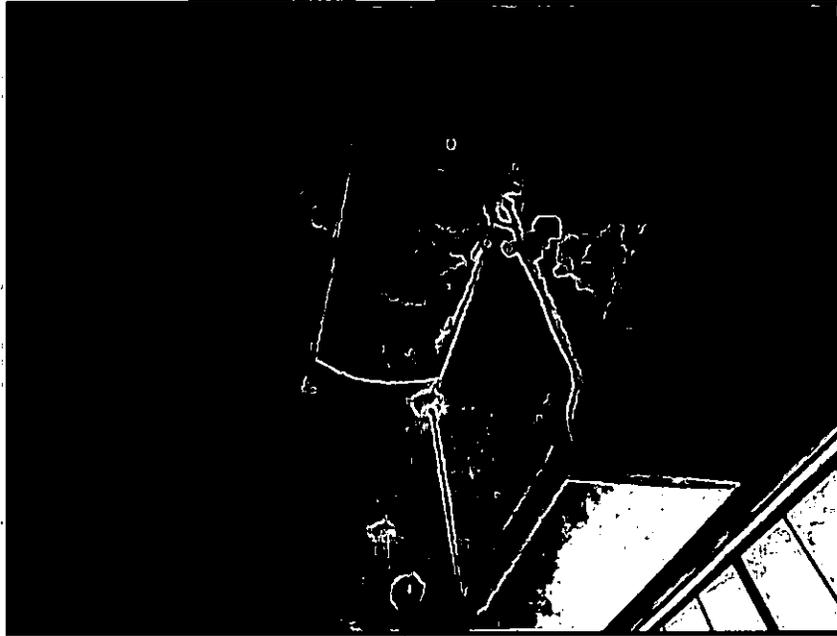
Interior Picture of Office Space Building F



Office Space Water Damage Building F

Photographs

Taken by Harry Hadaway on March 6, 2020



Office Space Water Damage Building F



2nd Floor Office Space Building F & G

Photographs

Taken by Harry Hadaway on March 6, 2020



Water Damage 2nd Floor Building F&G



Water Damage 2nd Floor Building F&G

Photographs

Taken by Harry Hadaway on March 6, 2020



Men's Restroom 2nd Floor Building F & G



Facing Nly Toward Building E

Photographs

Taken by Harry Hadaway on March 6, 2020.



Interior Service Garage Building E



Facing Wly toward Building D (North Wing)

Photographs

Taken by Harry Hadaway on March 6, 2020



Interior of Building D (North Wing)



Men's Restroom Interior Building D (North Wing)

Photographs

Taken by Harry Hadaway on March 6 & 13, 2020



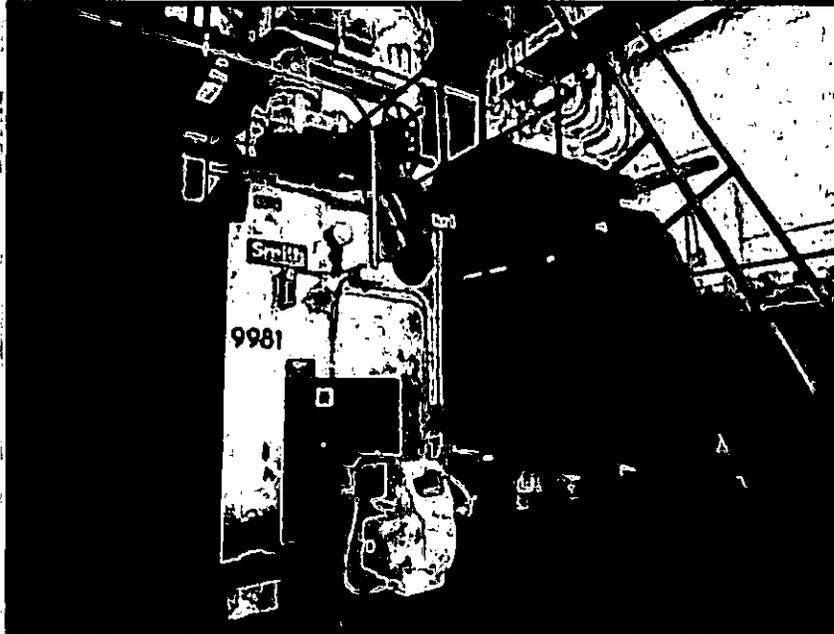
Facing NWly Toward Building D (South Wing)



Interior of Building D (South Wing)

Photographs

Taken by Harry Hadaway on March 6 & 13, 2020



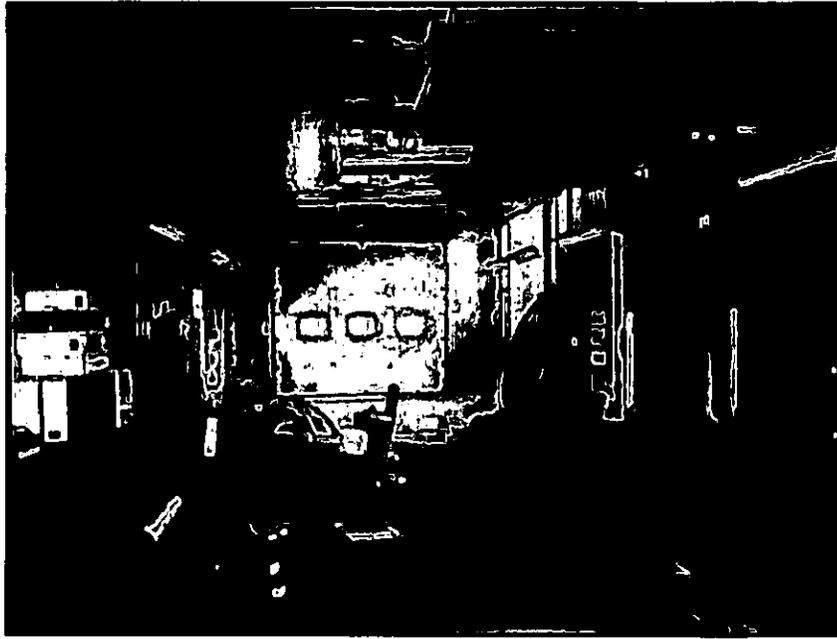
Furnace Room Building D



Facing Wly Toward Building C (Paint Shop & Service Garage)

Photographs

Taken by Harry Hadaway on March 6 & 13, 2020



Interior Service Bay Building C



Interior Truck Paint Bay Building C

Photographs

Taken by Harry Hadaway on March 6 & 13, 2020



Facing Wly Toward Building B Storage Shed



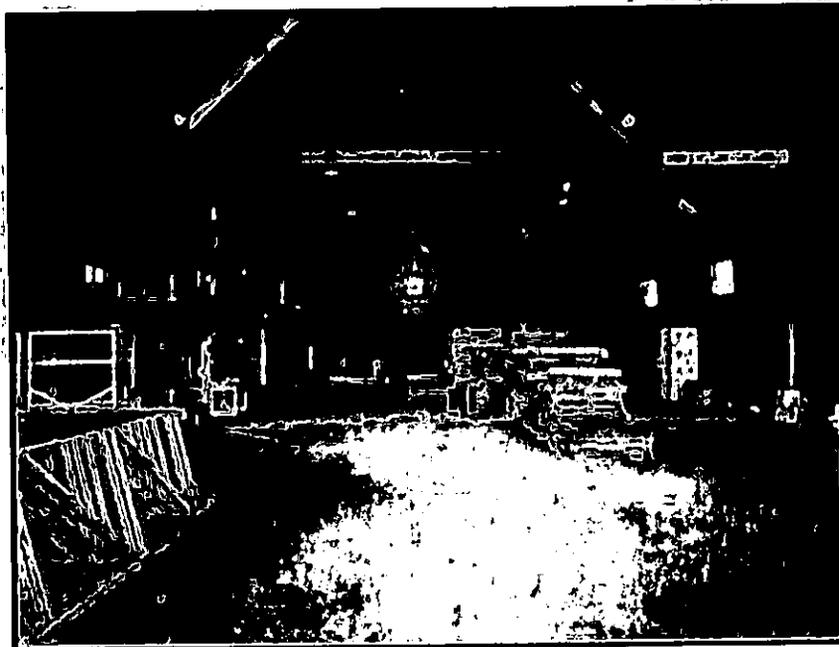
Interior of Building B Roof Damage

Photographs

Taken by Harry Hadaway on March 6 & 13, 2020.



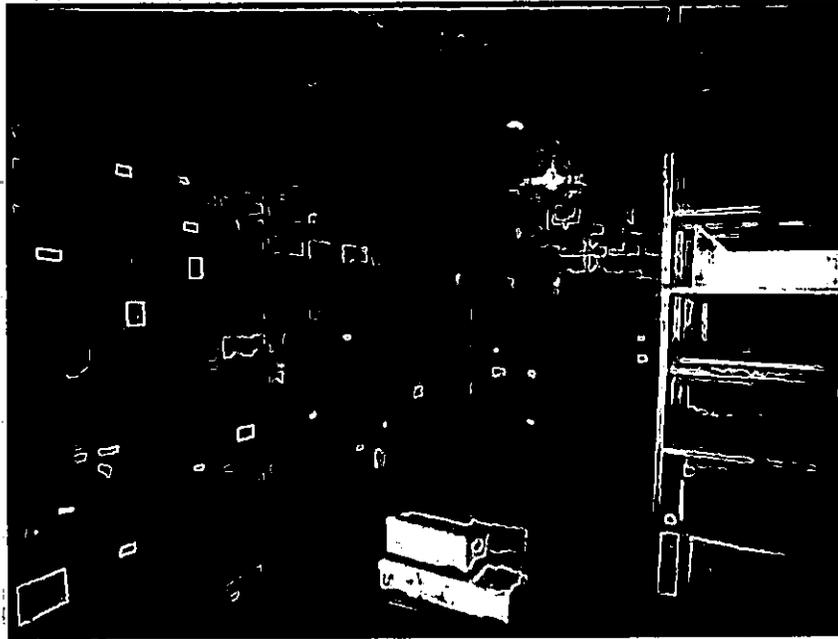
Facing SEly Toward Building A Storage Building



Interior Picture of Building A

Photographs

Taken by Harry Hadaway on March 13, 2020



Interior of Building A Storage Vault



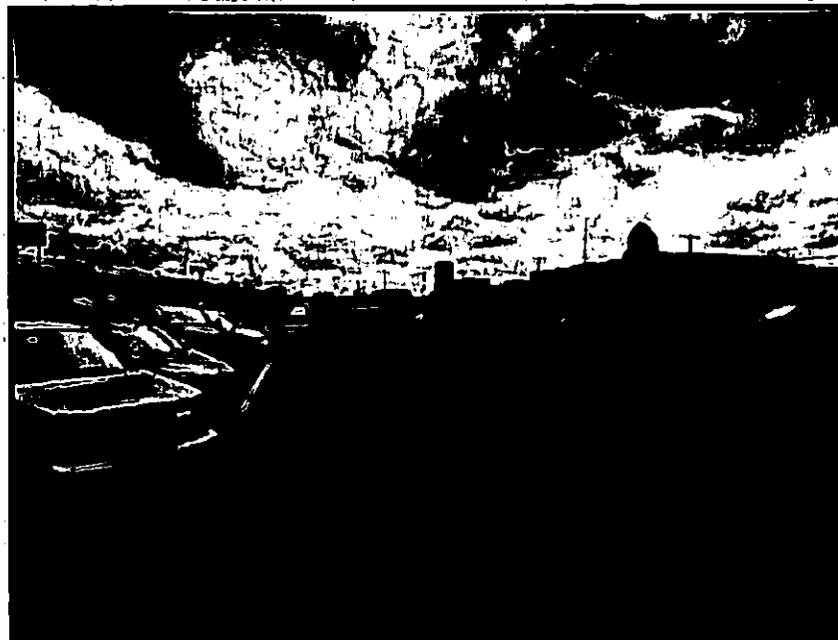
Interior of Building A Storage Room

Photographs

Taken by Harry Hadaway on March 6, 2020

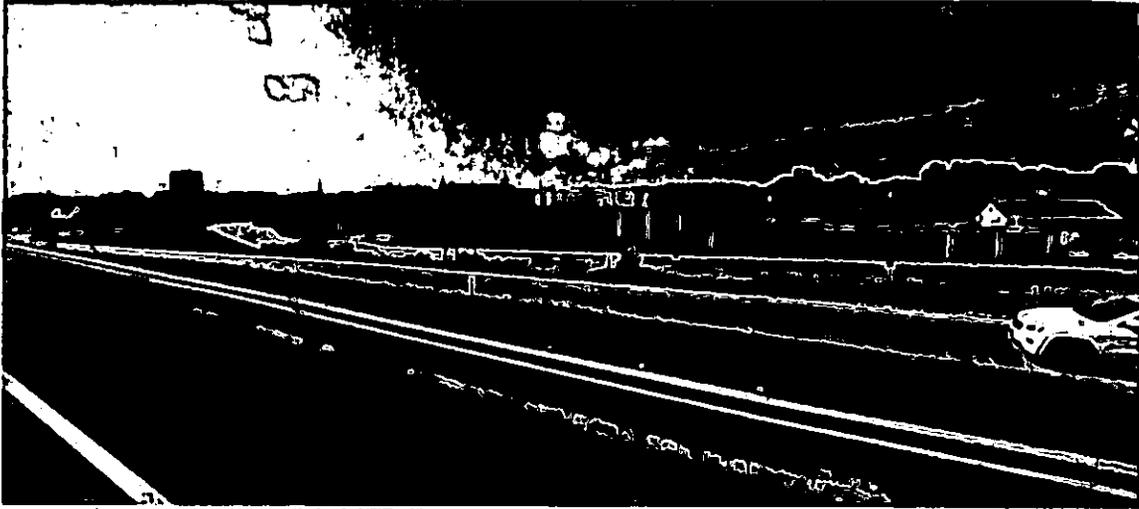


Facing NWly Toward Building H Storage Shed



Street Scene Facing Sly Along Stickney Avenue

Photographs Courtesy of Google Maps



View of the Subject Property From South Bound Lane of Interstate-93



View of the Subject Property From North Bound Lane of Interstate-93

General Assumptions

For this report I have assumed:

- All maps, plans, and photographs I used are reliable and correct.
- The legal interpretations and decisions of others are correct and valid.
- The parcel areas and right-of-way information given to me have been properly calculated and related.
- Broker and assessor information are reliable and correct.
- The abstracts of title and other legal information available are accurate.
- Information from all sources is reliable and correct unless otherwise stated.
- There are no hidden or unapparent conditions on the property or in the subsoil, including hazardous waste or ground water contamination, which would render the property more or less valuable.

Extraordinary Assumptions

The area used in this analysis, 5.57± acres, is calculated by NHDOT's Bureau of Right of Way Survey Section by using a boundary plan of a larger 6.52-acre parcel; however, a survey has not been completed. This constitutes an extraordinary assumption. If the subject's actual area were shown to vary significantly from this calculation, the assignment results may be affected. It is very possible that site soil may be contaminated from years of property use as a truck and passenger car maintenance facility. This appraisal is based on the extraordinary assumption that the site is not contaminated. Should the site be contaminated the results of this appraisal may be affected?

Hypothetical Condition

The appraiser is aware that a Hazardous Building Materials Inspection Report for the subject buildings was completed February 28, 2019. The report identified hazardous materials that included asbestos, lead-containing paint and PCB, mercury & other hazardous materials. The cost to remove these hazardous materials is significant. At the client's request, this appraisal does not reflect this removal cost. Additionally, the client has requested that the appraisal be based on Buildings D, E, F & G remain on the property upon sale with historical covenants. A sample of the proposed historical covenants are contained in the addenda of this report.