COMMONWEALTH OF MASSACHUSETTS

)	
IN THE MATTER OF)	
THE WORCESTER REGIONAL TRANSIT)	BROWNFIELDS COVENANT
AUTHORITY'S REDEVELOPMENT OF)	NOT TO SUE AGREEMENT
40 QUINSIGAMOND AVENUE, WORCESTER,)	
MASSACHUSETTS)	
)	MassDEP RTN 2-00171
)	
	_)	

I. STATEMENT OF PURPOSE

- A. This Agreement is made and entered into by and between the Office of the Attorney General (the "OAG") on behalf of the Commonwealth of Massachusetts (the "Commonwealth") and the Worcester Regional Transit Authority ("WRTA"). Collectively, the OAG and WRTA are referred to as the "Parties."
- B. This Agreement is entered into pursuant to the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, as amended and codified in Massachusetts General Laws Chapter 21E ("G.L. c. 21E"), and the OAG's Brownfields Covenant Not to Sue Agreement Regulations at 940 CMR 23.00 ("Brownfields Covenant Regulations"), with reference to the Massachusetts Contingency Plan, 310 CMR 40.0000 (the "MCP"). This Agreement relates to an approximately 11 acre parcel located at 40 Quinsigamond Avenue in Worcester, Massachusetts, and its remediation and redevelopment (the "Project").
- C. The Parties intend to set forth in this Agreement their respective duties, obligations and understanding so that the Project can contribute to the physical and economic revitalization of an area of Worcester, Massachusetts. The Parties agree that this Agreement, pursuant to G.L. c. 21E, § 3A(j)(3), addresses potential claims by the Commonwealth as to WRTA and is predicated upon the WRTA's compliance with the terms and conditions of this Agreement. This Agreement also addresses potential claims brought by third parties for contribution, response action costs or property damage pursuant to G.L. c. 21E, §§ 4 and 5 or for property damage under common law. This Agreement does not, however, address liability arising under contract law.
- D. The Parties agree that WRTA's ability to conduct the Project may be contingent upon independent approval processes of other departments, agencies and instrumentalities of the federal, state and local governments. Nothing in this Agreement should be construed as an endorsement by the OAG of the proposed project for such approval processes. WRTA's failure to secure independent governmental approvals for the Project shall not excuse WRTA from performance of any requirements of G.L. c. 21E and the MCP.

E. The Commonwealth believes that this Agreement is fair, consistent with G.L. c. 21E and in the public interest, and has entered into this Agreement as part of an effort to revitalize an area of Worcester, Massachusetts.

II. THE PARTIES

- A. The OAG is a duly constituted agency of the Commonwealth of Massachusetts charged with the legal representation of the Commonwealth and maintains offices at One Ashburton Place, Boston, Massachusetts 02108. Included within the OAG's authority is the authority to enter into Brownfields Covenant Not to Sue Agreements pursuant to G.L. c. 21E, § 3A(j)(3).
- B. WRTA is a body politic and corporate and a political subdivision of the Commonwealth established pursuant to the provisions of G.L. c. 161B and maintains offices in Worcester, Massachusetts. WRTA is a public transportation entity providing over 3.6 million rides per year for its customers in Worcester and the surrounding towns. WRTA shall undertake the Project as discussed in Section IV.A.2. of this Agreement.

III. STATEMENT OF FACT AND LAW

- A. The Commonwealth enters into this Agreement pursuant to its authority under G.L. c. 21E, § 3A(j)(3), and the Brownfields Covenant Regulations.
- B. Unless otherwise expressly provided, terms used in this Agreement which are defined in the Brownfields Covenant Regulations shall have the meaning assigned to them under such regulations. Terms not defined in the Brownfields Covenant Regulations, but defined under G.L. c. 21E and/or the MCP, shall have the meaning assigned to them under G.L. c. 21E and/or the MCP. Terms used in this Agreement which are defined in the Brownfields Covenant Regulations, G.L. c. 21E, the MCP, as well as those defined in this Agreement, are capitalized.
- C. The Property is an approximate 11 acre parcel located at 40 Quinsigamond Avenue in Worcester, Massachusetts. The Property is a portion of a site historically utilized as a former Manufactured Gas Plant (MGP) facility from approximately 1853 to 1969. The Property is more fully described in Exhibit A, which is attached and incorporated into this Agreement. Contaminants found historically, and recently, in soil at the Property include coal tar, petroleum, metals, cyanide, asbestos, volatile organic compounds ("VOCs") and semi-volatile organic compounds ("SVOCs"). VOCs were also detected in soil vapor samples. In addition, petroleum, VOCs, SVOCs and light non-aqueous phase liquid ("LNAPL") were detected in groundwater at the Property.
- D. The Massachusetts Department of Environmental Protection ("MassDEP") has received notice of Releases of Oil and/or Hazardous Materials ("OHM") at the Property. The areas where OHM have come to be located as a result of the Releases were assigned Release Tracking Number ("RTN") 2-00171, and constitute the "Site," as that term is defined at 310 CMR 40.0006 and for the purposes of this Agreement. The Site is also the "property addressed" by this Agreement as the term "property addressed" is used at 940 CMR 23.08(1) in the Brownfields Covenant Regulations. A Class B-2 Response Action Outcome ("RAO"), including

an Activity and Use Limitation ("AUL"), was filed for RTN 2-00171 in 1997 (the AUL was later amended and ratified in 2002). The AUL prevents any activities that may result in risk or harm to human health, public welfare, safety and the environment, such as residential, vegetable gardening, etc. This RAO and AUL will remain in place after WRTA acquires the Property. After WRTA completes the Project, it will revise the RAO and AUL consistent with the uses to be undertaken by the WRTA on the Property.

The Site is more fully described in Exhibit B, which is attached and incorporated into this Agreement. Exhibit B describes the environmental conditions in detail, including the nature and extent of contamination detected at the Site, as well as the Response Actions undertaken at the Site and the regulatory status of the Response Action Outcome Statement assigned to the Site.

E. WRTA and the Providence and Worcester Railroad Company, (P&W) have been in discussions regarding the potential transfer of a strip of land along the western boundary of the Property for P&W's construction, maintenance and use as a rail line. The strip of land is identified in Attachment 1 to Exhibit A.

IV. COMMITMENTS AND OBLIGATIONS

In consideration of the representations made and promises exchanged by and between the Parties, each of them covenants and agrees to the terms and conditions which follow.

A. REPRESENTATIONS AND COMMITMENTS BY WRTA

- 1. WRTA represents that:
 - a. it is an Eligible Person;
- b. it is not at the time of execution of this Agreement a person with potential liability for the Site pursuant to G.L. c. 21E;
- c. it is not now nor has it ever been previously affiliated with any person having potential liability for the Site pursuant to G.L. c. 21E, except as set forth below;
 - d. its involvement with the Site has been limited to:
 - i. evaluating the Property for purposes of acquiring the Property;
 - ii. negotiating an agreement to acquire the Property; and
 - iii. communicating with the Commonwealth and local authorities with respect to the remediation and redevelopment of the Property;
- e. none of WRTA's activities has caused or contributed to the Release or Threat of Release of OHM at the Site under G.L. c. 21E and/or the MCP; and

- f. WRTA is not at the time of execution of this Agreement subject to any outstanding administrative or judicial environmental enforcement action arising under any applicable federal, state or local law or regulation.
 - 2. WRTA agrees to the following terms and conditions:
- a. WRTA shall endeavor to acquire ownership of the Property and, if it becomes an Owner and/or Operator of the Property, undertake the Project, as follows:
 - i. The Project involves the construction of a new 2-story maintenance and operations facility at 40 Quinsigamond Ave., Worcester, MA. The total footprint of the project is expected to be approximately 100,000 square feet including office and administrative operations and dispatching, bus maintenance and storage spaces. Additional areas within the Property will be developed for bus circulation, parking, setbacks, stormwater management, landscaping and hardscaping.
 - ii. The WRTA is a public transportation entity providing over 3.6 million rides per year for its customers in Worcester and the surrounding towns. The new maintenance and operational facility will replace an outdated eighty year old facility and will revitalize a vacant and blighted parcel of land currently used for storage of construction equipment and debris. With the proposed relocation of facilities, approximately 160 permanent jobs will be retained and five to ten new jobs will be created. The WRTA will make 170 parking spaces available to the public during athletic league events at the park across the street to address the critical need for parking during such local events, and will provide conference room space for neighborhood meetings.
- If it becomes an Owner and/or Operator of the Property, WRTA shall achieve and maintain or arrange for the achievement and/or maintenance of a Permanent Solution for any Release of OHM occurring at the Site and submit a Response Action Outcome Statement describing such Permanent Solution, in accordance with G.L. c. 21E, the Standard of Care defined in G.L. c. 21E, and the MCP. The construction of the proposed WRTA vehicle maintenance facility will include the excavation, treatment and off-site disposal of approximately 50,000 tons of soil and debris contaminated with manufactured gas plant by-products and residual waste, including coal tar, petroleum, etc. WRTA anticipates that this soil excavation will result in significant reductions in on-site contamination and result in the site posing No Significant Risk to human health (facility workers), safety, public welfare and the environment. In addition, WRTA plans to install a vapor barrier beneath the proposed facility to eliminate the potential for facility workers to be exposed to subsurface vapors. WRTA will also monitor groundwater at the Property perimeter as needed to demonstrate all contaminant sources have been removed and groundwater contaminant concentrations are below GW-2/GW-3 standards. WRTA's Response Actions are more fully described in Exhibit C, which is attached and incorporated into this Agreement. WRTA shall also cooperate fully with MassDEP.

- c. To cooperate fully includes, without limitation:
 - i. providing prompt and reasonable access to the portion of the Site owned or operated by WRTA to MassDEP for any purpose consistent with G.L. c. 21E and the MCP:
 - ii. complying with the Release notification provisions established by G.L. c. 21E and the MCP;
 - iii. responding in a timely manner to any request made by the MassDEP or OAG to produce information as required pursuant to G.L. c. 21E;
 - iv. taking reasonable steps to prevent the Exposure of OHM to people at the Site or portion of the Site under WRTA's control, such as (1) by fencing or otherwise preventing access to the Site if appropriate and/or necessary to prevent Exposure, or (2) by taking action as otherwise required by G.L. c. 21E, the MCP or MassDEP;
 - v. containing any further Release or Threat of Release of OHM from a structure or container under WRTA's control, to the extent necessary under, and in accordance with, G.L. c. 21E and MCP, upon obtaining knowledge of a Release or Threat of Release of OHM; and
 - vi. to the extent WRTA conducts, or causes to be conducted, Response Actions at the Site, doing so in accordance with G.L. c. 21E, the Standard of Care defined in G.L. c. 21E, and the MCP.
- d. WRTA shall operate the Property consistent with any AUL recorded for the Property.
- e. WRTA shall provide a copy of this Agreement to any successors, assigns, lessees or licensees of WRTA's ownership or operational interests in any portion of the Property ("Subsequent Owners and/or Operators").

B. COVENANT NOT TO SUE BY THE COMMONWEALTH

1. WRTA

Pursuant to G.L. c. 21E, § 3A(j)(3), in consideration of the representations and commitments by WRTA set forth in Section IV.A. of this Agreement, and subject to WRTA's compliance with the terms and conditions of this Agreement and the Termination for Cause provisions described below in Section IV.B.5, the Commonwealth covenants not to sue WRTA for Response Action costs, contribution, property damage or injunctive relief under G.L. c. 21E, or for property damage under the common law, relating to any Release of OHM covered by the RTN for the Property described in Section III.D (the "Covered Releases"). This Agreement shall not affect any liability established by contract.

2. Subsequent Owners and/or Operators

The Commonwealth also covenants not to sue Eligible Persons who are Subsequent Owners and/or Operators, as defined in Section IV.A.2.e. of this Agreement, for Response Action costs, contribution, property damage or injunctive relief under G.L. c. 21E, or for property damage under the common law, relating to the Covered Releases. The liability relief available to Subsequent Owners and/or Operators shall be subject to the same terms and conditions as those that apply to WRTA, except that if P & W acquires that portion of the Property identified in Attachment 1 to Exhibit A, as long as P & W qualifies as an Eligible Person as defined by G.L. c. 21E, § 2, and a Subsequent Owner and/or Operator as defined at 940 CMR 23.02 and in this Agreement, it shall not be subject to the terms and conditions that apply to WRTA as set forth at Section IV. A. 2.b, except for the requirement that it maintain any Permanent Solution on the portion of the property identified in Attachment 1 to Exhibit A.

3. Applicability of the Agreement

After the applicable Effective Date, as set forth in Section IV.D.5., the Commonwealth's covenant not to sue WRTA or Subsequent Owners and/or Operators for Response Action costs, contribution, property damage or injunctive relief under G.L. c. 21E, or for property damage under the common law, relating to any Release of OHM occurring at the Site prior to the execution of this Agreement shall remain in effect unless and until the statutory protections available to WRTA or Subsequent Owners and/or Operators pursuant to G.L. c. 21E, § 5C are in effect. This Agreement is subject to the Termination for Cause provisions described below in Section IV.B.5.

4. Reservations of Rights

The Commonwealth's covenants in this Agreement shall not apply to:

- a. any Release of OHM at or from the Property that first occurs after the date of execution of this Agreement;
- b. any Release of OHM which WRTA or any Subsequent Owner and/or Operator causes, contributes to, or causes to become worse, but if the cause or contribution is that of a Subsequent Owner and/or Operator, such reservation shall affect the liability protection applicable only to such Subsequent Owner and/or Operator and shall not affect WRTA's liability protection under this Agreement;
- c. any Release of OHM not discovered when any past or future RAO or ROS Statement is or was submitted to MassDEP that would have been discovered if an assessment of the Property or portion of the Property covered by or addressed in the RAO or ROS Statement had been performed consistent with the Standard of Care in effect when the RAO or ROS Statement was submitted;
- d. any Release or Threat of Release of OHM from which there is a new Exposure that results from any action or failure to act pursuant to G.L. 21E by WRTA or a Subsequent Owner and/or Operator during WRTA's or a Subsequent Owner's and/or Operator's ownership or operation of the Property, but if the action or failure to act is that of a Subsequent Owner and/or Operator, such reservation shall affect the liability protection applicable only to

such Subsequent Owner and/or Operator and shall not affect WRTA's liability protection under this Agreement;

e. any Release of OHM not expressly described as one of the Covered Releases in Section IV.B.1. of this Agreement;

5. Termination for Cause

- a. If the OAG or MassDEP determines that WRTA submitted materially false or misleading information as part of its Application to Enter into a Brownfields Covenant Not to Sue Agreement, the OAG may terminate the liability protection offered by this Agreement for the offending party in accordance with Section IV.B.5.c. of this Agreement. A statement made by WRTA regarding the anticipated benefits or impacts of the proposed Project will not be considered false or misleading for purposes of this section if the statement was asserted in good faith at the time it was made.
- b. If the OAG or MassDEP determines that WRTA or a Subsequent Owner and/or Operator has violated the terms and conditions of this Agreement, including, but not limited to, failure to cooperate with the MassDEP in accordance with Section IV.A.2.b. of this Agreement, G.L. c. 21E and the MCP, failure to arrange for a timely response to a Notice of Audit Finding or any other notice requiring additional work to achieve and/or maintain a Permanent Solution or Remedy Operation Status, or failure to perform Response Actions in accordance with the Standard of Care, or if the OAG or MassDEP determines that WRTA will not acquire ownership of the Property despite endeavoring to do so, or a Permanent Solution or Remedy Operation Status is not achieved or maintained in accordance with G.L. 21E or the MCP, the OAG may terminate the liability protection offered by this Agreement in accordance with Section IV.B.5.c. of this Agreement. In the event that the liability protection is terminated solely because of a violation by a Subsequent Owner and/or Operator of one or more of the conditions set forth in Section IV.A.2.c.i. through Section IV.A.2.c.vi. of this Agreement, such termination shall affect the liability protection applicable only to the Subsequent Owner and/or Operator and shall not affect WRTA's liability protection.
- c. Before terminating the liability relief provided by this Agreement, the OAG will provide WRTA or a Subsequent Owner and/or Operator, as appropriate, with written notice of the proposed basis for, and a 60-day opportunity to comment on, the proposed termination. If the OAG, in its sole reasonable discretion, deems it appropriate, the notice from the OAG shall provide a reasonable period of time for WRTA or a Subsequent Owner and/or Operator, as appropriate, to cure an ongoing violation in lieu of termination of the liability relief provided by this Agreement.
- d. Termination of liability relief pursuant to this section shall not affect any defense that WRTA or a Subsequent Owner and/or Operator might otherwise have pursuant to G.L. c. 21E.
 - C. COVENANT NOT TO SUE BY WRTA AND ANY SUBSEQUENT OWNER AND/OR OPERATOR

- 1. In consideration of the Commonwealth's covenants not to sue in Section IV.B. of this Agreement, WRTA covenants not to sue and not to assert any claims or causes of action against the Commonwealth, including any department, agency, or instrumentality, and its authorized officers, employees, or representatives with respect to the following matters as they relate to the Site or this Agreement:
- a. any direct or indirect claims for reimbursement, recovery, injunctive relief, contribution or equitable share of response costs or for property damage pursuant to G.L. c. 21E in connection with any of the Covered Releases;
- b. any claims for "takings" under the Fifth Amendment to the United States Constitution, under the Massachusetts Constitution, or under G.L. c. 79 based on the argument that, with respect to a Covered Release, the requirements of Chapter 21E, the MCP, or the requirements of this Agreement constitute a taking;
- c. any claims for monetary damages arising out of Response Actions at the Site and/or the Property;
- d. any claims or causes of action for interference with contracts, business relations or economic advantage based upon the conduct of MassDEP pursuant to Chapter 21E prior to the date of this Agreement concerning any of the Covered Releases; or
- e. any claims for costs, attorneys' fees, other fees or expenses incurred in connection with the Covered Releases.
- 2. Subsequent Owners and/or Operators shall be bound by WRTA's covenants in this Section IV.C. In the event that, despite these covenants, a Subsequent Owner and/or Operator asserts any claims or causes of action against the Commonwealth, including any department, agency, or instrumentality, and its authorized officers, employees, or representatives with respect to the claims listed in this Section IV.C., such claims or causes of action shall have no effect on the rights, benefits, and protections secured under this Agreement for any other entity.

D. CONTRIBUTION PROTECTION AND RIGHTS OF AFFECTED THIRD PARTIES

With regard to the Covered Releases, WRTA and any Subsequent Owner and/or Operator are entitled to the protection G.L. c. 21E §3A(j)(3) provides from claims for contribution, Response Action costs or property damage brought by third parties under G.L. c. 21E, §§ 4 and/or 5, or third party claims brought for property damage claims under common law, based solely on the status of WRTA or any Subsequent Owner and/or Operator as Owner or Operator of the Property and/or the Site, and in the case of P&W, as long as P & W qualifies as an Eligible Person as defined by G.L. c. 21E, § 2, and a Subsequent Owner and/or Operator as defined at 940 CMR 23.02 and in this Agreement, any portion that P & W acquires, provided that: WRTA has provided Affected Third Parties and the public with notice pursuant to G.L. c. 21E, §3A(j)(3) and 940 CMR 23.04(2); and the Response Actions upon which any RAO

Statement submitted to MassDEP pursuant to Section IV.A.2.b of this Agreement meets the Standard of Care in effect when the RAO Statement is submitted to MassDEP.

E. GENERAL PROVISIONS

- 1. This Agreement may be modified only upon the written consent of all Parties.
- 2. If any court of competent jurisdiction finds any term or condition of this Agreement or its application to any person or circumstance unenforceable, the remainder of this Agreement shall not be affected and each remaining term and provision shall be valid and enforceable to the full extent permitted by law.
- 3. Each Party warrants and represents to the others that it has the authority to enter into this Agreement and to carry out its terms and conditions.
- 4. This Agreement may be fully executed by all Parties in one or more counterparts, each of which shall be deemed an original but all of which shall constitute one and the same instrument.

5. Effectiveness

The terms of this Agreement shall be effective as of the date the WRTA acquires the Property.

In the matter of Worcester Regional Transit Authority Brownfields Covenant Not To Sue Agreement

IT IS SO AGREED:

Ву:	Mu		
	John Beling		
	Assistant Attorney General		
	Environmental Protection Division		
	Office of the Attorney General		

OFFICE OF THE ATTORNEY GENERAL

Date:	1/2/1/4	
-		

Worcester Regional Transit Authority

By:	Stepher	F.	o weil	

Date: / 2 · /4

EXHIBIT A

The Property that is the subject of the proposed Agreement (the "Property") totals 10.989 acres in size. The Property is bounded by Quinsigamond Avenue on the east (which serves as the main egress point to and from the Property), Providence and Worcester railroad freight yard to the west, Southbridge Street to the north and the City of Worcester Sewer Department's Pumping Station to the south, a map of the Property is attached hereto. The Property is currently owned by the private utility company NStar and was formerly the site of a gas manufacturing facility which was demolished decades ago. Topographically, the Property is two tiered, however relatively flat throughout with minimal scrub vegetation and small to medium size trees located along its east and west perimeters. The Property is currently largely vacant and is used by NStar for construction staging and temporary storage of equipment and materials. NStar currently operates and maintains an existing gas taking pump station on Lot 1 of Nstar site which abuts Quinsigamond Avenue. The existing gas taking pump station will remain on the residual property retained by NStar and is not part of this proposed Agreement.

ATTACHMENT 1 TO EXHIBIT A

Depicting Strip of Land along Western boundary of property subject of proposed transfer to P&W Railroad

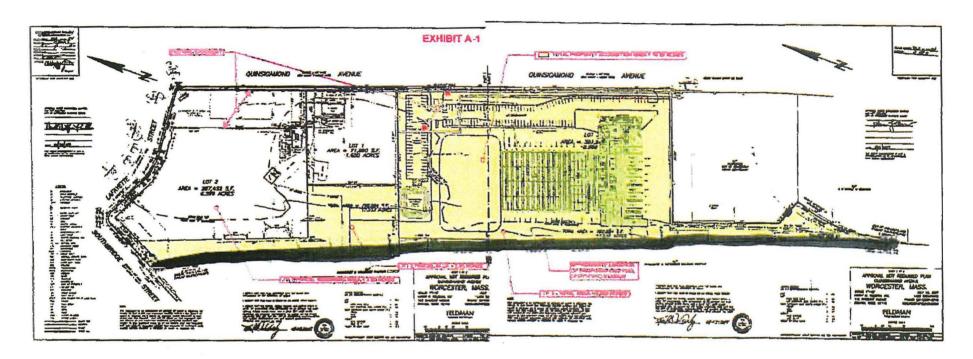


EXHIBIT B

The Site includes roughly 10 acres of vacant land located in the southern portion of the 25-40 Quinsigamond Avenue properties (which comprise roughly 17 acres). The Site is a former MGP facility that operated between 1870 and 1969. The current owner of the Site is NStar, which uses the vacant lots as laydown and storage for construction materials. The majority of the Site is unpaved and access is restricted by chain-link fencing and a locked vehicle gate. The Site is bordered to the east by Quinsigamond Avenue, beyond which are residential homes, an NStar Office building, small businesses and Crompton Park. To the north, the Site is bordered by vacant lots and Lafayette Street. To the west, the Site is bounded by the Providence and Worcester Railroad tracks and to the south by land occupied by Blackstone Pumping Station and industrial properties.

Gas manufacturing at the Site included coal carbonization, carbureted water gas, and oil gas. Tar distillation reportedly occurred from approximately the 1930s until the 1950s. Beginning in the 1950s, oil gas was produced from various petroleum products including crude oil, diesel fuel and light oils. Manufactured gas was cooled and purified before being distributed to homes and industries. Contaminants associated with MGP operations typically include phenol, creosote, benzene, toluene, ethylbenzene, and xylenes ("BTEX"), polycyclic aromatic hydrocarbons (PAHs), including naphthalene, sulphur, ammonium sulphate and cyanide. Other by-products or surplus materials typically found at a MGP facility include coal, tar, asphalt, coke, slag, and spent purifier box wastes. All above-grade structures were demolished and removed in 1975 and, reportedly, all accessible wastes and re-usable products were removed from above-ground structures.

In September 2012, TRC Environmental Corp. ("TRC") reviewed multiple historical environmental reports and prepared a summary of findings memorandum that identified numerous soil and groundwater samples collected at the Site between 1985 and 1997, at which time a Class B-2 Response Action Outcome ("RAO") was submitted to the Massachusetts Department of Environmental Protection ("MassDEP") for Release Tracking Number (RTN) 2-00171. In addition, an Activity & Use Limitation ("AUL") was placed on the property restricting a variety of uses and requiring assessment and mitigation of vapor intrusion issues in the event the property is developed for commercial or industrial use.

EXHIBIT C

The proposed use of the Site is a new vehicle maintenance facility that will be approximately 100,000 square feet in size and will accommodate WRTA's fleet of transit vehicles and operations and maintenance staff. The location of the new facility on the Site is primarily within a 100 year floodplain, which requires compliance with 310 CMR 10.57. This regulation states that any fill placed in a Bordering Land Subject to Flooding must be offset by an equal volume of cut at the same elevation. In addition, elevations for the future building and access roads must be suitable to the corresponding nearby elevations on Quinsigamond Avenue. Therefore, the conceptual design concept for the new facility includes approximately 35,000 cubic yards of excess cut in the proposed grading plan.

TRC reviewed the proposed grading plan and compared the proposed excavations to areas of elevated contamination discovered in historic and recent investigations. TRC's opinion is that the removal of 35,000 cubic yards of contaminated soil from the Site will accomplish several goals, including:

- 1. Removal of grossly contaminated soil saturated with coal tar, petroleum and other contaminants, most of which is located in areas and at depths consistent with proposed excavation;
- 2. Reduction of Site-wide soil exposure point concentrations (EPCs) to below risk-based standards suitable for use of the Site as a vehicle maintenance facility; and,
- 3. Reduction of the volume of contaminated soil that may continue to off-gas and contribute volatile organic compounds (VOCs) to the vadose zone and the breathing zones of future works.

Additional sampling of soil will be conducted to characterize the material for off-site treatment and disposal. However, TRC estimates that the following methods will be used for treatment and disposal of soil:

- Several thousand yards of soil excavated from shallow soil will likely be suitable for reuse as daily cover at a Massachusetts landfill;
- A large portion of excavated soil will be suitable for recycling as asphalt at either an instate or out-of-state recycling facility;
- Soil and debris that contains free coal tar, unsuitable material (metal, debris, etc.), and/or higher concentrations of various contaminants, will be shipped for disposal at an out-ofstate landfill, such as Waste Management's Turnkey landfill in Rochester, New Hampshire; and,
- A smaller volume of highly contaminated material (i.e., soil and debris with free coal tar
 that fails the toxicity characteristic leachate procedure for benzene) will either be treated
 on-site using indirect thermal desorption or a similar method or shipped to an off-site
 facility for thermal treatment and disposal.

Additionally, TRC proposes to install a vapor barrier beneath the proposed facility to eliminate the potential for facility workers to be exposed to soil gas vapors. The barrier has not been selected at this time but may consist of the Liquid Boot membrane, produced by CETCO, which is spray-applied and provides a seamless, impermeable barrier against VOC migration.

Following installation of the vapor barrier and treatment and disposal of excavated soil and debris, confirmatory soil, groundwater and soil gas samples will be collected and analyzed to evaluate the effectiveness of the remediation. In all likelihood, the remediation will achieve a Class A-3 Response Action Outcome Statement and an AUL will be placed on the Site restricting its use and preventing future use as residential or vegetable gardening (unless additional remediation is conducted).